

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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MAR 23 2016

KIRK CALDWELL
MAYOR



GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ED-13(AB)

February 25, 2016

Mr. Scott Glenn, Interim Director
State of Hawaii
Department of Health
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

RECEIVED
16 FEB 26 P2:14
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Dear Mr. Glenn:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu
Environmental Assessment Determination

Project: The Shops at Anahulu

Applicant: Lokea Kai Partners LLC

Agent: Group 70 International Inc. (Jeff Overton)

Location: 62-594 Kamehameha Highway - Haleiwa

Tax Map Keys: 6-2-3: 37

Proposal: To develop a one-story, 5,200-square-foot commercial structure at the north end of historic Haleiwa Town

Determination: Finding of No Significant Impact (FONSI)

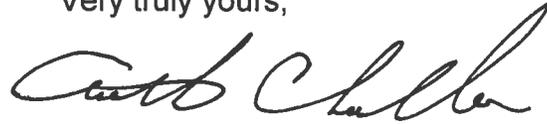
With this letter, the Department of Planning and Permitting transmits the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Shops at Anahulu project situated at Tax Map Key 6-2-3: 37, in the Waialua District on the island of Oahu for publication in the next edition of "The Environmental Notice" on **March 23, 2016**

The Applicant has included copies of comments and responses that it received during the 30-day public comment period on the Draft Environmental Assessment and Anticipated Finding of No Significant Impact.

Mr. Scott Glenn
February 25, 2016
Page 2

Enclosed is a hard copy of the FEA-FONSI, a copy of the Publication Form, and a compact disc including a copy of the FEA-FONSI and Publication Form. Should you have any questions, please contact Alex Beatty of our staff at 768-8032.

Very truly yours,

A handwritten signature in black ink, appearing to read "George I. Atta". The signature is fluid and cursive, with a large initial "G" and "A".

George I. Atta, FAICP
Director

Enclosures

cc: Group 70 International, Inc. (Jeff Overton)
Lokea Kai Partners LLC

FILE COPY

August 2015

NON-CHAPTER 343 DOCUMENT
PUBLICATION FORM
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

MAR 23 2016

Project Name: The Shops at Anahulu
Applicable Law: Chapter 25, Revised Ordinances of Honolulu
Type of Document: Draft Environmental Assessment
Island: Oahu
District: Waialua
TMK: 6-2-003:037

Permits Required: Special Management Area Use-Major, Special District-Major, Individual Wastewater System, Construction Noise, Building, Sewer Connection Street Usage, Construction Plan Approval, Grading Grubbing and Stockpiling, Electrical, Sign

Approving Agency: City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813
Contact: Alexander Beatty
(808) 768-8032

Applicant: Lokea Kai Partners LLC
62-196 Kawailoa Drive
Haleiwa, Hawaii 96712
Contact: Michael Wright
(808) 497-9265

Consultant: Group 70 International Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96822
Contact: Jeff Overton
(808) 523-5866

Status: FEA-FONSI

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

16 FEB 26 P2:14

RECEIVED

Project Summary: Lokea Kai Partners LLC is proposing to redevelop the former Haleiwa Chevron site located at the north end of historic Haleiwa Town on Oahu's North Shore. The subject property has been used as an auto service/gas station for over 40 years. The former Chevron service station was demolished in 2008. The project, to be known as The Shops at Anahulu, will redevelop the site for a 5,200-square-foot commercial/retail building. The planned tenants are a coffee shop and a surf industry retailer. The Shops at Anahulu will enhance the pedestrian-friendly shopping district along Kamehameha Highway, reflecting the historical Haleiwa architecture and Hawaiian landscaping of the area.

The property is located in the Special Management Area (SMA), requiring approval from the City and County of Honolulu for an SMA Use Permit and a Haleiwa Special District Permit. As a prerequisite for the SMA Use Permit Application, an Environmental Assessment has been prepared.

THE SHOPS AT ANAHULU

Hale'iwa, Island of O'ahu, Hawai'i

~~Draft~~ Final Environmental Assessment

Applicant:

Lokea Kai Partners, LLC

Prepared by:



GROUP 70
INTERNATIONAL

Honolulu, HI 96813

~~November 2015~~

February 2016

THE SHOPS AT ANAHULU

Hale'iwa, Island of O'ahu, Hawai'i

~~Draft~~ Final Environmental Assessment

This environmental document is prepared in accordance with the requirements of Chapter 343, HRS and Hawai'i Administrative Rules, Title 11, Department of Health.

Applicant:

Lokea Kai Partners, LLC
62-196 Kawaihoa Drive
Hale'iwa, HI 96712

Prepared by:

Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, HI 96813

~~November 2015~~

February 2016

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LIST OF ABBREVIATIONS/ACRONYMS

AA	Archaeological Assessment
BMP	Best Management Practices
BFE	Base Flood Elevation
BWS	Board of Water Supply
CIA	Cultural Impact Assessment
CO	Carbon Monoxide
CZM	Coastal Zone Management
dBA	Decibels
DLNR	State Department of Land and Natural Resources
DOH	State Department of Health
DOH CAB	State Department of Health Clean Air Branch
DOT	State Department of Transportation
DTS	City and County of Honolulu Department of Transportation Services
EA	Environmental Assessment
EMC	Chevron Environmental Management Company
EPA	Environmental Protection Agency
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Administration
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GPD	Gallons Per Day
GPM	Gallons Per Minute
HAR	Hawai'i Administrative Rules
HeA	Hale'iwa Silty Clay
HECO	Hawaiian Electric Company
HFD	Honolulu Fire Department
HPD	Honolulu Police Department
HSD	Hale'iwa Special District
HRS	Hawai'i Revised Statutes
IWS	Individual Wastewater System
LID	Low Impact Development
LOS	Level of Service
LUC	Land Use Commission
LUO	Land Use Ordinance
mph	Miles Per Hour
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NO _x	Mono-nitrogen oxides NO and NO ₂
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OEQC	State Office of Environmental Quality Control
QLT	Queen Lili'uokalani Trust
PM _{2.5}	Particulate Matter Smaller than 2.5 Microns
PM ₁₀	Particulate Matter Smaller than 10 Microns
SAAQS	State Ambient Air Quality Standards
Sf	Square Foot
SHPD	State Historic Preservation Division

THE SHOPS AT ANAHULU

~~Draft~~ Final Environmental Assessment

LIST OF ABBREVIATIONS/ACRONYMS, CONT'D

SMA	Special Management Area
SOEST	School of Ocean and Earth Science and Technology
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxide
TAR	Traffic Assessment Report
TMK	Tax Map Key
UH	University of Hawai'i
USGS	US Geological Survey
vph	Vehicles Per Hour

TECHNICAL APPENDICES

- A. Preconsultation Letter and ~~Draft~~ EA Comments and Responses
- B. ~~Revised~~ Draft - Archaeological Assessment of TMK: (1) 6-2-003:037 in Kawaihoa Ahupua'a, Waialua District, Island of O'ahu, Hawai'i. (Keala Pono Archaeological Consulting, LLC., ~~October~~ December 2015).
- C. ~~Draft~~ Final - Cultural Impact Assessment for TMK (1) 6-2-003:037, Kawaihoa Ahupua'a, Waialua District, Island of O'ahu, Hawai'i. (Keala Pono Archaeological Consulting, LLC, ~~October 2015~~ February 2016).
- D. Baseline Assessment of Water Chemistry in Loko Ea Pond for The Shops At Anahulu Project, Hale'iwa, O'ahu, Hawai'i. (Marine Research Consultants, Inc., October 2015).
- E. Preliminary Engineering Report for The Shops at Anahulu TMK (1) 6-2-003:037. (Group 70 International, September 2015).
- F. Traffic Assessment Report for the Proposed The Shops at Anahulu, Hale'iwa, Oahu, Hawaii, Tax Map Key (1) 6-2-003:037. (Traffic Management Consultant, October 2015).

Section 1.0

INTRODUCTION

1.0 INTRODUCTION

This ~~Draft~~ Final Environmental Assessment (EA) has been prepared in accordance with the requirements of Chapter 343, Hawai'i Revised Statutes (HRS) and Hawai'i Administrative Rules (HAR), Title 11, Department of Health, which set forth the requirements for the preparation of environmental assessments.

1.1 PROJECT INFORMATION SUMMARY

Applicant:	Lokea Kai Partners, LLC 62-196 Kawaihoa Drive Hale'iwa, HI 96712
Accepting Authority Approving Agency:	City and County of Honolulu Department of Planning and Permitting
Class of Action Ch. 343, HRS Ch. 25, ROH:	Located in the Special Management Area (SMA) and Hale'iwa Special District (HSD)
Name of Action:	The Shops at Anahulu
Planning/Environmental Consultant:	Group 70 International, Inc. 925 Bethel Street, 5 th Floor Honolulu, Hawai'i 96813
Location:	Hale'iwa, Island of O'ahu, Hawai'i (<i>Figure 1-1</i>)
Tax Map Keys (TMK):	6-2-003:037 (<i>Figure 1-2</i>)
Landowners:	Queen Lili'uokalani Trust
Land Area:	0.51 acres
State Land Use District:	Urban District (<i>Figure 1-3</i>)
City and County of Honolulu:	
Zoning (Land Use Ordinance):	Neighborhood Business District (B-1) (<i>Figure 1-4</i>)
North Shore Sustainable Communities Plan:	Country Town (<i>Figure 1-5</i>)
Hale'iwa Special District:	Entire project area within Special District (<i>Figure 1-6</i>)
Special Management Area (SMA):	Entire project area within SMA (<i>Figure 1-7</i>)

THE SHOPS AT ANAHULU

Draft Final Environmental Assessment

1.2 PROJECT SITE

Lokea Kai Partners is proposing a small retail center on a vacant parcel located to the north of the historic Hale'iwa Town on O'ahu's North Shore, Hawai'i. The property was previously developed for a Chevron Service Station with fuel pumps, auto service, and a convenience store. The project site lies near the existing Surf N Sea shop, and is bounded by Kamehameha Highway to the north and west, Lokoea Place and a vacant residential lot to the south, and Loko Ea pond to the east (Figure 1-1). The project area encompasses approximately 0.51 acres and is identified as TMK: (1) 6-2-003:037.



Former Hale'iwa Chevron Service Station/Food Mart (Demolished 2008)

1.3 OVERVIEW OF THE PLANNED PROJECT

The Shops at Anahulu project will enhance the overall visitor and resident experience in Hale'iwa's Historic Town. The proposed redevelopment of this property will result in new retail facilities that will contribute to the street experience that fit with the existing country-type setting of the area. The project will improve the character of this area and provide quality experiences to local residents and visitors.

The project will include the development of one new 5,200~~69~~ square foot (sf) building that will house two retail shops, including a coffee retailer and action surf gear and apparel retailer. A landscaped parking area will be provided at the rear of the site. Outdoor seating areas and a covered walkway will help to enliven the pedestrian and street experience along Kamehameha Highway. The Shops at Anahulu project will be an extension of the existing Hale'iwa Historic Town that will help to contribute to the overall shopping and dining experience.

1.4 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

In accordance with the requirements of Chapter 25, Revised Ordinances of Honolulu, a Draft EA ~~is being~~ ~~was~~ prepared, as the proposed project is located in the Special Management Area (SMA). The action also affects public land and infrastructure at Kamehameha Highway, and this document is prepared consistent with the requirements of Chapter 343 Hawai'i Revised Statutes (HRS). The Draft EA ~~will be~~ ~~was~~ published on November 23, 2015 in the Office of Environmental Quality Control (OEQC) Environmental Notice, which ~~will~~ ~~commenced~~ a 30-day public review period.

THE SHOPS AT ANAHULU

Draft Final Environmental Assessment

The ~~This Draft Final~~ EA is presented in eight sections and includes the following: a detailed project description and analysis of alternatives; a list of necessary approvals; a description of the environmental setting; a section that identifies potential impacts and proposed mitigative measures on identified natural, cultural, and socioeconomic resources as well as existing infrastructure; a discussion of the project’s relationship to State and County land use designations and regulations; the anticipated determination and reasons for its believed outcome; an updated list of agencies, organizations, and individuals that participated in the pre-consultation phase and 30-day comment period of the Draft EA; and a list of references cited or used in developing ~~the Draft~~ this Final EA.

~~After the 30 day review period has concluded, public comments received will be considered and addressed to the extent feasible within the project scope and evaluation. A Final EA will be prepared, highlighting key areas of the document that were revised, updated, or modified based upon information received during the public comment period.~~

Public comments on the Draft EA were considered and addressed to the extent feasible within the project scope and evaluation. Key areas of the Draft EA that were revised, updated, or modified are highlighted in gray.

Upon acceptance of ~~the this~~ Final EA, a Finding of No Significant Impact (FONSI) is anticipated to be issued for this redevelopment project.

1.5 LISTING OF REQUIRED GOVERNMENT PERMITS AND APPROVALS

Table 1-1 identifies the major State and County land use permits and approvals that are anticipated to be required for the project, including site, building, construction, and infrastructure approvals.

Table 1-1 LISTING OF ANTICIPATED GOVERNMENT PERMITS & APPROVALS	
Permit or Approval	Approving Authorities
Final EA Acceptance, FONSI	City and County of Honolulu, Department of Planning and Permitting
SMA Use Permit, Major	City and County of Honolulu, City Council
Special District Permit, Major	City and County of Honolulu, Director, Department of Planning and Permitting
Individual Wastewater System	State of Hawaii Department of Health, Wastewater Branch
Construction Noise Permit	State of Hawai’i, Department of Health, Indoor and Radiological Health Branch
Building Permits Sewer Connection Street Usage Construction Plan Approval Grading Grubbing and Stockpiling Electrical Sign Permit	City and County of Honolulu, Department of Planning and Permitting

1.6 AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONTACTED DURING THE PRECONSULTATION PROCESS

A Preconsultation Memo and Participant Letter were sent on August 13, 2015 to initiate the environmental review process. ~~These are included as Appendix A.~~ Input from the preconsultation phase ~~was~~ is addressed in ~~the~~ this Draft EA.

A presentation to the North Shore Neighborhood Board No. 27 was made on October 27, 2015. The primary comments and questions raised during the meeting included traffic and parking congestion, history of the property, wheelchair accessibility, waste management, and cultural and historical perpetuation at Loko Ea fishpond. Information addressing each of these subjects is presented in Chapters 2 and 3 of this Final EA.

A list of agencies and other parties that were presented notice of the proposed project or were contacted during the preconsultation period of the Draft EA is provided in *Section 8.0* of this document. Additionally, a ~~listing~~ of those agencies that ~~will be~~ were provided an opportunity to review the Draft EA is provided in *Section 8.0*. Copies of the Preconsultation Memo, Participant Letter, agency comment letters on the Draft EA, and response letters sent to agencies, are included in *Appendix A*.



Figure 1-1
Project Location Map

THE SHOPS AT ANAHULU
Draft Final Environmental Assessment



Figure 1-2
City and County of Honolulu, TMK Parcel Map of Project Area



Figure 1-3
State Land Use District Designations

THE SHOPS AT ANAHULU
Draft Final Environmental Assessment

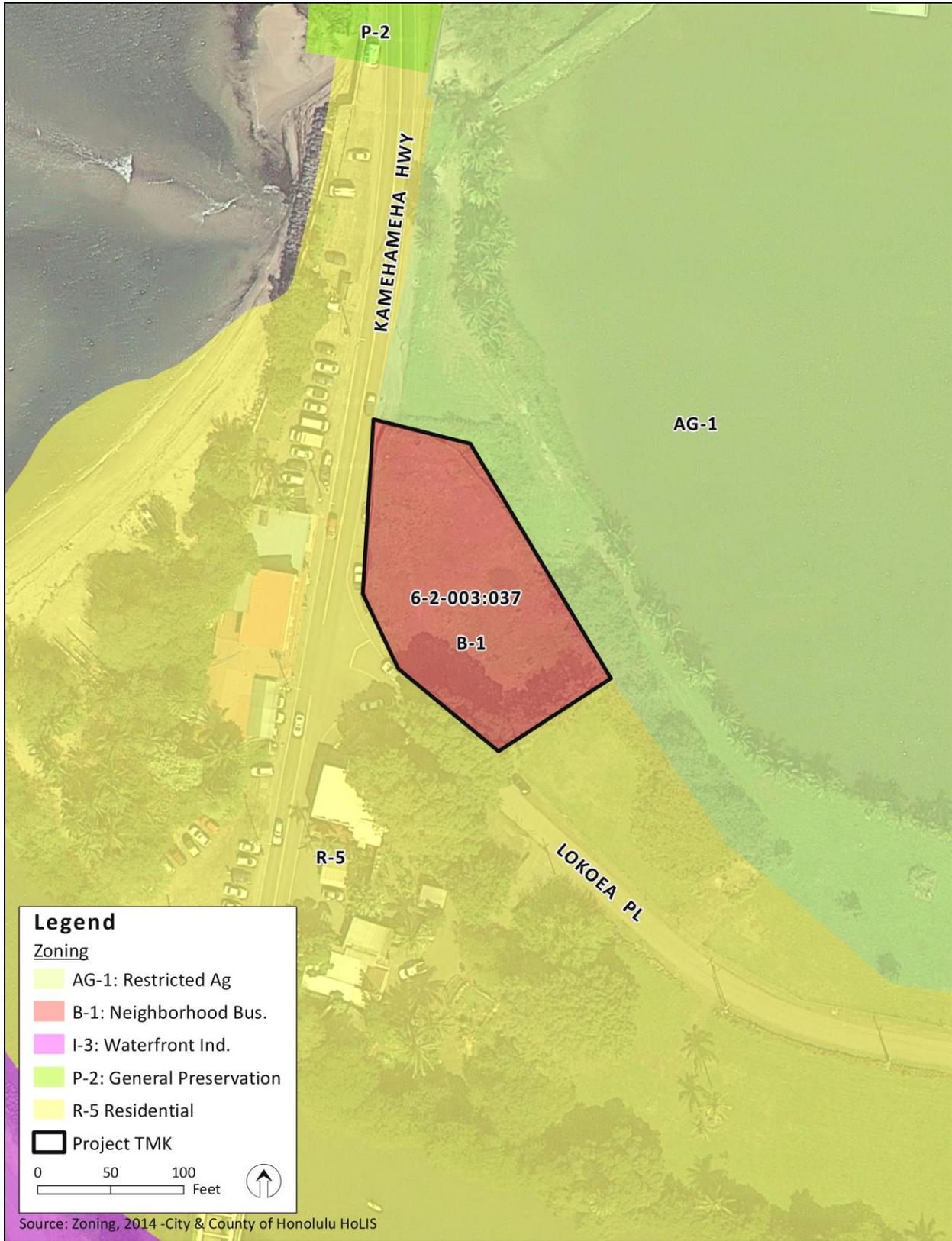


Figure 1-4
City and County of Honolulu Zoning

THE SHOPS AT ANAHULU
Draft Final Environmental Assessment

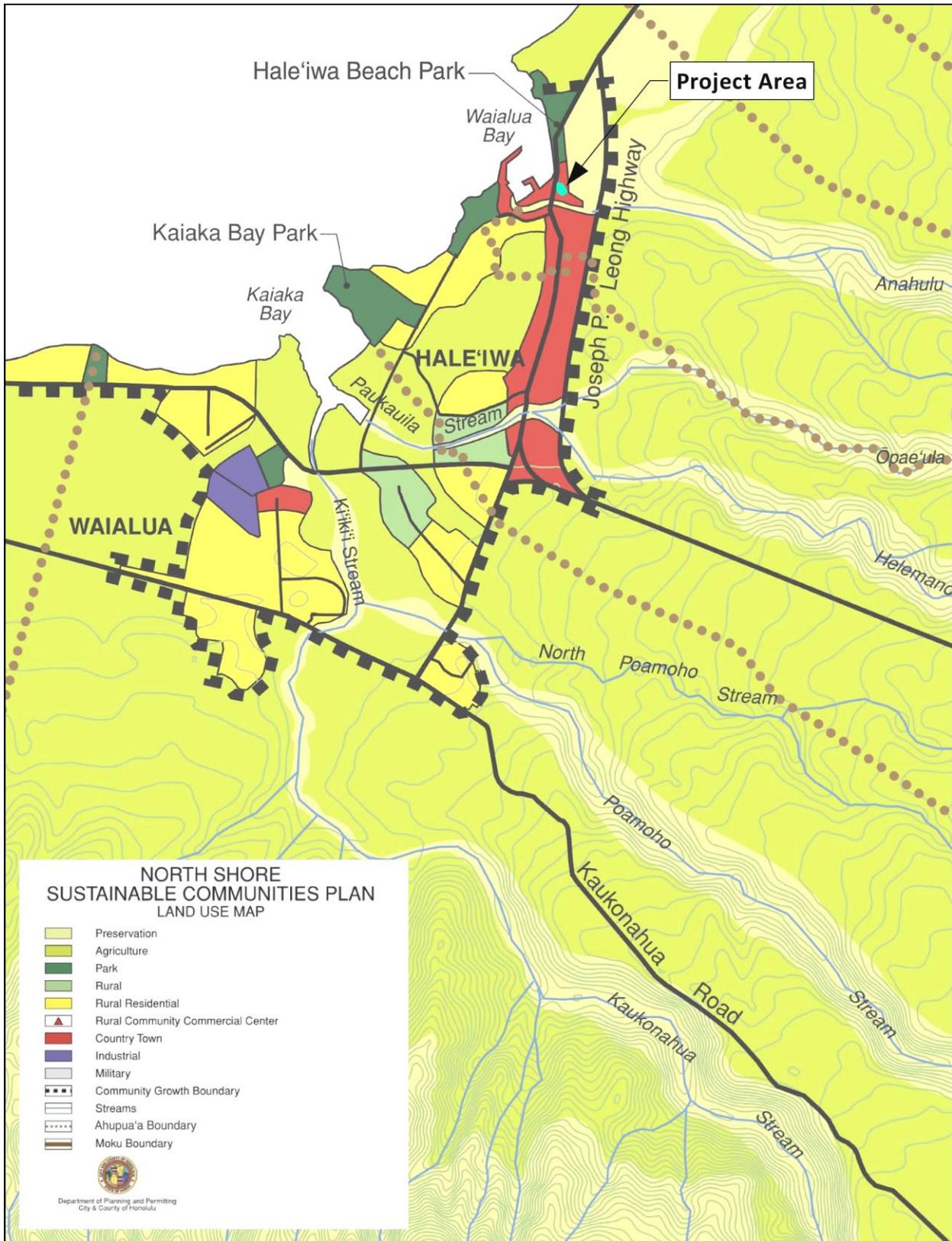


Figure 1-5
 City and County of Honolulu North Shore Sustainable Communities Plan Land Use Map

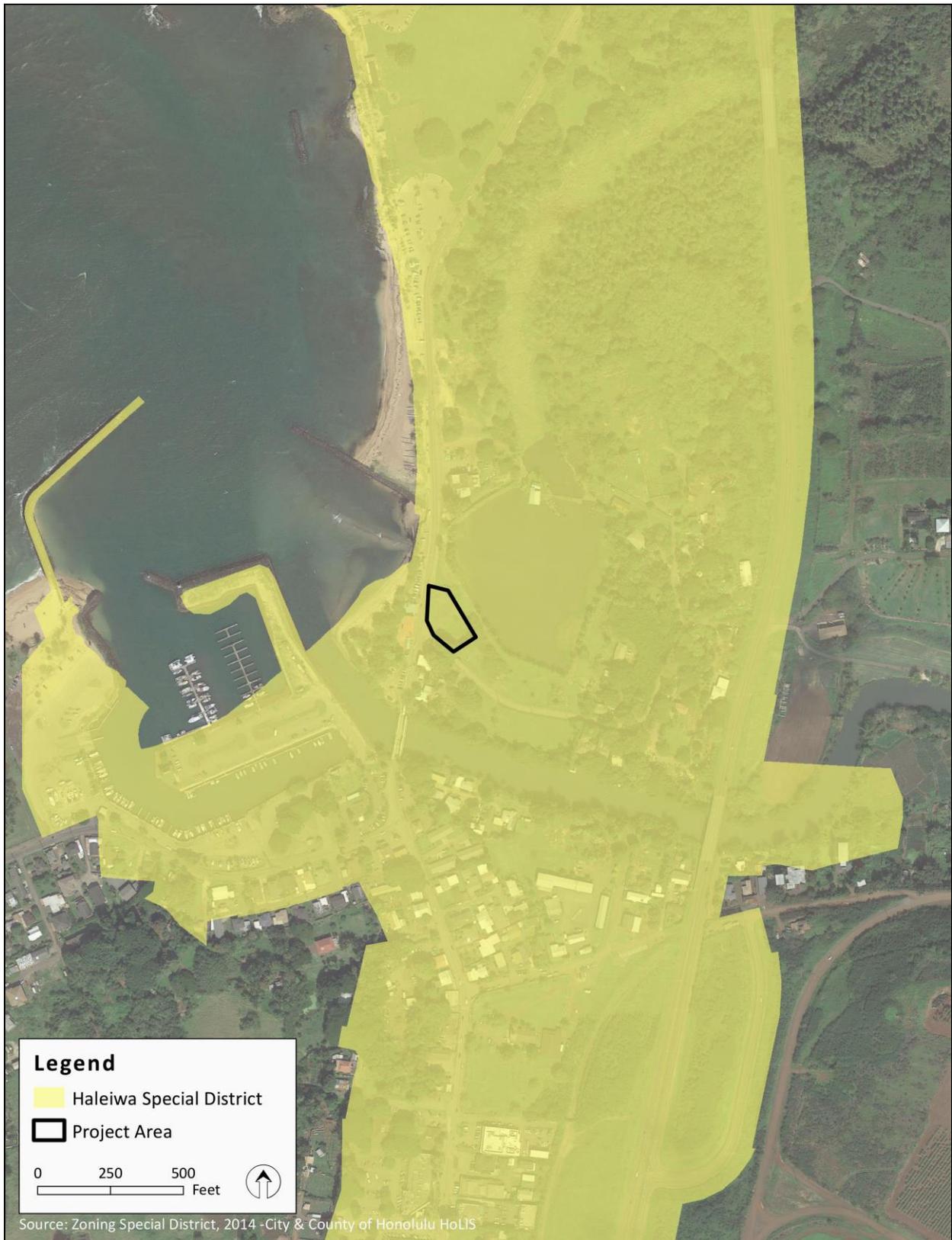


Figure 1-6
City and County of Honolulu Hale'iwa Special District Designations

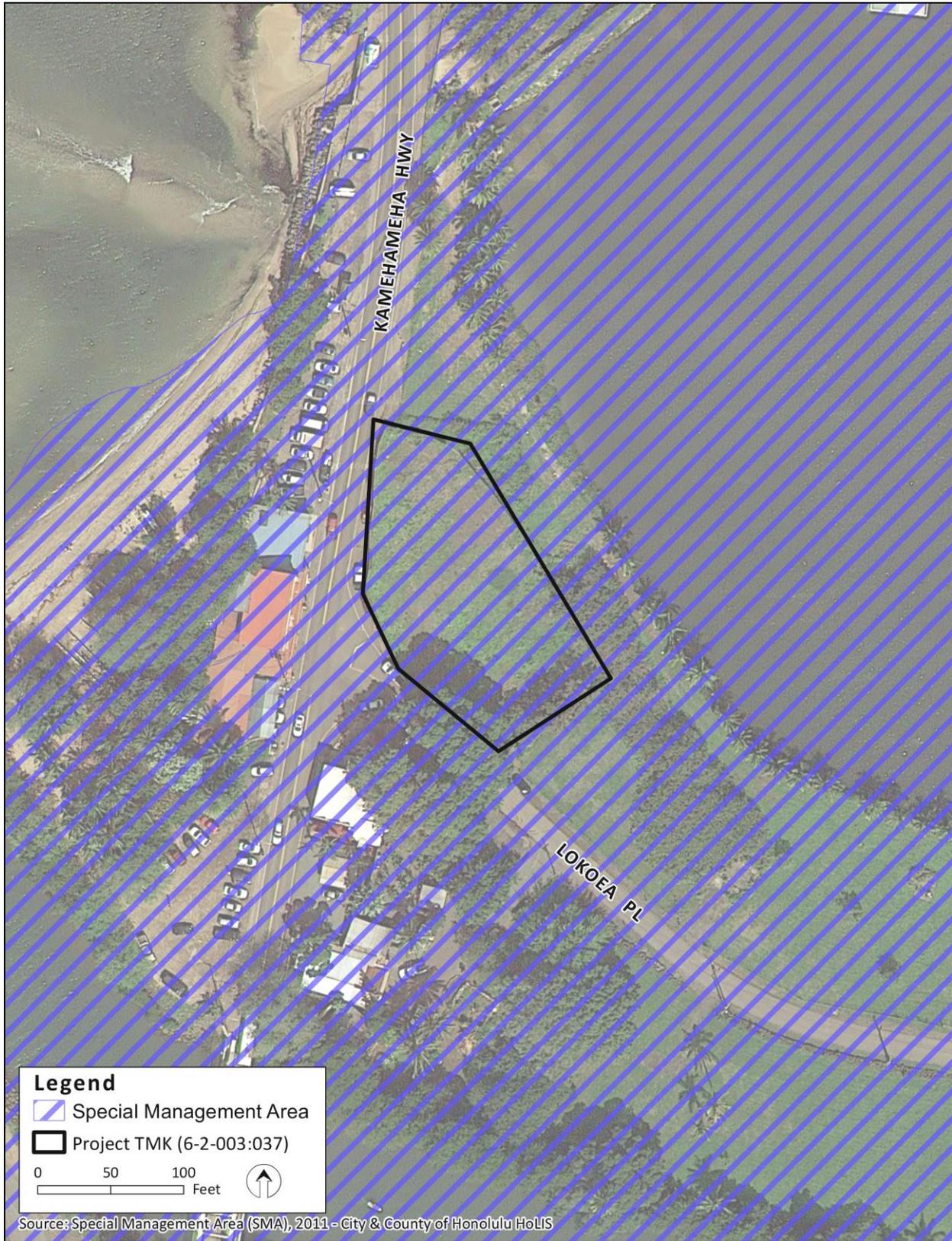


Figure 1-7
City and County of Honolulu Special Management Area

Section 2.0

DESCRIPTION OF THE PROPOSED ACTION

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 PROJECT LOCATION AND CHARACTERISTICS

Location

The Shops at Anahulu is a small retail center to be located at the north end of the historic Hale'iwa Town. The site is located in Hale'iwa, on the island of O'ahu in the State of Hawai'i (*Figure 1-1*). The site is within the traditional moku of Waialua and the ahupua'a of Kawailoa (*Figure 2-1*). The project area is approximately 0.51 acres and encompasses Tax Map Key (TMK): (1) 6-2-003:037 (*Figure 1-2*). The project site is located on lands classified by the State Land Use Commission (LUC) as State Land Use Urban District (*Figure 1-3*). The land is zoned Neighborhood Business District (B-1) by the City and County of Honolulu and is designated as Country Town on the North Shore Sustainable Communities Plan (*Figure 1-4 and 1-5*).

Land Ownership and Project Lessee

The subject property is owned in fee by the Queen Lili'uokalani Trust. The long term ground lease tenant will be Lokea Kai Partners.

Adjacent Land Uses

The project site is located at the north end of Hale'iwa town, within the country town of active and small business establishments. Specifically, the site is bounded by Kamehameha Highway to the north and west, Lokoea Place and a vacant residential lot to the south, and Loko Ea pond to the east. The existing Volcom surf retail shop is located across Lokoea Place to the south, and the existing Surf N Sea surf retail shop is located directly across of Kamehameha Highway from the project site. While the subject property is zoned Neighborhood Commercial (B-1), these other adjoining and nearby properties are zoned Residential District (R-1) and Restricted Agricultural District (AG-1).

Existing On-Site Land Uses

The redevelopment project site is currently vacant. The property was formerly developed as a Chevron gas station which operated for over 40 years.

2.2 PURPOSE OF THE PROJECT

The Shops at Anahulu will help to revitalize and enhance the visitor and resident experience at the north end of Hale'iwa. This redevelopment will serve as an extension of the historic Hale'iwa Town and will contribute to the town's ongoing transformation. The improvements will result in a new retail facility and a street experience that will fit with the existing rural setting. The redevelopment of this site will improve the character of Hale'iwa and provide a quality experience for local residents and visitors. The Shops at Anahulu will also contribute to further establishing Hale'iwa and the North Shore as a unique community and retail attraction.

THE SHOPS AT ANAHULU

Draft Final Environmental Assessment

2.3 DESCRIPTION OF THE PROJECT

The subject property will be redeveloped as a small retail/commercial center located at the north end of Historic Hale'iwa. The small retail center will provide approximately 5,200~~69~~ sf of retail space that will house two separate shops. An outdoor seating area of about 700 sf will extend along the building facing Kamehameha Highway. The design character of the building will fit with the existing rural, low-rise, human scaled form, appropriate to the "Country town" feel along Kamehameha Highway. The Shops at Anahulu will be architecturally designed to meet the objectives of the Hale'iwa Special District (HSD), which includes compliance with design guidelines for roof forms, façade treatment, doors and windows, porches, canopies, materials and colors, railings and fences, lighting, and signs. Site infrastructure (water, sewer, drainage, etc.) will be developed to support the new retail shops.

An on-site asphalt parking area will be located at the rear of the site behind the retail facility. Access to the parking area will be from driveways off of Kamehameha Highway and Lokoea Road.

The Shops at Anahulu will contribute to the retail experience of the Historic Hale'iwa area by providing additional retail opportunities in this Country town setting. The space will be integrated with the character of the existing Hale'iwa Town streetscape, and will attract customers passing along Kamehameha Highway. A site plan, building elevations, and rendering for Shops at Anahulu are provided as *Figures 2-1 through 2-4*.

2.3.1 Circulation and Off-Street Parking

No major roadway construction or alterations are required for the project. The Shops at Anahulu will utilize the two existing historical access points to the site from Kamehameha Highway and Lokoea Place.

Lateral access along the property frontage will be facilitated by a frontage sidewalk, which will encourage pedestrian circulation in this area. Patrons will enjoy the open lanai areas fronting Kamehameha Highway. Pedestrian traffic will be very active around the Shops at Anahulu and neighboring retail establishments.

The Shops at Anahulu will provide adequate off-street parking to support the redevelopment use as retail shops. The requirements for parking per the City and County of Honolulu Land Use Ordinance (LUO) Section 21-6.20 are shown below (*Table 2-1*). The redevelopment will also comply with the 2010 Americans with Disabilities Act Standards for Accessible Design

A total of 23 standard sized parking stalls and one loading stall will be provided, which will exceed the parking requirements established by the LUO.

Total SF	LUO Off-Street Parking Requirement	Parking Spaces Required	Parking Spaces Provided	LUO Off Street Loading Requirement	Loading Spaces Required	Loading Spaces Provided	ADA Accessible Design Requirement	ADA Spaces Required	ADA Spaces Provided
5,200 sf	1 per 400 sf	13	21	1 per 2,000 - 10,000 sf	1	1	Minimum of 1 per 1-25 parking spaces	1	1



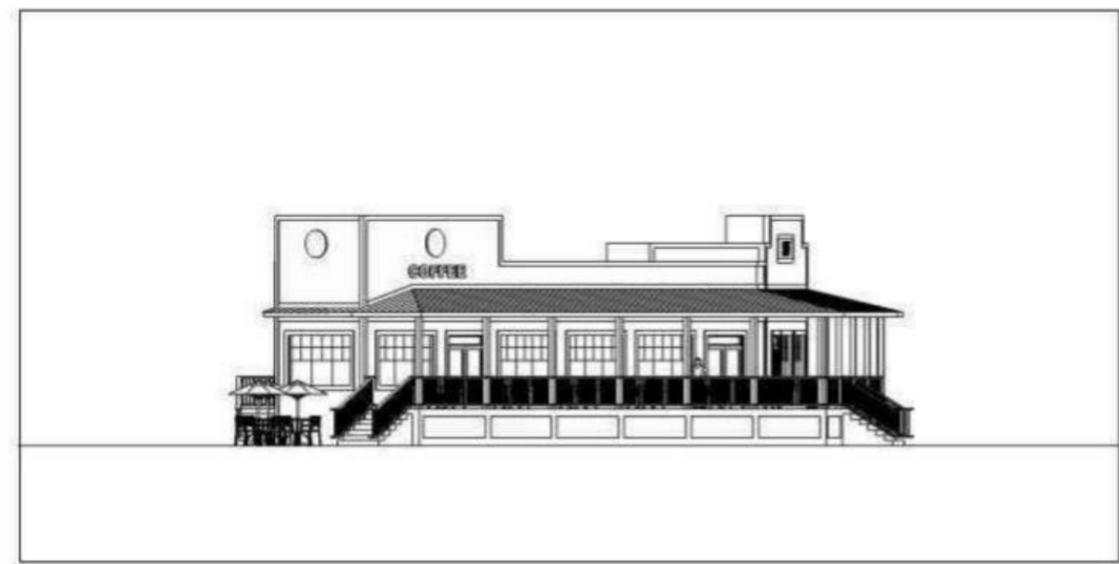
Figure 2-1
Rendering of The Shops at Anahulu



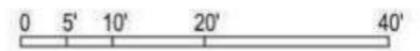
Figure 2-2
 Preliminary Site Plan



Front/ Kamehameha Highway Elevation

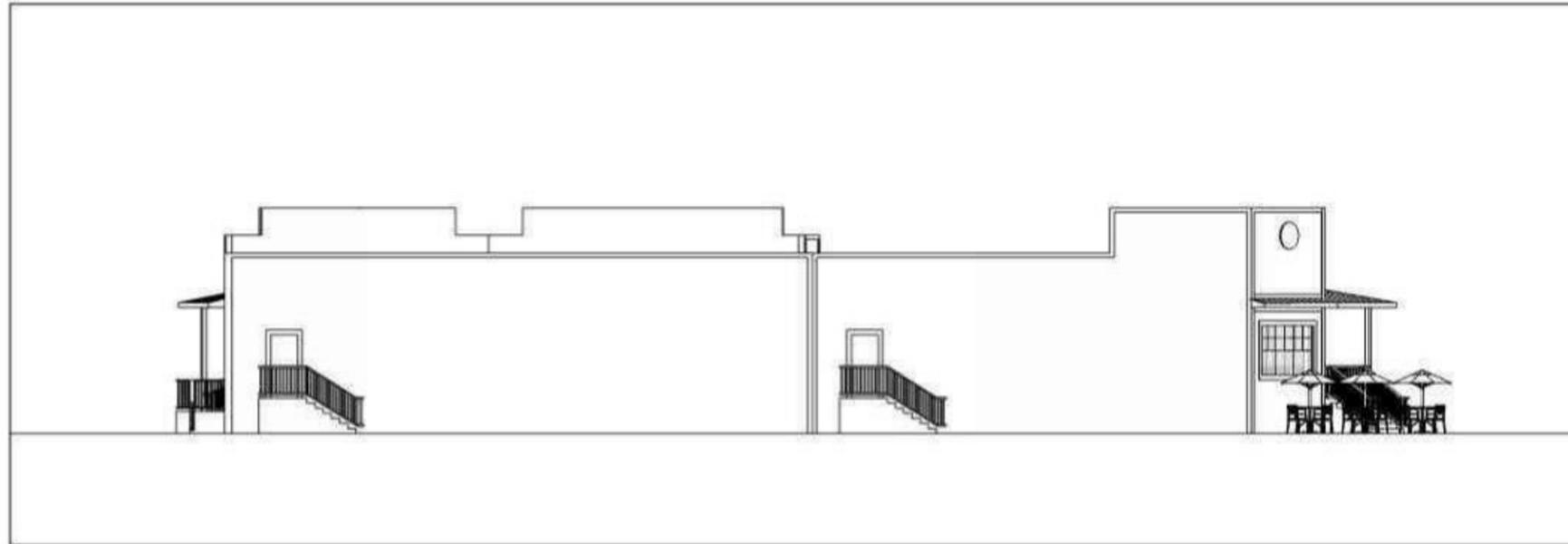


North Elevation

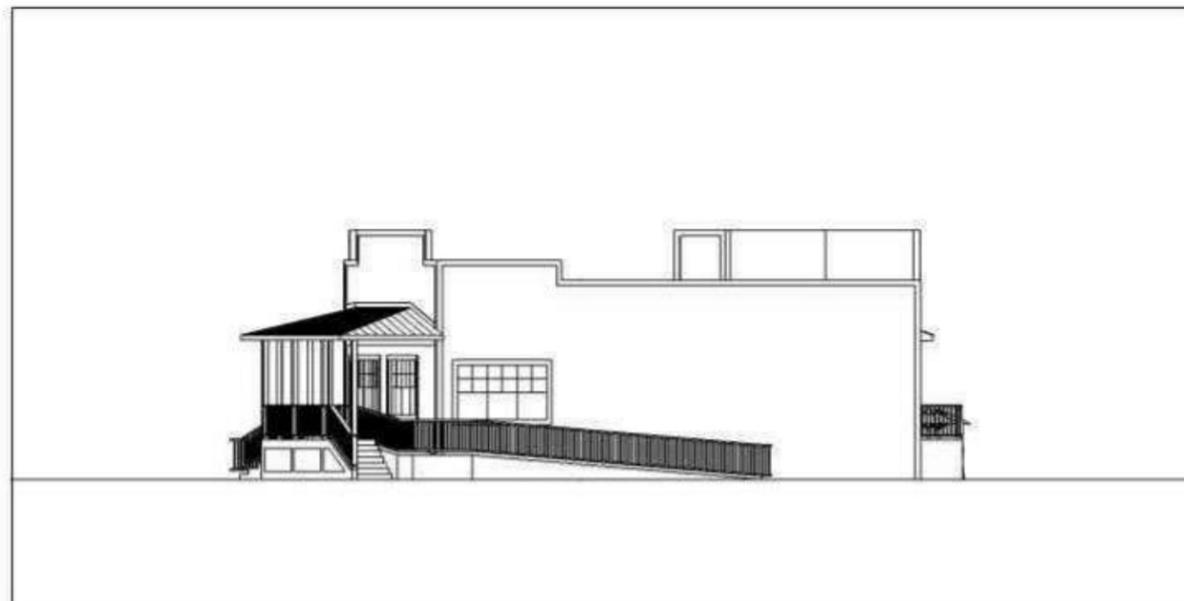


Scale :1" = 20' for 11x17

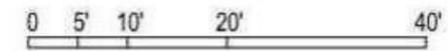
Figure 2-3
Kamehameha Highway Front and North Elevations



Rear/ Parking Elevation



South Elevation



Scale :1" = 20' for 11x17

Figure 2-4
Rear and South Elevations

2.4 PROJECT UTILITIES AND INFRASTRUCTURE

Existing conditions, impacts, and mitigation measures for utilities are discussed in *Section 3.0* of this document. The project site is vacant, formerly used for over 30 years as a Chevron station, which had service connections for water, electricity, communications, and an on-site cesspool. The following section describes the characteristics of the site utilities to support the redevelopment of the property as a small retail center project.

2.4.1 Water

Record drawings indicate the presence of an 8-inch water line along Lokoea Place and a 16-inch Cast Iron pipe water main along Kamehameha Highway. An existing water meter is located on the property which is turned off at the curb stop. The 3/4-inch meter has a maximum capacity of 30 gallons per minute (GPM), and a continuous capacity of 15 GPM. Potable water service for the project will likely be provided using the existing water meter on the property.

Fire protection for the project will be serviced by a fire hydrant on Lokoea Place. As on-site fire hydrants are not proposed, fire sprinklers are anticipated in the design of the building.

2.4.2 Wastewater

The property is currently not serviced by municipal sewer systems. State Department of Health (DOH) records show an existing cesspool; however, DPP records indicate a Tank and Cesspool Removal application was filed in 2008.

An Individual Wastewater System (IWS) will be installed on-site, and will contain an absorption bed and two septic tanks. Based on wastewater calculations, the redevelopment project has a projected wastewater flow of 958 gallons per day (GPD).

A portion of the property is located within the Board of Water Supply (BWS) no pass zone, which is defined as an area that prohibits the installation of waste disposal facilities which may contaminate ground water resources expected for domestic water supply. However, the absorption bed will be installed within the portion of the property that is within the pass zone.

2.4.3 Drainage System

The project parking lot is less than 10,000 sf. and therefore is not required by the City and County of Honolulu to implement Low Impact Development (LID) strategies. Since there are no subsurface drainage systems in the vicinity of the project, drainage improvements will be limited to grading and surface features.

Existing drainage patterns will remain, and future runoff rates will be attenuated to be less than existing stormwater runoff rates for a 10-year design storm.

2.4.4 Solid Waste

The Shops at Anahulu will generate municipal solid waste with the general construction and operation of the project. Solid waste generated by operational activities will be collected by a private contractor service and disposed at an approved solid waste disposal facility. Reuse and

recycling will be implemented on site to the extent practicable. Solid waste management will comply with applicable State and County requirements.

2.4.5 Other Utilities

Existing electrical service to the site will be maintained for the project. Hawaiian Electric Company (HECO) presently serves this property and the surrounding area. The owners are evaluating the potential for the installation of a solar photovoltaic system.

2.4.6 Access, Roadways, and Parking

The project site is bounded by Kamehameha Highway and Lokoea Place. Vehicular access to the site will be from both Kamehameha Highway and Lokoea Place.

Parking will be provided at the back of the site behind the new retail facility. This area will provide 23 standard sized stalls and one loading stall to accommodate the 5,200 sf of retail floor area. The parking provided at the project site will exceed parking required per the LUO.

2.5 CONSTRUCTION CHARACTERISTICS

The Shops at Anahulu project site will require general construction and landscaping. The redevelopment project will require the construction of a new retail structure, parking and associated infrastructure. Since the project site was previously developed as a gas station, much of the site is level and has been cleared of vegetation.

2.5.1 Grading and Excavations

The redevelopment will require general site grading and leveling of the land. Excavation is required for the installation of site utilities and the IWS.

2.5.2 General Construction

The construction of the project will include the formation and placement of concrete foundations, the installation of drainage infrastructure, electrical wiring and equipment, general carpentry work and many other trades and work associated with typical construction activities. Construction work will be performed in accordance with the Federal, State, and City approved design standards. Construction plans for the project will be submitted to appropriate agencies for review and approval. The project will incorporate BMPs into the Construction Drawings.

Construction activity hours will be from 7:00 am to 6:00 pm. Construction will adhere to applicable noise regulations as per Title 11, Chapter 46, of the Hawai'i Administrative Rules (HAR) 11-46. Typical construction vehicles will be used on the jobsite for the development of the project. A permit from the State of Hawai'i Department of Transportation (DOT) Highways will be obtained for transport of oversize equipment and overweight loads.

2.5.3 Landscape Management

The site was cleared of the prior building and contains grasses and shrub type vegetation which has grown back over time. The project will add new landscaping which will be attractive and

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enhance the rural character of the area. A landscape plan is provided will be prepared to support the Special Management Area (SMA) Use Permit and HSD permit. The project will provide landscaping of trees and other plant material in the front yard. Street trees will be selected from the "Acceptable Street Tree" list provided in the HSD Design Guidelines. The selection and use of plants will include a palette of small, medium, and large native, Polynesian-introduced, and tropical plants and shrubs.

2.6 EMPLOYMENT AND HOURS OF OPERATION

The project is anticipated to employ 20 employees for construction and approximately 20 full-time and part-time employees to support daily retail operations.

The project will operate from approximately 6:00 am to 6:00 pm, seven days per week.

2.7 SUMMARY OF PROJECTED COSTS

Costs for the redevelopment project are estimated at approximately \$3.1 million, and will be privately funded.

2.8 SCHEDULE

Planning and permitting for the project is anticipated to be completed in 2016. Site development and construction will follow with anticipated occupancy in 2017.

Section 3.0

DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

This section describes the existing environmental settings and identifies potential impacts of the redevelopment project. Strategies to mitigate the potential impacts are also identified.

3.1 TOPOGRAPHY

Existing Conditions

The project site is relatively flat with elevations ranging from 4.9 to 8 feet (ft.) above mean sea level (MSL) (*Figure 3-1*). There are no major topographical features in the vicinity of the project.

Anticipated Impacts and Mitigation Measures

No substantial changes to the site's topography will be made as a result of the project. Limited grading and excavation is planned for the redevelopment project to accommodate site infrastructure and new building.

3.2 SOILS

Existing Conditions

The geological formation of the Hawaiian archipelago is the result of volcanism. Each island protrusion from the ocean is the summit of a volcanic mountain rising from the ocean floor. The geologic creation of O'ahu is a result of the Earth's crust, comprised of irregular rigid segments, known as plates, moving over a hot spot of upwelling lava, which has remained relatively stationary for many millions of years. The plate under which O'ahu lies is known as the Pacific plate, which has slowly moved over this span of time towards the northwest. O'ahu was created through several stages of activity emanating from two volcanic domes. Through various stages of eruptions, erosion, and land movement, the volcanic forms became what are known today as the Wai'anae and Ko'olau mountain ranges.

The soils on the project site consist of Jaucus Sand (JaC) – 0 to 5 percent slopes, Hale'iwa Silty Clay (HeA) - 0 to 2 percent slopes, and Tropaquepts (TR) (*Figure 3-2*). The NRCS Soils Guide states the following:

- **Jaucas Sand (JaC).** The slope range of this soil is 0 to 5 percent, and consists of excessively drained calcareous soils that occur as narrow strips on coastal plains adjacent to the ocean. Soil colors range from pale brown to very pale brown sands, with a dark brown surface layer. JaC soils are neutral to moderately alkaline. The permeability of this soil is rapid, and runoff is very slow to slow. Water erodibility of JaC soils is slight, while wind erosion is severe.
- **Hale'iwa Silty Clay (HeA).** The slope range of this soil is 0 to 2 percent, but rarely exceeds 7 percent. In a representative profile the surface layer is dark-brown silty clay about 17 inches thick. The subsoil and substratum are dark-brown and dark yellowish-brown silty clay that has subangular blocky structure. The soil is neutral to slightly acid. Permeability is moderate, runoff is very slow and the erosion hazard is no more than slight.
- **Tropaquepts (TR).** These soils are poorly drained and are present in level flood plains. The dark gray, silty loam surface layer of TR soils occurs over firm compact gray, yellow, and brown silty loam layers 5 to 10 inches thick.

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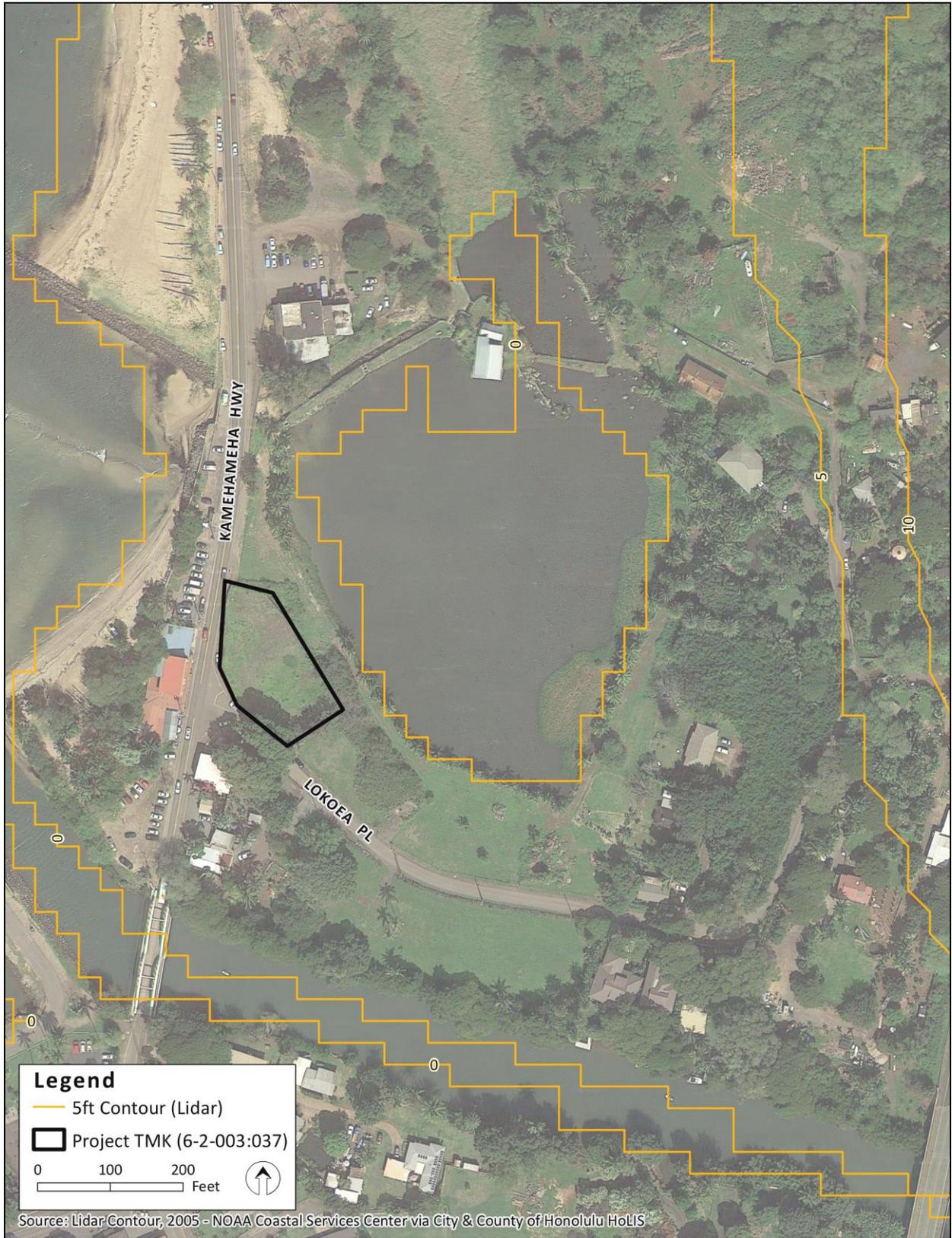


Figure 3-1
Topography



Figure 3-2
U.S. Department of Agriculture Soil Conservation Service, Soil Classification

Anticipated Impacts and Mitigation Measures

Construction of the project will require nominal grading and moderate excavation activities (for a wastewater system). Temporary erosion control measures will be incorporated during construction to minimize soil loss and erosion hazards. Best Management Practices (BMPs) will include dust fences, silt fences, inlet protection, stabilized construction entrances and truck wash down areas, and periodic spraying of loose soils to minimize air-borne dirt particles from reaching nearby areas. The project will incorporate a BMPs Plan into the Construction Drawings. Runoff will be controlled in compliance with the City and County of Honolulu's "Rules Relating to Storm Drainage Standards." Permanent sediment control measures such as ground cover planting, hardscape, and other landscaping will be used once construction is completed.

3.3 CLIMATE

Existing Conditions

With an annual average temperature ranging from the mid-60s to the mid-80s Fahrenheit (°F), Hale'iwa has an average monthly low temperature of 64°F and average monthly high temperature of 83°F. The warmest month of the year is August with an average maximum temperature of 86.70°F, while the coldest month of the year is February with an average minimum temperature of 59.30°F. Rainfall is fairly evenly distributed throughout the year. January is the wettest month of the year with average rainfall of 5.17 Inches. The average annual precipitation at Hale'iwa is 29.77 inches.

Winds from the northeast, known as trade winds, are the most predominant over the Hawaiian Islands. In the winter, there is a shift in the wind patterns characterized by the arrival of the westerly and southerly winds and frontal influences from the North Temperate Zone becoming more prevalent. Westerly winds are typically characterized by the presence of strong winds and high wave activity from the southwestern sector of the Pacific. Overall, the annual average wind speed in Hale'iwa is 14 miles per hour (mph).

Anticipated Impacts and Mitigation Measures

The project will have no effect on climate conditions, and therefore, no mitigation measures are recommended.

3.4 NATURAL HAZARDS

3.4.1 Hurricanes and Tropical Storms

Hurricanes and tropical storms are giant whirlwinds in which air moves around a center of low pressure, reaching maximum velocity in a circular band. Tropical storms are categorized as an organized system of strong thunderstorms with defined circulation and maximum sustained winds of 39-73 mph. Hurricanes are intense tropical weather systems with well-defined circulation and maximum sustained winds of 74 mph.

Hurricanes are considered to be relatively rare events in the Hawaiian Islands. Records show that strong wind storms have struck all major Hawaiian Islands. The first officially recognized hurricane in Hawaiian waters was Hurricane Hiki in August 1950. Since that time, five hurricanes have caused serious damage in Hawai'i: Nina (1957), Dot (1959), Iwa (1982), Estelle (1986), and Iniki (1992).

In most recent history, Tropical Storm Iselle made landfall on Hawai'i Island in 2014, causing considerable damage to utility poles, roadways, and homes on the windward side of the island.

Anticipated Impacts and Mitigation Measures

The effects of past storm events have caused minimal to no damage in the project area. The future threat of hurricanes in the project area cannot be estimated beyond the fact that hurricanes will probably hit Hawai'i as frequently as they have in the past. The project facilities will be designed to IBC and City and County of Honolulu building codes and structural design requirements which accounts for occasional high wind events.

When a hurricane is approaching a coastal location, early evacuation is usually standard mitigation to address the possibility of accompanying storm surge with high winds.

3.4.2 Earthquake

The majority of earthquakes in Hawai'i are directly related to volcanic activity, particularly to the movement of magma beneath Kīlauea and Mauna Loa, on the island of Hawai'i. Other earthquakes are the result of exerted pressures released by magma that never reach the surface.

The redevelopment site is located in a lower risk area for seismic activity rating. Per the 2006 U.S. Geological Survey (USGS) Seismic Design Map for International Building Code (IBC), the site lies in an area which could experience ground motions of up to 0.15 of the earth's gravitational acceleration (g-force).

Anticipated Impacts and Mitigation Measures

Seismic hazards are usually associated with causing damage including landslides, ground cracks, rock falls, and tsunamis. Based on the 2006 USGS Seismic Design Map of probable ground motions, an earthquake is expected to cause only minor damage in the project area. The project will be in compliance with the IBC and City and County of Honolulu standards, including earthquake design provisions.

3.4.3 Flooding

Based on the Federal Emergency Management Agency (FEMA)'s Flood Insurance Rate Map (FIRM) Community Panel No. 15003C0105H, the project site is located within Zone AE and VE and within the designated tsunami zone (*Figure 3-2*). Most of the site is located within Zone AE or areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. The northern portion of the site is located in Zone VE or areas subject to inundation by the 1-percent-annual-chance flood event, with additional hazards due to storm-induced velocity wave action. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses for the site range from 8-10 ft. above MSL for Zones AE and VE, respectively. Mandatory flood insurance purchase requirements and floodplain management standards apply for both of these flood zones.

Anticipated Impacts and Mitigation Measures

The ground elevation at the project area varies between 4.9 and 8 ft. MSL. The retail center will comply with flood hazard requirements in accordance with current Federal, State and City and County of Honolulu standards, including rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (CFR). No significant adverse impacts are anticipated with project code compliance. The project's design takes into

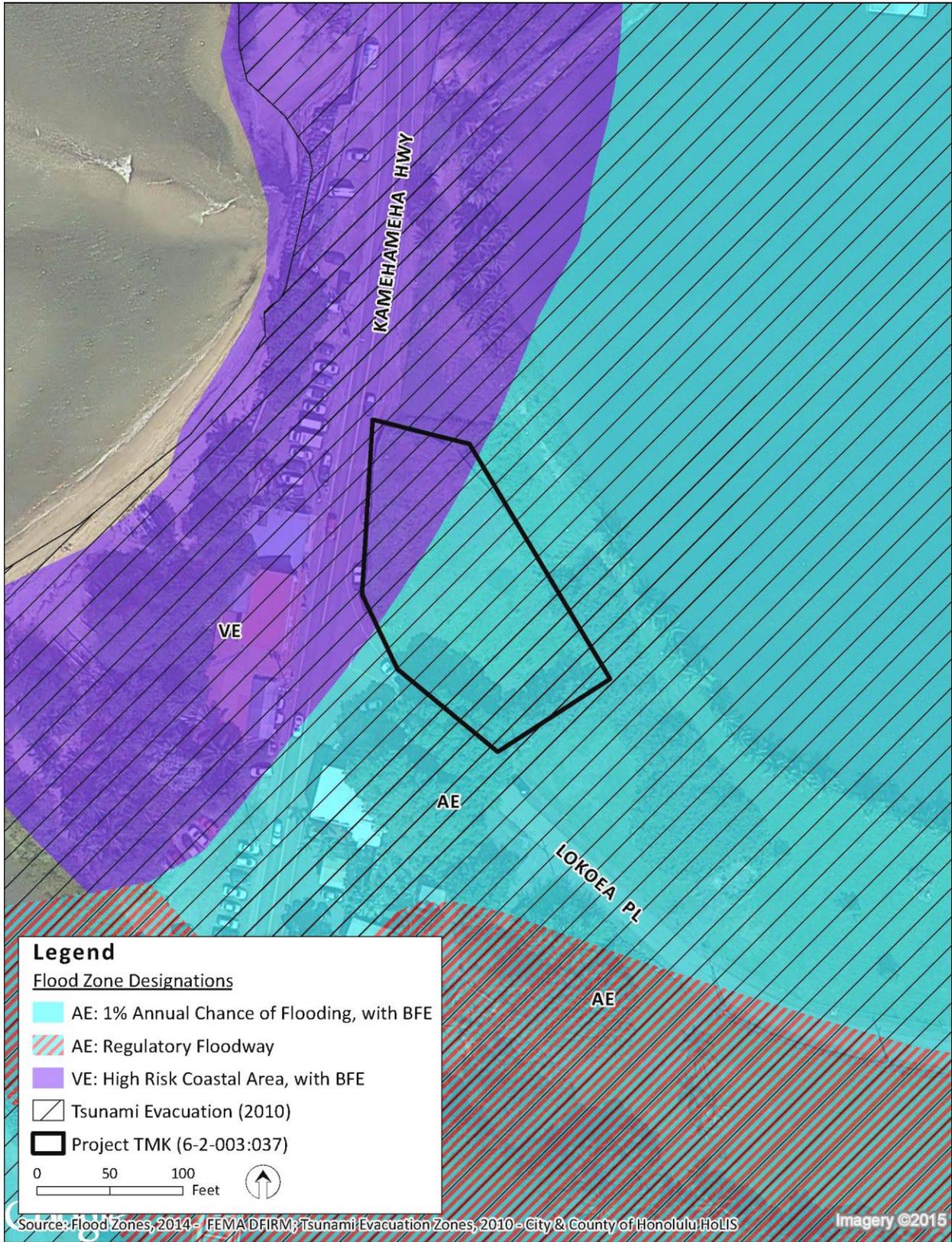


Figure 3-3
Flood Insurance Rate Map & County Tsunami Evacuation Zone

account the flood zones of the area. The building floor elevations will be four feet above grade.

In the event of an emergency situation resulting from flood inundation that requires evacuation from the project area, typically the County designates evacuation shelters to be selectively opened depending upon the severity of the damage. Shelter designations and schedules are broadcast on local radio and television stations.

3.4.4 Tsunami Inundation

Existing Conditions

Tsunamis are characterized by great speeds (up to 590 mph), long wave length (up to 120 miles), long periods between successive crests (ranging from minutes to a few hours), and low height in the open sea. Upon reaching a coastline, a tsunami can become a wall of water reaching heights of 30 feet or more and capable of moving inland several hundred feet. Known major tsunami events in Hawai'i per the Pacific Disaster Center include the areas of East Hawai'i Island (1946, 1960 1975) and North Shore O'ahu (1952, 1957).

According to County tsunami evacuation maps, the redevelopment project is located in the Tsunami Evacuation Zone (*Figure 3-2*).

Anticipated Impacts and Mitigation Measures

Similar to other natural hazard events, the County has an emergency operations plan for evacuating potentially affected areas. Inland shelters have been identified and vertical evacuation can also be carried out. Tsunami Warning signals from the State Civil Defense sirens will be audible during a tsunami alert event, which will serve to alert the public with safety instructions. Potential mitigative measures include ensuring that staff be properly trained in assisting patrons with appropriate response and evacuation procedures at the issuance of a tsunami warning or any other emergency event.

3.4.5 Climate Change and Sea Level Rise

Sea level rise is a primary factor driving historical shoreline changes in Hawai'i. The average annual global sea level rise over the last century was roughly two millimeters, with studies indicating that this rate is now approaching three millimeters and may accelerate in the coming decades.

University of Hawai'i (UH) climate researchers predict that rising sea levels mostly caused by man-made climate change will affect coastal locations around the State of Hawai'i. The UH School of Ocean and Earth Science and Technology (SOEST) provide a sea level rise scenario for Honolulu showing a three foot (ft.) increase over the next 85 years.

According to the UH SOEST, while predicating future sea level rise is challenging because of unknown parameters, research shows that global mean sea level may reach approximately 1 ft. by mid-century and 2.5 ft. or higher by the end of the century. An appropriate planning target would include a sea level benchmark of 1 ft. by mid-century and about 3 ft. by the end of the century.

Anticipated Impacts and Mitigation Measures

The proposed project will not contribute to adverse impacts relating to existing climate change and sea level rise. The project will serve area residents and the Historic Hale'iwa Town. The project will not significantly contribute to existing greenhouse gas emissions and overall long-term

climate changes. Tenant operators and owners will employ sustainable measures to reduce energy requirements such as use of photovoltaic power, recycling and waste reduction, energy conservation, and renewable products.

In addition, climate change and sea level rise risks to the project area are not anticipated to be significant. While detailed projections of sea level rise have not been completed for the North Shore region, the National Oceanic and Atmospheric Administration's high level online coastal mapping tool predict the project area will be unaffected by up to 4-foot sea level rise inundation scenarios.

The building design will also take into account the area's flood zones and potential storm surge inundation, and will be elevated four feet from grade to prevent water damages.

3.5 BIOLOGICAL RESOURCES

3.5.1 Flora

Existing Conditions

Since the prior gas station development structures were removed in 2008, the site is cleared and contains grasses and shrub type vegetation that have grown back overtime. The site has been urbanized for many years; therefore native endangered or threatened species are not expected to be present. Existing plant species on the property include Manila Palm (*Veitchia merrillii*), Guinea grass (*Megathyrsus maximus*), and other non-native, weedy plants.

Anticipated Impacts and Mitigation Measures

Development and operation of the Shops at Anahulu project will not result in adverse impacts to native plant species. The project will improve existing vegetation and landscaping on the site. A landscape design plan will be prepared to support the Special Management Area (SMA) Use Permit and Hale'iwa Special District (HSD) permit. The project will provide landscaping of trees and other plant material in the front yard. Street trees selected will be selected from the "Acceptable Street Tree" list provided in the HSD Design Guidelines. The selection and use of plants will include a palette of small, medium, and large native, Polynesian-introduced, and tropical plants and shrubs. These plants will seek to enhance the attractiveness and rural character of the area while providing screening throughout the property.

3.5.2 Fauna

Existing Conditions

The project site was previously developed as a gas station; native animals are not expected to be found here. Common avian and mammalian species frequent the area, and none are protected or proposed for protection under either the Federal or State of Hawai'i endangered species programs. The adjacent Loko Ea fishpond has extensive flora/fauna habitat, including habitat for endangered Hawaiian water bird species. As noted by the US Fish and Wildlife Service, the federally endangered Hawaiian coot, endangered Hawaiian duck, and wedge-tailed shearwater may occur within the vicinity of the project area. In addition, the federally threatened sea turtle, may nest on the nearby Hale'iwa shoreline, across Kamehameha Highway from the subject property.

Anticipated Impacts and Mitigation Measures

There will be short-term disturbance of the site and immediately surrounding roadway areas during the construction period. The development and operations of the small retail center is not expected to result in adverse impacts to avifaunal or feral mammal species. The project is buffered from the fishpond by a 50 ft. landscaped setback, and will not impact the area's wildlife or habitat; therefore, no mitigation measures are required.

Lighting for the project will be designed with shielding, and directed downward to avoid attracting seabirds and/or disorienting sea turtles at the nearby beach across Kamehameha Highway. Construction activities will be limited to daylight hours to avoid the use of construction work lights.

3.6 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

Existing Conditions

In August 2015, an Archaeological Assessment (AA) was completed for the project site by Keala Pono Archaeological Consulting, LLC and is included in *Appendix B*. The project is subject to Hawai'i State environmental and historic preservation review legislation (Hawai'i Revised Statutes (HRS) §343 and HRS §6E-8/Hawai'i Administrative Rules (HAR) §13-275, respectively).

Background Summary

Oral traditions tell of Waialua District's place as the royal center of O'ahu, with Kūkaniloko as the birthplace of the sacred chief Ma'ilikūkahiki circa 1490 AD. Ma'ilikūkahiki later established the land division and administration of O'ahu into the six moku of Kona, 'Ewa, Wai'anae, Waialua, Ko'olauloa, and Ko'olaupoko.

Kawailoa ahupua'a (land division extending from the mountain to the sea), located within Waialua, was known for its royal fishponds of Loko Ea and 'Uko'a, which were connected to one another and used for raising 'anae and awa.

Early maps, historical accounts, and other archival information indicate that Waialua contained many lo'i (taro patches), rich soil for sweet potato planting, fishponds, and home sites. Shortly after the Great Māhele, which altered traditional Hawaiian land tenure, cattle ranching – preceded by logging to clear pasturelands and build fences – was established on private lands in Kawailoa. The arrival of sugarcane plantations and railroads subsequently altered the landscape again in the late 19th century, when wells were established in the area. Taro and rice fields also continued to be cultivated in the area into the early 20th century.

Previous archaeological studies and finds in Kawailoa document a culturally rich area, including several encountered human burials, buried sediment remnants, and evidence of habitation.

There have been recent efforts over the past five years to restore and improve the fishponds in the area, including community work days. The fishponds and surrounding lands are managed by Kamehameha Schools.

Results of Fieldwork

Fieldwork was carried out on July 31, 2015 by Keala Pono archaeologist Windy McElroy, Ph.D and Jeffrey Lapinad. 100% of the 0.51 acre site was covered by a pedestrian survey, and five test trenches were excavated on the property. One trench was abandoned early due to the possibility

of petroleum contamination in the soil from prior use of the site as a gas station from the 1940's to 2008.

None of the test trenches yielded evidence of subsurface archaeological material or deposits.

Anticipated Impacts and Mitigation Measures

Given the nature of the site's history as a gas station, the project area was heavily disturbed, including extensive excavation of the subsurface strata. Historical and archaeological research for the current project area and immediate vicinity suggest that construction will have no effect on historic properties. However, archaeological monitoring is still recommended due to the project area's proximity to the beach, which was traditionally used for human burials, as well as its proximity to Loko Ea Fishpond, an important cultural resource. In the event that human burial remains are discovered during construction activities, all work in the immediate area shall cease and an archaeologist from the State Historic Preservation Division (SHPD) shall be notified. All work in the area will be suspended until further recommendations are made for appropriate treatment of archaeological and/or cultural materials.

3.7 CULTURAL RESOURCES

Existing Conditions

A Cultural Impact Assessment (CIA) was completed for the project by Keala Pono Archaeological Consulting (Keala Pono). The study was prepared in August 2015, and is included in *Appendix C*. The following section provides a description of the CIA and findings for the project area.

The project requires compliance with Act 50 Session Laws of Hawai'i 2000 and the State of Hawai'i environmental review process under Chapter 343, HRS, which requires consideration of a proposed project's effect on traditional cultural practices. Through document research and cultural consultation efforts, the report provided information that was applicable to the assessment of the project and recognized cultural practices.

Background Research

The project area is located within the ahupua'a of Kawaihoa (translated as "the long water"), in the district of Waialua (translated as "two waters"). Respectively, these names stem from the character of Anahulu River, which flows through the ahupua'a, and the two streams that pass through the district. The waterways and swamp lands in the region provided ample growing conditions for taro and sweet potato. In addition, Kawaihoa was home to 'Uko'a and Loko Ea, both prominent fishponds connected to one another and fed by freshwater springs. Historically, these fishponds were also home to the famous mo'o, Laniwahine, and her brother, Puhū'ula. The district's rich agricultural and aquacultural resources served as the basis for its political importance, explaining the district's ties to royal chiefs and the presence of numerous temples in the area.

Many mo'olelo (stories) are associated with Laniwahine, "the royal lizard of Waialua" who guarded 'Uko'a. Laniwahine was said to have appeared in human form, signaling foreboding events to come. She is also the same mo'o referenced in the chant of Kamehameha V. Other mo'olelo of the area refer to Pua'ena Point, located approximately 0.6 miles away from the project property. Pua'ena Point was historically used as a place to lay the dead to decompose.

During the Māhele, Victoria Kamāmalu ceded all lands in Waialua to the government, except for lands in Kawaihoa and Pa'ala'a. Kawaihoa remained in Kamāmalu's possession, and in 1850,

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individual tenants were awarded with kuleana lands in the ahupua'a. 93 claims were made for kuleana lands in Kawailoa, of which 79 were awarded. Within the project area, two kuleana claims were awarded: 'Āpana (parcel) 4 of Claim 2699 by Wewehi, and 'Āpana 8 of Claim 7342 by L. Kuokoa. 'Āpana 4 at the project site contained only one lo'i. 'Āpana 8 at the project site consisted of 10 lo'i.

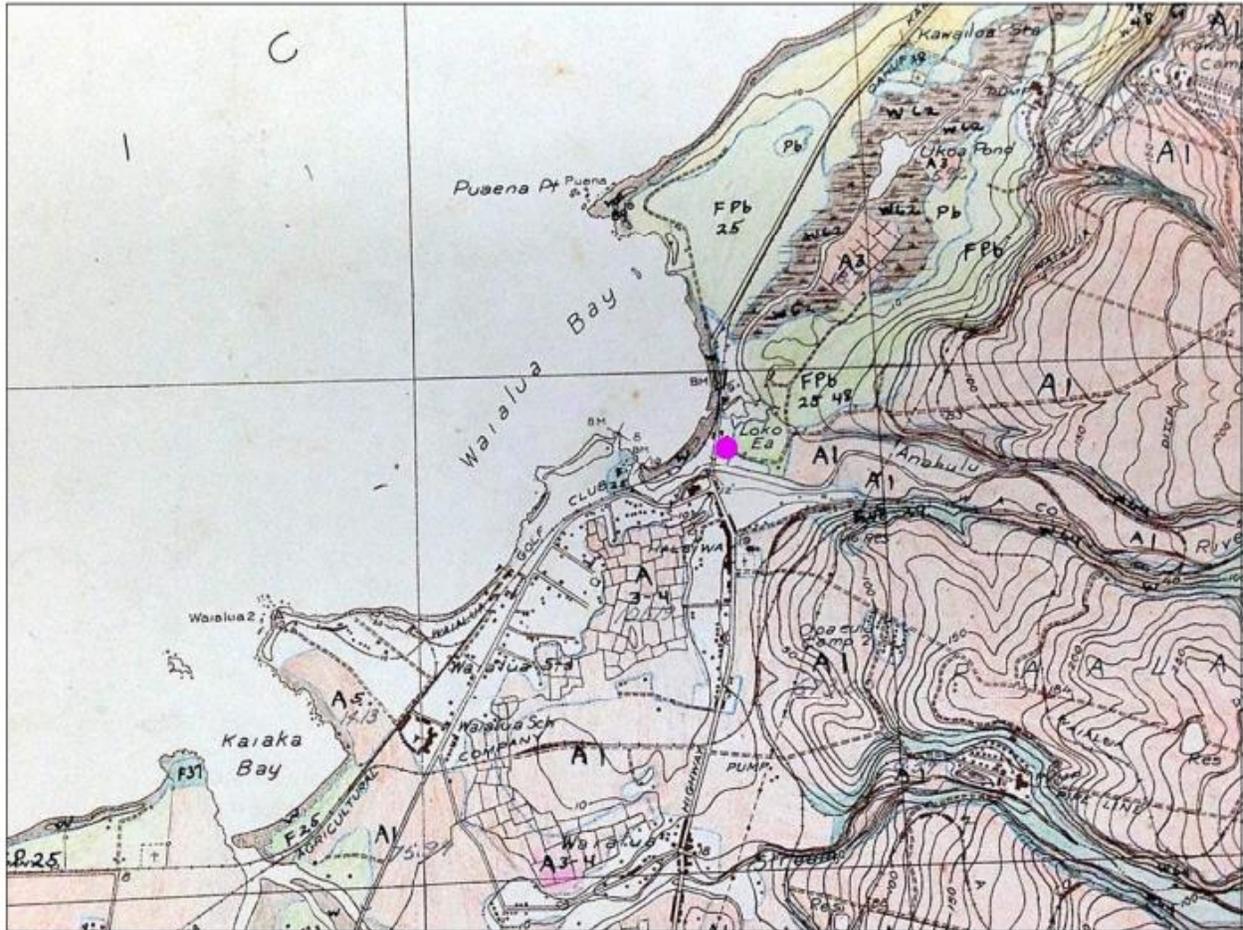


Figure 3-4
Portion of a USGS (1929) Hale'iwa Quadrangle (Approximate project location in purple)

Ethnographic Survey

Keala Pono contacted individuals within the community who had/has ties to the project area or vicinity; are known Hawaiian cultural resource persons; or Hawaiian traditional practitioners. These individuals were referred by Keala Pono, Group 70 or other cultural resource professionals. The results of the interviews conducted for the ethnographic survey are summarized in this section.

Kalani Fronda, land asset manager of Kamehameha Schools lands in Hale'iwa, shared knowledge of the project property and the adjacent water features of Loko Ea Fishpond and Anahulu River, one of the longest continuous waterways in Hawai'i. Fronda also shared information on the cultural practices of the area, which consisted of fishing in the fishpond and along the shores.

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Betty Jenkins, resident of Kawaihoa and Native Hawaiian educator and cultural practitioner, shared history of the area being a playground for the ali'i, and the home of the Queen's church. Jenkins' memories include her mother's recollection of honoring the Queen whenever she was in the area.

Kumu Melvin "Moki" Labra, a cultural practitioner of hula and kahu/kahuna traditions, and lifelong resident of the region with ancestral ties to Kawaihoa, shared of his upbringing in the project vicinity. His memories of Kawaihoa include the abundance of fish and 'āina momona (fertile land), and of being a carefree, safe, and uncongested environment. Kumu Moki's 'ohana originated from the Loko Ea area across the street from the project property. According to Kumu Moki, the entire area around Loko Ea is considered a wahi kūpuna, as it is located in the piko of Waialua. Cultural practices in the area included gathering kukunaokalā (mangrove flowers).

Tom Shirai, Jr., with ancestral ties to Waialua, shared knowledge of historical sites such as Pōhaku Pua'ena, 'Uko'a Fishpond, or "Laniwahine," and leina, or jumping points for spirits to enter the other realm. Shirai also spoke of the many mo'ō in the area in addition to Laniwahine; and of the traditional place names of the district.

Collectively, the individual interviews shared a range of concerns and recommendations for the Shops at Anahulu project as summarized herein.

- Runoff and seepage may occur during construction, which could affect Loko Ea Fishpond or the water table.
- Storm drains may clog during construction.
- Noise, traffic, and congestion could result from the project.
- The project should deter people entering Loko Ea Fishpond through unauthorized access points.
- Dumping (e.g. cooking oil) should be avoided.
- Local residents may not feel welcome at the new stores.

Additional recommendations from the interviews are summarized herein.

- A learning center instead of stores could be built.
- The project could include a cultural museum in the complex.
- The project should employ locals and welcome locals as patrons, and sell kanaka maoli items at the stores.
- Include a fish market or poke shop in the complex to sell fish from Loko Ea.
- It would be appreciated if the merchants use profits to give back to the community.

It is also important to remember the country places, display photos of old Waialua and Hawaiian history, strengthen the association between Waialua and Hale'iwa, which were twin towns in the past, and use the original place names instead of renaming. Finally, it was recommended to network with the community and local entities.

Anticipated Impacts and Mitigation Measures

Background research and ethnohistoric surveys did not indicate knowledge of subsurface archaeological resources exist within the previously disturbed project area. However, it should be anticipated that there is a possibility iwi kūpuna (ancestral bones) may be encountered with ground disturbance work. Should burials (or other cultural finds) be encountered during any unanticipated ground disturbance, the construction contractor should immediately cease all work and the appropriate agencies should be notified pursuant to applicable law.

Tenants will be encouraged to provide educational displays in public spaces of the project to inform the public about the cultural history of Loko Ea fishpond and the surrounding area.

3.8 WATER RESOURCES

Existing Conditions

A Baseline Assessment of Water Chemistry was completed for the project by Marine Research Consultants, Inc. The study was prepared in October 2015 and is included in Appendix D. The purpose of the assessment was to provide a basis for predicting any potential effects that might occur to the existing water chemistry at Loko Ea Pond and the nearby region of Waialua Bay, as a result of the project.

The fieldwork consisted of a survey transect extending through the center of Loko Ea Pond, with six survey stations equally spaced throughout the pond. Four stations were located in the vicinity of the mākāhā (sluice gate) leading to Waialua Bay. Water samples were evaluated according to the criteria designated for estuaries as described in Chapter 11-54, Section 05 (d) of the State of Hawai'i Department of Health Water Quality standards.

The results of the study revealed that the composition of water in Loko Ea Pond contains an order of magnitude higher nitrogen and phosphate phosphorus than adjacent Waialua Bay waters, indicating that existing benthic aquatic plant growth in the pond is not limited by available nutrients. The abundance of existing plants in the pond has likely deposited additional organic materials, causing the water column to shallow. No species of nuisance or invasive algae were observed during the study, suggesting that elevated nutrient content in the pond does not provide suitable conditions for nuisance species. However, it is unclear whether the high nutrient content in Loko Ea Pond is a result of natural groundwater input, or from human subsidies to groundwater above natural levels.

Anticipated Impacts and Mitigation Measures

The IWS and absorption bed for the project will be designed to prevent wastewater from entering groundwater at the property. While it is unclear whether the high level of nutrients in Loko Ea pond is a result of natural groundwater input or human contributions, nutrient levels from the source are not likely to change as a result of the project.

The results of the baseline study indicate that the small retail project is not anticipated to have significant negative or measurable effects on water quality or biota within the adjacent waters of Loko Ea Pond or the nearby region of Waialua Bay. Adding nutrients to non-nutrient limited systems such as Loko Ea Pond does not change the functional aspect of aquatic communities, but rather only changes nutrient concentrations. Therefore, due to the absence of projected groundwater subsidies and the non-limiting nutrient character of the pond, there are no anticipated changes from present conditions that could be attributed to the project.

3.9 UTILITIES AND INFRASTRUCTURE

A Preliminary Engineering Report was completed by the Civil Engineering Department of Group 70 International in September 2015 and is included as *Appendix E* in this study.

3.9.1 Water System

Existing Conditions

Potable water in the general area is provided by the Honolulu Board of Water Supply (BWS). Records indicate the presence of an 8-inch water line along Lokoea Place, and a 16-inch cast iron pipe water main along Kamehameha Highway. A $\frac{3}{4}$ -inch meter (number 95031629) exists at the project site, and is turned off at the curb stop.

Fire Hydrant C-135 is located just outside the property on Lokoea Place.

Anticipated Impacts and Mitigation Measures

The project is expected to have an average daily demand of approximately 1,500 gallons per day (GPD). The total annual potable water use is estimated at 547,500 gallons. Discussion with the BWS indicates the existing water system is adequate for the redevelopment project. Potable water service for the project will be provided using existing water service connections.

Off-site fire protection will also be adequate to accommodate the project. Since on-site fire hydrants are not proposed, a fire sprinkler system will be considered in the design of the building.

3.9.2 Wastewater

Existing Conditions

The property is currently not serviced by any municipal sewer systems. DOH records indicate a tank and cesspool removal application was filed in 2008. Additional information is required to confirm if the cesspool was removed.

The mauka portion of the property is located within the BWS No Pass zone, which is defined as an area that prohibits the installation of waste disposal facilities which have a potential to contaminate groundwater resources.

Anticipated Impacts and Mitigation Measures

The small retail redevelopment is projected to generate approximately 958 GPD of wastewater. An individual wastewater system (IWS) consisting of an absorption bed and two septic tanks, will be constructed for the small retail center. The absorption bed will be located entirely outside of the No Pass zone.

Special restrictions will be placed on retailers to prohibit dumping of organic waste products into the wastewater system to control Biochemical Oxygen Demand levels in the wastewater stream. Access to restrooms will also be restricted to employees and patrons, to control projected wastewater flows and maintain the system's classification as an IWS.

3.9.3 Storm Drainage

Existing Conditions

The project site is relatively flat with elevations ranging from 4.9 to 8 ft. MSL, with a high point within the project site and shallow slopes that drain outwards toward the property boundaries.

Anticipated Impacts and Mitigation Measures

Proposed drainage will be designed such that existing storm water quality and flow rates comply with local requirements. Existing drainage patterns will remain and future runoff rates will be attenuated to be lower than existing stormwater runoff rates for the 10-year design storm.

3.9.4 Electrical

Existing Conditions

The existing project site appears to be serviced by Hawaiian Electric Company (HECO). Records indicate the site is served through subsurface electrical supply lines from underground transformers and electrical meters.

Anticipated Impacts and Mitigation Measures

Electrical service for the project will likely be provided using existing service connections. The electrical capacity is anticipated to be adequate to support the proposed improvements.

3.10 HAZARDOUS SUBSTANCES

Existing Conditions

Hazardous substances are defined as having a chemical composition or containing other properties that make it capable of causing illness, death, or some other harm to humans and other life forms when mismanaged or released into the environment.

The site is currently vacant, and there is no current use of hazardous materials.

The subject property was formerly improved with a Chevron gas station, which had been in use for approximately 40 years. The gas station improvements were demolished in 2008, and the gasoline storage tanks were removed. The project site is part of a Hawai'i State Department of Health (DOH Facility ID#9-201215) release response remedial action to replace petroleum impacted soil and return the site to pre-lease conditions. Various remediation initiatives have been ongoing since 2008, under the management of Chevron Environmental Management Company (EMC), and Chevron's environmental consultant ARCADIS-US, Inc. (ARCADIS). ARCADIS is scheduled to commence the final round of remediation on October 1, 2015, and complete remediation activities on or about November 9, 2015. EMC is obligated to return the project site to pre-lease conditions, to be evidenced by a No Further Action letter from DOH, prior to turnover of the project site from Queen Lili'uokalani Trust to Lokea Kai Partners LLC.

Anticipated Impacts and Mitigation Measures

Leaking underground fuel storage tanks were removed from the site under DOH requirements. Construction of the project will not involve the disturbance of hazardous materials since the site has been properly remediated under DOH requirements. Hazardous materials are used in the course of construction, such as fuels and lubricants, and will be managed appropriately. Other hazardous materials that may be used for building and landscaping maintenance will be used,

stored and disposed of appropriately. Adverse impacts relating to the hazardous waste and materials are not anticipated as a result of the redevelopment project.

3.11 TRAFFIC AND ROADWAYS

A Traffic Assessment Report (TAR) (October 2015) was prepared for the project by The Traffic Management Consultant to identify and assess the potential impacts of the project on existing roadways and traffic conditions. This report is included as *Appendix F*.

Existing Conditions

Weekday afternoon and Saturday peak hour traffic counts were conducted in April 2015 on Kamehameha Highway north of Lokoea Place, and at the intersection of Kamehameha Highway and Lokoea Place.

Figure 3-5 illustrates the existing Weekday PM and Saturday peak period traffic volumes. The Weekday PM peak hour of traffic generally occurs between the hours of 12:30 PM and 1:30 PM. On Saturdays, the peak hour of traffic generally occurs between the hours of 2:15 PM and 3:15 PM. This analysis is based on the commuter peak hour time periods to identify the traffic impacts resulting from this small retail center.

Of note, the project site at the corner of Lokoea Place and Kamehameha Highway is the former location of a very active Chevron station which provided fuel service and convenience retail for over 40 years. The traffic generated by the prior use was significant, comparable to other full service operations in the community. This use was terminated in 2008 with the potential to be reinstated at a future point under a similar full service gas station.

Level of service (“LOS”) is a qualitative measure describing the condition of traffic flow, ranging from ideal or free-flow traffic operating conditions at LOS “A” to unacceptable or potentially congested traffic operating conditions at LOS “F”. The City and County of Honolulu has established LOS “D,” which is typically recognized as the minimum satisfactory level of service in most urban areas, as the minimum acceptable level of service for its intersections.

Anticipated Impacts and Mitigation Measures

Short-term construction related impacts will be addressed in as part of the development program. Plans to mitigate the construction period traffic impacts include off-peak movement of equipment and materials to minimize the disruption to traffic flow, and inconvenience to the motoring public, bicyclists and pedestrians. The potential future traffic-related impacts are discussed below.

Over 80 percent of peak hour trips, expected to be generated by the project, are expected to be pass-by trips, or traffic already on the road stopping at a “secondary” destination. In comparison to the traffic activity associated with prior use of this site for Chevron fuel service and convenience retail, the planned small coffee/retail center will generate much less traffic.

THE SHOPS AT ANAHULU

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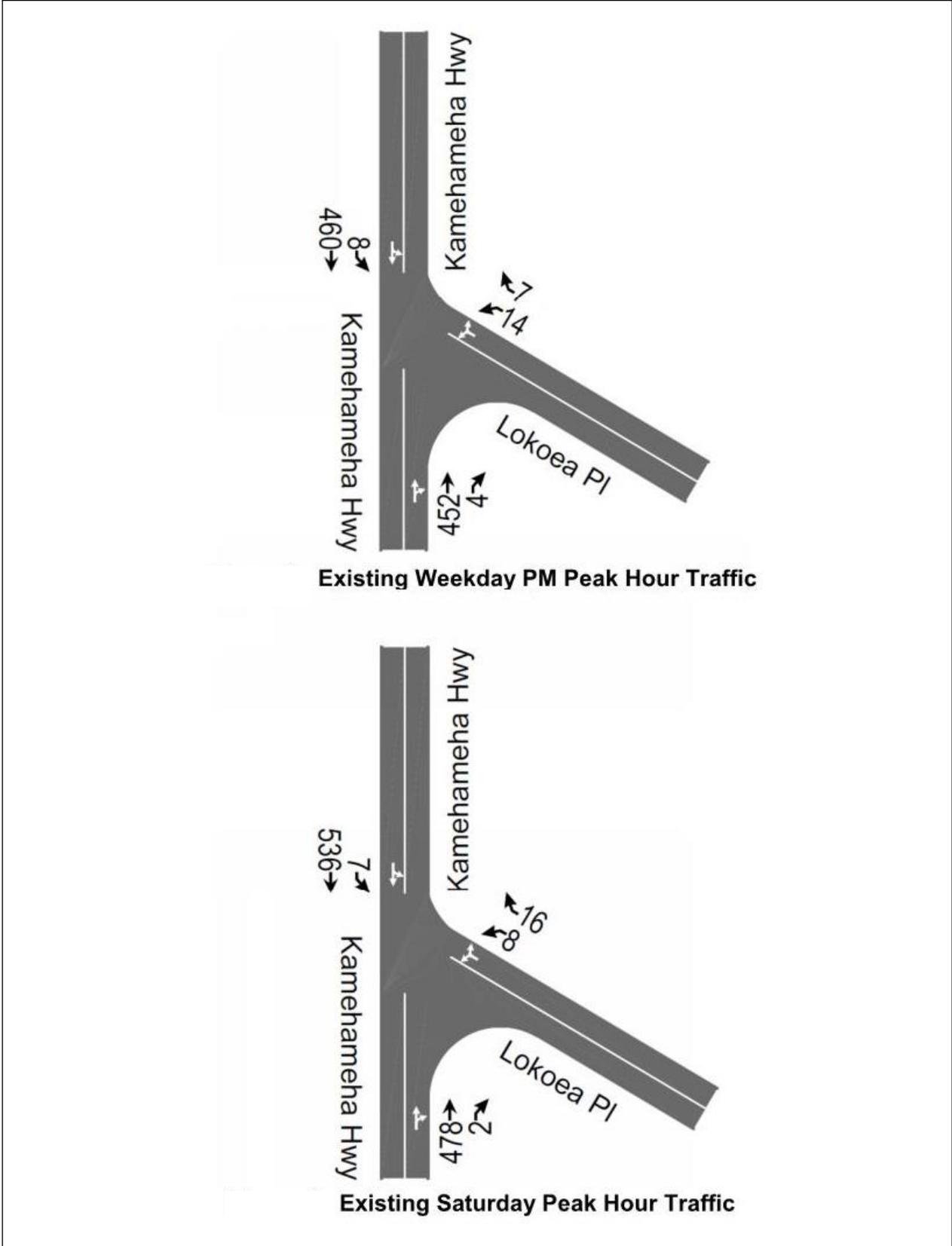


Figure 3-5
Existing Peak Hours of Traffic

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Trip Distribution

Trip generation characteristics were based upon the Institute of Transportation Engineers (ITE) trip rates associated with coffee/doughnut shops and specialty retail centers. The project is expected to generate 65 vehicles per hour (vph) and 132 vph in vehicle trips during the Weekday PM and Saturday peak hours, respectively. The project is expected to generate 23 vph and 26 vph in new trips during the PM peak and Saturday peak hours, respectively. *Table 3-12* summarizes the project site trip generation characteristics of the redevelopment project.

Table 3-12 TRIP GENERATION CHARACTERISTICS							
Land Use	SFGLA	PM Peak Hour			Saturday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Specialty Retail	3,400	10	8	18	7	6	13
Coffee Shop	1,800	23	24	47	57	62	119
Subtotal Site Trips		33	32	65	64	68	132
Pass-By Site Trips		21	21	42	53	53	106
Net Increase in Site Trips		12	11	23	11	15	26

Developments in the Vicinity

The only other new development in the vicinity of the project is the redevelopment of a former gas station into a 7-Eleven Store located on Tax Map Key (TMK) (1) 6-6-001:033. The store will be 2,309 SF and will include two fuel pumps and four fueling positions. A traffic analysis for the project (2011) estimated traffic generation of 101 vph and 129 vph during PM and Saturday peak hours of traffic, respectively. This level of use is typical of the prior Chevron use at the subject property.

Future Traffic Volumes without the Project

Projected traffic operations without the project (2017) are expected to remain similar to existing conditions (*Figure 3-6*). The study intersection along Lokoea Place and Kamehameha Highway is expected to operate at levels of service similar to existing conditions. Traffic at the intersection deteriorates slightly from LOS "B" to LOS "C" during the Weekday PM peak hour.

Future Traffic Volumes with the Project

The Year 2017 cumulative Weekday PM and Saturday peak hour traffic conditions with the project are shown in *Figure 3-7*. Traffic operations in the vicinity of the project are expected to remain similar to existing and Year 2017 without the project conditions. Overall, the project is expected to increase traffic on Kamehameha Highway by less than two percent during peak hour of traffic. Similar to projected traffic volumes without the project, traffic at the intersection of Lokoea Place and Kamehameha Highway during both Weekday PM and Saturday peak hour traffic is expected to deteriorate slightly from LOS "B" to LOS "C." The Kamehameha Driveway is expected to operate at LOS "C," and the Lokoea Place Driveway is expected to operate at LOS "A" with the project during both Weekday PM and Saturday peak hour traffic. The left-turn demands from Kamehameha Highway to Lokoea Place, and to the Kamehameha Highway Driveway are not expected to meet the Association of State Highway and Transportation Officials (AASHTO) volume warrant for an exclusive left-turn lane for traffic alleviation during Weekday PM and Saturday peak hour traffic.

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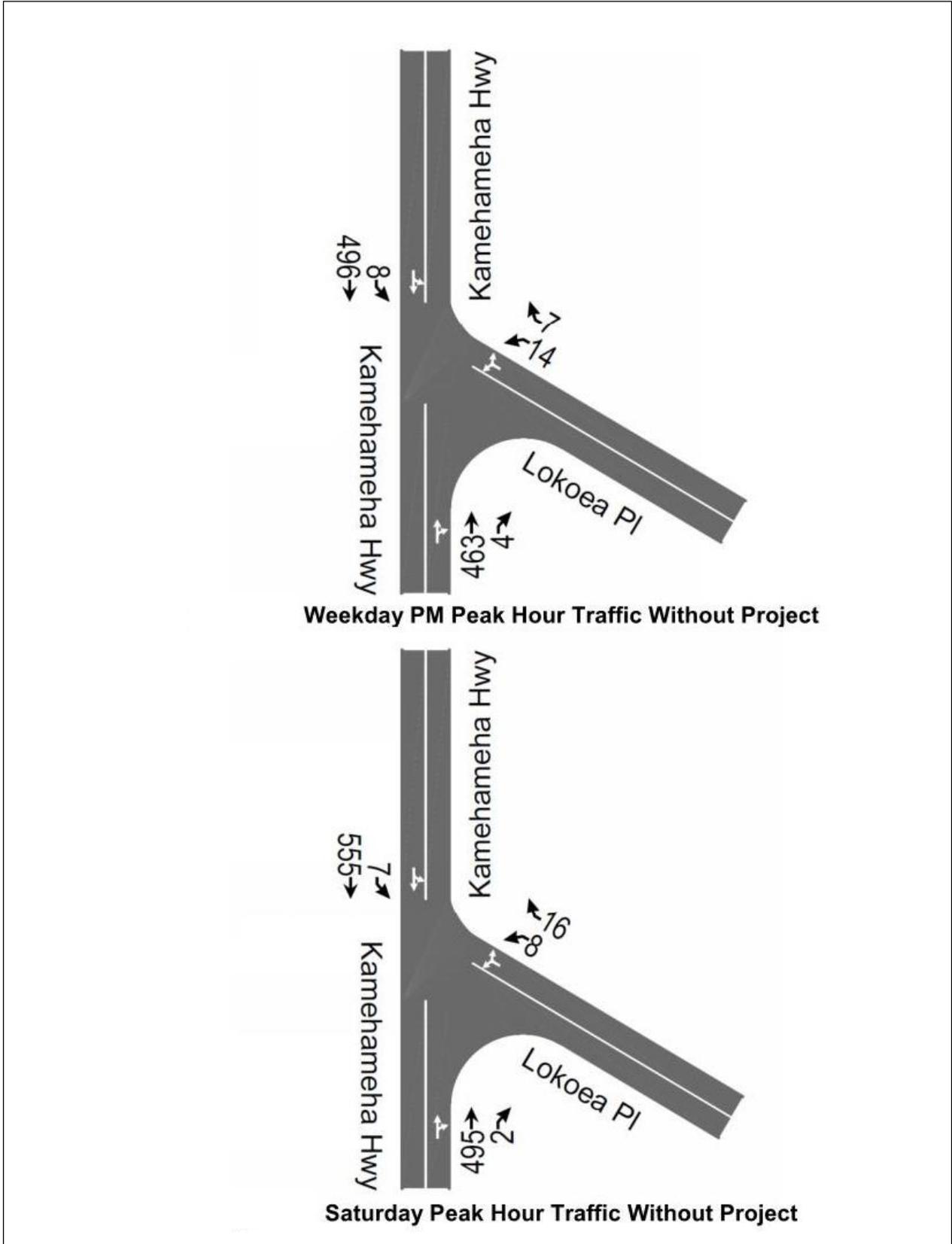


Figure 3-6
Year 2017 Peak Hour of Traffic Without Project

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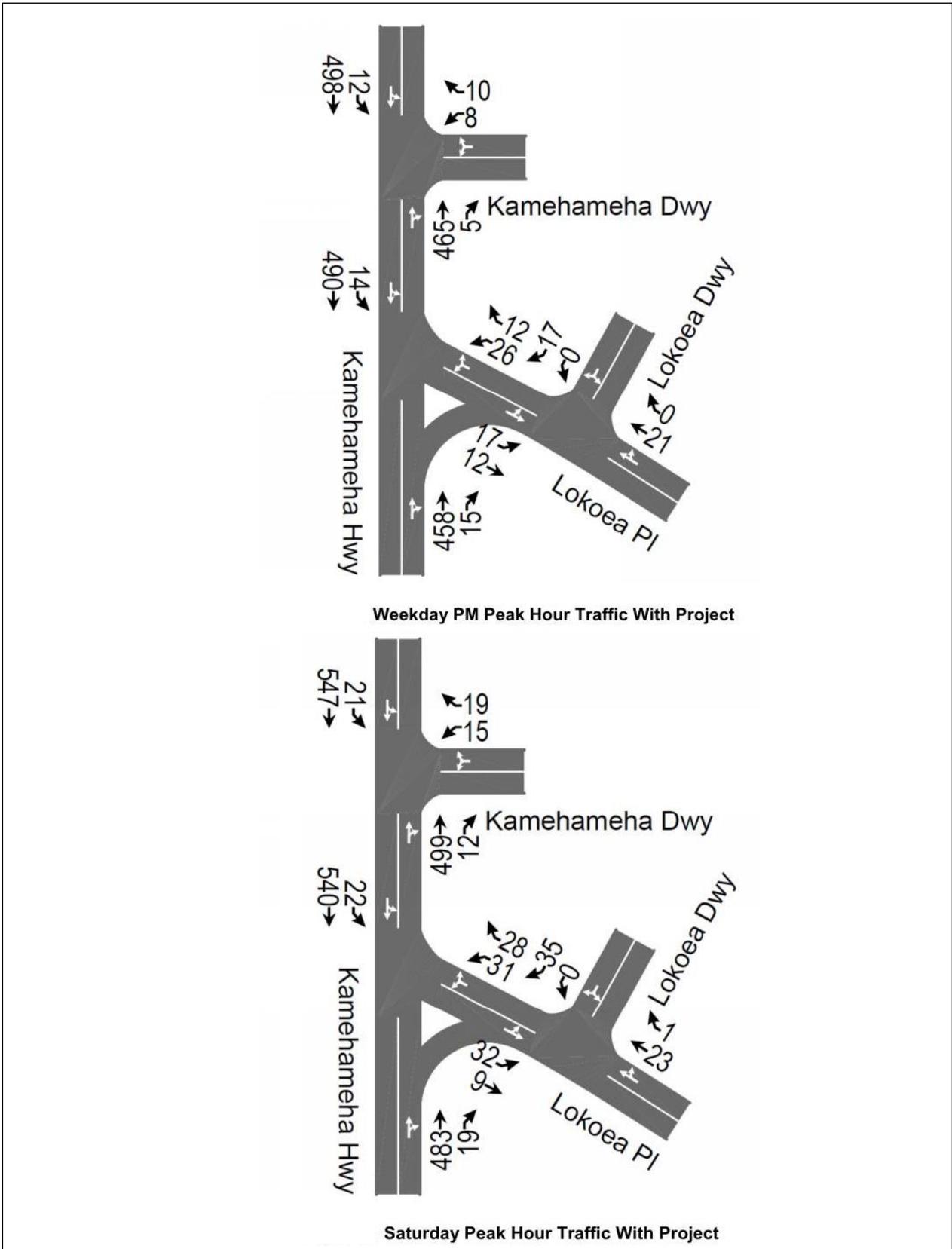


Figure 3-7
Year 2017 Peak Hour of Traffic With Project

THE SHOPS AT ANAHULU

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Parking

The project site is currently vacant. There is no existing parking or loading stalls on the site. The construction of the project will require new on-site parking. Article 6 of the LUO establishes off-street parking and loading requirements for developments. Off-street parking requirements for retail establishments are one space per 400 sf and off-street loading requirements are one space for 2,000-10,000 sf for floor area. The project will result in approximately 5,200 sf of retail floor area. Therefore, the project will require a total of 13 parking stalls and one loading stall per parking requirements established in the LUO. The project will provide 23 parking stalls and one loading stall to meet these requirements. Parking will be provided at the rear of the site behind the new retail facility. Refer to Figure 2-2 (Site Plan).

Recommendations

Traffic operations in the vicinity of the proposed project are expected to remain similar to existing and without project conditions. As such, with the implementation of the mitigation measures listed below, the proposed redevelopment project is not expected to have a significant impact on traffic operations, and will enhance pedestrian safety in the project vicinity.

Mitigation measures considered for the project include:

- Constructing site access driveways as far from the intersection of Kamehameha Highway and Lokoea Place as feasible.
- Improving site frontages on Kamehameha Highway and Lokoea Place to include curbs, gutters, and sidewalks.
- Channelizing the intersection of Kamehameha Highway and Lokoea Place, including a pedestrian island on the southeast corner of the intersection and/or reducing the radius of the pavement return on the northeast corner of the intersection. Doing so will improve pedestrian safety.
- Striping all legs of crosswalks of the intersection of Kamehameha Highway and Lokoea Place.

On January 22, 2016, a meeting was held to address highway frontage and intersection conditions. The meeting included the project team and representatives from the Department of Transportation Services, DPP-Traffic Review Branch, DPP Subdivision Branch and The Bus. A preliminary concept for intersection improvements was developed to reflect the agency guidance, as shown in Figure 3-8. The preliminary concept for intersection improvements will be further reviewed in the Hale'iwa Special District Permit application and subsequent site development permit reviews.

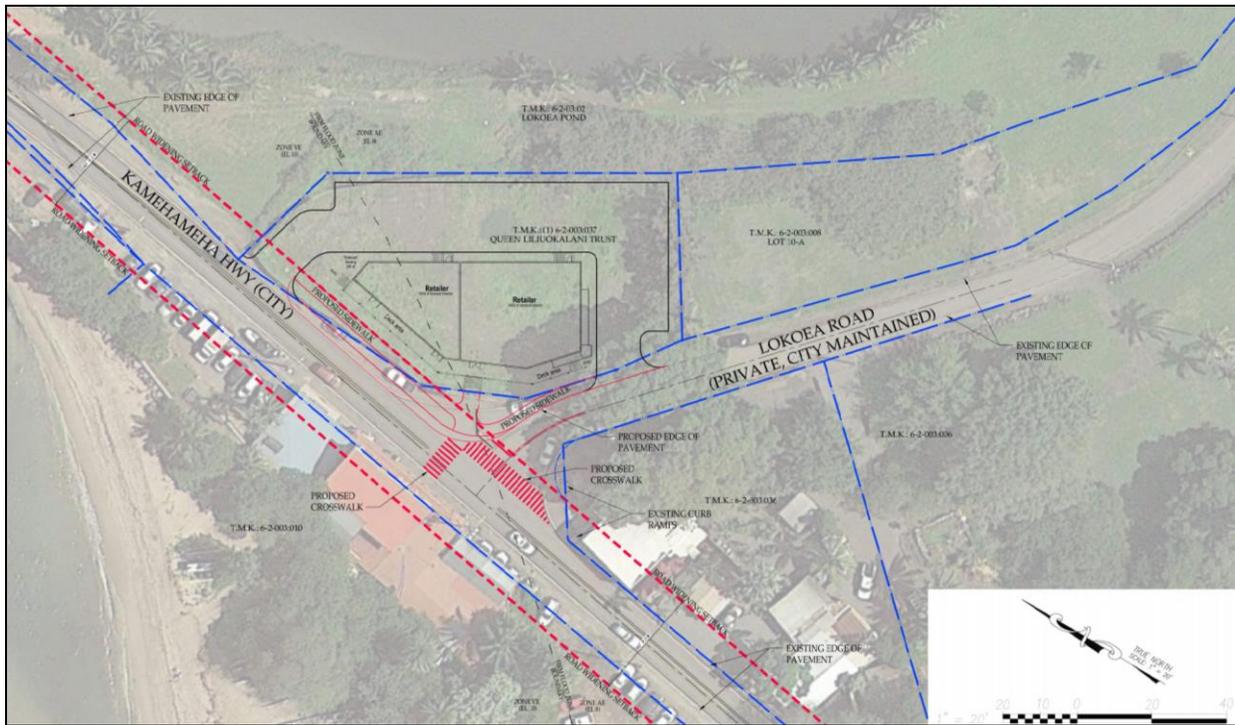


Figure 3-8 Preliminary Concept for Intersection Improvements (January 2016)

3.12 AIR QUALITY

Existing Conditions

As required by the Clean Air Act (last amended in 1990), the U.S. Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) to protect public health and welfare and prevent the significant deterioration of air quality. These standards cover seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), particulate matter smaller than 10 microns (PM₁₀), particulate matter smaller than 2.5 microns (PM_{2.5}), sulfur oxides (SO_x), and lead. The DOH, Clean Air Branch (CAB) has also established State Ambient Air Quality Standards (SAAQS) for six of these air pollutants to regulate air quality statewide. The SAAQS for carbon monoxide and nitrogen dioxide are more stringent than NAAQS. Hawai'i also has a stringent standard for hydrogen sulfide, which is a common odorous pollutant associated with wastewater treatment facilities.

The DOH, CAB regularly samples ambient air quality at monitoring stations throughout the State and annually publishes this information. On O'ahu, there are six monitoring stations. Currently, no monitoring station exists on the North Shore of O'ahu. The DOH Air Monitoring Station nearest Hale'iwa is located in the Kapolei Business Park at 2050 Lauwiliwili Street. This station was established to monitor SO₂, CO, NO₂, PM₁₀ and PM_{2.5}.

In Hawai'i, both Federal and State environmental health standards pertaining to outdoor air quality are generally met due to prevalent trade winds and the absence of major stationary sources of pollutant emissions. The relative absence of stationary pollutant sources in the area keep air quality in the project area at levels well within the air quality standards. Present air quality in the project area is mostly affected by air pollutants from motor vehicles traversing through the area.

Anticipated Impacts and Mitigation Measures

Construction

Two types of short-term air quality impacts will result from the proposed construction project at the site: 1) fugitive dust generation dust from vehicle movement and soil excavation and 2) on-site/off-site emissions from moving construction equipment and commuting construction workers. Air quality monitoring will be implemented to ensure compliance with NAAQS and SAAQS.

State of Hawai'i Air Pollution Control regulations prohibit visible emissions of fugitive dust from construction activities at the property line. A dust control program will be implemented to control dust from construction activities. Fugitive dust emission will be controlled through the mitigation measures such as watering active work areas, using wind screens, keeping adjacent paved roads clean, covering open-bodied trucks and limiting the area to be disturbed at any given time.

Operations

The redevelopment project may result in additional vehicular traffic to the area. The project is located along an existing route of Kamehameha Highway that patrons would be traveling to access the Historic Hale'iwa Town. Therefore, it is likely that most of customers would be traveling through the area with or without the redevelopment. The slight increase in vehicular traffic is not anticipated to affect ambient air quality in the project area.

Federal air pollution control regulations require that new motor vehicles be equipped with emission control devices that significantly reduce emissions compared to a few years ago. Past and recent Federal legislation have added restrictions on emissions for new motor vehicles. Average emission rates are anticipated to decrease as older vehicles are replaced over time.

Long-term impacts on air quality in the project area due to vehicle emissions are anticipated to be negligible.

3.13 NOISE

Existing Conditions

Title 11, Chapter 46, of the HAR defines maximum permissible sound levels which are intended to protect, control, and abate noise pollution from stationary sources and construction, industrial, and agricultural equipment. As detailed below, maximum permissible sound levels in various zoning districts are set for excessive noise sources during the day (7 am to 10 pm) and night (10 pm to 7 am) at the property line where the activity occurs.

- Class A - Residential, conservation, preservation, public space, open space, or similar type zones – 55 decibel (dBA) (day), 45 dBA (night)
- Class B - Multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type zones – 60 dBA (day), 50 dBA (night)
- Class C - Agriculture, country, industrial, or similar type zones – 70 dBA (day), 70 dBA (night)

The primary noise sources in the area are related to vehicle traffic and commercial activities. Kamehameha Highway is the most significant source of manmade noise in the project area. Noise levels at the site and surrounding area are generally quiet due to the rural country-town uses for single family residential and small-scale commercial activities.

Anticipated Impacts and Mitigation Measures

Typical construction activity noise will likely be generated during the project construction period. Construction activities will comply with the provisions of the regulation for community noise control (Chapter 11-46 Community Noise Control, HAR). Noise levels associated with construction equipment typically range from 80 to 95 dBA at 50 feet from the source. Mitigation measures will be implemented to minimize construction noise impacts. These measures include limiting work to daytime hours and reducing truck/equipment idling when not in use.

The operations of the new retail center will incur some additional vehicular traffic to the property. The project is located along an existing route of Kamehameha Highway, and patrons would likely be traveling to the area with or without the project. Vehicular traffic may contribute to existing noise levels; however these impacts are not expected to be noticeable. Impacts to noise sensitive areas are not expected to occur, since the redevelopment is located away from residences and schools.

3.14 SOCIOECONOMIC CONDITIONS

Existing Conditions

The project site is located near the coastal lowlands and popular North Shore beaches. Located just north of the Historic Hale'iwa Town, Hale'iwa town serves as the main commercial center of the area. The North Shore has a small population of approximately 17,724 people and approximately 6,677 housing units. In Hale'iwa, the total population is 3,970 with 1,191 households which was approximately 0.4% of O'ahu's total population (953,207). Hale'iwa's population compared to the O'ahu, is generally younger with a median age of 37.9 years and a racial mix with proportionately more Asians and Caucasians. Slightly more than half (634) of the housing units are owner-occupied with an average household size of 3.62 persons per home. The median household income for Hale'iwa is \$74,384.

The North Shore Chamber of Commerce notes that visitor studies indicate that the North Shore's permanent residents (in Waialua and Hale'iwa) share their area with an estimated average of 6,731 visitors on any given day. Surveys done by the State of Hawai'i Department of Business, Economic Development and Tourism in 2003 and 2005, show that 51% of all visitors to O'ahu visit the North Shore. This equates to 2,423,446 visitors per year, which increases the population of the area by 43%.

Anticipated Impacts and Mitigation Measures

No impacts on the population and housing inventory in Hale'iwa are anticipated to occur as a result of the proposed project. The project does not involve any residential uses.

The Shops at Anahulu project will provide retail goods and services to both local residents and visitors. The project will provide a new retail space that will help to encourage visitor spending and support the visitor industry. Construction of facilities will generate employment and consequent income and taxes. Additionally, the project is expected to support long-term impacts, including additional consumer expenditures, employment opportunities, personal income, and government revenue enhancement.

The new retail center will help contribute to Hale'iwa's impact on the gross state product and will support Hale'iwa as an important tourist destination in the State.

3.15 PUBLIC FACILITIES AND SERVICES

3.15.1 Police Protection

Existing Conditions

The Hale'iwa region is under the protection of the City and County of Honolulu, Police Department (HPD). The area is part of HPD District 2 (Wahiawā/North Shore), which is located in central O'ahu and is bounded by Kipapa Gulch and Waiāhole Stream on the south, the Wai'anae mountains on the west, the Ko'olau mountains on the east, and the shoreline from Ka'ena Point through Sunset Beach on the north. The district includes the communities of Mililani, Kunia, Wahiawā, Whitmore, Waialua, Hale'iwa, Waimea, and Sunset Beach. Within the district are several military installations, including Wheeler Army Air Field, Kunia Communications Center, Schofield Barracks, U.S. Navy Communications Center, and U.S. Army at Helemano.

Anticipated Impacts and Mitigation Measures

This project will not impact the police department's operations or ability to provide adequate protection services to the surrounding community. The District 2 police protection should be adequate for the proposed project operations. No adverse impacts or mitigation is proposed.

3.15.2 Fire Protection

Existing Conditions

The North Shore region is served by three fire stations of the Honolulu Fire Department (HFD), which include:

- Station 13: The Kahuku Fire Station is located at 56-460 Kamehameha Hwy in Kahuku.
- Station 14: The Waialua Fire Station is located at 66-420 Hale'iwa Road in Hale'iwa.
- Station 16: The Wahiawā Fire Station is located at 40 California Avenue in Wahiawā.

Station 14 is located closest to the project site, approximately 0.9 miles away.

Anticipated Impacts and Mitigation Measures

This project is not expected impact HFD's operations or ability to provide fire protection services to the project areas and surrounding areas. The project will be designed to meet fire and building code requirements.

3.15.3 Hospital Services

Existing Conditions

Wahiawā General Hospital is located at 128 Lehua Street in Wahiawā. This hospital is located approximately 8.24 miles from the project site. Kahuku Hospital is located approximately 11.25 miles from the project site at 56-117 Pualalea Street in Kahuku.

Anticipated Impacts and Mitigation Measures

The proposed project will not impact the handling of EMS or medical emergencies. No mitigation is proposed.

3.15.4 Schools

Existing Conditions

Educational facilities located near the project site include:

- Sunset Beach Elementary School is located at 59-360 Kamehameha Highway is approximately 6.5 miles away from the project site.
- Sunset Beach Christian School located at 59-578 Kamehameha Highway is approximately 5.7 miles away from the project site.
- Hale'iwa Elementary School is located at 67-020 Waialua Beach Road is approximately 1.0 mile away from the project site.
- Waialua High and Intermediate School is located 67-160 Farrington Highway is approximately 3.1 miles away from the project site.

Anticipated Impacts and Mitigation Measures

The project is not expected to affect existing educational facilities near the project site. No mitigation is proposed.

3.15.5 Libraries

Existing Conditions

The library closest to the project site is Waialua Public Library located at 67-068 Kealohanui Street in Waialua. The library is approximately 2.5 miles from the project site.

Anticipated Impacts and Mitigation Measures

The project is not expected to affect existing library facilities near the project site. No mitigation is proposed.

3.15.6 Public Parks

Existing Conditions

Public parks provide open space and a natural outdoor environment for both residents of Hawai'i and tourists to enjoy. The following public parks are located near the project area: Hale'iwa Beach Park, Hale'iwa Ali'i Beach Park, Kaiaka Bay Beach Park and Pua'ena Point Beach Park.

Anticipated Impacts and Mitigation Measures

The proposed project will not affect existing public park facilities, therefore, no mitigation is recommended.

3.15.7 Solid Waste

Existing Conditions

The project site is currently vacant, therefore there is no solid waste disposal currently required for the project site.

Anticipated Impacts and Mitigation Measures

The new retail center will generate solid waste with the general construction and operation of the project. During construction, solid waste will be hauled away by a private contractor. During

operations, solid waste generated from the project will be disposed of by a private disposal service. Reuse and recycling will be implemented on site to the extent practicable.

The waste will be hauled to the City and County of Honolulu's H-Power Plant and its Waimānalo Gulch landfill, as well as various recycling facilities.

3.15.8 Public Transit Service: TheBus

Existing Conditions

The project site is located near a transit route operated by the City and County of Honolulu, Department of Transportation Services (DTS). The site is serviced by Route 52 and Route 88A. The closest bus stops are located at Kamehameha Highway/Lokoea Place (100 ft.), Kamehameha Highway/Opp Hale'iwa Road (0.1 mi.), and Kamehameha Highway/Opp Hale'iwa Beach Park (0.3 mi.)

Anticipated Impacts and Mitigation Measures

During construction of the new retail center, there will be no impacts to existing bus stops. If necessary, coordination with DTS will be carried out prior to construction. For operations, the project will not significantly impact the overall weekday and weekend ridership of the area.

3.16 VIEW PLANES, CORRIDORS AND VISUAL RESOURCES

Existing Conditions

Within the objectives of the City and County of Honolulu's LUO, there is an emphasis placed upon maintaining and improving significant public views and resources. The LUO also identifies significant public views within the HSD.

- Views of Mount Ka'ala, the Wai'anae Range, Loko Ea Pond and Waialua Bay from Kamehameha Highway.
- Views of Anahulu Stream from Kamehameha Highway, at the old arched Anahulu ("Hale'iwa") Bridge.
- Views of Paukauila Stream, with landscaped buffer material, from Kamehameha Highway.
- Views of other significant features makai of Kamehameha Highway (*Figure 3-98*)

The project is located on the mauka side of Kamehameha Highway. The visual landscape is defined as a rural environment with small commercial establishments that is complemented by open makai views. Views toward the ocean along Kamehameha Highway from the public viewpoints of the roadway and sidewalk at the project site are obstructed by the makai side Surf N Sea building.

Anticipated Impacts and Mitigation Measures

The redevelopment project will include a new retail facility revitalized to fit within the surrounding area. The design will meet objectives of the HSD and will maintain the existing rural, low-rise, human-scale form and character. The project will add to the rural plantation town character and will strengthen the existing gateway to North Shore's Historic Hale'iwa Town. The site will also be integrated with new landscaping components to complement the new facility

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located along Kamehameha Highway. New public scenic views will result from the project site; including views of Loko Ea fishpond and the ocean across the highway.

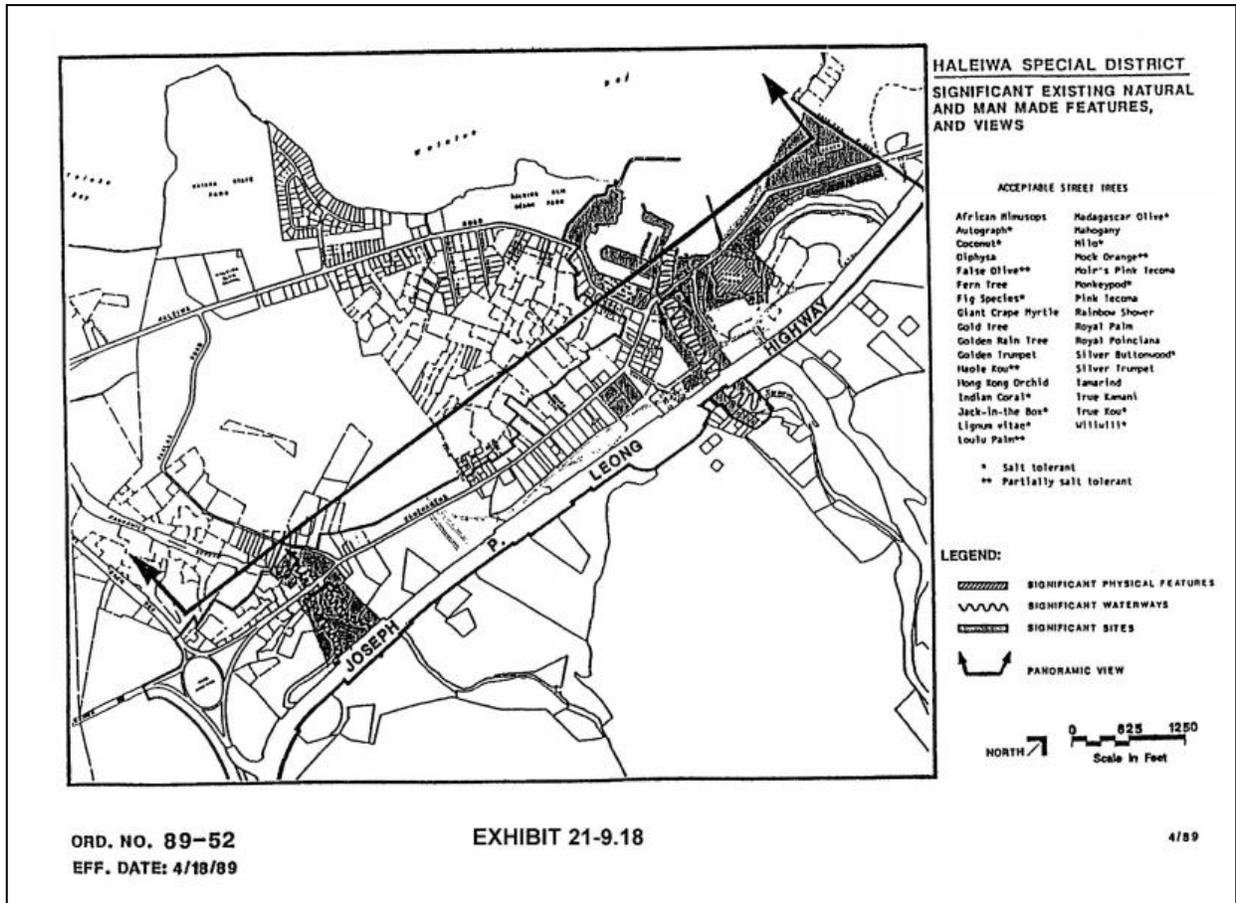


Figure 3-98
Hale'iwa Special District Significant Views

An existing view study was performed for the project. The project site is located in Hale'iwa, and is bounded by Kamehameha Highway to the north and west, Lokoea Place and a vacant residential lot to the south, and Loko Ea Pond to the east. The existing Volcom shop is located beyond Lokoea Place to the south and the existing Surf N Sea shop is located directly across of Kamehameha Highway from the project site. *Figure 3-109* provides an aerial perspective of the general area. The site is situated in a rural setting of vacant land, open waters and small business establishments. *Figure 3-110A* through *Figure 3-110F* provides the following view analysis:

- View from Kamehameha Highway looking northeast towards the project site.
- View from Kamehameha Highway looking south toward the project site.
- View from Kamehameha Highway looking east towards the project site.
- View from the northern portion of the site looking south towards Kamehameha Highway.
- View from southwest portion of the project site looking north.

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F. View from Lokoea Place looking northwest towards the project site.

Significant public views will not be affected by the project. The project is located on the mauka side of Kamehameha Highway and will not affect existing views towards Anahulu River or Anahulu Stream, or views towards the ocean (Waialua Bay). Although the project will be developed adjacent to Loko Ea Pond, views towards the pond will continue to be provided, with scenic vistas to the north. This new retail area will alter the rural landscape of the property; however this revitalized retail space will be primarily discernable from Kamehameha Highway and Lokoea Place, and existing retail shops in the area. The project will blend with the surrounding rural plantation-scape and be designed appropriately in its orientation, scale, height, form, and design. The building will be 25 ft. tall despite a height allowance for up to 30 ft. Night lighting will be sensitive to the setting and comply with downlighting design requirements.

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Figure 3-109
Site Photo Key

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Figure 3-110A View from Kamehameha Highway looking northeast towards the project site.



Figure 3-110B View from Kamehameha Highway looking south toward the project site.



Figure 3-110C View from Kamehameha Highway looking east towards the project site.



Figure 3-110D View from the northern portion of the site looking south towards Kamehameha Highway.

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Figure 3-110E View from southwest portion of the project site looking north.



Figure 3-110F View from Lokoea Place looking northwest towards the project site.

3.17 SHORT TERM IMPACTS

Development of the project improvements will create local short-term construction-related impacts on the environment. Potential short-term impacts evaluated as part of this EA include dust and air quality impacts, traffic in the project's vicinity due to construction equipment and trucks, and increased noise due to the construction-related operations. Potential drainage and runoff issues related to construction will be carefully managed.

The impact of construction activity on air quality will be mitigated by conforming to dust control measure specified in the DOH Ambient Air Quality Standards, Chapter 11-59, HAR. Temporary noise impacts may occur during construction activities within the area. The incorporation of State DOH construction noise limits and curfew times, including limiting work to daytime hours and reducing truck/equipment idling when not in use, will be implemented.

Short-term construction related impacts to existing traffic will be addressed to minimize conflicts with traffic along surrounding roadways during construction activities. Plans to mitigate the construction period traffic impacts include off-peak movement of equipment and materials to minimize the disruption to traffic flow, bicyclists, and pedestrians.

Since the redevelopment of the existing site was once used as a gas station, existing drainage patterns will not be changed. Construction of the project will require nominal grading and moderate excavation activities. The project will incorporate a BMPs Plan into the Construction Drawings.

3.18 POTENTIAL CUMULATIVE AND SECONDARY IMPACTS

Cumulative effects are impacts which result from the incremental effects of an activity when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or entity undertake such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The Shops at Anahulu project is not anticipated to generate substantial cumulative impacts. The project is not located adjacent to residential areas. Improvement of this area of will dramatically improve the site of the former gas station, and improve Hale'iwa for residents and visitors. The site was formerly developed as a gas station and subsequently remediated. The project will revitalize this site and this portion of Historic Hale'iwa Town.

Construction activity during the proposed project will generate direct employment as well as indirect and induced employment in construction-related industries. In the long-term, the operations of the project will support approximately 20 part-time and full-time jobs. The project expected to cost approximately \$3.1 million.

Secondary effects are impacts that are associated with, but do not result directly from, an activity. The environmental analysis of the project addresses full development of the facility in the context of known planned approved land uses in the vicinity. Significant secondary impacts or induced population growth is not anticipated in association with the project.

Section 4.0

ALTERNATIVES TO THE PROPOSED PROJECT

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

This Draft EA evaluates alternatives to the proposed project described in *Section 2.0*. The following provides discussion of alternatives to the redevelopment project.

4.1 ALTERNATIVE A – NO-ACTION

The No-Action Alternative is the baseline against which other alternatives are measured. “No Action” refers to the future site and program conditions that would likely result should the redevelopment project not proceed.

The No-Action Alternative would keep the site vacant and undeveloped, with no change to the property. The existing environmental conditions at the site would remain unchanged. Construction of The Shops at Anahulu project would not occur and the desire of the applicant to redevelop the site into a revitalized commercial area would not be accomplished. Under the No-Action Alternative, the site would remain as a vacant remediated piece of land with silt fencing along the boundary. In the long-term, the property may continue to remain vacant with overgrown vegetation and will not be a place for residents or visitors of the Hale’iwa area to enjoy.

The No-Action Alternative would prevent The Shops at Anahulu project from community revitalization and pedestrian walkways in Historic Hale’iwa Town. The positive benefits associated with the Hale’iwa Special District (HSD) rural plantation design elements of the project will not be made available. The No-Action Alternative will also forego the opportunity to enhance the visitor and resident experience in Hale’iwa and create short-term and long-term economic and social benefits from increased employment and tax revenues.

4.2 ALTERNATIVE B – ALTERNATIVE LOCATION

The applicant is currently leasing the site from the Queen Lili’uokalani Trust. It is the desire of the applicant and the Queen Lili’uokalani Trust to revitalize and redevelop this commercial property. The proposed action is a long-term purposeful redevelopment of a former commercial space that will complement other retail establishments in the Hale’iwa area. The project will not only bring added value to the immediate property, but also improve the Historic Hale’iwa Town retail shopping experience. Given this objective, redevelopment of alternative sites was not considered for the project.

4.3 ALTERNATIVE C – CULTURAL PARK

The alternative use of the site as a cultural park with community use would develop the site with an information/learning center for the public to gain knowledge about the cultural history of Loko Ea pond. A proper cultural facility would include buildings and exhibits for the educational functions, with supporting elements for parking area, restrooms, landscaping, electrical service, water supply and wastewater management system. This type of not-for-profit use of the commercial zoned property was proposed in the Haleiwa Town Plan (1991).

Depending upon the scope of cultural park facilities, the potential environmental impacts would also be within a similar range as The Shops at Anahulu. The cultural park would require grading

for the building and parking stalls. Traffic considerations would also apply for people accessing the facility. There would be similar infrastructure demands to accommodate visitors to the park, such as wastewater management.

Less intensive options for cultural/park use would always be possible at this location, providing less educational venues and support elements. The property is commercially zoned, and owned by a private operating foundation, the Queen Lili'uokalani Trust (QLT). QLT is a legacy trust which derives revenues from leasing their commercial properties to fund their mission to serve orphaned and destitute children with preference to Native Hawaiian children. Given the objective of the project to bring added economic value and lease revenues to the immediate property, this alternative was not considered further. QLT is not entertaining sale of this property at this time.

4.4 ALTERNATIVE D – MAXIMUM COMMERCIAL DEVELOPMENT UNDER LUO ALLOWANCE

The project area is currently zoned Neighborhood Business District (B-1) by the City and County of Honolulu and is designated as Country Town under the North Shore Sustainable Communities Plan. Under the B-1 zoning of the LUO, the project would be allowed to have a maximum density or Floor Area Ratio (FAR) of 1.0. Since the project parcel is 0.512 acres, this FAR would allow a commercial development of approximately 22,284 sf of gross floor area for the project. While having a commercial facility of this size for the project would meet the needs of visitors and local residents, the development may exceed market demand for retail space at this location, and may not yield a positive economic return on investment. Under this alternative, the building would have to be two stories tall to accommodate parking for the site. Having a building of this size and scale at this location along Kamehameha Highway would be less compatible with the design objectives of the HSD and existing rural plantation, low-rise, human scaled form and character of the surrounding area.

Under the Maximum Commercial Redevelopment Alternative, development of the parcel would be maximized and would create more significant traffic impacts, construction and site development impacts, a higher demand on public infrastructure and impacts to environmental features on the property. For these reasons, this alternative is dismissed from further consideration.

Section 5.0

APPLICABLE LAND USE PLANS AND POLICIES

5.0 APPLICABLE LAND USE PLANS AND POLICIES

In this chapter, the project's consistency with applicable land use policies set forth in the Hawai'i State Plan, State Land Use Law, State Coastal Zone Management (CZM) Program, State 2050 Sustainability Plan, City and County of Honolulu General Plan, North Shore Sustainable Communities Plan, Land Use Ordinance (LUO), Hale'iwa Special District (HSD), and Special Management Area (SMA) are discussed.

5.1 HAWAII STATE PLAN

The Hawai'i State Plan establishes a statewide planning system that provides goals, objectives, and policies that detail priority directions and concerns of the State of Hawai'i; these will be discussed as they relate to the proposed project.

It is the goal of the State, under the Hawai'i State Planning Act (Chapter 226, Hawai'i Revised Statutes (HRS)), to achieve the following:

- A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i present and future generations.
- A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
- Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life (Chapter 226-4, HRS).

Specific objectives and policies of the State Plan that pertain to the project are as follows:

Section 226-6 Objective and policies for the economy - in general.

- (A) Planning for the State's economy in general shall be directed towards achievement of the following objectives:
- (1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai'i's people.

Discussion

Project operations will support approximately 20 jobs for construction of the project and approximately 20 jobs for operations. The Shops at Anahulu project will help to support Hale'iwa Town as a significant asset to the State. The project will provide a revitalized retail area that will encourage visitor spending and support the visitor industry.

Section 226-8 Objective and policies for the economy - visitor industry.

- (A) Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawai'i's economy.

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- (B) To achieve the visitor industry objective, it shall be the policy of this State to:
 - (2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.
 - (3) Improve the quality of existing visitor destination areas.
 - (5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai'i's people.
 - (7) Foster a recognition of the contribution of the visitor industry to Hawai'i's economy and the need to perpetuate the aloha spirit.
 - (8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai'i's cultures and values.

Discussion

The project will support and promote the ongoing improvement and transformation of Hale'iwa Town. Project improvements will help to attract visitors to the area and benefit the nearby shops and restaurants with increased spending.

Section 226-11 Objectives and Policies for the Physical Environment - Land-based, Shoreline, and Marine Resources.

- (A) Planning for the State's physical environment with regard to land-based, shoreline and marine resources shall be directed towards achievement of the following objectives:
 - (1) Prudent use of Hawai'i's land-based, shoreline, and marine resources.
 - (2) Effective protection of Hawai'i's unique and fragile environmental resources.
- (B) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:
 - (1) Exercise an overall conservation ethic in the use of Hawai'i's natural resources.
 - (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.
 - (3) Take into account the physical attributes of areas when planning and designing activities and facilities.
 - (6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.
 - (8) Pursue compatible relationships among activities, facilities and natural resources.

Discussion:

The redevelopment is compatible to existing uses and relationships between the rural built environment and nearby shoreline. Best management practices will ensure that ocean water quality and the marine environment will be protected during project construction and operations.

Section 226-12 Objective and Policies for the Physical Environment - Scenic, Natural Beauty, and Historic Resources.

- (A) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.
- (B) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:
 - (1) Promote the preservation and restoration of significant natural and historic resources.

- (3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.
- (5) Encourage the design of developments and activities that complement the natural beauty of the islands.

Discussion:

The project will be designed to complement the natural beauty of Hawai'i. Existing views will not be adversely impacted as a result of the project. The development of the new retail center will enhance the character of the area and existing views from Kamehameha Highway, and will not impact views towards the ocean. Historic resources have been documented in an AIS and CIA conducted for the project. Refer to *Section 3.6 and 3.7*.

Section 226-13 Objective and Policies for the Physical Environment – Land, Air and Water Quality.

- (A) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:
 - (1) Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.
- (B) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:
 - (2) Promote the proper management of Hawai'i's land and water resources.
 - (3) Promote effective measures to achieve desired quality in Hawai'i's surface, ground and coastal waters.
 - (4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai'i's people.
 - (5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.
 - (6) Encourage design and construction practices that enhance the physical qualities of Hawai'i's communities.

Discussion:

The project will be designed to fit appropriately within the surrounding environment. Although the acoustic environment and surrounding air quality may be experience small impacts during construction, best management practices and regulatory controls will ensure aural and air quality levels are within acceptable regulatory limits on-site and within the immediate area. The site is located within the tsunami evacuation zone and within the FEMA flood Zone AE and VE.

Section 226-15 Objectives and Policies for Facility Systems - Solid and Liquid Wastes.

- (A) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:
 - (1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.
 - (2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.

- (B) To achieve solid and liquid waste objectives, it shall be the policy of this State to:
 - (2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.

Discussion:

Solid waste and wastewater disposal systems will be designed to minimize impacts on existing solid and liquid waste facilities. The project will have a materials recycling program to minimize solid waste.

Section 226-16 Objective and Policies for Facility Systems - Water.

- (A) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.
- (B) To achieve the facility systems water objective, it shall be the policy of this State to:
 - (1) Coordinate development of land use activities with existing and potential water supply.

Discussion:

The Board of Water Supply (BWS) has determined that its existing water system is adequate to accommodate and supply project demand.

Section 226-103 Economic Priority Guidelines.

- (A) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i's people and achieve a stable and diversified economy:
 - (1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.
 - (a) Encourage investments which:
 - (ii) Rely on economic linkages within the local economy;
 - (v) Are sensitive to community needs and priorities;
- (B) Priority guidelines to promote the economic health and quality of the visitor industry:
 - (5) Develop and maintain career opportunities in the visitor industry for Hawai'i's people, with emphasis on managerial positions.

Discussion:

The Shops at Anahulu retail center will enhance the quality of the visitor experience to Hale'iwa Town and the North Shore and will have a positive effect on the State's economy. Economic benefits will result from increased employment and spending.

Section 226-108 Sustainability Guidelines.

- (A) Encouraging balanced economic, social, community, and environmental priorities;
- (B) Encouraging planning that respects and promotes living within the natural resources and limits of the State;
- (C) Promoting a diversified and dynamic economy;
- (D) Encouraging respect for the host culture.

Discussion:

The project will provide a balance of economic, social, community and environmental priorities. Natural resources are considered and evaluated as part of the project design and environmental review process. The project will fit with the existing character of the surrounding Historic Hale'iwa Town and will promote the design objectives of the host culture and HSD. This new retail center will help promote a dynamic economy in Hale'iwa.

5.2 HAWAI'I STATE LAND USE DISTRICT BOUNDARIES

Under the Chapter 205, HRS, all lands of the State are to be classified in one of four categories: urban, rural, agricultural, and conservation lands. The State Land Use Commission (LUC), an agency of the State Department of Business, Economic Development and Tourism (DBEDT), is responsible for each district's standards and for determining the boundaries of each district (Chapter 205-2(a), HRS). The LUC is also responsible for administering all requests for district reclassifications and/or amendments to district boundaries, pursuant to Chapter 205-4, HRS, and the Hawai'i Administrative Rules (HAR), Title 15, Chapter 15 as amended. Under this Chapter, all lands in Hawai'i are classified into four land use districts: (1) Conservation, (2) Agricultural; (3) Urban, and (4) Rural.

The Urban District generally includes lands characterized by "city-like" concentrations of people, structures and services. This District also includes vacant areas for future development. Jurisdiction of this district lies primarily with the respective counties. Generally, lot sizes and uses permitted in the district area are established by the respective County through ordinances or rules.

Discussion

As classified by the State of Hawai'i LUC, the project site is situated within the State Urban District (*Figure 1-3*). The proposed use within this property is consistent with permitted uses for the Urban District, and will not require district reclassification or boundary amendment.

5.3 HAWAI'I COASTAL ZONE MANAGEMENT

The CZM Act of 1972 (16 United States Code (USC), Section 1451), as amended through Public Law 104-150, created the coastal management program and the National Estuarine Research Reserve system. The coastal states are authorized to develop and implement a State coastal zone management program. The Hawai'i CZM Program received Federal approval in the late 1970's. The objectives of the CZM Program, as defined in Section 205A-2, HRS, are to protect valuable and vulnerable coastal resources such as coastal ecosystems, special scenic and cultural values and recreational opportunities. The objectives of the program are also to reduce coastal hazards and to improve the review process for activities proposed within the coastal zone. Each County is responsible for designating a SMA that extends inland from the shoreline. Development within the SMA is subject to County approval to ensure the project is consistent with the policies and objectives of the Hawai'i CZM Program.

The project area is located within the SMA as delineated by the City and County of Honolulu, therefore the relationship of the project to applicable State CZM objectives and policies is discussed below. State CZM objectives and policies address the following 10 subject areas: (1) recreational resources, (2) historic resources, (3) scenic and open space resources, (4) coastal ecosystems, (5) economic uses, (6) coastal hazards, (7) managing development, (8) public

participation, (9) beach protection, and (10) marine resources. Virtually all relate to potential development impacts on the shoreline, near shore, and ocean area environments.

(1) Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

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

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

- (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
- (ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
- (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
- (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
- (v) Ensuring public recreational uses of county, state and federally-owned or controlled shoreline lands having recreational value consistent with public safety standards and conservation of natural resources.
- (vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect
- (vii) Developing new shoreline recreational opportunities
- (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6.

Discussion

The project would have no impact on coordination and funding of coastal recreation planning and management.

While the project site is located near Loko Ea Pond, it will not directly provide for or directly affect coastal recreation and access to the public. No coastal resources of significant value, such as surf sites or sandy beaches will be impacted by this project. Also, no shoreline improvements are proposed, such as artificial reefs or beaches.

The project will be constructed and operated in accordance with State and federal water quality regulations. Infrastructure for storm water and sewer management systems will be constructed to meet applicable standards. There will be no discharge points into coastal waters.

(2) Historic Resources

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

Policy (A) Identify and analyze significant archaeological resources;

Policy (B) Maximize information retention through preservation of remains and artifacts or salvage operations; and

Policy (C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Discussion

The project supports the CZM historic resources objective and policies to protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the CZM area that are significant in Hawaiian and American history and culture. An AA and CIA were performed for the project site (*Appendix B and Appendix C*). The project does not involve any known loss or destruction of existing natural, cultural, archeological or historical resources.

(3) Scenic and Open Space Resources

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

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

Policy (B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

Policy (C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

Policy (D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion

As described in *Section 3.16*, the project will not affect vistas and scenic resources. While the project is located near Loko Ea Pond, it will not impact valued scenic resources in the CZM area. The project is consistent with the County General Plan, North Shore Sustainable SCP, and Zoning regulations. The project will blend with the surrounding character of the area and be designed appropriately in their orientation, scale, height, form, and design. The project will meet appropriate development standards noted in the LUO.

(4) Coastal Ecosystems

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

Policy (A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

Policy (B) Improve the technical basis for natural resource management;

Policy (C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

Policy (D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

Policy (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and non-point source water pollution control measures.

Discussion

The project will not affect coastal ecosystems or natural resource management. Planned improvements for the project located near Loko Ea Pond will be setback according to City development standards. During construction and operation, storm water quality and runoff rates will be attenuated to meet local requirements. As such, onsite detention and/or retention may be incorporated as part of project. Operations will comply with State and Federal water quality standards. The individual wastewater system (IWS) will be designed and operated to maximize effluent quality per DOH standards.

(5) Economic Uses

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

Policy (A) Concentrate coastal dependent development in appropriate areas;

Policy (B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

Policy (C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

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

Discussion

The project is consistent with State and County plans and land regulations. While the project is located near the existing Loko Ea Pond, it is not considered a coastal dependent development. Therefore, the project will not result in any adverse social, visual, and environmental impacts in the CZM area.

(6) Coastal Hazards

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

Policy (A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;

Policy (B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and non-point source pollution hazards;

Policy (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

Policy (D) Prevent coastal flooding from inland projects.

Discussion

The Shops at Anahulu is located in the tsunami evacuation zone and FEMA Flood Zone AE and VE. Most of the site is located within Zone AE or areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. The northern portion of the site is located in Zone VE or areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action.. Mandatory flood insurance purchase requirements and floodplain management standards apply for these flood zones.

Coordination with both State and City & County of Honolulu Civil Defense will be ongoing to ensure the project will be designed in accordance to standards for tsunami preparedness and flood proofing of permitted uses. To prevent ponding or localized flooding resulting from storm run-off, new drainage infrastructure will be constructed to meet applicable standards.

(7) Managing Development

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

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

Discussion

This EA communicates the potential short and long-term impacts of the project on the environment. Procedurally, this EA conforms to Chapter 25 Revised Ordinances of Honolulu and HRS Chapter 343. The OEQC publishes notice of the EA availability for public review. The public is allowed 30-days to submit comments on the EA. During pre-scoping, agencies, organizations and persons were consulted and will continue to be informed throughout the planning process.

There are numerous County and State approvals and permits required.

(8) Public Participation

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

- Policy (A) Promote public involvement in coastal zone management processes;
- Policy (B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and
- Policy (C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion

While the project does not stimulate public awareness, education, or participation in coastal management specifically, it does promote public awareness and education through the environmental review process (HRS Chapter 343) as described above.

(9) Beach Protection

Objective: Protect beaches for public use and recreation.

- Policy (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;
- Policy (B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

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Policy (C) Minimize the construction of public erosion-protection structures seaward of the shoreline;

Policy (D) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and

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

Discussion

The project site is located near the existing Loko Ea Pond and across from Waialua Bay next to Hale'iwa Boat Harbor. However, no structures will be located near the shoreline areas and all structures will be setback according to applicable City development standards. No construction of public erosion-protection structures seaward of the shoreline will occur. The project will not impact public use and recreation of beaches nearest to the site.

(10) Marine Resources

Objective: Implement the State's ocean resources management plan.

Policy (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

Policy (B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

Policy (C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

Policy (D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

Policy (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Discussion

The project will not adversely impact marine and coastal resources. While the new retail center is located near the existing Loko Ea Pond and across from Hale'iwa Boat Harbor, the project will be setback according to City development standards and will not impact the existing shoreline areas. The IWS will be designed and operated to maximize effluent quality per DOH standards. The project will also promote research and understanding particular to ocean development activities and impacts upon ocean and coastal resources.

5.4 2050 SUSTAINABILITY PLAN

The Hawai'i 2050 Sustainability Plan as a long-term strategy has as its main goals and objectives respect for culture, character, beauty, and history of the state's island communities; balance among economic, community, and environmental priorities; and an effort to meet the needs of the present without compromising the ability of future generations to meet their own needs.

The 2050 Plan delineates five goals toward a sustainable Hawai'i accompanied by strategic actions for implementation and indicators to measure success or failure. The goals and strategic actions that are pertinent to the project are as follows.

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Goal Two: Our diversified and globally competitive economy enables us to meaningfully live, work, and play in Hawai'i.

Strategic Actions:

- Support the building blocks for economic stability and sustainability.

Goal Three: Our natural resource are responsibly used, replenished and preserved for future generations.

Strategic Actions:

- Increase recycling, reuse and waste reduction strategies.
- Provide greater protection for air, and land-, fresh water- and ocean-based habitats.

Discussion

The Shops at Anahulu project will enhance the quality of the resident and visitor shopping experience and will have a positive effect on the State's economy. Economic benefits will result in increased employment and increased spending by visitors in Hawai'i, thereby supporting the local economy as well as the visitor industry.

The project will have a materials recycling program to minimize solid waste. The project will encourage a design that promotes protection of air and land, fresh water and ocean based habitats. In addition, the project may include a solar photovoltaic system for renewable energy production. Although the acoustic environment and surrounding air quality may be experience small impacts during construction, best management practices and regulatory controls will ensure aural and air quality levels are within acceptable regulatory limits on-site and within the immediate area.

5.5 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The General Plan of the City and County of Honolulu is a statement of long-range socio-economic, environmental, and design objectives and policies to be achieved for the general prosperity and welfare for the people of the city. It is intended to serve as a guide for all levels of government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens (City and County of Honolulu Revised Charter 2000, Sec. 6-1508). The General Plan consists of eleven subject areas and provides the framework for the City's expression of public policy concerning the needs of the people and the functions of government. The subject areas address all aspects of health, safety, and welfare for O'ahu's communities, and include: population trends and growth, economic activity, the natural environment, housing, transportation and utilities, energy, physical development and urban design, public safety, health and education, culture and recreation, and government operations and fiscal management.

The project is consistent with the applicable objectives and policies of the City and County of Honolulu General Plan described below.

Economic Activity

Objective A: To promote employment opportunities that will enable all the people of O'ahu decent standard of living.

- Policy 1: Encourage the growth and diversification of O'ahu's economic base.
- Policy 2: Encourage the development of small businesses and larger industries which will contribute to the economic and social well-being of O'ahu residents.

Objective B: To maintain the viability of O'ahu's visitor industry.

- Policy 8: Preserve the well-known and widely publicized beauty of O'ahu for visitors as well as residents.
- Policy 9: Encourage the visitor industry to provide a high level of service to visitors.

Objective E: To prevent the occurrence of large-scale unemployment.

- Policy 1: Encourage the training and employment of present residents for currently available and future jobs.

Discussion

The project promotes the ongoing improvement and transformation of Hale'iwa Town for a global audience seeking to visit the famous North Shore of O'ahu. The project will provide a new retail experience that will encourage visitor spending and support the visitor industry. Ongoing operations will support approximately 20 jobs and provide employment opportunities for residents. The project will also generate approximately 20 jobs during the construction period. The Shops at Anahulu project will help to support Hale'iwa as an important asset to the State's tourism industry.

Natural Environment

Objective A: To protect and preserve the natural environment.

- Policy 1: Protect O'ahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.
- Policy 7: Protect the natural environment from damaging levels of air, water, and noise pollution.
- Policy 8: Protect plants, birds, and other animals that are unique to the State of Hawai'i and the Island of O'ahu.

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

- Policy 2: Protect O'ahu's scenic views, especially those seen from highly developed and heavily traveled areas.
- Policy 7: Protect and enhance Hawai'i's shoreline, open spaces, and scenic resources.

Discussion

The applicant supports the protection and preservation of the natural environment including plants, trees, open spaces and shoreline resources. Short-term air quality, noise quality, and drainage issues related to construction activities will be mitigated. Existing views toward the ocean will not be adversely impacted as a result of the project.

Physical Development and Urban Design

Objective D: To maintain those development characteristics in the urban-fringe and rural areas which make them desirable places to live.

- Policy 1: Maintain rural areas which are intended to provide environments supportive of lifestyle choices which are dependent on the availability of land suitable for small to moderate size agricultural pursuits, a relatively open and scenic setting, and/or small town, country atmosphere consisting of communities which are small in size, very low density and low rise in character, and may contain a mixture of uses.

Objective E: To create and maintain attractive, meaningful, and stimulating environments throughout O’ahu.

- Policy 5: Require new developments in stable, established communities and rural areas to be compatible with the existing communities and areas.

Discussion

The project will promote development on a previously developed property located in the HSD. The new retail center is compatible with neighboring properties in the rural Country town setting of the area. The characteristics of design associated with project renovations will complement and align with the existing physical and social setting.

Public Safety

Objective B: To protect the people of O’ahu and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.

- Policy 2: Require all developments in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard.
- Policy 9: Design safe and secure public buildings.

Discussion:

The project will be conducted following required building codes and standards to ensure the security of public health and safety are protected during construction and through day-to-day operations.

Culture and Recreation

Objective B: To protect O’ahu's cultural, historic, architectural, and archaeological resources.

- Policy 3: Cooperate with the State and Federal governments in developing and implementing a comprehensive preservation program for social, cultural, historic, architectural, and archaeological resources.

Discussion:

The applicant respects the multi-ethnic cultures found throughout Hawai’i and the Hale’iwa community and supports the protection of Hawai’i’s cultural, archeological and historic resources. Historic resources have been documented in the AA and CIA conducted for the project. Refer to *Section 3.6 and 3.7*. The project will also incorporate the history and culture of Hawai’i into the architecture and landscaping by incorporating rural plantation town design characteristics of the HSD.

5.6 CITY AND COUNTY OF HONOLULU, NORTH SHORE SUSTAINABLE COMMUNITIES PLAN

The 2010 North Shore Sustainable Communities Plan (SCP) was adopted by the City Council via Ordinance 11-3 in May 2011. According to the 2010 North Shore SCP, the role of the North Shore in O’ahu’s development pattern is to maintain the rural character, agricultural lands, open space, natural environment, recreation resources and scenic beauty of O’ahu’s northern coast. The North Shore SCP proposed land use policies are intended to outline policies for future actions and agency decisions making. General policies are broad statements of intent that express the City’s overall philosophy toward particular land uses. Planning principles and guidelines provide more specific guidance in terms of planning, design and implementation of projects and programs. The following describe areas where the proposed project conforms to policies in the North Shore

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SCP. The proposed project is located within the Country town Area on the North Shore SCP Land Use Map (*Figure 1-5*)

The project is consistent with the applicable objectives and policies of the City and County of Honolulu North Shore SCP as described below.

The **Key Elements** of the vision for the North Shore's future that are applicable to the project are highlighted below:

- Promote Hale'iwa and Waialua Towns as "Country Towns"
- Preserve and Protect Cultural and Historic Resources
- Integrate Principles of Sustainability into Decision Making Processes

Discussion

The Shops at Anahulu project supports Hale'iwa as a Country Town and will contribute to the overall commercial district of the area. Located near the Historic Hale'iwa Town the project will enhance the "main street" ambience for residents and visitors. The new retail center will be designed to reflect the town's distinct historic character and rural landscape, and will be compatible with the existing Hale'iwa business district.

Development of the project will not impact existing cultural or historic resources. Archaeological and cultural studies were performed for the project site (*Appendix B and Appendix C*). The project does not involve any known loss or destruction of existing natural, cultural, archeological or historical resources.

The Shops at Anahulu project supports sustainability and integrates principles where appropriate. The project will not result in adverse impacts to the existing environment, natural resources, flora and fauna, open spaces and view planes at or near the project site. *Section 3.0* provides an examination of the project's potential impacts on existing environmental and cultural resources and where necessary, mitigation measures have been identified.

OPEN SPACE AND NATURAL ENVIRONMENT

Policies

- Protect and enhance significant natural features and ecologically sensitive lands, including mountain areas, shoreline areas, wetlands, fishponds, natural gulches, streams and drainageways. Provide protective buffer zones and setbacks around biologically sensitive areas to minimize habitat disturbance.
- Protect and preserve views of scenic resources, including the Wai'anae and Ko'olau Mountain Ranges, coastal pali, the coastline, and the Pacific Ocean.

Guidelines

Shoreline Areas

- Protect nearshore coral reefs and other marine life from damaging activities such as soil erosion, nonpoint source pollution, dredging of coral reefs, and alterations to nearshore water circulation.
- Require buildings along the shoreline to adhere to the City's and Federal Emergency Management Agency (FEMA) minimum building elevations and structural guidelines. In addition, adopt development standards that require new structures to incorporate

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building styles compatible with coastal hazards such as coastal erosion, tsunami and hurricane overwash.

- Discourage visual obstructions such as walls and fences along the coastal highway to maintain and enhance existing panoramic views. Clear shrubs and vegetation on vacant State- and County-owned properties that would maintain views of the ocean from public roadways along the shoreline.

Scenic Resources and Scenic Views

- Conduct planning with attention to preservation of natural open space, protecting coastal and mauka views from public roadways, and conserving important viewsheds.
- Evaluate the impact of land use proposals on the visual quality of the landscape, including viewplane and open space considerations.

Discussion

The project will not adversely affect significant natural features or ecologically sensitive lands, including mountain areas, shoreline areas, wetlands, fishponds, natural gulches, streams and drainageways. Protective setbacks and buffer zones will be implemented as appropriate. During construction and operation, storm water quality and runoff rates will be attenuated to meet local requirements. As such, onsite detention and/or retention may be incorporated as part of project. Operations will comply with State and Federal water quality standards. The IWS will be designed and operated to maximize effluent quality per DOH standards. The site is located within the tsunami evacuation zone and within the FEMA flood Zone AE and VE. Design controls will ensure the planned development meets regulatory requirements.

The project will not affect vistas and scenic resources. The project will blend with the surrounding character of the area and be designed appropriately in their orientation, scale, height, form, and design. The development of the retail center will actually enhance existing views in the area by redeveloping a vacant and remediated space that was previously used as a gas station.

HISTORIC AND CULTURAL RESOURCES

Policies

- Emphasize physical references to North Shore's history and cultural roots to help foster the area's unique sense of place.
- Preserve and protect significant cultural and historic features from earlier periods.
- Respect significant historic resources by applying appropriate management policies and practices. Such practices may range from total preservation to integration with contemporary uses.

Guidelines

Shoreline Areas

- Implement in situ preservation and appropriate protection measures for sites that have high preservation value because of their good condition or unique, historic, cultural and archaeological features, and for which the State Historic Preservation Division (SHPD) has recommended such treatment.
- Consider the particular qualities of a site and its relationship to its physical surroundings when determining the appropriate treatment for a site. Determine the following on a site-by-site basis in consultation with SHPD:

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- Appropriate preservation methods;
- Appropriate delineation of site boundaries and setbacks; and
- Appropriate restrictions on uses and development of adjacent lands.

Discussion

The applicant supports the protection of Hawai'i's cultural, archeological and historic resources. Historic resources have been documented in and AIS and CIA conducted for the project. Refer to *Section 3.6 and 3.7*.

COMMERCIAL AREAS

Policies

- **Scale and Purpose.** Ensure that commercial uses are appropriately scaled to be compatible with the region's rural character and surrounding land uses, with an emphasis on locally-owned small businesses. Maintain Hale'iwa as the region's primary commercial center and visitor attraction, with Waialua Town serving the local community.
- **Appropriate Building Scale and Architectural Style.** Promote compatibility between the building mass of a commercial area and its rural and natural setting. The architectural character and scale of commercial areas should respect the surrounding rural and natural features, particularly when located adjacent to a residential area or significant natural or historic feature.
- **Environmental Compatibility.** Emphasize environmental compatibility in the development and operation of commercial areas. Direct commercial enterprises to locate within existing commercial districts, and utilize sustainable building design and resource conservation measures as much as possible, including the use of solar panels, passive solar design strategies, landscaping features, and water constrictors, as well as on-site collection/storage areas to encourage individual property owners to recycle.

Country Towns

- Maintain Hale'iwa and Waialua Towns as the main commercial districts on the North Shore. Encourage landowners to invest in the physical and economic revitalization of the towns' commercial cores.
- Preserve and enhance the historic rural "small town" character and allow for a compatible mix of commercial, service industrial and residential uses that complement the rural town context. Encourage multifamily housing (low-density apartment districts) and housing for resident senior citizens in close proximity to both Hale'iwa and Waialua town centers.
- Support the continued viability of locally-owned small businesses, while prohibiting large commercial "big box" retailers that are contradictory to the region's rural character.
- Maintain the low-rise (one to two stories) human-scale and physical organization of buildings arranged along the traditional "main street".
- Ensure that architectural and landscaping features are compatible with the rural character.
- Protect and enhance natural resources and ecosystems, such as wetlands and streams, fishponds, mature trees and open space areas, within the country town areas.

Guidelines

Hale'iwa Country Town

- Limit building heights to two stories, and employ building design elements which reflect the architectural characteristics of the early 1900-period architecture identified in the Hale'iwa Special District Design Guidelines.
- Encourage commercial and related activities that are conducive to the pedestrian character to locate at the sidewalk level along Kamehameha Highway. Encourage less pedestrian-dependent and conducive activities (such as manufacturing areas for products and compatible light industrial uses, residences, services, etc.) to locate behind or above commercial activities so as not to detract from the commercial retail character of Kamehameha Highway.
- Concentrate new development near existing built areas emphasizing redevelopment and infill along Kamehameha Highway, makai of the Hale'iwa Bypass Road (Joseph P. Leong Highway). Provide adequate landscaped buffer adjacent to the bypass.
- Ensure that commercial uses adjoining the Kamehameha Highway corridor include support facilities such as parking lots and rest rooms that can adequately accommodate the planned commercial activities.
- Enhance the attractiveness and general landscaped open space character of the area by providing roadway improvements, street trees, streetlights, street furniture, and signage compatible with the rural character of Hale'iwa Town.
- Consolidate off-street parking to areas behind buildings, while retaining existing on-street parking wherever possible and appropriate. As needed, parking should be rearranged to accommodate the pedestrian walkway system along Kamehameha Highway.

Discussion

The project will be located in the commercial area of Hale'iwa. The commercial use of the site will be appropriately designed and scaled to fit with the region's rural character and surrounding land uses. Development of the retail center will not result in adverse impacts to the surrounding area and will be environmentally compatible commercial uses of the area. The project will not adversely impact natural resources and ecosystems.

Shops at Anahulu will support Hale'iwa as a Country Town and the main commercial area of the North Shore. The applicant plans to invest in the physical and economic revitalization of the vacant property that was once used as a gas station. The new retail center will fit with the historic small town character and complement the rural town context. The facility will maintain the low-rise, human-scale and physical organization of the existing buildings located along "main street". Parking for the site will be provided at the back of the lot behind the new facility. Architectural and landscaping features will be compatible with the rural character of area.

PUBLIC FACILITIES AND INFRASTRUCTURE

Water Systems

Policies

- Protect and preserve the region's water resources, including groundwater, streams, wetland areas, natural drainage systems, watershed areas and the shoreline and coastal areas. Ensure that the high quality of the region's nearshore and coastal waters is maintained to benefit recreation, the economy, the region's natural biological systems, and future generations.

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- Integrate management of all potable and nonpotable water sources, including groundwater, surface water, storm water, and reclaimed water following City development of plans and adoption of appropriate management processes in accordance with City and State mandates.
- The BWS will either indicate that adequate potable and nonpotable water is available, deny, or will require/recommend conditions that should be included as part of any application for zone changes, master plans, subdivisions, and building permit approvals for a new residential or commercial development on the North Shore, in order to assure water service adequacy, dependability and efficiency.
- All developments are required to conserve water supplies by implementing water efficiency and conservation measures, such as monitoring water use and water loss, fixing leaks, installing low flow plumbing fixtures, drought tolerant landscaping, submetering, and soil moisture sensors in irrigation systems.

Guidelines

- Confirm that adequate potable and nonpotable water is available before approving new residential or commercial development.
- Conserve the use of potable water by implementing the following measures, as feasible and appropriate:
 - Low-flush toilets, flow constrictors, rainwater catchment, and other water conserving devices in commercial and residential developments
 - Indigenous, drought-tolerant plant material and drip irrigation systems in landscaped areas
 - Use of reclaimed water for the irrigation of agricultural lands, parks, golf courses and other landscaped areas where this would not adversely affect potable groundwater supply or pose possible health and safety risks.

Discussion:

The applicant supports the policies to protect and conserve water resources. Where feasible, the project will utilize sustainable design practices to reduce the amount of potable water utilized on the project site. The BWS has determined that its existing water system is adequate to accommodate the project demand.

Wastewater Treatment

Policies

- Provide adequate public and private wastewater treatment facilities and improve the existing wastewater management services on the North Shore to protect the North Shore's water resources and the health of the community is the highest priority.

Guidelines

- Use reclaimed water for irrigation and other uses, where feasible, in accordance with the Guidelines for the Treatment and Use of Recycled Water (May 15, 2002) by the State Department of Health and the No Pass Line established by the BWS.
A "wetlands" treatment system could serve as wild bird refuges that could also be used as a picnicking area and/or children's fishing park.
- Identify appropriate areas and technologies for future wastewater facilities that maintain the rural character and are proportionate to future population projections.

Discussion: The project will employ a state of the art individual wastewater system to maximize effluent quality per DOH standards.

Solid Waste Handling and Disposal

Policies

- Promote recycling and other source reduction programs dedicated to minimizing the amount of solid waste generated.

Guidelines

- Expand recycling collection facilities and services, and public outreach and education programs that promote responsible waste management and source reduction.

Discussion:

The commercial redevelopment project will generate solid waste with the general construction and operation of the project. During construction, solid waste will be hauled away by a private contractor. During operations, solid waste generated from the project will be disposed of by a private disposal service. Reuse and recycling will be implemented on site to the extent practicable to minimize solid waste.

Drainage Systems

Policies

- Encourage coordination between public agencies and private landowners to identify needed drainage improvements and develop a phased plan for improvements.
- To the extent possible, integrate planned improvements to the drainage system into the regional open space network.

Guidelines

- To the extent possible, integrate planned improvements to the drainage system into the regional open space network.
- Employ retention and detention methods that allow for the gradual release of stormwater. Where feasible, use open spaces, including parking lots, landscaped areas, and parks, to detain or allow ground infiltration of storm water flows to reduce their volume, runoff rates, and the amounts of sediment and pollutants transported.
- Emphasize control and minimization of nonpoint source pollution in drainage system design. Where hardening of stream channels is unavoidable, improvements should protect habitat, maintain rural character and aesthetic quality, and avoid degradation of coastline and of stream and nearshore water quality, consistent with guidelines stated in Section 3.1.2.4.
- Design drainageways to control 100-year floods. Any future work performed within the 100-year floodplain shall adhere to the requirements of the FEMA and meet all flood-proofing requirements.

Discussion:

During construction and operation, storm water quality and runoff rates will be attenuated to meet local requirements. As such, onsite detention and/or retention may be incorporated as part of project.

5.7 CITY AND COUNTY OF HONOLULU LAND USE ORDINANCE

The purpose of the Land Use Ordinance (LUO) is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies, including the City and County of Honolulu General Plan and development plans. The LUO also promotes and protects public health, safety, and welfare by:

- Minimizing adverse effects resulting from the inappropriate location, use or design of sites and structures;
- Conserving the city's natural, historic and scenic resources and encouraging design which enhances the physical form of the city; and
- Assisting the public in identifying and understanding regulations affecting the development and use of land.

The LUO also provides reasonable development and design standards that are applicable to the location, height, bulk and size of structures, yard areas, off-street parking facilities, and open spaces, and the use of structures and land for agriculture, industry, business, residences or other purposes (Revised Ordinance for the City and County of Honolulu, Chapter 21).

Discussion:

The project site is designated as B-1 Neighborhood Business District by the County LUO (*Figure 1-4*). The intent of the B-1 zoning is to provide relatively small areas which serve the daily retail and other business needs of the surrounding population. It is intended that this district be generally applied to areas within or adjacent to urban residential areas, along local and collector streets, but not along major travel routes or on a large scale basis. It would also be applied to rural and urban fringe town center which may or may not be located along major travel route. Pursuant to the LUO, retail establishments are permitted within the B-1 zoning district.

5.8 HALE'IWA SPECIAL DISTRICT

Established in the late 1800s, Hale'iwa town provides a historical encounter with a rural commercial setting which is an integral part of Hawai'i's history. It is necessary to preserve and enhance its plantation era character. By designating a special district, it is intended that the character be compatible with that of the existing community.

The project is located within the HSD, and a Special District Permit will be required for the proposed project. The Special District guidelines are provided to guide aesthetic and architectural aspects of project development. The following describes HSD objectives, public views, and design controls that are applicable to the project.

Section 21-9.90-1 Objectives

- A. Preserve and enhance Hale'iwa's existing rural low-rise, human-scaled form and character, especially along Kamehameha Highway and Hale'iwa Road.
- D. Encourage new development which will complement the significant physical features, waterways, open space, mature trees and sites in Hale'iwa.
- F. Provide for safe and pleasant pedestrian and vehicular circulation, while avoiding parking areas along the streetscape.
- H. Preserve and enhance significant views in Hale'iwa, especially those within the highly developed and heavily traveled areas.

Discussion

The Shops at Anahulu project will guide the development with due consideration given to the existing ambiance and character of Hale'iwa Town. The design character of the new retail center will fit with the existing rural, low-rise, human scaled form, appropriate to the "Country town" feel along Kamhehameha Highway. The Shops at Anahulu will be architecturally designed to meet the objectives of the Hale'iwa Design District. This will include roof forms, façade treatment, door and windows, porches, canopies, materials and color, railings and fences, lighting, and signs. An on-site asphalt parking area will be located at the rear of the site behind the retail facility.

Existing views in Hale'iwa will not be adversely impacted as a result of the project. The development of the retail center will actually enhance existing views in the area by redeveloping a vacant and remediated space that was previously used as a gas station.

Section 21-9.90-3 Significant public views and resources

The following are significant views within the Hale'iwa Special District.

- (a) Views of Mount Ka'ala, the Waianae Range, Loko Ea Pond and Waialua Bay from Kamehameha Highway.

Discussion

While the project is located adjacent to Loko Ea Pond, it will not significantly impact views of the pond from Kamehameha Highway. Loko Ea Pond and views of the Wai'anæ Range will continue to be visible to those traveling on Kamehameha Highway. The development of the retail center will actually enhance existing views in the area by redeveloping a vacant and remediated space that was previously used as a gas station. Currently, the vacant site is surrounded by a silt fencing barrier. The Shops at Anahulu will blend with the surrounding Country town character and will be designed appropriately in their orientation, scale, height, form, and design.

Section 21-9.90-4 Design Controls

Implementation of the district objectives shall consist primarily of use restrictions, building height limitations, yard and landscaping requirements, parking, architectural design requirements, choice of exterior colors, and sign and exterior furniture design controls. Specific regulations that are applicable to the project are noted below.

(b) Heights

- (1) Permitted maximum heights of buildings and structures within the district shall not exceed 30 feet, except as provided under subdivision (2) of this subsection. Where the underlying zoning district has a lower height limit, the lower height shall prevail.
- (2) The director may exempt the following architectural features from the height regulations, provided they are erected only to such height as is necessary to accomplish the purpose for which they serve, but in no case exceeding 12 feet above the maximum height limit. These building elements may be exempted only if the director finds they do not obstruct any significant views which are to be preserved, protected and enhanced and are consistent with the intent and objectives of the Hale'iwa Special District.
 - (A) Necessary mechanical appurtenances of the building on which they are erected, provided they are screened from view.
 - (B) Necessary utilitarian features, including stairwell enclosures, ventilators and skylights.
 - (C) Decorative or recreational features, including rooftop gardens, planter boxes, parapet walls or ornamental cornices.

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- (3) Except for flagpoles and smokestacks, all items listed in Section 21-4.60(c) shall also be exempt from the height provisions of this subsection.

Discussion

The new retail center will meet all height restrictions and will not exceed 30 feet.

(c) Required Yards

- (1) The required front yard for any building or structure shall be 10 feet. Ground level porches, walkways, roof canopies or eaves for other than residential structures may extend a maximum of five feet into the front yard.
- (2) Business uses and structures, except for service stations shall be located at the front yard setback line for a minimum of 50 percent along the front yard setback line.
- (3) The minimum required setback for any new building or structure from any significant waterways as identified on Exhibit 21-9.18, set out at the end of this article, shall be 20 feet as measured from the water's edge.

Discussion

The new retail center will meet yard setback requirements of 10 feet, and side yard setback requirements of 5 feet.

(d) Landscaping.

- (1) The distance from the property to the closest edge of all required front yards shall be landscaped. A minimum 10-foot-wide buffer landscape strip shall be provided for all service stations, between the Kamehameha Highway property line or street setback lines, whichever is greater, and the service lanes or area.
- (2) The setback area within 20 feet from any significant waterways shall be maintained in an indigenous state. Additional planting material shall be provided in this area to screen any new structures or parking and drive areas as viewed from Kamehameha Highway. This requirement may be reduced for roadways and access drives where visibility is required for the safety of vehicles and pedestrians.
- (3) Street trees shall be provided along Kamehameha Highway and Hale'iwa Road in an informal arrangement, planted within front yards or the sidewalk area, and shall be a minimum two-inch caliper. Species shall be chosen from the list shown on Exhibit 21-9.18, set out at the end of this article, and shall be a minimum two-inch caliper. Number, spacing and location of trees shall be determined by the director.
- (4) Any tree six inches or greater in trunk diameter shall not be removed or destroyed except as follows:
 - (A) The tree is not visible from any street, park or other public viewing area.
 - (B) Appropriate development of the site cannot be achieved without removal of the tree.
 - (C) The tree is a hazard to the public safety or welfare.
 - (D) The tree is dead, diseased or otherwise irretrievably damaged.
 - (E) The applicant can demonstrate the tree is unnecessary due to overcrowding of vegetation.
- (5) Any tree removed which is visible from any street, park or other public viewing area shall be replaced by an approved tree of minimum two inch caliper or by alternative approved landscaping material, unless the replacement results in overcrowded vegetation. Where possible, trees proposed for removal shall be relocated.

Discussion

A palette of small, medium, and large native, Polynesian-introduced, and tropical plants and shrubs that provide screening will be selected for the landscape design to be accented by understory foliage and groundcover that are consistent with the HSD guidelines. As appropriate, the selection and use of native plants will be encouraged with specificity to express identified culturally appropriate themes and experiences at the project site.

The existing site is vacant, and no tree six inches or greater in trunk diameter will be removed or destroyed.

(e) Off-street Parking.

- (1) Open parking areas of five or more cars shall be screened from view of Kamehameha Highway and adjacent lots and streets by fences, walls, earth berms, depression and/or landscaping a minimum of 48 inches high. This height may be reduced, subject to review and approval of the director, where visibility is required for the safety of vehicles and pedestrians.
- (2) All other landscaping requirements of Section 21-4.70 shall apply.
- (3) Except for necessary access drives, parking and loading spaces shall be prohibited in all required yards.
- (4) Off street parking and loading shall be located at the side and rear of buildings only.

Discussion

The parking area will be located at the back of the site behind the new retail center. A total of 23 standard sized parking stall and one loading stall will be provided. The parking area will be screened from view of Kamehameha Highway and adjacent lots.

Access to the site will be from driveways off of Kamehameha Highway and Lokoea Road. Access off of Lokoea Road, and parking and loading spaces will not be located in the required yard. Access off Kamehameha Highway may be located in the required yard.

(f) Architectural Appearance and Character.

- (1) General. The architectural form, scale and character for new or renovated structures and modifications of existing structures shall be similar to the existing traditional building forms of Hale'iwa. Typical characteristics for business districts are low structures with sloped roof canopies or overhanging second floors, false front facades or parapets, metal roofs, ground floors with entrances to the street, wood porches, generous window openings, and small-scale architectural detailing of facades.
- (2) Roofs. Roof projections or canopies shall be provided at the first floor roof level along Kamehameha Highway. Roofs visible from Kamehameha Highway shall have a minimum slope of five inches vertically to 12 inches horizontally. Flat roofs are prohibited in the district except for screened portions to accommodate mechanical equipment or enclosed by parapets or otherwise not visible from within the district. Roof materials shall be limited to wood shingles or shakes, patterned metal, patterned clay or concrete tiles for all sloping roofs visible from the district.
- (3) Sun Control. Awnings shall be either roll up construction, or fixed and projecting. They shall be subdued in color and pattern. Fixed commercially made metal awnings or "modern style" sun control devices are not permitted except by approval of the director in accordance with the purpose and objectives of the district.
- (4) Railings, Fences and Walls. Within the front yard railings and fences shall be constructed from wood and refined in detail. Walls exceeding 36 inches in height shall be set back a

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- minimum of 18 inches along Kamehameha Highway and Hale'iwa Road and landscaped with vine or hedge planting or other approved vegetation on the street side. The setback and landscaping requirement may be waived by the director if the wall is moss rock or similar material.
- (5) Exterior Lighting. Private light fixtures shall complement the character of the architecture of the district. Lighting shall be subdued so as not to produce glare to surrounding property and public viewing areas. Fluorescent or high intensity lamps shall not be permitted.
 - (6) Exterior Wall Materials. Wall materials shall be subdued and visually compatible with existing materials. Materials should be selected to weather and mature with time and exposure such as stained or natural finish wood, coral, lava rock, watted stucco, field stone and concrete with exposed aggregates, or wood impressions. Board and batten or board on board wood siding walls are particularly encouraged.
 - (7) Colors. Colors for all materials shall be natural or earth tones in subdued ranges and combinations. Colors for architectural trim or accent shall not be so limited.
 - (8) Street Facades.
 - (A) A minimum of 50 percent of the area of the first floor street facade for business uses shall be devoted to windows and entrances. The area shall be measured along the length of the first floor street facade to a height of eight feet from the finish grade.
 - (B) All glass on street facades shall be transparent and untinted.
 - (9) Walkways. Private walkway and sidewalk material shall be visually compatible with natural materials such as wood planks or concrete with wood impressions or exposed aggregate.
 - (10) Exceptions. Exceptions to the above requirements for architectural appearance and character may be approved by the director if adequate justification for the exception is submitted and the exception requested is consistent with the objectives of the Hale'iwa Special District.

Discussion

The Shops at Anahulu project will conform to the plantation era character of the existing retail and surrounding area. Observant and respectful of the area's history, special features and past inhabitants, the project will look to celebrate many important and iconic elements throughout its design. The design character of the new retail center will fit with the existing rural, low-rise, human scaled form, appropriate to the "Country town" feel along Kamehameha Highway. The Shops at Anahulu will be architecturally designed to meet the Architectural Appearance and Character objectives of the Hale'iwa Design District. This will include roof forms, façade treatment, door and windows, porches, canopies, materials and color, railings and fences, lighting, and signs.

(g) Signs.

- (1) Signs shall be designed to enhance the historic and architectural character of Hale'iwa. An appropriate sign design would use a carved or sandblasted wood sign with serif-style lettering typical of the turn of the century, incorporating symbols when appropriate, and suspended from canopies or mounted on the building wall.
- (2) Pole-mounted signs shall be limited to a maximum height of 10 feet.
- (3) Signs which are self-illuminating, with moving parts, luminous paints or reflective materials are not permitted. Any illumination should be from a detached source shielded from direct view. Box fluorescent signs shall not be allowed.

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- (4) Notwithstanding the provisions for ground signs under Article 7, one ground sign, not directly illuminated, per zoning lot for identification or directory purposes may be permitted in the required 10-foot front yard, if there are more than three establishments. If it is used as a directory sign for more than three establishments, a maximum 18-square-foot ground sign is permitted.
- (5) A second business sign on the building frontage for each ground floor establishment may be allowed, provided the sign is a hanging or projecting sign.
- (6) In lieu of the second business sign described above, a garden sign may be permitted within the required front yard for each ground floor establishment with building frontage, provided parking is not located within the front yard. Garden signs shall be spaced a minimum of 50 feet apart.

Discussion

The project will meet sign regulations established in the HSD. Sign for the retail center will be designed to enhance the historic and architectural character of Hale'iwa using appropriate materials, symbols and lettering styles.

(h) Exterior Furniture.

Any exterior furniture located within the public right of way by a public agency, or on private property by an owner, lessee or tenant, shall be designed to enhance the rural character of Hale'iwa and shall be subject to approval by the director.

Discussion

Exterior furniture used as part of the new retail center at The Shops at Anahulu will fit with and enhance the existing rural character of the Hale'iwa.

5.9 CITY AND COUNTY OF HONOLULU SMA

Within the City and County of Honolulu, the SMA Use Permit application review is administered by the DPP, and the decision on its issuance is rendered by the City Council, pursuant to Ordinance No. 84-4. It is the policy of the City and County of Honolulu to preserve, protect, and to restore the natural resources of the coastal zone of Hawai'i. The SMA designation places special controls on development within an area along the shoreline. These controls are necessary to avoid permanent loss of valuable resources and to insure that adequate public access is provided to public owned or used beaches, recreation areas, and natural reserves. Further, the project is a development that is "valued at over \$500,000" and is included in the SMA Boundary area for Hale'iwa; thus a SMA Use Permit is required (Revised Ordinances of Hawai'i, Sec. 25-1.2; HRS Chapter 205A-21).

Issuance of the SMA Use Permit is based on the consistency of the proposed development project with the policies and review guidelines specified in the CZM Law. The applicable objectives, policies and guidelines to the project are discussed below.

- (1) **All development in the special management area are subject to reasonable terms and conditions set by the authority in order to ensure:**
 - 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;

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- Adequate and properly located public recreation areas and wildlife preserves are reserved.
- Provisions are made for solid and liquid waste treatment, disposition, and management that will minimize adverse effects upon special management area resources.
- 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.

Discussion

The proposed improvements will not impact existing access to nearby beach areas. All existing accesses will be maintained.

While the project is located near beaches in Hale'iwa and specifically, the Hale'iwa Boat Harbor, public recreation areas will continue to be reserved for use by the public.

Solid waste and wastewater disposal systems will be efficiently designed to minimize impacts on existing solid and liquid waste facilities. The IWS will be designed and operated to maximize effluent quality per DOH standards.

The project will be located in an area that was previously developed as a gas station in Hale'iwa. The project will have no adverse effect on water, scenic, or recreational resources. All design controls will be in compliance with maintaining safety standards to minimize the any potential danger of natural hazards.

(2) No development shall be approved unless the authority has first found:

- That 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, safety, or compelling public interests. Such adverse effects 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;
- That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature;
- That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be required.

Discussion

The project will not create substantial adverse environmental or ecological effects. Identified potential long-term impacts and recommended mitigation measures are discussed in *Section 3.0*.

The project remains consistent with the policies and objectives of the HRS Chapter 205A CZM and its review guidelines, as well as the Revised Ordinances of Hawai'i, Chapter 25 SMA guidelines. Consistency with CZM is discussed earlier in this chapter.

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The project is consistent with the City and County of Honolulu's General Plan, North Shore SCP, and HSD Guidelines. Consistency is discussed earlier in this chapter.

(3) The authority shall seek to minimize, where reasonable:

- Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;
- Any development which would reduce the size of any beach or other area usable for public recreation;
- 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 areas and the mean high tide line where there is no beach;
- Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast;
- 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 project involves no dredging, filling, or altering to any bay, estuary, salt marsh, river mouth, slough or lagoon. Development of the retail center will not reduce the size of the beach or any other public recreational area, and will not reduce or impose restrictions upon public access to tidal and submerged lands, beach areas, or to the mean high tide line. The Shops at Anahulu will not interfere with or detract from the line of sight toward the sea from Kamehameha Highway.

Planned improvements for the project located near Loko Ea Pond will be setback according to City development standards and will not 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.

5.10 CITY AND COUNTY OF HONOLULU, COMPLETE STREETS ORDINANCE

The City and County of Honolulu Complete Streets Ordinance was adopted in 2012. The policy serves as a guide for transportation planning in the City and County of Honolulu to encourage safe mobility for all users through complete streets features.

Complete streets principles aim to:

- 1) Improve safety;
- 2) Apply a context sensitive solution process that integrates community context and the surrounding environment, including land use;
- 3) Protect and promote accessibility and mobility for all;
- 4) Balance the needs and comfort of all modes and users;
- 5) Encourage consistent use of national industry best practices guidelines to select complete streets design elements;
- 6) Improve energy efficiency in travel and mitigate vehicle emissions by providing non-motorized transportation options;
- 7) Encourage opportunities for physical activity and recognize the health benefits of an active lifestyle;
- 8) Recognize complete streets as a long term investment that can save money over time;
- 9) Build partnerships with stakeholders and organizations statewide; and
- 10) Incorporate trees and landscaping as integral components of complete streets.

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Discussion

The project is in compliance with the Complete Streets Ordinance. The project's street-front presence and installation of a sidewalk will promote walkability in the Historic Hale'iwa corridor. In addition, intersection improvements at Kamehameha Highway and Lokoea Place are being designed to enhance pedestrian safety and circulation (*Figure 3-8*). A marked crosswalk will be installed during construction of the project.

Section 6.0

FINDINGS SUPPORTING ANTICIPATED
DETERMINATION

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION

6.1 ANTICIPATED DETERMINATION

After reviewing the significance criteria outlined in Chapter 343, Hawai'i Revised Statutes (HRS), and Section 11-200-12, State Administrative Rules, Contents of EA, the proposed action has been determined to not result in significant adverse effects on the natural or human environment. A FONSI is anticipated.

6.2 REASONS SUPPORTING THE ANTICIPATED DETERMINATION

The potential impacts of the project have been fully examined and discussed in this Draft EA. As stated earlier, there are no significant environmental impacts expected to result from the proposed action. This determination is based on the assessments as presented below for criterion (1) to (13).

(1) *Involve an irrevocable loss or destruction of any natural or cultural resources.*

The archaeological and cultural landscapes have been documented in studies conducted specifically for the project area. As detailed in *Section 3.6 and 3.7* of this report, the project does not involve any known loss or destruction of existing natural, cultural, archeological or historical resources. An AA and CIA were conducted for the project area (*Appendix B and Appendix C*).

The project site was previously developed as a gas station and was remediated as per State Department of Health (DOH) regulations, and the surface and subsurface have been extensively disturbed over the last 60 years. Archaeological monitoring is recommended due to the property's proximity to the beach, a favored environment for traditional human burials. If cultural or archaeological resources or ancestral remains are inadvertently discovered, the State Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD), the O'ahu Island Burial Council representative, and participating interests from lineal descendants and individuals will be notified. The treatment of these resources will be conducted in strict compliance with applicable historic preservation and burial laws.

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

The project improves an existing vacant site that was previously developed as a gas station. The range of beneficial uses of the environment is not significantly curtailed by proposed improvements. The project is consistent with existing zoning and current land uses. The project will include a newly developed retail area located near the existing Hale'iwa Historic Town and will serve to improve the country-type streetscape character and setting of this section of O'ahu's North Shore in general.

(3) *Conflict 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 does not conflict 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.

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- (4) *Substantially affects the economic or social welfare of the community or State.*

The project will positively affect the State's economic welfare by providing a new retail center that will improve the existing streetscape experience which will enhance the overall resident and visitor experience in the area. In addition, the project will support the surrounding recreational activities of the area. Economic and social benefits will also result from increased employment and tax revenues.

- (5) *Substantially affects public health.*

The project is consistent with existing land uses and is not expected to affect public health. However, there will be temporary short-term impacts to air quality from possible dust emissions and temporary noise in the immediate vicinity of the project resulting from construction equipment. Construction and operation-related impacts of noise, dust, and emissions will be mitigated by compliance with the State DOH Administrative Rules and compliance with applicable permits for the project.

- (6) *Involves substantial secondary impacts, such as population changes or effects on public facilities.*

The new retail area will create a small increase of visitors to the area. Public facilities near the project site will not be adversely affected by the project. Additional uses of public facilities are not anticipated to occur as a result of the project.

- (7) *Involves a substantial degradation of environmental quality.*

The project will not involve a substantial degradation of environmental quality. To the contrary, improvements to the project area serve to maintain and enhance the beauty and character experienced by residents and visitors of the area. The project will be a visual feature that will fit within the existing country setting.

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

The project's development will not adversely affect the environment or involve a commitment for larger actions. The new retail center will provide benefits to the surrounding community, local residents, the visitor experience, and local economy.

- (9) *Substantially affects a rare, threatened or endangered species, or its habitat.*

There are no endangered plants or animal species located within the project site.

- (10) *Detrimentially affects air or water quality or ambient noise levels.*

General temporary effects associated with construction and operations of the project have been identified in this EA (*Section 3.0*). Mitigation measures which are outlined in this EA will be applied during the on-going construction and operation activities. The project will not detrimentally affect air quality, water quality, or ambient noise levels.

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

The project site is located within Zone AE and VE and within the designated tsunami zone (*Figure 3-2*). Most of the site is located within Zone AE or areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. The northern portion of the site is located in Zone VE or areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. Mandatory flood insurance purchase requirements and floodplain management standards apply for both of these flood zones. The project will comply with necessary design requirements. Construction work will be performed in accordance with the State and County-approved design standards. No significant adverse impacts are anticipated.

- (12) *Substantially affects scenic vistas and view-planes identified in county or state plans or studies.*

The proposed project will not substantially affect scenic vistas and view-planes identified in County or State plans or studies. As discussed in *Section 3.16*, visual access to the mountains and sea from roadways or from identified visual corridors will not be significantly affected by the project. In addition, since the project is located within the Hale'iwa Special District, architectural design and landscaping of the project will comply with design guidelines to preserve and enhance Hale'iwa's rural and plantation character.

- (13) *Require substantial energy consumption.*

Construction of the project will not require substantial energy consumption. As a new retail facility, the project will generate a minimal increase in electrical energy consumption. However, energy will be conserved by using energy efficient appliances and fixtures focused on efficiency of energy consumption. The addition of a photovoltaic energy system is also being considered for this project.

6.3 SUMMARY

Based on the above findings, the project is not expected to generate significant adverse socio-economic or environmental impacts. The EA recommends mitigation measures to alleviate potential project-induced effects when such effects are identified.

The project is consistent with the Hawai'i State Land Use District Boundaries; the 2050 Sustainable Plan, the Hawai'i CZM Plan, the City's General Plan and Development Plan; the City's Zoning Ordinance, and Special Management Area (SMA).

The Shops at Anahulu project will serve to enhance the resident and visitor experience in Hale'iwa and the North Shore of O'ahu. The vacant site was formerly improved with an aging, obsolete gas station. Therefore, the new retail center will help to revitalize this site and section of Hale'iwa Town. The project will not only bring added value to the immediate property, but will be an achievement in Historic Hale'iwa Town's ongoing efforts to preserve the country and plantation atmosphere while revitalizing storefronts and walkability. Further, the project will help to support the viability of Hale'iwa and the North Shore as one of O'ahu's most prominent destinations for residents and visitors to enjoy.

Section 7.0

LIST OF REFERENCES

7.0 LIST OF REFERENCES

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Section 8.0

LIST OF AGENCIES, ORGANIZATIONS AND
INDIVIDUALS RECEIVING COPIES OF THE EA

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**8.0 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS
RECEIVING COPIES OF THE EA**

Respondents and Distribution	Sent Preconsultation	Preconsultation Comments Received	Sent Draft EA	Draft EA Comments Received	Sent Final EA
Federal Agencies					
U.S Army Corps of Engineers			X		X
U.S. DOI, Fish and Wildlife			X	X	X
State Agencies					
Department of Business, Economic Development & Tourism, Office of Planning			X	X	X
Department of Health, Clean Air Branch			X	X	X
Department of Health, Clean Water Branch			X	X	X
Department of Health, Office of Environmental Quality Control			X		X
Department of Health, Solid and Hazardous Waste Branch			X		X
Department of Land and Natural Resources (DLNR), Engineering Division			X		X
DLNR, Land Division			X		X
DLNR, Office of Conservation and Coastal Lands			X		X
DLNR, State Historic Preservation Division	X		X		X
Department of Transportation			X		X
Office of Hawaiian Affairs			X	X	X
City and County of Honolulu					
Board of Water Supply	X		X	X	X
Department of Design and Construction			X	X	X
Department of Environmental Services			X		X
Department of Facility Maintenance			X	X	X
Department of Planning and Permitting, Planning Division	X		X	X	X
Department of Planning and Permitting, Site Development			X		X
Department of Transportation Services			X	X	X
Fire Department			X	X	X
North Shore Neighborhood Board No. 27	X	X	X		X

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Respondents and Distribution	Sent Preconsultation	Preconsultation Comments Received	Sent Draft EA	Draft EA Comments Received	Sent Final EA
Elected Officials					
State Senator Gil Riviere, District 23			X		X
State House Representative Feki Pouha, District 47			X		X
Councilmember Ernest Martin, District 2	X		X		X
Libraries					
Hawai'i State Library			X		X
Waialua Public Library			X		X
Community Interest Groups and Organizations					
Kamehameha Schools	X	X	X		X
North Shore Chamber of Commerce	X	X	X		X
North Shore Outdoor Circle	X	X	X		X
Surf N Sea	X				

APPENDICES

Appendix A

PRECONSULTATION LETTER AND DRAFT EA
COMMENTS AND RESPONSES

Preconsultation Memo and Participant Letter



August 13, 2015

Dear Participant:

PRINCIPALS

Francis S. Oda, Arch.D.,
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PE, LEED AP

OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Pre-Consultation for Environmental Assessment
HRS Chapter 343 and Revised Ordinances of Honolulu Chapter 25
Hale'iwa Gateway (Hale'iwa, O'ahu, Hawai'i)
TMK (1) 6-2-003:037

Group 70 International, Inc. is currently undertaking the preparation of an Environmental Assessment (EA) pursuant to Hawai'i Revised Statutes (HRS) Chapter 343 and Chapter 25, Revised Ordinances of Hawai'i, for the redevelopment of property located in Hale'iwa, O'ahu, Hawai'i. The EA is planned for publication later this year.

A pre-consultation process is being conducted to engage agencies and interested parties in the environmental review process. Enclosed, for your review and comment, is an information summary and overview of the proposed action.

You are welcome to provide comments regarding the scope of this EA via telephone, email, fax, or U.S. Mail. Please send comments by September 4, 2015 to be addressed in the Draft EA. Written comments received will be addressed directly.

Group 70 International, Inc.
925 Bethel Street, Fifth Floor
Honolulu, HI 96813-4307
Attn: Jeff Overton, AICP, LEED-AP
Email: haleiwaGW@group70int.com
Tel: (808) 523-5866
Fax: (808) 523-5874

Thank you for participating in pre-consultation for this environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeffrey H. Overton, AICP, LEED-AP
Principal Planner

Attachments

Hale'iwa Gateway – Project Overview

Lokea Kai Partners LLC is proposing to redevelop the former Haleiwa Chevron site located at 62-594 Kamehameha Hwy at the north end of the historic Hale'iwa Town on Oahu's North Shore. The subject property was formerly improved with an old Chevron service station, which was demolished in 2008. The property has since remained vacant. The location is directly across from Surf 'N Sea surf shop, bounded by Kamehameha Highway, Lokoea Place, and Lokoea Pond to the east (*Figure 1-1*). The property encompasses approximately 0.5 acres identified as TMK: (1) 6-2-003:037. The land is owned by Queen Lili'uokalani Trust with a ground lease to Lokea Kai Partners LLC.

The project, to be known as Hale'iwa Gateway, will enhance the overall visitor and resident experience in Historic Hale'iwa Town. The project will include the development of one commercial/retail building, will encompass approximately 5,200 square feet of retail space. Current plans call for a coffee shop and a surf industry action sports and clothing retailer. A small outdoor seating lanai is associated with the coffee retailer. Haleiwa Gateway will expand the pedestrian-friendly, shopping district experience along Kamehameha Highway, reflecting the historical Hale'iwa architecture and Hawaiian landscaping. An open air parking area will be provided at the rear of the site. Hale'iwa Gateway will greatly improve the north end of Hale'iwa town with a small commercial/retail building with old Hale'iwa Town charm and character.

The property is located in the Special Management Area, requiring approval from the City and County of Honolulu for a SMA Use Permit and Hale'iwa Special District Permit. In support of the SMA request, an Environmental Assessment is being completed to evaluate the subject use. This pre-consultation is intended to engage input on the scope of studies included in the Draft EA, which will include studies on archaeology, cultural assessment, civil engineering, traffic and water quality.



Preconsultation Communications for Draft Environmental Assessment

Name	Date	Form of Communication	Comment
Kalani Fronda Kamehameha Schools	Sept 2015	Emails and Phone	Discussions regarding the project plans, with interest in protecting Loko Ea Pond.
Kerry Germain NS Outdoor Circle	10/19/15	Email	Interest in seeing a community cultural use of the site versus commercial redevelopment, per Haleiwa Town Plan.
Robert Justice	08/17/15	Meeting with Michael Wright	Concerns over traffic and development next to Loko Ea Pond.
Michael Lyons NSNB 27 Haleiwa Subdistrict	08/17/15	Phone conversation with Jeff Overton, Meeting with Michael Wright	Recommended considering increased on-site parking due to heavy on-street parking in area, address driveway access traffic and wastewater system. Culturally sensitive area at Loko Ea Pond former Queen Liliuokalani summer home.
Ernie Martin, District Councilmember	07/01/14	Meeting with Michael Wright	Project briefing with District Councilmember.
Antya Miller Executive Director, North Shore Chamber of Commerce	09/10/15, 10/15/15	Email, Meeting with Michael Wright	Concern over changes in Haleiwa and the loss of Haleiwa's history. Wants to preserve Queen's Pond or Loko Ea as last significant Hawaiian cultural site left. Questions possibility of preserving the pond. Referral to Haleiwa Town Plan completed in 1991.
Kathleen Pahinui NSNB 27 Chair	08/14/15	Phone, Meeting with Michael Wright	Recommended local tenants for the retail commercial spaces, and communication with Subdistrict Rep Bob Justice.
Bill Quinlan, Velzyland resident	10/20/15	Email, Phone, Meeting with Michael Wright	Concern over community plan for a cultural use of the site versus commercial redevelopment. Referral to the NS Outdoor Circle.
Barbara Ritchie, Chamber of Commerce Historic Board	10/01/15	Phone	Has historic photos of the old gas station at the property. Pleased with Group 70's work with the Haleiwa Store Lots project.
Thomas Shirai NSNB 27, Mokuleia Subdistrict	09/14/15	Meeting with Michael Wright, Jeff Overton	Discussion of native Hawaiian cultural context and recommendations for the project. Inclusion of T. Shirai in the archaeology and cultural impact studies was appreciated. Follow up information to be provided from T. Shirai for site and area background references.

Draft EA Comment Letters and Responses



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

In Reply Refer To:
01EPIF00-2016-TA-0050

DEC 09 2015

Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, HI 96813

Subject: Technical Assistance for the Draft Environmental Assessment for The Shops at Anahulu Project, Haleiwa, O'ahu

Dear Mr. Jeff Overton:

The U.S. Fish and Wildlife Service (Service) received your letter on November 12, 2015, requesting our comments on the Draft Environmental Assessment (EA) for The Shops at Anahulu Project, Haleiwa, O'ahu [TMK: 6-2-3:037]. We understand Group 70 International, Inc. on behalf of Lokea Kai Partners, LLC has prepared the Draft EA in accordance with Chapter 343, Hawai'i Revised Statutes. The proposed project involves the following: development of a 5,269 square foot building housing two retail shops, parking area with 23 parking stalls, 700 square foot outdoor seating area, covered walkway, and an Individual Wastewater System. Construction will take place during daytime hours. The following comments have been prepared pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), as amended (ESA); Migratory Bird Treaty Act (16 U.S.C. 703-712] (MBTA); and the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 401] as amended (NEPA). Based on these authorities, we offer the following comments for your consideration.

We have reviewed the information you provided and pertinent information in our files, including data compiled by the Hawai'i Biodiversity and Mapping Program as it pertains to listed species and designated critical habitat. There is no federally designated critical habitat within the immediate vicinity of the proposed project. Our data indicate the federally endangered Hawaiian hoary bat or ope'ape'a (*Lasiurus cinereus semotus*) may forage and roost within the vicinity of the project area. The federally threatened green sea turtle or honu (*Chelonia mydas*) may bask or nest on the shoreline adjacent to the project site. The endangered Hawaiian coot or 'alae ke'oke'o (*Fulica alai*) and the endangered Hawaiian duck or koloa maoli (*Anas wyvilliana*) may occur within the vicinity of the project site at Loko Ea Pond. Additionally, the wedge-tailed shearwater or 'ua'u kani (*Puffinus pacificus*) may nest in vegetation within the vicinity of the project area. While this species is not listed under the Endangered Species Act, it is federally protected under the Migratory Bird Treaty Act [16 U.S.C. 703-712].

Hawaiian hoary bat

Hawaiian hoary bats have been documented at various sites along the north shore of O‘ahu (*e.g.*, a sighting occurred at Uko‘a Wetland, approximately 0.5 miles from the project area. The Hawaiian hoary bat roosts in both exotic and native woody vegetation and, while foraging, will leave young unattended in “nursery” trees and shrubs when they forage. If trees or shrubs suitable for bat roosting are cleared during the breeding season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away when a tree is cut or disturbed. To minimize impacts to the endangered Hawaiian hoary bat, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Site clearing should be timed to avoid disturbance to Hawaiian hoary bats in the project area.

Wedge-tailed shearwater and Green sea turtle

Wedge-tailed shearwaters nest along the coastline in burrows, among littoral vegetation. Nesting adults, eggs, and chicks are particularly susceptible to impacts from human disturbance and predators. Surveys should be conducted throughout the project area during the species’ peak breeding season (August through October) to determine the presence and location of nesting areas. If it is found that wedge-tailed shearwaters nest within the proposed project area, project construction should be timed outside of the breeding season.

Outdoor lighting, such as street lights, can adversely impact listed (*i.e.*, green sea turtles) and migratory seabird species (*e.g.*, wedge-tailed shearwater) that may be found in the vicinity of the proposed project. Green sea turtles are susceptible to artificial lighting because it can disorient turtles away from the ocean. Green sea turtles come ashore to nest on beaches from May through September, peaking in June and July. Optimal nesting habitat is a dark beach free of barriers that restrict movement. Nesting turtles may be deterred from approaching or laying successful nests on lighted or disturbed beaches. If they do come ashore, they may become disoriented by artificial lighting, leading to exhaustion and placement of a nest in an inappropriate location (such as at or below the high tide line where nests are unlikely to be successful). Hatchlings that emerge from unprotected nests may be disoriented by artificial lighting, move inland instead of toward the ocean, and not make it successfully to the ocean.

Seabirds fly at night and are attracted to artificially lighted areas which can result in disorientation and subsequent fallout due to exhaustion or collision with objects such as utility lines, guy wires, and towers that protrude above the vegetation layer. Once grounded, they are vulnerable to predators or often struck by vehicles along roadways. Wedge-tailed shearwater nesting colonies are located on offshore islets and several locations on Oahu and every year many young shearwaters are downed and struck along Oahu roadways. Any increase in the use of night-time lighting, particularly during each year's peak fallout period (September 15 through December 15), could result in additional seabird injury or mortality.

To minimize and avoid artificial lighting impacts to sea turtles and seabirds, a lighting plan should be developed and incorporated into the project description, including educating all project staff and customers/residents with information about seabird fallout. If lights cannot be eliminated due to safety or security concerns then they should be positioned low to the ground,

be motion-triggered and be shielded and/or full cut-off. Effective light shields should be completely opaque, sufficiently large, and positioned so that the bulb is only visible from below and use the lowest wattage bulbs possible. Construction activities should occur during daylight hours only. Where appropriate, we recommend adding signage or a kiosk to educate customers/residents regarding the seabird fallout issue and to let people know that downed birds can be taken to Sea Life Park for rehabilitation. The project description should address all potential impacts to seabirds and green sea turtles and outline conservation measures to minimize these impacts.

In addition to outdoor lighting concerns, any construction-related debris that may pose an entanglement threat to federally listed species should be removed from the project site if not actively being used and at the conclusion of the project. No project-related materials should be stockpiled in the intertidal zone, reef flats, or stream channels.

Hawaiian coot and Hawaiian duck

Hawaiian coots and Hawaiian ducks are known to occur at various sites within the vicinity of the project area (*e.g.*, Loko Ea, Haleiwa Harbor). There are concerns regarding Hawaiian waterbirds being in areas of high human traffic. For example, Hamakua Marsh, a 23 acre (9 hectare) state-owned and managed waterbird sanctuary is adjacent to a shopping center and receives a high amount of human traffic. This has resulted in several documented deaths and disturbances of endangered waterbirds at Hamakua Marsh. People have discarded bread or other foods in parking areas adjacent to the marsh. Attracted by the food, waterbirds leave the marsh and forage for crumbs in the parking area, and these birds have been killed by vehicles and occasionally people. Dog owners throw tennis balls into the marsh for their dogs to retrieve, which disturbs nesting birds or may result in direct predation. In addition, there has been illegal disposal of garbage which has degraded nesting habitat. As human traffic increases within the vicinity of the proposed project area, there is potential for the above impacts to occur. Therefore, we recommend the following measures be incorporated into your project description to avoid and minimize potential impacts to listed Hawaiian waterbirds:

- Design a fence to prevent humans and pets from accessing Loko Ea from the project area to prevent predation of waterbirds and/or disturbance of nesting waterbirds.
- Place signage around the property to educate customers/residents about waterbird issues.
- Prohibit feeding of feral cat colonies to prevent predation of waterbirds.
- Allow only closed and contained trash receptacles to prevent garbage from degrading waterbird nesting habitat.

If, after further development of your project plans, it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may further assist you with ESA compliance.

General Comments

Hawai'i's native ecosystems are heavily impacted by exotic invasive plants. Whenever possible we recommend using native plants for landscaping purposes. If native plants do not meet the landscaping objectives, we recommend choosing species that are thought to have a low risk of

becoming invasive. The following websites are good resources to use when choosing landscaping plants: Pacific Island Ecosystems at Risk (<http://www.hear.org/Pier/>), Weed Risk Assessment for Hawai'i and Pacific Islands (<http://www.botany.hawaii.edu/faculty/daehler/wra/>) and Global Compendium of Weeds (<http://www.hear.org/gcw/>).

Because the proposed project will involve earthwork, we are attaching the Service's recommended Best Management Practices regarding sedimentation and erosion control. We encourage you to incorporate the relevant practices into your project design.

We appreciate your efforts to conserve endangered species. If you have questions regarding these comments, please contact Leila Gibson, Fish and Wildlife Biologist (phone: 808-792-9400, email: leila_gibson@fws.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron Nadig".

Aaron Nadig
Island Team Manager
O'ahu, Kaua'i, North Western Hawaiian Islands,
and American Samoa

Enclosure: Service BMPs for erosion and sediment control

CC: Mr. Alex Beatty

U.S. Fish and Wildlife Service Recommended Standard Best Management Practices

The U.S. Fish and Wildlife Service (USFWS) recommend the following measures to be incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Best Management Practices (BMPs) include the incorporation of procedures or materials that may be used to reduce either direct or indirect negative impacts to aquatic habitats that result from project construction-related activities. These BMPs are recommended in addition to, and do not over-ride any terms, conditions, or other recommendations prepared by the USFWS, other federal, state or local agencies. If you have questions concerning these BMPs, please contact the USFWS Aquatic Ecosystems Conservation Program at 808-792-9400.

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats beyond the planned project area.
2. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods are variable throughout the Pacific islands, we recommend contacting the relevant local, state, or federal fish and wildlife resource agency for site specific guidance.
3. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs should be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.
4. All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see <http://www.haccp-nrm.org/Wizard/default.asp>) can help to prevent attraction and introduction of non-native species.
5. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (*e.g.*, with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
6. Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.
7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.



February 15, 2016

Mr. Aaron Nadig
Island Team Manager
US Department of the Interior
Fish and Wildlife Service
300 Ala Moana Boulevard, Room 3-122
Honolulu, HI 96850

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OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Nadig:

Thank you for your comment letter received on December 9, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. We acknowledge that there is no federally designated critical habitat within the immediate vicinity of the project, but that the federally endangered Hawaiian hoary bat, federally threatened green sea turtle, endangered Hawaiian coot, endangered Hawaiian duck, and wedge-tailed shearwater may occur within the vicinity of the project area.
2. To minimize impacts to the endangered Hawaiian hoary bat, woody plants greater than 15 feet tall will not be disturbed, removed, or trimmed during the bat birthing and pup rearing season, from June 1 - September 15.
3. A discussion of lighting as a preventative measure for protecting wedge-tailed shearwaters and green sea turtles will be incorporated into the Final EA to the extent possible.
4. We appreciate your recommendation for measures to protect Loko Ea Pond. A fence will be constructed to prevent humans and pets from accessing the pond from the project site. Feeding of feral cats will also be prohibited on the property. In addition, trash receptacles will be contained to prevent garbage from entering the pond habitat. Installations of educational signage around the property will be considered.
5. We appreciate you providing the online resources for selecting landscaping plants. A landscape architect will design the landscaping elements of the project, and will look for opportunities to integrate a mix of native plants common to the region and other plant species with low invasive risks.

Letter to Mr. Aaron Nadig, Assistant Field Supervisor
U.S. Fish and Wildlife Services
February 15, 2016
Page 2 of 2

6. We appreciate you providing the recommended Best Management Practices (BMP) pertaining to soil erosion and sedimentation in aquatic environments. The project will follow the USFWS recommended BMPs regarding soil erosion and sedimentation into the marine environment as regulated by the State Department of Health, Clean Water Branch.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read "Jeff Overton". The signature is fluid and cursive, with a large initial "J" and "O".

Jeff Overton, AICP, LEED-AP
Principal Planner

PHONE (808) 594-1888

FAX (808) 594-1938



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAII 96817

HRD15-7676

December 22, 2015

Jeff Overton
Group 70 International, Inc.
915 Bethel Street, 5th Floor
Honolulu, HI 96813



Re: Comments on a Draft Environmental Assessment
The Shops at Anahulu
Kawailoa Ahupua'a, Waialua Moku, O'ahu Mokupuni

Aloha e Jeff Overton:

The Office of Hawaiian Affairs (OHA) is in receipt of your November 9, 2015 letter seeking comments on a draft environmental assessment (DEA) for the proposed redevelopment (project) of a vacant parcel located in historic Hale'iwa town. The project will improve the character of this area and provide quality experiences to local residents and visitors.

The property, owned by the Queen Lili'uokalani Trust, will be redeveloped as a small retail and commercial center located at the north end of Hale'iwa town. On the east side of the project is the historic Loko Ea fishpond. The Shops at Anahulu (project) consist of a 5,269 square-foot building that will house two retail shops, coffee retailer, and a surf gear and apparel retailer. The design character of the building will fit with the existing rural, low-rise, and will be appropriate to the "country town" feel along Kamehameha Highway and Lokoea road.

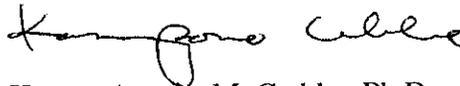
According to the DEA, within the Kawailoa ahupua'a, sits the royal fishponds of Loko Ea and 'Uko'a. These fishponds are connected to one another and continue to provide an abundance of food for the Kawailoa and Waialua area. Historically, these two fishponds are significant for two guardian mo'o, Laniwahine, and her brother, Puhi'ula. Over the past five years, efforts have been made to restore the fishpond, which is managed by Kamehameha Schools.

Given the site's history as a gas station, the site was heavily disturbed, including extensive excavation of the subsurface strata. In July 2015, fieldwork was completed and five test trenches were excavated on the property. None of the test trenches yielded evidence of subsurface archaeological material or deposits. Historical and archaeological research for this project area suggests that construction to the project area will have no impact on historic properties.

OHA supports the recommendation in the DEA that archaeological monitoring be conducted during any excavation associated with the project's construction due to the project area's proximity to the beach, which was traditionally an area used for human burials. OHA does request assurances that should iwi kūpuna or Native Hawaiian cultural deposits be identified during ground altering activities, all work will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to applicable law.

Thank you for the opportunity to provide comments on the DEA for the project. Should you have any questions, please contact Kathryn Keala at (808) 594-0272 or kathyk@oha.org.

‘O wau iho nō me ka ‘oia ‘i‘o,



Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:kk

**Please address replies and similar, future correspondence to our agency:*

Dr. Kamana'opono Crabbe
Attn: OHA Compliance Enforcement
560 N. Nimitz Hwy, Ste. 200
Honolulu, HI 96817



February 15, 2016

Mr. Kamana'opono M. Crabbe, PhD
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Ma Ry Kim
RIBA, ARB

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Dr. Crabbe:

Thank you for your comment letter dated December 22, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project.

We acknowledge OHA's support for archaeological monitoring during any project-related excavation due to the project's proximity to the beach, which was traditionally an area used for human burials. In the event that iwi kūpuna or Native Hawaiian cultural deposits are identified during ground disturbing activities, all work will immediately cease, and appropriate agencies will be contacted in compliance with applicable laws.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton', is written over the typed name.

Jeff Overton, AICP, LEED-AP
Principal Planner

OF COUNSEL

Ralph E. Portmore
FAICP



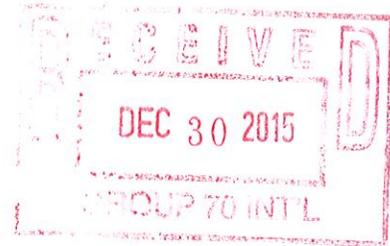
STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
File:

15-877A CAB

December 21, 2015

Mr. Jeff Overton
Principal Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813



Dear Mr. Overton:

**SUBJECT: Draft Environmental Assessment
The Shops at Anahulu
Haleiwa, Oahu, Hawaii**

A significant potential for fugitive dust emissions and nuisance odors exist during all phases of construction and operations. The activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. We encourage the contractor to implement a dust control plan, which does not require approval by the Department of Health, to comply with the fugitive dust regulations.

The dust control measures may include, but are not limited to, the following:

- a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water source at the site prior to start-up of construction activities;
- c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimizing dust from shoulders and access roads;
- e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling dust from debris being hauled away from the project site. Also, controlling dust from daily operations of material being processed, stockpiled, and hauled to and from the facility.

If you have any questions, please contact Mr. Barry Ching of the Clean Air Branch at 586-4200.

Sincerely,

NOLAN S. HIRAI, P.E.
Manager, Clean Air Branch

BC:rg

- c: Alex Beatty, Department of Planning and Permitting, City and County of Honolulu
Laura McIntyre, Environmental Planning Office, Department of Health



February 15, 2016

Mr. Nolan S. Hirai, P.E.
Manager
State of Hawai'i
Department of Health, Clean Air Branch
P.O. Box 3378
Honolulu, HI 96801

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Ma Ry Kim
RIBA, ARB

OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Hirai:

Thank you for your comment letter dated December 21, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project.

We appreciate your recommendations for dust control at the project site. Construction of The Shops at Anahulu will encourage the contractor to implement a dust control plan including but not limited to the strategies you have provided.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner



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

In reply, please refer to:
EMO/CWB

12007PJF.15

December 2, 2015

Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Overton:

**SUBJECT: Draft Environmental Assessment (DEA) for
The Shops at Anahulu
TMK: 6-2-3:37
Waialua, Island of Oahu, Hawaii**

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated November 9, 2015, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: <http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for an NPDES individual permit must be submitted at least 180 calendar days before

the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
 - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological

bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

- b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g., minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
- c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
- d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
- e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

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

Sincerely,



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

JF:ak

- c: Mr. George I. Atta, City and County of Honolulu
EPO [via e-mail Noella.Narimatsu@doh.hawaii.gov only]



February 15, 2016

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

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Ma Ry Kim
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OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Wong:

Thank you for your comment letter received on December 2, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. We acknowledge that the project must meet the State criteria for Antidegradation policy (HAR, Section 11-54-1.1), Designated Uses (HAR, Section 11-54-3), and water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. An NPDES permit application will be submitted in conjunction with other land development permits.
3. The project does not involve work in, over, or under waters of the United States.
4. Discharges related to the project construction and operations will comply with State Water Quality Standards.
5. The project will sustain water quality and beneficial uses of State waters. Chapter 5 of the Final EA has been edited to discuss the State's position on water quality and the beneficial uses of State waters. We appreciate your recommendations for storm water Best Management Practices, green building practices, and retrofitting and bio-engineering opportunities, and will integrate the concepts into the project where practicable.

We will provide your office with a copy of the Final EA for your review. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner



OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

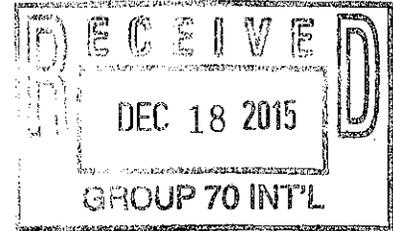
LEO R. ASUNCION
ACTING DIRECTOR
OFFICE OF PLANNING

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

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

Ref. No. P-14981

December 15, 2015



Mr. George I. Atta, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attention: Mr. Alex Beatty

Dear Mr. Atta:

Subject: Chapter 25, Revised Ordinances of Honolulu (ROH), Draft Environmental Assessment (EA) for the Proposed Shops at Anahulu, Haleiwa, Oahu, Hawaii;
Tax Map Key: (1) 6-2-003: 037

Thank you for the opportunity to provide comments on the subject Draft EA, received November 10, 2015.

According to the Draft EA, Lokea Kai Partners, LLC is proposing to develop a retail center on a vacant parcel at the north end of Haleiwa Town on Oahu's North Shore. This EA is prepared to meet assessment requirements for the Special Management Area (SMA) Use Permit application pursuant to Chapter 25, ROH.

The Office of Planning has reviewed the Draft EA and has the following comments to offer.

1. Both terms "Approving agency" and "Accepting authority" were used for the Draft EA. Pursuant to Hawaii Administrative Rules § 11-200-2, "Approving agency" is the term that should be used for an EA document.
2. Page 2-7, the Draft EA states that a portion of the property is located within the Board of Water Supply no pass zone, which prohibits the installation of water disposal facilities. The applicant should consult with the Wastewater Branch, State of Hawaii Department of Health, for the proposed wastewater system. The Final EA should assess potential impacts and discuss mitigation measures to install an individual wastewater system within such no pass zone.
3. The applicant should consult with the Department of Planning and Permitting, City and County of Honolulu, for guidelines on sea level rise impact assessments. Given

that the project site is located near the coastal lowlands and North Shore beaches as stated on page 3-23, **3.4.5 Climate Change and Sea Level Rise**, pages 3-7 and 3-8, should discuss whether site-specific mitigation measures are considered to mitigate potential impacts including sea level rise inundation, storm surge inundation, and coastal erosion from the projected sea level rises over the period of life cycle of the proposed structure and facilities.

4. Act 120, Session Laws of Hawaii (SLH) 2013, made permanent Act 160, SLH 2010. *Beach protection* under **5.3 Hawaii Coastal Zone Management**, pages 5-9 and 5-10, should refer to HRS § 205A-2 (c)(9), as amended, as follows:

(9) Beach protection

- (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*
 - (B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities;*
 - (C) Minimize the construction of public erosion-protection structures seaward of the shoreline.*
 - (D) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and*
 - (E) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.*
5. As a supporting document for the SMA Use Permit application, the Final EA should provide the information about the time and/or phasing of the proposed project.

If you have any questions regarding this comment letter, please contact Mr. Shichao Li of our Coastal Zone Management Program at (808) 587-2841.

Sincerely,



Leo R. Asuncion
Acting Director

✓cc: Mr. Jeff Overton



February 15, 2016

Mr. Leo R. Asuncion
Acting Director
State of Hawai'i
Office of Planning
235 South Beretania Street, 6th Floor
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OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Asuncion:

Thank you for your comment letter dated December 15, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. We acknowledge that pursuant to HAR §11-200-2, "Approving agency" is the term that should be used for an EA document. The Final EA will be edited to replace "Accepting authority" with "Approving agency."
2. Page 2-7 of the Draft EA states that a portion of the property is located within the Board of Water Supply no pass zone. Page 2-7 also states that "the absorption bed will be installed within the portion of the property that is within the pass zone."
3. Section 3.4.5 *Climate Change and Sea Level Rise* has been edited to discuss the site-specific mitigation measures within the larger context of potential project impacts, including but not limited to sea level rise inundation, storm surge inundation, and coastal erosion from projected sea level rise.
4. Section 5.3 *Coastal Zone Management* has been edited to reflect the amended HRS §205A-2 (c)(9).
5. More detailed information on the timing and phasing of the project have been added to Chapter 2 of the Final EA.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner

BOARD OF WATER SUPPLY

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

RECEIVED



15 DEC -2 P 2:25
November 24, 2015

DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chair
ADAM C. WONG, Vice Chair
DAVID C. HULIHEE
KAPUA SPROAT
BRYAN P. ANDAYA

ROSS S. SASAMURA, Ex-Officio
FORD N. FUCHIGAMI, Ex-Officio

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

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Overton:

Subject: Your Letter Dated November 9, 2015 Regarding the Draft Environmental Assessment of the Shops at Anahulu –Tax Map Key: 6-2-003: 037

Thank you for your letter regarding the proposed commercial development in Haleiwa.

The existing water system is 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 the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

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

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

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,

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

cc: Alex Beatty, DPP



February 15, 2016

Mr. Ernest Y.W. Lau, P.E.
Manager and Chief Engineer
City and County of Honolulu
Board of Water Supply
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Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Lau:

Thank you for your comment letter dated November 24, 2015 concerning the Draft Environmental Assessment for Chapter 25, Revised Ordinances of Honolulu (ROH) for the Shops at Anahulu. The following responses are offered to your comments:

1. We note that the existing water system is adequate to accommodate the Shops at Anahulu development, and acknowledge that the final decision on water availability will be confirmed when the building application is submitted for approval.
2. An existing water meter is in place at the project property. Based on a discussion with BWS staff, the applicant will not be required to pay the BWS Water System Facilities Charges for a new water meter.
3. On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner

OF COUNSEL

Ralph E. Portmore
FAICP

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

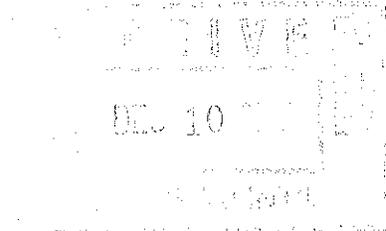
KIRK CALDWELL
MAYOR



ROBERT J. KRONING, P.E.
DIRECTOR

MARK YONAMINE, P.E.
DEPUTY DIRECTOR

December 7, 2015



Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Overton:

Subject: Chapter 25, Revised Ordinances of Honolulu (ROH)
Draft Environmental Assessment (EA)
The Shops at Anahulu

The Department of Design and Construction does not have comments to offer on the draft.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Mr. M. Yonamine".

Robert J. Kroning, P.E.
Director

RJK: ms (631756)

cc: Department of Planning and Permitting



February 15, 2016

Mr. Robert J. Kroning, P.E.
Director
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, HI 96813

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OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Kroning:

Thank you for your comment letter dated December 7, 2015 concerning the Draft Environmental Assessment for Chapter 25, Revised Ordinances of Honolulu (ROH) for the Shops at Anahulu project.

We acknowledge that the Department of Design and Construction has no comments to offer at this time.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff H. Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner

DP4

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

RECEIVED

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

'15 DEC -3 P2:16

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ROSS S. SASAMURA, P.E.
DIRECTOR AND CHIEF ENGINEER

EDUARDO P. MANGLALLAN
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 15-895

December 2, 2015

Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Overton:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu (ROH)
Draft Environmental Assessment (EA)
The Shops at Anahulu, Lokea Kai Partners
Tax Map Key: 6-2-3:37

Thank you for the opportunity to review and provide our input regarding the above subject project.

Our comments are as follows:

- Once construction phase commences, install approved Best Management Practices fronting all drainage facilities on Kamehameha Highway and Lokea Place.
- During construction and upon completion of the project, any damages/deficiencies to Kamehameha Highway and Lokea Place right-of-ways shall be corrected to City standards and accepted by the City.

If you have any questions, please contact Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

Sincerely,

Ross S. Sasamura, P.E.
Director and Chief Engineer

cc: ✓ Mr. Alex Beatty
Department of Planning and Permitting



February 15, 2016

Mr. Ross S. Sasamura, P.E.
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City and County of Honolulu
Department of Facility Maintenance
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Ma Ry Kim
RIBA, ARB

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Sasamura:

Thank you for your comment letter dated December 2, 2015 concerning the Draft Environmental Assessment for Chapter 25, Revised Ordinances of Honolulu (ROH) for the Shops at Anahulu project. The following responses are offered to your comments:

1. Best Management Practices fronting all drainage facilities on Kamehameha Highway and Lokoea Place will be installed during the construction phase of the project.
2. We acknowledge that in the event that any damages/deficiencies occur to Kamehameha Highway and Lokoea Place right-of-ways, damages should be repaired to City standards and accepted by the City.

We will provide your office with a copy of the Final EA. Per the requirements under the State environmental review process, the FEA/FONSI will undergo a 30-day legal challenge period. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton', is written over the typed name.

Jeff Overton, AICP, LEED-AP
Principal Planner

OF COUNSEL

Ralph E. Portmore
FAICP

DEPARTMENT OF PLANNING AND PERMITTING
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KIRK CALDWELL
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GEORGE I. ATTA, FAICP
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ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ED-13(AB)

December 23, 2015

Mr. Jeff Overton
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Overton:

**SUBJECT: Draft Environmental Assessment
The Shops at Anahulu
62-594 Kamehameha Highway - Haleiwa
Tax Map 6-2-3: 37**

The following comprises the Department of Planning and Permitting (DPP) comments on the Draft Environmental Assessment (EA) for the subject project.

A. Land Use Permits Division (LUPD) Comments:

1. Please include and address the comments and concerns raised during the North Shore Neighborhood Board Meeting Presentation from October 27, 2015 in the Final EA.
2. The Special Management Area (SMA) Use Permit application should include the Final EA along with a separate narrative with information specifically focused on the project's impacts within the SMA.

Please contact Alex Beatty of our Land Use Approvals Branch at 768-8032 if you have any questions concerning LUPD comments.

B. Planning Division Comments:

Section 3.4.5 shall state what measures will be taken to address the on-site dangers of projected future sea level rise, and if the project's raised-floor design qualifies as a valid hazard prevention action.

Please contact Mike Watkins at 768-8049, if you have any questions concerning this comment.

C. Civil Engineering Branch (CEB) Comments:

1. The Final EA shall show compliance with the City's Flood Hazard requirements relating to finished floor elevations and structural considerations. This includes electrical and mechanical infrastructure support for the project.
2. The Applicant is proposing no drainage improvements in the roadway; therefore, on-site retention or detention of runoff is recommended.

Please contact Leonard Furukawa at 768-8105 if you have any questions concerning the CEB comments.

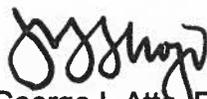
D. Traffic Review Branch (TRB):

1. Improvements to the frontage of the property along Kamehameha Highway and Lokoea Place should be provided to enhance and promote pedestrian safety and circulation. The intersection should be reconfigured to shorten the distance pedestrians need to cross the paved travel way. Marked crosswalks should also be installed at this intersection. These improvements are identified in the traffic study dated October 2015.
2. A construction management plan should be prepared to identify potential impacts to traffic and parking during construction and methods to mitigate these impacts.
3. Adequate vehicular sight distance at the driveway should be provided and maintained to pedestrians and other vehicles. All loading activities should be contained on-site and adequate maneuvering space provided such that loading vehicles enter and exit the site front first.

Please contact Mel Hiramama at mhirayama@honolulu.gov if you have any questions concerning TRB comments.

Thank you for the opportunity to review and comment on the subject Draft EA. We have also enclosed your receipts for the EA filing fee.

Very truly yours,


for George I. Atta, FAICP
Director

Enclosures: Receipt No. 104965 and 104966



February 15, 2016

Mr. George I. Atta, FAICP
Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

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OF COUNSEL

Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Atta:

Thank you for your comment letter dated December 23, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. A summary of community comments and concerns from the North Shore Neighborhood Board Meeting presentation on October 27, 2015 have been added to Section 1.6 of the Final EA. Attached for your reference are the questions and comments from October 27, 2015 meeting.
2. We appreciate your guidance regarding the Special Management Area (SMA) Use Permit application. The Final EA and a separate narrative detailing the project's impacts within the SMA will be included in the application packet.
3. Section 3.4.5 of the Final EA addresses on-site dangers of projected sea level rise to the project.
4. The Final EA shows the project's compliance with the City's Flood Hazard requirements relating to the finished floor elevations and structural considerations.
5. We appreciate your recommendations for on-site retention/detention of runoff. Best management practices for storm water drainage will be implemented on-site.
6. A follow-up meeting was held on January 20, 2016 to address highway frontage and intersection conditions. The meeting included the project team and representatives from DTS, DPP-Traffic Review Branch, DPP Subdivision Branch and The Bus. A preliminary concept for intersection improvements was developed to reflect the agency guidance, as shown in the attached figure. The preliminary concept for intersection improvements will be further reviewed in the Hale'iwa Special District Permit application and subsequent site development permit reviews.

Letter to Mr. George I. Atta, Director
Department of Planning and Permitting
February 15, 2016
Page 2 of 2

7. A construction management plan will be prepared before build-out of the project, to identify potential impacts to traffic and parking during construction.
8. We note that adequate vehicular sight distance at the driveway should be provided to pedestrians and other vehicles. Loading activities will be contained on-site in the designated loading/unloading area of the parking lot.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read "Jeff Overton".

Jeff Overton, AICP, LEED-AP
Principal Planner

Attachments:

1. Community comments and concerns from North Shore Neighborhood Board Meeting presentation
2. Preliminary Concept for Intersection Improvements

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813

Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR



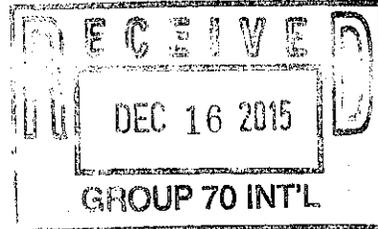
MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP11/15-632045R

December 17, 2015

Mr. Jeff Overton
Project Manager
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307



Dear Mr. Overton:

SUBJECT: Draft Environmental Assessment (DEA) with Anticipated Finding of No Significant Impact (FONSI), The Shops at Anahulu, Tax Map Key: 6-2-3: 37, Haleiwa, Oahu, Hawaii

In response to a letter dated November 9, 2015, from George I. Atta, FAICP, Director, Department of Planning and Permitting (DPP), City and County of Honolulu, we have the following comments:

1. For the intersection of Kamehameha Highway and Lokoea Place, which is adjacent to the project, a study should be conducted to determine projected pedestrian traffic to and from the project site. Marked crosswalk(s) and appropriate signage should be installed where traffic levels are projected to be at sufficient levels. Americans with Disabilities Act ramps must be installed at all marked crosswalk locations to facilitate pedestrian movement.
2. The project should have bike racks to accommodate bicycle parking. The DEA should include a discussion of how the Complete Streets Ordinance and DPP requirements for sidewalks and curbing will be implemented.
3. Lokoea Place intersection improvements at Kamehameha Highway should include reduced crossing distance for pedestrians by the use of such techniques as bulb-outs or a shelter island. There should be a realignment of Lokoea Place at the intersection with Kamehameha Highway. Lokoea Place intersection should terminate at a right angle to Kamehameha to improve the sight lines for detecting potentially conflicting vehicular traffic. As Lokoea Place is a private street, the developer should consult with its owners for concurrence on design.

Mr. Jeff Overton
December 23, 2015
Page 2

Thank you for the opportunity to review this matter. Should you have any further questions, please contact Michael Murphy of my staff at 768-8359.

Very truly yours,


Michael D. Formby
Director

cc: Alex Beatty, Department of Planning and Permitting



February 15, 2016

Mr. Michael D. Formby
Director
City and County of Honolulu
Department of Transportation Services
650 South King Street, 3rd Floor
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Ralph E. Portmore
FAICP

Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Formby:

Thank you for your comment letter dated December 17, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. Pedestrian traffic data was compiled for the intersection of the project area, excluding jaywalkers. A marked crosswalk will be installed during the construction of the project. Details of the crosswalk are being developed at this time with the Department of Planning and Permitting – Traffic Review Branch.
2. A discussion of the project's compliance with the Complete Streets Ordinance and DPP sidewalk and curbing requirements has been added to Chapter 5 *Applicable Land Use Plans and Policies*.
3. Upon consultation with Queen Lili'uokalani Trust, the intersection of Lokoea Place and Kamehameha Highway will be designed for realignment, with the intersection of Lokoea Place terminated at the right angle to Kamehameha Highway. Further details of the road realignment are still being developed with the Department of Planning and Permitting – Traffic Review Branch.
4. A follow-up meeting was held on January 20, 2016 to address highway frontage and intersection conditions. The meeting included the project team and representatives from DTS, DPP-Traffic Review Branch, DPP Subdivision Branch and The Bus. A preliminary concept for intersection improvements was developed to reflect the agency guidance, as shown in the attached figure. The preliminary concept for intersection improvements will be further reviewed in the Hale'iwa Special District Permit application and subsequent site development permit reviews.

Letter to Mr. Michael D. Formby, Director
Department of Transportation Services
February 15, 2016
Page 2 of 2

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read "Jeff Overton". The signature is fluid and cursive, with the first name "Jeff" being the most prominent.

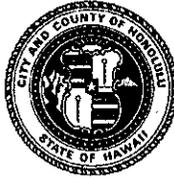
Jeff Overton, AICP, LEED-AP
Principal Planner

1 Attachment:
Preliminary Concept for Intersection Improvements

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

KIRK CALDWELL
MAYOR



MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

December 1, 2015

Mr. Jeff Overton, AICP, LEED AP
Principal Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4398

Dear Mr. Overton:

Subject: Draft Environmental Assessment
The Shops at Anahulu
62-594 Kamehameha Highway - Haleiwa
Tax Map Key: 6-2-003: 037

In response to a letter from Mr. George Atta of the City and County of Honolulu's Department of Planning and Permitting (DPP) dated November 9, 2015, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 m) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1, Uniform Fire Code [UFC]TM, 2006 Edition, Section 18.2.3.2.2.)

A fire department access road shall extend to within 50 feet (15 m) of at least one exterior door that can be opened from the outside and provides access to the interior of the building. (NFPA 1, UFCTM, 2006 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter

Mr. Jeff Overton, AICP, LEED AP
Page 2
December 1, 2015

constructed or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1, UFC™, 2006 Edition, Section 18.3.1, as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,


SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh

cc: Alexander Beatty, DPP



February 15, 2016

Mr. Socrates D. Bratakos
Assistant Chief
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Subject: Chapter 25 Environmental Assessment (EA)
The Shops at Anahulu
TMK: (1) 6-2-003:037, Hale'iwa, O'ahu

Dear Mr. Bratakos:

Thank you for your comment letter dated December 1, 2015 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment for the Shops at Anahulu project. The following responses are offered to your comments:

1. Fire access roads will be provided such that any portion of the building will be located not more than 150 feet from the fire department access roads, as measured by an approved route around the exterior of the building.
2. County-approved water supply will be provided to all premises. A fire hydrant is located across the street from the project area on Lokoea Place. Fire sprinklers are anticipated for the project, as new onsite hydrants are not proposed.
3. Civil drawings will be submitted to the HFD for review and approval.

We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Jeff Overton'.

Jeff Overton, AICP, LEED-AP
Principal Planner

OF COUNSEL

Ralph E. Portmore
FAICP

Appendix B

ARCHAEOLOGICAL ASSESSMENT

REVISED DRAFT—Archaeological Assessment of TMK: (1) 6-2-003:037 in Kawaioloa Ahupua‘a, Waialua District, Island of O‘ahu, Hawai‘i



Prepared For:
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813



December 2015



Keala Pono Archaeological Consulting, LLC • PO Box 1645, Kaneohe, HI 96744 • Phone 808.381.2361

REVISED DRAFT—Archaeological Assessment of TMK: (1) 6-2-003:37 in Kawailoa Ahupua‘a, Waialua District, Island of O‘ahu, Hawai‘i

Prepared For:

Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813



Prepared By:

Windy McElroy, PhD
Dietrix Duhaylonsod, BA
and
Joey J. Condit, MA

December 2015



MANAGEMENT SUMMARY

An archaeological inventory survey was conducted for TMK: (1) 6-2-003:037 in Kawaihoa Ahupua'a, Waialua District, on the Island of O'ahu. This was done in preparation for ground disturbance associated with a small commercial redevelopment called The Shops at Anahulu. The archaeological inventory survey included a pedestrian survey that covered 100% of the .512-acre property, as well as test excavations consisting of five trenches.

No surface or subsurface archaeological remains were found during pedestrian survey or subsurface testing. The property has been disturbed by a former gas station that was in operation from the 1940s to 2008. Even though there were no findings during this study, archaeological monitoring is recommended because of the proximity of the parcel to the beach, an environment traditionally favored for human burial, as well as proximity to Lokoea Fishpond, an important cultural resource on the neighboring property.

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INTRODUCTION

At the request of Group 70 International, Keala Pono Archaeological Consulting conducted an archaeological inventory survey (AIS) of TMK: (1) 6-2-003:037 in Kawailoa Ahupua'a, Waialua District, on the island of O'ahu. A small commercial redevelopment called The Shops at Anahulu is proposed for the parcel. The archaeological inventory survey was designed to identify any historic properties that may be located on the lot, in anticipation of the proposed construction.

This report is drafted to meet the requirements and standards of state historic preservation law, as set out in Chapter 6E of the Hawai'i Revised Statutes and SHPD's *Rules Governing Standards for Archaeological Inventory Surveys and Reports*, §13–276. Due to negative findings, the AIS results are presented as an archaeological assessment per HAR §13–275.

The report begins with a description of the project area and an historical overview of land use and archaeology in the area. The next section delineates methods used in the fieldwork, followed by the results of the archaeological survey. Project results are summarized and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary at the end of the document.

Project Location and Environment

The project area is located in Kawailoa Ahupua'a, Waialua District, on the island of O'ahu (Figure 1). TMK: (1) 6-2-003:037 encompasses .512 acres (.207 ha) on the *mauka* (east) side of Kamehameha Highway (Figure 2). The subject property is the owned by Queen Liliuokalani Trust, formerly occupied for many years by a Chevron service station. The service station ceased operations in 2008, and the property has since remained vacant. The location is directly across from the Surf N Sea surf shop, and is bounded by Kamehameha Highway to the north and west, Lokoea Place to the south, and the banks of Lokoea Pond to the east.

The parcel sits at less than 6 m (20 ft.) in elevation and is approximately 40 m (130 ft.) from the coast. Rainfall averages roughly 0–102 cm (0–40 in.) per year (Juvik and Juvik 1998). Anahulu Stream is the largest permanent watercourse in the area, located approximately 90 m (300 ft.) south of the property. Another major body of water is Lokoea Pond, which lies only 20 m (65 ft.) to the northeast. The project area's location relative to two major bodies of water, the Anahulu Stream and the Lokoea Fishpond, as well as being at the shoreline of the bay, suggests that it is a location which would be important to the settlement of the region. This will be discussed further in the Background section.

Topography of the parcel is very flat and the property is currently undeveloped with little vegetation. Clumps of short grass are scattered throughout, along with a few solitary trees (plumeria, palm, and paper bark trees) along the periphery of the lot. Generally, soils in the area are of the Kaena-Waialua Association, described by Foote et al. (1972) as follows:

Deep, mainly nearly level and gently sloping, poorly drained to excessively drained soils that have a fine-textured to coarse-textured subsoil or underlying material; on coastal plains and talus slopes and in drainageways.

Specifically, soils within the project area consist almost entirely of Jaucas sand, 0–15% slopes (JAC). Tropaquepts (TR) make up a small portion of the southeastern corner of the parcel, and a small section of Haleiwa silty clay, 0–2% slopes (HeA) is in the south (Figure 3).

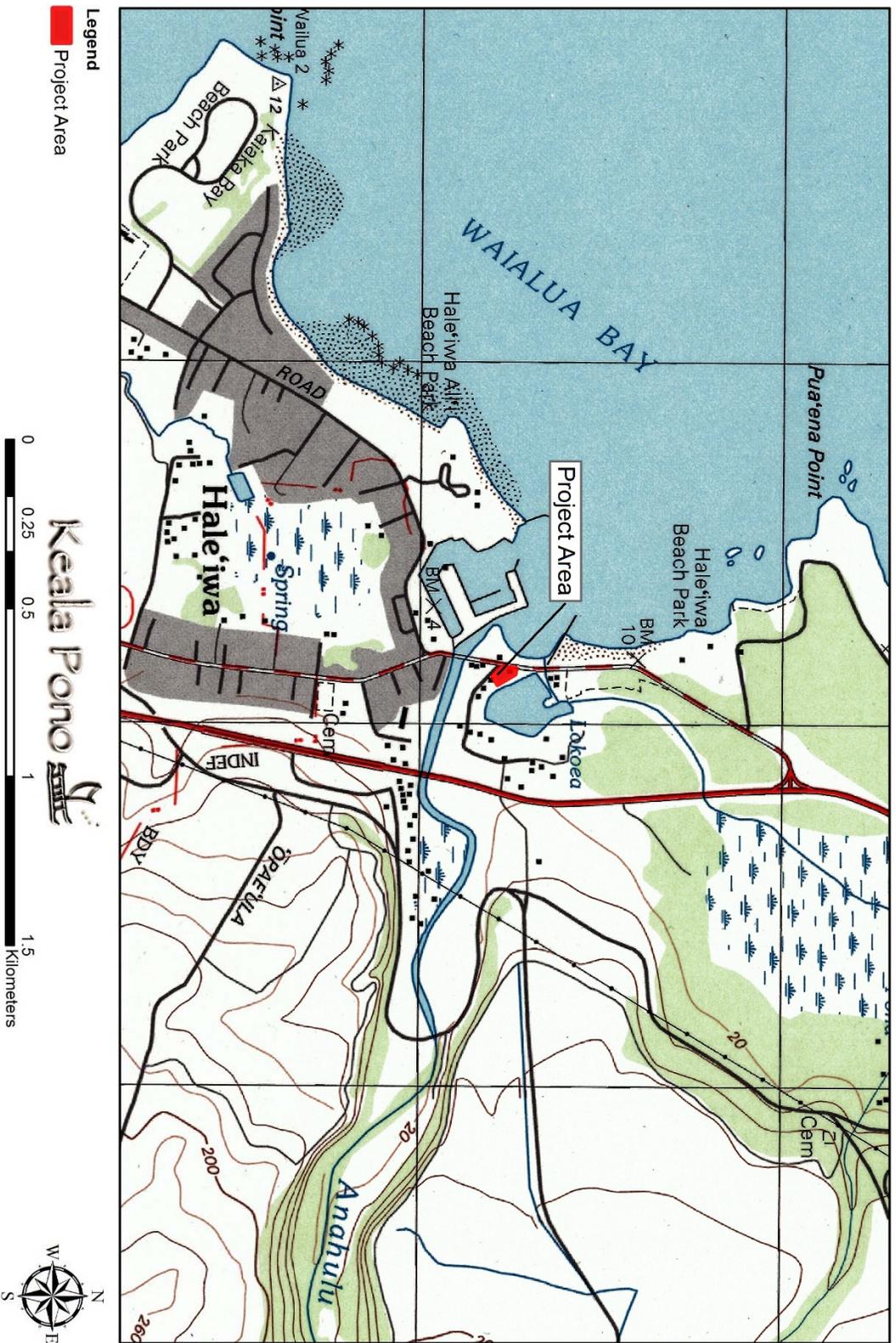


Figure 1. Project area on a 7.5 minute USGS 1999 Haleiwa quadrangle map.

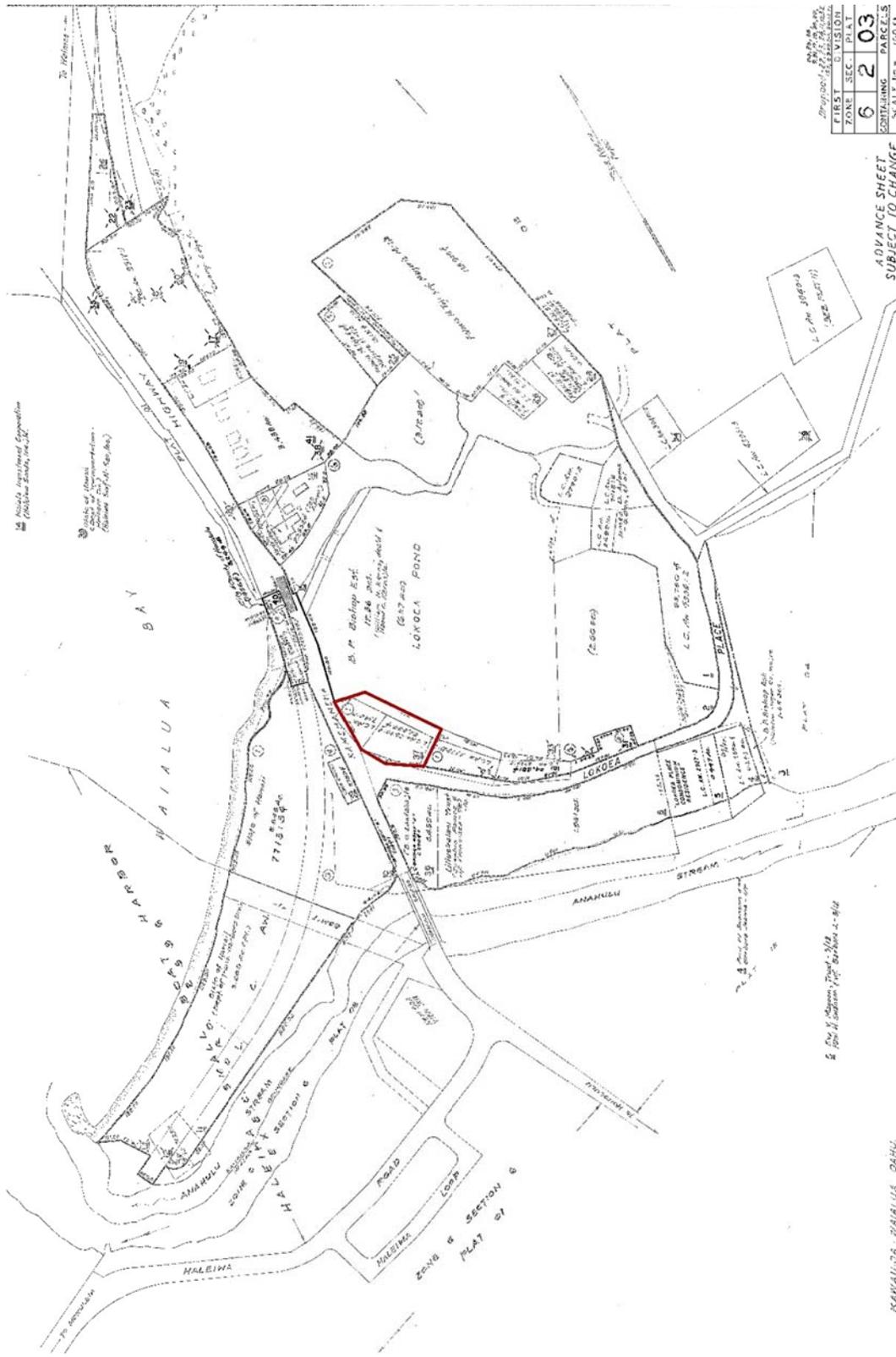


Figure 2. Project area (in red) on a 1933 TMK plat map.



Figure 3. Soils in the vicinity of the project area (data from Foote et al. 1972).

An archaeological monitoring plan for soil remediation on a portion of the lot provides further information on the parcel's history:

The lot is the former location of a gasoline service station and automobile repair facility built in the 1940s. By 1969, service station features included two cesspools, two hydraulic hoists, a 1,000-gallon used-oil underground storage tank (UST), and five gasoline USTs. The five USTs were removed in 1982 and replaced by three 10,000-gallon USTs. Station operations were converted from full service gasoline sales and automobile repair to self-service gasoline sales and a convenience store in 1988. The 1,000-gallon used-oil UST was removed on 15 January 15 1988. Chevron leases the service station parcel from the current landowner, Queen Liliuokalani Trust, under a renewed and current lease beginning September 30, 2008. Upon closure of the Chevron site in 2008, all remaining subsurface features were removed and aboveground structures razed. The parcel was also scarified to a depth of 0.9 m...

Site investigation in 1997 identified petroleum contaminated soil near the tank pit area and was excavated and hauled offsite. In 2007, hydrocarbon contaminated groundwater containing both diesel and residual range organics was identified adjacent to the cesspools. Additionally, automotive debris, arsenic, barium, cadmium, chromium, mercury, and lead-impacted soils were detected at 0.2 m to 1.5 m below ground surface along the northeast boundary of the main project parcel (TMK 1-6-2-003:037) and in the adjacent lot (TMK 1-6-2-003:002) owned by Kamehameha Schools. In 2013–2014, multi-incremental soil sampling investigations were conducted by ARCADIS to delineate areas of impacted soil on both land parcels. The soil boring data indicate that the subsurface is primarily fill material and contains pits used to dump service station debris. (Robins and Desilets 2014:1)

The Project

The Shops at Anahulu project will include the development of one building of approximately 5,200 sf. that will house small retail tenants. These tentatively include a coffee shop and surf/clothing store. The site will also provide outdoor seating fronting Kamehameha Highway and an open air parking lot at the rear of the building, adjacent to Lokoea Pond. The property is located in the Special Management Area (SMA), requiring approval from the City and County of Honolulu for a SMA Use Permit and Hale'iwa Special District Permit. In support of the SMA request, an Environmental Assessment (EA) is being completed to evaluate the subject use.

BACKGROUND

This section of the report presents background information as a means to provide a context through which one can examine the cultural and historical significance of the *ahupua'a* of Kawailoa. In the attempt to record and preserve both the tangible (e.g., traditional and historic archaeological sites) and intangible (e.g., *mo'olelo*, *'ōlelo no'eau*, place names) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawai'i State Archives, Hawai'i State Library, the SHPD library, and online on the Papakilo database, Waihona 'Aina database, and the State of Hawai'i Department of Accounting and General Services (DAGS) website. Historical maps, archaeological reports, and historical reference books were among the materials examined.

Waialua and Kawailoa in the Pre-Contact Era

Information compiled for the pre-contact era includes data on place names, land use, and subsistence, as well as several *mo'olelo* and an *'ōlelo no'eau*. Together, they give us an idea of what life may have been like in this storied place.

Place Names

Place names often shed light on traditional views of an area and can provide important contextual information. Several conflicting accounts inform on the naming of Waialua District. Thrum (in Sterling and Summers 1978:88) states that "Waialua" translates to "two waters," thus many believe that the name derived from Waialua's two streams. However, he believes that the district was named after a taro patch, and a common saying was that if you traveled to Waialua and did not see this taro patch, then you did not really see Waialua. Pukui (in Sterling and Summers 1978:88) asserts that the district was named for the cruel chief Waia, grandson of Wākea. Waia carried out his evil deeds at Waialua, and there was so much suffering there that the district was named Waialua, or "doubly disgraceful." Another source attributes the name to Waialua Pool at Kemo'o (Awai in Sterling and Summers 1978:88).

Kawailoa translates to "the long water," which is adapted to the character of the *ahupua'a*, where the long watercourse, the Anahulu River flows (Pukui et al. 1976:98). In addition to the land division in Waialua, there is a place of the same name in east O'ahu, and there are bays named Kawailoa in Līhu'e, Kaua'i and in northwest Moloka'i. Anahulu River is a major watercourse near the project area, and its name translates to "ten days" (Pukui et al. 1976:12). Nearby is the town of Hale'iwa, or "house [of] frigate bird" (Pukui et al. 1976:37). The prominent fishpond next to the project area is Lokoea, which translates to "rising pond" (Pukui et al. 1976:133). These places are illustrated in Figure 4.

Land Use and Subsistence

The greater district of Waialua, of which Kawailoa is a part of, had been a district of royal lands and royal fishponds. Since the time of initial settlement, it had been a prime location due to its marine resources, its fresh water resources, and the abundance of its agricultural capabilities. Kawailoa was the *ahupua'a* in Waialua which contained both Lokoea and 'Uko'a fishponds. And the area of interest for our project, which is in Kawailoa, being located at the point where Lokoea and the mouth of Anahulu Stream and the coastline of Waialua bay all converge, would make it a particularly valuable piece of land throughout the centuries from the pre-historic to the historic era.

Terraced areas were located all along Anahulu River, in Anahulu Gulch, and in the swamps east of Pua'ena Point (Handy 1940). Handy provides more detail on the agricultural locales in Kawailoa:

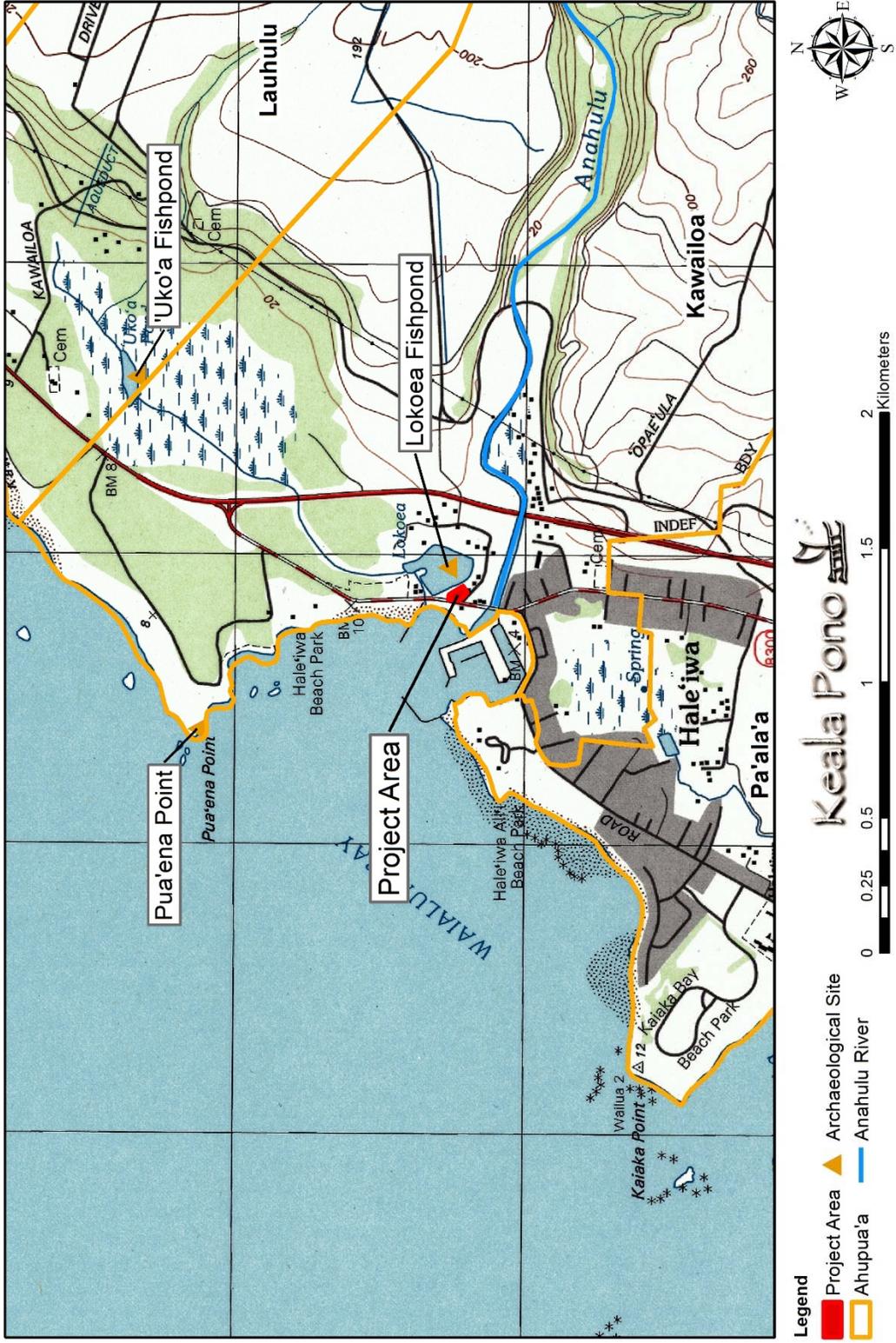


Figure 4. Location of place names mentioned in the text.

In Anahulu Gulch small flats with old mango trees, indicating kuleana, were observed several miles inland, and I am told that small areas were cultivated far up the gulch. Wild taros were seen in the side gulch at least 5 miles inland. The dry gulches between Anahulu and Waimea Streams probably never watered taro. (Handy 1940:86)

Handy and Handy also note the agricultural abundance of the land:

Waialua, on its seaward slopes, was as generously endowed with water as any area on Oahu. Much of the gently sloping and level land was formerly covered with wet-taro terraces. And beyond there was a great spread of *kula* land with red soil which was ideal terrain for sweet potato planting. The Wai'anae range gave this area a rich hinterland. Waialua had a fine bay with a broad beach, and there were several fishponds...Altogether this was the most bounteously endowed area on the sunset coast.

Two large fishponds were among Waialua's greatest assets. Ukoa was a long, narrow fresh-water pond about a mile in length. Laniwai (Sky-water) was its *mo'o* guardian. With her lived her brother, Puhi-'ula (Red-eel). The pond was said to be connected with the ocean by a tunnel, through which the *mo'o* would go to bathe in the sea...Another pond named Lokoea is mentioned elsewhere...(Handy et al. 1972:465-6)

'Uko'a and Lokoea were prominent fishponds in Kawailoa, connected to one another and fed by springs. Both ponds were once used to raise fish such as *'anae* and *awa*. In a comprehensive study of the Anahulu Valley, Kirch and Sahlins emphasize the prominence of the region in traditional times and mention the two major ponds:

The presence of no less than eleven temples, several of *luakini* class and therefore associated with ruling chiefs, testifies to the importance of these lands to the Hawaiian chiefs. The political importance of the district, of course, was grounded in the system of agricultural and aquacultural production, notably the extensive taro irrigation complexes and 'Uko'a and Lokoea fishponds. (Kirch and Sahlins 1992:19)

A recent survey of Lokoea Fishpond describes it as a *pu'uone* (a pond near the coast) that consists of seven archaeological features, including rock walls, a central island, and caves (Monahan and Thurman 2015:57, 163). The historical importance of Lokoea and 'Uko'a is summarized as follows:

Oral-historical information about Lokoea and 'Uko'a describe their elevated status as royal fishponds. Kamakau (and other accounts including Hawaiian language newspapers) described these fishponds as the "long house" of its famous *mo'o* (supernatural water spirit), Laniwahine (Kamakau 1991:84), where she lived with her brother, Puhi-'ula. There is a fairly extensive record of *mo'olelo* about Laniwahine, who is variously described as a shark or a shark god, a *mo'o akua* and *kia'i* (guardian), and/or a woman. We believe the name of Lokoea and 'Uko'a's *ahupua'a*, *Ka-wai-loa*, literally "the long water," may refer to these two famous fishponds. 'I'i (1959:98) stated there were "many homes about . . . the ponds of Ukoa and Lokoea," and that the main coastal trail passed closely to the "sluice gate of Lokoea." (Monahan and Thurman 2015:163)

Mo'olelo

The *mo'o* Laniwahine of 'Uko'a Pond is a noted figure in *mo'olelo*. It is said that she would appear in human form, and her presence would signal the coming of a terrible event (Kamakau in Sterling and Summers 1978). Kamakau and Manu both tell of the *mo'o* and the strange fish within her pond:

Laniwahine was the guardian of Uko'a at Waialua, and Uko'a was regarded as the long house where she lived. She was a native of Uko'a and all her deeds centered about that place. The natives of Uko'a never failed to recognize her deeds, but few of her descendants are now left or perhaps none. Uko'a was a very strange fish pond in which lived

extraordinary fishes. A fish might be a kumu fish on one side and on the other side a mullet; or on one side weke pueo and on the other mullet; or one side might be silver white like a white cock; when scaled the skin might be striped and variegated inside. It was clear to all her descendants that these strange fish belonged to Laniwahine and it was not right to eat them. But the mullet of Uko‘a were full of fat, when as in all such ponds, the native guardian of the pond was remembered; (at other times) the fish had thin bodies and heads like wood or sometimes disappeared altogether. (Kamakau in Sterling and Summers 1978:120)

...Laniwahine was the royal lizard of Waialua and her residence was in the fresh water pond of Uko‘a. This was the lizard mentioned in the chant of Kamehameha V, “Exposed are the teeth of Laniwahine, when the upper jaw and lower jaw separates.” All kinds of strange mullet were seen swimming in the water, some red and some with one side differing from the other. The writer of this tale has seen it himself and perhaps the natives of the “land of sea sprays” will not deny it. Alamuki, Kamo‘oloa and Kamo‘o were lizards who served under Laniwahine. They lived where there were breezes. (Manu in Sterling and Summers 1978:10)

Another account identifies the home of Laniwahine as a hole at the head of the pond:

Ukoa—land and fish pond in Waialua, Oahu. The latter is believed to have subterranean communication with the sea, as its waters are very much disturbed during stormy weather. There are superstitions and beliefs in connection with this famous pond. One gives rise to the common saying, “Pupuhi ka i‘a o Ukoa”, “The fish of Ukoa is blown away or slipped off.” There is a large circular hole at the head of the pond commonly credited as the home of Laniwahine, the sister of Puihula, children of a goddess of ancient Hawaiian mythology. (Saturday Press in Sterling and Summers 1978:120)

In a conflicting account, Emerson states that Laniwahine was the name of a shark:

Niu-kala, a shark god who formerly lived at Loko Uko‘a in Waialua, Oahu, has left that place.

Lani-wahine (Her highness) and Puih-ula (Red eel), are two sharks associated together, and are now living at Uko‘a, Waialua, Oahu (1888).

...Lani-wahine (w) has been mentioned. Barenaba tells me it is the shark of Uko‘a, Waialua, and that the name of her kahu is Kukiha and that she has a heiau called ___? ___. (March 16, 1907). (Emerson in Sterling and Summers 1978:118)

Oral traditions also tell us that Waialua District was where the royal center of O‘ahu was located. Around AD 1490, the sacred chief Ma‘ilikūkahi was born at Kūkaniloko in Līhu‘e, which is located in the uplands of Waialua. Once his paramountship was installed at the *heiau* of Kapukapuakea in central Waialua, Ma‘ilikūkahi set up a land division and administration structure where O‘ahu was divided into the six *moku* of Kona, ‘Ewa, Wai‘anae, Waialua, Ko‘olauloa, and Ko‘olaupoko. These *moku* were further divided into 86 *ahupua‘a*. Ma‘ilikūkahi also shifted the royal center from Waialua to Waikīkī.

It is said that Pua‘ena Point was a place where the dead were laid to decompose. Specifically noted was Elani, an O‘ahu *ali‘i* who was killed during the invasion of Maui’s chief Kahekili in the 1700s:

At the death of Elani, who was greatly beloved by his people, his body was placed on a ledge of rocks near Puaena Point, where it was allowed to decompose. The place became known as Kahakakau Kanaka. As the odor came to the sands at Haleiwa they became known as Maeaea; the point on the other side became known as Kupava. Hookala tells me that at this same place, if there was no one to care for the body of a commoner after his

death, the corpse was placed on these rocks. The fluids from the decaying body would seep into the sea and attract sharks, which the people killed. (McAllister 1933:141–142)

Also slain during this time of upheaval was Hu‘eu, an *ali‘i* who served under Kahekili. Hu‘eu had been installed at Waialua and was living at Ka‘owakawaka in Kawailoa (Kamakau 1992). He was killed there at night while his guards were asleep.

‘Ōlelo No‘eau

A single *‘ōlelo no‘eau* was found referring to ‘Uko‘a Pond, and none were listed for Lokoea or Kawailoa. It provides further insight to traditional beliefs and practices of these lands.

Pupuhi ka i‘a Uko‘a.

The fish of Uko‘a is gone.

Uko‘a is a famous pond in Waialua, O‘ahu. Said of one who takes flight or of something quickly and secretly taken. (Pukui 1983:301)

Waialua and Kawailoa in the Historic Period

The Waialua District boundary has a complicated history (Sterling and Summers 1978:134). At the turn of the 20th century, Wahiaiwā Ahupua‘a fell within the Waialua District. By 1913, the community had grown apart from Waialua District, and the new district of Wahiaiwā was established. Thus, in 1913, the *ahupua‘a* of Wahiaiwā and Wai‘anae Uka were moved from Waialua District to the new district of Wahiaiwā. In 1925 the size of Waialua District was reduced, as large plots of land were transferred to Wahiaiwā. However, in 1932 the original 1913 land boundaries were reinstated, with some small parcels added to the Schofield Barracks Military Reservation.

The following data add to our knowledge of historic Waialua and Kawailoa. They include an early description by Captain Charles Clerke, several translated Hawaiian language newspaper articles, historic maps and aerial photos of the region, and Māhele data.

Early Descriptions of Kawailoa

One of the first written descriptions of O‘ahu’s North Shore comes from Captain Charles Clerke, who sailed to Waimea after the death of Captain James Cook in 1779. Clerke anchored in Waimea Bay and described his surroundings:

I stood into a Bay just to the Wt[est]ward of this point the Eastern Shore of which was by far the most beautifull Country we have yet seen among these Isles, here was a fine expanse of Low Land bounteously cloath’d with Verdure, on which were situate many large Villages and extensive plantations; at the Water side it terminated in a fine sloping, sand Beach. . . . This Bay, its Geographical situation consider’d is by no means a bad Roadsted, being sheltered from the NEbN SEterly to SWbW with a good depth of Water and a fine firm sandy Bottom; it lays on the NW side of this Island of Wouahoo . . . surrounded by a fine pleasant fertile Country. (Beaglehole 1967:569).

A multitude of Hawaiian Language newspaper articles were found that mention Kawailoa. The small collection of articles presented here provide interesting information and afford a rare glimpse of what life was like in historic-era Kawailoa. They speak of schools, problems with drunk and unruly residents, a Sunday school exhibition, a visit to Lokoea Fishpond by Queen Emma, the presence of spirits in the river, and the arrival of a fleet of canoes. The articles were translated by Keala Pono senior staff members Dietrix Duhaylonsod, BA, and Manuwai Peters, MA. They are presented in

chronological order. These articles are meant to complement the contents of a typical archaeological report which focus on previous archaeological studies, new archaeological findings, any recommendations, and a background narrative. There is only so much that material remains can reveal, and so the addition of first person accounts from Hawaiian language newspapers offers priceless insights into the land use and the lifestyle of the residents which would otherwise be missing in the textual summary of the project area.

Ka Nonanona: KA NONANONA. BUKE 1, PEPA 13, AOA O 49. DEKEMABA 21, 1841. (21 December 1841): page 51

NA KULA MA WAIALUA.

Waialua, Nov. 3, 1841.

Aloha oe Ii.

Ua pau na hoike ma Waialua nei a ma Koolau i ka malamaia. A eia malalo iho nei na inoa o na kumu, ka nui o ka lakou mau haumana a me ko lakou ike a me ka uku pono i kuu manao e uku aku ia lakou no ka manawa i hala iho nei, a o ka uku hoi no ka manawa hou.

Kawailoa a me Paala, o Kaiakawaha Kealohanui na kumu.

Na haumana a pau loa, 139

Keikikane, 91

Kaikamahine, 48

O ka nui ma ka hoohalike ana i na la, 113

Ma ka A, 35

Ka poe ike, 104

Ike palapala lima, 56

Ike i ka olelo honua, 32

Helu kamalii, 60

Helu naau, 34

Ake akamai, 36

O ka poe hou i ike i ka heluhelu, 12.

THE SCHOOLS AT WAIALUA

Waialua, Nov 3, 1841

Aloha to you Ii.

The [school] tests here in Waialua and Koolau are finished and have been tended to. Here below are the names of the teachers, the number of their students and their subject with the rightful tuition in my mind that they will pay for this past term and the tuition for the new term.

Kawailoa and Paala, Kaiakawaha Kealohanui are the teachers.

The students' total, 139

Boys, 91

Girls, 48

The amount in comparing the days, 113

A grade, 35

Proficient students, 104

Writing, 56

Geography, 32

Beginner's math, 60

Upper-level math, 34

Science, 36

New people who have learned reading, 12

“Ua mau ka ea o ka Aina i ka pono.”

Ma ka ulu mahiehie o ko'u manao iloko o'u. He pono no au ke hai aku, i ike mai o'u hoa puni Nu Hou. Ma ka la 19 o Sepatemaba, aia he aha inu rama nui mauka o Kawailoa, ma kahi o Hinana, (ka mea i holo i Ulukaa mamua,) nui na mea i hele aku ilaila, malaila hoi kekahi mau kanaka o Kahalau a me Kaina, ua loohia lakou e ka ona, a ua kui ia ka maka o Kahalau e Kaina, a eha no, ua piha loa ia o Kahalau i ka huhu luaole imua ona ia la, a ua kui ia o Kaina, a ua hina, a ua hehi ia ma kona lemu, a ua pau i ka uao ia e na hoa inu rama a ua kaawale o Kaina mai ke alo aku o Kahalau, a mahope iho, ua hoea hou mai o Kaina, ka enemi lua ole o Kahalau ia la, ua hele aku oia a halawai me Kaina, (ua olelo ia ua aloha aku o Kahalau ia Kaina, a ua hoole mai o Kaina,) ia manawa, ua hehi ia o Kaina ma ka ai e Kahalau, a ua kui ia; Ia manawa, ua kaili ke aho o Kaina i kona wa o ka aneane e komo iloko o ka make hikiwawe iloko o kona lealea ana i ka ona o ka rama, ua oleleia, he nui ka ikaika o Kahalau ia wa, ua makau no ka lehulehu. Ia wa, aia o Kaina e waiho ana iloko o ka pilikia, aia hoi na mea a pau e loku ana iloko o ka ona o ka rama, ua holo koke o Kamokumaia, i kahi o ka

Lunakanawai e kii ia e hopu o Kahalau ka mea i pepehi ia Kaina, ia wa, ua hiki pu mai no o Kahalau ka mea i pepehi ia Kaina i kahi o ka Lunakanawai, aia ua hopu koke ia oia, ua hoounaia 3 makai e ike i ke kino eha o Kaina ka mea i pepehi ia e Kahalau, ma ka la 20 ae ua hoopii ia o Kahalau ka mea i pepehi ia Kaina imua o J. W. Keawehunahala ka Lunakanawai Apana no ka haki ana o Mokuna IX Pauku 6-8 o ke Kanawai hoopai "Karaima" ia Kahalau, na ka Ahahookolokolo e noonoo ma ka olelo ike a na hoike ka pili ana o na pauku i hoopii ia e ke 'Lii no Kahalau no ka hewa i hanaia eia. Aia ua hiki mai ke kino eha o Kaina ia la imua o ka aha hookolokolo i hoike no ka aoao o ke alii, elua hoi kanaka e ae ma ka aoao i hoopiiia. Ua waiho ia keia hihia na ke jure e hookolokolo hou.

Ma la 21, ua lawe ia o Kahalau ma ka lima o ka Ilamuku, e paa ai a hiki mai ke kau hookolokolo jure o Okatoba 7, 1861, ma ka la 22, ua hiki mai o J. H. Brown Esy ka Makai Nui me Dr Ford e nana i ke kino o Kaina i ka mea i eha i Kahalau.

Ma ka wanaao o ka la 23, ua make loa o Kaina, ua kii hou ia ka Makai Nui me Dr Kauka e hele mai, ma ka la 25, ua hiki mai o John H. Brown Esy me ke Kauka pu, ia wa, ua kahea koke ia ke Karonero e hele e noonoo i ke kumu o ko Kaina make ana. Eia na Karonero J. Hanalua, J. B. Makea, J. Amara, J. P. Kauwalu, J. A. Kawi, J. Hakuaulani, ma ka hora 10, A. M. ua hoomakaia ka niele ana i na hoike imua o J. W. Keawehunahala ke Karonero me na jure eono i hoikeia maluna, me ka Makai nui o ka Mokupuni Oahu, J. H. Brown Esy a ua pau i ka noonoo ia ka olelo a na hoike. O ke nui o ka lakou olelo hooholo, “Ua make o Kaina ia Kahalau i kona kui ana me kona hehi ana ma ka la 18 o Sepatemaba,” i olelo mua ia maluna, na ka Ahahookolokolo e noonoo.

Eia hoi, ua hoopaiia o Hianana ka mea i olelo mua ia maluna no kona hana ana i ka wai ona a haawi wale aku i na dala 100. No ka haki ana o ka Mokuna XLII Pau 1 o ke Kanawai hoopai i na hewa karaima o keia Aupuni, Ua maopopo, o ka ona ke kumu o keia make. J. P. KAUWALU.
Waialua, Oahu, Sepatemaba 26, 1861.

“The life of the Land is perpetuated in righteousness”

At the pleasing inspiration of my thoughts inside of me. It is necessary for me, the one who tells, that my friends who love news have known.

On September 19, what of the great alcohol drinking upland of Kawaioloa, instead of Hinana (the one who sailed to Ulukaa beforehand), many were those who went there, at that place were some people of Kahalau and Kaina, they were overwhelmed by drunkenness, and Kahalau's eye was punched by Kaina, and painful indeed, Kahalau was so filled with unmatched anger in front of him, and Kaina was hit, and he fell, and he was stomped upon at the buttocks, and it was finished by the interceding of the alcohol-drinking friends, and Kaina withdrew from the presence of Kahalau, and afterward, Kaina came back again, he was an unparalleled enemy of Kahalau, he went and met with Kaina (it is said that Kahalau loved Kaina, and Kaina rejected it), that time, Kaina was stomped upon at the neck by Kahalau, and he was hit. That time, the breath of Kaina gasped at his time of feebleness to enter into quick death inside of his pleasuring in the drunkenness of alcohol, it is said, great was the strength of Kahalau that time, the multitudes were scared indeed. That time, Kaina was the one being left in trouble, and indeed everyone was feeling great sorrow inside of the drunkenness of the alcohol, Kamokumaia quickly fled, to where the Judge was gotten, to arrest Kahalau, the one who beat up Kaina, that time, Kahalau, the one who beat Kaina also arrived, at the place of the Judge, and he was quickly arrested, three policemen were sent to see the bodily injuries of Kaina, the one who was beaten by Kahalau, on the 20th day, Kahalau, the one who beat Kaina was charged in front of JW Keawehunahala, District Judge, for the breaking of chapter 9 section 6-8 of the Law, "crime" penalty to Kahalau, it is the courthouse to consider the words of the witnesses [evidence] pertaining to sections charged by the officer against Kahalau by the offenses raised here. The bodily injuries of Kaina have appeared in front of the courthouse displayed for the side of the officer, two people will arise on prosecution. This lawsuit has been left for the jury to decide anew.

On day 21, Kahalau was taken by the hand of the Sheriff, to be secured until the placement of the court jury on October 7, 1861, on the 22nd day, Judge John H. Brown Esy together with the doctor arrived, and at that time, they quickly called the *karonero* [coroner?] to come to consider the reason for Kaina's death. Here are the coroners: J. Hanalua, J.B. Makea, J. Amara, J.P. Kauwalu, J.A. Kawi, J. Hakuaulani, at 10am the questioning the witnesses will begin in front of J.W. Keawehunahala the Karonero, with the displayed in front, with the police chief of O'ahu island, J.H. Brown Esy, until the examination of evidence was finished. The importance of their decision, "Kaina died from Kahalau due to his beating and stomping on September 18," was first spoken above, it was the court to consider.

Here also, Hianana was charged, the one who first spoke above, for his making the alcohol and fined \$100. For breaking chapter XLII section I of the Law, penalty in the wrongful crimes of the government, understand that drunkenness was the reason for this death. J.P. KAUWALU.
Waialua, O'ahu, September 26, 1861.

Ke Alaula: KE ALAULA. Buke II, Helu 4, Aoa 13. Iulai 1867. (1 July 1867): page 15

KA HOIKE KULA SABATI O WAIALUA.

Ikea na maka olioli o na keiki e akoakoa ana ma ka puu maniania ma ka hale o ke kahu o Rev. M. Kuaea i ka hora 9 o ke kakahiaka o ka Poalima, Iune 21. Hooponoponoia ka huakai, a i ka hiki ana mai o ke kula kaikamahine mai ko lakou hale kula nui, ua haawiiia na hae i kela kula a me keia kula, a i na papa a pau hoi o ke Kula Sabati o Kawaioloa. He umi papa o ke Kula o Kawaioloa, me ko lakou mau hae he umi. He hae okoa hoi ko Waimea, Waialea, Kamooloa, a me ko Mokuleia. He umi-kumamawalu ka nui o na hae i ka huakai hele. Hiehie ka nana'ku i ka hele ana o ka huakai o na keiki a me ka poe opio o na Kula Sabati me ko lakou mau hae e welo ana i ka makani, a me ke kani ana o na leo o na keiki

e hosana ana. A komo ka huakai i ka luakini, piha loa ka hale. Eia na haawina i hoike pono ia e kela kula keia kula:

Kula o Mokuleia--ua kulaia no ka aa ana o na laalau ma Horeba.

Kula o Waimea—ka haawiia o ke kanawai ma Sinai.

Kula o Waialea—ka hoi ana mai o na kiu.

Kula o Kahuku—Ruta a me Naomi.

Kula o Kamooloa—no ka haawiia o Samuela ia Eli.

Kula o Kawaioloa, papa o na kanaka ui--kulaia ma ka hoopaahaoia ana o Iesu. Papa o na wahine opio--ka moolelo o Iakoba. Papa o na makua--no Aarona a me kana mau keiki. Papa 4--Adamu laua o Ewa, a me Edena. Papa 5--Noa a me ke kaiakahinalii. Papa 6--no Aberahama. me kona pule no Sodoma. Papa 7—no ko Aberahama mohai ana ia Isaaka. Papa o na pokii—no Mose i kona wa liilii.

Ua kukulu pakahi ia keia mau kula a me na papa, a ninaninau pono ia no keia mau haawina a pau, a ua ikeia ka makaukau o na kula a me ka mikiala o na haumana. Olioli na makua o ka pono i ka ike ana i ka aoia o na keiki o keia hanauna o Waialua a makaukau ma ka Baibala.

He nui na malihini a me na makamaka o na apana a me na mokupuni e i launa mai a hauoli pu me na keiki i keia la nui o ka makahiki. Kamailio mai no kekahi o lakou, a hoolana i ka manao o na kumu a me na haumana

A pau ka hana o loko o ka luakini, ua kukulu hou ia ka huakai, a hele aku na kula malalo o na hae i kahi o ka lanai nui i hanaia e na makua i wahi e ahaaina ai. Ai pu na keiki, a me na makua, a me na malihini, a me na makamaka, a maona like i na mea momona i hoolakolakoia.

SUNDAY SCHOOL EXHIBITION OF WAIALUA

The rejoicing eyes of the children gathering are seen on Maniana Hill of the home of the minister Rev. M. Kuaea at 9am on Friday, June 21. The journey was arranged, and at the arrival of the girls' school from their great school house, the flags were given to every school, and to all the classes of the Sunday School of Kawaioloa. There are 10 classes of Kawaioloa, with their 10 flags. Waimea, Waialea, Kamooloa, and Mokuleia have a different flag. There were 18 flags total on this trip. The scene was festive at the going on the trip of the children and teens of the Sunday School with their flags fluttering in the wind, and the voices of the children sounding Hosana! And the journey entered into the church, the building was very full. Here are the assignments that were shown well by every school:

Mokuleia School--they were taught of the burning bush at Horeb.

Waimea School--they were given the law at Sinai.

Waialea School--the return of the Jews. Kahuku School--Ruth and Naomi.

Kamooloa School--the giving of Samuel to Eli.

Kawaioloa School, class of the beautiful people--they were taught the imprisonment of Jesus.

Class of teenage girls--the story of Jacob.

Class of adults--Aaron and his children.

Class 4--Adam & Eve and Eden.

Class 5--Noah and the great flood.

Class 6--Abraham and his prayer for Sodom.

Class 7--Abraham's sacrificing Isaac.

Class of the little ones--Moses in his childhood years.

These schools and classes were each built up, and were questioned well concerning all of these assignments, and the readiness of the schools and the alertness of the students were

seen. The adults rejoiced in the goodness in seeing the surety of the children of this generation of Waialua competent in the Bible.

Many were the visitors and the friends of the districts and islands to meet happily with the children on this great day of the year. Each of them conversed, and cheered up the thoughts of the teachers and the students. And when the work inside the church was done, the journey was set up again, and the schools below their flags went to the place of the great *lanai* that was made by the parents to a place that they would feast. The children ate together with the parents and the visitors and the friends, until they were all filled with the sweet things that had been provided.

Ka Nupepa Kuokoa: Vol. 6, No. 42 (19 October 1867): page 2

NA MEA HOU O KEEHUKAI.—Ma ka lokomaikai o Natanaela, ua loa mai keia mau mea hou: Ma Waialua ke Alii Emma Kaleleonalani, i kela pule ae nei, Poalima, a ua ike iho nei i na kaiaulu o ua aina Ehukai nei olalo—Ua kokua ia mai no e na kamaaina, a ma ka Poaono ae, holo aku la oia e makaikai ia Ukoa, i ka lua o na kupueu oia Loko, oia hoi ka lua o Laniwahine, a no ke ahiahi loa, ike pono ole ia ka lua—Ma ka Poakahi ae la 7, holo i Waianae ma ka lae o Kaena ae ka hele ana, ua lohe mai makou, ua kokua maikai ia e na kamaaina o Waianae —hoi mai oia ma ka puali o Kolekole ma ka la 9 ae Poakolu, a hiki hou ma Waialua. Poaha ae holo hou no e makaikai hou i na lua o ua Laniwahine nei i ike maopopo ia ai hoi, no ka mea, wahi a kamaaina, o ka wa kakahikanui ka wa e ike pono ia ai. A i kona wa nae e makaikai ana, ua lawaia kamokoi aholehole oia i kekahi mau minute, ai ia no nae e ke aholahole. Ma ke ahiahi no o ia la, holo aku la i na Pali hauliuli, o Koolauloa, moe ma kahi o J. Kaluhi Esq., ka Lunakanawai oia mau Apana. Ao ae Poalima, holo loa i Kaliuwaa, i kahi a Kamapuaa i noho ai, a malaila aku moe i Kahana, Poaono ae hoi loa mai i Honolulu, o ka pau no ia o kona moolelo.

Ua pau o Lokoea i ka hana ia a me ka auwai o Ukoa, oia hoi na loko ia nui o ke Ehukai nei, e ke Konohiki hou o ua mau loko nei. Ua lohe mai nei makou mai a Kapena Pae mai o ke kiakahi Waialele i kona hoes ana ae ma ka lae o Kaena i ka la Sabati nei, ua ike oia ma ka moana i ka piha loa i na akaakai i waele ia ai o ua Lokoea nei, a hala loa ae ma ka moana mawaho ae o Waialua pono. He 3 wale no la i waele ia ai e na keiki kupa o Waialua nei, na kane, na wahine, na keiki he mau haneri paha ka nui—Ua ike paka iho ke Alii Wahine.

This article talks about several news tidbits regarding Keehukai. Most of the news centers around a visit by Ali'i Emma Kaleleonalani, the wife of Kamehameha IV, who by the time of this article's writing, had already passed away. According to this article, Queen Emma visited the “villages of the lands of Ehukai.” Her visit to Uko‘a is specifically mentioned, where she went to see the dwelling place of Laniwahine. From there she traveled around Ka‘ena to visit Wai‘anae, then came back to Waialua via Kolekole. When she came back to Waialua, she once again went to visit the dwelling place of Laniwahine at the fishpond, where she also went pole fishing for ‘*aholehole*’ this time. After that, she went to the district of Ko‘olauloa, and then finally returned to Honolulu.

The second bit of news mentions that work on Lokoea and the waterway of Uko‘a had been finished. It calls these two “the great fishponds of Ehukai.” The work was carried out under the direction of the new *konohiki* of the ponds. To what extent was this work a construction of something new, and to what extent was this work the maintenance of how it already was, is not clear. But what is clear is that for three days, several hundred men, women, and children of Waialua helped to clear Lokoea of its ‘*aka‘akai*, or bulrush marsh plants, and the ocean outside of Waialua was filled with the multitude of these dead plants. At the end of this portion of the article, it says the the queen was also there looking on and advising.

Ka Nupepa Kuokoa: Vol. 6, No. 48 (30 November 1867): page 2

UNIHIPILI.—He umi ka nui o na akua unihipili ma ke kahawai holookoa o Kawaihoa. He keu ka o Kawaihoa o kahi nui o ka unihipili, ke pau la ka umi ilaila. Hookekee paha kekahi akua, hooninipo hoi kekahi, hoopunini mai paha kahi akua no ka malama ole ia o kekahi, a lilo i kekahi e malama ai.

SPIRIT OF THE DEAD.—The number of dead spirits at the entire river of Kawaihoa is 10. Kawaihoa is extreme for its many places of the spirits of the dead, it is all the 10 there. Maybe some of these spirits are crooked, some also are drowsy, some spirits are drifting due to no care of some of them, and some are overcome by care.

Ka Nupepa Kuokoa: Vol. 7, No. 35 (29 August 1868): page 1

KA HIKI ANA MAI O KA AU-WAA O HOOMAILEANUE MAWAHO PONO O WAIALUA, A PAE IUKA.

I ka wanao pulehulehu o kekahi la ae, ua ike aku la na kanaka ala kakahiaka nui i keia mea uliuli, a hauwalaau, a wawa, e hoonakeke ai mawaho iho, eia ka o ka auwaa o ua hunona nei a ua o Kaukanapokii; o ka hoala ia aku la no ia o na kanaka a pau, a hoa mai la i ka imu o ka puua, mai ka Lae o Kahuku a ka Lae o Kaena ka a o ua mea he imu puua, ka ilio, ke koelepalau, ka maia kulolo, a me ka ulu, ke kalo kulolo, ahiawela ua mea he ahi, o ka a mai la no hoi mai uka o Kawaihoa a hiki i kai o na alii, hele a malamalama o uka, hele no hoi a malamalama o kai, a koku ike ole ia no ke awa e hookomo mai ai ka auwaa. A no ka manao no kekahi o ka poe malihini o ke ao ae no ia, noho no lakou i waho a no loa ae. I lawa no i ke ao ana, halakika ana kahi waa kialoa o ua mau wahi luna elele nei a Hoomaileanue, a pae i kaha-one, he mea manawa ole ia, o ka waa o ua mau wahi kanaka nei, he mea ole ia i na kamaaina, hiki ana i kahi kau-waa, a hele e auau, a wehe ka malo wai, aahu ke kapa maloo, a hele aku la i hahi o Kaukanapokii, a hai aku la i na olelo a pau, a kii ia aku la ka auwaa e hookomo mai. A ua pae mai la na poe a pau iuka, a ua hookipa ia ae la kela a me keia ma kauhale kamaaina, mai Waimea a hiki i Mokuleia ka paa i na kauhale a me na kanaka, a o kekahi poe no, noho oiuhauwaa iho la no. A ua hookipa ia ae la o Hoomaileanue ma kekahi hale nui a nani, a maikai loa, me ka ike oleia mai e na poe e ae, o Kaukanapokii wale no, a me na Kahu o ua keiki la o Kukululu o Kahiki, a pela i hana ia ai na mea e pili ana ia ia, a hiki i ka wa i hoohalawai ai laua me ka moopuna kua-lua a Hawea o lumi o Kaala, kela kuahiwi a ka nani i noho ai.

THE ARRIVAL OF THE CANOE FLEET OF HOOMAILEANUE DIRECTLY OUTSIDE WAIALUA, AND ITS COMING ASHORE

In the twilight dawn one day, the people rising in the dark in the early morning saw, and chattered, and rumored, that outside was the rattling, here was the canoe fleet of the in-law of Kaukanapokii, when all the people had awakened, and the *imu* of the pig had been lit, from Kahuku Pt. to Kaena Pt., the lighting of the aforementioned *imu* of the pig, the dog, breadfruit-*poi*, the banana pudding, the breadfruit, the taro pudding, hot was the fire, a fire, burning indeed from the uplands of Kawaihoa to the sea of the chiefs, the uplands became bright, and then toward the sea became bright as well, and it was not seen similarly for the harbor that the canoe fleet entered. And for the thoughts for some of the visitors for the day, they stayed outside a long time. And when they had enough of being wary, one of the smaller swift canoes of the high messenger of Hoomaileanue above passed forcefully and landed on the sand. it wasn't a short time, the canoe of the people, it was nothing to the natives, arriving to the place of the canoe, and went to swim, opening the soaked *malo*, putting on the dried *kapa*, and went to *hahi* [?] of Kaukanapokii, and told all the speeches, and the canoe fleet was fetched to enter. All of the people came ashore, and everyone was welcomed in the village, from Waimea to Mokuleia the firmness in the homes and the people, and of some people, sat at the canoe fleet. And Hoomaileanue was greeted at a

great house of beauty, and very well, not being seen by other people, only Kaukanapokii, and the caretakers of the child Kukuluokahiki, and like that everything was done concerning this, until the time that they met with the great-grandchild of Haweaolumi of Kaala, that upland of beauty that was lived in.

Historic Maps and Illustrations

Historic maps, drawings, and photos help to paint a picture of Kawaiiloa in years past and illustrate the many changes that have taken place in the region. The earliest depiction of the project area is an 1842 or 1843 sketch by Edwin Locke (Figure 5). The sketch shows Lokoea Pond flanked with coconut trees, and several structures nearby. The Anahulu River is in the foreground, and a foreign sailing ship can be seen in the distance. Several *lo'i* and stone walls are visible near Lokoea.

The earliest map found for the region, drawn in 1876, shows the project area but with little detail (Figure 6). A few place names and topographic features are illustrated, and a cluster of structures is depicted near Waialua Bay. Lokoea Pond and the Anahulu River can also be seen.

The next map depicts Waialua Bay in 1884 (Figure 7). The coastline is shown, along with what is now Kamehameha Highway. In the vicinity of the project area, Lokoea is depicted, along with several structures, one of which is labeled in barely readable text, “Gov. Dominis House.” The ‘Uko‘a Pond area is labeled as “Swampy Land.” The Anahulu River is illustrated, with a footbridge at its mouth and the Emerson house along its banks.

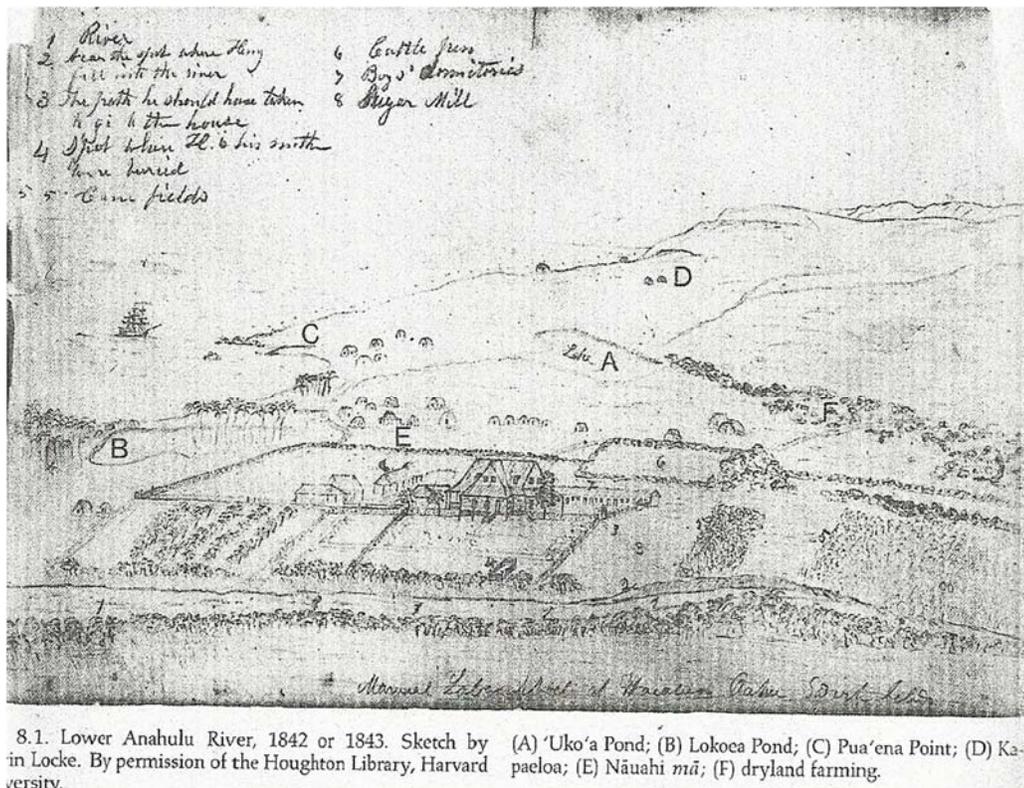


Figure 5. An 1842 or 1843 sketch of the Lower Anahulu River by Edwin Locke (adopted from Kirch and Sahlins 1992:174).

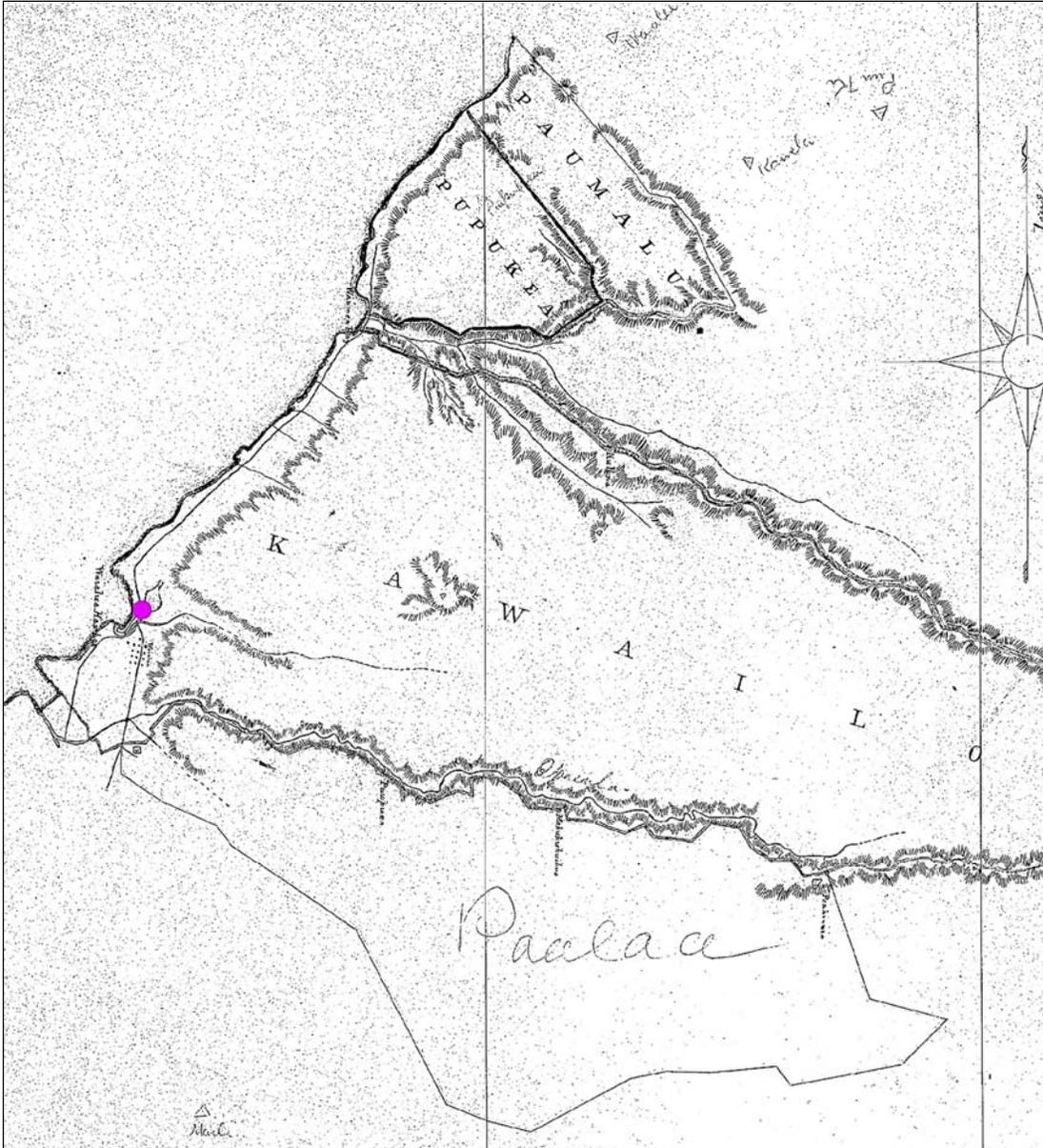


Figure 6. Portion of a historic map of Kawaihoa (Monsarrat 1876). The approximate project location is indicated in purple.

A 1901 Waiialua Agricultural Co. map shows Land Claim Award (LCA) numbers and (Figure 8). Lokoea is labeled as “Fish Pond,” and rice paddies and swamps are illustrated in the ‘Uko‘a Pond region.

Topographic maps from 1929 (Figure 9) and 1956 (Figure 10) show an increasingly urbanized landscape. Several features that appear to be *lo‘i* complexes are visible in the 1929 map but are replaced by houses by 1956. Roads and structures are much more common in these later maps. These are also clearly visible in aerial photographs from 1965 (Figure 11) and 1977 (Figure 12).

Māhele Land Tenure and Ownership of Kawaioloa

The change in the traditional land tenure system in Hawai‘i began with the appointment of the Board of Commissioners to Quiet Land Titles by Kamehameha III in 1845. The Great Māhele took place during the first few months of 1848 when Kamehameha III and more than 240 of his chiefs worked out their interests in the lands of the Kingdom. This division of land was recorded in the Māhele Book. The King retained roughly a million acres as his own as Crown Lands, while approximately a million and a half acres were designated as Government Lands. The Konohiki Awards amounted to about a million and a half acres, however title was not awarded until the *konohiki* presented the claim before the Land Commission.

In the fall of 1850 legislation was passed allowing citizens to present claims before the Land Commission for lands that they were cultivating within the Crown, Government, or Konohiki lands. By 1855 the Land Commission had made visits to all of the islands and had received testimony for about 12,000 land claims. This testimony is recorded in 50 volumes that have since been rendered on microfilm. Ultimately between 9,000 and 11,000 *kuleana* land claims were awarded to *kama‘āina* totaling only about 30,000 acres and recorded in ten large volumes.

In the time preceding the Māhele, Kahekili Ke‘eumoku, brother of Kuhina Nui Ka‘ahumanu, served as the chief of Waialua District. Upon his death in 1824, the Waialua lands were passed to Ke‘eumoku’s sister Lydia Kekuapi‘ia Nāmāhana. When Nāmāhana died five years later, Ka‘ahumanu inherited the land, and upon her death in 1832, they were passed to her niece Kīna‘u. After Kīna‘u’s 1839 death, the land belonged to Victoria Kamāmalu.

During the Māhele of 1848, Kamāmalu ceded the lands from Kamananui to Ka‘ena, and they became government lands. She did not cede the *ahupua‘a* of Kawaioloa, however, and it remained in her possession, along with the adjacent *ahupua‘a* of Pa‘ala‘a. In 1850 *kuleana* awards for parcels within Kawaioloa were granted to individual tenants. A total of 93 *kuleana* claims were made for Kawaioloa Ahupua‘a and 79 were awarded (Waihona ‘Aina 2014). ‘Āpana 4 of Claim 2699, and ‘Āpana 8 of Claim 7342 were made for the project parcel, and there were several other LCAs nearby (see Figure 2). The data found for the LCAs within the project area is presented below.

Claim 2699 by Wewehi was for seven ‘*āpana*. These included 48 *lo‘i*, a house lot, *wauke*, ‘*uala*, and gourd lands, as well as fish, shrimp, *limu*, and fishing rights. ‘Āpana 4 is specifically for the project area, and it appears to have contained only one *lo‘i*. It is unclear exactly where the other ‘*āpana* were located; testimony for all ‘*āpana* of Claim 2699 is as follows:

No. 2699, Wewehi, Waialua, January 5, 1848
N.R. 596-597v3

I, Wewehi, hereby explain my claims for land, which were held from the time of Kamehameha I, a claim for land and a claim for a lot, and a pond.

The first is Nuukauila, where there are 34 *lo‘i*, and the kula; it is surrounded by pali and the stream.

The second is Kanekuakua, Kawaioloa waena, where there are 13 *lo‘i*; it is surrounded by Kuokoa ma’s, and the pali, and Kahuna’s land.

The third is Lokoea, where there is one *lo‘i*. On the north is Kolikoli’s, on the east is Ukaeha’s, on the south is pali, on the west is Kahuna’s.

The fourth is Ulupanainai where there is one *lo‘i* which is surrounded by the *lo‘is* of Kawiwi ma.

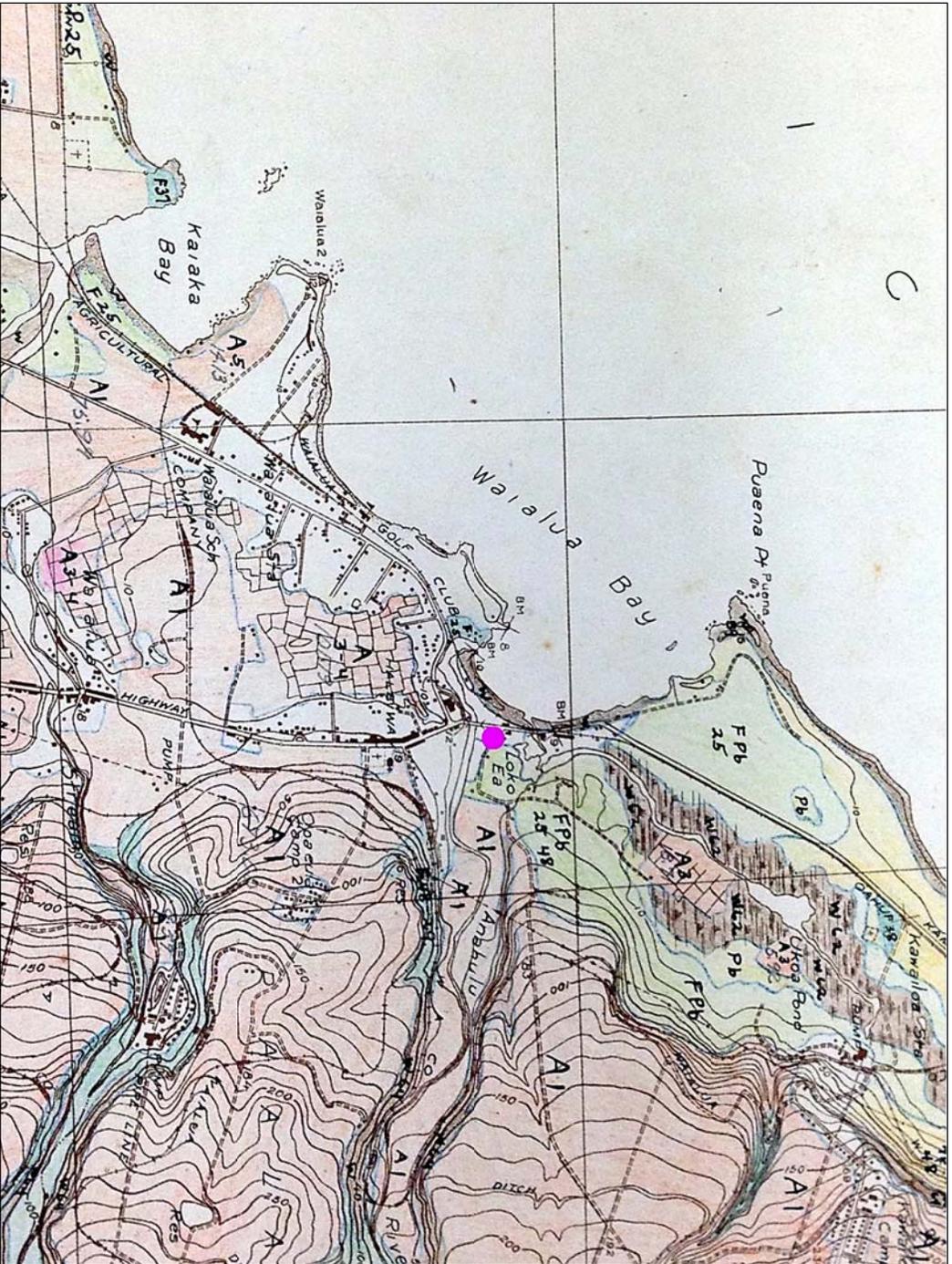


Figure 9. Portion of a USGS (1929) Haleiwa Quadrangle. The approximate project location is indicated in purple.

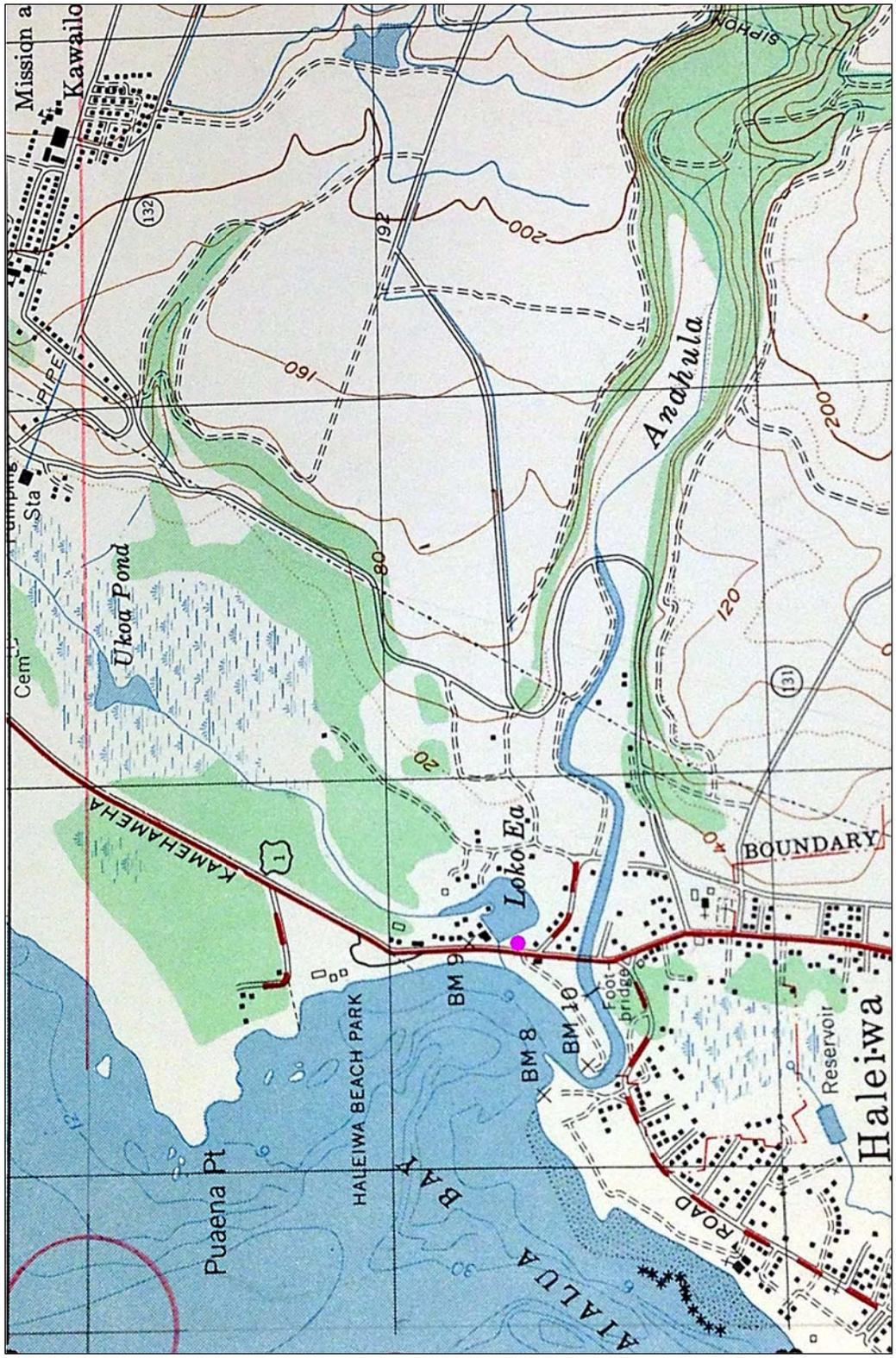


Figure 10. Portion of an Army Corps of Engineers (1956) map. The approximate project location is indicated in purple.



Figure 11. Portion of a 1965 aerial photo (USDA 1965).



Figure 12. Portion of a 1977 aerial photo (USGS 1977).

The fifth is Kawaipuolo, where there is a portion of a lo'i, surrounded by those of Paku ma and the pali, and Kuokoa ma. My pond is also at Lokoea. It is surrounded by the house lot and the coconut grove and the ponds.

The sixth is Pahui Ukoa where there is one gourd garden, surrounded by those of Kolikoli and Nana and Kuahana. Also there is a sweet potato patch surrounded by fence and Nauahi ma's.

The seventh is my house lot, surrounded by the pond and Kahuna's lot and the road.

I also have the right to fishes, gobey fish, fresh water shrimps, and limu kala.

There is a daily right to take fish; the right to take the anae is only in the windy times, that is when they can be caught. There is also a claim for pasture; my makuas had a right there. There is also a kula wauke at Makaleka and I also have a pali wauke at Kakaoloa. Those are my claim; it only remains to secure the award document.

WEWEHI X, his mark

F.T. 453-454v11

No. 2699, Wewehi, Waialua, 17 January 1850

Kolikoli, Hoohikiia, Ua ike au Ikana aina ma ka ili o Nukauila ma Kawailoa ma Waialua. Eono mau apana ana.

Apana 1. 34 loi kala.

Apana 2. 13 loi kala ma Kanekuakua.

Apana 3. 1 loi kala ma Kanekuakua.

Apana 4. 1 loko ma Kealapahuiki.

Apana 5. Pahale ma Loloea.

Apana 6. Kuleana pa uala.

Apana 7. Kuleana pa holoholona.

Apana 1: Mauka, muliwai o Anahulu

Waianae, pali Makai, kahawai Koolaupoko, kahawai.

Apana 2: Mauka, aina o Kahuna Waianae, kahawai Makai, loi paahao Koolaupoko, pali.

Apana 3: Mauka, loi o Kahiwai

Waianae, pali Makai, Kahuna aina Koolaupoko, ko'u aina.

Apana 4: Mauka, pahale no Koaiawa

Waianae, loko o Kolikoli Kealapahunui

Makai, poalima Uluniu

Koolaupoko, Lokoea.

Apana 5: Mauka, Lokoea Waianae, alanui hele Makai, pa o Kahuna Koolaupoko, Lokoea.

Apana 6: He kuleana malu uala e like me ko Koiniho & Kolikoli & Peku.

Apana 7: He kuleana pa hanai holoholona no lakou he nui wale, 60 lakou.

Mai knoa mau makua mai ka apana Ika wa o Kamehameha I. Aole mea keakea. Apana 2, 3, 4 mai a Kuokoa mai Ika wa mamua aku o ko Emesona noho ana mai rna Waialua nei.

Aole mea keakea. Apana 5 nona no Ika wa mamua aku o ko Emesona noho ana. Aole mea keakea.

Kahoeka, Hoohikiia, Ua like pu ko maua ike me ko Kolikoli ike.

Claim 7342 by Kuokoa consisted of 13 *āpana*. These included 41 *lo'i*, two house lots, and a pond. *Āpana* 8 is specifically for the project area. It appears to have contained ten *lo'i*. Testimony for all *āpana* of Claim 7342 is as follows:

No. 7342, Kuokoa
N.R. 317-318v5

To the Honorable Land Commissioners: I, L. Kuokoa, am a claimant of land at Waialua on Oahu. From the death of Keeaumoku, this Ahupua'a of Kawaihoa was held by Laanui from the upland to the sea. From that time I have had my two 'Ili at Kawaihoa, Puaena and Lahuimoho, under G.L. When the war on Kauai was over, we returned. I again got Honohikilua and an 'Ili of Kamananui named Kalaopa. I had four 'Ili at this time under G. Laanui.

When Kikala died, I again got Lokoea from G.L. and after this, we stayed until the people went to scoop salt at Aliapaakai. Then again, Kamahu, at Kamananui became mine, making a total at this time of six 'Ili. At the time when taxes were given to the tax collectors, that was the time lihi were returned, Kupalu and Kawaipuolo and the Anahulus, being the 'ilis at Kawaihoa, Kalehunui and Kamahu, became mine. Two are at Kamananui, together all these 'Ilis of mine total twelve.

These 'Ilis of mine which I have occupied from then until now are from G.L. That is my claim of occupancy at Waialua. My two house lots are at Lokoea and at Anahulu. These are my claims which are stated to you, the Land Commissioners, to award to me by a document.

In the year of our Lord 1846, M. Kekuanaoa gave me Kealia to care for, under him, from the upland to the sea, from that side to this side. Those are my claims which are stated to you.

L. KUOKOA

F.T. 382v3
No. 7342, L. Kuokoa

Sent C. Kamaio, one of the clerks of the Land Commission, together with the claimant, to show the surveys of his claims to M. Kekuanaoa, the konohiki of the land, who approved of the claim and survey.

F.T. 465-46711
7342 & 8883, L. Kuokoa, Waialua, January 18, 1859

Olopana, hoohikiia, Ua ike au i kana mau aina ma keia mau iiii malalo nei ma Waialua.

Apana 1. Aina kala 2 loi ma Lahuimoho

Apana 2. Aina kala 2 loi ma Lahuui uka

Apana 3. 1 loi o Kaa mauka o Puaena

Apana 4. 1 loi o Kahou mawaina o Puaena.

Apana 5. 1 loko Aalaiki ma.

Apana 6. 2 loi ma ka iiii o Kupalu.

Apana 7. 2 loi ma ka iiii o Kaiaulaula.

Apana 8. 10 loi moo Kawailaumaia iii Kawaipuolo
Apana 9. 6 loi moo konohikilau & kula
Apana 10. 7 loi moo Kuaipaiki Anahulu iii.
Apana 11. Pahale Ainaiki Anahulu.
Apana 12. Pahale ma Lokoea.
Apana 13. 10 loi ma Kealia o keia apana nae, Aole e hanaia ma ke ana kuleana, aka; me ke kuai maoli me Emeson me ka uka haahaa, hoe na
Apana he 12 i kuleana nona.

Apana 1: Mauka, moo o Keonae Waianae, kahawai o Anahulu Makai, aina o Kaniho Koolaupoko, aina Kahu.

Apana 2: Mauka, aina o Kauaole moo nona
Waianae, aina o Hulupue Makai, loi paahao Koolaupoko, pali.

Apana 3: Mauka, ko Laea
Waianae, Loi paahao Kaleiokane
Makai, poalima
Koolaupoko, ko Iaea.

Apana 4: Mauka, ko Kaukai Waianae, moo Konohikilau Makai, loi Ulupanainai Koolaupoko, ko Nana aina.

Apana 5: Mauka, kula waiho wale no na mea a pau loa
Waianae, Makai, Koolaupoko, ua like.

Apana 6: Mauka, moo o Kaiaulaula
Waianae, kahawai Makai, moo o Kawiwi Koolaupoko, aina Kaalohanui.

Apana 7: Mauka, aina o Kaeawa Waianae, aina o Kaeawa Makai, apana 6 Koolaupoko, moo o Kaeawa.

Apana 8: Mauka, Loi paahao Kanekuakua
Waianae, aina o Huki Makai, aina o Kaukai Koolaupoko, pali.

Apana 9: Mauka, Mooiki Waianae, pali Makai, aina o Paku Koolaupoko, aina o Kaholokai.

Apana 10: Mauka, aina o Kamahale Waianae, Kaalu loi Makai, moo Kaoao Koolaupoko, Muliwai o Anahulu.

Apana 11: Mauka, Pa o Emesona Waianae, Alanui aupuni Makai, Loi Kanenelu Koolaupoko, loi Kaaleo.

Apana 12: Mauka, Lokoea Waianae, Pa o Kuoehi Makai, muliwai Koolaupoko, Lokoea.

Mai a G. Laanui mai i ka wa o Kaahumanu I. Aole mea keakea. Kanahelaumoku (wahine) hohikiia, Ua like pu ko maua ike me ko Olopana.

An interesting find in the Māhele data was the establishment of collective enclosures at Ukoa and Lokoea. These units were created to protect field plots from destruction caused by cattle. The

enclosures were vast, as historic sources state that more than two miles of fencing was put up in Ukoa, with 60 farmers sharing the land (Linnekin 1983).

Post-Māhele Land Use

Ranching began in Kawailoa shortly after the Māhele. Land grants were given to Native Hawaiians and unclaimed plots were made available for lease and eventual ownership. At this time, much of the privately owned land was used for cattle ranching, and to a lesser degree, agriculture. In most cases, extensive logging efforts preceded ranch operations in order to expand pastureland and provide wood for fences.

Sugarcane agriculture intensified after 1882, when wells were established. Frank Dillingham acquired land from Gaspar Silva and James Gay to establish a 7,000 acre property, primarily for sugarcane (Yardley 1981:191–199). Dillingham, who owned the O‘ahu Railway and Land Co. (OR&L) railroad, extended the previously existing track around Ka‘ena Point to service the Halstead Plantation’s sugar mill in Waialua. The railroad followed the same corridor as the current Farrington Highway from Ka‘ena Point to Waialua, and the track extended through Kawailoa. The Halstead Plantation was later bought by the Waialua Agricultural Company, Ltd.

By the early 1900s, land in Kawailoa was being used to grow taro, rice, and sugarcane, with some cattle ranching still taking place as well. Traditional cultivation of taro using perennial streams and coastal springs continued in the area into the 1930s (Handy et al. 1972). In 1921, the concrete “Rainbow Bridge” was built to replace an earlier wooden version. The bridge, which allows Kamehameha Highway to cross the Anahulu River, has become an icon as the entryway to Hale‘iwa Town. The distinctive double arched bridge lies just south of the project area.

The latter half of the 20th century has seen increased construction activities in the vicinity of the study area with projects such as the development of the Hale‘iwa Small Boat Harbor and the modifications to the Hale‘iwa Ali‘i Beach Park. The boat harbor was authorized in 1960 and completed in 1966 (Hammatt et al 2005) while the activities at Ali‘i Beach Park has continued into recent years. No cultural resources had been encountered in the most recent archaeological monitoring for work at the park in 2008 (Hammatt 2008). Both the harbor and the park, while relatively near to the project area, are not adjacent to, but rather, physically removed from the project site.

Previous Archaeology

A wealth of archaeological studies have been conducted in Kawailoa. The following discussion provides information on archaeological investigations that have been performed within the vicinity of the project area (Figure 13). Table 1 lists previous archaeological projects and their results for the larger region of Kawailoa and neighboring Pa‘ala‘a, which includes Hale‘iwa.

One of the earliest island-wide archaeological studies was conducted in the 1930s by J.G. McAllister (1933). In his study of O‘ahu, he recorded numerous sites located in Kawailoa. The sites closest to the project area are Site 230, *mo‘o* stones and Site 233, Lokoea (Figure 14). McAllister describes the sites as follows:

Site 230. Two stones known as *moo*, on either side of the Anahulu Stream above the old Haleiwa Seminary. One was named Poo o Moo and the other was known as Wawae o Moo. They are in no way different from ordinary stones, and can not be distinguished from other stones in the vicinity unless pointed out by one of the Hawaiians.

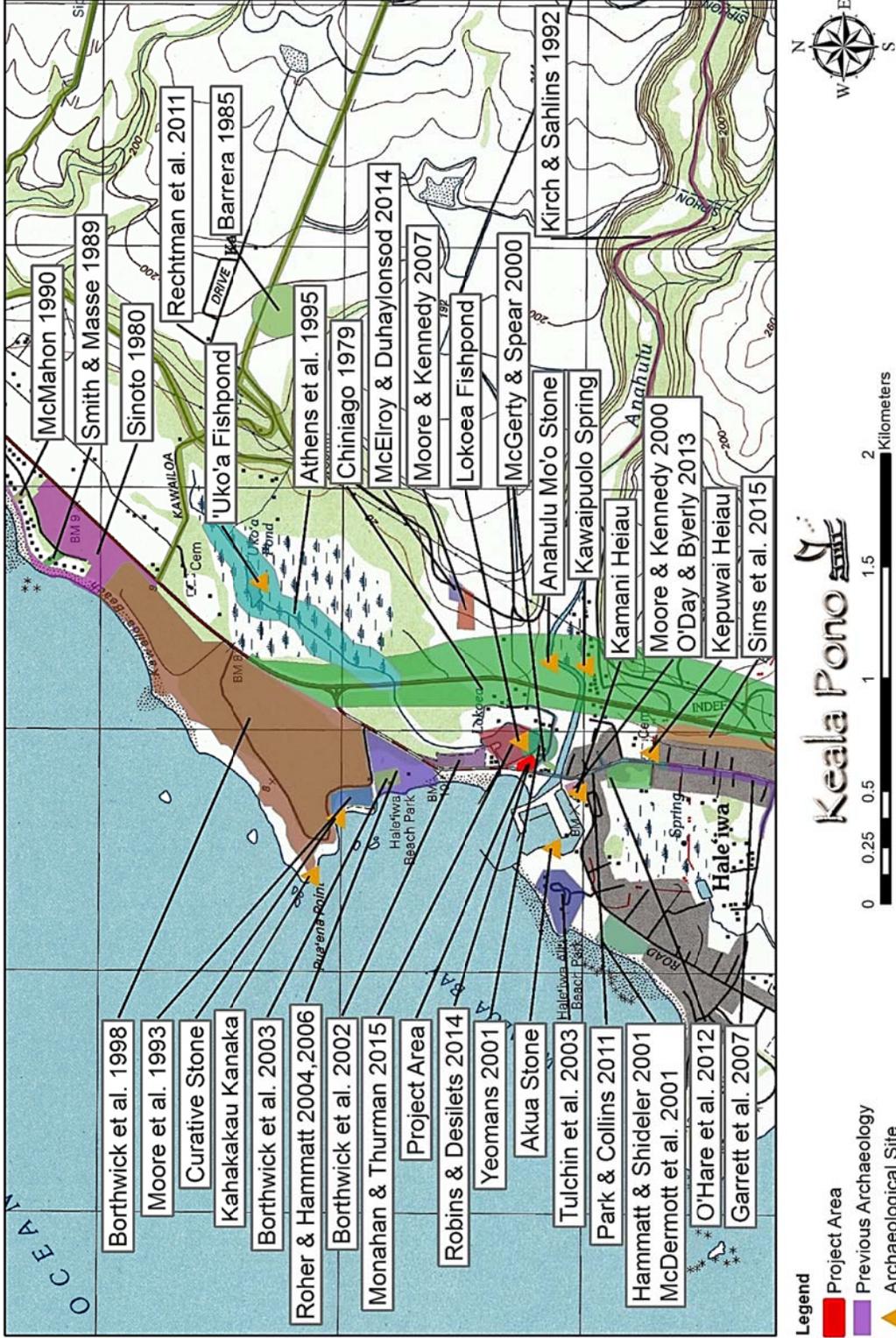


Figure 13. Previous archaeological studies in the vicinity of the project area.

Table 1. Previous Archaeology in Kawaiioa

Author and Year	Location	Work Completed	Findings
McAllister 1933	Island of O‘ahu	Archaeological Survey	McAllister recorded and examined 384 archaeological sites on O‘ahu, 13 of which are within Kawaiioa. Sites near the project area include <i>mo‘o</i> stones, Lokoeca Pond, and ‘Uko‘a Fishpond.
Chiniago 1979	Hale‘iwa Bypass Road	Cultural Resources Survey	Recorded Site 1439, an historic artifact scatter; 1440, a wall remnant; 1441, an agricultural complex; 1442, the Emerson homestead; and 1443, an old church.
Simoto 1980	Coastal Hale‘iwa	Reconnaissance Survey	No significant findings.
Barrera 1985	<i>Mauika</i> of Uko‘a Fishpond	Reconnaissance Survey	No significant findings.
Smith and Masse 1989	TMK: (1) 6-1-004:093	Burial Disinterment	Human remains were removed from 61-795 Papaiioa Rd. They were designated as Site 3956.
McMahon 1990	TMK: (1) 6-1-004:081	Burial Disinterment	Human remains were recovered from another coastal parcel on Papaiioa Rd. They were designated as Site 4240.
Kirch and Sahlins 1992	Anahulu Valley	Academic Research	Two volumes published presenting research on the history of Kawaiioa, ethnography, and settlement models.
Moore et al. 1993	Hale‘iwa Beach Park Extension	Archaeological Inventory Survey	Recorded Site 4589, a multi-component habitation area. Sites 4593–4595, burials; Site 4590, fire pits; Site 4600, a pit and posthole; Site 4601, a posthole and charcoal lens; and Site 235, the healing stone previously documented by McAllister (1933).
Athens et al. 1995	‘Uko‘a Pond	Paleoenvironmental Research	Coring provided a record of sediments spanning 8,000 years. Lowland forests rapidly declined around AD 950.
Borthwick et al. 1998	TMK: (1) 6-1-004:023, .058, and (1) 6-2-001:1, and .010	Archaeological Inventory Survey	Identified Sites 5641 and 5643, WWII remains; 5495, a human burial; 5644, an historic trash dump; 5661, a cultural layer; and 564, the Pua‘ena Stone.

Table 1. (Continued)

Author and Year	Location	Work Completed	Findings
McGerty and Spear 2000	TMK: (1) 6-2-003 por. :006 and :009	Archaeological Inventory Survey	Recorded Site 5795, charcoal deposits; and 5839, a boulder wall.
Moore and Kennedy 2000	Hale'iwa Joe's	Inadvertent Discovery Report	Reported on the inadvertent discovery of human remains consisting of one adult and one child. The remains were designated as Site 5838.
Hammatt and Shideler 2001	Hale'iwa Beach Park	Burial Reinterment	Reentered a human burial in its original location. The burial, Site 5850, was identified in an earlier archaeological inventory survey (McDermott et al. 2001).
McDermott et al. 2001	Hale'iwa Beach Park	Archaeological Inventory Survey	Recorded Site 5791, the O.R.&L. railroad and Site 5850, a human burial and subsurface cultural layer.
Yeomans 2001	TMK: (1) 6-2-003 por. :006 and :009	Data Recovery	Excavated portions of Site 5795, previously identified charcoal deposits. Identified a historic cultural layer above a traditional cultural layer. Dated four features, three ranging from 1210–1510 calAD, and one dating to 1430–1670 calAD.
Borthwick et al. 2002	North Shore Skateboard Park	Archaeological Inventory Survey	Identified Site 5791, O.R.&L. railroad right of way; 5915, a water tank foundation; and 5916, a cultural layer.
Borthwick et al. 2003	Hale'iwa Beach Park	Archaeological Inventory Survey	No significant finds.
Tulchin et al. 2003	Hale'iwa Beach Park	Archaeological Assessment	No significant finds.
Roher and Hammatt 2004	Hale'iwa Beach Park	Archaeological Monitoring	No significant finds.
Roher and Hammatt 2006	Hale'iwa Beach Park	Archaeological Monitoring	Found additional human remains that are part of Site 5850, a previously recorded human burial and cultural layer.
Garrett et al. 2007	Hale'iwa Town	Archaeological Monitoring	No significant finds.
Moore & Kennedy 2007	<i>Mauka</i> Hale'iwa	Archaeological Inventory Survey	Identified Site 6867, a raised roadway/ driveway associated with concrete troughs and the remains of a mortared brick structure, Site 6868, a c-shaped alignment with an upright stone, and Site 6869, modified agricultural outcrops.

Table 1. (Continued)

Author and Year	Location	Work Completed	Findings
Park and Collins 2011	Kamehameha Hwy., Lokocea Pl., and Anahulu Pl.	Archaeological Monitoring	No significant finds.
O'Hare et al. 2012	Hale'iwa Town	Archaeological Inventory Survey	Recorded Site 7152, concrete features and an agricultural deposit.
O'Day and Byerly 2013	Hale'iwa Joe's	Archaeological Monitoring	Recorded Site 7561, several sets of human remains, and a historic alignment thought to be part of the old Hale'iwa Hotel landscaping.
McElroy and Duhaylonsod 2014	<i>Mauka</i> Hale'iwa	Archaeological Inventory Survey	Identified Site 7604, a historic road.
Robins and Desllets 2014	Current Project Area	Archaeological Monitoring Plan	Drafted a plan for monitoring of soil remediation excavations that overlap with parts of the current project area.
Monahan and Thurman 2015	Lokocea Fishpond	Archaeological Inventory Survey	Identified episodes of rebuilding at Lokocea Fishpond (Site 233). Seven features were associated with the fishpond, consisting of three walls, a pond, a central island, and two caves.
Sims et al. 2015	<i>Mauka</i> of Uko'a Fishpond	Archaeological Inventory Survey	Recorded a portion of the previously identified historic road, Site 704, as well as several historic artifacts.

Note: Site numbers prefaced by 50-80-04.

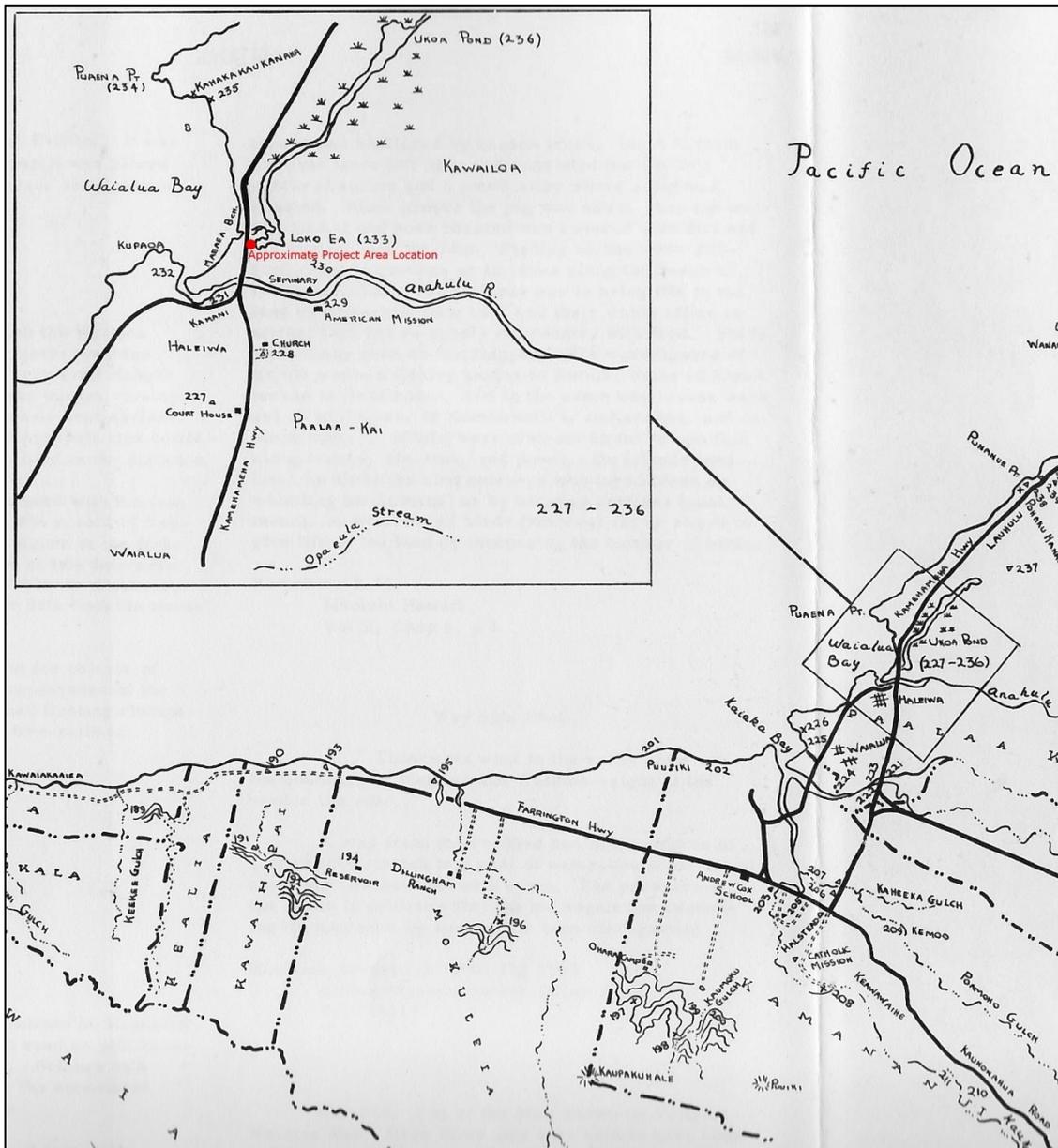


Figure 14. Archaeological sites in Kawaihoa (adopted from Sterling and Summers 1978).

Site 233. A small fresh-water pond covering 2.5 acres, still in use. The present pond is divided from a small stream, into which its outlets (*makaha*), open by a stone and earth embankment. Its other sides are formed by the natural contours of the land. (McAllister 1933:141–142)

McAllister (1933) recorded several other important sites farther away from the project area, including Site 231, Anahulu Heiau; Site 232, an *akua* stone; Site 234, Pua‘ena Point; Site 235, a stone with healing powers; Site 236, ‘Uko‘a Fishpond; and Site 237, Ili‘ilikea Heiau. The two *heiau* and the *akua* stone were reported as destroyed (McAllister 1933:141–142).

Site 231, Anahulu Heiau once stood at the location of the Haleiwa Hotel and was destroyed when the hotel was built. It was described as a large, unpaved *heiau luakini* with walls made of limestone (Thrum in McAllister 1933:141). It is said that the Haleiwa Hotel failed because the *heiau* was destroyed.

Site 232, an *akua* stone, is a sacred stone that once blocked the Anahulu River entrance. The stone was situated just below the water level of the river and would be exposed periodically. It was moved to clear the way for boats, and “much anxiety was shown by the Hawaiians, for fear of evil effects” (McAllister 1933:141).

Site 234 is Pua‘ena Point, or Kahakakau Kanaka. This is the location where Elani was placed upon his death, for his body to decompose, and if a commoner had no one to care for his body after dying, it would be placed here (McAllister 1933:142). It is said that the fluids from the body would attract sharks, which were killed (McAllister 1933:142). Site 235 is a healing stone also found on the point (Figure 15). It is a smooth, oval stone, partially covered by sand, and represents a woman named Pua‘ena. The stone was known for its healing powers, and people from all over the island would place *limu* on the stone and lay the injured part of the body upon it.



Figure 15. The healing stone at Pua‘ena, as seen in 1935 (courtesy of Thomas Shirai; his great-grandmother is shown in the photo).

Site 236, 'Uko'a Fishpond was still in use at the time of McAllister's study (1933). It was described as approximately one mile long and overgrown with weeds. It is said that offerings were left for the *mo'o* of the pond, Laniwahine, on a stone near Waialua Agricultural Company's Pump 4. The stone is no longer there (McAlister 1933:142).

Site 237, Ili'ilikea Heiau, was destroyed in 1916 by the Waialua Agricultural Company (McAllister 1933:142). The *heiau* had two divisions, measured 75 by 267 feet, and exhibited well-defined walls. Thrum reported that the area was covered in sugarcane and only a few rocks of the *heiau* remained (in Sterling and Summers 1978:142).

Archaeological inventory survey for the Hale'iwa bypass highway included lands to the east of the current project area (Chiniago 1979). Of the eight sites recorded, five were newly identified. Site 1439 is an historic artifact scatter; Site 1440 is a stacked stone wall remnant; Site 1441 is a complex of agricultural terraces; Site 1442 is the homestead of missionary J.S. Emerson; and Site 1443 is an old church. The agricultural complex consists of terraces that resemble traditional *lo'i*, but were being utilized for lotus root cultivation in the 1970s. The three previously recorded sites include Site 229, Kawaiupuolo Spring; Site 233, Lokoea Pond; and Site 236, 'Uko'a Fishpond. Subsurface testing did not yield any traditional or historic deposits. The following was noted about ponds and their water sources:

The major drainages in the survey area are the Anahulu River, Opaepala and Helemano Streams [which converge to form Paukauila Stream immediately west of the survey area], and an unnamed stream that drains Ukoa Pond and feeds into Loko Ea (Chiniago 1979:5).

Paleoenvironmental studies were conducted at 'Uko'a Pond (Site 236) in association with the Hale'iwa bypass highway project (Athens et al. 1995). Core samples were analyzed for pollen, charcoal, and sediments, and provided a sequence of environmental change spanning approximately 8,000 years. The sequence was divided into four time periods, or zones, with the earliest exhibiting an abundance of arboreal species. Between 1000 and 500 years ago the forest began to decline, and was completely replaced by open scrub land in a matter of 300 years. The change in the pollen record occurs at roughly AD 950 and is thought to correlate with human settlement of the area (Athens et al. 1995:119).

An archaeological inventory survey was carried out on portions of TMK: (1) 6-2-003:006 and :009, just south of the area of study (McGerty and Spear 2000) Two sites were documented: Site 5795 consists of charcoal deposits, and Site 5839 is a boulder wall. A charcoal sample from Site 5795 produced a radiocarbon date of AD 1420–1530 (McGerty and Spear 2000:37). Data recovery was later conducted at Site 5795, which consisted of manual excavations and laboratory analyses (Yeomans 2001). This included radiocarbon dating to expand knowledge of the human chronology in the area. Site 5795 was no longer considered significant after the investigation was complete.

Human remains were identified at Hale'iwa Joe's restaurant (Moore and Kennedy 2000). The remains, designated as Site 5838, were identified as an adult and a child. Later archaeological monitoring recorded Site 7561, consisting of the remains of four adults and one child (O'Day and Byerly 2013). Some of the remains were found scattered in disturbed soil piles, while others were in situ. The in situ remains were identified at a depth from 50 cmbs (cm below surface) to 177 cmbs. Most of the remains were found in *Jaucus* sands while a portion of the remains, Feature B of Site 7561, was recovered in sandy clay. Although Hale'iwa Joe's is southwest of the current project site and across of Anahulu Stream, the remains found there are thought to possibly come from a larger pre-contact complex, and this complex may or may not cross the stream to the project site. Additionally, the *Jaucus* sand series in which the remains were identified is the same type of sand series on both sides of the mouth of the stream to include the area of the current project site. Besides

the human remains, a stone alignment thought to be part of the old Hale‘iwa Hotel was also recorded (O’Day and Byerly 2013). The alignment was deemed not significant, and no site number was given.

An archaeological inventory survey was completed for the North Shore Skate Park, which lies to the north of the current project (Borthwick et al. 2002). The survey covered 3.4 acres and included subsurface testing in selected areas. Three sites were recorded, including an OR&L right of way (Site 5791), a water tank foundation (Site 5915), and a cultural layer (Site 5916). The cultural layer was described as “a poorly defined mixed strata containing modern to early 1900s trash with sparse charcoal flecking” (Borthwick et al. 2002:ii).

Archaeological monitoring was conducted for water main replacement along Kamehameha Highway, Lokoea Place, and Anahulu Place, to the south of the current area of study (Park and Collins 2011). No significant finds were reported, although the northern portion of the project area was not monitored due to miscommunication. The only finds were isolated historic artifacts, consisting of three ceramic sherds, two glass bottles, a nail, and a marble.

An archaeological monitoring plan was drafted for excavations associated with soil remediation on parts of the current property (Robins and Desilets 2014). The plan states the following:

Soil in the project area has been found to contain petroleum hydrocarbons and associated contaminants including diesel range organics, residual range organics, lead, cadmium, and polycyclic aromatic hydrocarbons.... The project background suggests ARCADIS’ remediation work may encounter disturbed soil layers and possibly intermittent and truncated intact soil layers with pre-Contact and post-Contact features. Intact soil layers are anticipated closer to Lokoea with evidence of pond deposits characterized by fine wetland sediments or oxidized clays. (Robins and Desilets 2014:1)

Most recently, an archaeological inventory survey was conducted at Lokoea Fishpond (Monahan and Thurman 2015), which is just inland (east) of the current project area. It was reported that Lokoea is physically associated with ‘Uko‘a Fishpond, one mile away, via a stream channel that has probably been present for the duration of human habitation in the area (Monahan and Thurman 2015:165). Accordingly the two fishponds share a metaphysical and spiritual connection, as well as other commonalities like Laniwahine, a *mo‘o* and their *kia‘i*, or guardian, and the numerous *ali‘i* who had utilized both fishponds (Monahan and Thurman 2015:165). It was also noted that Lokoea has undergone multiple phases of modification over time, many of which occurred in the 20th century (Monahan and Thurman 2015:50).

It was recommended that a preservation plan is developed for Lokoea and that the fishpond be preserved in accordance with HAR §13-284-8 (Monahan and Thurman 2015:165). Preservation was recommended based on Lokoea being historically significant under criteria b, c, d, and e. Criterion b applies because Lokoea was utilized by multiple *ali‘i*, including King Kamehameha I, Queen Emma Kaleleonalani, and Queen Lili‘uokalani. Criterion c applies because of the quality of the wall building at Lokoea and because of its engineering. Because of the potential to yield further archaeological information, Lokoea is significant under criterion d; and further, because the fishpond is still utilized by Native Hawaiian cultural fish-farmers, criterion e applies as well (Monahan and Thurman 2015:165). The preservation plan will identify areas of high, moderate, and low archaeological sensitivity and what types of activities may occur in these areas in an attempt to mitigate effects on the fishpond (Monahan and Thurman 2015:166).

Settlement Pattern

The settlement of Anahulu Valley in Kawaihoa has been studied extensively by Kirch and Sahlins (1992) and the discussion here is largely a summary of their work. Initial settlement of the Waiialua

region likely occurred early in time because of the abundance of natural resources, including fertile floodplains, fresh water, and marine life. Settlement was focused in coastal areas, near these abundant resources. By the 14th century AD, populations began to expand inland into upper Anahulu Valley, where rockshelters were used as temporary habitation sites. This inland expansion was also occurring in other areas of O‘ahu, as populations increased substantially, with the windward valleys being penetrated well before those on the leeward side of the island. In Kawailoa, the inland rockshelters were being used as a base to hunt birds and to make use of other stream and forest resources. The main population was still at the coast, however, as these rockshelters were not permanent habitation areas.

By the time of Kamehameha I in the late 1700s, land use intensified, with inland zones permanently settled, and animal husbandry taking place. Kamehameha’s occupation of the island in 1804 brought about significant social and economic changes in Kawailoa, as rockshelters were abandoned and people moved near irrigated terraces that produced large quantities of taro. This period of agricultural intensification was short-lived, however, and the upper Anahulu Valley was in decline as early as 1812. Possible causes of decline include a drop in population because of foreign disease epidemics, a new focus on obtaining sandalwood for foreign trade, and the abandonment of rural areas for growing urban centers, such as Honolulu.

After the collapse of the sandalwood trade ca. 1830, the Hawaiian economy shifted to catering to whaling vessels that would stop in the islands for provisions. Agricultural production was revived, as taro, yams, and sweet potatoes were cultivated for trade with whaling ships. Although the overall population of Waialua District decreased from out-migration as the whaling trade dwindled, it is clear that Kawailoa was well populated at the time of the Māhele, with 93 *kuleana* claims made for the *ahupua‘a*. Māhele data shows that a wide range of activities were taking place, from farming to fishing, and residential lots were interspersed among the farms and fishponds. The development of collective enclosures at ‘Uko‘a and Lokoea were found in the Māhele data. These enclosures were established as farmers joined together to keep their fields safe from the destruction caused by cattle. Furthermore, a good amount of Kawailoa’s taro patches were converted to rice fields since there was a growing demand for rice.

The end of the 19th century saw even more far-reaching agricultural changes as the large-scale cultivation of sugarcane took hold of Waialua District. This coincided with the extension of Benjamin Dillingham’s Oahu Railway and Land Company (OR&L) railroad system which came out of Wai‘anae, went around Ka‘ena, through Waialua, and to Kahuku. Dillingham conveniently built his Hale‘iwa Hotel at the shoreline of Waialua Bay near where his railroad’s Waialua terminal was located, and the hotel enjoyed a wealth of business until 1928 when it became a private club. During the years of the second world war it became an officer’s clubhouse, and in 1952, after the war, it was demolished (Hammatt et al 2005). The Hale‘iwa Hotel is the site of today’s Hale‘iwa Joe’s which is across the Anahulu Stream southwest of the current project site. The 20th century saw cattle ranching and sugarcane agriculture as the dominant activities in Waialua while taro and rice continued to be grown as well.

Summary and Anticipated Finds

The *mo‘olelo* and *‘ōlelo no‘eau* that perpetuate the memory of pre-contact Waialua and Kawailoa indicate the notable place they had in Hawaiian history. Kawailoa was and still is an *ahupua‘a* within the district of Waialua, and both of these place names rightfully suggest the abundance of water in the region, attested by such geographical features as ‘Uko‘a Fishpond, Lokoea Fishpond, and Anahulu Stream. Indeed, later historical records document extensive well-watered lands to include vast fresh water ponds, taro fields, and swamplands. The significance of Waialua brought about by its bounteous agricultural and aquacultural production appears to be consistent with the many

important *heiau* found throughout the district. This bounty gave rise to a substantial population dispersed among good-sized villages. Hawaiian language newspaper articles, old photos, and historic maps attest to the development of Waialua into the post-contact era with references to bustling communities, churches, and schools. While Kamāmalu kept the *ahupua‘a* of Kawaioloa and Pa‘ala‘a, her crown lands from Kamananui to Ka‘ena were ceded to become government lands, and the totality of these crown, government, and individual *kuleana* lands would eventually support sugar plantations, cattle ranching, railroad, and military enterprises.

Due to its diversified history, Kawaioloa Ahupua‘a might offer numerous types of archaeological materials. Archaeological work in the region might uncover anything from pre-contact ceremonial and/or agricultural remnants to historic-era artifacts representative of the various industries that left their footprint on the landscape. The specific project area was the location of two LCAs, where *lo‘i* were mentioned in Māhele testimony. Remains of these may be found on the parcel, and could include stone terraces, subsurface pondfield soils, and/or any portable artifacts related to agriculture. This is in line with other previous archaeological finds in the district and along the coast, and in addition to pre-contact agricultural features and habitation features which may or may not include human burials, the project site may also yield remnants of activities associated with the historic-era railroad system and the Hale‘iwa Hotel.

Research Questions

Research questions will broadly address the identification of the above archaeological resources and may become more narrowly focused based on the kinds of resources that are found. Initial research questions are as follows:

1. Is there any evidence of pre-contact use of the property and what is the nature of that use? The project area is located in a coastal environment, a context favored for human burial in traditional Hawai‘i. LCA records indicate that the parcel was used for *lo‘i* agriculture, but it is possible that burials were interred there before agriculture commenced. Other evidence of traditional Hawaiian use of the study area might include isolated artifacts, midden deposits, and/or buried cultural layers. As mentioned earlier, the project is located in proximity to the natural resources provided by Lokoea Fishpond, Anahulu Stream and the shore of Waialua Bay, making it a prime location for habitation in the pre-historic era.
2. Are there vestiges of historic use of the property? Remnants of historic-era land use would likely be related to the LCA claims for the parcel. Evidence of *lo‘i* agriculture, such as stone terraces or pondfield soils might be found beneath the surface.
3. What time periods are represented by the archaeological remains on the properties? If fire pits or other datable archaeological features are encountered, radiocarbon dating may inform on the period of use for the area. Wood taxa identification should be performed prior to dating, and only material suitable for dating should be submitted for analysis. Historic occupation may be dated by material remains such as bottles or ceramics.

Once these basic questions are answered, additional research questions may be developed in consultation with SHPD, tailored to the specific kinds of archaeological resources that were identified.

METHODS

Pedestrian survey and subsurface testing were conducted on July 31, 2015 by Windy McElroy, PhD and Jeffrey Lapinad. McElroy served as Principal Investigator, overseeing all aspects of the project.

For the pedestrian survey, the ground surface was visually inspected for surface archaeological remains, with transects conducted in a north-south direction. Of the .512-acre survey area, 100% was covered on foot. Vegetation was very light, consisting mostly of scattered patches of short grass that did not impair visibility of the ground surface (Figure 16). The spacing between archaeologists was approximately 5–8 m apart. Archaeological sites were identified visually, with any feature possibly made or used by humans and more than 50 years old considered a site, although none were found.

Test trenches (TR) were excavated in five locations on the property. The excavation strategy and trench locations were approved by SHPD beforehand via email. A mini excavator was used for digging of the trenches (see cover photo). Vertical provenience was measured from the surface, and trenches were excavated to water table or to as deep as safely possible, at the discretion of the mini excavator operator. One trench was abandoned early because of possible petroleum contamination. Profiles were drawn and photographed, and sediments were described using Munsell soil color charts, a sediment texture flowchart (Thien 1979), and the *Soil Survey Manual* (USDA 1993). Trench locations were recorded with a 3 m-accurate Garmin GPSmap 62st, and all trenches were backfilled after excavation.

The scale in all field photographs is marked in 10 cm increments. The north arrow on all maps points to magnetic north. Throughout this report rock sizes follow the conventions outlined in *Field Book for Describing and Sampling Soils*: Gravel <7 cm; Cobble 7–25 cm; Stone 25–60 cm; Boulder >60 cm (Schoeneberger et al. 2002:2–35). No material was collected, and no laboratory analyses were conducted.



Figure 16. Overview of the parcel, showing light vegetation. Orientation is to the northwest.

RESULTS

Pedestrian survey and subsurface testing were conducted in the .512-ac. project area. No historic properties were found. Excavation of five test trenches did not yield any evidence of subsurface archaeological deposits or features.

Community Consultation

Consultation was conducted with SHPD between April and July, 2015. The excavation strategy was agreed upon with the SHPD O'ahu Lead Archaeologist via email. In addition, a cultural impact assessment is currently being prepared for the project. As of the time of writing, four interviews with community members were completed in person by Keala Pono ethnographer, Dietrix Duhaylonsod, BA. The interviewees were Kamehameha Schools land manager, Kalani Fronda; *kupuna*, Betty Jenkins; cultural practitioner, Moki Labra; and the O'ahu Island Burial Council Waialua Representative, Thomas Shirai. The interviewees did not know of any archaeological sites directly on the property but noted the importance of Lokoea Fishpond, which is adjacent to the north, as well as a variety of other archaeological sites in the wider region.

Pedestrian Survey

The surface survey included 100% of the .512-ac. parcel. The property housed a gas station from the 1940s to 2008, and the surface and subsurface were extensively disturbed during its construction, modification, and demolition. No surface archaeological remains were observed on the property.

Subsurface Testing

Five trenches were excavated throughout the parcel (Table 2, Figure 17). Stratigraphy consisted of fill above one or two layers of alluvium. No cultural deposits or features were observed in any of the trenches.

TR 1 was located on the north end of the property (see Figure 17). The trench measured 4.70 m long and .56 m wide. It was excavated to 1.92 m, just to the water table (Figure 18). Stratigraphy consisted of an upper fill layer with sparse metal and plastic debris, with two alluvial layers below.

TR 2 was placed on the east side of the parcel (see Figure 17). The trench measured 6.15 m long, .56 m wide, and 1.90 m deep. Stratigraphy consisted of the same three layers observed in TR 1 (Figure 19).

TR 3 was located in the central portion of the property (see Figure 17). It measured 4.90 m long, .56 m wide, and 1.70 m deep. Excavation was halted when a petroleum smell was observed, and the trench was not excavated further. Stratigraphy was similar to that in TR 1, except that the upper fill layer contained more basalt gravel (Figure 20).

TR 4 was placed in the southeast corner of the lot (see Figure 17). It measured 5.02 m long, .56 m wide, and 1.83 m deep. Stratigraphy consisted of an upper fill layer above alluvium (Figure 21). A concrete fragment was observed in the fill, probably the remnants of a modern post or sign foundation. Small amounts of lead contamination were detected in this trench after it had been excavated.

TR 5 was located between TR 3 and 4 (see Figure 17). The trench measured 4.05 m long, .56 m wide, and 1.80 m deep. Stratigraphy was the same as in TR 3, with a rubber hose fragment and pvc coupling among the modern debris observed in the upper fill layer (Figure 22).

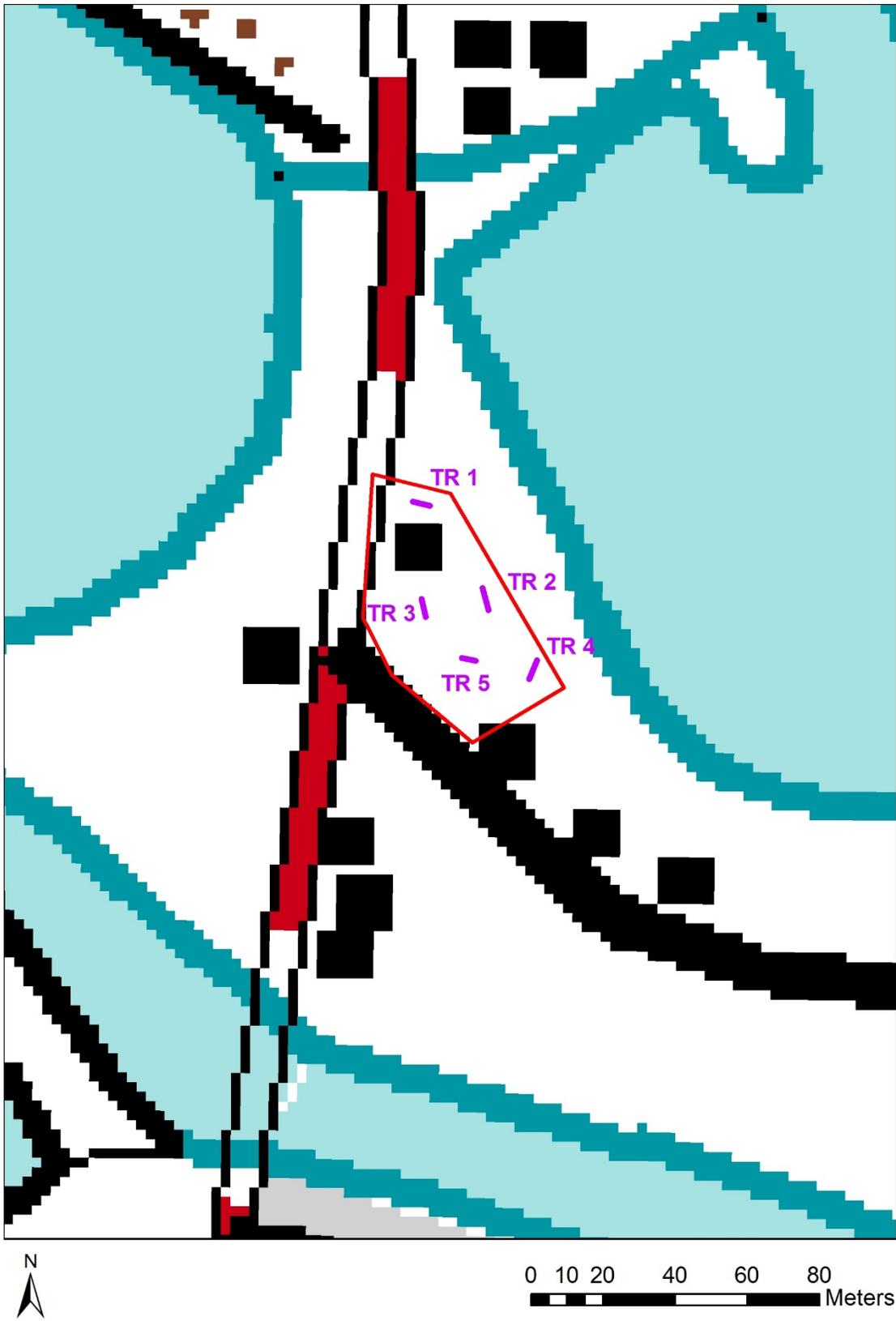


Figure 17. Location of trenches on USGS Haleiwa quadrangle. The project area is outlined in red.

Table 2. Sediment Descriptions

Location	Layer	Depth (cmbs)	Color	Description	Interpretation
TR 1	I	0-40	10YR 4/3	Sandy loam; 1% fine roots; 10% basalt cobbles and gravel; modern debris; smooth, gradual boundary.	Fill
	II	40-180	7.5YR 3/3	Silty clay; 1% basalt cobbles and gravel; smooth, abrupt boundary.	Alluvial Deposit
	III	180-192+	10YR 3/1	Silty clay, moist; 5% basalt cobbles and gravel; base of excavation.	Alluvial Deposit
TR 2	I	0-58	10YR 4/3	Sandy loam; 1% fine roots; 10% basalt cobbles and gravel; modern debris; smooth, gradual boundary.	Fill
	II	58-156	7.5YR 3/3	Silty clay; 1% basalt cobbles and gravel; smooth, abrupt boundary.	Alluvial Deposit
	III	156-190+	10YR 3/1	Silty clay, moist; 5% basalt cobbles and gravel; base of excavation.	Alluvial Deposit
TR 3	I	0-22	10YR 4/3	Sandy loam; 1% fine roots; 30% basalt cobbles and gravel; modern debris; smooth, gradual boundary.	Fill
	II	22-166	7.5YR 3/3	Silty clay; 1% basalt cobbles and gravel; smooth, abrupt boundary.	Alluvial Deposit
	III	166-170+	10YR 3/1	Silty clay, moist; 5% basalt cobbles and gravel; base of excavation.	Alluvial Deposit
TR 4	I	0-171	10YR 4/3	Sandy loam; 2% fine roots; 2% basalt cobbles and gravel; modern debris; smooth, gradual boundary.	Fill
	II	171-183+	10YR 3/1	Silty clay, moist; 5% basalt cobbles and gravel; base of excavation.	Alluvial Deposit
TR 5	I	0-81	10YR 4/3	Sandy loam; 2% fine roots; 30% basalt cobbles and gravel; modern debris; smooth, gradual boundary.	Fill
	II	81-166	7.5YR 3/3	Silty clay; 1% basalt cobbles and gravel; smooth, abrupt boundary.	Alluvial Deposit
	III	166-180+	10YR 3/1	Silty clay, moist; 5% basalt cobbles and gravel; base of excavation.	Alluvial Deposit

Summary of Findings

Pedestrian survey and subsurface testing were conducted at TMK: (1) 6-2-003:037. No cultural material or deposits were identified. The surface and subsurface were extensively disturbed by previous use of the parcel as a gas station for approximately 60 years. Stratigraphy consisted of fill atop one or two layers of alluvium.

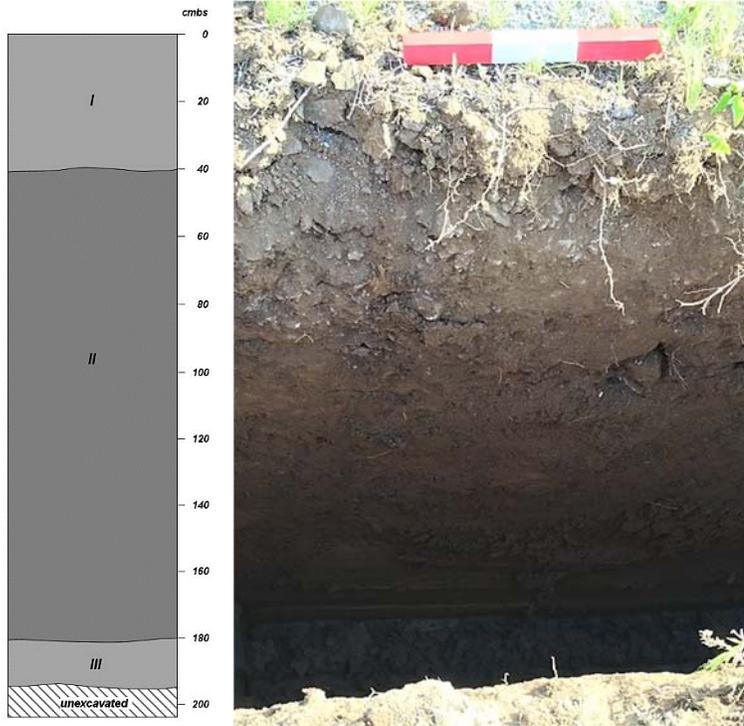


Figure 18. TR 1 north face profile drawing (left) and photo (right).

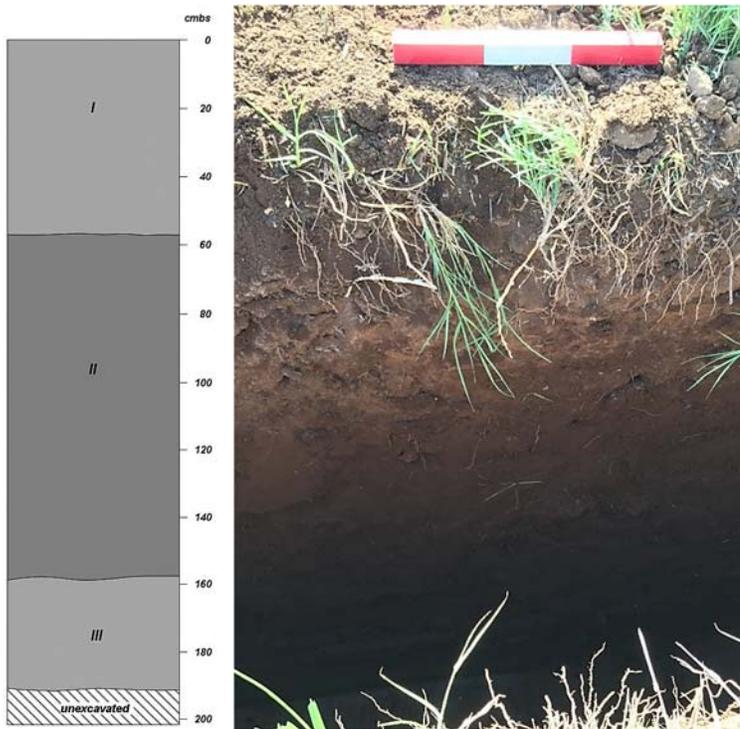


Figure 19. TR 2 east face profile drawing (left) and photo (right).



Figure 20. TR 3 east face profile drawing (left) and photo (right).



Figure 21. TR 4 southeast face profile drawing (left) and photo (right).



Figure 22. TR 5 north face profile drawing (left) and photo (right).

SUMMARY AND RECOMMENDATIONS

An archaeological inventory survey was conducted for TMK: (1) 6-2-003:037 in Kawaiiloa Ahupua'a, Waialua District, on the Island of O'ahu. This was done in preparation for ground disturbance associated with a small commercial redevelopment called The Shops at Anahulu. The archaeological inventory survey included pedestrian survey that covered 100% of the .512-acre property, as well as test excavations consisting of five trenches.

No surface archaeological remains were found during pedestrian survey of the parcel. The property has been disturbed by a former gas station that was in operation from the 1940s to 2008. Likewise, subsurface testing did not yield any evidence of subsurface archaeological material or deposits. Stratigraphy consisted of fill atop alluvial deposits.

In sum, an archaeological inventory survey was conducted on TMK: (1) 6-2-003:037 in Kawaiiloa, and no archaeological remains were found. Construction there will have no effect on historic properties because no historic properties occur on the parcel. Nevertheless, archaeological monitoring is recommended because of the proximity to the beach, an environment favored for human burials in traditional times, as well as proximity to Lokoea Fishpond, an important cultural resource on the neighboring property. It is possible that human remains may be discovered during construction activities, even though no such evidence was found during the survey. It has already been established that the project site is located at a place of significant environmental resources and in a region that has sustained a bustling population since the pre-contact era. Particularly, human remains have been identified in the same types of soils on the other side of the Anahulu Stream just across from and near to the project site, and it is believed that those human remains may come from a larger complex which may include the current project area. Should human burial remains be discovered during construction activities, work in the vicinity of the remains should cease and the SHPD should be contacted.

GLOSSARY

‘āholehole	Young stage of the Hawaiian flagtail fish.
ahupua‘a	Traditional Hawaiian land division usually extending from the uplands to the sea.
aka‘akai	The bullrush <i>Scirpus validus</i> found in brackish or fresh water marshes. These plants were traditionally used in house thatching or woven into mats for beds.
ali‘i	Chief, chiefess, monarch.
‘anae	Full-sized ‘ama‘ama mullet fish.
‘āpana	Piece, slice, section, part, land segment, lot, district.
awa	The milkfish, or <i>Chanos chanos</i> , often raised in fishponds in ancient times.
boulder	Rock 60 cm and greater.
cobble	Rock fragment ranging from 7 cm to less than 25 cm.
gravel	Rock fragment less than 7 cm.
heiau	Place of worship and ritual in traditional Hawai‘i.
hui	A club, association, society, company, or partnership; to join, or combine.
‘ili	Traditional land division, usually a subdivision of an <i>ahupua‘a</i> .
kia‘i	Guard, caretaker; to watch or guard; to overlook, as a bluff.
koa haole	The small tree <i>Leucaena glauca</i> , historically-introduced to Hawai‘i.
kula	Dry land, often used for sweet potato cultivation.
kuleana	Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.
limu	Refers to all sea plants, such as algae and edible seaweed.
lo‘i, lo‘i kalo	An irrigated terrace or set of terraces for the cultivation of taro.
luakini	Large <i>heiau</i> of human sacrifice.
Māhele	The 1848 division of land.
makai	Toward the sea.
mauka	Inland, upland, toward the mountain.
mo‘o	Lizard, dragon, water spirit.
mo‘olelo	A story, myth, history, tradition, legend, or record.
‘ōlelo no‘eau	Proverb, wise saying, traditional saying.
oli	Chant.
pu‘uone	Pond near the seashore, as at the end of a stream.
stone	Rock fragment ranging from 25 cm to less than 60 cm.
‘uala	The sweet potato, or <i>Ipomoea batatas</i> , a Polynesian introduction.
wauke	The paper mulberry, or <i>Broussonetia papyrifera</i> , which was made into tapa cloth in traditional Hawai‘i.

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Appendix C

CULTURAL IMPACT ASSESSMENT

FINAL—Cultural Impact Assessment for TMK: (1) 6-2-003:037, Kawaioloa Ahupua‘a, Waialua District, Island of O‘ahu, Hawai‘i



Prepared For:
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813



February 2016

Keala Pono 

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Cover Photo: Lokoea Fishpond from the subject property looking southeast.

**FINAL—Cultural Impact Assessment for TMK: (1) 6-2-003:37,
Kawailoa Ahupua‘a, Waialua District, Island of O‘ahu, Hawai‘i**

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February 2016



MANAGEMENT SUMMARY

A Cultural Impact Assessment was conducted for The Shops at Anahulu Project, at TMK: (1) 6-2-003:037 in Kawaiiloa Ahupua‘a, Waialua District, on the island of O‘ahu, in anticipation of construction of a small commercial redevelopment.

The current study took the form of background research and an ethnographic survey consisting of four interviews, all of which are included in this report. The background research synthesizes traditional and historic accounts and land use history for the Hale‘iwa/Kawaiiloa area. Community consultations were performed to obtain information about the cultural significance of the subject property and Waialua as a whole, as well as to address concerns of community members regarding the effects of the proposed construction on places of cultural or traditional importance.

As a result of this work, the cultural significance of Kawaiiloa has been made clear. The background study revealed that Kawaiiloa was a vibrant region with bountiful fishponds, agricultural lands, and ocean resources. It was also an area frequented by *ali‘i* in times past. Consultations with individuals knowledgeable about Kawaiiloa produced information on its rich cultural history.

The consultants shared several concerns and recommendations for The Shops at Anahulu project. Most of these centered around minimizing impacts to Lokoea Fishpond, the subterranean waterways, and the ocean nearby, as well as incorporating aspects of Hawaiian culture in the project, and networking with Local entities. Other concerns were about noise levels during construction, congestion and traffic, and that the new stores would not welcome Locals as employees or customers. Some specific recommendations are to control runoff and seepage from the project area, use the original names of places instead of renaming them, and sell *kanaka maoli* items in the stores.

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INTRODUCTION

At the request of Group 70 International, Keala Pono Archaeological Consulting conducted a Cultural Impact Assessment (CIA) for TMK: (1) 6-2-003:037 in Kawaioloa Ahupua‘a, Waialua District, on the island of O‘ahu. A small commercial redevelopment called The Shops at Anahulu is proposed for the parcel. The CIA was designed to identify any cultural resources or practices that may occur in the area and to gain an understanding of the community’s perspectives on the proposed construction.

The report begins with a description of the project area and a historical overview of land use and archaeology in the area. The next section presents methods and results of the ethnographic survey. Project results are summarized, and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary, and an index at the end of the report assists readers in finding specific information. Also included are appendices with documents relevant to the ethnographic survey, including full transcripts of the interviews.

Project Location and Environment

The project area is located in Kawaioloa Ahupua‘a, Waialua District, on the island of O‘ahu (Figure 1). TMK: (1) 6-2-003:037 encompasses .512 acres (.207 ha) on the *mauka* (east) side of Kamehameha Highway (Figure 2). The subject property is the owned by Queen Liliuolalani Trust, formerly occupied for many years by a Chevron service station. The service station ceased operations in 2008, and the property has since remained vacant. The location is directly across from the Surf N Sea surf shop, and is bounded by Kamehameha Highway to the north and west, Lokoea Place to the south, and the banks of Lokoea Pond to the east.

The parcel sits at less than 6 m (20 ft.) in elevation and is approximately 40 m (130 ft.) from the coast. Rainfall averages roughly 0–102 cm (0–40 in.) per year (Juvik and Juvik 1998). Anahulu Stream is the largest permanent watercourse in the area, located approximately 90 m (300 ft.) south of the property. Another major body of water is Lokoea Pond, which lies only 20 m (65 ft.) to the northeast.

Topography of the parcel is very flat and the property is currently undeveloped with little vegetation. Clumps of short grass are scattered throughout, along with a few solitary trees (plumeria, palm, and paper bark trees) along the periphery of the lot. Generally, soils in the area are of the Kaena-Waialua Association, described by Foote et al. (1972) as follows:

Deep, mainly nearly level and gently sloping, poorly drained to excessively drained soils that have a fine-textured to coarse-textured subsoil or underlying material; on coastal plains and talus slopes and in drainageways.

Specifically, soils within the project area consist almost entirely of Jaucas sand, 0–15% slopes (JAC). Tropaquepts (TR) make up a small portion of the southeastern corner of the parcel, and a small section of Haleiwa silty clay, 0–2% slopes (HeA) is in the south (Figure 3).

An archaeological monitoring plan for soil remediation on a portion of the lot provides further information on the parcel’s history:

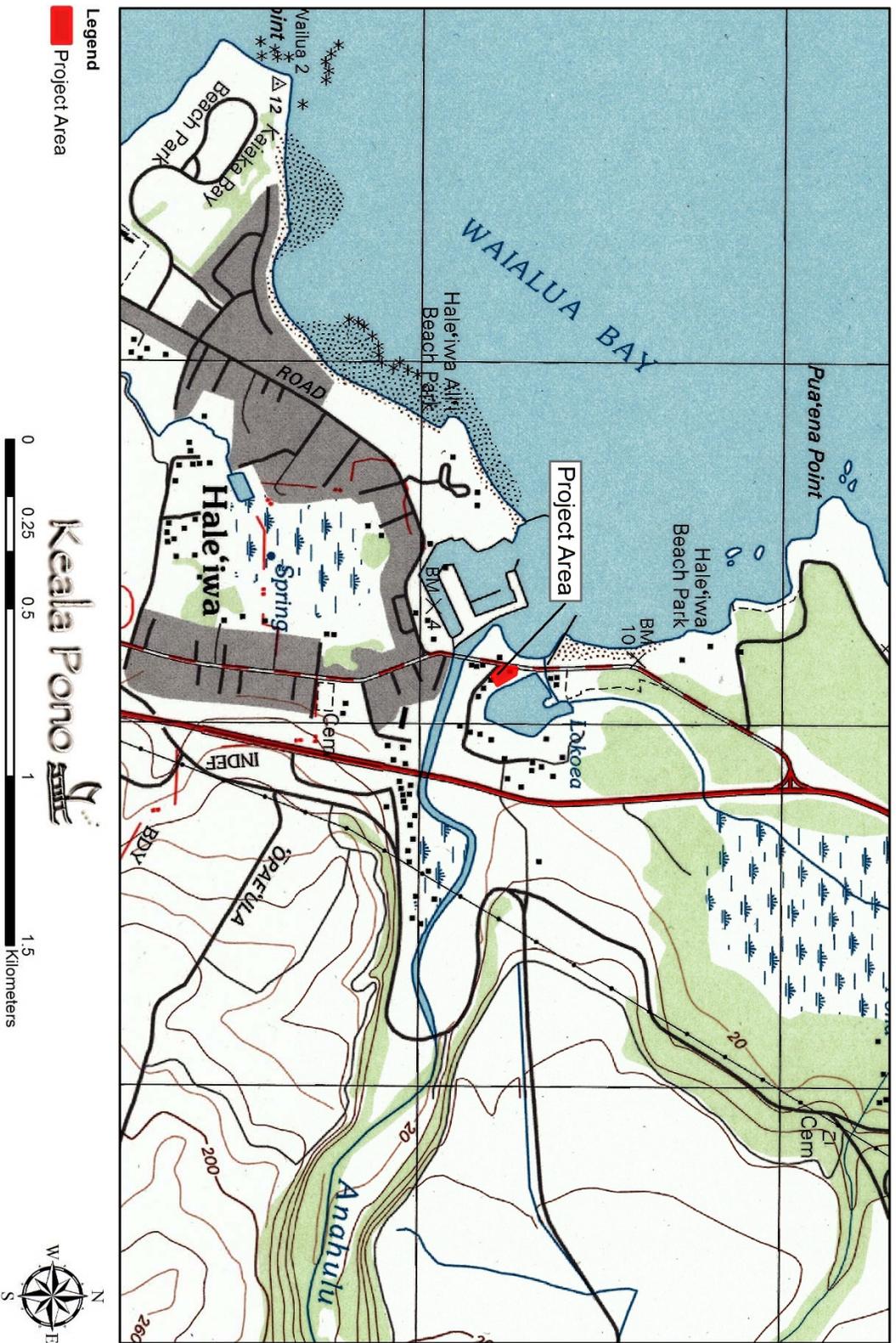


Figure 1. Project area on a 7.5 minute USGS Haleiwa quadrangle map.

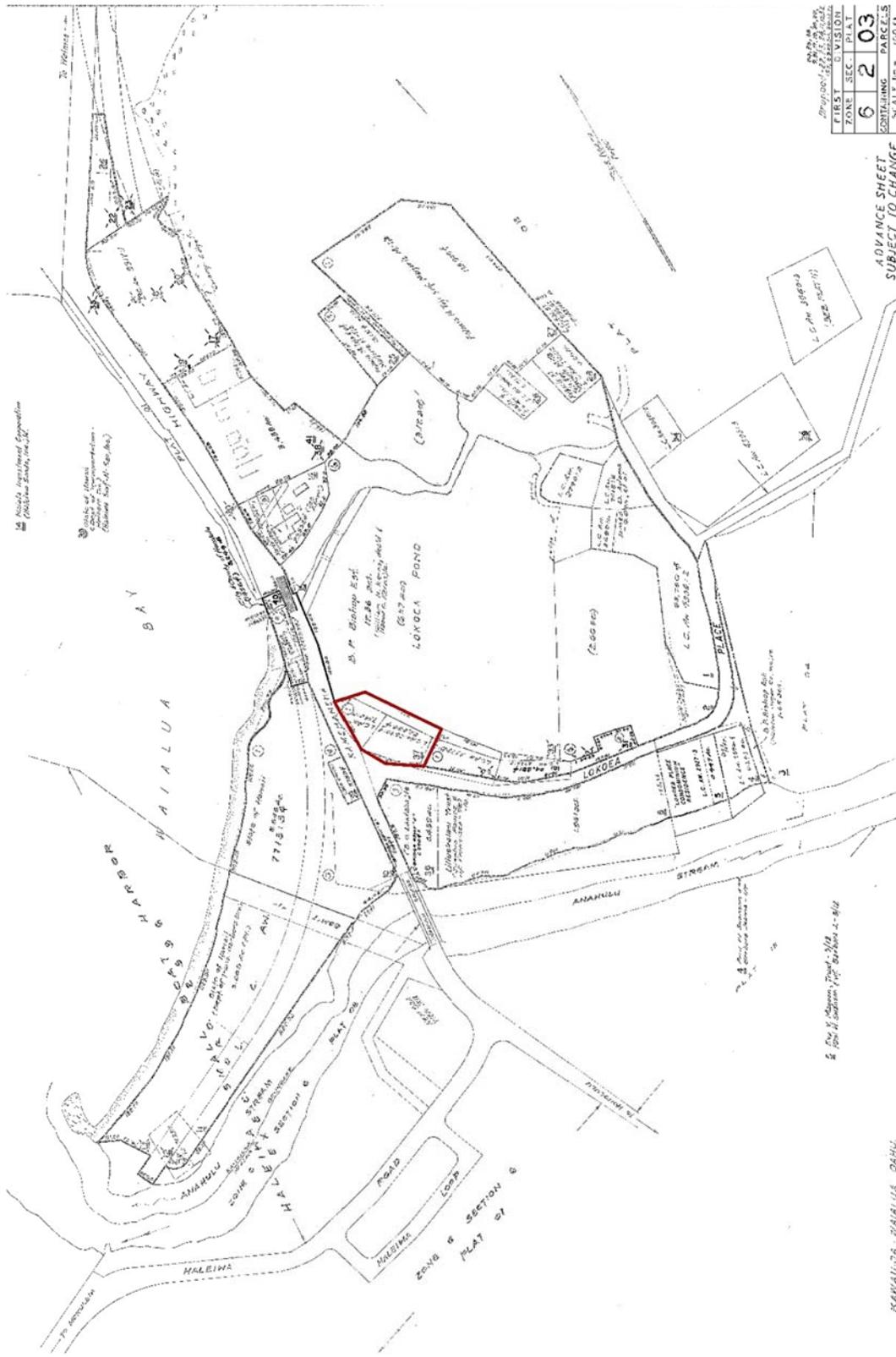


Figure 2. Project area (in red) on a 1933 TMK plat map.



Figure 3. Soils in the vicinity of the project area (data from Foote et al. 1972).

The lot is the former location of a gasoline service station and automobile repair facility built in the 1940s. By 1969, service station features included two cesspools, two hydraulic hoists, a 1,000-gallon used-oil underground storage tank (UST), and five gasoline USTs. The five USTs were removed in 1982 and replaced by three 10,000-gallon USTs. Station operations were converted from full service gasoline sales and automobile repair to self-service gasoline sales and a convenience store in 1988. The 1,000-gallon used-oil UST was removed on 15 January 15 1988. Chevron leases the service station parcel from the current landowner, Queen Liliuokalani Trust, under a renewed and current lease beginning September 30, 2008. Upon closure of the Chevron site in 2008, all remaining subsurface features were removed and aboveground structures razed. The parcel was also scarified to a depth of 0.9 m...

Site investigation in 1997 identified petroleum contaminated soil near the tank pit area and was excavated and hauled offsite. In 2007, hydrocarbon contaminated groundwater containing both diesel and residual range organics was identified adjacent to the cesspools. Additionally, automotive debris, arsenic, barium, cadmium, chromium, mercury, and lead-impacted soils were detected at 0.2 m to 1.5 m below ground surface along the northeast boundary of the main project parcel (TMK 1-6-2-003:037) and in the adjacent lot (TMK 1-6-2-003:002) owned by Kamehameha Schools. In 2013–2014, multi-incremental soil sampling investigations were conducted by ARCADIS to delineate areas of impacted soil on both land parcels. The soil boring data indicate that the subsurface is primarily fill material and contains pits used to dump service station debris. (Robins and Desilets 2014:1)

The Project

The Shops at Anahulu project will include the development of one building of approximately 5,200 sf. that will house small retail tenants. These tentatively include a coffee shop and surf/clothing store. The site will also provide outdoor seating fronting Kamehameha Highway and an open air parking lot at the rear of the building, adjacent to Lokoea Pond. The property is located in the Special Management Area (SMA), requiring approval from the City and County of Honolulu for a SMA Use Permit and Hale'iwa Special District Permit. In support of the SMA request, an Environmental Assessment (EA) is being completed to evaluate the subject use.

BACKGROUND

This section of the report presents background information as a means to provide a context through which one can examine the cultural and historical significance of the *ahupua'a* of Kawaihoa. In the attempt to record and preserve both the tangible (e.g., traditional and historic archaeological sites) and intangible (e.g., *mo'olelo*, *'olelo no'eau*, place names) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawai'i State Archives, Hawai'i State Library, the SHPD library, and online on the Papakilo database, Waihona 'Aina database, and the State of Hawai'i Department of Accounting and General Services (DAGS) website. Historical maps, archaeological reports, and historical reference books were among the materials examined.

Waialua and Kawaihoa in the Pre-Contact Era

Information compiled for the pre-contact era includes data on place names, land use, and subsistence, as well as several *mo'olelo* and an *'olelo no'eau*. Together, they give us an idea of what life may have been like in this storied place.

Place Names

Place names often shed light on traditional views of an area and can provide important contextual information. Several conflicting accounts inform on the naming of Waialua District. Thrum (in Sterling and Summers 1978:88) states that "Waialua" translates to "two waters," thus many believe that the name derived from Waialua's two streams. However, he believes that the district was named after a taro patch, and a common saying was that if you traveled to Waialua and did not see this taro patch, then you did not really see Waialua. Pukui (in Sterling and Summers 1978:88) asserts that the district was named for the cruel chief Waia, grandson of Wākea. Waia carried out his evil deeds at Waialua, and there was so much suffering there that the district was named Waialua, or "doubly disgraceful." Another source attributes the name to Waialua Pool at Kemo'o (Awai in Sterling and Summers 1978:88).

Kawaihoa translates to "the long water," which is adapted to the character of the *ahupua'a*, where the long watercourse, the Anahulu River flows (Pukui et al. 1976:98). In addition to the land division in Waialua, there is a place of the same name in east O'ahu, and there are bays named Kawaihoa in Līhu'e, Kaua'i and in northwest Moloka'i. Anahulu River is a major watercourse near the project area, and its name translates to "ten days" (Pukui et al. 1976:12). Nearby is the town of Hale'iwa, or "house [of] frigate bird" (Pukui et al. 1976:37). The prominent fishpond next to the project area is Lokoea, which translates to "rising pond" (Pukui et al. 1976:133).

Land Use and Subsistence

Terraced areas were located all along Anahulu River, in Anahulu Gulch, and in the swamps east of Pua'ena Point (Handy 1940). Handy provides more detail on the agricultural locales in Kawaihoa:

In Anahulu Gulch small flats with old mango trees, indicating kuleana, were observed several miles inland, and I am told that small areas were cultivated far up the gulch. Wild taros were seen in the side gulch at least 5 miles inland. The dry gulches between Anahulu and Waimea Streams probably never watered taro. (Handy 1940:86)

Handy and Handy also note the agricultural abundance of the land:

Waialua, on its seaward slopes, was as generously endowed with water as any area on Oahu. Much of the gently sloping and level land was formerly covered with wet-taro terraces. And beyond there was a great spread of *kula* land with red soil which was ideal

terrain for sweet potato planting. The Wai‘anae range gave this area a rich hinterland. Waialua had a fine bay with a broad beach, and there were several fishponds...Altogether this was the most bounteously endowed area on the sunset coast.

Two large fishponds were among Waialua’s greatest assets. Ukoa was a long, narrow fresh-water pond about a mile in length. Laniwai (Sky-water) was its *mo‘o* guardian. With her lived her brother, Puhi-‘ula (Red-eel). The pond was said to be connected with the ocean by a tunnel, through which the *mo‘o* would go to bathe in the sea...Another pond named Lokoea is mentioned elsewhere...(Handy et al. 1972:465–6)

‘Uko‘a and Lokoea were prominent fishponds in Kawailoa, connected to one another and fed by springs. Both ponds were once used to raise fish such as *‘anae* and *awa*. In a comprehensive study of the Anahulu Valley, Kirch and Sahlins emphasize the prominence of the region in traditional times and mention the two major ponds:

The presence of no less than eleven temples, several of *luakini* class and therefore associated with ruling chiefs, testifies to the importance of these lands to the Hawaiian chiefs. The political importance of the district, of course, was grounded in the system of agricultural and aquacultural production, notably the extensive taro irrigation complexes and ‘Uko‘a and Lokoea fishponds. (Kirch and Sahlins 1992:19)

A recent survey of Lokoea Fishpond describes it as a *pu‘uone* (a pond near the coast) that consists of seven archaeological features, including rock walls, a central island, and caves (Monahan and Thurman 2015:57, 163). The historical importance of Lokoea and ‘Uko‘a is summarized as follows:

Oral-historical information about Lokoea and ‘Uko‘a describe their elevated status as royal fishponds. Kamakau (and other accounts including Hawaiian language newspapers) described these fishponds as the “long house” of its famous *mo‘o* (supernatural water spirit), Laniwahine (Kamakau 1991:84), where she lived with her brother, Puhi‘ula. There is a fairly extensive record of *mo‘olelo* about Laniwahine, who is variously described as a shark or a shark god, a *mo‘o akua* and *kia‘i* (guardian), and/or a woman. We believe the name of Lokoea and ‘Uko‘a’s *ahupua‘a*, Ka-wai-loa, literally “the long water,” may refer to these two famous fishponds. ‘Ī‘Ī’ (1959:98) stated there were “many homes about . . . the ponds of Ukoa and Lokoea,” and that the main coastal trail passed closely to the “sluice gate of Lokoea.” (Monahan and Thurman 2015:163)

Mo‘olelo

The *mo‘o* Laniwahine of ‘Uko‘a Pond is a noted figure in *mo‘olelo*. It is said that she would appear in human form, and her presence would signal the coming of a terrible event (Kamakau in Sterling and Summers 1978). Kamakau and Manu both tell of the *mo‘o* and the strange fish within her pond:

Laniwahine was the guardian of Uko‘a at Waialua, and Uko‘a was regarded as the long house where she lived. She was a native of Uko‘a and all her deeds centered about that place. The natives of Uko‘a never failed to recognize her deeds, but few of her descendants are now left or perhaps none. Uko‘a was a very strange fish pond in which lived extraordinary fishes. A fish might be a kumu fish on one side and on the other side a mullet; or on one side weke pueo and on the other mullet; or one side might be silver white like a white cock; when scaled the skin might be striped and variegated inside. It was clear to all her descendants that these strange fish belonged to Laniwahine and it was not right to eat them. But the mullet of Uko‘a were full of fat, when as in all such ponds, the native guardian of the pond was remembered; (at other times) the fish had thin bodies and heads like wood or sometimes disappeared altogether. (Kamakau in Sterling and Summers 1978:120)

...Laniwahine was the royal lizard of Waialua and her residence was in the fresh water pond of Uko'a. This was the lizard mentioned in the chant of Kamehameha V, "Exposed are the teeth of Laniwahine, when the upper jaw and lower jaw separates." All kinds of strange mullet were seen swimming in the water, some red and some with one side differing from the other. The writer of this tale has seen it himself and perhaps the natives of the "land of sea sprays" will not deny it. Alamuki, Kamo'oloa and Kamo'o were lizards who served under Laniwahine. They lived where there were breezes. (Manu in Sterling and Summers 1978:10)

Another account identifies the home of Laniwahine as a hole at the head of the pond:

Ukoa—land and fish pond in Waialua, Oahu. The latter is believed to have subterranean communication with the sea, as its waters are very much disturbed during stormy weather. There are superstitions and beliefs in connection with this famous pond. One gives rise to the common saying, "Pupuhi ka i'a o Ukoa", "The fish of Ukoa is blown away or slipped off." There is a large circular hole at the head of the pond commonly credited as the home of Laniwahine, the sister of Puhiula, children of a goddess of ancient Hawaiian mythology. (Saturday Press in Sterling and Summers 1978:120)

In a conflicting account, Emerson states that Laniwahine was the name of a shark:

Niu-kala, a shark god who formerly lived at Loko Uko'a in Waialua, Oahu, has left that place.

Lani-wahine (Her highness) and Puhi-ula (Red eel), are two sharks associated together, and are now living at Uko'a, Waialua, Oahu (1888).

...Lani-wahine (w) has been mentioned. Barenaba tells me it is the shark of Uko'a, Waialua, and that the name of her kahu is Kukiha and that she has a heiau called ___? ___. (March 16, 1907). (Emerson in Sterling and Summers 1978:118)

Oral traditions also tell us that Waialua District was where the royal center of O'ahu was located. Around AD 1490, the sacred chief Mā'ilikūkahī was born at Kūkaniloko in Līhu'e, which is located in the uplands of Waialua. Once his paramountship was installed at the *heiau* of Kapukapuakea in central Waialua, Mā'ilikūkahī set up a land division and administration structure where O'ahu was divided into the six *moku* of Kona, 'Ewa, Wai'anae, Waialua, Ko'olauloa, and Ko'olaupoko. These *moku* were further divided into 86 *ahupua'a*. Mā'ilikūkahī also shifted the royal center from Waialua to Waikīkī.

It is said that Pua'ena Point was a place where the dead were laid to decompose. Specifically noted was Elani, an O'ahu *ali'i* who was killed during the invasion of Maui's chief Kahekili in the 1700s:

At the death of Elani, who was greatly beloved by his people, his body was placed on a ledge of rocks near Puaena Point, where it was allowed to decompose. The place became known as Kahakakau Kanaka. As the odor came to the sands at Haleiwa they became known as Maeaea; the point on the other side became known as Kupava. Hookala tells me that at this same place, if there was no one to care for the body of a commoner after his death, the corpse was placed on these rocks. The fluids from the decaying body would seep into the sea and attract sharks, which the people killed. (McAllister 1933:141–142)

Also slain during this time of upheaval was Hu'eu, an *ali'i* who served under Kahekili. Hu'eu had been installed at Waialua and was living at Ka'owakawaka in Kawailoa (Kamakau 1992). He was killed there at night while his guards were asleep.

‘Ōlelo No‘eau

A single *‘ōlelo no‘eau* was found referring to ‘Uko‘a Pond, and none were listed for Lokoea or Kawailoa. It provides further insight to traditional beliefs and practices of these lands.

Pupuhi ka i‘a Uko‘a.

The fish of Uko‘a is gone.

Uko‘a is a famous pond in Waialua, O‘ahu. Said of one who takes flight or of something quickly and secretly taken. (Pukui 1983:301)

Waialua and Kawailoa in the Historic Period

The Waialua District boundary has a complicated history (Sterling and Summers 1978:134). At the turn of the 20th century, Wahiwā Ahupua‘a fell within the Waialua District. By 1913, the community had grown apart from Waialua District, and the new district of Wahiwā was established. Thus, in 1913, the *ahupua‘a* of Wahiwā and Wai‘anae Uka were moved from Waialua District to the new district of Wahiwā. In 1925 the size of Waialua District was reduced, as large plots of land were transferred to Wahiwā. However, in 1932 the original 1913 land boundaries were reinstated, with some small parcels added to the Schofield Barracks Military Reservation.

The following data add to our knowledge of historic Waialua and Kawailoa. They include an early description by Captain Charles Clerke, several translated Hawaiian language newspaper articles, historic maps and aerial photos of the region, and Māhele data.

Early Descriptions of Kawailoa

One of the first written descriptions of O‘ahu’s North Shore comes from Captain Charles Clerke, who sailed to Waimea after the death of Captain James Cook in 1779. Clerke anchored in Waimea Bay and described his surroundings:

I stood into a Bay just to the Wt[est]ward of this point the Eastern Shore of which was by far the most beautifull Country we have yet seen among these Isles, here was a fine expanse of Low Land bounteously cloath’d with Verdure, on which were situate many large Villages and extensive plantations; at the Water side it terminated in a fine sloping, sand Beach. . . . This Bay, its Geographical situation consider’d is by no means a bad Roadsted, being sheltered from the NEbN SEterly to SWbW with a good depth of Water and a fine firm sandy Bottom; it lays on the NW side of this Island of Wouahoo . . . surrounded by a fine pleasant fertile Country. (Beaglehole 1967:569).

A multitude of Hawaiian Language newspaper articles were found that mention Kawailoa. The small collection of articles presented here provide interesting information and afford a rare glimpse of what life was like in historic-era Kawailoa. They speak of schools, problems with drunk and unruly residents, a Sunday school exhibition, a visit to Lokoea Fishpond by Queen Emma, the presence of spirits in the river, and the arrival of a fleet of canoes. The articles were translated by Keala Pono senior staff members Dietrix Duhaylonsod, BA, and Manuwai Peters, MA. They are presented in chronological order.

Ka Nonanona: KA NONANONA. BUKE 1, PEPA 13, AOA 49. DEKEMABA 21, 1841. (21 December 1841): page 51

NA KULA MA WAIALUA.

Waialua, Nov. 3, 1841.

Aloha oe Ii.

Ua pau na hoike ma Waialua nei a ma Koolau i ka malamaia. A eia malalo iho nei na inoa o na kumu, ka nui o ka lakou mau haumana a me ko lakou ike a me ka uku pono i kuu manao e uku aku ia lakou no ka manawa i hala iho nei, a o ka uku hoi no ka manawa hou.

Kawailoa a me Paala, o Kaiakawaha Kealohanui na kumu.

Na haumana a pau loa, 139

Keikikane, 91

Kaikamahine, 48

O ka nui ma ka hoohalike ana i na la, 113

Ma ka A, 35

Ka poe ike, 104

Ike palapala lima, 56

Ike i ka olelo honua, 32

Helu kamalii, 60

Helu naau, 34

Ake akamai, 36

O ka poe hou i ike i ka heluhelu, 12.

THE SCHOOLS AT WAIALUA

Waialua, Nov 3, 1841

Aloha to you Ii.

The [school] tests here in Waialua and Koolau are finished and have been tended to. Here below are the names of the teachers, the number of their students and their subject with the rightful tuition in my mind that they will pay for this past term and the tuition for the new term.

Kawailoa and Paala, Kaiakawaha Kealohanui are the teachers.

The students' total, 139

Boys, 91

Girls, 48

The amount in comparing the days, 113

A grade, 35

Proficient students, 104

Writing, 56

Geography, 32

Beginner's math, 60

Upper-level math, 34

Science, 36

New people who have learned reading, 12

“Ua mau ka ea o ka Aina i ka pono.”

Ma ka ulu mahiehe o ko'u mana'o iloko o'u. He pono no au ke hai aku, i ike mai o'u hoa puni Nu Hou. Ma ka la 19 o Sepatemaba, aia he aha inu rama nui mauka o Kawaiioloa, ma kahi o Hinana, (ka mea i holo i Ulukaa mamua,) nui na mea i hele aku ilaila, malaila hoi kekahi mau kanaka o Kahalau a me Kaina, ua loohia lakou e ka ona, a ua kui ia ka maka o Kahalau e Kaina, a eha no, ua piha loa ia o Kahalau i ka huhu luaole imua ona ia la, a ua kui ia o Kaina, a ua hina, a ua hehi ia ma kona lemu, a ua pau i ka uao ia e na hoa inu rama a ua kaawale o Kaina mai ke alo aku o Kahalau, a mahope iho, ua hoea hou mai o Kaina, ka enemi lua ole o Kahalau ia la, ua hele aku oia a halawai me Kaina, (ua olelo ia ua aloha aku o Kahalau ia Kaina, a ua hoole mai o Kaina,) ia manawa, ua hehi ia o Kaina ma ka ai e Kahalau, a ua kui ia; Ia manawa, ua kaili ke aho o Kaina i kona wa o ka aneane e komo iloko o ka make hikiwawe iloko o kona lealea ana i ka ona o ka rama, ua oleleia, he nui ka ikaika o Kahalau ia wa, ua makau no ka lehulehu. Ia wa, aia o Kaina e waiho ana iloko o ka pilikia, aia hoi na mea a pau e loku ana iloko o ka ona o ka rama, ua holo koke o Kamokumaia, i kahi o ka

Lunakanawai e kii ia e hopu o Kahalau ka mea i pepehi ia Kaina, ia wa, ua hiki pu mai no o Kahalau ka mea i pepehi ia Kaina i kahi o ka Lunakanawai, aia ua hopu koke ia oia, ua hoounaia 3 makai e ike i ke kino eha o Kaina ka mea i pepehi ia e Kahalau, ma ka la 20 ae ua hoopii ia o Kahalau ka mea i pepehi ia Kaina imua o J. W. Keawehunahala ka Lunakanawai Apana no ka haki ana o Mokuna IX Pauku 6-8 o ke Kanawai hoopai "Karaima" ia Kahalau, na ka Ahahookolokolo e noonoo ma ka olelo ike a na hoike ka pili ana o na pauku i hoopii ia e ke 'Lii no Kahalau no ka hewa i hanaia eia. Aia ua hiki mai ke kino eha o Kaina ia la imua o ka aha hookolokolo i hoike no ka aoao o ke alii, elua hoi kanaka e ae ma ka aoao i hoopiiia. Ua waiho ia keia hihia na ke jure e hookolokolo hou.

Ma la 21, ua lawe ia o Kahalau ma ka lima o ka Ilamuku, e paa ai a hiki mai ke kau hookolokolo jure o Okatoba 7, 1861, ma ka la 22, ua hiki mai o J. H. Brown Esy ka Makai Nui me Dr Ford e nana i ke kino o Kaina i ka mea i eha i Kahalau.

Ma ka wanaao o ka la 23, ua make loa o Kaina, ua kii hou ia ka Makai Nui me Dr Kauka e hele mai, ma ka la 25, ua hiki mai o John H. Brown Esy me ke Kauka pu, ia wa, ua kahea koke ia ke Karonero e hele e noonoo i ke kumu o ko Kaina make ana. Eia na Karonero J. Hanaloa, J. B. Makea, J. Amara, J. P. Kauwalu, J. A. Kawi, J. Hakuaulani, ma ka hora 10, A. M. ua hoomakaia ka niele ana i na hoike imua o J. W. Keawehunahala ke Karonero me na jure eono i hoikeia maluna, me ka Makai nui o ka Mokupuni Oahu, J. H. Brown Esy a ua pau i ka noonoo ia ka olelo a na hoike. O ke nui o ka lakou olelo hooholo, “Ua make o Kaina ia Kahalau i kona kui ana me kona hehi ana ma ka la 18 o Sepatemaba,” i olelo mua ia maluna, na ka Ahahookolokolo e noonoo.

Eia hoi, ua hoopaiia o Hianana ka mea i olelo mua ia maluna no kona hana ana i ka wai ona a haawi wale aku i na dala 100. No ka haki ana o ka Mokuna XLII Pau 1 o ke Kanawai hoopai i na hewa karaima o keia Aupuni, Ua maopopo, o ka ona ke kumu o keia make. J. P. KAUWALU.
Waiialua, Oahu, Sepatemaba 26, 1861.

“The life of the Land is perpetuated in righteousness”

At the pleasing inspiration of my thoughts inside of me. It is necessary for me, the one who tells, that my friends who love news have known.

On September 19, what of the great alcohol drinking upland of Kawaioloa, instead of Hinana (the one who sailed to Ulukaa beforehand), many were those who went there, at that place were some people of Kahalau and Kaina, they were overwhelmed by drunkenness, and Kahalau's eye was punched by Kaina, and painful indeed, Kahalau was so filled with unmatched anger in front of him, and Kaina was hit, and he fell, and he was stomped upon at the buttocks, and it was finished by the interceding of the alcohol-drinking friends, and Kaina withdrew from the presence of Kahalau, and afterward, Kaina came back again, he was an unparalleled enemy of Kahalau, he went and met with Kaina (it is said that Kahalau loved Kaina, and Kaina rejected it), that time, Kaina was stomped upon at the neck by Kahalau, and he was hit. That time, the breath of Kaina gasped at his time of feebleness to enter into quick death inside of his pleasuring in the drunkenness of alcohol, it is said, great was the strength of Kahalau that time, the multitudes were scared indeed. That time, Kaina was the one being left in trouble, and indeed everyone was feeling great sorrow inside of the drunkenness of the alcohol, Kamokumaia quickly fled, to where the Judge was gotten, to arrest Kahalau, the one who beat up Kaina, that time, Kahalau, the one who beat Kaina also arrived, at the place of the Judge, and he was quickly arrested, three policemen were sent to see the bodily injuries of Kaina, the one who was beaten by Kahalau, on the 20th day, Kahalau, the one who beat Kaina was charged in front of JW Keawehunahala, District Judge, for the breaking of chapter 9 section 6-8 of the Law, "crime" penalty to Kahalau, it is the courthouse to consider the words of the witnesses [evidence] pertaining to sections charged by the officer against Kahalau by the offenses raised here. The bodily injuries of Kaina have appeared in front of the courthouse displayed for the side of the officer, two people will arise on prosecution. This lawsuit has been left for the jury to decide anew.

On day 21, Kahalau was taken by the hand of the Sheriff, to be secured until the placement of the court jury on October 7, 1861, on the 22nd day, Judge John H. Brown Esy together with the doctor arrived, and at that time, they quickly called the *karonero* [coroner?] to come to consider the reason for Kaina's death. Here are the coroners: J. Hanalua, J.B. Makea, J. Amara, J.P. Kauwalu, J.A. Kawi, J. Hakuaulani, at 10am the questioning the witnesses will begin in front of J.W. Keawehunahala the Karonero, with the displayed in front, with the police chief of O'ahu island, J.H. Brown Esy, until the examination of evidence was finished. The importance of their decision, "Kaina died from Kahalau due to his beating and stomping on September 18," was first spoken above, it was the court to consider.

Here also, Hianana was charged, the one who first spoke above, for his making the alcohol and fined \$100. For breaking chapter XLII section I of the Law, penalty in the wrongful crimes of the government, understand that drunkenness was the reason for this death. J.P. KAUWALU.
Waialua, O'ahu, September 26, 1861.

Ke Alaula: KE ALAULA. Buke II, Helu 4, Aoao 13. Iulai 1867. (1 July 1867): page 15

KA HOIKE KULA SABATI O WAIALUA.

Ikeia na maka olioli o na keiki e akoakoa ana ma ka puu maniania ma ka hale o ke kahu o Rev. M. Kuaea i ka hora 9 o ke kakahiaka o ka Poalima, Iune 21. Hooponoponoia ka huakai, a i ka hiki ana mai o ke kula kaikamahine mai ko lakou hale kula nui, ua haawiiia na hae i kela kula a me keia kula, a i na papa a pau hoi o ke Kula Sabati o Kawaioloa. He umi papa o ke Kula o Kawaioloa, me ko lakou mau hae he umi. He hae okoa hoi ko Waimea, Waialea, Kamooloa, a me ko Mokuleia. He umi-kumamawalu ka nui o na hae i ka huakai hele. Hiehie ka nana'ku i ka hele ana o ka huakai o na keiki a me ka poe opio o na Kula Sabati me ko lakou mau hae e welo ana i ka makani, a me ke kani ana o na leo o na keiki

e hosana ana. A komo ka huakai i ka luakini, piha loa ka hale. Eia na haawina i hoike pono ia e kela kula keia kula:

Kula o Mokuleia--ua kulaia no ka aa ana o na laalaa ma Horeba.

Kula o Waimea—ka haawiia o ke kanawai ma Sinai.

Kula o Waialea—ka hoi ana mai o na kiu.

Kula o Kahuku—Ruta a me Naomi.

Kula o Kamooloa—no ka haawiia o Samuela ia Eli.

Kula o Kawailoa, papa o na kanaka ui--kulaia ma ka hoopaahaoia ana o Iesu. Papa o na wahine opio--ka moolelo o Iakoba. Papa o na makua--no Aarona a me kana mau keiki. Papa 4--Adamu laua o Ewa, a me Edena. Papa 5--Noa a me ke kaiakahinalii. Papa 6--no Aberahama. me kona pule no Sodoma. Papa 7—no ko Aberahama mohai ana ia Isaaka. Papa o na pokii—no Mose i kona wa lili.

Ua kukulu pakahi ia keia mau kula a me na papa, a ninaninau pono ia no keia mau haawina a pau, a ua ikeia ka makaukau o na kula a me ka mikiala o na haumana. Olioli na makua o ka pono i ka ike ana i ka aoia o na keiki o keia hanauna o Waialua a makaukau ma ka Baibala.

He nui na malihini a me na makamaka o na apana a me na mokupuni e i launa mai a hauoli pu me na keiki i keia la nui o ka makahiki. Kamailio mai no kekahi o lakou, a hoolana i ka manao o na kumu a me na haumana

A pau ka hana o loko o ka luakini, ua kukulu hou ia ka huakai, a hele aku na kula malalo o na hae i kahi o ka lanai nui i hanaia e na makua i wahi e ahaaina ai. Ai pu na keiki, a me na makua, a me na malihini, a me na makamaka, a maona like i na mea momona i hoolakolakoia.

SUNDAY SCHOOL EXHIBITION OF WAIALUA

The rejoicing eyes of the children gathering are seen on Maniania Hill of the home of the minister Rev. M. Kuaea at 9am on Friday, June 21. The journey was arranged, and at the arrival of the girls' school from their great school house, the flags were given to every school, and to all the classes of the Sunday School of Kawailoa. There are 10 classes of Kawailoa, with their 10 flags. Waimea, Waialea, Kamooloa, and Mokuleia have a different flag. There were 18 flags total on this trip. The scene was festive at the going on the trip of the children and teens of the Sunday School with their flags fluttering in the wind, and the voices of the children sounding Hosana! And the journey entered into the church, the building was very full. Here are the assignments that were shown well by every school:

Mokuleia School--they were taught of the burning bush at Horeb.

Waimea School--they were given the law at Sinai.

Waialea School--the return of the Jews. Kahuku School--Ruth and Naomi.

Kamooloa School--the giving of Samuel to Eli.

Kawailoa School, class of the beautiful people--they were taught the imprisonment of Jesus.

Class of teenage girls--the story of Jacob.

Class of adults--Aaron and his children.

Class 4--Adam & Eve and Eden.

Class 5--Noah and the great flood.

Class 6--Abraham and his prayer for Sodom.

Class 7--Abraham's sacrificing Isaac.

Class of the little ones--Moses in his childhood years.

These schools and classes were each built up, and were questioned well concerning all of these assignments, and the readiness of the schools and the alertness of the students were

seen. The adults rejoiced in the goodness in seeing the surety of the children of this generation of Waialua competent in the Bible.

Many were the visitors and the friends of the districts and islands to meet happily with the children on this great day of the year. Each of them conversed, and cheered up the thoughts of the teachers and the students. And when the work inside the church was done, the journey was set up again, and the schools below their flags went to the place of the great *lanai* that was made by the parents to a place that they would feast. The children ate together with the parents and the visitors and the friends, until they were all filled with the sweet things that had been provided.

Ka Nupepa Kuokoa: Vol. 6, No. 42 (19 October 1867): page 2

NA MEA HOU O KEEHUKAI.—Ma ka lokomaikai o Natanaela, ua loa mai keia mau mea hou: Ma Waialua ke Alii Emma Kaleleonalani, i kela pule ae nei, Poalima, a ua ike iho nei i na kaiaulu o ua aina Ehukai nei olalo—Ua kokua ia mai no e na kamaaina, a ma ka Poaono ae, holo aku la oia e makaikai ia Ukoa, i ka lua o na kupueu oia Loko, oia hoi ka lua o Laniwahine, a no ke ahiahi loa, ike pono ole ia ka lua—Ma ka Poakahi ae la 7, holo i Waianae ma ka lae o Kaena ae ka hele ana, ua lohe mai makou, ua kokua maikai ia e na kamaaina o Waianae —hoi mai oia ma ka puali o Kolekole ma ka la 9 ae Poakolu, a hiki hou ma Waialua. Poaha ae holo hou no e makaikai hou i na lua o ua Laniwahine nei i ike maopopo ia ai hoi, no ka mea, wahi a kamaaina, o ka wa kakahikanui ka wa e ike pono ia ai. A i kona wa nae e makaikai ana, ua lawaia kamokoi aholehole oia i kekahi mau minute, ai ia no nae e ke aholehole. Ma ke ahiahi no o ia la, holo aku la i na Pali hauliuli, o Koolauloa, moe ma kahi o J. Kaluhi Esq., ka Lunakanawai oia mau Apana. Ao ae Poalima, holo loa i Kaliuwaa, i kahi a Kamapuaa i noho ai, a malaila aku moe i Kahana, Poaono ae hoi loa mai i Honolulu, o ka pau no ia o kona moolelo.

Ua pau o Lokoea i ka hana ia a me ka auwai o Ukoa, oia hoi na loko ia nui o ke Ehukai nei, e ke Konohiki hou o ua mau loko nei. Ua lohe mai nei makou mai a Kapena Pae mai o ke kiakahi Wailele i kona hoes ana ae ma ka lae o Kaena i ka la Sabati nei, ua ike oia ma ka moana i ka piha loa i na akaakai i waele ia ai o ua Lokoea nei, a hala loa ae ma ka moana mawaho ae o Waialua pono. He 3 wale no la i waele ia ai e na keiki kupa o Waialua nei, na kane, na wahine, na keiki he mau haneri paha ka nui—Ua ike paka iho ke Alii Wahine.

This article talks about several news tidbits regarding Keehukai. Most of the news centers around a visit by Ali'i Emma Kaleleonalani, the wife of Kamehameha IV, who by the time of this article's writing, had already passed away. According to this article, Queen Emma visited the “villages of the lands of Ehukai.” Her visit to Uko‘a is specifically mentioned, where she went to see the dwelling place of Laniwahine. From there she traveled around Ka‘ena to visit Wai‘anae, then came back to Waialua via Kolekole. When she came back to Waialua, she once again went to visit the dwelling place of Laniwahine at the fishpond, where she also went pole fishing for ‘āholehole this time. After that, she went to the district of Ko‘olauloa, and then finally returned to Honolulu.

The second bit of news mentions that work on Lokoea and the waterway of Uko‘a had been finished. It calls these two “the great fishponds of Ehukai.” The work was carried out under the direction of the new *konohiki* of the ponds. To what extent was this work a construction of something new, and to what extent was this work the maintenance of how it already was, is not clear. But what is clear is that for three days, several hundred men, women, and children of Waialua helped to clear Lokoea of its ‘aka‘akai, or bulrush marsh plants, and the ocean outside of Waialua was filled with the multitude of these dead plants. At the end of this portion of the article, it says the the queen was also there looking on and advising.

Ka Nupepa Kuokoa: Vol. 6, No. 48 (30 November 1867): page 2

UNIHIPILI.—He umi ka nui o na akua unihipili ma ke kahawai holookoa o Kawaihoa. He keu ka o Kawaihoa o kahi nui o ka unihipili, ke pau la ka umi ilaila. Hookekee paha kekahi akua, hooninipo hoi kekahi, hoopunini mai paha kahi akua no ka malama ole ia o kekahi, a lilo i kekahi e malama ai.

SPIRIT OF THE DEAD.—The number of dead spirits at the entire river of Kawaihoa is 10. Kawaihoa is extreme for its many places of the spirits of the dead, it is all the 10 there. Maybe some of these spirits are crooked, some also are drowsy, some spirits are drifting due to no care of some of them, and some are overcome by care.

Ka Nupepa Kuokoa: Vol. 7, No. 35 (29 August 1868): page 1

KA HIKI ANA MAI O KA AU-WAA O HOOMAILEANUE MAWAHO PONO O WAIALUA, A PAE IUKA.

I ka wanaao pulehulehu o kekahi la ae, ua ike aku la na kanaka ala kakahiaka nui i keia mea uliuli, a hauwalaau, a wawa, e hoonakeke ai mawaho iho, eia ka o ka auwaa o ua hunona nei a ua o Kaukanapokii; o ka hoala ia aku la no ia o na kanaka a pau, a hoa mai la i ka imu o ka puua, mai ka Lae o Kahuku a ka Lae o Kaena ka a o ua mea he imu puua, ka ilio, ke koelepalau, ka maia kulolo, a me ka ulu, ke kalo kulolo, ahiawela ua mea he ahi, o ka a mai la no hoi mai uka o Kawaihoa a hiki i kai o na alii, hele a malamalama o uka, hele no hoi a malamalama o kai, a kohu ike ole ia no ke awa e hookomo mai ai ka auwaa. A no ka manao no kekahi o ka poe malihini o ke ao ae no ia, noho no lakou i waho a no loa ae. I lawa no i ke ao ana, halakika ana kahi waa kialoa o ua mau wahi luna elele nei a Hoomaileanue, a pae i kaha-one, he mea manawa ole ia, o ka waa o ua mau wahi kanaka nei, he mea ole ia i na kamaaina, hiki ana i kahi kau-waa, a hele e auau, a wehe ka malo wai, aahu ke kapa malo, a hele aku la i hahi o Kaukanapokii, a hai aku la i na olelo a pau, a kii ia aku la ka auwaa e hookomo mai. A ua pae mai la na poe a pau iuka, a ua hookipa ia ae la kela a me keia ma kauhale kamaaina, mai Waimea a hiki i Mokuleia ka paa i na kauhale a me na kanaka, a o kekahi poe no, noho oihuaauwaa iho la no. A ua hookipa ia ae la o Hoomaileanue ma kekahi hale nui a nani, a maikai loa, me ka ike oleia mai e na poe e ae, o Kaukanapokii wale no, a me na Kahu o ua keiki la o Kukulu o Kahiki, a pela i hana ia ai na mea e pili ana ia ia, a hiki i ka wa i hoohalawai ai laua me ka moopuna kua-lua a Hawea o lumi o Kaala, kela kuahiwi a ka nani i noho ai.

THE ARRIVAL OF THE CANOE FLEET OF HOOMAILEANUE DIRECTLY OUTSIDE WAIALUA, AND ITS COMING ASHORE

In the twilight dawn one day, the people rising in the dark in the early morning saw, and chattered, and rumored, that outside was the rattling, here was the canoe fleet of the in-law of Kaukanapokii, when all the people had awakened, and the *imu* of the pig had been lit, from Kahuku Pt. to Kaena Pt., the lighting of the aforementioned *imu* of the pig, the dog, breadfruit-*poi*, the banana pudding, the breadfruit, the taro pudding, hot was the fire, a fire, burning indeed from the uplands of Kawaihoa to the sea of the chiefs, the uplands became bright, and then toward the sea became bright as well, and it was not seen similarly for the harbor that the canoe fleet entered. And for the thoughts for some of the visitors for the day, they stayed outside a long time. And when they had enough of being wary, one of the smaller swift canoes of the high messenger of Hoomaileanue above passed forcefully and landed on the sand. it wasn't a short time, the canoe of the people, it was nothing to the natives, arriving to the place of the canoe, and went to swim, opening the soaked *malo*, putting on the dried *kapa*, and went to *hahi* [?] of Kaukanapokii, and told all the speeches, and the canoe fleet was fetched to enter. All of the people came ashore, and everyone was welcomed in the village, from Waimea to Mokuleia the firmness in the homes and the people, and of some people, sat at the canoe fleet. And Hoomaileanue was greeted at a

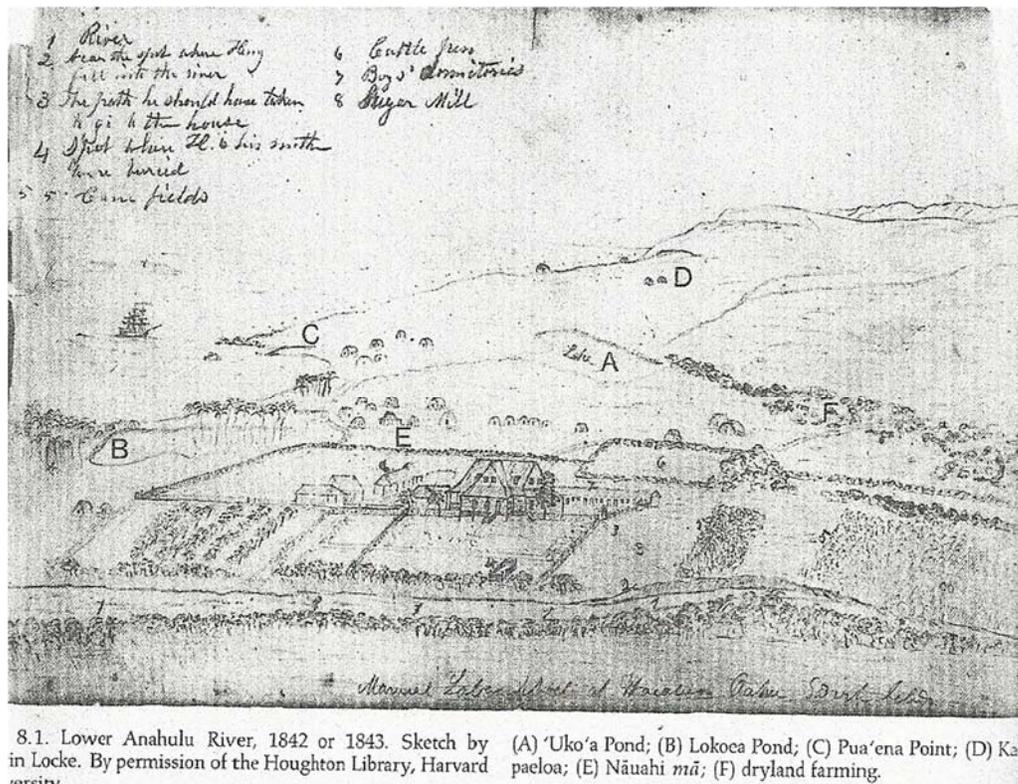
great house of beauty, and very well, not being seen by other people, only Kaukanapokii, and the caretakers of the child Kukuluokahiki, and like that everything was done concerning this, until the time that they met with the great-grandchild of Haweaolumi of Kaala, that upland of beauty that was lived in.

Historic Maps and Illustrations

Historic maps, drawings, and photos help to paint a picture of Kawaioloa in years past and illustrate the many changes that have taken place in the region. The earliest depiction of the project area is an 1842 or 1843 sketch by Edwin Locke (Figure 4). The sketch shows Lokoea Pond flanked with coconut trees, and several structures nearby. The Anahulu River is in the foreground, and a foreign sailing ship can be seen in the distance. Several *lo'i* and stone walls are visible near Lokoea.

The earliest map found for the region, drawn in 1876, shows the project area but with little detail (Figure 5). A few place names and topographic features are illustrated, and a cluster of structures is depicted near Waialua Bay. Lokoea Pond and the Anahulu River can also be seen.

The next map depicts Waialua Bay in 1884 (Figure 6). The coastline is shown, along with what is now Kamehameha Highway. In the vicinity of the project area, Lokoea is depicted, along with several structures, one of which is labeled in barely readable text, “Gov. Dominis House.” The ‘Uko’a Pond area is labeled as “Swampy Land.” The Anahulu River is illustrated, with a footbridge at its mouth and the Emerson house along its banks.



8.1. Lower Anahulu River, 1842 or 1843. Sketch by Edwin Locke. By permission of the Houghton Library, Harvard University. (A) ‘Uko’a Pond; (B) Lokoea Pond; (C) Pua’ena Point; (D) Kapa’elo; (E) Nāuahi mā; (F) dryland farming.

Figure 4. An 1842 or 1843 sketch of the Lower Anahulu River by Edwin Locke (adopted from Kirch and Sahlins 1992:174).



Figure 5. Portion of a historic map of Kawaihoa (Monsarrat 1876). The approximate project location is indicated in purple.

A 1901 Waialua Agricultural Co. map shows Land Claim Award (LCA) numbers and (Figure 7). Lokoea is labeled as “Fish Pond,” and rice paddies and swamps are illustrated in the ‘Uko‘a Pond region.

Topographic maps from 1929 (Figure 8) and 1956 (Figure 9) show an increasingly urbanized landscape. Several features that appear to be *lo‘i* complexes are visible in the 1929 map but are replaced by houses by 1956. Roads and structures are much more common in these later maps. These are also clearly visible in aerial photographs from 1965 (Figure 10) and 1977 (Figure 11).

Māhele Land Tenure and Ownership of Kawailoa

The change in the traditional land tenure system in Hawai‘i began with the appointment of the Board of Commissioners to Quiet Land Titles by Kamehameha III in 1845. The Great Māhele took place during the first few months of 1848 when Kamehameha III and more than 240 of his chiefs worked out their interests in the lands of the Kingdom. This division of land was recorded in the Māhele Book. The King retained roughly a million acres as his own as Crown Lands, while approximately a million and a half acres were designated as Government Lands. The Konohiki Awards amounted to about a million and a half acres, however title was not awarded until the *konohiki* presented the claim before the Land Commission.

In the fall of 1850 legislation was passed allowing citizens to present claims before the Land Commission for lands that they were cultivating within the Crown, Government, or Konohiki lands. By 1855 the Land Commission had made visits to all of the islands and had received testimony for about 12,000 land claims. This testimony is recorded in 50 volumes that have since been rendered on microfilm. Ultimately between 9,000 and 11,000 *kuleana* land claims were awarded to *kama‘āina* totaling only about 30,000 acres and recorded in ten large volumes.

In the time preceding the Māhele, Kahekili Ke‘eaumoku, brother of Kuhina Nui Ka‘ahumanu, served as the chief of Waialua District. Upon his death in 1824, the Waialua lands were passed to Ke‘eaumoku’s sister Lydia Kekuapi‘ia Nāmāhana. When Nāmāhana died five years later, Ka‘ahumanu inherited the land, and upon her death in 1832, they were passed to her niece Kīna‘u. After Kīna‘u’s 1839 death, the land belonged to Victoria Kamāmalu.

During the Māhele of 1848, Kamāmalu ceded the lands from Kamananui to Ka‘ena, and they became government lands. She did not cede the *ahupua‘a* of Kawailoa, however, and it remained in her possession, along with the adjacent *ahupua‘a* of Pa‘ala‘a. In 1850 *kuleana* awards for parcels within Kawailoa were granted to individual tenants. A total of 93 *kuleana* claims were made for Kawailoa Ahupua‘a and 79 were awarded (Table 1) (Waihona ‘Aina 2014). ‘Āpana 4 of Claim 2699, and ‘Āpana 8 of Claim 7342 were made for the project parcel (see Figure 2). The data found for these claims is presented below.

Claim 2699 by Wewehi was for seven ‘*āpana*. These included 48 *lo‘i*, a house lot, *wauke*, ‘*uala*, and gourd lands, as well as fish, shrimp, *limu*, and fishing rights. ‘Āpana 4 is specifically for the project area. It appears to have contained only one *lo‘i*. Testimony for all ‘*āpana* of Claim 2699 is as follows:

No. 2699, Wewehi, Waialua, January 5, 1848
N.R. 596-597v3

I, Wewehi, hereby explain my claims for land, which were held from the time of Kamehameha I, a claim for land and a claim for a lot, and a pond.

The first is Nuukauila, where there are 34 *lo‘i*, and the kula; it is surrounded by pali and the stream.



Figure 8. Portion of a USGS (1929) Haleiwa Quadrangle. The approximate project location is indicated in purple.

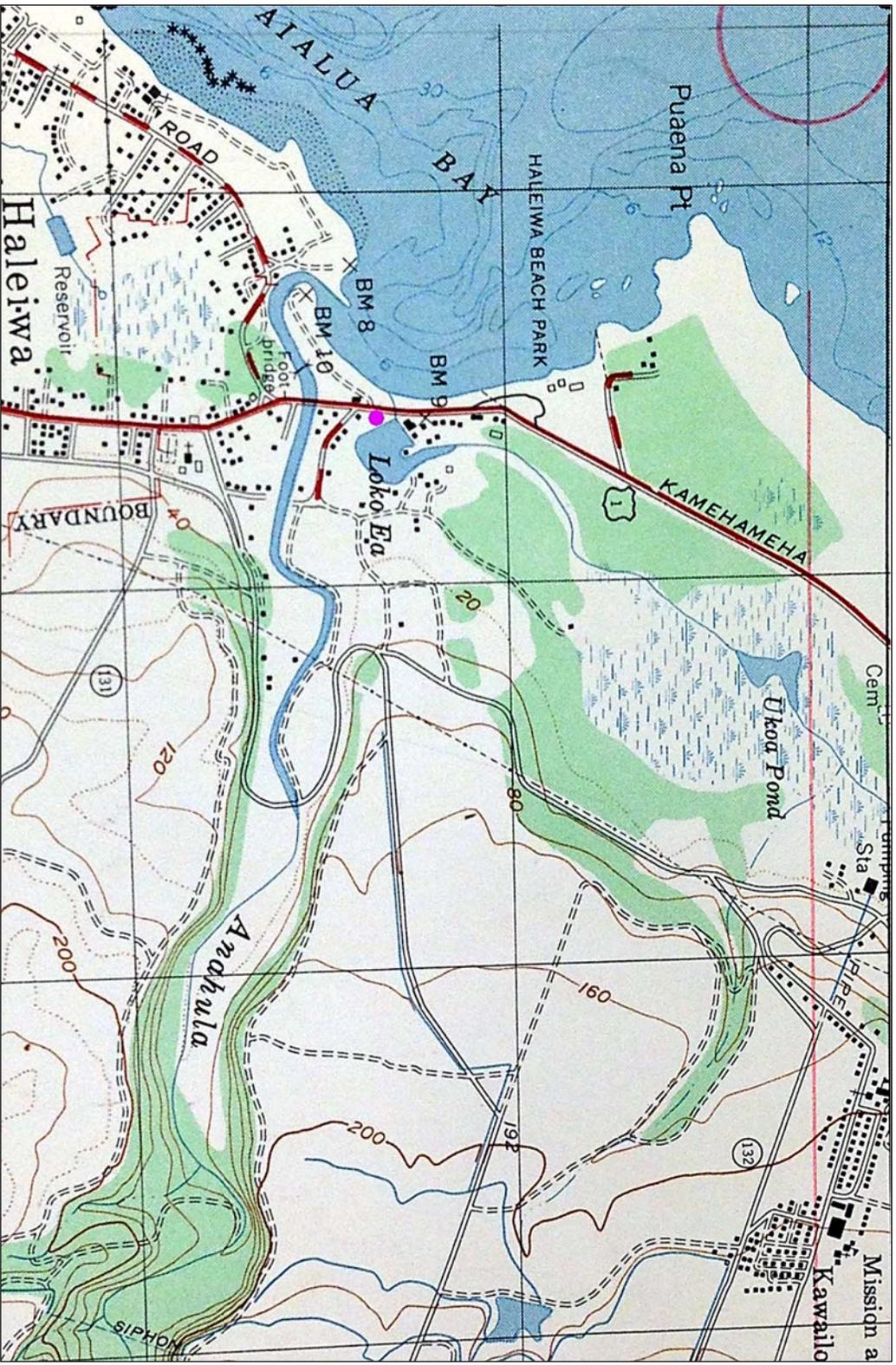


Figure 9. Portion of an Army Corps of Engineers (1956) map. The approximate project location is indicated in purple.



Figure 10. Portion of a 1965 aerial photo (USDA 1965).



Figure 11. Portion of a 1977 aerial photo (USGS 1977).

Table 1. Māhele Claims for Kawaioloa

LCA	Claimant	Ahupua‘a	‘Ili	Awarded
00387*O	ABCFM (Mission)	Honolulu, Kaneohe, Kawaioloa	Beretania St., Punahou, Kawaihao, Kukuluaco, Kamakapili	1
2547	Luahiwa	Kawaioloa, Anahulu	Mooiki	0
2674	Aha	Kawaioloa kai	Mooiki	0
2692	Luahiwa	Anahulu, Kawaioloa		1
2699	Wewehi	Kawaioloa	Nukauila, Makaleka, Kakaoloa	1
2712	Hoopii	Paalaa, Kawaioloa	Niolo	1
2714	Huki, Haia	Kawaioloa, Anahulu lalo	Kamooaha, Anahulu lalo, Kawaiupuolo	1
2725	Puhi	Kawaioloa, Anahulu luna	Omuoiki, Mooiki, Ukoa, Lokoea	1
2727	Puu	Kawaioloa	Ukoa, Lahuinoho, Hakaai	1
2740	Peku, wahine	Kawaioloa	Kawaiupuolo, Lokoea	1
2741	Pueo	Kawaioloa	Kalualepo, Konohikilau, Ukoa, Puana	1
2743	Pilipi	Kawaioloa	Anahulu, Mooiki	1
2748	Naahuelua	Kawaioloa kai	Kolea, Kapiheakamalii, Puaena	1
2749	Nakahuahale	Kawaioloa	Kaimakole	1
2750	Nalulei	Kawaioloa	Imiimi, Uau, Keekee, Kahaoloa, Keae nui	1
2752	Nana	Kawaioloa	Puaina uka, Kahoe, Ukoa, Puamakai	1
2753	Nakoana	Kawaioloa uka	Keae iki, Keae nui, Manawai	1
02768B	Maio	Kawaioloa, Anahulu	Anahulu lalo, Koheo	1
2795	Kahiko	Paalaa, Kawaioloa	Kapaalooa	1
2800	Kalehina	Kawaioloa	Kawaiupuolo, Nukuila, Kawaioloa kai	1
2809	Kahawaii	Kawaioloa	Ukoa, Kolea, Kaohe	0
2811	Kahui	Kawaioloa kai, Anahulu	Anahululalo	1
2849	Kaanaana	Kawaioloa	Moemoeakuhue, Puaena, Ukoa, Kalualepo	1
2855	Kahoohano	Kawaioloa	Puaena, Kapuakea, Ukoa	1
2865	Kamahalo	Kawaioloa, Paalaa	Anahulu	1
2876	Kanepilau	Kawaioloa	Ukoa, Lokoea, Kawela	1
2882	Kahuna	Kawaioloa	Lokoea	0
2896	Kamakea	Kawaioloa	Anahulu, Kaleokani, Kapuawaihua, Kawaiupuolo, Ukoa, Kapuahilua	1

Table 1. (Continued)

LCA	Claimant	Ahupua'a	'Ili	Awarded
2907	Keawe, wahine	Kawailoa, Kawailoa waena	Keokea, Ukoa, Ou	1
2925	Keliuhuluhulu	Kawailoa, Paalaa	Poopohaku, Haehae, Hanaewa, Aakala, Aeikala	1
2926	Kahakai	Kawailoa	Ukoa, Koheo, Oio, Ainaiki, Keae, Pahui	1
2927	Koiniho	Kawailoa	Lahuimawaho, Anahulu, Noni	1
2930	Kealohua	Paalaa, Kawailoa	Laukihaa, Koheo	1
2940	Kahoohano	Kawailoa	Kapuakea, Ukoa	0
2942	Barker, Robert S.	Kawailoa	Kaneipuolono, Kapaapaa, Kuliioiki	1
03373B	Kahuna	Kawailoa	Lokoea, Ukoa	1
03414B	Puaaiki	Paalaa, Kawailoa	Kolea	1
03454B	Iaea	Kawailoa	Kawailoa kai, Ukoa	1
03688B	Kahue	Kawailoa	Kapuahilua, Pulepule, Kaloaloo	1
03689B	Kainiki	Kawailoa	Pulepule, Kaloaloo	1
3703	Moo	Kawailoa, Anahulu	Kawailoa kai, Pahua, Ukoa	1
3705	Mailou	Kawailoa	Mikiae, Ohulelua, Hahu	1
3790	Olopana	Kawailoa, Kawailoa waena, Kawailoa kai	Hakaai, Lahuiwaho, Nuukauila, Ukoa, Anahulu	1
3940	Napunawai	Kawailoa	Lokoea, Waipuolo, Ukoa, Kauhiwai	1
3941	Napunaoi	Kawailoa	Ukoa, Lahuimoho, Lokoea, Moemoeakuhue	1
3942	Nauwahi	Kawailoa	Lahuiwaho, Ukoa, Kauhiwai, Anahululuna	1
4001	Holo	Kawailoa kai	Kawaipuolo	0
4305	Kahalau	Kawailoa	Niuula	1
4306	Kolikoli	Kawailoa	Loloea, Kealapahu, Kanekuakua, Ukoa	1
4307	Kaholokai	Kawailoa waena	Kaohe, Mooiki, Kaloaloo, Puukapu, Kawaipuolo	1

Table 1. (Continued)

LCA	Claimant	Ahupua'a	'Ili	Awarded
4308	Kuolulo	Kawailoa	Keekee, Ohulelua, Uau, Keae, Kaeleku, Kaohe, Namahana, Papala, Kakalolea, Palikea, Kupuna, Kaluahooano, Ohaimoa, Kealai, Kanepepe, Kolokini, Kanahauhau, Kanaaulewalewa, Namomoku	1
4321	Kahelekilohi	Kawailoa kai	Waipao, Kaweupuolo, Nuukaula, Miimua, Pohakalaia, Puukapu	1
4324	Kualaa	Kawailoa	Ukoa,	0
7169	Koa	Kawailoa	Ukoa	1
7230	Lililehua	Kawailoa	Ukoa, Lahuinoho	1
7342	Kuokoa, L.	Waialua, Kawailoa, Kamananui	Puaena, Lahuimoho, Honohikilua, Kalaopa, Kupalu, Kawaiupuolo, Anahulu, Kalehunui, Kamahu, Lokoea, Kealia	1
7374	Kapule	Kawailoa	Koheo, Punenui	1
7403	Kaneiaulu	Kawailoa	Anahulu	1
7404	Kealohaio	Kawailoa	Kupalu	1
7406	Kalimahuamoa	Kamanuwai, Kawailoa	Kanupaka, Ukoa	0
7408	Kawahamana	Kawailoa	Koheo	1
7414	Kapule	Kawailoa	Lauhulu, Mooiki, Kahililepe, Manini, Kawailoa uka	1
7417	Kaukaliu	Kawailoa	Lauhulu, Puuaki, Kalokoeli, Pukea mauka, Wailele, Wailele kai	1
7418	Kaeawa	Kawailoa	Lokoea, Keekee, Kau, Anahulu, Kaiaulaula, Ukoa	1
7424	Kawiwi/Kaiui	Kawailoa, Kawailoa kai, Kawailoa waena	Kupalu, Hiwa, Ukoa	1
7425	Kawelu	Kawailoa kai, Kawailoa waena	Anahulu, Ou, Ainaiki, Mokukailaelae, Pihapihauaula	1
7497	Kaukai	Kawailoa	Kawaiupuolo, Lahuimoho, Puaena	1
7722	Hookala	Kawailoa	Kawailoa waena, Ukoa	1
8050	Ewauli	Kawailoa	Kawailoa waena, Ukoa,	0
8170	Heleau	Kawailoa	Kahauhau	0

Table 1. (Continued)

LCA	Claimant	Ahupua'a	'Ili	Awarded
8205	Hokuaulani	Kawailoa kai	Kaniukukahi, Koheo, Kauhiwai, Mooiki	1
8304	Kalamahiai	Kawailoa	Ukoa, Waipuolo, Konohikilau, Kealia	1
8345	Kaakaukua	Kawailoa	Kapaeloa, Ulumalu, Pahoa, Hau	1
8412	Konohiki	Kawailoa	Olohana, Keekee, Kailua, Manowai, Kanenehia, Poloea, Uau	1
8419	Kealainanea	Kawailoa	Lauhulu, Kalualeuo, Iliilikea, Punakai	1
8420	Kahili	Kawailoa	Koheiki, Kealia, Kaaiea	0
8446	Kalua	Kawailoa uka	Kaeleku, Olohana, Kaloaloea, Koilau, Kanepepelaopuu, Kuku	1
8809	Kekauwa	Kawailoa kai, Paalaa	Koheo, Kapaaloea	1
8883	Keookoa	Kawailoa		0
9917	Lohi	Kawailoa, Anahulu	Kalawaha, Hiwa, Keae, Ukoa	1
9948	Lole	Kawailoa	Punenuc	1
9951	Laanui, Gideon	Kawailoa, Paalaa	Kalaopa, Kalehunui, Kamahu 1, 2 & 3, Kuanopili, Laukihaa, Waikaalulu	1
10186	Moi	Kapuahilua, Kawailoauka	Poonahoahoa, Puhipule, Koilau, Kalaalau, Kawaiki	0
10199	Maio, wahine	Kawailoa	Hiwa, Ukoa	1
10246	Maloiki	Kawailoa	Kapaeloa, Koolauhale, Kawaewaa	1
10255	Makuku	Kawailoa	Lokoea, Kahalua	1
10256	Makalii	Kawailoa	Kaalaea, Kapaeloa	1
10727	Paele	Kawailoa	Koheo	1
10769	Pale, B	Anahulu, Kawailoa	Lokoea, Ukoa, Owanahulu luna	1
10772	Pelapela	Kawailoa, Kawailoa uka	Poonahoahoa, Kapaeloa,	1
10930	Ulu	Kawailoa	Kiapu	0
10971	Wahinehune	Kawailoa, Paalaea, Waimea	Kapaeloa, Amanui	1
10974	Wehelau	Kawailoa	Anahulu, Lauhulu	1

The second is Kanekuakua, Kawailoa waena, where there are 13 lo'i; it is surrounded by Kuokoa ma's, and the pali, and Kahuna's land.

The third is Lokoea, where there is one lo'i. On the north is Kolikoli's, on the east is Ukaeha's, on the south is pali, on the west is Kahuna's.

The fourth is Ulupanainai where there is one lo'i which is surrounded by the lo'is of Kawiwi ma.

The fifth is Kawaipuolo, where there is a portion of a lo'i, surrounded by those of Paku ma and the pali, and Kuokoa ma. My pond is also at Lokoea. It is surrounded by the house lot and the coconut grove and the ponds.

The sixth is Pahui Ukoa where there is one gourd garden, surrounded by those of Kolikoli and Nana and Kuahana. Also there is a sweet potato patch surrounded by fence and Nauahi ma's.

The seventh is my house lot, surrounded by the pond and Kahuna's lot and the road.

I also have the right to fishes, gobey fish, fresh water shrimps, and limu kala.

There is a daily right to take fish; the right to take the anae is only in the windy times, that is when they can be caught. There is also a claim for pasture; my makuas had a right there. There is also a kula wauke at Makaleka and I also have a pali wauke at Kakaoloa. Those are my claim; it only remains to secure the award document.

WEWEHI X, his mark

F.T. 453-454v11

No. 2699, Wewehi, Waialua, 17 January 1850

Kolikoli, Hoohikiia, Ua ike au Ikana aina ma ka ili o Nukauila ma Kawailoa ma Waialua. Eono mau apana ana.

Apana 1. 34 loi kala.

Apana 2. 13 loi kala ma Kanekuakua.

Apana 3. 1 loi kala ma Kanekuakua.

Apana 4. 1 loko ma Kealapahuiki.

Apana 5. Pahale ma Loloa.

Apana 6. Kuleana pa uala.

Apana 7. Kuleana pa holoholona.

Apana 1: Mauka, muliwai o Anahulu
Waianae, pali Makai, kahawai Koolaupoko, kahawai.

Apana 2: Mauka, aina o Kahuna Waianae, kahawai Makai, loi paahao Koolaupoko, pali.

Apana 3: Mauka, loi o Kahiwai
Waianae, pali Makai, Kahuna aina Koolaupoko, ko'u aina.

Apana 4: Mauka, pahale no Koaiawa
Waianae, loko o Kolikoli Kealapahunui
Makai, poalima Uluniu

Koolaupoko, Lokoea.

Apana 5: Mauka, Lokoea Waianae, alanui hele Makai, pa o Kahuna Koolaupoko, Lokoea.

Apana 6: He kuleana malu uala e like me ko Koiniho & Kolikoli & Peku.

Apana 7: He kuleana pa hanai holoholona no lakou he nui wale, 60 lakou.

Mai knoa mau makua mai ka apana 1 Ika wa o Kamehameha I. Aole mea keakea. Apana 2, 3, 4 mai a Kuokoa mai Ika wa mamua aku o ko Emesona noho ana mai rna Waialua nei. Aole mea keakea. Apana 5 nona no Ika wa mamua aku o ko Emesona noho ana. Aole mea keakea.

Kahoeka, Hoohikiia, Ua like pu ko maua ike me ko Kolikoli ike.

Claim 7342 by Kuokoa consisted of 13 *‘āpana*. These included 41 *lo ‘i*, two house lots, and a pond. *‘Āpana* 8 is specifically for the project area. It appears to have contained ten *lo ‘i*. Testimony for all *‘āpana* of Claim 7342 is as follows:

No. 7342, Kuokoa
N.R. 317-318v5

To the Honorable Land Commissioners: I, L. Kuokoa, am a claimant of land at Waialua on Oahu. From the death of Keeaumoku, this Ahupua‘a of Kawaihoa was held by Laanui from the upland to the sea. From that time I have had my two ‘Ili at Kawaihoa, Puaena and Lahuimoho, under G.L. When the war on Kauai was over, we returned. I again got Honohikilua and an ‘Ili of Kamananui named Kalaopa. I had four ‘Ili at this time under G. Laanui.

When Kikala died, I again got Lokoea from G.L. and after this, we stayed until the people went to scoop salt at Aliapaakai. Then again, Kamahu, at Kamananui became mine, making a total at this time of six ‘Ili. At the time when taxes were given to the tax collectors, that was the time lihi were returned, Kupalu and Kawaipuolo and the Anahulus, being the ‘ilis at Kawaihoa, Kalehunui and Kamahu, became mine. Two are at Kamananui, together all these ‘Ilis of mine total twelve.

These ‘Ilis of mine which I have occupied from then until now are from G.L. That is my claim of occupancy at Waialua. My two house lots are at Lokoea and at Anahulu. These are my claims which are stated to you, the Land Commissioners, to award to me by a document.

In the year of our Lord 1846, M. Kekuanaoa gave me Kealia to care for, under him, from the upland to the sea, from that side to this side. Those are my claims which are stated to you.

L. KUOKOA

F.T. 382v3
No. 7342, L. Kuokoa

Sent C. Kamaio, one of the clerks of the Land Commission, together with the claimant, to show the surveys of his claims to M. Kekuanaoa, the konohiki of the land, who approved of the claim and survey.

F.T. 465-46711
7342 & 8883, L. Kuokoa, Waialua, January 18, 1859

Olopana, hoohikiia, Ua ike au i kana mau aina ma keia mau iii malalo nei ma Waialua.

Apana 1. Aina kala 2 loi ma Lahuimoho

Apana 2. Aina kala 2 loi ma Lahuui uka

Apana 3. 1 loi o Kaa mauka o Puaena

Apana 4. 1 loi o Kahou mawaina o Puaena.

Apana 5. 1 loko Aalaiki ma.

Apana 6. 2 loi ma ka iii o Kupalu.

Apana 7. 2 loi ma ka iii o Kaiaulaula.

Apana 8. 10 loi moo Kawailaumaia iii Kawaipuolo

Apana 9. 6 loi moo konohikilau & kula

Apana 10. 7 loi moo Kuaipaiki Anahulu iii.

Apana 11. Pahale Ainaiki Anahulu.

Apana 12. Pahale ma Lokoea.

Apana 13. 10 loi ma Kealia o keia apana nae, Aole e hanaia ma ke ana kuleana, aka; me ke kuai maoli me Emeson me ka uka haahaa, hoe na

Apana he 12 i kuleana nona.

Apana 1: Mauka, moo o Keonae Waianae, kahawai o Anahulu Makai, aina o Kaniho Koolaupoko, aina Kahu.

Apana 2: Mauka, aina o Kauaole moo nona
Waianae, aina o Hulupue Makai, loi paahao Koolaupoko, pali.

Apana 3: Mauka, ko Laea
Waianae, Loi paahao Kaleiokane
Makai, poalima
Koolaupoko, ko Iaea.

Apana 4: Mauka, ko Kaukai Waianae, moo Konohikilau Makai, loi Ulupanainai Koolaupoko, ko Nana aina.

Apana 5: Mauka, kula waiho wale no na mea a pau loa
Waianae, Makai, Koolaupoko, ua like.

Apana 6: Mauka, moo o Kaiaulaula
Waianae, kahawai Makai, moo o Kawiwi Koolaupoko, aina Kaalohanui.

Apana 7: Mauka, aina o Kaeawa Waianae, aina o Kaeawa Makai, apana 6
Koolaupoko, moo o Kaeawa.

Apana 8: Mauka, Loi paahao Kanekuakua
Waianae, aina o Huki Makai, aina o Kaukai Koolaupoko, pali.

Apana 9: Mauka, Mooiki Waianae, pali Makai, aina o Paku
Koolaupoko, aina o Kaholokai.

Apana 10: Mauka, aina o Kamahale Waianae, Kaalu loi Makai, moo Kaoao
Koolaupoko, Muliwai o Anahulu.

Apana 11: Mauka, Pa o Emesona Waianae, Alanui aupuni Makai, Loi Kanenelu
Koolaupoko, loi Kaaleo.

Apana 12: Mauka, Lokoea Waianae, Pa o Kuoechi Makai, muliwai Koolaupoko, Lokoea.

Mai a G. Laanui mai i ka wa o Kaahumanu I. Aole mea keakea. Kanaheleaumoku (wahine)
hoohikiia, Ua like pu ko maua ike me ko Olopana.

An interesting find in the Māhele data was the establishment of collective enclosures at Ukoa and Lokoea. These units were created to protect field plots from destruction caused by cattle. The enclosures were vast, as historic sources state that more than two miles of fencing was put up in Ukoa, with 60 farmers sharing the land (Linnekin 1983).

Post-Māhele Land Use

Ranching began in Kawaiiloa shortly after the Māhele. Land grants were given to Native Hawaiians and unclaimed plots were made available for lease and eventual ownership. At this time, much of the privately owned land was used for cattle ranching, and to a lesser degree, agriculture. In most cases, extensive logging efforts preceded ranch operations in order to expand pastureland and provide wood for fences.

Sugarcane agriculture intensified after 1882, when wells were established. Frank Dillingham acquired land from Gaspar Silva and James Gay to establish a 7,000 acre property, primarily for sugarcane (Yardley 1981:191–199). Dillingham, who owned the O‘ahu Railway and Land Co. (OR&L) railroad, extended the previously existing track around Ka‘ena Point to service the Halstead Plantation’s sugar mill in Waialua. The railroad followed the same corridor as the current Farrington Highway from Ka‘ena Point to Waialua, and the track extended through Kawaiiloa. The Halstead Plantation was later bought by the Waialua Agricultural Company, Ltd.

By the early 1900s, land in Kawaiiloa was being used to grow taro, rice, and sugarcane, with some cattle ranching still taking place as well. Traditional cultivation of taro using perennial streams and coastal springs continued in the area into the 1930s (Handy et al. 1972). In 1921, the concrete “Rainbow Bridge” was built to replace an earlier wooden version. The bridge, which allows Kamehameha Highway to cross the Anahulu River, has become an icon as the entryway to Hale‘iwa Town. The distinctive double arched bridge lies just south of the project area. It was traditionally known as the Anahulu Bridge.

Previous Archaeology

A wealth of archaeological studies have been conducted in Kawaiiloa. The following discussion provides information on archaeological investigations that have been performed within the vicinity of the project area (Figure 12). Table 2 lists previous archaeological projects and their results for the larger region of Kawaiiloa and neighboring Pa‘ala‘a, which includes Hale‘iwa.

One of the earliest island-wide archaeological studies was conducted in the 1930s by J.G. McAllister (1933). In his study of O‘ahu, he recorded numerous sites located in Kawaiiloa. The sites closest to the project area are Site 230, *mo‘o* stones and Site 233, Lokoea (Figure 13). McAllister describes the sites as follows:

Site 230. Two stones known as *moo*, on either side of the Anahulu Stream above the old Haleiwa Seminary. One was named Poo o Moo and the other was known as Wawae o Moo. They are in no way different from ordinary stones, and can not be distinguished from other stones in the vicinity unless pointed out by one of the Hawaiians.

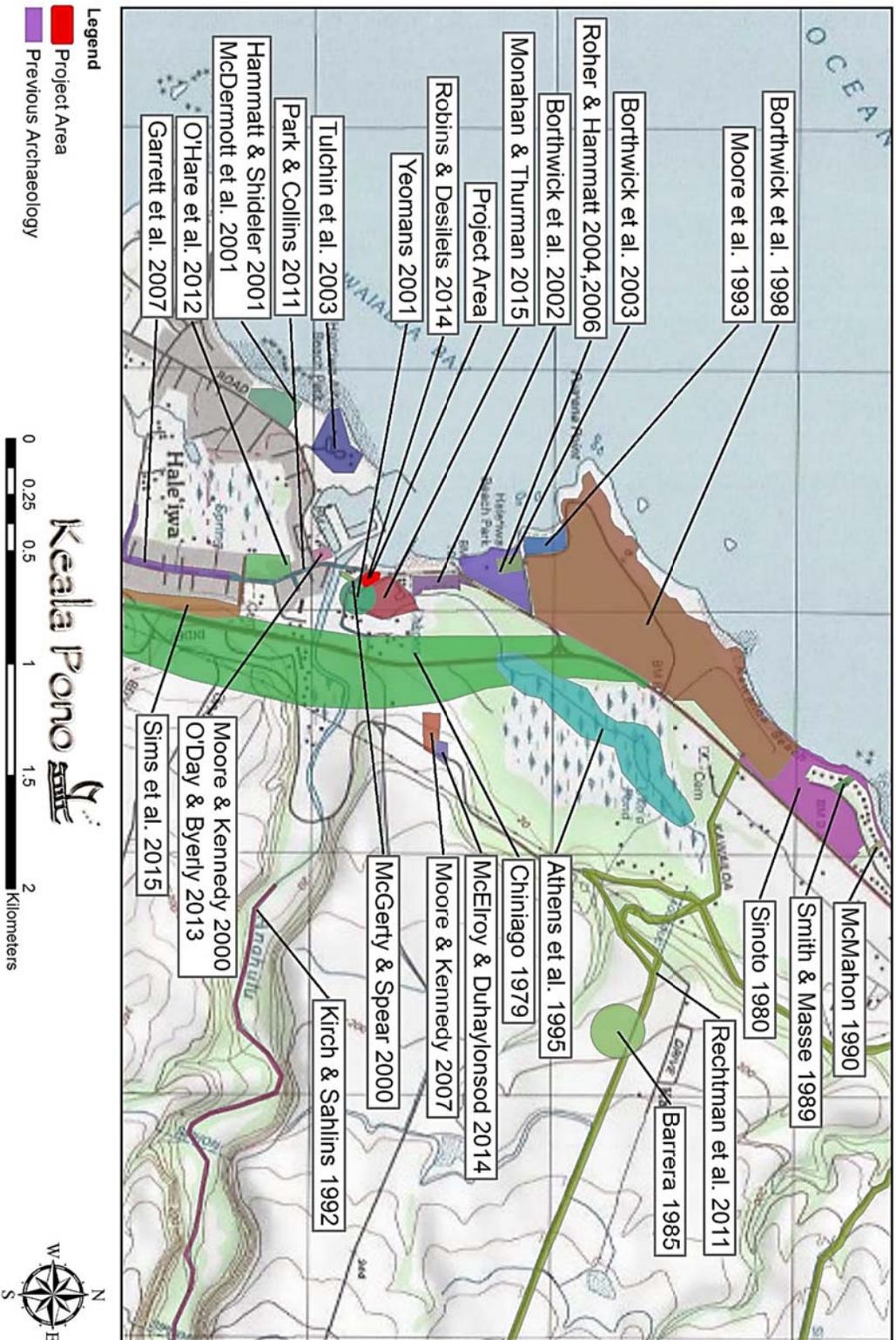


Figure 12. Previous archaeological studies in the vicinity of the project area.

Table 2. Previous Archaeology in Kawaiiloa

Author and Year	Location	Work Completed	Findings
McAllister 1933	Island of O'ahu	Archaeological Survey	McAllister recorded and examined 384 archaeological sites on O'ahu, 13 of which are within Kawaiiloa. Sites near the project area include <i>mo'o</i> stones, Lokoea Pond, and 'Uko'a Fishpond.
Chiniago 1979	Hale'iwa Bypass Road	Cultural Resources Survey	Recorded Site 1439, an historic artifact scatter; 1440, a wall remnant; 1441, an agricultural complex; 1442, the Emerson homestead; and 1443, an old church.
Sinoto 1980	Coastal Hale'iwa	Reconnaissance Survey	No significant findings.
Barrera 1985	<i>Mauka</i> of Uko'a Fishpond	Reconnaissance Survey	No significant findings.
Smith and Masse 1989	TMK: (1) 6-1-004:093	Burial Disinterment	Human remains were removed from 61-795 Papailoa Rd. They were designated as Site 3956.
McMahon 1990	TMK: (1) 6-1-004:081	Burial Disinterment	Human remains were recovered from another coastal parcel on Papailoa Rd. They were designated as Site 4240.
Kirch and Sahlins 1992	Anahulu Valley	Academic Research	Two volumes published presenting research on the history of Kawaiiloa, ethnography, and settlement models.
Moore et al. 1993	Hale'iwa Beach Park Extension	Archaeological Inventory Survey	Recorded Site 4589, a multi-component habitation area; Sites 4593-4595, burials; Site 4590, fire pits; Site 4600, a pit and posthole; Site 4601, a posthole and charcoal lens; and Site 235, the healing stone previously documented by McAllister (1933).
Athens et al. 1995	'Uko'a Pond	Paleoenvironmental Research	Coring provided a record of sediments spanning 8,000 years. Lowland forests rapidly declined around AD 950.
Borthwick et al. 1998	TMK: (1) 6-1-004:023, :058, and (1) 6-2-001:1, and :010	Archaeological Inventory Survey	Identified Sites 5641 and 5643, WWII remains; 5495, a human burial; 5644, an historic trash dump; 5661, a cultural layer; and 564, the Pua'ena Stone.

Table 2. (Continued)

Author and Year	Location	Work Completed	Findings
McGerty and Spear 2000	TMK: (1) 6-2-003 por.:006 and :009	Archaeological Inventory Survey	Recorded Site 5795, charcoal deposits; and 5839, a boulder wall.
Moore and Kennedy 2000	Hale'iwa Joe's	Inadvertent Discovery Report	Reported on the inadvertent discovery of human remains consisting of one adult and one child. The remains were designated as Site 5838.
Hammatt and Shideler 2001	Hale'iwa Beach Park	Burial Reinterment	Reentered a human burial in its original location. The burial, Site 5850, was identified in an earlier archaeological inventory survey (McDermott et al. 2001).
McDermott et al. 2001	Hale'iwa Beach Park	Archaeological Inventory Survey	Recorded Site 5791, the O.R.&L. railroad and Site 5850, a human burial and subsurface cultural layer.
Yeomans 2001	TMK: (1) 6-2-003 por.:006 and :009	Data Recovery	Excavated portions of Site 5795, previously identified charcoal deposits. Identified a historic cultural layer above a traditional cultural layer. Dated four features, three ranging from 1210–1510 calAD, and one dating to 1430–1670 calAD.
Borthwick et al. 2002	North Shore Skateboard Park	Archaeological Inventory Survey	Identified Site 5791, O.R.&L. railroad right of way; 5915, a water tank foundation; and 5916, a cultural layer.
Borthwick et al. 2003	Hale'iwa Beach Park	Archaeological Inventory Survey	No significant finds.
Tulchin et al. 2003	Hale'iwa Beach Park	Archaeological Assessment	No significant finds.
Rohrer and Hammatt 2004	Hale'iwa Beach Park	Archaeological Monitoring	No significant finds.
Rohrer and Hammatt 2006	Hale'iwa Beach Park	Archaeological Monitoring	Found additional human remains that are part of Site 5850, a previously recorded human burial and cultural layer.
Garrett et al. 2007	Hale'iwa Town	Archaeological Monitoring	No significant finds.
Moore & Kennedy 2007	<i>Mauka</i> Hale'iwa	Archaeological Inventory Survey	Identified Site 6867, a raised roadway/driveway associated with concrete troughs and the remains of a mortared brick structure. Site 6868, a c-shaped alignment with an upright stone, and Site 6869, modified agricultural outcrops.

Table 2. (Continued)

Author and Year	Location	Work Completed	Findings
Park and Collins 2011	Kamehameha Hwy., Lokoea Pl., and Anahulu Pl.	Archaeological Monitoring	No significant finds.
O'Hare et al. 2012	Hale'iwa Town	Archaeological Inventory Survey	Recorded Site 7152, concrete features and an agricultural deposit.
O'Day and Byerly 2013	Hale'iwa Joe's	Archaeological Monitoring	Recorded Site 7561, several sets of human remains, and a historic alignment thought to be part of the old Hale'iwa Hotel landscaping.
McElroy and Duhaylonsod 2014	<i>Mauka</i> Hale'iwa	Archaeological Inventory Survey	Identified Site 7604, a historic road.
Robins and Desilets 2014	Current Project Area	Archaeological Monitoring Plan	Drafted a plan for monitoring of soil remediation excavations that overlap with parts of the current project area.
Monahan and Thurman 2015	Lokoea Fishpond	Archaeological Inventory Survey	Identified episodes of rebuilding at Lokoea Fishpond (Site 233). Seven features were associated with the fishpond, consisting of three walls, a pond, a central island, and two caves.
Sims et al. 2015	<i>Mauka</i> of Uko'a Fishpond	Archaeological Inventory Survey	Recorded a portion of the previously identified historic road, Site 704, as well as several historic artifacts.

Note: Site numbers prefaced by 50-80-04.

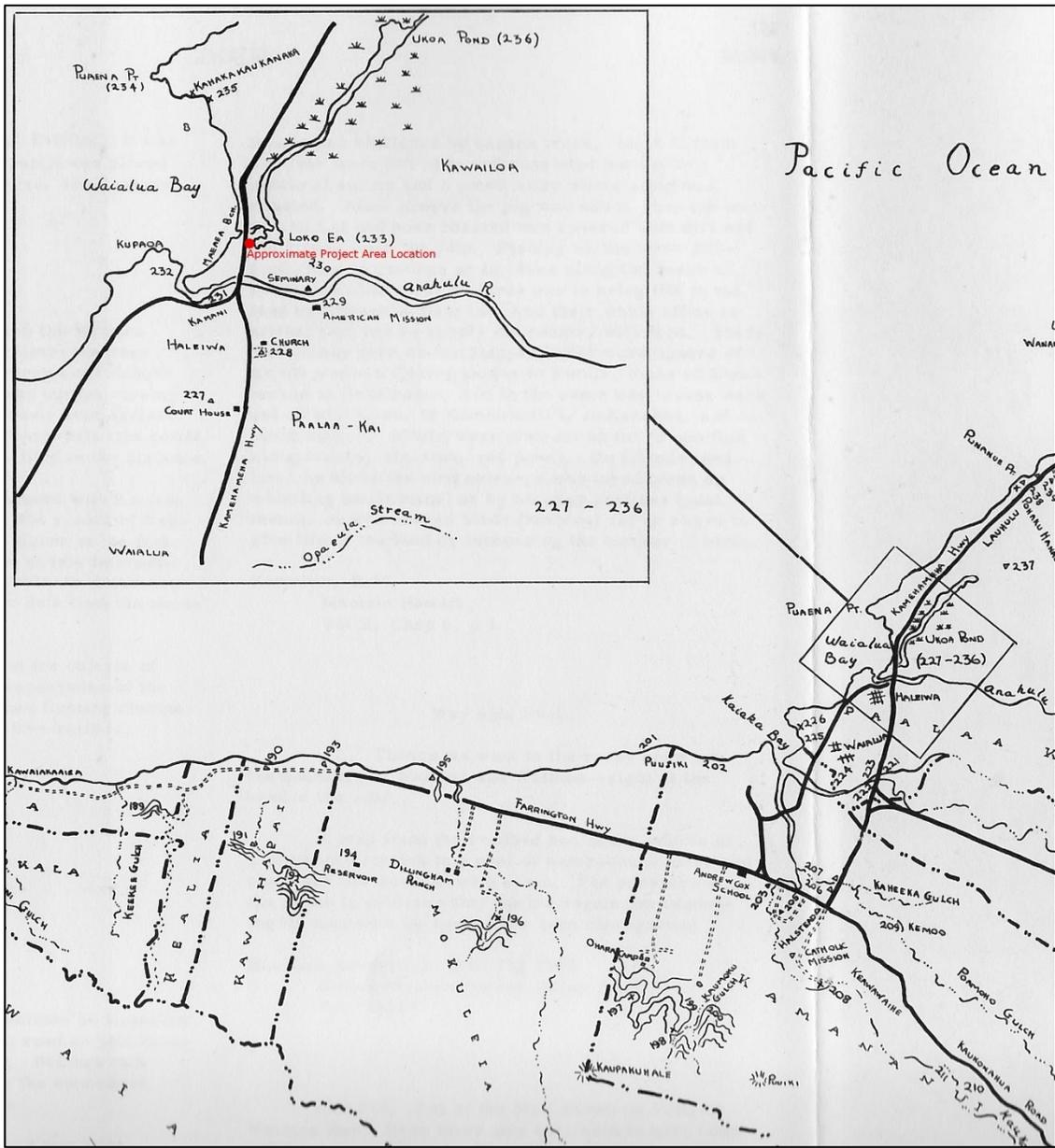


Figure 13. Archaeological sites in Kawaiiloa (adopted from Sterling and Summers 1978).

Site 233. A small fresh-water pond covering 2.5 acres, still in use. The present pond is divided from a small stream, into which its outlets (makaha), open by a stone and earth embankment. Its other sides are formed by the natural contours of the land. (McAllister 1933:141–142)

McAllister (1933) recorded several other important sites farther away from the project area, including Site 231, Anahulu Heiau; Site 232, an *akua* stone; Site 234, Pua'ena Point; Site 235, a stone with healing powers; Site 236, 'Uko'a Fishpond; and Site 237, Ili'ilikea Heiau. The two *heiau* and the *akua* stone were reported as destroyed (McAllister 1933:141–142).

Site 231, Anahulu Heiau once stood at the location of the Haleiwa Hotel and was destroyed when the hotel was built. It was described as a large, unpaved *heiau luakini* with walls made of limestone (Thrum in McAllister 1933:141). It is said that the Haleiwa Hotel failed because the *heiau* was destroyed.

Site 232, an *akua* stone, is a sacred stone that once blocked the Anahulu River entrance. The stone was situated just below the water level of the river and would be exposed periodically. It was moved to clear the way for boats, and “much anxiety was shown by the Hawaiians, for fear of evil effects” (McAllister 1933:141).

Site 234 is Pua'ena Point, or Kahakakau Kanaka. This is the location where Elani was placed upon his death, for his body to decompose, and if a commoner had no one to care for his body after dying, it would be placed here (McAllister 1933:142). It is said that the fluids from the body would attract sharks, which were killed (McAllister 1933:142). Site 235 is a healing stone also found on the point (Figure 14). It is a smooth, oval stone, partially covered by sand, and represents a woman named Pua'ena. The stone was known for its healing powers, and people from all over the island would place *limu* on the stone and lay the injured part of the body upon it.



Figure 14. The healing stone at Pua'ena, as seen in 1935 (courtesy of Thomas Shirai; his great-grandmother is shown in the photo).

Site 236, 'Uko'a Fishpond was still in use at the time of McAllister's study (1933). It was described as approximately one mile long and overgrown with weeds. It is said that offerings were left for the *mo'o* of the pond, Laniwahine, on a stone near Waialua Agricultural Company's Pump 4. The stone is no longer there (McAlister 1933:142).

Site 237, Ili'ilikea Heiau, was destroyed in 1916 by the Waialua Agricultural Company (McAllister 1933:142). The *heiau* had two divisions, measured 75 by 267 feet, and exhibited well-defined walls. Thrum reported that the area was covered in sugarcane and only a few rocks of the *heiau* remained (in Sterling and Summers 1978:142).

Archaeological inventory survey for the Hale'iwa bypass highway included lands to the east of the current project area (Chiniago 1979). Of the eight sites recorded, five were newly identified. Site 1439 is an historic artifact scatter; Site 1440 is a stacked stone wall remnant; Site 1441 is a complex of agricultural terraces; Site 1442 is the homestead of missionary J.S. Emerson; and Site 1443 is an old church. The agricultural complex consists of terraces that resemble traditional *lo'i*, but were being utilized for lotus root cultivation in the 1970s. The three previously recorded sites include Site 229, Kawaipuolo Spring; Site 233, Lokoea Pond; and Site 236, 'Uko'a Fishpond. Subsurface testing did not yield any traditional or historic deposits. The following was noted about ponds and their water sources:

The major drainages in the survey area are the Anahulu River, Opaepala and Helemanu Streams [which converge to form Paukauila Stream immediately west of the survey area], and an unnamed stream that drains Uko'a Pond and feeds into Loko Ea (Chiniago 1979:5).

Paleoenvironmental studies were conducted at 'Uko'a Pond (Site 236) in association with the Hale'iwa bypass highway project (Athens et al. 1995). Core samples were analyzed for pollen, charcoal, and sediments, and provided a sequence of environmental change spanning approximately 8,000 years. The sequence was divided into four time periods, or zones, with the earliest exhibiting an abundance of arboreal species. Between 1000 and 500 years ago the forest began to decline, and was completely replaced by open scrub land in a matter of 300 years. The change in the pollen record occurs at roughly AD 950 and is thought to correlate with human settlement of the area (Athens et al. 1995:119).

An archaeological inventory survey was carried out on portions of TMK: (1) 6-2-003:006 and :009, just south of the area of study (McGerty and Spear 2000) Two sites were documented: Site 5795 consists of charcoal deposits, and Site 5839 is a boulder wall. A charcoal sample from Site 5795 produced a radiocarbon date of AD 1420–1530 (McGerty and Spear 2000:37). Data recovery was later conducted at Site 5795, which consisted of manual excavations and laboratory analyses (Yeomans 2001). This included radiocarbon dating to expand knowledge of the human chronology in the area. Site 5795 was no longer considered significant after the investigation was complete.

Human remains were identified at Hale'iwa Joe's restaurant (Moore and Kennedy 2000). The remains, designated as Site 5838, were identified as an adult and a child. Later archaeological monitoring recorded Site 7561, consisting of the remains of four adults and one child. Also recorded was a stone alignment thought to be part of the old Hale'iwa Hotel (O'Day and Byerly 2013). The alignment was deemed not significant, and no site number was given.

An archaeological inventory survey was completed for the North Shore Skate Park, which lies to the north of the current project (Borthwick et al. 2002). The survey covered 3.4 acres and included subsurface testing in selected areas. Three sites were recorded, including an OR&L right of way (Site 5791), a water tank foundation (Site 5915), and a cultural layer (Site 5916). The cultural layer was described as "a poorly defined mixed strata containing modern to early 1900s trash with sparse charcoal flecking" (Borthwick et al. 2002:ii).

Archaeological monitoring was conducted for water main replacement along Kamehameha Highway, Lokoea Place, and Anahulu Place, to the south of the current area of study (Park and Collins 2011). No significant finds were reported, although the northern portion of the project area was not monitored due to miscommunication. The only finds were isolated historic artifacts, consisting of three ceramic sherds, two glass bottles, a nail, and a marble.

An archaeological monitoring plan was drafted for excavations associated with soil remediation on parts of the current property (Robins and Desilets 2014). The plan states the following:

Soil in the project area has been found to contain petroleum hydrocarbons and associated contaminants including diesel range organics, residual range organics, lead, cadmium, and polycyclic aromatic hydrocarbons.... The project background suggests ARCADIS' remediation work may encounter disturbed soil layers and possibly intermittent and truncated intact soil layers with pre-Contact and post-Contact features. Intact soil layers are anticipated closer to Lokoea with evidence of pond deposits characterized by fine wetland sediments or oxidized clays. (Robins and Desilets 2014:1)

Most recently, an archaeological inventory survey was conducted at Lokoea Fishpond (Monahan and Thurman 2015), which is just inland (east) of the current project area. It was reported that Lokoea is physically associated with 'Uko'a Fishpond, one mile away, via a stream channel that has probably been present for the duration of human habitation in the area (Monahan and Thurman 2015:165). Accordingly the two fishponds share a metaphysical and spiritual connection, as well as other commonalities like Laniwahine, a *mo'o* and their *kia'i*, or guardian, and the numerous *ali'i* who had utilized both fishponds (Monahan and Thurman 2015:165). It was also noted that Lokoea has undergone multiple phases of modification over time, many of which occurred in the 20th century (Monahan and Thurman 2015:50).

It was recommended that a preservation plan is developed for Lokoea and that the fishpond be preserved in accordance with HAR §13-284-8 (Monahan and Thurman 2015:165). Preservation was recommended based on Lokoea being historically significant under criteria b, c, d, and e. Criterion b applies because Lokoea was utilized by multiple *ali'i*, including King Kamehameha I, Queen Emma Kaleleonalani, and Queen Lili'uokalani. Criterion c applies because of the quality of the wall building at Lokoea and because of its engineering. Because of the potential to yield further archaeological information, Lokoea is significant under criterion d; and further, because the fishpond is still utilized by Native Hawaiian cultural fish-farmers, criterion e applies as well (Monahan and Thurman 2015:165). The preservation plan will identify areas of high, moderate, and low archaeological sensitivity and what types of activities may occur in these areas in an attempt to mitigate effects on the fishpond (Monahan and Thurman 2015:166).

Settlement Pattern

The settlement of Anahulu Valley in Kawailoa has been studied extensively by Kirch and Sahlins (1992) and the discussion here is largely a summary of their work. Initial settlement of the Waialua region likely occurred early in time because of the abundance of natural resources, including fertile floodplains, fresh water, and marine life. Settlement was focused in coastal areas, near these abundant resources. By the 14th century AD, populations began to expand inland into upper Anahulu Valley, where rockshelters were used as temporary habitation sites. This inland expansion was also occurring in other areas of O'ahu, as populations increased substantially, with the windward valleys being penetrated well before those on the leeward side of the island. In Kawailoa, the inland rockshelters were being used as a base to hunt birds and to make use of other stream and forest resources. The main population was still at the coast, however, as these rockshelters were not permanent habitation areas.

By the time of Kamehameha I in the late 1700s, land use intensified, with inland zones permanently settled, and animal husbandry taking place. Kamehameha's occupation of the island in 1804 brought about significant social and economic changes in Kawailoa, as rockshelters were abandoned and people moved near irrigated terraces that produced large quantities of taro. This period of agricultural intensification was short-lived, however, and the upper Anahulu Valley was in decline as early as 1812. Possible causes of decline include a drop in population because of foreign disease epidemics, a new focus on obtaining sandalwood for foreign trade, and the abandonment of rural areas for growing urban centers, such as Honolulu.

After the collapse of the sandalwood trade ca. 1830, the Hawaiian economy shifted to catering to whaling vessels that would stop in the islands for provisions. Agricultural production was revived, as taro, yams, and sweet potatoes were cultivated for trade with whaling ships. It is clear that Kawailoa was well populated at the time of the Māhele, with 93 *kuleana* claims made for the *ahupua'a*. Māhele data shows that a wide range of activities were taking place, from farming to fishing, and residential lots were interspersed among the farms and fishponds. The development of collective enclosures at Ukoa and Lokoea were found in the Māhele data. These enclosures were established as farmers joined together to keep their fields safe from the destruction caused by cattle. By the turn of the century, cattle ranching and sugarcane agriculture were the dominant activities in Waialua, and taro and rice continued to be grown into the 1900s.

Summary of Background Information

The *mo'olelo* and *'ōlelo no'eau* that perpetuate the memory of pre-contact Waialua and Kawailoa indicate the notable place they had in Hawaiian history. Kawailoa was and still is an *ahupua'a* within the district of Waialua, and both of these place names rightfully suggest the abundance of water in the region, attested by such geographical features as 'Uko'a Fishpond, Lokoea Fishpond, and Anahulu Stream. Indeed, later historical records document extensive well-watered lands to include vast fresh water ponds, taro fields, and swamplands. The significance of Waialua brought about by its bounteous agricultural and aquacultural production appears to be consistent with the many important *heiau* found throughout the district. This bounty gave rise to a substantial population dispersed among good-sized villages. Hawaiian language newspaper articles, old photos, and historic maps attest to the development of Waialua into the post-contact era with references to bustling communities, churches, and schools. While Kamāmalu kept the *ahupua'a* of Kawailoa and Pa'ala'a, her crown lands from Kamananui to Ka'ena were ceded to become government lands, and the totality of these crown, government, and individual *kuleana* lands would eventually support sugar plantations, cattle ranching, railroad, and military enterprises.

Due to its diversified history, Kawailoa Ahupua'a might offer numerous types of archaeological materials. Archaeological work in the region might uncover anything from pre-contact ceremonial and/or agricultural remnants to historic-era artifacts representative of the various industries that left their footprint on the landscape. The specific project area was the location of two LCAs, where *lo'i* were mentioned in his Māhele testimony. Remains of these may be found on the parcel, and could include stone terraces, subsurface pondfield soils, and/or any portable artifacts related to agriculture.

ETHNOGRAPHIC SURVEY

As we all know, there are some things that cannot be found in the archives, in textbooks, or at the library. It is here, through the stories, knowledge and experiences of our *kama ʻāina* and *kūpuna*, that we are able to better understand the past and plan for our future. With the goal to identify and understand the importance of, and potential impacts to, traditional Hawaiian and/or historic cultural resources and traditional cultural practices of the Haleʻiwa region, ethnographic interviews were conducted with community members who are knowledgeable about the project area.

Methods

This Cultural Impact Assessment was conducted through a multi-phase process between July and August, 2015. Guiding documents for this work include The Hawaiʻi Environmental Council's Guidelines for Assessing Cultural Impacts, A Bill for Environmental Impact Statements, and Act 50 (State of Hawaiʻi). Personnel involved with this study include Windy McElroy, PhD, Principal Investigator of Keala Pono Archaeological Consulting, Joey Condit, MA, Archival Researcher, and Dietrix Duhaylonsod, BA, Ethnographer.

Consultants were selected because they met one or more of the following criteria: 1) was referred by Keala Pono Archaeological Consulting or Group 70; 2) had/has ties to the project area or vicinity; 3) is a known Hawaiian cultural resource person; 4) is a known Hawaiian traditional practitioner; or 5) was referred by other cultural resource professionals. Four individuals participated in the current study. *Mana ʻo* and *ʻike* shared during these interviews are included in this report.

Interviews were taped using a digital MP3 recorder. During the interviews, consultants were provided with a map or aerial photograph of the subject property, the Agreement to Participate (Appendix A), and Consent Form (Appendix B), and briefed on the purpose of the Cultural Impact Assessment. Research categories were addressed in the form of open questions which allowed the consultant to answer in the manner that he/she was most comfortable. Follow-up questions were asked based on the consultant's responses or to clarify what was said.

Transcription was completed by listening to recordings and typing what was said. A copy of the edited transcript was sent to each consultant for review, along with the Transcript Release Form. The Transcript Release Form provided space for clarifications, corrections, additions, or deletions to the transcript, as well as an opportunity to address any objections to the release of the document (Appendix C). When the forms were returned, transcripts were corrected to reflect any changes made by the consultant.

The ethnographic analysis process consisted of examining each transcript and organizing information into research themes, or categories. Research topics include connections to the project lands; archaeological sites; *mo ʻolelo* and *mele*; cultural practices; *ali ʻi* presence in the area; change through time; and concerns and recommendations for the project. Edited transcripts are presented in Appendices D–G. Note that all transcripts are in the consultant's own words, except for Moki Labra's, as he preferred his interview to be summarized.

Consultant Background

The following section includes background information for each consultant, in their own words, aside from Moki Labra, whose interview was summarized. Background material includes information on the consultant's *ʻohana* and where the consultant was born and raised. The interviewees are Kalani Fronda, Betty Jenkins, Moki Labra, and Tom Shirai.

Kalani Fronda

Kalani Fronda, grew up in Nānākuli, O‘ahu, went to school in a number of different areas, so Mā‘ili, also up in Wahiawā area, and then eventually at Kapālama, and I graduated from Kamehameha Schools. I‘m also educated in the Mainland for receiving my college degree there. My *kuleana* in this area, I work for Kamehameha Schools and manage their lands out here which entails a number of different things, working with community, being able to *mālama* the ‘*āina*, the responsibility that we have for that, and also being able to improve how these assets support the use that is desired by the community, but at the same time trying our best not to compromise the purpose of the ‘*āina*. I really enjoy what I do for Kamehameha, and I‘ve done this for the past 18 years, manage lands also in Moloka‘i, Kaua‘i, and Maui.

The patriarch side [of my ‘*ohana*] is kind of the one that is known mostly, the Fronda side. Well actually, let me back up. My mom and dad are from Waipi‘o Valley and eventually branched out to other parts of the Moku o Keawe, Big Island. My dad comes from Kia, kind of scattered, Hilo side, but tracked all the way back to the ‘Ī family, which is as you know, kind of the five chief ‘*ohana* on Moku o Keawe. Mom‘s side comes from the Kalā family which had resided mostly in Kohala. But both, once again, are from that area. They moved to O‘ahu. I grew up in the *moku* of Wai‘anae pretty much my entire youth.

Betty Jenkins

Ok, well first of all, I‘m an old lady. I‘m an old *kupuna*...My birthplace is Big Island, Waiakea House Lots. My father was one of 25 children. He is an Ellice from Kaua‘i. My mother is a Mersberg/Spencer/McMillan...I lived in Hilo, those early years. When I was ready for intermediate school, Minister Desha said to my mother, “Why isn‘t Betty going to Kamehameha?” And she said, “Well, because the schools are good.” She‘s a teacher herself. And he said, “No, that‘s where she oughtta go.” And it all happened, and before you know it, I was at Kamehameha. And then the war began.

So when I graduated, I went away to school in Ohio. I was the first student of color, and that‘s how they registered me, first student of color. I personally resented that expression. But they all knew that I came from Hawai‘i, and that the war was still on. And anyway, so I went to school there, graduated, and had an opportunity to teach in Ohio, in Marietta, in Lima.

And then I came home, and again to teach. My mother was a teacher. We did many, many things at our church. Being Hawaiian was important. My mother‘s first language was Hawaiian, but she made it very clear that we were not to speak the language. I feel cheated. And even though I‘ve tried to take classes, it never has registered, which kind of tells me that I‘m not supposed to. But anyway, my upbringing is Hawaiian.

I am married to a Haole...So we have three children. Kimo lives here just down the road a bit. My second son is a teacher, actually he‘s a principal on the island of Maui. And we came home with those two children, and called this area home. We were in Honolulu for two days living with my mother and dad with these two boys. And I said, “Mama, what happen to that piece of land that you folks bought when I was in school?” She said, “It‘s still there.” They brought us here, and we walked in, and we stayed. So we built, and that‘s why this is Kai Hāwanawana.

So Nalani Choy is our third child. She, too, went Kamehameha. So my father was a Kamehameha grad. I am a Kamehameha grad. And by the way, this year we were honored at Kamehameha because that was 70 years of graduates. But there were just a few of us left.

But anyway, so I come from a family that is Hawaiian, in a way that we depend on each other, we respect each other, we have an understanding of our relationship to a higher power, and belonging is important. So, Nalani is very much involved in what she does even though she wasn't born there, she was born over here... So I've lived here with our children and our grandchildren, and Uncle is gone. And it's difficult. It's difficult.

Melvin “Moki” Labra

Kumu Melvin Moki Labra was born on July 14, 1966 in Wahiawa. He grew up as a *lawai'a*, at the family home, “Homela'i”, near the *heiau* of Kupopolo and Kahokuwelowelo on the shores of Kapaeloa with the island Moku Mana offshore. Kumu Moki attended Halei'iwa Elementary School and Waialua High and Intermediate School.

Kumu Moki was an all-star athlete growing up, playing football and baseball, and in he explains that it wasn't until he got older that he returned to learn his Hawaiian history and culture. He became a dancer in Waimea Valley for Hālau Waimea under Kumu Hula Pi'ilani Lua. And after many years of training and studying his hula traditions and ministry (*kahu/kahuna*) traditions, he himself is now a hula teacher and a minister.

He says that he continues on with his *wa'a* which goes in the direction that he's called to go. On his *huaka'i*, or life's journey, *pule* is most important, that is, *pule* to *ke akua*, 'o Ka Lani Ki'eki'e, the highest of all chiefs.

Kumu Moki's grandmother was Tūtūwahine Mary Kawaiala whose last name became Spillner. Other *'ohana* names include Kuni, Keawekane, Saffery, and Dudoit. His grandmother used to live in Waimea Valley, and his grandmother's brother, Anakala David lived near the Lokoea Fishpond. His family is also connected to the Keali'i O Ka Malu church in Hale'iwa.

Kumu Moki had a well rounded upbringing from his *'ohana*. Besides living off of the sea as *lawai'a*, they also lived off of the land farming *'uala* and the *pilehua* variety of *kalo*. In his words, he grew up in the *kanaka maoli* lifestyle with hunting rights and gathering rights, and the land and sea provided all that the family needed.

Tom Shirai

My name is Thomas Shirai, Jr. I was born on September 29, 1961... I was born in Kapi'olani Hospital, but I was raised the majority of my life by my grandparents, my mom's parents, in Mokule'ia. My parents are Thomas Shirai, he's from the Big Island of Hawai'i, from a place called Papaikou. And my mother is from this region. And her name is Laverna Keao... She was born in Waialua. And the extent of the Waialua lineage is on my grandpa's mother's side. It goes further back several generations, before pre-Western times.

And so my father had tuberculosis, and he was an in-patient at Le'ahi Hospital. And so in the Hawaiian fashion, Hawaiian tradition, I'm the oldest grandchild, they *mālama* that one first, and it was mostly like a direct order, “the boy coming with us”, no ands, ifs and buts, just cut and dry. And so I was there. I was nurtured. And through that life experience, I learned only majority on the Hawaiian side of the family.

...I went to Mother Rice preschool. And then I went to Ala Wai Elementary School. I went to Washington Intermediate School. And then here's the turning point. The first half-year of my sophomore year, I went to Kaimukī High School. Ok, we lived right by Crane Park. I grew up there. See, I had two homes. On the weekdays, during the schooling, I lived with my parents. But on the weekends, I belonged to my grandparents down in Mokule'ia. And that's the part I enjoyed the most, spending time with my grandparents.

Topical Breakouts

A wealth of information was obtained through the oral interviews. This is organized in the following sections by topic. Topical breakouts include connections to the project lands; archaeological sites; *mo'olelo*, and *mele*; cultural practices; *ali'i* presence in the area; change through time; and concerns and recommendations for the project. Quotes from the interviews are provided below for each topic, with the exception of Moki Labra's interview, which he requested to be summarized instead of quoted.

Connections to the Project Area

... And in those earlier days when I was teaching, the family that ran the [gas] station were my students. So for me, when it comes to this area, I want everybody who was born and raised in the area to know that this is their home. I taught their children. I went to weddings, their families'. And it's important to me, and I think it should be important to them because for many of them, they have decided not to get involved, not to be heard, and maybe only heard when we fight, and that's not good for any of us anyway. [Betty Jenkins]

I'm interested. It's a wonderful spot. It has all the things that need to be heard and felt. But culturally, and they're near the water, but anyway, thank you for asking, but it's the voice and heartbeat of the people who are born and raised here that I really speak for...I almost feel as if this is one of those opportunities for somebody like me to say to those who truly have a home born and raised here, "This is when you tell those stories that you heard." Mine, I know because I was a teacher or because there was something that was happening at a meeting, but I would be so pleased to hear [from some] born and raised here. [Betty Jenkins]

I had some unique hobbies, not only music. Where you going see, elementary school, you get for your hobby, collecting antique bottles? That's history. Guess what? In all phases of interest that I wanted, it starts off with my grandmaddah and my maddah, you know, we go swapmeet, and we see. And my grandpa, not to say he was jealous, but he wanted to be a part of it. And so, little did I know, since I had interest with the bottles and stuff, that's the source right there. He knew where all the camps stay, all in Waiialua. And then when you get past down the sugar company, that's his friends and everything like that. Everything just f*cken fit, tailor made brah. He go ova dea, oh and in some cases, so good the credibility, eh you go fill the bag, how long you like stay, not one day, not two days, [but] months, or even one whole year, brah, the pass good for. Whereas others would be [allowed] three days and you're out. No, brah. And then I neva ask him questions, those kind of formal things. Just that when we were collecting the bottles and going to the rubbish dumps, we just was and just did, and just listen to what he say, or just watch where we at and stuff. [Tom Shirai]

And all these back hills, all the different places, phenomenal knowledge. Brah, this is 40, 50 years after everything is *pau*, and he [my grandpa] still get 'em, where everything, he can pinpoint everything where was. "This right here," even when we digging bottles, he can tell you the history of the place right here more than one book. Mean, brah. You know like how you guys get modern day, at that time it wasn't nice to put this kind stuff [voice recorder] in front of him, so I had to compute everything to memory. Mean, brah. [Tom Shirai]

He [my grandpa] died with a lot of things. Some things he made it clear. He didn't tell me straight up, but some things is too deep. It's not for me. Couple times he told me, he said I was getting too deep into it. "That's not for you, boy, that's me. This is old school stuff. There's a lot of good, but there's a lot of bad comes with this." He talking about the religion, all the kind stuff, the old practices and stuff. He says, "There's a lot of, if you don't do it right, this is bad."..."I don't want you to do that." Or even like when I showing fish grounds, he says, "This is fish ground. But those are **my** fish grounds. You only get

this because it's not for you to go all over the place, because you don't know what get ova dea." He says, "I do." [Tom Shirai]

Yes, the connection is there, his grandpa to him, and now it's my grandpa to me, the grandson. The grandson is the one with the *kuleana* 'cause the others no can understand. They not going be able to do that. [Tom Shirai]

These are very much connected in Waialua. That's my *kūpuna* too. That's my connection. And when I did the check, you know there's a Waihona.com with all the land commission awards and stuff, that's his holdings [showing a paper copy of the landholdings of a contemporary Olopana]. Look at the places. [Tom Shirai]

And here was the key, the key that my grandfather said. He said, when my wife met me, and he was waiting for me on the beach one day, they talk story ah, he told my wife, "We related to Kamehameha, but I forget." And that's this kind stuff, you know, all these kind guys. I have another *tūtū* lady, the middle name Kualī'i. I don't like to bring out the *ali'i* names because we're supposed to be able to handle our own problems. This is last resort when push comes to shove. Then we fight. But I don't want to. Let them sleep, let them relax. [Tom Shirai]

So specifically, the lot parcel that you're looking at, I've been associated with that because of its adjacency to the Lokoea Fishpond, which is an asset that I've managed for the past 18 years, one of a leaser/lessee relationship, the other as, eventually to the point of stirring up, trying to reconnect the community of people with the place again, and to the point of invigorating, encouraging the people of the area to connect again to take over the *kuleana*, so now they're caretakers of that through this entity called Mālama Lokoea Foundation...But specifically to this particular parcel, I've worked with the previous tenant and also with the landowner on some mitigation issues regarding their environmental impact to Lokoea Fishpond. [Kalani Fronda]

Kumu Moki's association to the subject property and his special knowledge of the area comes from being "born and raised" there all his life. He describes the area as "*nui ka i'a*" (abounding with fish), "*āina momona*" (a fertile land), and so "full of life." He remembers that "growing up in the place was so *maika'i*; the doors were never locked; the dogs hardly barked; the place was not packed with tourists; and it was truly *le'ale'a*, or good fun. He pointed out that he used to walk to Hale'iwa Park for baseball practice, a park that was constructed after his grandfather got the necessary permit for its construction. At that young age, he never knew that his *'ohana* was from the Lokoea area across the street.

Kumu Moki learned more about the Waialua area when he got older and returned to studying his *mo'oku'auhau* and culture. Under the guidance of Kumu Pi'ilani Lua and other cultural practitioners, he was taught much more and was trained more deeply in *nā mea Hawai'i*. Kumu Moki's knowledge is experiential knowledge as opposed to book knowledge.

Archaeological Sites

This particular fishpond [Lokoea] was very important to the people of this area in that it provided for them. And that's one of the reasons why we wanted to connect people to the place again because we knew that this could be that type of refrigerator, that type of food resource that really could connect us back again with the families of long ago, and also the importance of this particular area. And the, I think with that, was that's the most important to understand and really, I think for these guys, to really understand as they move forward, whatever happens there, that that continues to become something that they either weave in the fabric of what they create, whether it's food, whether it's who's there, how the people enter the property, use it, and so on, so just understanding the importance of Lokoea in general. [Kalani Fronda]

I consider Lokoea beyond just the water portion of it. It includes the bank and so on. I wanna say it's [The Shops at Anahulu project] is abutting the property of where Lokoea is. [Kalani Fronda]

So Anahulu River is actually, geez, how do you say that? I wanna say it's not 20 yards, but it could be a little more than that, roughly about 60 yards. It's very close. The Anahulu Bridge is within walking distance to where this particular parcel is...And the area was kind of known as the Anahulu proper, or Anahulu Village, where you would see a lot of the people congregating, living, participating in commerce and so on in that general area. So that also included where this particular parcel is, down towards where Lili'uokalani Church is as well. [Kalani Fronda]

...Anahulu is also important in itself, in that, it is the longest continuous waterway, or one of the longest, in the state of Hawai'i, still untouched. There are some areas that the plantation had created dams and so on which affected the flow of the river. But having it be one of the longest was really key. [Kalani Fronda]

We had found some somewhat significant findings when we went subsurface and found some cultural [sites] that are there, however, I can't pinpoint them right now. I do have information and data that I can pass on, kind of giving the general, not really specific areas of where these are located. But we did go through and contract because we wanted to further activate these areas for educational uses. There are certain areas that we knew we wanted to create a kind of, I don't wanna say structure, but something for the *haumāna* to use. But before that, we wanted to understand are there any other areas that we could impact culturally. And so we did that kind of archaeological inventory, survey, and also ground survey. [Kalani Fronda]

This is from the Hawaiian newspaper obituary. This is the sites of O'ahu place right dea. That's Kamani. Look where my Tūtū is buried....That's where the Hale'iwa Joe's and Seaview Inn was. That's the site of it. [Tom Shirai]

[taking out a photo] This is the only known picture of Pōhaku Pua'ena. Ok, this is the 1933 picture, this is site 235. This is the closest cultural picture in that traditional cultural landscape. This is a special photo, Koa, [pointing to people in the photo] this is my great-great grandmother, my great grand uncle, another great-great grand uncle. You think they sitting on the beach and not knowing what that [the stone] is? Koa, that stone still exists today. It's camouflaged, maybe the *'aumakua* is protecting 'em or they no like people go *maha'oi*. But there's a cove there, and when I go there, sad because no more buffer zone. Get any kind people go over there swimming. It's like, how dare you go over there, do you know what that is? But when I see that kind, my eyes come red. I say, "I don't mind you guys go swim, but you gotta know." So I told my moddah, "Yeah, politics, ah, the picture?" And my grandfather was in his 80s when I showed him this picture. He tell me, "That's the stone." Then later on he tells me things like that's where he used to catch all the baby *moi*. Everything sort of makes sense. [Tom Shirai]

And then you know like how you say, "Uko'a Pond." I mean, they're old school, Koa. Instead of saying, "That's Uko'a Pond," you know what he say? He say, "Ah, Laniwahine." [Tom Shirai]

He no talk about the pond. He says, "Laniwahine." Back in the '90s when they had the Pua'ena eco-care project, that or the bypass road, when we talk, he go like this, one sentence, even though they building 'em away from the stuff, you know what's the sentence he told me? He says, "They harming the fishpond." Oh brah, how you going act when he tell you that? ...The people don't understand him. They think, "Oh, only the pollution, the cement going in the pond." He's not talking about that, [he's talking about] bringing more people, clearing up the land, the life cycle over there, the fish, the water, he talking about all the things. [Tom Shirai]

People think there's only one *leina*. [But] That's a *leina* at that point, the point is called Hakaka Kanaka, the city morgue, they put 'em on the reef there, it gets decomposed, the shark eat 'em or whateva. That's the resting place of one of Waialua's most beloved *ali'i*, killed by King Kahahana. Kahahana was not that good. [Tom Shirai]

All the *ali'i* in Waialua is in Kawailoa and that way. You have La'anui, you have Lili'uokalani, even Olopana. That Kapukapuakea has a story about Lonokaehu [showing me documentation of an *'ili* named Kapuakea]. You have the South Pacific Raiatea; Laniakea is right there. But here's one that they overlook, those historians and cultural practitioners. In the South Pacific, in Raiatea, Taputapuatea is located in their land division called Utoa...They talk about navigation, Kahokuwelowelo Heiau, navigation, star astronomy, make sense ah? Here's another big kicker to this. The two most important sites over there is this: Pōhaku Pua'ena, and a stone that loves to run away, no like nobody see 'em, it's called Pōhaku Hoanahanau[?]. We only know Kukaniloko birth stones for the chiefs, that's a birth stone for *ali'i* too. My wife says, "You going get some of them *halulu* if you tell them all this stuff." I says, "I'm telling the truth. When come to this kind, I wanna tell the truth, and this is the truth right hea. I going side with the *kūpuna*." [Tom Shirai]

When I share, my grandfather, he smile. That's the kind stuff he told me, all this place, taro patch, choke fishing grounds, the subterranean springs, even in here, to make Hale'iwa, they had to fill 'em all in, 'cause get the subterranean all the way up the coastline. They get choke fresh water, brah, my goodness. And these are known famous fish grounds, brah, all the way up to the point. [Tom Shirai]

And the thing that they got, that I see positive about why they doing that canoe practice, here's one for you, Koa, where you see the Surf N Sea, and all the way, that's a known canoe landing, we talking about pre-western history, big time. Canoes land on those beaches, and that beach has a name. It's called Ma'aeaea Beach. [Tom Shirai]

I can't recall that much unless you go more towards Pua'ena Point with this documentation and stuff like that. And that Anahulu Bridge, it says on there, 1921/1922, and the thing is that it's called Anahulu Bridge, it's not called Rainbow Bridge. [Tom Shirai]

There were no archaeological sites or historic structures that Kumu Moki pointed out in the project area. He did, however, remind us to be mindful of Laniwahine and her home of Lokoea which is in the vicinity. He asked us to examine the cause and effect of "*huli ka lepo*" or digging the dirt for construction in the area and how it would affect Lokoea as well as the ocean nearby. He said that steps should be taken beforehand to prevent any contamination.

Kumu Moki referred to the entire area around Lokoea as a *wahi kūpuna*, and he pointed out that it is situated right in the *piko* or middle of the Waialua District. He stressed the significance of Lokoea and Uko'a as being both an important source of water and an important source of fish, such as *awa*, for the community. As a result, it was a place for the community to gather, and it continues to be a place where the community can learn. There is also the organization called Mālama Lokoea which looks after the fishpond and teaches the kids who visit there.

Mo'olelo and Mele

Although Kumu Moki's *tūtū* composed songs of Pua'ena and Hanohano Hale'iwa, the *mele* that he shared was the Ka Leo O Waialua, composed by Nalani Choy. The title, translated as "The Voice of Waialua," referred to the voice which is in the sound of the ocean which resounds at Pua'ena and echoes up above in Kawailoa, especially in the wintertime when the waves are big, and it is the same voice that the *kūpuna* of the area heard in the old days. The song also talks about Laniwahine, the *mo'o wahine* of Lokoea, and how Anahulu Stream partly feeds into this fishpond. Kumu Moki did *haku* a hula to this *mele*, and it is performed in the *kahiko* style.

Choke [*mo'olelo*], I cannot remember 'em all at once. I can start with the geographical name of the place. Did you know? When you cross over the Anahulu Bridge right there, you are in Kawailoa. Did you know? Where you cross the bridge, also, that's part of an *'ili*, a long sliver *'ili*, and the name of that *'ili* that goes all the way, fronting your guys' project, going to Hale'iwa Park, yeah that's called Kamani. [Tom Shirai]

Here's another one too, the *mo'olelo*. Look at the face value. Again, Lokoea, where you see that word? *Ua mau ke ea o ka 'āina i ka pono*. I look at what Kamehameha Schools write. No, no, no, no. Take it at face value, "*ea*." What does *ea* mean? Can have all kind, can be sovereignty, can be life, but it means sustainability you dummy. They chose wisely 'cause had choke fish in there before. [Tom Shirai]

But that's the other part of the cultural landscape, Pua'ena Point. There's also some nice songs written about Hale'iwa, about Pua'ena Point. One was a verse from a song from King Kalākaua, "Koni Au." [Tom Shirai]

And there's also something too that you must know since we talking about that kind chants, lot of Pele and Hi'iaka over hea brah, all those places, this whole coastline, Hi'iaka. Tell me if you know this song, [singing Holei] "O Kalapana." ... *A'ole*. [singing to the melody of Holei but with Waialua words] "O Waialua, kai leo nui." [Tom Shirai]

... You think that's the only *mo'o* in this place [Laniwahine]? No, get the bruddah Puhī'ula, that's one over dea. Ok, no stop dea. Now hea one for you, one simple one. The place I told you where my *tūtū* Antone Kaoo from, Kamo'oloa, when you cross that bridge, that stream over dea, Alamuki. That's one oddah *mo'o*. Turn left, going up, Kemo'o. You turn right going down towards Mokule'ia, anoddah *mo'o* story, right there Dillingham Ranch over dea, in the back there. So get choke *mo'os* down here brah. That's all *mo'o* stories. [Tom Shirai]

I've been blessed because when I went learn how to fish, my grandmother went teach me how to fish. The legend of that *mo'o* originates in Mokule'ia, I forget the name, but it's called the *hīnālea* fish trap. [Tom Shirai]

And here's one for you, you go further up the place. It's not called Sunset Beach. It's called Paumalu. And the reason why it's called Paumalu, there's a very unique story about Paumalu that's applicable to what happened in Waimānalo [referring to a recent news story about over harvesting of sea cucumbers in Waimānalo]. The *wahine* fisherman was told to catch one certain amount of *he'e* and *pau*. She was greedy, and what happened? The *'aumakua* shark came and went bite both her legs off and then ate her. Kill her. You know? Neva listen. You got too damn greedy. [Tom Shirai]

Cultural Practices

Although some people still fish off of the bridge area, Kumu Moki explained that the surrounding place is also a prime spot for gathering *kukunaokalā*. Until recently, he used to still go and practice his traditional gathering rights there. However, nowadays he is no longer allowed to gather *kukunaokalā* there. Part of the problem is with the new residents there because they bar others from accessing the place regardless of their ancestral ties to the area or their gathering rights. And the other part of the problem is with the Department of Land and Natural Resources (DLNR), which has a good portion of the place blocked off for what they call "Surf N Sea."

I don't know about whether there are still, but the hula people, Uncle and I were invited to one of those things that happen at midnight. And they come to be cleansed. And that's the only one...It was wonderful for us. It was dark, and I'm honored to be asked to be there. Again, Uncle and I were asked, and when I looked around, nobody else from the community was there. They had invited us, and so I trust that, and admire that. [Betty Jenkins]

But we had the original churches, and pretty much, churches. But names that continue to say that this name is for this place, again, when they ask Aunty Betty, they should ask somebody else. [Betty Jenkins]

Other than fishing, nothing that I can think of that was done in that area and kind of adjoining as well...Fishing in the fishpond, shore, lava tubes, anything where the fish would reside, but it was all different types of waterways, so even the Anahulu River, and so on. [Kalani Fronda]

No. No [I don't know of any traditional gathering practices on the property itself]. [Tom Shirai]

That would be part of the cultural things that you see, and I don't see too much impact on that canoe paddling and training and stuff like that. And most of the fishing in that front area is mostly shore casting or on Anahulu Bridge catching Samoan crab, stuff like that, nothing really impacted. But that's the closest I see as far as cultural is concerned. [Tom Shirai]

***Ali'i* Presence in the Area**

This is where the *ali'i* played. This was their Waikīkī. So I wish I could give names to spots. I'm very, very cautious that those spots have great *mana*, and that's the reason that I allow other people to tell me, "Oh but this is what happened." And we have neighbors here right here on this street whose family can say, "Oh but at this spot, this is it." And that's fine. So when it comes to saying what I know, truly I don't. [Betty Jenkins]

How can you come through this area and without knowing that this is where the church, [of] the queen? And this is where one of the *ali'i* would come to play, or what is that called when you shoot the birds? Anyway, now that's special for me to know because one of the family members of this community, when he was a young boy, when the *ali'i* would shoot for the birds or whatever, he would run to get it. So you see, this area is rich. [Betty Jenkins]

So as beautiful as it is to have a lot of places to shop, someplace where I can have my hair done, someplace where I can buy my groceries, someplace where I can get the things for my car, it is just so, so rich with history, much of it at a whisper, still at a whisper. And that's ok, because there are some other things that are very obvious, and the *ali'i* understood, and now it's our turn. [Betty Jenkins]

What I used to hear from my mother, being the person that she was, many of the things were just called to attention. This is where the queen came, and when she came, "We," she'd say, "we always honored her." [Betty Jenkins]

Anahulu was also really important to the chiefs of O'ahu, where you would see a lot of them residing in that particular area, so much, that when Kamehameha had conquered and had come over to O'ahu, in preparation to having his warriors prepare to go to Kaua'i, which they never did, you would see in some of these *kuleana* parcels, in these lots, names of *'ohana* and family members that came from Moku o Keawe. So you see them in there, and that was one of the reasons why, very important valley, very important to this *moku* as well. [Kalani Fronda]

Probably reference it, not necessarily chronologically, but just as important to certain eras of time, knowing that Queen Lili'uokalani had spent some of her summers in this area, so that was very significant, that Anahulu Kai portion of that, I don't wanna call it *'ili*, but it kinda was....Also, understanding that during the days when Mā'ilikūhahi reigned on O'ahu, this kind of being his residence, the *moku* of Waialua. [Kalani Fronda]

He was a bad king. Chief Elani, I compare him to something like how nice Kakuhihewa was. Mean brah, but in a localized area...Ok, from there, how that ties into our history is Waialua High and Elementary School, the predecessor name was Andrew E. Cox School.

The Cox family, they married into this *kupuna*, one of grandpa's *kūpuna*, she married a gentleman named John Keahipaka, that's bloodline. So that's all *kūpunas*. [Tom Shirai]

And the spinoff is that the *kupuna*, Andrew E. Cox, Andrew Elani Cox, that's the name of the school before. And before that was Mokule'ia School. Now these people are also from Waimea Valley. She identified some of the *lo'i's* in all those areas in there. [Tom Shirai]

Summer home for Queen Lili'uokalani, over there, that's why you get the Lili'uokalani Trust. King Kalākaua has ties over dea, he wrote that song, Koni Au. Olopana is the chief over dea. See before, a lot of 'em, they only recognize La'anui. That's only one chief. Some of these chiefs are more old than that, brah, and more prominent. That's the O'ahu line guys. And so I tried to share with them. I says, "It's more than that guys." [Tom Shirai]

Change Through Time

The biggest change for Kumu Moki is that his family no longer lives on some of their ancestral lands. It is a hurtful subject, being disconnected to these family lands, but he has learned through the advice of others, "*a'ole hāpai i ka pilikia*" and "*waiho i ka pilikia*" (do not carry the problem, leave it behind).

Kumu Moki said that the shoreline these days are all filled with newcomers who now live there. These newcomers do not have a *kanaka maoli* connection to the sea, and neither do they use the *kai* as a source. As a result, the *i'a* is not readily available for others as it used to be for him and his family, and it is *pohō*.

Kumu Moki remembers that there used to be a service station on the subject property where The Shops at Anahulu project is planned for. He said that back then it wasn't a drive thru self-serve gas station, but rather it was a true service station where people took their cars to get them serviced. In later years, the service station became a night time meeting place for bad elements of the community.

I think that one of the most significant things is change of ownership, development of houses, and a little more off-shore investors, purchasing, acquiring homes in this particular area. That's been a significant change, kind of the demographics of the area....However, as I spent and invested more time into the community, understanding that there is a number of *piko* families, not only that reside here, but also have a passion for making sure that the continuation of that legacy of the lifestyle living here continues on. And I really appreciate that. There are still some of those still around the fishpond, around this particular area that share that type of passion. [Kalani Fronda]

The watering hole. Seaview Inn [a restaurant and bar near the project area]. My family has a lot to do with that. That's another thing about the Dillingham. When you read about Dillingham, there's some things that may not be good, what he did. One of 'em was the hotel. See, they were made to accommodate the military as their recreational facility. And some beaches they did the same thing too, like Wai'anae Coast, or up in the other Hale'iwa Coast, or up the Army beach and stuff like that. You know, the Local people couldn't go there. But a lot of times too, a lot of the desecration or harm came during the World War II era. On some places, like where you see the current, Haleiwa Joe's, where used to be Seaview Inn, that was a lot of memories over there. Every Tuesday they had for the Local people, all the Local bands, even contemporary Hawaiian music like Kalapana, Three Scoops of Aloha. When Mākaha Sons or Sons of Hawai'i come, standing room only, brah, I mean, it's a big thing when they come to town. [Tom Shirai]

[Seaview Inn was] something like the Haleiwa Joe's set up, and they catered to Local people. You could go in, you know, how we dress casual. But now, it's more catered to, not the Local people. Just like Jamison's, just like all the other places, you know, you lose that essence of tying with the community. And what I wanted to share is that some of these

places, like the Seaview Inn, and the current Haleiwa Joe's, it's on the grounds of a *heiau*. It's called Anahulu Heiau. They built that, some of the pillboxes, the military coastal batteries for World War II. They have another one up there at Kahokuwelowelo Heiau. You have the pillboxes built right on the *heiau*. You know, back then, it's very disrespectful. And until you get really into this kind of historical research and stuff, you find out, you know, at the time, in the '30s, the Bishop Museum was gathering information and stuff like that, then shortly comes 1940, then you start seeing a small portion of non-Hawaiians taking the land. And then when World War II comes around, bingo, they take 'em over, you know, just like one cancer went spread. And that's what has happened. [Tom Shirai]

And before, we could camp all summer down Mokule'ia beach, my grandfather go get the pass, fifty bucks, no big deal. We camp there all summer brah. My grandfather was already retired from Navy ah, medical. My grandmother work at the high school. Right here, here our house, looking straight at the family house down on the airfield, you know the coconut trees you see over dea? That's the family land brah. And they neva just choose any ol' f*cken land. You know, they chose wisely. The *koa* stay on top their place. Not because the modern Haole way, because they in charge, people can go there, but they in charge to look towards the well-being, and in this is one of the most significant things, this is one of 'em, they had their *kuleana*. Those are the kind of things, ho man, I wish I had a grandchild that could understand. I mean, I started from when I was born, just like, you know? [Tom Shirai]

And those kind of things I found. [My grandfather] he told me where the cowboy houses was and all that. Ho, we go Ka'ena Point, he tell me how much '*opihi* he used to get, all this kind things. I mean, you can fill up a f*cken rice bag and still get, you neva even dent da place. But they wasn't out there to see how much they could f*cken get...Ho brah, and the kind f*cken silver dollah kind, you know, the kind, five, six, you full already, you know you happy already. Not the kind f*cken you gotta eat 20, 30 of 'em like pistachio nuts. [Tom Shirai]

Concerns and Recommendations

Like you see all the pictures in hea, [pointing to the pictures on the walls of McDonald's where we're sitting] replace 'em with pictures like this [showing pictures of old Waialua that he brought with his things] of old school Waialua or Hale'iwa. You'd see all the older folks come in and go, "Wow. That's not Waikiki, this is pictures of Waialua." [Tom Shirai]

No go put Waikiki stuff on top there. And the thing I'm afraid of is we have entities like the North Shore Chamber of Commerce, I can appreciate they perpetuating history, but excuse me, you know what I see when I look around ah, the perpetuation of White man history. That offends the hell out of me. Don't make it look like these people were here first...What about all the Hawaiian people that was here before them? So when they put that, they wanna perpetuate only plantation era and all that kind stuff history. [Tom Shirai]

That would be a really good thing, like I said, OHA owns the courthouse, and I have reservations because of what they going make, but [they should make] one small cultural museum with the real history. My dream was to one day see something, like a family history center, and I running 'em. And even though it's good, I says, "Ok, up to one certain point, yes, we give, but if we going go that kind business, I going have to get some money for that because I spent thousands of hours, something. Even the Waihona database, I gave them input on some of the things. You go look the info about land grants. I gave 'em the kind information, I says, "It is better to show if you have the correct spelling, and where you see a *hui*, you make sure you get every *hui* member on there. [Tom Shirai]

And for me, you see when you come down from Kamehameha Highway, you see the Hale'iwa sign with the wave? Maybe when you say, "Gateway to Hale'iwa," ok, maybe

change the sign. And you know what I like see? I like see one picture of one *mo'o*. [Tom Shirai]

The things that I said in the beginning about the septic tank, that's an example. When they make like asphalt for the parking lot, the oil comes down, and they create sheen, and that runoff might go into the fishpond. But those kind of effects will impact there. And the water table, not only the septic tank, when you're digging the surface, also, you see how close you are to the ocean. You know you gonna hit water, no more six feet or something, you gonna hit water. So maybe if that septic tank is not good, if it springs a leak or whatever during that construction or something, subterraneanly, or eventually out into the ocean. [Tom Shirai]

Yeah, if they have dredging or booming, like you see some projects, they get that storm drain, and they get booms around 'em, to protect the rubbish and stuff from going in there, to prevent clogage. [Tom Shirai]

Maybe noise, there's a few residence that live in that place, and they need ingress/egress to get out. So maybe we can work with them on the time when they doing the construction, when they build 'em. And a traffic study, that's a basic textbook that a lot of 'em do, you know that box that they run over 'em, and they get the traffic counts ah, those kind of things. And there's also another concern, I guess one of the telephone poles over there, that's a bus stop. I think so, maybe gotta go double check, across of Surf N Sea, you know, the standard kind stuff, as far as I'm concerned. But the main thing is that I'm happy to see that there's gonna be usage on that property rather than everyday it's an eyesore. And if neva get that project, then [plant] grass, you know? At least you see grass over there with one tree growing, you know, bettah than the dust screens. [Tom Shirai]

You know, also, I'd like to see networking among localized entities. Before this project came about, we had a presentation by Ma'o Farms. You know, networking with that kind of things, a small little cultural tour, I like to see that kind of networking going on. [Tom Shirai]

One of the cultural things that they [the developer] should network with is that group that *mālamas* the fishpond, Lokoea Fishpond, that's Kamehameha Schools property, and I forget what the name of that *hui* is, but you know, that's starting off on the right foot. Hopefully later on, it'll be for food, more productivity for food and stuff like that, and of course, if we say cultural, when we cross the bridge, that area, where we see the canoes and stuff, the canoe clubs, that's the closest. [Tom Shirai]

You know, that's the thing about other cultures coming here and nicknaming our places. I can't stand that. Before it was acceptable, but it's not. It's not Pipeline. And then you get Kapaeloa, and you get all these places that they don't know. Then you look at the old chants. How come we don't have that today? Somebody went rename 'em, just like they went deliberately whitewash that away from everybody. And the early days, that's what I tried to do as part of education, part of that education was the bill to change, was the act to change the names, and only the old timers would know, and they say, "Good boy. Good boy, you not going get plenty support [to change the name back], but good boy, takes balls to do something like that." [Tom Shirai]

Because of some of the understanding that some of these banks are what holds the water in, it's important what happens in that area, the *hau*, what is developed around there we're concerned about. [Kalani Fronda]

So the property itself, I wanna say that the beach property abuts each other. The waterway [in between portions of the two properties] is actually about, I wanna say, anywhere from 15 to 20 yards, at the maximum, to the point where they knew that the previous lessee Chevron, had some issues, stuff that you wouldn't really see with the naked eye, but really had impacted because of the seepage that had gone into there. And so the concerned part is understanding where the water table is, how the makeup of that land is. There can be

some potential of how it's developed, where the wastewater goes, and so on. It would impact the fishpond, so the proximity, we're concerned because it is very close. And it has gone through some negative impact that we have had to make sure we address and continue to address with whoever uses this property thereafter. [Kalani Fronda]

I never brought up 'Uko'a too much. But the waterway of Lokoea is connected with 'Uko'a which is that longer one. So whatever happens in this one parcel that's looking to be developed on the Lili'uokalani Trust Lands, the waterway doesn't only impact Lokoea, it also impacts 'Uko'a, which is the adjoining and adjacent waterway, which is a much larger footprint than Lokoea's 7 acres. [Kalani Fronda]

And it also connects up with the 'auwai, which is called, Lokoea [pausing to think], what is it called, Lokoea, I wouldn't call it river, but anyways, that connects up with the ocean....Lokoea Stream, that's what it is...It is a natural 'auwai. [Kalani Fronda]

...As far as access is concerned, I don't believe that there's anything that impedes access to anywhere that's culturally significant. Lokoea has different access points that you can get to. What we probably don't want is access from this property onto Lokoea Fishpond. We would want it through a central location which is actually on the other side of the fishpond area, closer towards the other side, ingress and egress. [Kalani Fronda]

As far as it impacting anything that's culturally significant, once again, I go back to Lokoea itself. And if there's anything, any seepage that occurs, anything that overflows from this particular property, that's a concern, because we know that Lokoea itself is significant, that being a *loko i'a*. [Kalani Fronda]

Understanding that there are new technologies on addressing wastewater, knowing that any type of development, because we had just gone through one right here in this particular area with the Hale'iwa Store Lots, any place in the north shore does not have municipal wastewater systems. So your task, it's one of the economic hurdles, is that you're tasked with having to create the system independently for that particular project. So however they do it, you know, with new technologies, there are ways to take care of this without impacting, seeping into the water table, as well as overflowing into the fishpond. [Kalani Fronda]

You know, I think this part is hard to control, but I'll voice it. And that is, making sure, whatever goes up on there, and I'll refer to it as a metaphor, seepage or overflow, as inappropriate type of activities that could overflow into the property. And I don't know what that is, but just to kind of be able to voice that, and it may never happen, but at least I can kind of express some of that. I don't know, I just want to throw that out there. [Kalani Fronda]

You know, I wanna say, Jamison's has a bar, it has an ad. Any type of adverse impact upon the fishpond itself, they are very close to the different bodies of water. So inappropriate could be other things, whatever it is, if there could be some control, whether it's through covenants they impose upon the users of the property, quote unquote house rules. [Kalani Fronda]

And I share that because we also have some areas, there's agricultural lands with mixed systems and so on, where we utilize for drainage purposes. Residents that are close to there, they'll see that it's close to their side, they'll go ahead and dump whatever they have from their cooking pots, oil and so on, and they'll dump it in there because they don't wanna dispose of that in the proper way. Those are the types of activities that I hope they control. Like I said, it might not even happen, but I was just kind of expressing it. [Kalani Fronda]

I know that the landowners themselves, being who they are, Queen Lili'uokalani Trust, has a very big concern around what happens around the Queen's Bath. If there's a way for them to activate that, where people could kind of at least have some area of learning about

that, experiencing somehow through this development, that would be wonderful, because I know it's on the property itself. That's the only thing I can think of. [Kalani Fronda]

...And I'm glad that we're not thinking it could be a [gas] station again. *Pau* already. [Betty Jenkins]

I don't know [if there are archaeological sites within the project area], but I think whoever that is gonna be needs to be able to be honest with us and say, "Yes, this does exist. And this is the source that I got it from." So it's not like, "Well I've always heard," that it was this and this. That doesn't do it anymore. [Betty Jenkins]

Yeah, they [the country places] need to be remembered. It needs to be remembered. I'm just at loss when it comes to the fact that maybe I took too much for granted. And change happens. [Betty Jenkins]

We have to stop this, what I hear about "Keep the country, country." I happen to agree with those words. But many of the people who say, "We keep the country, country," are not Hawaiian, and as I have said, so I don't mind saying it again, too many of them. But when you say, "Keep the country, country," you mean, "Lock the doors. Put the fence up there, and no more access." That's not "Keep the country, country." And basically, that's my big worry about anything. It's not yours; it's ours. [Betty Jenkins]

Well, if anything, I want to see, that both towns [Hale'iwa and Waialua] are twins. And I think in the other times, they always thought that, because even the original, well the plantation, of course, always had a big building, right. There was one at Hale'iwa. But it doesn't have the Hale'iwa name. It has Waialua. So we should be more [connected together], but unfortunately for this big thing with Pauahi, she didn't have any. She didn't have any land here, so the focus is over there...Absolutely [the towns were connected]. Even to the point that our elementary school is Hale'iwa Elementary. But when I was teaching there, it was Waialua. [Betty Jenkins]

And I have heard *kūpuna* from this area to say, "That's right, my grandfather, or my father said, 'How come that's the place over there Hale'iwa, you folks call Waialua?'" And a lot of it was because the people they were talking to were not interested [in getting the names correct] or thought it was unimportant. And they were not Hawaiian, probably. [Betty Jenkins]

Kumu Moki pointed out that these days, *kama'āina* do not have access to the land and sea like the newcomers do. Everything is for the tourists first. He is disappointed with the renaming of various sites within Waialua district all given Haole names, and he encourages the research to recover the original Hawaiian names to rename these places properly.

Kumu Moki said that change is not always good. He asked if the intent is strictly for entertaining visitors or if there is an aim to present something *pono* with what is planned. By turning Hale'iwa into a Waikīkī, and congesting the community with tourists and their traffic, it makes the lifestyle and living more difficult for the Locals. Not only are the Locals absent from patronizing these stores which aim to cater to tourists, most of the workers in these stores are all newcomers, and so it doesn't help the Locals who need employment. As a result, many Locals from the community need to drive outside and far to secure jobs. Kumu Moki also challenged the idea that tourists would rather see stores rather than natural greenery. He said, "People come to see the mountains, they come to see the beauty of Hawai'i, not retail stores."

Kumu Moki suggested that if stores will be built, they should sell *kanaka maoli* things, made in Hawai'i, such as *pahu* drums. He would even agree to the building of a fish market or poke shop where the fish came from Lokoea. Such plans would help keep the sense of place from being overwhelmed with a foreign presence.

However, rather than constructing merchant stores, Kumu Moki would rather see a learning center built on the property. A learning center does not necessarily need to come in the form of a building. He said that a grassy park with benches would be fine on that parcel of land, and within that park could be signs explaining Lokoea and other things of significance about the area. Kumu Moki suggested that Local artisans could also make their crafts, such as fishnets, in the park, and it would be a win-win situation because it would not contribute to the suffocating effects of tourism, but instead provide a place where tourists could enjoy and learn, while at the same time provide an open space which would highlight the culture and history of the community.

Kumu Moki brought up two other main concerns regarding this project, and it was in the form of two questions. Namely, he asked who was profiting off of the development of this parcel of land, and he also asked what they are doing with the money. He questioned whether or not any future profits would be invested into taking care of the people who are originally from the community. And he pointed out that in the end, we are all stewards rather than owners of the land, and in being good stewards, we are supposed to try our best in “stewarding the land in the right direction.”

He also said that nowadays, developers might consult with the neighborhood board, but the board consists of relative newcomers who haven’t lived in the community that long versus the real people from the community who are “the last ones to find out.” Kumu Moki also shrugged that in the end, the developer will build whatever they want anyway because “they have, I guess, the power of attorney.”

Summary of Ethnographic Survey

A total of four ethnographic interviews were conducted with individuals knowledgeable about Hale‘iwa: Kalani Fronda, Betty Jenkins, Moki Labra, and Tom Shirai. The consultants are knowledgeable of cultural resources as well as traditional practices and beliefs associated with the region. They continue to actively work toward preservation and perpetuation of Hawaiian practices and/or resources in Hale‘iwa. Two of the consultants, Tom Shirai and Moki Labra, have ancestral ties to the area and have been chosen to be keepers of the traditional knowledge and history of the area.

The interviewees discussed the many archaeological sites near the project area, including Lokoea and ‘Uko‘a ponds, the Anahulu River and Bridge, Pōhaku Pua‘ena, a *leina* at Hakaka Kanaka, as well as *lo‘i*, fishing grounds, springs, and a canoe landing. Of particular importance is Lokoea Fishpond, as it lies just inland of the project parcel. The interviewees agreed that the area was a playground for *ali‘i* and was associated with figures such as Mā‘ilikūkahi, Olopana, Elani, La‘anui, King Kamehameha II, King Kalākaua, and Queen Lili‘uokalani. Going further back, the entire coastline, including that of the project area, was also visited by Hi‘iaka on her journey from Hawai‘i Island to Kaua‘i. It was noted that the region has changed significantly over time, with more newcomers and tourists crowding the area and imprinting a non-Hawaiian, non-Local way of life on the community, and families becoming more disconnected from their lands.

The consultants shared several concerns and recommendations for The Shops at Anahulu project. Most of these centered around minimizing impacts to Lokoea Fishpond, the subterranean waterways, and the ocean nearby, as well as incorporating aspects of Hawaiian culture in the project, and networking with Local entities. Other concerns were about noise levels during construction, congestion and traffic, and that the new stores would not welcome Locals as employees or customers. Some specific recommendations are to control runoff and seepage from the project area, use the original names of places instead of renaming them, and sell *kanaka maoli* items in the stores.

SUMMARY AND RECOMMENDATIONS

Hale‘iwa has been a special place throughout history, a place for *ali‘i* and commoners alike. A place for fishing and agriculture and hula. This study highlights the unique past of Hale‘iwa and demonstrates the importance of this region to the community. Four community members were interviewed to share their *mana‘o* and to help identify any potential cultural resources or practices that might be affected by the proposed Shops at Anahulu development. The consultants did not identify any cultural resources within the project parcel that would be affected. They did recognize a variety of cultural resources in the general area and they offered valuable recommendations for the project.

Cultural Resources, Practices, and Beliefs Identified

The ethnographic interviews revealed numerous cultural resources in the general vicinity of the project area, although none were noted to be directly on the project parcel. Cultural resources that were discussed include Lokoea and ‘Uko‘a ponds, subsurface sites around Lokoea, the burial of Tom Shirai’s *tūtū*, Pōhaku Pua‘ena and Pōhaku Hoanahanau, a *leina* at Hakaka Kanaka Point, Kahokuwelowelo Heiau, an ancient canoe landing at Ma‘aeaea Beach (where Surf N Sea is today), and the Anahulu Bridge and river. Other cultural resources in the vicinity are *lo‘i*, fishing grounds, and freshwater springs.

Regarding cultural practices, the consultants agreed that gathering rights and access are important, although no cultural practices were known to occur directly on the property. However, they are practiced nearby, including fishing and crabbing, hula ceremonies, and gathering of *kukunaokalā* (mangrove) for lei.

Potential Effects of the Proposed Project

The consultants were particularly concerned with Lokoea, its subterranean waterways, and the ocean nearby being affected by the project. Potential effects include runoff, seepage, unauthorized access, and noise pollution. Other potential effects to the general area are congestion and traffic.

Confidential Information Withheld

During the course of researching the present report and conducting the ethnographic survey program, no sensitive or confidential information was discovered or revealed, therefore, no confidential information was withheld.

Conflicting Information

No conflicting information was obvious in analyzing the gathered sources. On the contrary, a number of themes were repeated and information was generally confirmed by independent sources.

Concerns/Recommendations/Mitigations

The interviewees shared several concerns for the project:

- runoff and seepage may occur during construction and may affect Lokoea Fishpond or the water table
- storm drains may get clogged during construction
- the project may cause noise, traffic, and congestion

- the project may lead to people entering Lokoea Fishpond through unauthorized access points
- dumping (e.g., cooking oil) may occur
- Locals may not feel welcome at the new stores

The interviewees offered a number of recommendations and mitigation options:

- build a learning center instead of stores
- include a cultural museum in the complex
- employ Locals and welcome Locals as patrons
- sell *kanaka maoli* items (e.g., *pahu* and other things made by Local artisans) at the stores
- include a fishmarket or *poke* shop in the complex to sell fish from Lokoea
- use profits to give back to the community
- remember the country places, display photos of old Waialua and Hawaiian history
- strengthen the association between Waialua and Hale‘iwa, which were twin towns in the past
- use the original names of places instead of renaming
- network with the community and Local entities

Background research and oral history interviews did not reveal any surface archaeological resources within the project area. It is possible, however, that subsurface remains might be found. Keala Pono recommends that a program of archaeological monitoring is developed for the project to ensure that any historic properties are not adversely affected by the proposed improvements. Community concerns and recommendations should be considered during all phases of the project.

GLOSSARY

‘āholehole	Young stage of the Hawaiian flagtail fish.
ahupua‘a	Traditional Hawaiian land division usually extending from the uplands to the sea.
aka‘akai	The bullrush <i>Scirpus validus</i> found in brackish or fresh water marshes. These plants were traditionally used in house thatching or woven into mats for beds.
akua	God, goddess, spirit, ghost, devil, image.
ali‘i	Chief, chiefess, monarch.
‘anae	Full-sized ‘ama‘ama mullet fish.
‘a‘ole	No, never, not; to have none.
‘āpana	Piece, slice, section, part, land segment, lot, district.
auē, ‘auwē	Oh! Oh dear! Oh boy!
‘aumakua	Family or personal gods. The plural form of the word is ‘aumākua.
awa	The milkfish, or <i>Chanos chanos</i> , often raised in fishponds in ancient times.
haku	Master, owner; to compose, invent, or braid.
halulu	To roar or thunder; a loud noise.
heiau	Place of worship and ritual in traditional Hawai‘i.
hīnālea	Wrasses of the family Labridae.
hō‘ailona	Sign, symbol, representation, signal, omen.
huaka‘i	Trip, voyage, journey; to travel.
hui	A club, association, society, company, or partnership; to join, or combine.
i‘a	Fish or other marine animal.
‘ike	To see, know, feel; knowledge, awareness, understanding.
‘ili	Traditional land division, usually a subdivision of an <i>ahupua‘a</i> .
hau	The indigenous tree <i>Hibiscus tiliaceous</i> , which had many uses in traditional Hawai‘i. Sandals were fashioned from the bark and cordage was made from fibers. Wood was shaped into net floats, canoe booms, and various sports equipment and flowers were used medicinally.
kahiko	Ancient, old, long ago; an aged person.
kahu	Honored attendant, guardian, nurse, keeper, administrator, pastor.
kahuna	An expert in any profession, often referring to a priest, sorcerer, or magician.
kai	Sea, sea water; area near the sea, seaside, lowlands; tide, current in the sea; insipid, brackish, tasteless.
kala	The surgeonfish or unicorn fish, <i>Teuthidae</i> .
kala mai	I’m sorry, excuse me.
kalo	The Polynesian-introduced <i>Colocasia esculenta</i> , or taro, the staple of the traditional Hawaiian diet.

<i>kama‘āina</i>	Native-born.
<i>kanaka maoli</i>	A person of pure Hawaiian blood.
<i>kaona</i>	Hidden meaning in poetry, or concealed reference to a person, place, or thing.
<i>kia‘i</i>	Guard, caretaker; to watch or guard; to overlook, as a bluff.
<i>koa</i>	<i>Acacia koa</i> , the largest of the native forest trees, prized for its wood, traditionally fashioned into canoes, surfboards, and calabashes.
<i>koa haole</i>	The small tree <i>Leucaena glauca</i> , historically-introduced to Hawai‘i.
<i>kūkākūkā</i>	To negotiate or discuss.
<i>kukunaokalā</i>	The mangrove (<i>Bruguiera gymnorhiza</i>), a part of which is woven into lei.
<i>kula</i>	Dry land, often used for sweet potato cultivation.
<i>kuleana</i>	Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.
<i>kumu</i>	Teacher.
<i>kūmū</i>	The adult goatfish <i>Parupeneus porphyreus</i> .
<i>kumu hula</i>	Hula teacher/master.
<i>kupuna</i>	Grandparent, ancestor; <i>kūpuna</i> is the plural form.
<i>lawai‘a</i>	Fisherman; to catch fish.
<i>le‘ale‘a</i>	Fun, to have a good time.
<i>leina</i>	To leap or spring. <i>Leina ka ‘uhane</i> or <i>leina a ke akua</i> were places where spirits leapt into the nether world.
<i>limu</i>	Refers to all sea plants, such as algae and edible seaweed.
<i>limu kohu</i>	The prized edible seaweed <i>Asparagopsis taxiformis</i> .
<i>lo‘i, lo‘i kalo</i>	An irrigated terrace or set of terraces for the cultivation of taro.
<i>loko</i>	Inside, interior. Pond, lake, pool.
<i>lū‘au</i>	Hawaiian feast, named for the taro tops always served at one; this is not an ancient name, but goes back to at least 1856.
<i>luakini</i>	Large <i>heiau</i> of human sacrifice.
<i>ma‘a</i>	Knowing thoroughly, experienced, familiar.
<i>mahalo</i>	Thank you.
<i>maha‘oi</i>	Bold, rude, forward.
Māhele	The 1848 division of land.
<i>maika‘i</i>	Good, well, fine, beautiful, good health.
<i>makai</i>	Toward the sea.
<i>mālama</i>	To care for, preserve, or protect.
<i>mana</i>	Divine power.
<i>mana‘o</i>	Thoughts, opinions, ideas.

<i>manō</i>	General name for shark.
<i>mauka</i>	Inland, upland, toward the mountain.
<i>mea</i>	Thing, object, person.
<i>mele</i>	Song, chant, or poem.
<i>moi</i>	The threadfish <i>Polydactylus sexfilis</i> , a highly prized food item.
<i>mo‘o</i>	Lizard, dragon, water spirit.
<i>mo‘o wahine</i>	Female water guardian.
<i>mo‘okūauhau</i>	Genealogy.
<i>mo‘olelo</i>	A story, myth, history, tradition, legend, or record.
<i>‘ohana</i>	Family.
<i>‘ōkole hao</i>	A liquor distilled from the <i>kī</i> (ti) root.
<i>‘ōlelo no‘eau</i>	Proverb, wise saying, traditional saying.
<i>oli</i>	Chant.
<i>onaga</i>	The long-tail red snapper (<i>Etelis coruscans</i>), or <i>ula‘ula</i> , a prized eating fish.
<i>‘opihi</i>	Limpets, four types of which are endemic to Hawai‘i: <i>Cellana exarata</i> (<i>‘opihi makaiauli</i>), <i>C. sandwicensis</i> (<i>‘opihi alinalina</i>), <i>C. talcosa</i> (<i>‘opihi ko‘ele</i>), and <i>C. melanostoma</i> (no Hawaiian name). <i>‘Opihi</i> are a prized food in Hawai‘i and considered a rare treat today.
<i>pahu</i>	Drum.
<i>paniolo</i>	Cowboy.
<i>pāpio</i>	A growth stage of various Carangid fishes.
<i>pau</i>	Finished.
<i>piko</i>	Navel; summit; center.
<i>pōhaku</i>	Rock, stone.
<i>pohō</i>	Loss, damage, out of luck.
<i>pono</i>	Correct, proper, good.
<i>pule</i>	Prayer; to pray.
<i>pu‘uone</i>	Pond near the seashore, as at the end of a stream.
<i>tako</i>	Octopus, squid.
<i>tūtū</i>	Grandmother or grandfather.
<i>tūtū wahine</i>	Grandmother.
<i>uhu</i>	An adult parrot fish, one of two genera of the <i>Scaridae</i> family known to occur in Hawai‘i.
<i>‘ulu maika</i>	Stone used in the <i>maika</i> game, similar to bowling.
<i>ulua</i>	An adult of various Carangid fishes.
<i>‘uala</i>	The sweet potato, or <i>Ipomoea batatas</i> , a Polynesian introduction.

<i>wahi kupuna</i>	Place of ancestors.
<i>wahine</i>	Woman, wife; femininity. <i>Wāhine</i> is the plural.
<i>wauke</i>	The paper mulberry, or <i>Broussonetia papyrifera</i> , which was made into tapa cloth in traditional Hawai‘i.
<i>weke</i>	Certain species of the <i>Mullidae</i> , surmullets or goatfish, traditionally used as offerings to counteract curses.

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APPENDIX A: AGREEMENT TO PARTICIPATE

**Agreement to Participate in the Cultural Impact Assessment for the
Hale'iwa Gateway Project***
Dietrix J.U. Duhaylonsod, Ethnographer, Keala Pono Archaeological Consulting

You are invited to participate in a Cultural Impact Assessment (CIA) of the Hale'iwa Gateway Project in Waialua District, on the island of O'ahu (herein referred to as "the Project"). The Project is being conducted by Keala Pono Archaeological Consulting (Keala Pono), a cultural resource management firm, on behalf of Group 70 International. The ethnographer will explain the purpose of the Project, the procedures that will be followed, and the potential benefits and risks of participating. A brief description of the Project is written below. Feel free to ask the ethnographer questions if the Project or procedures need further clarification. If you decide to participate in the Project, please sign the attached Consent Form. A copy of this form will be provided for you to keep.

Description of the Project

This CIA is being conducted to collect information about the Project property in Hale'iwa and its surrounding areas in the Waialua district of O'ahu Island through interviews with individuals who are knowledgeable about this area, and/or about information including (but not limited to) cultural practices and beliefs, *mo'olelo*, *mele*, or *oli* associated with this area. The goal of this Project is to identify and understand the importance of any traditional Hawaiian and/or historic cultural resources, or traditional cultural practices in properties on the current subject properties. This Assessment will also attempt to identify any affects that the proposed development may have on cultural resources present, or once present within the Project area.

Procedures

After agreeing to participate in the Project and signing the Consent Form, the ethnographer will digitally record your interview and it may be transcribed in part or in full. The transcript may be sent to you for editing and final approval. Data from the interview will be used as part of the ethno-historical report for this project and transcripts may be included in part or in full as an appendix to the report. The ethnographer may take notes and photographs and ask you to spell out names or unfamiliar words.

Discomforts and Risks

Possible risks and/or discomforts resulting from participation in this Project may include, but are not limited to the following: being interviewed and recorded; having to speak loudly for the recorder; providing information for reports which may be used in the future as a public reference; your uncompensated dedication of time; possible misunderstanding in the transcribing of information; loss of privacy; and worry that your comments may not be understood in the same way you understand them. It is not possible to identify all potential risks, although reasonable safeguards have been taken to minimize them.

Benefits

This Project will give you the opportunity to express your thoughts and opinions and share your knowledge, which will be considered, shared, and documented for future generations. Your sharing of knowledge may be instrumental in the preservation of cultural resources, practices, and information.

Confidentiality

Your rights of privacy, confidentiality and/or anonymity will be protected upon request. You may request, for example, that your name and/or sex not be mentioned in Project material, such as in written notes, on tape, and in reports; or you may request that some of the information you provide remain off-the-record and not be recorded in any way. To ensure protection of your privacy, confidentiality and/or anonymity, you should immediately inform the ethnographer of your requests. The ethnographer will ask you to specify the method of protection, and note it on the attached Consent Form.

Refusal/Withdrawal

At any time during the interview process, you may choose to not participate any further and ask the ethnographer for the tape and/or notes. If the transcription of your interview is to be included in the report, you will be given an opportunity to review your transcript, and to revise or delete any part of the interview.

*Note that the project name was changed from Hale'iwa Gateway to The Shops at Anahulu after the interviews were completed.

APPENDIX B: CONSENT FORM

Consent Form

I, _____, am a participant in the Hale'iwa Gateway Project Cultural Impact Assessment (herein referred to as "Project"). I understand that the purpose of the Project is to conduct oral history interviews with individuals knowledgeable about the subject property and surrounding area in the Waialua district of O'ahu Island. I understand that Keala Pono Archaeological Consulting and/or Group 70 will retain the product of my participation (digital recording, transcripts of interviews, etc.) as part of their permanent collection and that the materials may be used for scholarly, educational, land management, and other purposes.

_____ I hereby grant to Keala Pono and Group 70 ownership of the physical property delivered to the institution and the right to use the property that is the product of my participation (e.g., my interview, photographs, and written materials) as stated above. By giving permission, I understand that I do not give up any copyright or performance rights that I may hold.

_____ I also grant to Keala Pono and Group 70 my consent for any photographs provided by me or taken of me in the course of my participation in the Project to be used, published, and copied by Keala Pono and Group 70 and its assignees in any medium for purposes of the Project.

_____ I agree that Keala Pono and Group 70 may use my name, photographic image, biographical information, statements, and voice reproduction for this Project without further approval on my part.

_____ If transcriptions are to be included in the report, I understand that I will have the opportunity to review my transcripts to ensure that they accurately depict what I meant to convey. I also understand that if I do not return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the draft report, although I will still have the opportunity to make revisions during the draft review process.

By signing this permission form, I am acknowledging that I have been informed about the purpose of this Project, the procedure, how the data will be gathered, and how the data will be analyzed. I understand that my participation is strictly voluntary, and that I may withdraw from participation at any time without consequence.

_____	_____
Consultant Signature	Date
_____	_____
Print Name	Phone
_____	_____
Address	

Thank you for participating in this valuable study.

APPENDIX C: TRANSCRIPT RELEASE

Transcript Release

I, _____, am a participant in the Cultural Impact Assessment for the Hale‘iwa Gateway Project (herein referred to as “Project”) and was interviewed for the Project. I have reviewed the transcripts of the interview and agree that the transcript is complete and accurate except for those matters delineated below under the heading “CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS.”

I agree that Keala Pono Archaeological Consulting and/or Group 70 may use and release my identity, biographical information, and other interview information, for the purpose of including such information in a report to be made public, subject to my specific objections, to release as set forth below under the heading “OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS.”

CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS:

OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS:

Consultant Signature	Date
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Print Name	Phone
-------------------	--------------

Address

APPENDIX D: INTERVIEW WITH KALANI FRONDA

TALKING STORY WITH
KALANI FRONDA (KF)

Oral History for the Hale‘iwa Gateway project by Dietrix Duhaylonsod (DD)
For Keala Pono 7/10/2015

DD: *Aloha*, today is Friday, July 10, and we are sitting at Island Vintage in Hale‘iwa with brotha Kalani Fronda. We’re gonna be talking about the Hale‘iwa Gateway project, and before we go any further, we would first like to say, “*Mahalo. Mahalo nui*,” to Kalani for taking time out of his busy schedule to talk story with us. So, *aloha*.

KF: *Aloha*.

DD: If we could begin, could you tell us a little bit about yourself, your name, where/when you were born, where you grew up, where you went to school, just a little background?

KF: Ok. Kalani Fronda, grew up in Nānākuli, O‘ahu, went to school in a number of different areas, so Mā‘ili, also up in Wahiawā area, and then eventually at Kapālama, and I graduated from Kamehameha Schools. I’m also educated in the Mainland for receiving my college degree there. My *kuleana* in this area, I work for Kamehameha Schools and manage their lands out here which entails a number of different things, working with community, being able to *mālama* the ‘*āina*, the responsibility that we have for that, and also being able to improve how these assets support the use that is desired by the community, but at the same time trying our best not to compromise the purpose of the ‘*āina*. I really enjoy what I do for Kamehameha, and I’ve done this for the past 18 years, manage lands also in Moloka‘i, Kaua‘i, and Maui.

DD: Alright, some good work there. *Mahalo* for sharing that.

Could you tell us a little bit about your ‘*ohana*?

KF: The patriarch side is kind of the one that is known mostly, the Fronda side. Well actually, let me back up. My mom and dad are from Waipi‘o Valley and eventually branched out to other parts of the Moku o Keawe, Big Island. My dad comes from Kia, kind of scattered, Hilo side, but tracked all the way back to the ‘Ī family, which is as you know, kind of the five chief ‘*ohana* on Moku o Keawe. Mom’s side comes from the Kalā family which had resided mostly in Kohala. But both, once again, are from that area. They moved to O‘ahu. I grew up in the *moku* of Wai‘anae pretty much my entire youth.

DD: Ok, *mahalo* for sharing that.

You mentioned that your association to the subject property here is through work, and could you share some ways that you have acquired knowledge about this place?

KF: So specifically, the lot parcel that you’re looking at, I’ve been associated with that because of its adjacency to the Lokoea Fishpond, which is an asset that I’ve managed for the past 18 years, one of a leaser/lessee relationship, the other as, eventually to the point of stirring up, trying to reconnect the community of people with the place again, and to the point of invigorating, encouraging the people of the area to connect again to take over the *kuleana*, so now they’re caretakers of that through this entity called Mālama Lokoea Foundation.

But specifically to this particular parcel, I’ve worked with the previous tenant and also with the landowner on some mitigation issues regarding their environmental impact to Lokoea Fishpond.

DD: Ok, *mahalo*.

So in the time that you have worked in this area, could you share how the place has changed from what you remember?

KF: Referring to town in general, or *moku* in general, or specifically this particular area?

DD: Closer around to this parcel, but if anything significantly sticks out in your mind.

KF: I think that one of the most significant things is change of ownership, development of houses, and a little more off-shore investors, purchasing, acquiring homes in this particular area. That's been a significant change, kind of the demographics of the area.

However, as I spent and invested more time into the community, understanding that there is a number of *piko* families, not only that reside here, but also have a passion for making sure that the continuation of that legacy of the lifestyle living here continues on. And I really appreciate that. There are still some of those still around the fishpond, around this particular area that share that type of passion.

DD: It's always good to know that there's that connection with the people and their backyard. *Mahalo* for sharing that.

Could you share any personal anecdotes, or *mo'olelo, oli, mele*, you don't have to say the entire thing, but the *mo'olelo, mele, oli* pertaining to this area, what do they talk about? Is there anything you can share?

KF: Probably reference it, not necessarily chronologically, but just as important to certain eras of time, knowing that Queen Lili'uokalani had spent some of her summers in this area, so that was very significant, that Anahulu Kai portion of that, I don't wanna call it *'ili*, but it kinda was.

Also, understanding that during the days when Mā'ilikūhāhi reigned on O'ahu, this kind of being his residence, the *moku* of Waialua.

This particular fishpond was very important to the people of this area in that it provided for them. And that's one of the reasons why we wanted to connect people to the place again because we knew that this could be that type of refrigerator, that type of food resource that really could connect us back again with the families of long ago, and also the importance of this particular area. And the, I think with that, was that's the most important to understand and really, I think for these guys, to really understand as they move forward, whatever happens there, that that continues to become something that they either weave in the fabric of what they create, whether it's food, whether it's who's there, how the people enter the property, use it, and so on, so just understanding the importance of Lokoea in general.

DD: That's a good point. For the sake of clarification, could you kind of elaborate on the proximity of this parcel of land to Lokoea and the ways they are connected?

KF: I consider Lokoea beyond just the water portion of it. It includes the bank and so on. I wanna say it's [the Hale'iwa Gateway project] is abutting the property of where Lokoea is.

Because of some of the understanding that some of these banks are what holds the water in, it's important what happens in that area, the *hau*, what is developed around there we're concerned about.

Could you repeat the second part of it?

DD: So you were mentioning that the developer should be aware and try to be cognizant of Lokoea being nearby. So I was wondering if you could explain the proximity, for someone who might not know, how close, like you said, it's abutting. It's practically right next to each other, and if you could elaborate a little more on that connection with this property to Lokoea.

KF: Ok. So the property itself, I wanna say that the beach property abuts each other. The waterway [in between portions of the two properties] is actually about, I wanna say, anywhere from 15 to 20 yards, at the maximum, to the point where they knew that the previous lessee Chevron, had some issues, stuff that you wouldn't really see with the naked eye, but really had impacted because of the seepage that had gone into there. And so the concerned part is understanding where the water table is, how the makeup of that land is. There can be some potential of how it's developed, where the wastewater goes, and so on. It would impact the fishpond, so the proximity, we're concerned because it is very close. And it has gone through some negative impact that we have had to make sure we address and continue to address with whoever uses this property thereafter.

DD: Ok, yeah, thank you for explaining that. It's really important to realize that portions of the property and Lokoea, they share the same boundary. And like you said, sometimes maybe just 15, 20 yards apart, that's really close. It explains why the seepage and how it has affected Lokoea in the past. Thank you for explaining that.

You also mentioned Anahulu. Could you kind of explain where is Anahulu in relation to this area?

KF: So Anahulu River is actually, geez, how do you say that? I wanna say it's not 20 yards, but it could be a little more than that, roughly about 60 yards. It's very close. The Anahulu Bridge is within walking distance to where this particular parcel is.

And the area was kind of known as the Anahulu proper, or Anahulu Village, where you would see a lot of the people congregating, living, participating in commerce and so on in that general area. So that also included where this particular parcel is, down towards where Lili'uokalani Church is as well.

DD: Ok, *mahalo* for sharing that. So it's good that we understand that Lokoea is a fishpond, Anahulu is a river, and as Kalani had stated, both of these waterways are right here in the proximity of this parcel that's being developed. And also, being bodies of water, how important it was, as Kalani said, in the pre-contact days.

KF: And if I could add on too, Anahulu is also important in itself, in that, it is the longest continuous waterway, or one of the longest, in the state of Hawai'i, still untouched. There are some areas that the plantation had created dams and so on which affected the flow of the river. But having it be one of the longest was really key.

Anahulu was also really important to the chiefs of O'ahu, where you would see a lot of them residing in that particular area, so much, that when Kamehameha had conquered and had come over to O'ahu, in preparation to having his warriors prepare to go to Kaua'i, which they never did, you would see in some of these *kuleana* parcels, in these lots, names of *'ohana* and family members that came from Moku o Keawe. So you see them in there, and that was one of the reasons why, very important valley, very important to this *moku* as well.

DD: Thank you for sharing that, the significance of Anahulu being such a long waterway, and it makes sense that Kamehameha came and utilized it as a resource as the people of O‘ahu did before him. Yeah, thank you very much for pointing that out.

Regarding this area of the proposed development, are there any archaeological sites, cultural sites, places of *iwi*, historical buildings maybe, that the developer should be aware of?

KF: We had found some somewhat significant findings when we went subsurface and found some cultural [sites] that are there, however, I can’t pinpoint them right now. I do have information and data that I can pass on, kind of giving the general, not really specific areas of where these are located. But we did go through and contract because we wanted to further activate these areas for educational uses. There are certain areas that we knew we wanted to create a kind of, I don’t wanna say structure, but something for the *haumāna* to use. But before that, we wanted to understand are there any other areas that we could impact culturally. And so we did that kind of archaeological inventory, survey, and also ground survey.

DD: Ok. Yeah, thank you. I’m sure you would know if there is anything in those reports that the developer should know about with the survey and inventory that was done.

You talked about Lokoea earlier. Is there anything else we should know about Lokoea and ‘Uko‘a in relation to this property?

KF: That’s a good one. I never brought up ‘Uko‘a too much. But the waterway of Lokoea is connected with ‘Uko‘a which is that longer one. So whatever happens in this one parcel that’s looking to be developed on the Lili‘uokalani Trust Lands, the waterway doesn’t only impact Lokoea, it also impacts ‘Uko‘a, which is the adjoining and adjacent waterway, which is a much larger footprint than Lokoea’s 7 acres.

DD: Ok. So to clarify, you’re saying that whatever development on this parcel has the potential to highly impact Lokoea, and in addition, the ‘Uko‘a Fishpond, which is further away, that would also be impacted because it’s all connected. Is that correct?

KF: Yes.

DD: Ok, thank you.

KF: And it also connects up with the *‘auwai*, which is called, Lokoea [pausing to think], what is it called, Lokoea, I wouldn’t call it river, but anyways, that connects up with the ocean.

DD: Oh, ok, connecting with the ocean, we’re right near the bay area.

KF: Yeah.

DD: So is this *‘auwai* man made, or natural?

KF: Lokoea Stream, that’s what it is.

DD: A natural *‘auwai* then.

KF: It is a natural *‘auwai*.

DD: Ok. *Mahalo*. And that one connects [to the sea].

Are there any traditional gathering practices in the area, either past or ongoing, that we should be aware of?

KF: Other than fishing, nothing that I can think of that was done in that area and kind of adjoining as well.

DD: Ok, and fishing, you're talking about fishing in the fishpond? Or fishing on the shore?

KF: Combination. Fishing in the fishpond, shore, lava tubes, anything where the fish would reside, but it was all different types of waterways, so even the Anahulu River, and so on.

DD: Ok, *mahalo* for that.

Do you think this proposed development would affect any place of cultural significance or any access to places of cultural significance?

KF: I'm not sure what's exactly going on there. I've heard through the grapevine kind of what's been talked about. As far as access is concerned, I don't believe that there's anything that impedes access to anywhere that's culturally significant. Lokoea has different access points that you can get to. What we probably don't want is access from this property onto Lokoea Fishpond. We would want it through a central location which is actually on the other side of the fishpond area, closer towards the other side, ingress and egress.

As far as it impacting anything that's culturally significant, once again, I go back to Lokoea itself. And if there's anything, any seepage that occurs, anything that overflows from this particular property, that's a concern, because we know that Lokoea itself is significant, that being a *loko i'a*.

DD: That actually brings us up to our next question, talking about seepage. The question is: What could be done to lessen any adverse effects on the places of cultural significance or cultural practices, one being seepage, what could be done to lessen these adverse effects?

KF: Understanding that there are new technologies on addressing wastewater, knowing that any type of development, because we had just gone through one right here in this particular area with the Hale'iwa Store Lots, any place in the north shore does not have municipal wastewater systems. So your task, it's one of the economic hurdles, is that you're tasked with having to create the system independently for that particular project. So however they do it, you know, with new technologies, there are ways to take care of this without impacting, seeping into the water table, as well as overflowing into the fishpond.

DD: Yeah, you know, thank you for sharing that. Several times you brought up that there are important bodies of water close by, and so naturally, seepage is going to be a very important thing to consider.

Are there any other adverse things that we should address?

KF: You know, I think this part is hard to control, but I'll voice it. And that is, making sure, whatever goes up on there, and I'll refer to it as a metaphor, seepage or overflow, as inappropriate type of activities that could overflow into the property. And I don't know what that is, but just to kind of be able to voice that, and it may never happen, but at least I can kind of express some of that. I don't know, I just want to throw that out there.

DD: You're talking about the economic activity?

KF: It just could be things that are inappropriate to the fishpond.

DD: Right, right.

KF: You know, I wanna say, Jamison's has a bar, it has an ad. Any type of adverse impact upon the fishpond itself, they are very close to the different bodies of water. So inappropriate could be other things, whatever it is, if there could be some control, whether it's through covenants they impose upon the users of the property, quote unquote house rules.

DD: Yeah, I think it goes with cultural awareness and sensitivity. Good point, thank you for sharing that.

KF: And I share that because we also have some areas, there's agricultural lands with mixed systems and so on, where we utilize for drainage purposes. Residents that are close to there, they'll see that it's close to their side, they'll go ahead and dump whatever they have from their cooking pots, oil and so on, and they'll dump it in there because they don't wanna dispose of that in the proper way. Those are the types of activities that I hope they control. Like I said, it might not even happen, but I was just kind of expressing it.

DD: Ok.

Are there any other cultural concerns the community might have related to this project site that you can think of at this time?

KF: I know that the landowners themselves, being who they are, Queen Lili'uokalani Trust, has a very big concern around what happens around the Queen's Bath. If there's a way for them to activate that, where people could kind of at least have some area of learning about that, experiencing somehow through this development, that would be wonderful, because I know it's on the property itself. That's the only thing I can think of.

DD: Right. Things like that can lead to cultural awareness and cultural sensitivity.

Finally, do you know of any *kūpuna*, *kama'āina*, any other descendants, who might be willing to share their *mana'o* of this area?

KF: Yes. Diane Canon, she's Sato family, from this area, lived on the *'āina* for many years. I can't remember Uncle Joe's name, anyways, it'll come to me in a while. The Plemmer family.

DD: Plumber?

KF: Plemmer. Clayton Plemmer leases a property in the back of 'Uko'a. His family is very familiar with Lokoea in general. His sister, Emmaline Causey, is a Plemmer, and she would tell stories of her dad having caretakership of 'Uko'a. Later on she had married into the rancher who had assumed that lease. And the other is Aunt Gladys Awai, she goes by Aunty [?], and she is part of the Awai 'Ohana, that are *piko* families to this area. Probably one other one, she's a younger generation, she's in her early '40s, and she's part of the Chun family, Janelle Chun. And that family is also *piko* to the area and interconnected with many other families. She would be a good one, and she is a small business owner, participated in real estate sales as a realtor, so she understands business. She also understands community sensitivity. And she also comes from a family that has a very strong background from this area.

DD: So it's a unique position that she's in.

KF: Yeah.

DD: Ok, well we've come to the end of our *kūkā*. We'd like to once again thank Kalani. We know he has meetings to go to. It's good to see you, I haven't seen you since Kaho'olawe a couple years back. And *mahalo* again.

KF: *Mahalo*.

DD: *Aloha*.

KF: Thank you brother.

APPENDIX E: INTERVIEW WITH BETTY JENKINS

TALKING STORY WITH

BETTY JENKINS (BJ)

Oral History for the Hale'iwa Gateway project by Dietrix Duhaylonsod (DD)
For Keala Pono 7/10/2015

DD: *Aloha*, today is Friday, July 10, 2015. We're sitting on beautiful Crozier Loop.

BJ: Our home, Kai Hāwanawana.

DD: Kai Hāwanawana *ka inoa o kēia home o* Anakē Betty Jenkins.

BJ: Yeah.

DD: The name of this beautiful home along Waialua Beachfront Road, a very beautiful day. We're gonna be talking about the Hale'iwa Gateway project. Before we go any further, first and foremost, we'd like to thank Aunty Betty Jenkins for taking time out of her day to talk story with us. So *aloha*, Aunty Betty.

BJ: *Aloha*. It's a pleasure. And maybe gonna be a headache [joking], I don't know yet.

DD: [laughs] We'll make sure it's not a headache, Aunty.

BJ: Ok.

DD: Ok, so when we start, could you please tell us your name, where/when you were born, where you grew up, where you went to school, maybe a little bit about your family background?

BJ: Ok, well first of all, I'm an old lady. I'm an old *kupuna*. As I told you earlier, my birthplace is Big Island, Waiakea House Lots. My father was one of 25 children. He is an Ellice from Kaua'i. My mother is a Mersberg/Spencer/McMillan, and there's a lovely story about that. But she is Big Island. Now how she and my dad got together, I have no idea. And being a nice girl in those days, I didn't ask, and they didn't tell.

I lived in Hilo, those early years. When I was ready for intermediate school, Minister Desha said to my mother, "Why isn't Betty going to Kamehameha?" And she said, "Well, because the schools are good." She's a teacher herself. And he said, "No, that's where she oughtta go." And it all happened, and before you know it, I was at Kamehameha.

And then the war began.

So when I graduated, I went away to school in Ohio. I was the first student of color, and that's how they registered me, first student of color. I personally resented that expression. But they all knew that I came from Hawai'i, and that the war was still on. And anyway, so I went to school there, graduated, and had an opportunity to teach in Ohio, in Marietta, in Lima.

And then I came home, and again to teach. My mother was a teacher. We did many, many things at our church. Being Hawaiian was important. My mother's first language was Hawaiian, but she made it very clear that we were not to speak the language. I feel cheated. And even though I've tried to take classes, it never has registered, which kind of tells me that I'm not supposed to. But anyway, my upbringing is Hawaiian.

I am married to a Haole. And I used to always say, "I'm never gonna marry Haole. And I'm never gonna marry military." And they're both, so I learned very quickly, be very careful what you say if anything. So we have three children. Kimo lives here just down the road a bit. My second son is a teacher, actually he's a principal on the island of Maui. And we came home with those two children, and called this area home. We were in Honolulu for two days living with my mother and dad with these two boys. And I said, "Mama, what happen to that piece of land that you folks bought when I was in school?" She said, "It's still there." They brought us here, and we walked in, and we stayed. So we built, and that's why this is Kai Hāwanawana.

So Nalani Choy is our third child. She, too, went Kamehameha. So my father was a Kamehameha grad. I am a Kamehameha grad. And by the way, this year we were honored at Kamehameha because that was 70 years of graduates. But there were just a few of us left.

But anyway, so I come from a family that is Hawaiian, in a way that we depend on each other, we respect each other, we have an understanding of our relationship to a higher power, and belonging is important. So, Nalani is very much involved in what she does even though she wasn't born there, she was born over here.

Anyway, while here back home, I taught throughout the Pacific area for the summertime, and I loved being here at the elementary school especially with the principals and the teachers were very, very special for being somebody in the country. And that was us.

So the last six years, before I retired, I was part of a project. We were the first school to have a classroom of our own, and a room just like the one over there [pointing to a side room filled with Hawaiian arts and crafts], and it was for the total school, it was for Hawaiian studies. I was with them for some time. And since then, many, many groups, I attend and behave, and take a position of being a *kupuna*. But I never, never call myself *kupuna*. Others can call me, and I accept that. But because of my lack of the language, I will say, "No, I'm not."

So I've lived here with our children and our grandchildren, and Uncle is gone. And it's difficult. It's difficult. But even this morning, a very interesting thing about attending a class at Kamehameha, so I met with one of the *kūpuna*, and we are considering going, but it means 6 o'clock in the morning. And lucky [if] we come home 6 o'clock at night. So all of that kind of thing.

But what's happening here in Hale'iwa is something that I'm very interested in, and feel that needs to be heard.

DD: Thank you so much, Aunty, for sharing that. You know, yeah, we're very glad that you're interested in what's happening in Hale'iwa. Could you maybe share a little bit of how you're connected to that place in Hale'iwa and maybe how you've gained some knowledge about the area?

BJ: Well, it's near the ocean. And in those earlier days when I was teaching, the family that ran the [gas] station were my students. So for me, when it comes to this area, I want everybody who was born and raised in the area to know that this is their home. I taught their children. I went to weddings, their families'. And it's important to me, and I think it should be important to them because for many of them, they have decided not to get involved, not to be heard, and maybe only heard when we fight, and that's not good for any of us anyway.

I'm interested. It's a wonderful spot. It has all the things that need to be heard and felt. But culturally, and they're near the water, but anyway, thank you for asking, but it's the voice and heartbeat of the people who are born and raised here that I really speak for.

DD: Thank you for that.

You mentioned the station. Just to clarify, you're talking about the people who owned the service station where this proposed development is, is that correct?

BJ: That's right.

DD: Ok. So there was a service station there, and Auntie Betty taught the children of that family along with many others.

BJ: That's right, and many others. And I'm glad that we're not thinking it could be a [gas] station again. Pau already.

DD: [laughs] You don't want to see another service station there.

BJ: That's exactly right. [laughs]

DD: Ok, thank you Auntie.

So when we look at this land in this little area and the places around it, is there anything culturally significant, any stories that you can share?

BJ: You know, those are the kind of things that I feel that I'm very cautious about, that it be told by those who live here. And now in my senior years, it's even more so that it's difficult to answer, except that I know, my mother always told stories about this area. This is where the *ali'i* played. This was their Waikīkī. So I wish I could give names to spots. I'm very, very cautious that those spots have great *mana*, and that's the reason that I allow other people to tell me, "Oh but this is what happened." And we have neighbors here right here on this street whose family can say, "Oh but at this spot, this is it." And that's fine. So when it comes to saying what I know, truly I don't.

DD: Well, we appreciate that you are sharing what you do know. And like you said, you are saying that it is someplace special.

BJ: It is.

DD: And you're saying that the *ali'i* enjoyed this place around here.

BJ: And to think that even now, people come through our community, they need a place to be, more than just a shop. I want, when people come through, and they do, Kamehameha [KSBE?] is helping us do that, the breath is different. How can you come through this area and without knowing that this is where the church, [of] the queen? And this is where one of the *ali'i* would come to play, or what is that called when you shoot the birds? Anyway, now that's special for me to know because one of the family members of this community, when he was a young boy, when the *ali'i* would shoot for the birds or whatever, he would run to get it. So you see, this area is rich.

So as beautiful as it is to have a lot of places to shop, someplace where I can have my hair done, someplace where I can buy my groceries, someplace where I can get the things for my car, it is just so, so rich with history, much of it at a whisper, still at a whisper. And that's ok, because there are some other things that are very obvious, and the *ali'i* understood, and now it's our turn.

DD: Thank you, Auntie, for pointing out that, yes, we do need stores, and it's good to have these stores, but it's also very important to be mindful of the rich history of this area.

BJ: Yes.

DD: You know, we're looking at this little parcel where the service station used to be, and do you know if there are any archaeological sites, cultural sites, on that spot, or any historic buildings around the area that the developer should be mindful of?

BJ: I don't know, but I think whoever that is gonna be needs to be able to be honest with us and say, "Yes, this does exist. And this is the source that I got it from." So it's not like, "Well I've always heard," that it was this and this. That doesn't do it anymore.

You know, it's good. It's good. But let all those goodness things be reborn.

DD: Ok, thank you for pointing that out.

What about nearby, there's the fishpond called Lokoea, and further up, there's 'Uko'a. Is there anything that you'd like to share about that, connected to this area?

BJ: No. What I used to hear from my mother, being the person that she was, many of the things were just called to attention. This is where the queen came, and when she came, "We," she'd say, "we always honored her."

No, I don't know. But there are many that can talk, but many of them don't.

DD: Ok.

BJ: I almost feel as if this is one of those opportunities for somebody like me to say to those who truly have a home born and raised here, "This is when you tell those stories that you heard." Mine, I know because I was a teacher or because there was something that was happening at a meeting, but I would be so pleased to hear [from some] born and raised here.

DD: Yeah, that's a good point. At the end, when we're finished talking story, we will ask you if there are any people you could recommend.

BJ: Yes. They need to be heard. They need to be telling it, not Aunty Betty. I'll do it on their behalf, but they need to.

DD: Ok.

Also, in this area where the plans are to build, do you know if there are any traditional gathering practices that used to be or still are ongoing in the area?

BJ: I don't know about whether there are still, but the hula people, Uncle and I were invited to one of those things that happen at midnight. And they come to be cleansed. And that's the only one.

But we had the original churches, and pretty much, churches. But names that continue to say that this name is for this place, again, when they ask Aunty Betty, they should ask somebody else.

DD: Ok, thank you for sharing that.

So you're saying that in the past, you know that they have had hula ceremonies cleansing in the ocean.

BJ: Cleansing in the ocean at night. Is that something that you know about.

DD: A little bit.

BJ: I suspect that.

DD: [laughs]

BJ: It was wonderful for us. It was dark, and I'm honored to be asked to be there. Again, Uncle and I were asked, and when I looked around, nobody else from the community was there. They had invited us, and so I trust that, and admire that.

DD: Do you know if people are still doing that now in the area?

BJ: If it does, I'm not aware of it. And I'm very conscious of, because of some experiences that I've had with May Day, Lei Day, being hula time and all that sort of thing, yeah, make believe, and don't know that kind of thing. [laughs]

DD: Ok.

You know, you mentioned churches in the area, even in the very beginning when you mentioned that you folks were connected to the church, are there any churches that you'd like to mention that are connected to this area?

BJ: Actually, the other thing that happens in this community is that we're very private about who we are, and sometimes that's why those stories are so quiet. And I remember as a child, that was my upbringing from my mother especially. One look from her was enough to say. So as much as people in this area have been so kind to me, it's theirs. And I wanna support them.

DD: Ok, thank you.

Do you think that the proposed plans would affect any place of cultural significance or if it would affect any access? Do you think it would affect access to any cultural place?

BJ: I guess this is when we need to be very cautious, we're near the ocean, and I always think of them [Hale'iwa and Waialua] as being together, brother and sister. It's hard for me to think that we can think of Hale'iwa without knowing that we connect with the other one. Plantation? Yes. And when Uncle and I came with our children, we were just from here to where the manager lived, which is woods, that's all.

And even now, and it doesn't have anything to do with this, but actually this is our property that my mother and dad bought while I was in college. But Uncle was a businessman, and he kept saying, "This is a lot. The kids just play in it. We need to purchase that." And I made it very clear to him that there is never to be a sale of this place. And it's sad because these lots were empty for 40 years. That's a long time.

Being in the country is interesting too. Were you born and raised out here too?

DD: I'm in Honokai Hale.

BJ: Yeah, they [the country places] need to be remembered. It needs to be remembered. I'm just at loss when it comes to the fact that maybe I took too much for granted. And change happens.

DD: Change does happen, definite.

We're coming to the end of our talk story. You know, Aunty, regarding this proposed development, can you think of any adverse effects that may happen, or what could be done to prevent any bad effects from this development?

BJ: We have to stop this, what I hear about "Keep the country, country." I happen to agree with those words. But many of the people who say, "We keep the country, country," are not Hawaiian, and as I have said, so I don't mind saying it again, too many of them. But when you say, "Keep the country, country," you mean, "Lock the doors. Put the fence up there, and no more access." That's not "Keep the country, country." And basically, that's my big worry about anything. It's not yours; it's ours.

DD: That's really heavy, thank you for sharing that.

BJ: Oh yeah. "Keep the country, country?" No. Don't say that to us and then do what you do. No, it's bad. But like everything else, we smile and then we find we got somebody in the same neighborhood [as these other people], or maybe gonna marry one of our kids.

DD: Such valuable words, Aunty is sharing. Yeah, people say, "Keep the country, country," but it's not to *mālama* the country or even to have a sense of *'ohana*. People are saying it and basically just putting up high fences and locking their doors and just keeping a little piece for themselves. And that's a different mentality than "*mālama* the area" for the sake of one *'ohana* and one family in the area for future generations.

BJ: Exactly, right.

Let me tell you a story about Nalani because she's a little warhat. She and her husband now have a home in town. She was going to the beach, because all of us on this side [the *mauka* side of the road] of the street own a portion of that. So she was here, and she went to swim. And while she was there, this woman from the other side of the street came up to her and said, "You're not allowed here." And she [Nalani] said, "I don't understand what you're saying." She [the other lady] said, "Well this is private." And she [Nalani] said, "Yes, I know." And she [the other lady] said, "Well why do you know and yet you're here." And she [Nalani] said, "Because I was born and raised in this area, and my mother is Aunty Betty." She thought everybody knew Aunty Betty. And this woman said, "I don't know that person." And then she [Nalani] said, "Well I'm telling you that my mom and dad have lived on this property, owned by my grandparents, blah blah blah." And then it bothered her, "Why am I debating with this *pupule* person, or rude person?" And finally she [Nalani] said, "Well, since you don't seem to understand, who are you?" She [the other lady] said, "Well, I'm visiting this lady that's here." [Nalani said] "No, you're the one that needs to leave. I was born and raised here. You leave."

And that's all it was, but the lady left, this angry woman. But she [Nalani] was more angry. She was just furious. She said, "Who in the hell is that?" I said, "I don't have any idea who that is. I don't wanna know who that is." But that happened. And we need to say, "No."

Property is place, and it needs to be cared for. Because when we first lived here, we lived on military, that's how this was, and so Tūtū Mama used to call it Kai 'Uē'uē. But when we built this home, and when Reverend, I'm gonna say the wrong name so I better not, he said, "What the name [of your

place]?” And I said, “Kai ‘Uē‘uē.” And he said, “Oh no, no, no, no.” And Mama looked at me like, “Don’t. If the minister said that’s no, no, no, no, then it’s no, no, no.” But anyway, to make a long story short, after he left, I said, “Why did you say, ‘No?’” And she said, “Well first of all, you handled it, when you said, ‘Well what would you suggest?’” And that’s when he said, “Kai Hāwanawana.” And he said, “You have two little boys who will be noisy. You are an educator; you’ll be noisy. Your husband is a businessman. It’ll be noisy. You don’t want that [name].” So we are now, that’s why outside the house, it says, “Kai Hāwanawana.”

But my mother, when I said, “Why is there such a difference, and what noise is he talking about because he kept talking about noise.” She said, “What he thought was noise, was charm for me.” She said, “For him, was noise.” But she said, “Because he was the minister, and he was older,” so the home is “Kai Hāwanawana.”

It makes a difference.

DD: Yeah, this place is known for its ocean out here, the noise of the ocean.

BJ: Right.

Well, when I got pregnant with Nalani, this part [of the house] wasn’t here yet. And I thought, “The last thing I need is a baby,” my golly after having the two boys and everything. And then I heard some [making a knocking sound] like that, and it was my dad. And he was building something right here so that I could go there. And I kept saying, “No, I’m not well.” He said, “Go to the ocean.” And I would just go and sit there. It makes a difference.

DD: Good therapy, yeah, the ocean?

BJ: Oh yeah.

So our fist son was married here.

DD: Oh, nice.

BJ: Yeah. Right out there.

DD: Wow, Aunty, well we’re coming to the end here. Are you aware of any other cultural concerns the community might have regarding that piece of property over there? Is there anything else we should consider?

BJ: [thinking]

DD: [pause] Sometimes there are things that we overlook, and it’s like, “Oh, actually you should consider this, so if there’s anything that comes to mind.”

BJ: Yeah.

Well, if anything, I want to see, that both towns [Hale‘iwa and Waialua] are twins. And I think in the other times, they always thought that, because even the original, well the plantation, of course, always had a big building, right. There was one at Hale‘iwa. But it doesn’t have the Hale‘iwa name. It has Waialua. So we should be more [connected together], but unfortunately for this big thing with Pauahi, she didn’t have any. She didn’t have any land here, so the focus is over there.

DD: So you'd like to remind people that there's a connection with Waialua and Hale'iwa.

BJ: Oh, absolutely. Absolutely. Even to the point that our elementary school is Hale'iwa Elementary. But when I was teaching there, it was Waialua.

DD: Ah, they change the name, ah?

BJ: Well, because they built the new school, was in here, so they called it that. And I said, "Yeah, but who are we now?" They said, "Well, you're gonna be Hale'iwa."

DD: Right. So they built a new school. They called the new one Waialua. So the old Waialua, they changed the name to Hale'iwa.

BJ: That's right.

DD: Oh, got it, got it. That shows a connection of the places.

BJ: And I have heard *kūpuna* from this area to say, "That's right, my grandfather, or my father said, 'How come that's the place over there Hale'iwa, you folks call Waialua?'" And a lot of it was because the people they were talking to were not interested [in getting the names correct] or thought it was unimportant. And they were not Hawaiian, probably. But anyway, so yeah.

DD: Ok, well, *mahalo*.

One more question, are there any other *kūpuna* or *kama 'āina* or descendants that you think we should talk to?

BJ: Yeah, I do know. One is Aunty Honey Awai. I forget her married name already. I'm surprised her name hasn't come up, but it's that big home in Hale'iwa. That's their home. That's the family home. She's an Awai, but she's married to *po'e* Haole. She's an educator. She and I, our families are very, very close. So we see each other, but she's retired, too. But she knows much more than I do. She'd be wonderful.

Who else? I always consider her because that whole family, the Awai family, there's Aunty Honey, and then another Aunty, also Awai, but she's at Waimea. Do you know who I'm talking about?

DD: No, no.

BJ: She's precious. She replaced me when I retired. She was the first, that I know of, during the war times, that she took care of the children while the people went to work. And I didn't know her then, but I used to watch her, she'd take them for walks, and they'd have all of this. She'd just look like a mother hen. She's lovely, both of them [ladies].

DD: They're sisters?

BJ: No, they're in-laws.

DD: Oh ok.

BJ: Yeah, Awai. You know *Nake'u*? You know who *Nake'u* is?

DD: No.

BJ: He's in clothes. He's close to the Bishop Museum.

DD: Yeah. On School Street. Gulick, no Houghtailing.

BJ: Houghtailing.

DD: Oh ok, I know which one. ok.

BJ: That's his family. But his sister is the one who is here.

DD: Aunty Honey?

BJ: Aunty Honey.

DD: Oh ok. Got it.

BJ: I'm sure there are others. But I always want to be certain that they are from here.

DD: Right. Well, if other names come up, you can let us know.

BJ: Well actually, on this street, there is one family. Maybe this is the time to get that one family kind of moving around because he knows a lot. But I cannot remember his name. But I can get it from somebody else.

DD: Ok, ok.

BJ: Yeah, this is an interesting community. And you're an interesting guy.

DD: [laughs] Thank you, Aunty.

Well that comes to the end of our talk story. And once again, we'd like to thank Aunty Betty, such a wonderful time talking story with her. Thank you for sharing. And have a good day, Aunty. Thank you, and *aloha*.

BJ: You're very welcome.

APPENDIX F: INTERVIEW WITH MELVIN “MOKI” LABRA

TALKING STORY WITH

MELVIN MOKI LABRA (ML)

Oral History for the Hale‘iwa Gateway project by Dietrix Duhaylonsod (DD)
For Keala Pono 8/7/2015

Note that Kumu Moki preferred his interview to be summarized rather than transcribed word for word.

1) To start please tell us about yourself...Name? Where/When you were born? Where you grew up? Where you went to school?

Kumu Melvin Moki Labra was born on July 14, 1966 in Wahiawa. He grew up as a *lawai‘a*, at the family home, “Homela‘i”, near the *heiau* of Kupopolo and Kahokuwelowelo on the shores of Kapaeloa with the island Moku Mana offshore. Kumu Moki attended Hale‘iwa Elementary School and Waialua High and Intermediate School.

Kumu Moki was an all-star athlete growing up, playing football and baseball, and in he explains that it wasn’t until he got older that he returned to learn his Hawaiian history and culture. He became a dancer in Waimea Valley for Hālau Waimea under Kumu Hula Pi‘ilani Lua. And after many years of training and studying his hula traditions and ministry (*kahu/kahuna*) traditions, he himself is now a hula teacher and a minister.

He says that he continues on with his *wa‘a* which goes in the direction that he’s called to go. On his *huaka‘i*, or life’s journey, *pule* is most important, that is, *pule* to *ke akua*, ‘o Ka Lani Ki‘eki‘e, the highest of all chiefs.

2) Could you tell us about your ‘*ohana*/family background?

Kumu Moki’s grandmother was Tūtūwahine Mary Kawaiala whose last name became Spillner. Other ‘*ohana* names include Kuni, Keawekane, Saffery, and Dudoit. His grandmother used to live in Waimea Valley, and his grandmother’s brother, Anakala David lived near the Lokoea Fishpond. His family is also connected to the Keali‘i O Ka Malu church in Hale‘iwa.

Kumu Moki had a well rounded upbringing from his ‘*ohana*. Besides living off of the sea as *lawai‘a*, they also lived off of the land farming ‘*uala* and the *pilehua* variety of *kalo*. In his words, he grew up in the *kanaka maoli* lifestyle with hunting rights and gathering rights, and the land and sea provided all that the family needed.

3) What is your association to the subject property (family land, work place, etc.)?
and

4) What are the ways you have acquired special knowledge of this area (from your ‘*ohana*, personal research, specific sources)?

Kumu Moki’s association to the subject property and his special knowledge of the area comes from being “born and raised” there all his life. He describes the area as “*nui ka i‘a*” (abounding with fish), “*āina momona*” (a fertile land), and so “full of life.” He remembers that “growing up in the place was so *maika‘i*; the doors were never locked; the dogs hardly barked; the place was not packed with tourists; and it was truly *le‘ale‘a*, or good fun. He pointed out that he used to walk to Hale‘iwa Park for baseball practice, a park that was constructed after his grandfather got the necessary permit for its construction. At that young age, he never knew that his ‘*ohana* was from the Lokoea area across the street.

He learned more about the Waialua area when he got older and returned to studying his *mo'oku'auhau* and culture. Under the guidance of Kumu Pi'ilani Lua and other cultural practitioners, he was taught much more and was trained more deeply in *nā mea Hawai'i*. Kumu Moki's knowledge is experiential knowledge as opposed to book knowledge.

5) As far as you remember and your experiences, how has the area changed? Could you share how it was when you were young and how it's different now?

The biggest change for Kumu Moki is that his family no longer lives on some of their ancestral lands. It is a hurtful subject, being disconnected to these family lands, but he has learned through the advice of others, "*a'ole hāpai i ka pilikia*" and "*waiho i ka pilikia*" (do not carry the problem, leave it behind).

He said that the shoreline these days are all filled with newcomers who now live there. These newcomers do not have a *kanaka maoli* connection to the sea, and neither do they use the *kai* as a source. As a result, the *i'a* is not readily available for others as it used to be for him and his family, and it is *pohō*.

In addition, Kumu Moki pointed out that these days, *kama'āina* do not have access to the land and sea like the newcomers do. Everything is for the tourists first. He is disappointed with the renaming of various sites within Waialua district all given Haole names, and he encourages the research to recover the original Hawaiian names to rename these places properly.

6) Could you share your *mana'o* relevant to the area of the Hale'iwa Gateway project and the surrounding region (personal anecdotes, *mo'olelo*, *mele*, *oli*, place names, etc.)?

Kumu Moki remembers that there used to be a service station on the subject property where the Hale'iwa Gateway project is planned for. He said that back then it wasn't a drive thru self-serve gas station, but rather it was a true service station where people took their cars to get them serviced. In later years, the service station became a night time meeting place for bad elements of the community.

Although Kumu Moki's *tūtū* composed songs of Pua'ena and Hanohano Hale'iwa, the *mele* that he shared was the Ka Leo O Waialua, composed by Nalani Choy. The title, translated as "The Voice of Waialua," referred to the voice which is in the sound of the ocean which resounds at Pua'ena and echoes up above in Kawailoa, especially in the wintertime when the waves are big, and it is the same voice that the *kūpuna* of the area heard in the old days. The song also talks about Laniwahine, the *mo'o wahine* of Lokoea, and how Anahulu Stream partly feeds into this fishpond. Kumu Moki did *haku* a hula to this *mele*, and it is performed in the *kahiko* style.

7) Do you know of any traditional sites or historically significant buildings which are or were located on the Project site--for example: cultural sites, archaeological sites, historic structures and/or burials? Please elaborate.

There were no archaeological sites or historic structures that Kumu Moki pointed out in the project area. He did, however, remind us to be mindful of Laniwahine and her home of Lokoea which is in the vicinity. He asked us to examine the cause and effect of "*huli ka lepo*" or digging the dirt for construction in the area and how it would affect Lokoea as well as the ocean nearby. He said that steps should be taken beforehand to prevent any contamination.

8) If we could turn our attention to the nearby waters of Lokoea and 'Uko'a, could you share your *mana'o* about this area? To what extent is it connected to our project area whether in the past or today?

Kumu Moki referred to the entire area around Lokoea as a *wahi kupuna*, and he pointed out that it is situated right in the *piko* or middle of the Waialua District. He stressed the significance of Lokoea and Uko‘a as being both an important source of water and an important source of fish, such as *awa*, for the community. As a result, it was a place for the community to gather, and it continues to be a place where the community can learn. There is also the organization called Mālama Lokoea which looks after the fishpond and teaches the kids who visit there.

9) Are you aware of any traditional gathering practices at the Project area and/or within the surrounding areas both past and ongoing?

Although some people still fish off of the bridge area, Kumu Moki explained that the surrounding place is also a prime spot for gathering *kukunaokalā*. Until recently, he used to still go and practice his traditional gathering rights there. However, nowadays he is no longer allowed to gather *kukunaokalā* there. Part of the problem is with the new residents there because they bar others from accessing the place regardless of their ancestral ties to the area or their gathering rights. And the other part of the problem is with the Department of Land and Natural Resources (DLNR), which has a good portion of the place blocked off for what they call “Surf N Sea.”

10) Do you think the proposed development would affect any specific places of cultural significance or access to any places of cultural significance? Please elaborate.

Kumu Moki said that change is not always good. He asked if the intent is strictly for entertaining visitors or if there is an aim to present something *pono* with what is planned. By turning Hale‘iwa into a Waikīkī, and congesting the community with tourists and their traffic, it makes the lifestyle and living more difficult for the Locals. Not only are the Locals absent from patronizing these stores which aim to cater to tourists, most of the workers in these stores are all newcomers, and so it doesn’t help the Locals who need employment. As a result, many Locals from the community need to drive outside and far to secure jobs. Kumu Moki also challenged the idea that tourists would rather see stores rather than natural greenery. He said, “People come to see the mountains, they come to see the beauty of Hawai‘i, not retail stores.”

11) While development of the area continues, what could be done to lessen the adverse effects on any current cultural practices in the area?

Kumu Moki suggested that if stores will be built, they should sell *kanaka maoli* things, made in Hawai‘i, such as *pahu* drums. He would even agree to the building of a fish market or poke shop where the fish came from Lokoea. Such plans would help keep the sense of place from being overwhelmed with a foreign presence.

However, rather than constructing merchant stores, Kumu Moki would rather see a learning center built on the property. A learning center does not necessarily need to come in the form of a building. He said that a grassy park with benches would be fine on that parcel of land, and within that park could be signs explaining Lokoea and other things of significance about the area. Kumu Moki suggested that Local artisans could also make their crafts, such as fishnets, in the park, and it would be a win-win situation because it would not contribute to the suffocating effects of tourism, but instead provide a place where tourists could enjoy and learn, while at the same time provide an open space which would highlight the culture and history of the community.

12) Are you aware of any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the Project site and its surrounding areas?

Kumu Moki brought up two other main concerns regarding this project, and it was in the form of two questions. Namely, he asked who was profiting off of the development of this parcel of land, and he also asked what they are doing with the money. He questioned whether or not any future profits would be invested into taking care of the people who are originally from the community. And he pointed out that in the end, we are all stewards rather than owners of the land, and in being good stewards, we are supposed to try our best in “stewarding the land in the right direction.”

He also said that nowadays, developers might consult with the neighborhood board, but the board consists of relative newcomers who haven’t lived in the community that long versus the real people from the community who are “the last ones to find out.” Kumu Moki also shrugged that in the end, the developer will build whatever they want anyway because “they have, I guess, the power of attorney.”

13) Do you know of any other *kūpuna*, *kama‘āina* or cultural/lineal descendants who might be willing to share their *mana ‘o* of the Project area and of the surrounding Hale‘iwa/Waialua area?

Kumu Moki suggested that we ask his cousin and renowned *kumu hula* from the area, Aunty Alicia Smith, for her *mana ‘o* on this project.

APPENDIX G: INTERVIEW WITH TOM SHIRAI

TALKING STORY WITH

TOM SHIRAI (TS)

Oral History for the Hale'iwa Gateway project by Dietrix Duhaylonsod (DD)
For Keala Pono 7/2/2015

DD: *Aloha*, today is Thursday, July 2. We're in Hale'iwa at McDonald's talking story with Uncle Tom Shirai. Before we go any further, we'd just like to say, "*Mahalo nui loa*," to Uncle for spending time out of his day to share his thoughts on this proposed development in Hale'iwa. We're gonna be talking about the Hale'iwa Gateway project, plans to do some retail shops near Lokoea. So *aloha*, Uncle, how you doing?

TS: Thank you. I'm very happy to be interviewed to share my *mana 'o* for this project. And that's what we're over here for.

DD: Ok, so if we can start, if you could just mention your name, where/when you were born, where you grew up, where you went school, those kind of things?

TS: Ok, the simple kind stuff, my name is Thomas Shirai, Jr. I was born on September 29, 1961, same year as Obama, ah?

DD: [laughs]

TS: Nah, nah nah, that's a different story. I was born in Kapi'olani Hospital, but I was raised the majority of my life by my grandparents, my mom's parents, in Mokule'ia. My parents are Thomas Shirai, he's from the Big Island of Hawai'i, from a place called Papaikou. And my mother is from this region. And her name is Laverna Keao, k – e – a – o. She was born in Waialua. And the extent of the Waialua lineage is on my grandpa's mother's side. It goes further back several generations, before pre-Western times.

And so my father had tuberculosis, and he was an in-patient at Le'ahi Hospital. And so in the Hawaiian fashion, Hawaiian tradition, I'm the oldest grandchild, they *mālama* that one first, and it was mostly like a direct order, "the boy coming with us", no ands, ifs and buts, just cut and dry. And so I was there. I was nurtured. And through that life experience, I learned only majority on the Hawaiian side of the family. I don't know too much of my father's side, Japanese side. But yet, when they got together, they got along very well.

And so when my dad was cured, by the time you go elementary school and stuff, I moved back with my parents down in Kapāhulu. I went to Mother Rice preschool. And then I went to Ala Wai Elementary School. I went to Washington Intermediate School. And then here's the turning point. The first half-year of my sophomore year, I went to Kaimukī High School.

Ok, we lived right by Crane Park. I grew up there. See, I had two homes. On the weekdays, during the schooling, I lived with my parents. But on the weekends, I belonged to my grandparents down in Mokule'ia. And that's the part I enjoyed the most, spending time with my grandparents.

And like I said, when I wasn't able to catch the bus, still a small child yet, they would come up and pick me up like 3, 4 o'clock in the morning from Mokule'ia. Neva have the H1, H2, they drive. And our neighbors, they could hear my grandfather's Volkswagen. They hear the Volkswagen that early in the morning, they know who that is. And they know who they coming for. And then that's Saturday morning, that early. And then we go back down spend whatever time I had left with the

weekends with my grandparents. And then on Sunday in the evening, my parents come pick me up. And sometimes, I used to cry 'cause I neva like go home.

When school was out, all the vacation time, everything, I spent 100% with my grandparents. And that's the one thing I love about my parents to this day. Unlike my cousins and my uncles and aunties, because my grandfather was mean, they scared, they neva like. But my parents shared me with my grandparents. So the love is even greater. And so, everything circumvented around Grandma, Grandpa, and me.

Now I'm gonna skip around this.

The first part of my sophomore year. I didn't want to go school anymore, no more motivation, no more encouragement. I neva feel right being in town. I was also a very shy boy. I was very shy with girls and stuff and things like that, so I kept to myself a lot. So I was almost straight Fs, ready to flunk already, not because I didn't have the smarts to do the work, I just neva like show up at school. So rather than just punish me and stuff, they were so open-minded, my parents, they brought my grandparents there in the discussion, and I had to sit right in front them. And they ask me, "What we gonna do about this?" They could've sent me to Ko'olau Boys' Home where I would've been more worse or something. And guess what I said, that they really accepted? "I like go live with Grandma and Grandpa."

DD: I saw that coming.

TS: Mean, brah. [laughs] You saw that coming?

DD: [laughs] Yeah.

TS: Then no questions, just like was unanimous. I went to live there. So I went to Waialua High School and Intermediate. I knew that school because during the summertime, see my grandmother was also the custodian over there from 1948 to 1978.

DD: Waialua?

TS: Waialua High School.

DD: Oh, ok.

TS: So I went there even when I was in elementary school [break], spent the summer vacations going with my grandmother go clean classroom and stuff, I neva get paid, just being with my grandmother. So just like, I get 'em wired already, get the teachers who knew who I was, so when I go that school, plus this area here is all choke cousins --- choke cousins, choke uncles, choke aunties --- how you going get away with not going to school or getting away with something bad? By the time I come home, if I did, my grandfather already know what happened. And he giving me the chance rather than he come out and just whack me, he giving me the opportunity to come clean and just say what you did. But that neva happen because I was happy already.

See, by coming here, I received not only the love and upbringing from my grandparents, but from the teachers, because they knew my grandma was a faculty member, the custodian.

DD: Right.

TS: And I neva know until about the past ten years, my teacher told me, “You know, your grandmother went on a limb with us when you were coming here in the tenth grade. She asked us to help you.” I was like, “Wow, she put herself on the firing line. I neva know Grandma did that.” I said, “I was wondering why some people was being nice to me and stuff like that.” And then I did well. How you like this, brah, from straight Fs, to a 3-point something grade point average, [in] one quarter, brah, one quarter, after that was all f*cken all good grades.

DD: Mean.

TS: And there was one stipulation that my grandfather did for me. See there was one thing that I did very well that you don't know what I did. I'm a very accomplished musician. All the 'ukulele players, I know 'em all. Instead of having all this kind internet toys, what did I have for my toys? Records, brah, choke 33 [type] records. All the Ohta-san records, every f*cken 'ukulele player you can think of, Eddie Kamae, Jessie Kalima, until one day I heard Peter Moon play, Sunday Mānoa.

DD: Das my favorite.

TS: I went listen to that, I was like, wow I like play li'dat. I took what I went learn, and that's another reason why, when I was at home, I neva go school. Even though I neva go in the class, I had my own class that I was learning from. I keep playing the record over and over and over, and copying, trying to find the licks on the 'ukulele, get 'em down royal! Every f*cken album afta album afta album, that song from this album, complete albums. And my grandfather gave me encouragement like that, I learned old school style and stuff. You know, you go into the classroom where you see everybody playing basics. The teacher see me holding the same chord one different place on the 'ukulele, one different fingering, something more up, or something different like that, or watching the strumming, or watching the fingers pick and stuff. They call me after, “Can I see you after class? Where you learn that from?” [Tom answer] “My grandfather.” After that, they was happy. I neva take no Ohta-san class, I neva take no Roy Sakuma class, notting li'dat. That's the one thing about my grandparents, I spent entire evenings, brah, just in our garage, just he playing, and I play, learning. If we have to learn one song, so be it, until you get it right. And then afterwards when you get it right, then he told me, “I don't care how good you play, if you can't pronounce the word, or you don't know what you singing about, you just flunked.” Mean brah.

DD: Life lessons.

TS: Life lessons. He said, “You bettah know what you singing about, not just quack.” And then when it came down to the technicality stuff like that, I can be so many milliseconds off, he stop right there. Start the song again, or I get scolding or I get licken right there. “You missing it,” he keep saying that. Then after a while when I get older, I go like this, “Chee, after all, that millisecond does count.” There's couple more notes you can put in there. That's why he was saying that. Ho the mean kind things like that. That's what he did for me. Ho, I tell you, was so good.

And so getting to Waiialua School, to bring the grades up, he said, “Ok.” He took away my 'ukulele for that quarter, brah, because he knew that was my most prized possession. He took it away. He says, “Until you get good at your grades, you will not play.” Ho, brah, I went wake up quick too, not even play the record, brah, not even hear Gabby on the radio, brah, cannot do notting. I just went sober up all of a sudden, you start doing good reports, you start doing all that kind stuff like that. Eh, then he gave 'em back, ho I was happy that day he gave me 'em back. But that's the kind of things that I learned, and a lot of old school things about them.

And the thing is this, you know Koa, not just applying to music. That's life f*cken skills, brah.

DD: Yeah.

TS: You gonna do something, don't do it half-ass. Or if you gonna do it that way, then don't do it at all. Don't do it at all, and just walk away. Or just give up. Ho brah, mean. Because the things he taught me, a lot of it would be so discouraging, and if you not strong in here, you would walk away, you scared, you give up hope, you go learn from somebody else more like [in a gentle voice] "This is the way we do this." He wasn't like that. "What da hell you doing?" "What da hell you don't know what I told you?" You know, he talk rough to you. And if you cannot take that, brah, you ain't going learn. And that's all.

One year, I got his respect. Check this out. We was helping uncles in Sunset Beach, k, tilling ground and stuff like that. He was pissed off at my uncle 'cause my uncle neva do something. So I was there. So I was caught in the crossfire. So he took it out on me. He call me the F-word. Guess what? In front my uncles and stuff, I went turn around and tell 'em, "No. F you," right back to him. I says, "No, no, f*ck you, I neva do nothing to you, why you f*cken call me that?" [The grandpa says] "Get the hell out of here." Ho, stop the work everything, take me home. "You go on the bus when we get home, get the hell outta my house." 'Cause nobody ever did talk to him like that. He told my grandmother, ho, they had one big f*cken fight. And I told my maddah, my maddah take off time from work, come pick me up, said, "What da hell you doing that to da kid?!" Can hear 'em arguing, brah, mean. But then after that, after things went settle, he sort of, I guess that's what he was looking for, [that] I wasn't going be no f*cken pushover. From then on, I gained his respect. Then, he mellowed out. [In a nice voice] "Ok boy, come, come here boy." You know, and then he start mellowing out. Then after that was all good, brah, all good the kind stuff.

DD: That kind of ties with your *kūpuna*, your grandparents, that's priceless right there.

TS: You cannot buy this kind stuff. You can't buy it, brah.

And a lot of it, I know you guys in the younger generation, I had some unique hobbies, not only music. Where you going see, elementary school, you get for your hobby, collecting antique bottles? That's history. Guess what? In all phases of interest that I wanted, it starts off with my grandmaddah and my maddah, you know, we go swapmeet, and we see. And my grandpa, not to say he was jealous, but he wanted to be a part of it. And so, little did I know, since I had interest with the bottles and stuff, that's the source right there. He knew where all the camps stay, all in Waialua. And then when you get past down the sugar company, that's his friends and everything like that. Everything just f*cken fit, tailor made brah. He go ova dea, oh and in some cases, so good the credibility, eh you go fill the bag, how long you like stay, not one day, not two days, [but] months, or even one whole year, brah, the pass good for. Whereas others would be [allowed] three days and you're out. No, brah. And then I neva ask him questions, those kind of formal things. Just that when we were collecting the bottles and going to the rubbish dumps, we just was and just did, and just listen to what he say, or just watch where we at and stuff.

And all these back hills, all the different places, phenomenal knowledge. Brah, this is 40, 50 years after everything is *pau*, and he still get 'em, where everything, he can pinpoint everything where was. "This right here," even when we digging bottles, he can tell you the history of the place right here more than one book. Mean, brah. You know like how you guys get modern day, at that time it wasn't nice to put this kind stuff [voice recorder] in front of him, so I had to compute everything to memory. Mean, brah.

DD: Yeah, right. Old school. Just from being with him and talking, das how you went learn.

TS: Memory, memory.

DD: Das da way.

TS: I neva read dis kind books like this, and then go ask the question. He talk to me, and then when I go, after he tell me that, I go look in the book, you know. F*cken bull's eye right dea, hundred percent. They get one big paragraph, and all he said to equalize that same page like that, was one sentence he said. Just one f*cken sentence. Da – da – da – da fssshhh [sound effects] boom, bingo. Right on the spot, I smile every f*cken time, my goodness.

He died with a lot of things. Some things he made it clear. He didn't tell me straight up, but some things is too deep. It's not for me. Couple times he told me, he said I was getting too deep into it. "That's not for you, boy, that's me. This is old school stuff. There's a lot of good, but there's a lot of bad comes with this." He talking about the religion, all the kind stuff, the old practices and stuff. He says, "There's a lot of, if you don't do it right, this is bad." You know what I mean?

DD: Yeah. Yeah.

TS: "I don't want you to do that." Or even like when I showing fish grounds, he says, "This is fish ground. But those are **my** fish grounds. You only get this because it's not for you to go all over the place, because you don't know what get ova dea." He says, "I do."

DD: Was he kind of protecting you?

TS: Yeah, yeah, he no like me go way outside there. I go with my cousins them. You know, that's how much he love me. Whateva I had, he gave me that quarter mile, half mile of beach stretch, go learn 'em. Learn the whole thing. Learn what it looks like in all seasons, in all weather conditions, learn everything, everything. He gave me that afterwards. The one that does the introductions was my grandmaddah. The lady shows you how to do that first, the basic preschool and stuff, then when you pass that stage and stuff, they can tell when you learn something, they can tell, ah. They say, just be thankful you got 'em, and never brag about it. And that's what I did.

I give you one. I share one with you. What is the longest you ever seen *limu kohu*? How tall?

DD: Just the regular kind.

TS: [making a motion with his arms]

DD: Nah?!

TS: Long like one f*cken girl's hair. The kind you gotta use weedeater like how you cut grass. I seen 'em way outside [in the sea]. And he told me, "Don't you damn say a damn word." And then I find out, it's not one f*cken rock when the tide go and you see the *limu*. No, it's all in the sand growing like that or on the rock li'dat, but when you dive down over there, the water cold, ah? It's coming from the mountain.

DD: Yes, I was wondering about that, coming underneath.

TS: That's the kind stuff my grandmother taught, you know, we started with learning how to catch sand crab, brah. When low tide, she say, "You see all this? The water? Das not sewer, boy. That's from that mountain ova dea."

Then after a while I start to understand why certain parts maybe this big, it's super cold. That's the seepage coming out from the mountain, that's the springs. That's why cold, that spot, and that other part is warm. She said, "That's why you see all the *limu* growing around here. Why you think the turtles all going around this area, the fishes going nuts over here?" You have to learn all that kind stuff.

DD: Yeah, mean.

TS: Mean, brah, da kine. You cannot go biology marine science class for that.

DD: No can.

TS: No can. They wouldn't know what the hell you talking about. Ho, that kind stuff you learn and stuff, and then he told me, because I wanted to be like my cousins them, they can dive real deep and they go with the spear gun and all that stuff. And I neva know how do that, you know. I wanted to learn. But he was protecting me, because not that I no can do 'em, he just protecting me, "Stay away from that kind deep water. What happen if you drown? What going happen if you drown you die? Who's next?" How's this? I went go buy one rife spear gun, and I went show him, I like go dive with cuzz them. Ho brah, he went get pissed. You know what he did? He made me return 'em, Wahiawa Sporting Goods go get refund on the spear gun brah. How you like that? But then I go like this, "Shit, how I going catch the kind fish like them?" I says, "I no can dive like them and all that." Then when we was home, then he said, "You think fishing, catching that, it's physical?" He says, "Night time, that same fish that your cousin them go 40, 50, 60 feet, hundred feet, night time come, they gonna come in way in the shallow and hide in the rock. So you go get your dive light, you go in there, and you shoot couple and then you get out. Why you gotta work hard for?"

Smart, ah, da kine stuff li'dat?

So, sure enough I went try one night. F*ck I bang two *kalas* and one *panamu*, and a whole bunch of *weke*. But he said, "That comes with a price now. Take what you need. No go kill the whole school."

DD: Right.

TS: Only one time I went catch planny, but that was for Thanksgiving.

You guys went work hard, you went dive 40, 50, 60 feet. I only went dive 3 feet. Our place, brah, you see this the ledge right here [making motion with hands], this the shoreline, the *kala* stay over here, 5-pound *kala* stay underneath here sleeping. F*cken *uhu* stay sleeping over there.

Come so *ma'a* with the place, his *'aumakua* the *manō* and all that kind stuff, the family, you not scared of nothing, brah, you just gotta know your limitations, no have to go over the reef, so good.

DD: Yeah. And who did he learn from?

TS: His grandpa.

DD: Yeahhh, there you go.

TS: Brah, mean. You like know how innovative, like they focus on Moloka'i doing everything. That's not the only island. And you know how advanced they were? They incorporate modern things, not pure Hawaiian things.

You know how the horse plays an important part in fishing?

DD: No.

TS: When you go surround net, who drag the thing, instead of 10 guys? That's smart. Instead of going on top the f*cken cliff on the rock, stay from the horse, brah.

DD: Yeah, yeah. Oh, wow. Smart.

TS: Brah mean. How's this one? Throw net from one f*cken horse, brah, from a sitting position, over there looking down on the f*cken school fish. Whap – chh [sound effects] *pau*. Mean, brah.

DD: Your guys' family is part-*paniolo* too then?

TS: Maybe. They know about horses and stuff like that, but I don't know about that kind stuff, but they incorporate thing like that in their daily living.

DD: Smart.

So it's almost like he went learn from his grandfather, and almost like he went choose you to pass that on to you.

TS: Yes, the connection is there, his grandpa to him, and now it's my grandpa to me, the grandson. The grandson is the one with the *kuleana* 'cause the others no can understand. They not going be able to do that.

And I share that with my cousins 'cause they, I mean brah, you know, every family get one. I know your family, they big time fish, I see the Hawai'i fishing news and stuff, I mean the diving. Das your family that?

DD: Yeah, yeah, my braddah started that Hawai'i Skin Diver magazine.

TS: Yeah, they dive, like that. They really extreme divers, they really good. And they used to tell me where I go when I stay over there. And then one day I tell 'em. They like know this and that. I says, "You know something, you know why get plenny fish there? You know you actually on Grandpa them's turf? This is part of his grounds." They go, "Woww, nahh." Then that gets them motivated. I said, "The fish over there is different from this place, because Grandpa them took care of it."

DD: Oh, I love that, that's awesome.

TS: And so when they tell me the fish stories, one *kala* look like one f*cken *papio*, one small 'ulua. I said, "Yeah, ten-pound kind *kala*, fifteen-pound, more than the f*cken state record, big, big f*ckahs." I said, "Grandpa said that whole coastline." How you like this brah, all the coastline, you like go shoreline for *tako*? Everything in the front here is all five pounds. Outside there is the big ones. Five pounds, the shoreline. The *kumu* five pounds, everything. Which means the one outside look like *onagas* and stuff like that, and that's true. I says, "They [Grandpa them] knew that, but they neva f*cken catch 'em all, brah." They go over there catch one or two, *pau*. And they no brag about nothing. They no tell nobody nothing. And they make sure nobody stay. Mean, brah.

Or lobsters, I get one for you about fishing. You know how long it takes a five-pound lobster to get five pounds? Forty years. Forty years to reach five-pounds maturity. Das da kine stuff my grandpa, they all knew, not by this kind English kind [books], but das all from their f*cken life experience.

And then the kind stuff like, they [others] go dive, I show 'em, they catch hundred-pound 'ulua like that, he get pissed off. He said, "Why you fancy that?" He tell me, "Hundred-pound 'ulua, what they going do? Das the one going make all the babies." They [others] thinking different from the way they [Grandpa them] thinking. See if you get one big family, ok, give 'em for da occasion, fine. That's the stipulation, ok, we can let you can have one. But if you going just go out there, that make all the babies, what you guys doing? Or even the ten-pound *tako*. He go, "You wanna die?" He tell me that, he said, "You wanna die? Playing around with this kind ten-pound, fifteen-pound *tako*?" He says, "You ever seen one *tako* go like this [making a grabbing hand motion]? What going happen when you piss 'em off so much?"

DD: Right for your face. Yeah.

TS: And that thing ain't coming off, brah. And get that f*cken teeth in there.

DD: Right, right.

TS: If that thing can bite coral, brah, can imagine what he going do to your face. So they get that kind thinking, brah. He said, "Leave it alone. 20-pound 'ulua, 30-pound, fine, quit." That kind, understand.

My uncle did this too, one noddah uncle, well-known fisherman, was featured in Nā Ki'i[?] No'eau, one story, he go Waimea catch 25 five-pound *moi*, brah. Brah that's unheard of, brah. He take only five, he put the rest back in the ocean. I ask why he did that, when we was drinking, he told me, he said, "Because das all I needed. I no need 25. I need five." And then he bring 'em home, and sure enough, the thing feed 75 people, brah.

DD: Yeahh.

TS: [laughs]

DD: *Mahalo* for sharing that.

TS: Now you like me tie? I'm on a roll here. Here, brah, I tie in with what your project.

DD: Well, you know, from your experiences, how has the area changed? We like try go more towards Hale'iwa now. And we know that your 'ohana is all the way down the coastline, but now that there's plans to make this Hale'iwa Gateway, could you share like how it has changed from you how remember it to how it is today?

TS: Yes. The watering hole. Seaview Inn. My family has a lot to do with that. That's another thing about the Dillingham. When you read about Dillingham, there's some things that may not be good, what he did. One of 'em was the hotel. See, they were made to accommodate the military as their recreational facility. And some beaches they did the same thing too, like Wai'anae Coast, or up in the other Hale'iwa Coast, or up the Army beach and stuff like that. You know, the Local people couldn't go there. But a lot of times too, a lot of the desecration or harm came during the World War II era. On some places, like where you see the current, Haleiwa Joe's, where used to be Seaview Inn, that was a lot of memories over there. Every Tuesday they had for the Local people, all the Local bands, even contemporary Hawaiian music like Kalapana, Three Scoops of Aloha. When Mākaha

Sons or Sons of Hawai'i come, standing room only, brah, I mean, it's a big thing when they come to town.

DD: Seaview Inn is the name of the place?

TS: Seaview Inn. Used to be called Seaview Inn.

DD: Is that a hotel or a bar or?

TS: That's a restaurant and bar.

DD: Oh, ok.

TS: Something like the Haleiwa Joe's set up, and they catered to Local people. You could go in, you know, how we dress casual. But now, it's more catered to, not the Local people. Just like Jamison's, just like all the other places, you know, you lose that essence of tying with the community. And what I wanted to share is that some of these places, like the Seaview Inn, and the current Haleiwa Joe's, it's on the grounds of a *heiau*. It's called Anahulu Heiau. They built that, some of the pillboxes, the military coastal batteries for World War II. They have another one up there at Kahokuwelowelo Heiau. You have the pillboxes built right on the *heiau*. You know, back then, it's very disrespectful. And until you get really into this kind of historical research and stuff, you find out, you know, at the time, in the '30s, the Bishop Museum was gathering information and stuff like that, then shortly comes 1940, then you start seeing a small portion of non-Hawaiians taking the land. And then when World War II comes around, bingo, they take 'em over, you know, just like one cancer went spread. And that's what has happened.

DD: Right.

TS: But my family, my grandpa them, they saw it as an opportunity, not to show off about that, they did it because they wanted it preserved.

----- recorder paused to change batteries -----

Ok, Uncle Tom been sharing his *'ohana* background, how he's connected to this area, and how it has changed from the Dillingham days, and then more recently, with the wartime. It used to be a place for Locals, and now it's catering to a different clientele, and those are the changes that he is sharing with us.

Uncle, regarding this Hale'iwa Gateway Project, that area right there, are there any *mo'olelo*, personal stories, *mele, oli*, you know, right over there around the Lokoea area, that you'd like to share with us?

TS: Sure! Choke, I cannot remember 'em all at once. I can start with the geographical name of the place.

Did you know? When you cross over the Anahulu Bridge right there, you are in Kawailoa.

Did you know? Where you cross the bridge, also, that's part of an *'ili*, a long sliver *'ili*, and the name of that *'ili* that goes all the way, fronting your guys' project, going to Hale'iwa Park, yeah that's called Kamani.

DD: Kamani?

TS: Kamani. And I will show you, [showing a book] in this book, how related I am. Of course you know I went through many recognitions and stuff. I will show you a sample. Look the year.

DD: Wow.

TS: This is from the Hawaiian newspaper obituary. This is the sites of O‘ahu place right dea. That’s Kamani. Look where my Tūtū is buried.

DD: Yeah, so for the recording, this is his great-great-great-great-great grandmother, born in 1776, [named] Makaehuahu, in Waialua, and passed away in 1859 in Kamani, which is the ‘ili that Uncle has just shared with us. And there’s Anahulu Heiau there.

TS: That’s where the Hale‘iwa Joe’s and Seaview Inn was. That’s the site of it.

DD: This is Site 232 in that book. And at one time it was Hale‘iwa Hotel, now it’s Hale‘iwa Joe’s.

TS: Yes.

DD: Uncle Tom is very much connected right where they’re planning to build this Hale‘iwa Gateway.

TS: I can share with you, Koa, yes, it’s deep, 1776. But, I can also share with you this. It’s even deeper than that. Look at the name of that chief that’s part of my family.

DD: Olopana.

TS: There’s a gulch in the BAX [on Schofield], there’s a gulch there called Moikeha Gulch. Isn’t that the brother? Who’s their father? Maweke.

DD: These are *kahiko ali‘i* names here.

TS: These are very much connected in Waialua. That’s my *kūpuna* too. That’s my connection. And when I did the check, you know there’s a Waihona.com with all the land commission awards and stuff, that’s his holdings [showing a paper copy of the landholdings of a contemporary Olopana]. Look at the places.

DD: The holdings for Olopana, which is one of the *kūpuna* of Uncle Tom, his holdings are all Kawailoa, Kawailoa, Waialua, the ‘ilis, Uko‘a, that’s the fishpond, Anahulu, wow.

TS: The actual testimony take up the whole page.

DD: Wow, these are Uncle Tom’s family lands.

TS: And you know, those are my *kūpuna*. So when I did my research, or when I participate in Hawaiian things, I cannot turn my back to this kind stuff and pretend like nothing, nothing happening. And that’s what previous lines of my family did. They cannot recognize who this is because it’s not meant for them.

And here was the key, the key that my grandfather said. He said, when my wife met me, and he was waiting for me on the beach one day, they talk story ah, he told my wife, “We related to Kamehameha, but I forget.” And that’s this kind stuff, you know, all these kind guys. I have another

tūtū lady, the middle name Kualī'i. I don't like to bring out the *ali'i* names because we're supposed to be able to handle our own problems. This is last resort when push comes to shove. Then we fight. But I don't want to. Let them sleep, let them relax.

And here, for you, the closest besides Lokoea, just so happens to be a Bishop Museum picture from the 1933 archaeology, by the way, that and Hawaiian planters [book], incorporated into 1938 Sites of O'ahu, that's the book, they compiled everything. The later Hawaiian planter [book], they did something very discriminating, from the 1940s issues, they took off all the *kupuna*'s names, and only make the known kind like Pukui, and stuff like that. They took 'em off. That's not right to the *kūpuna*. Even if it was right or wrong, or with new technology they find something different, leave the name in the book.

DD: Yeah, because they consulted with them.

TS: [taking out a photo] This is the only known picture of Pōhaku Pua'ena. Ok, this is the 1933 picture, this is site 235. This is the closest cultural picture in that traditional cultural landscape. This is a special photo, Koa, [pointing to people in the photo] this is my great-great grandmother, my great grand uncle, another great-great grand uncle. You think they sitting on the beach and not knowing what that [the stone] is? Koa, that stone still exists today. It's camouflaged, maybe the *'aumakua* is protecting 'em or they no like people go *maha'oi*. But there's a cove there, and when I go there, sad because no more buffer zone. Get any kind people go over there swimming. It's like, how dare you go over there, do you know what that is? But when I see that kind, my eyes come red. I say, "I don't mind you guys go swim, but you gotta know." So I told my moddah, "Yeah, politics, ah, the picture?" And my grandfather was in his 80s when I showed him this picture. He tell me, "That's the stone." Then later on he tells me things like that's where he used to catch all the baby *moi*. Everything sort of makes sense.

And then you know like how you say, "Uko'a Pond." I mean, they're old school, Koa. Instead of saying, "That's Uko'a Pond," you know what he say? He say, "Ah, Laniwahine."

DD: Wow.

TS: He no talk about the pond. He says, "Laniwahine." Back in the '90s when they had the Pua'ena eco-care project, that or the bypass road, when we talk, he go like this, one sentence, even though they building 'em away from the stuff, you know what's the sentence he told me? He says, "They harming the fishpond." Oh brah, how you going act when he tell you that?

DD: Yeah.

TS: The people don't understand him. They think, "Oh, only the pollution, the cement going in the pond." He's not talking about that, [he's talking about] bringing more people, clearing up the land, the life cycle over there, the fish, the water, he talking about all the things.

DD: The big picture, everything.

TS: He talking about one big thing that's way beyond their reasoning. Mean, brah, he told me stuff like that.

Or just like when we was talking about what happened in Waimanalo. You know what the word he tell me? You know like how we go *mālama* or protection or conservation, you know what word he use? "Tomorrow." He talking about indefinite, tomorrow, you get five today, that's all right, 'nuff, tomorrow you get some more. I spent an entire lifetime trying to learn his *kaona*. And when I find

out, I just get chicken skin because it's so special the way he said it, just one simple word, neva have to go write one whole page about 'em, or do this whole nine-yard trip. It's amazing what he knew.

Here's another one too, the *mo'olelo*. Look at the face value. Again, Lokoea, where you see that word? *Ua mau ke ea o ka 'āina i ka pono*. I look at what Kamehameha Schools write. No, no, no, no. Take it at face value, "*ea*." What does *ea* mean? Can have all kind, can be sovereignty, can be life, but it means sustainability you dummy. They chose wisely 'cause had choke fish in there before.

DD: Wow, yeah.

So you showed the *pōhaku* and the Anahulu *heiau* there, are there other things that we should be aware of regarding traditional sites?

TS: Yes. People think there's only one *leina*. [But] That's a *leina* at that point, the point is called Hakaka Kanaka, the city morgue, they put 'em on the reef there, it gets decomposed, the shark eat 'em or whateva. That's the resting place of one of Waialua's most beloved *ali'i*, killed by King Kahahana. Kahahana was not that good.

DD: No, no.

TS: He was a bad king. Chief Elani, I compare him to something like how nice Kakuhihewa was. Mean brah, but in a localized area.

DD: Elani?

TS: Yeah. Ok, from there, how that ties into our history is Waialua High and Elementary School, the predecessor name was Andrew E. Cox School. The Cox family, they married into this *kupuna*, one of grandpa's *kūpuna*, she married a gentleman named John Keahipaka, that's bloodline. So that's all *kūpunas*.

And the spinoff is that the *kupuna*, Andrew E. Cox, Andrew Elani Cox, that's the name of the school before. And before that was Mokule'ia School. Now these people are also from Waimea Valley. She identified some of the *lo'i's* in all those areas in there.

DD: Your *tūtūwahine*.

TS: I tried to share. But you know them, you tell 'em that kind stuff, they go. I says, "Yeah, you keep thinking that way. You're gonna run into it one day." So when I show 'em the picture, I say, "Here, black and white, ok? You understand?" Then they fucken say, "Oh, sorry Thomas." I says, "Don't tell me sorry. You tell her sorry." I said, "I'm just a spokesman hea. I'm just the mouthpiece. You go talk to her, you go tell her sorry for not recognizing."

DD: Right.

TS: But that's the other part of the cultural landscape, Pua'ena Point. There's also some nice songs written about Hale'iwa, about Pua'ena Point. One was a verse from a song from King Kalākaua, "Koni Au."

DD: Oh, Koni Au? Ok.

TS: [humming the song] And then the last part, o Pua'ena.

DD: Oh ok.

TS: Summer home for Queen Lili‘uokalani, over there, that’s why you get the Lili‘uokalani Trust. King Kalākaua has ties over dea, he wrote that song, Koni Au. Olopana is the chief over dea. See before, a lot of ‘em, they only recognize La‘anui. That’s only one chief. Some of these chiefs are more old than that, brah, and more prominent. That’s the O‘ahu line guys. And so I tried to share with them. I says, “It’s more than that guys.”

There’s an[other] issue here. Have you heard about the issue we had with the dog park at Kaiaka Bay?

DD: No.

TS: In that, they want to see where Kapukapuakea Heiau is.

DD: Ok, I heard of that, Kapukapuakea, it’s supposed to be along the sea, yeah?

TS: You heard of that? I have a different story. And I think when I share with you, you going see a difference. No, it is not there. All the *ali‘i* in Waialua is in Kawaihoa and that way. You have La‘anui, you have Lili‘uokalani, even Olopana. That Kapukapuakea has a story about Lonokaehu [showing me documentation of an *‘ili* named Kapuakea]. You have the South Pacific Raiatea; Laniakea is right there. But here’s one that they overlook, those historians and cultural practitioners. In the South Pacific, in Raiatea, Taputapuata is located in their land division called Utoa.

DD: Oh really?

TS: You see what I’m talking about?

DD: Yeah.

TS: Uko‘a.

They talk about navigation, Kahokuwelowelo Heiau, navigation, star astronomy, make sense ah? Here’s another big kicker to this. The two most important sites over there is this: Pōhaku Pua‘ena, and a stone that loves to run away, no like nobody see ‘em, it’s called Pōhaku Hoanahanau[?]. We only know Kukaniloko birth stones for the chiefs, that’s a birth stone for *ali‘i* too. My wife says, “You going get some of them *halulu* if you tell them all this stuff.” I says, “I’m telling the truth. When come to this kind, I wanna tell the truth, and this is the truth right hea. I going side with the *kūpuna*.”

[Talking about the significance and the sacredness of Kawaihapai and how it is tied to the *‘ohana*].

When I share, my grandfather, he smile. That’s the kind stuff he told me, all this place, taro patch, choke fishing grounds, the subterranean springs, even in here, to make Hale‘iwa, they had to fill ‘em all in, ‘cause get the subterranean all the way up the coastline. They get choke fresh water, brah, my goodness. And these are known famous fish grounds, brah, all the way up to the point.

The thing is, in the economic sense an in the ethnic sense, as time goes by, ho I so sad about this you know, this place, to me, is coming like Baja, California. And that is sad. I can only eat so much shrimp. I no need eat tacos any more. Instead of you guys make margaritas, I rather have on nice strong glass of *‘okolehao*. I don’t wanna promote something non-Hawaiian over hea. But that’s the sad part. Before they had Longs, it used to be Hale‘iwa IGA. And before Malama Market, it was K’s

Supermarket. These are all my grandfather's classmates. Malama market get all the Haoles. All the Locals go Hale'iwa IGA. Now it's different, hooo, so much invasion of them.

DD: Well you know Uncle, they are making retail space over here, and you bring up a good a point about the kinds of things they selling now days in Hale'iwa, and who they are catering to. So what can be done to bring back a sense of Hawai'i in this project?

TS: Like you see all the pictures in hea, [pointing to the pictures on the walls of McDonald's where we're sitting] replace 'em with pictures like this [showing pictures of old Waialua that he brought with his things] of old school Waialua or Hale'iwa. You'd see all the older folks come in and go, "Wow. That's not Waikiki, this is pictures of Waialua."

[Talking about how old Waialua used to be compared to what it's like now but nobody knows]

DD: We'll definitely put that in the report to try to incorporate a localized sense of this area rather than just generic pictures of Hawai'i or paintings.

TS: Yeah. No go put Waikiki stuff on top there. And the thing I'm afraid of is we have entities like the North Shore Chamber of Commerce, I can appreciate they perpetuating history, but excuse me, you know what I see when I look around ah, the perpetuation of White man history. That offends the hell out of me. Don't make it look like these people were here first.

DD: Right.

TS: What about all the Hawaiian people that was here before them? So when they put that, they wanna perpetuate only plantation era and all that kind stuff history.

And one of the things that got me really angry, there was a page [in a report] that described, "formerly a large Hawaiian settlement." That's it. *Pau*. [pause]

What da hell is that? [pause] Elaborate, please.

DD: Yeah. There's a lot more to it.

TS: Sad, you know, that's how I see them going. And that is not right to me. What about the culture that been here a lot longer? Where's the respect for that?

And they came out with a book about the North Shore and the history and stuff, they miss plenty. I look the first paragraph already. Then we had another one based on a Hawaiian newspaper. That man [writer of the book] may be Hawaiian, but I neva see him growing up over hea. Why, because he's a Hawaiian scholar, and then he start telling about things, I say, "That's fine. Tell me something I don't know. This is the easy things you telling me. I'm looking for something more in depth, something more connected. You're not doing it brah." You know?

DD: Right. That's true.

TS: You know, in Hale'iwa, I was invited to speak about the Land Commission Awards of Hale'iwa. And I shared that even for the Hale'iwa Shopping Center, I says, "Here's the original Land Commission Awards [for this place]. Look at the name on top there. Look like a Haole or Japane name? These are Hawaiian people on top hea." But we only see the plantation era. I says, "No, no, no, look. These are all Hawaiian people in hea."

The Hawaiian community here has diminished a lot. Either your generation have to move because it gets too expensive, or stuff of that sort, the jobs is way out in town or something like that, or all those kind of things.

[Talking about the large presence of the Hawaiian community that used to be in the Hawaiian church there and also in the making of *lu'aus* in the area by these Hawaiian families many of whom were related to Uncle Tom]

And then the contemporary age, when my uncles and my aunty-them attend, and they bring all us kids, we go to their bible camp and stuff, ho brah, still was good. We camp over dea on the grounds. And then when I did the research, again the family genealogy, I look all the names, and then I go in the graveyard, plenty is related, plenty is family. And then I took my grandfather, I says, "Who's this man over hea, Grandpa?" [Grandpa says] "Oh, das MY grandpa." I go, "Wow, you knew that [he was here]?" He go, "Yeah." But I guess he want me to find some out on my own.

[Talking about doing genealogical and family history research and the difficulties, expenses, rewards, and breakthroughs in doing this kind of research]

To go really in depth is something unique. It takes a lifetime brah. You just keep adding on. How's this, we get *kumu hula*, brah. You know the song Lili'u E? You know who wrote that song? [It was] a gentleman called Antone Kaoo.

DD: Ok, I remember coming across him.

TS: Antone Kaoo is my great-great grand uncle.

DD: Somebody wrote a *mele* for him too, ah?

TS: If you have it, please send me 'em.

DD: Ok. I promise I will.

TS: He was raised, you know the Pa'ala'a Kai bakery? Over dea, Antone Kaoo, not only *kumu hula*, royal guard [too] and he beat all the guys running marathons. My grandfather said, "I get one uncle. You know this hula stuff, only man dance, and I get one uncle that teach hula." When you go to huapala.org, you going see my name. I contributed that because I wanted to share about him. And I made that notice when I tell people about that, I says, "Yes, it's E Kapi'olani E, but he used it for Lili'uokalani because he wanted to show his loyalty and *aloha* for her, change the words."

And there's also something too that you must know since we talking about that kind chants, lot of Pele and Hi'iaka over hea brah, all those places, this whole coastline, Hi'iaka. Tell me if you know this song, [singing Holei] "O Kalapana."

DD: Right.

TS: 'A'ole. [singing to the melody of Holei but with Waialua words] "O Waialua, kai leo nui."

DD: I think I saw that in Emerson's. And I said, "This look kind of like."

TS: That's it. That's my *huhū*. I tell all this *kumu hula*, who's more important, talking about Kalapana the 'āina or paying tribute to Hi'iaka, one of your deities? Who's more important? But no more

answer. And then the tie in with the marijuana guys, medical marijuana get one publication, guess what the name of the publication.

DD: What is it?

TS: “Kaulana Nā Pua.”

DD: How come?

TS: That’s the name of their newspaper, medical marijuana, because was one nice song. I says, “You know what? You better tell that man to change his title.” And then you watch what happens when you change that title. When I did that for Kalena Kai, I had it copyrighted brah. The Bishop Museum, when they did the research for Dillingham Ranch, the attorneys went write one memorandum to the Bishop Museum to please take my *mana ‘o* under advisement and apply it. When I was doing all that kind to restore Kamehameha II’s credibility to that song, not Charles E. King, at the airport, when I worked the airport, used to have Aloha Airlines, and they name all their planes after *ali ‘is*. Everywhere I go on the airport, nearby right behind me, you look the Aloha Airlines plane, what the name of the plane?

DD: Liholiho?

TS: Liholiho. That’s the kind *ho ‘ailona* get, ’cause you know you doing something right. The plane follow me all over the place brah. Mean, brah.

[Talking about *ho ‘ailonas* and ancestors sending signs to the here and now]

That would be a really good thing, like I said, OHA owns the courthouse, and I have reservations because of what they going make, but [they should make] one small cultural museum with the real history. My dream was to one day see something, like a family history center, and I running ’em. And even though it’s good, I says, “Ok, up to one certain point, yes, we give, but if we going go that kind business, I going have to get some money for that because I spent thousands of hours, something. Even the Waihona database, I gave them input on some of the things. You go look the info about land grants. I gave ’em the kind information, I says, “It is better to show if you have the correct spelling, and where you see a *hui*, you make sure you get every *hui* member on there.

DD: I saw quite a bit of *huis* in Mokule‘ia and Kawaihapai area.

TS: To me, my mentality is that you bringing each one of those *kūpuna* alive. When I get the vital records, bring ’em back home, they been many years on microfilm, you know, in the mental kind aspect, but when I transport with me in my truck and I coming home, they coming back to Waialua. That’s how I feel. They [the *kūpuna* who have passed] coming back to Waialua. She said, “What you doing?” I says, “I bringing them all home. I don’t expect a thank you, but when I need help, they gonna be there.” Your questions, go ahead.

DD: So Uncle, you brought up this Anahulu, Pōhaku Pua‘ena, the *pōhaku* birthing stone, and Kahokuwelowelo and all of that. Now the development of the Hale‘iwa Gateway area, at this present moment, do you think it would affect any certain gathering practices that people do there?

TS: No. No. And for me, you see when you come down from Kamehameha Highway, you see the Hale‘iwa sign with the wave? Maybe when you say, “Gateway to Hale‘iwa,” ok, maybe change the sign. And you know what I like see? I like see one picture of one *mo ‘o*.

DD: Lanawahine.

TS: Koa, you think that's the only *mo 'o* in this place? No, get the bruddah Puhī'ula, that's one over dea. Ok, no stop dea. Now hea one for you, one simple one. The place I told you where my *tūtū* Antone Kaoo from, Kamo'oloa, when you cross that bridge, that stream over dea, Alamuki. That's one oddah *mo 'o*. Turn left, going up, Kemo'o. You turn right going down towards Mokule'ia, anoddah *mo 'o* story, right there Dillingham Ranch over dea, in the back there. So get choke *mo 'os* down here brah. That's all *mo 'o* stories.

I've been blessed because when I went learn how to fish, my grandmother went teach me how to fish. The legend of that *mo 'o* originates in Mokule'ia, I forget the name, but it's called the *hīnālea* fish trap.

DD: Oh, I remembah that. I remember hearing that, oh yeahhh, that lady was a *mo 'o*.

TS: [laughs]

DD: And he not supposed to, but he found out yeah?

TS: Ok, and without going into the depth of the story, *hīnālea* fishtrap, that's fishing. Where did I first learn how to fish? Kawaihapai, that was once called all Mokule'ia.

DD: Right.

TS: Who went teach me how for fish? My grandma, one *wahine*.

DD: Right.

TS: What is the first fish I caught, that she taught me? *Awela*, a wrasse, a.k.a. *hīnālea*.

DD: A wrasse.

TS: Not the dark blue with the orange one. The other one, the light lime green. The buggah grow, even all that is all five pounds, and you can eat that kind. Yeah, that's my first fish I went catch, *hīnālea*. That's the kind *mo 'olelo* I was brought up with brah.

They neva tell me. Maybe they neva like me know that kind. Or maybe I had to learn 'em on my own. But after they all gone, and then after I stay going like this, "Oh my." You know what I mean? And I go, "Oh shit, I bettah watch what I doing." You know what I mean? 'Cause I've been handed something that's not very lightly.

DD: Yeah, that's awesome.

TS: I saw that story, I go, "Wow." And before, we could camp all summer down Mokule'ia beach, my grandfather go get the pass, fifty bucks, no big deal. We camp there all summer brah. My grandfather was already retired from Navy ah, medical. My grandmother work at the high school. Right here, here our house, looking straight at the family house down on the airfield, you know the coconut trees you see over dea? That's the family land brah. And they neva just choose any ol' f*cken land. You know, they chose wisely. The *koa* stay on top their place. Not because the modern Haole way, because they in charge, people can go there, but they in charge to look towards the well-being, and in this is one of the most significant things, this is one of 'em, they had their *kuleana*.

Those are the kind of things, ho man, I wish I had a grandchild that could understand. I mean, I started from when I was born, just like, you know?

DD: Somebody will come, next generation.

TS: I hope.

And you know, how's this one, my grandmoddah, [I was] five years old, here's 25 cents, here we are at Pu'uiki subdivision, get the church, ok, walk to church, go find God. Mean brah, I don't know what the f*ck I doing. She says, "Put on your aloha shirt. Go to church." I don't know what the hell going on, you know what I mean? She wanted me to just go over there, church. [She says] "When you get to the church, put the 25 cents in the basket where they give offering." Not even the songs I knew what the hell they were singing.

But then later on, as years go by, that's all just like pre-request to doing this kind work. You gotta have God brah. You gotta understand what they talking about. [If] You don't know something, you gotta go ask, you gotta go pray for it. When you find something, you say thank you, stuff like that. Ho, mean brah.

DD: Mean. Yeah.

TS: And then when she got her religion, we go my uncle's house. My uncle-them bad ass throw net men for that area, my cousins-them go, and I wanted to go, but no, "Stay here." Now I see why. You gotta get the spirituality to do this kind work. That's more important than going to the fishing. She said that's easy to her. But to do this kind [spiritual] work is very hard. You can go like this, and you going get burn out already, and you don't know why. I talk to you three days later, I finally write one word. It's very draining, takes up a lot of time, a lot of concentration. And sometimes you get sick because you so into it.

[Talking about doing work and understanding traditional knowledge and ways]

[Greeting some *kupuna* who has come up to us to say hello, talk story little bit]

What your next question brah?

DD: Well, it's asking if the development would affect any places of cultural significance, and if so, how to lessen any adverse effects.

TS: The things that I said in the beginning about the septic tank, that's an example. When they make like asphalt for the parking lot, the oil comes down, and they create sheen, and that runoff might go into the fishpond. But those kind of effects will impact there. And the water table, not only the septic tank, when you're digging the surface, also, you see how close you are to the ocean. You know you gonna hit water, no more six feet or something, you gonna hit water. So maybe if that septic tank is not good, if it springs a leak or whatever during that construction or something, subterraneanly, or eventually out into the ocean.

DD: So the concern is some of the sheen going into the ocean, and also, like you said earlier, there's a lot of subterranean water flowing also from the *loko*, so what would be a way to protect against that?

TS: Yeah, if they have dredging or booming, like you see some projects, they get that storm drain, and they get booms around 'em, to protect the rubbish and stuff from going in there, to prevent clogage.

Maybe noise, there's a few residence that live in that place, and they need ingress/egress to get out. So maybe we can work with them on the time when they doing the construction, when they build 'em. And a traffic study, that's a basic textbook that a lot of 'em do, you know that box that they run over 'em, and they get the traffic counts ah, those kind of things. And there's also another concern, I guess one of the telephone poles over there, that's a bus stop. I think so, maybe gotta go double check, across of Surf N Sea, you know, the standard kind stuff, as far as I'm concerned. But the main thing is that I'm happy to see that there's gonna be usage on that property rather than everyday it's an eyesore. And if neva get that project, then [plant] grass, you know? At least you see grass over there with one tree growing, you know, bettah than the dust screens.

DD: Well, we coming to the end of this *kūkākūkā*. There's a lot that Uncle Tom has shared, beginning with his connection to this place, intimately connected through his *kūpuna*, through his family all the way up and down this whole area, and sharing some of the people, places, and history and *mo'olelo*, everything that makes this place special. He is glad to see some kind of good development here rather than having an eyesore, but he reminds the developer to take special note to the specific history of this place rather than just glossing over with some kind of Waikīkī or general Hawaiian history. You know, there's a certain history that's unique to this area, and he knows, as he has learned from his *kūpuna* about this area. There have been special places in this vicinity, significant places, and in addition to that, special *mo'o* in this area, and all of this makes this whole Waialua Moku very special. So these are the things that the developer should keep in mind as we move forward. And then regarding taking precautions, Uncle says that there really aren't any gathering practices that he says would be affected from this Gateway project being built. However, there are steps that they can take to protect the environment, whether it's the boom to protect against seepage of asphalt or other construction materials; also being aware through noise studies and traffic studies; and take all of this into consideration as they move forward.

TS: You know, also, I'd like to see networking among localized entities. Before this project came about, we had a presentation by Ma'o Farms. You know, networking with that kind of things, a small little cultural tour, I like to see that kind of networking going on.

DD: Yeah, cultural and eco tours are a good way to help with being a good steward of the land.

TS: Yes.

DD: Are there any other cultural concerns that we haven't talked about?

TS: One of the cultural things that they [the developer] should network with is that group that *mālamas* the fishpond, Lokoea Fishpond, that's Kamehameha Schools property, and I forget what the name of that *hui* is, but you know, that's starting off on the right foot. Hopefully later on, it'll be for food, more productivity for food and stuff like that, and of course, if we say cultural, when we cross the bridge, that area, where we see the canoes and stuff, the canoe clubs, that's the closest. And the thing that they got, that I see positive about why they doing that canoe practice, here's one for you, Koa, where you see the Surf N Sea, and all the way, that's a known canoe landing, we talking about pre-western history, big time. Canoes land on those beaches, and that beach has a name. It's called Ma'aeaea Beach. That would be part of the cultural things that you see, and I don't see too much impact on that canoe paddling and training and stuff like that. And most of the fishing in that front area is mostly shore casting or on Anahulu Bridge catching Samoan crab, stuff like that, nothing really impacted. But that's the closest I see as far as cultural is concerned. I can't recall that much

unless you go more towards Pua'ena Point with this documentation and stuff like that. And that Anahulu Bridge, it says on there, 1921/1922, and the thing is that it's called Anahulu Bridge, it's not called Rainbow Bridge.

And here's one for you, you go further up the place. It's not called Sunset Beach. It's called Paumalu. And the reason why it's called Paumalu, there's a very unique story about Paumalu that's applicable to what happened in Waimānalo [referring to a recent news story about over harvesting of sea cucumbers in Waimānalo]. The *wahine* fisherman was told to catch one certain amount of *he'e* and *pau*. She was greedy, and what happened? The *'aumakua* shark came and went bite both her legs off and then ate her. Kill her. You know? Neva listen. You got too damn greedy.

You know, that's the thing about other cultures coming here and nicknaming our places. I can't stand that. Before it was acceptable, but it's not. It's not Pipeline. And then you get Kapaeloa, and you get all these places that they don't know. Then you look at the old chants. How come we don't have that today? Somebody went rename 'em, just like they went deliberately whitewash that away from everybody. And the early days, that's what I tried to do as part of education, part of that education was the bill to change, was the act to change the names, and only the old timers would know, and they say, "Good boy. Good boy, you not going get plenty support [to change the name back], but good boy, takes balls to do something like that."

This district as a whole, you know, Koa, a lot of significant people that contributed to Hawai'i's history is from Waialua. One, you just heard, Antone Kaoo. Samuel Kamakau, he's born in Mokule'ia, 1815. The first Hawaiian Christian *kahu*, the Reverend Kekela, Mokule'ia, 1835. Shit, we get our own dean of Hawaiian music, you know who was? Charles K. L. Davis, Doctor Davis is his faddah. We get our own brah. Up couple houses from where I live, Nā Leo Pilimehana, Nalani Choy, Aunty Betty Jenkins-them li'dat. Aunty Loyal Garner's from here, that's tied into Alicia Smith, they had a *hula hālau* right next to where I live, Crozier Loop, das where they started. The man you see on tv, the Hawaiian Homes Commission, that old man? He was raised out here. And then you have another notable Hawaiian *wahine* that has ties down here, Mrs. Emma Nakuina. These are all f*cken people that made their mark that should be encouragement. You know, this is Samuel Kamakau's home, how come the public/school library no moa all his books? Simple things like that, what they get in the curriculum for the Hawaiian studies? Before you learn about what happened at Kuamo'o stuff like that, you get plenty to learn over hea. You go study your own home first.

[Talking about the connection and relatedness of Waialua people and 'Ewa people as taught to him by his grandfather]

[Talking about his family connection to their family lands in the Schofield Barracks area which was used as rice farms by the Chinese]

All those kinds of things like that. I actually not just did research or say I was over there. I actually was on the land brah. I actually found some of the stuff that they did [referring to Chinese pottery and bottles and things used for opium].

[Talking about an *'ulumaika* that he found in Mokule'ia]

And those kind of things I found. [My grandfather] he told me where the cowboy houses was and all that. Ho, we go Ka'ena Point, he tell me how much *'opihi* he used to get, all this kind things. I mean, you can fill up a f*cken rice bag and still get, you neva even dent da place. But they wasn't out there to see how much they could f*cken get.

DD: Yeah, just what you need.

TS: Ho brah, and the kind f*cken silver dollah kind, you know, the kind, five, six, you full already, you know you happy already. Not the kind f*cken you gotta eat 20, 30 of 'em like pistachio nuts.

DD: [laughs]

TS: But [pause] all those kind things.

All I can say is I lucky bruddah Koa. I can go on and on and on. You cannot find this in one school.

DD: No can.

TS: No moa brah. You cannot.

And sure enough, when you go read 'em in the book.

DD: It's all dea.

TS: [laughs]

DD: [laughs] Well Anakala I would like to stay, I could sit here all day and hear all the stories, but *ae*, I gotta be somewhere else soon. *E kala mai*, Uncle.

Mahalo soooo much for spending time and sharing these stories, it's been a good day.

TS: Thank you.

DD: Thank you, and *Aloha!*

TS: *Aloha.*

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Appendix D

BASELINE ASSESSMENT OF WATER CHEMISTRY

**BASELINE ASSESSMENT OF
WATER CHEMISTRY
IN LOKO EA POND
FOR THE SHOPS AT ANAHULU PROJECT
HALEIWA, OAHU, HAWAII**

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I. INTRODUCTION AND PURPOSE

The "Shops at Anahulu" is a proposed small retail center to be located at the north end of the historic Haleiwa Town. The site is located in Haleiwa, on the island of Oahu in the State of Hawaii (Figure 1). The site is within the traditional moku of Waialua and the ahupuaa of Kawailoa. The project area is approximately 0.51 acres and encompasses Tax Map Key (TMK): (1) 6-2-003:037. The project site is located on lands classified by the State Land Use Commission (LUC) as State Land Use Urban District (Figure 1-3). The land is zoned Neighborhood Business District (B-1) by the City and County of Honolulu and is designated as Country Town on the North Shore Sustainable Communities Plan.

The site is bounded by Kamehameha Highway to the north and west, Lokoea Place and a vacant residential lot to the south, and Loko Ea pond to the east. The redevelopment project site is currently vacant. The property was formerly developed as a Chevron gas station which operated for over 40 years. The property is currently not serviced by municipal sewer systems. State Department of Health (DOH) records show an existing cesspool; however, DPP records indicate a Tank and Cesspool Removal application was filed in 2008.

An Individual Wastewater System (IWS) will be installed on-site, and will contain an absorption bed and two septic tanks. Based on wastewater calculations, the redevelopment project has a projected wastewater flow of 958 gallons per day (GPD). A portion of the property is located within the Board of Water Supply (BWS) no pass zone, which is defined as an area that prohibits the installation of waste disposal facilities which may contaminate ground water resources expected for domestic water supply. However, the absorption bed will be installed within the portion of the property that is within the pass zone.

The purpose of this document is provide the results of a survey to assess the existing water chemistry of Loko Ea Pond and the adjacent region of Waialua Bay where marine waters are exchanged with pond water. Water chemistry was assessed by collecting a set of samples extending across the pond originating from the area closest to the area where the septic system will be located. As Loko Ea Pond is directly adjacent to the project site, it is important to understand the existing water chemistry setting of the pond and adjacent ocean. Evaluation of the existing condition of the pond provides an insight into the physical and chemical factors that influence the pond system, and provide a basis for predicting if there is potential for any effects that might occur as a result of the proposed project.

II. METHODS

All fieldwork was conducted on September 13, 2015. Water chemistry was assessed along a survey transect that extended through the center of Loko Ea pond. Six survey stations were located approximately equally spaced through the pond, while four stations were located in the vicinity of the makaha leading to Waialua Bay (Figure 2). Such a sampling scheme is designed to span the greatest range of potential change in pond waters with respect to potential influx from the shoreline and the ocean.

While the entire pond was less than one meter deep, two samples were collected at most sites. A surface sample was collected just below the air-water interface, and a bottom sample was collected within 5 cm of the pond floor.

Water quality parameters evaluated included the all specific criteria designated for estuaries in Chapter 11-54, Section 05 (d) of the State of Hawaii Department of Health (DOH) Water Quality Standards. These criteria include: total nitrogen (TN), nitrate + nitrite nitrogen ($\text{NO}_3^- + \text{NO}_2^-$, hereafter referred to as NO_3^-), ammonium nitrogen (NH_4^+), total phosphorus (TP), Chlorophyll a (Chl *a*), turbidity, temperature, pH and salinity. In addition, silica (Si) and orthophosphate phosphorus (PO_4^{3-}) were also reported because these parameters are sensitive indicators of biological activity and the degree of mixing between different water sources.

All water samples were collected by hand by filling pre-rinsed 1-liter polyethylene bottles. Subsamples for nutrient analyses were immediately placed in 125-milliliter (ml) acid-washed, triple rinsed, polyethylene bottles and stored on ice. Analyses for Si, NH_4^+ , PO_4^{3-} , and NO_3^- were performed on filtered subsamples with a Technicon Autoanalyzer using standard methods for seawater analysis (Strickland and Parsons 1968, Grasshoff 1983). TN and TP were analyzed in a similar fashion following digestion. Dissolved organic nitrogen (DON) and dissolved organic phosphorus (DOP) were calculated as the difference between TDN and dissolved inorganic N and TDP and dissolved inorganic P, respectively.

Water for other analyses was subsampled from 1-liter polyethylene bottles and kept chilled until analysis. Chl *a* was measured by filtering 300 ml of water through glass-fiber filters; pigments on filters were extracted in 90% acetone in the dark at -20°C for 12-24 hours. Fluorescence before and after acidification of the extract was measured with a Turner Designs fluorometer. Salinity was determined using an AGE Model 2100 laboratory salinometer with a readability of 0.0001 ppt. Turbidity was determined using a 90-degree nephelometer, and reported in nephelometric turbidity units (NTU) (precision of 0.01 NTU). Vertical profiles of salinity, temperature and depth were acquired using a RBR-620 CTD calibrated to factory standards.

All fieldwork was conducted by Dr. Steven Dollar. All laboratory analyses were conducted by Marine Analytical Specialists located in Honolulu, HI (Labcode: HI 00009). This analytical laboratory possesses acceptable ratings from EPA-compliant proficiency and quality control testing.

III. RESULTS

1. Distribution of Chemical Constituents

Table 1 shows results of all water chemistry analyses on samples collected in Loko Ea Pond in September 2015. Several overall patterns of distribution are evident in Table 1. First it can be seen that concentrations of all dissolved nutrients in pond waters are significantly elevated relative to all listed DOH water quality standards. In particular, concentrations of nitrate ($\text{NO}_3^- + \text{NO}_2^-$) range from about 270 to 1100 $\mu\text{g/L}$, while the highest value of a DOH standard is 70 $\mu\text{g/L}$ (Estuaries, NTE 10%) (Table 1). Hence, the values measured in the pond are about 4 to 16-fold higher than the highest DOH standard. Similarly, concentrations of NH_4^+ and TN in all pond samples are at least 3-fold higher than the highest value of DOH standards (Table 1). The only

dissolved nutrient with concentrations in pond samples that are within the range of DOH standards is TP, with values ranging from about 27 to 47 µg/L, and DOH standards for estuaries ranging from 25-75 µg/L (Table 1). Similar to TP, measured values of Chlorophyll a and turbidity in all pond samples are generally within the ranges of DOH standards for Estuaries (Table 1).

The other pattern that is evident in the data is that for the dissolved nutrients that typically occur in high concentrations in groundwater, there is a distinct horizontal gradient of decreasing values with proximity to the ocean. The highest values of Silica, $\text{NO}_3^- + \text{NO}_2^-$, and PO_4^{3-} occur in the surface samples at Stations 6 and 7, which are closest to the mauka shoreline of the pond. Conversely, the lowest values of Silica and $\text{NO}_3^- + \text{NO}_2^-$, and PO_4^{3-} occur in the surface waters of Stations 2 and 3, which are closest to the ocean. Salinity exhibits the opposite trend, with highest values near the shoreline, and lowest at the mauka sampling stations.

These gradients indicate that the pond is an exposure to the atmosphere of seaward flowing fresh groundwater that contains a small fraction of saline groundwater. The overall salinity of the pond ranges from about 6-8 ‰ (parts per thousand). As ocean water is typically 34-25‰, it is evident that pond waters consist of about 80% freshwater and 20% marine water.

Water chemistry parameters that are not associated with groundwater input (NH_4^+ , DON, DOP) do not show a gradient of decreasing concentration with respect to distance from the shoreline (Table 1). Rather, these constituents show a weak horizontal pattern of lower concentrations near the shoreline with higher values at the greatest distances from shore. Such patterns indicate that the concentrations of these chemical constituents are not a result of input of materials emanating from groundwater or other inputs from upslope of the pond.

The distribution of Chl a and turbidity do not show any clear horizontal gradients across the pond. Similarly temperature and dissolved oxygen do not show any distinct horizontal gradients. However, at all pond sampling stations, temperatures were slightly higher in bottom samples relative to surface samples. The same pattern was also evident for dissolved oxygen, with all bottom values exceeding surface values by as much as 52% (Station 5). As the depth of the water column is very shallow, and the entire pond floor is covered with a thick mat of aquatic plants, the elevated levels of dissolved oxygen are likely a result of photosynthetic production during the daylight hours. It is likely that dissolved oxygen concentrations would be substantially lower if measured during the night or very early morning when photosynthesis is not occurring.

Loko Ea pond has a surface connection to the ocean through a channel that extends from the inner part of Waialua Bay under Kamehameha Highway and into the pond. Such a surface connection between the pond and the ocean specifies that Loko Ea is not an anchialine pool, which by definition does not have a surface connection. Stations 8-10 were located in the drainage canal connecting Loko Ea pond to Waialua Bay. Values of dissolved nutrients that occur in groundwater (Silica, $\text{NO}_3^- + \text{NO}_2^-$, and PO_4^{3-}) are substantially lower, and salinity substantially higher in these samples than in the pond.

2. Compliance with DOH Criteria

Water Quality Standards that apply to Loko Ea are listed as "Inland waters" in HRS Chapter § 11-54-5, under subsection (b) "Brackish or saline waters (anchialine pools, saline lakes, coast wetlands and estuaries). Inland water criteria (§ 11-54-5.2) states that only basic criteria apply to

low wetlands, coastal wetlands, saline lakes, which are the categories to which Loko Ea may fit. Should Loko Ea be considered an estuary (which may be the case as it is connected to the ocean) specific criteria are set out in § 11-54-5 (d) (1) (shown in Table 1). Three standards apply to these criteria: "Geometric mean", "Not to exceed the given value more than 10% of the time", and "Not to exceed the given value more than 2% of the time". As the present survey only includes a single sampling event, it is not possible to calculate geometric means or percentage of compliance at any particular sampling station. As a result, it is not possible to actually determine any type of compliance. However, the criteria presented in the DOH standards provides an indication of where waters from Loko Ea pond occur.

It can be seen in Table 1 that all the dissolved nutrient constituents with the exception of TP exceed State of Hawaii water quality standards for estuaries. As discussed above, the existing elevated nutrient concentrations in the pond are a result of mixing of fresh groundwater with saline groundwater. Values of turbidity and Chl a are within the ranges of specific water quality criteria.

IV. DISCUSSION and CONCLUSIONS

The purpose of this assessment is to assemble the information to make valid evaluations of the potential for impact to the aquatic environment of Loko Ea Pond from the proposed development of the Shops at Anahulu project located along the pond shoreline. BMP's will be in place to prevent entry of erosional materials into the pond during construction, and there are no plans for alteration of the existing shoreline. Hence, the primary factor to consider is the effect of the pond from any input to the pond associated with the sewage disposal system.

As described in the introduction, the project will include an Individual Wastewater System (IWS) to be installed on-site, and will contain an absorption bed and two septic tanks. The absorption bed invert is located slightly more than 3 feet above groundwater, and there will be no direct discharge or leakage of effluent into the pond. Hence, under such planning, there should be no input of additional effluent nutrients or other materials to Loko Ea Pond that would change the composition of water from the present condition.

Results of this baseline study reveal that the composition of the waters of Loko Ea Pond presently contains about an order of magnitude higher nitrogen and phosphate phosphorus than adjacent Waialua Bay waters. As such, pond waters are clearly not nutrient limited, meaning that plant growth in the pond is not limited by available nutrients. Most importantly, in non-nutrient limited systems, the addition of more nutrients does not change the functional aspects of the communities, but rather only changes the concentrations. In the case of Loko Ea, the abundant existing plant growth has likely resulted in deposition of organic material to the pond, causing shallowing of the water column to the present level of less than one foot of water depth.

While planning of the IWS and absorption bed are such that no additional nutrient material enters groundwater that reaches the pond, should such an occurrence take place, it is not likely that such additions will cause any effects as pond waters are presently a reservoir of excess nutrients far above the uptake capacity of the resident plant populations. Whether the high level of nutrients that presently exist in pond waters are a result of natural groundwater input, or from human subsidies to groundwater above natural levels is beyond the scope of this survey. However, whatever the source of nutrients that presently enter the pond, and are cycled within

the pond, it is not likely that these factors will change as a result of construction of the proposed project along the makai shoreline.

In addition, while the pond is fully colonized by benthic aquatic plants, there were no observations of any aggregations of species of nuisance algae that have been reported in other marine or aquatic settings. Hence, the elevated nutrient content of pond waters does not seem provide suitable conditions for growth of such nuisance species.

All of these considerations indicate that the proposed Shops at Anahulu project will not have any significant negative or likely even measurable, effect on water quality or biota of adjacent bodies of water. Because there are no projected groundwater subsidies, as well as the non-limiting existing character of the pond environment, there should be no changes from the present conditions that could be attributed to proposed project.

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Strickland J. D. H. and T. R. Parsons. 1968. A practical handbook of sea-water analysis. Fisheries Research Bd. of Canada, Bull. 167. 311 p.



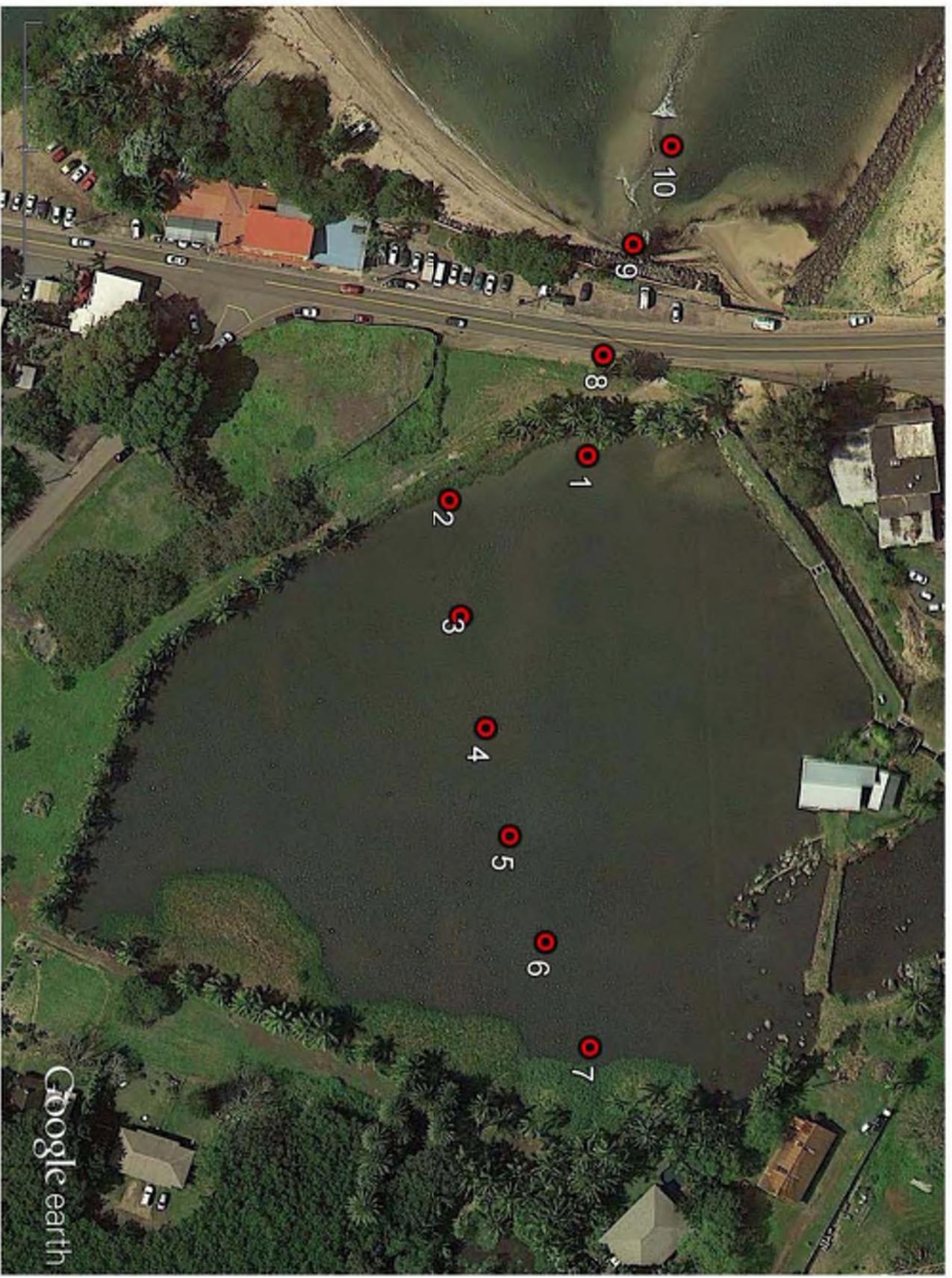
FIGURE 1. Aerial view of Haleiwa showing location of The Shops at Anahulu project site adjacent to Loko Ea pond.

Google earth

feet
meters

600

200



Google earth

FIGURE 2. Aerial view of Loko Ea Pond, Haleiwa showing location of 10 water sampling stations. The Shops at Anahulu project site is located at lower left, adjacent to sampling site 2.

TABLE 1. Results of water chemistry analyses from Loko Ea pond and Waialua Bay, Haleiwa, Oahu adjacent to the Shops at Anahulu project site. Samples were collected on September 13, 2015. See Figure 2 for locations of sampling stations. Also shown are Department of Health Water Quality Standards for "Estuaries" which is the most appropriate designation of Loko Ea. "10%" and "2%" indicate "not to exceed more than 10% of the time, or 2% of the time criteria, respectively. "GEOMEAN" represents geometric mean value not to be exceeded.

SAMPLE STATION	DEPTH (feet)	PO ₄ ³⁻ (µg/L)	NO ₃ ⁻ +NO ₂ ⁻ (µg/L)	NH ₄ ⁺ (µg/L)	Si (mg/L)	TOP (µg/L)	TON (µg/L)	TP (µg/L)	TN (µg/L)	TURB (NTU)	SALT (o/oo)	pH (std. units)	Chl-a (µg/L)	TEMP deg. C	Diss. O ₂ % sat.
1	0.91	16.80	475.30	166.60	23.40	21.00	543.90	37.80	1185.80	2.44	8.06	8.54	12.29	30.17	107.7
2-S	0.05	14.70	391.30	116.90	23.38	13.30	476.00	28.00	984.20	2.18	7.95	8.54	8.74	29.37	92.5
2-B	1.20	18.20	409.50	144.90	23.53	10.50	415.10	28.70	969.50	2.09	8.00	8.43	8.18	29.87	111.0
3-S	0.05	19.60	314.30	109.20	23.28	7.70	389.90	27.30	813.40	2.04	8.22	8.59	6.94	29.81	95.4
3-B	0.97	14.70	267.40	105.70	23.16	14.00	372.40	28.70	745.50	1.97	8.37	8.52	5.04	29.86	105.4
4-S	0.05	21.00	434.70	65.10	23.63	7.70	446.60	28.70	946.40	2.13	7.68	8.53	4.93	29.85	96.4
4-B	1.07	16.10	410.20	107.80	23.94	12.60	453.60	28.70	971.60	2.33	7.88	8.53	5.16	29.94	105.3
5-S	0.05	21.00	564.20	126.00	24.23	16.10	498.40	37.10	1188.60	3.10	7.44	8.28	9.00	29.89	94.0
5-B	1.42	22.40	527.10	167.30	24.43	14.00	577.50	36.40	1271.90	2.98	7.69	8.40	10.49	30.42	148.6
6-S	0.05	27.30	1146.60	64.40	25.04	12.60	406.00	39.90	1617.00	2.63	6.22	7.93	3.91	29.28	97.4
6-B	1.41	30.10	946.40	168.70	25.19	15.40	494.20	45.50	1609.30	4.30	7.02	7.97	7.94	29.48	116.3
7-S	0.05	26.60	1024.10	93.10	25.41	20.30	583.80	46.90	1701.00	3.66	6.78	7.75	8.86	29.26	96.5
7-B	0.81	28.00	997.50	170.10	25.62	17.50	583.10	45.50	1750.70	3.06	6.98	7.74	11.86	29.27	96.6
8-S	0.50	5.74	128.10	20.02	2.61	7.28	220.64	13.02	368.76	1.21	30.70	8.09	6.39	28.48	102.4
9-S	0.50	6.30	181.16	14.56	2.65	5.88	171.22	12.18	366.94	1.29	28.06	8.11	3.95	28.70	104.3
10-S	0.50	4.48	104.86	11.90	1.72	5.88	161.56	10.36	278.32	1.13	31.24	8.14	4.69	28.92	110.1
Estuaries	GEOMEAN		15.00	6.00				25.00	200.00	1.50			2.00		
	10%		40.00	10.00				50.00	350.00	3.00			5.00		
	2%		70.00	20.00				75.00	500.00	5.00			10.00		

- Notes:
- * = Salinity shall not vary more than 10% from natural or seasonal changes considering hydrologic input and oceanographic factors.
 - ** = pH shall not deviate more than 0.5 units from a value of 8.1.
 - *** = Temperature shall not vary more than one degree C. from ambient conditions.
 - **** = Dissolved Oxygen not less than 75% saturation
- µg/L = micrograms per liter "S" = surface sample
 mg/L = milligrams per liter "B" = bottom sample
 NTU = nephelometric turbidity units

Appendix E

PRELIMINARY ENGINEERING REPORT

The Shops at Anahulu

Haleiwa, Oahu
Tax Map Key: (1) 6-2-003:037

Preliminary Engineering Report

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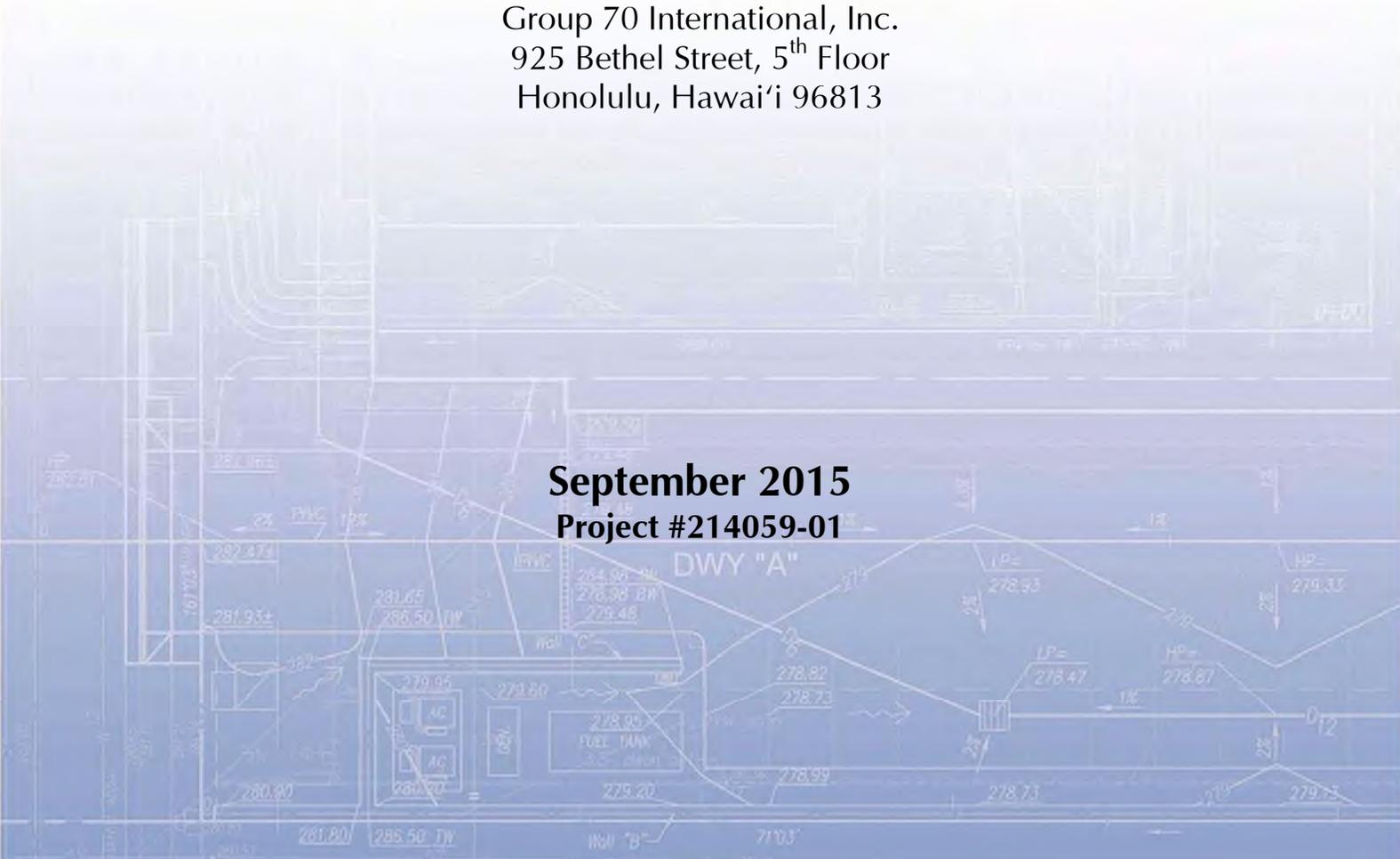


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1 Introduction

1.1 Project Background and Description

The project area is situated within Waialua, one of the six moku of O'ahu. The existing property is a vacant lot located on the mauka side of Kamehameha Highway. Previously, it was operated as a Chevron Service Station that ceased operations in 2008. Because of its former operation as a Chevron Service Station, the soil was remediated following demolition and removal of existing structures.

The proposed redevelopment consists of one single story building of approximately 5,200 SF, to contain a 1,800 SF coffee shop and a 3,400 SF surf retail shop. Accessory to the commercial space will be construction of parking stalls, loading spaces and outdoor seating areas for shop patrons. **See Figure 1: Preliminary Concept Site Plan.**

1.2 Purpose

The purpose of this Preliminary Engineering Report is to assess existing and proposed civil infrastructure at the property. As such, this report will evaluate the adequacy of the existing roadway, water, sewer and drainage conditions to accommodate the proposed commercial redevelopment.

1.3 Site Location

The project site is located on a parcel of land at 62-594 Kamehameha Highway in Haleiwa, O'ahu. The parcel is designated as Tax Map Key (TMK): (1) 6-2-003:037 and is approximately 22,284 square feet. The west boundary fronts Kamehameha Highway, the north and east boundary fronts Loko Ea Pond, and its south boundary fronts Lokoea Place. The parcel is currently zoned B-1 Neighborhood Business and is within the Urban state land use district. The parcel is within the Haleiwa Special District, triggering the need for a Special Management Area (SMA) Use Permit (Major) and Haleiwa Special District (SD) Major Permit, on top of the normal entitlements. **See Figure 2: Project Location Map and Figure 3: Tax Map Key.**

2 Roads and Access

2.1 Existing Conditions

2.1.1 Existing Vehicular Access

Primary access to the project property is through Kamehameha Highway, a roadway adjacent to the western edge of the project area. The portion of Kamehameha Highway adjacent to the project site consists of a 45 foot right of way. The right-of-way is owned and maintained by the City and County of Honolulu and contains two delineated vehicular travel lanes without sidewalks. Southbound turn lanes are not provided on Kamehameha Highway at its intersection with Lokoea Place and the posted speed limit is 25 miles per hour (mph). There is a City road

widening setback on Kamehameha Highway that covers between 5' and 15' of the property's frontage along Kamehameha Highway. **See Figure 4: Road Widening Setback.**

Secondary access to the project site is through Lokoea Place, a two-way, local roadway that is privately owned, but maintained by the City and County of Honolulu. The right-of-way contains two delineated vehicular travel lanes without sidewalks and the posted speed limit is 15 mph.

2.1.2 Existing Pedestrian Access

There are no existing sidewalks or designated walkways along the portions of Lokoea Place and Kamehameha Highway that front the project property. However, aerial imagery indicates presence of pedestrian crosswalks on Kamehameha Highway in the vicinity of the subject parcel.

2.1.3 Existing Parking

Delineated parking stalls are not currently provided on-site or along the existing roads. However, vehicles are regularly observed parking along the portions of Kamehameha Highway and Lokoea Place that front the project site.

2.2 Proposed Roads, Access and Parking

Although a portion of property will be dedicated to the City, roadway improvements along Kamehameha Highway and Lokoea Place are not included as part of this project.

Vehicular access to the site will continue to be off of Kamehameha Highway and Lokoea Place. However, driveway improvements are necessary to extend pavement from the existing roadway into the project site.

Based on the Traffic Assessment Report, vehicular and pedestrian traffic is expected to increase. As such, entrance driveway improvements will be provided along the Kamehameha Highway and Lokoea Place access points to accommodate vehicular and pedestrian access to the site.

On-site parking will be provided per Land Use Ordinance requirements and consists of a total of 24 stalls located to the side and rear of buildings.

3 Water Infrastructure

3.1 Existing Conditions

3.1.1 Existing Water System

Potable water in the general area is provided by the Honolulu Board of Water Supply (BWS). Record drawings indicate presence of an 8-inch water line along Lokoea Place and a 16-inch Cast Iron (CI) pipe water main along Kamehameha Highway. Water service to the project site is provided off the 16-inch water line through an existing water lateral and 3/4-inch meter. The

existing meter, number 95031629, is still at the project site and turned off at the curb stop. See **Figure 5: Existing Water System.**

3.1.2 Existing Pressure and Flow Data

An existing BWS fire hydrant (C-135) is located across Lokoea Place. Although BWS has suspended fire flow tests on fire hydrants as a water conservation measure, BWS provided the following calculated flow data for Fire Hydrant C-135:

Static Pressure	94 psi
Residual Pressure	65 psi
Flow	2,000 gpm

Table 1: Fire Flow and Pressure Data

3.2 Proposed Water

3.2.1 Projected Water Demand

Based on high level planning guidelines for commercial zoning, the Board of Water Supply's Water System Standards indicate the average daily demand for the project is approximately 1,500 gpd.

3.2.2 Proposed Water System

Discussion with the Board of Water Supply indicates the existing water system is adequate for the proposed development.

The proposed development will likely utilize the existing water meter to provide domestic water service to the property. Based on the American Water Works Association (AWWA), the existing 3/4 inch meter domestic water meter has a maximum capacity of 30 gpm and a continuous capacity of 15 gpm.

3.2.3 Proposed Fire Protection

BWS stated that off-site fire protection is adequate to accommodate the proposed development. As such, off-site fire protection improvements are not needed.

Since on-site fire hydrants are not proposed, a fire sprinkler system is anticipated in the proposed building.

4 Wastewater Infrastructure

4.1 Existing Conditions

There are no existing municipal sewer systems within project site.

Department of Health (DOH) records indicate presence of an existing cesspool with permit ID 24020. However, DPP records include a Tank and Cesspool Removal application dated March 2008. Confirmation of cesspool existence is needed. If the cesspool is not yet removed, it should be closed in accordance with DOH requirements.

The mauka portion of the parcel is located within the Board of Water Supply (BWS) no pass zone. BWS defines a no pass zone as an area that prohibits installation of waste disposal facilities that may contaminate ground water resources. The entire project site is located mauka of the UIC line. As such the use of injection wells (e.g., seepage pits) for effluent disposal is prohibited. **See Figure 6: DOH UIC Line and BWS Pass/No Pass Line.**

4.2 Proposed Wastewater

4.2.1 Wastewater Projection

The proposed improvements have a projected wastewater flow of 958 gallon per day, as calculated in Table 2, below.

PROJECTED ESTIMATED WASTEWATER FLOW						
Building Use	Building Area	Customers	Employees	Flow per Employee (GPD)	Flow per transaction (GPD)	Projected Flow (GPD)
Coffee Shop	1,800	280	5	8.4	3	882
Retail (Employee only Restroom)	3,400	-	9	8.4		76
TOTAL	5,200	280	14	-	-	958
<i>Assumptions:</i>						
Customers based on 20 transactions per hour for 14 hours (6 am - 8 pm) = 280 customers/day						
Employees are calculated based on 1 employee per 400 SF of Building Area						
Employee Flows based on low flow fixtures (1.8 WC + 0.3 LAV) 2.1 GPD x 4 uses = 8.4 GPD per Employee						
Coffee Shop flows are based on 3 GPD per customer						

Table 2: Wastewater Flow Projection

4.2.2 Proposed Wastewater System

Since there is no sewer service in the general area, an onsite Individual Wastewater System (IWS) will be provided. However, additional characterization of wastewater influent quality is needed to determine the type of treatment that will be provided. At a minimum, IWS treatment will be provided in the form of redundant septic tanks in parallel.

Disposal will be provided through the use of an absorption bed located on the northeast boundary of the parcel, within the BWS pass zone. The absorption bed consists of subsurface chambers

installed in a bed of crushed rock and will be installed such that the bottom of the bed maintains a minimum 3-foot separation from ground water.

Special restrictions should be placed on the coffee retailer to prohibit dumping of coffee grounds, and other organic waste products into the wastewater system to control Biochemical Oxygen Demand levels in the wastewater stream. Access to restrooms should also be restricted to employees to control projected daily wastewater flows and keep the system classified as an IWS.

5 Drainage Infrastructure

5.1 Existing Conditions

5.1.1 Existing Soil Conditions

Based on USDA Web Soil Survey, most of the project area consists of soil type Jaucas (JaC) with 0% to 15% slopes. The remainder of the project area consists of soil type Haleiwa silty clay (HeA) with 0-2 percent slopes on the southern corner and soil Tropaquepts (TR) on the southeastern corner. Soils at project site exhibit properties presented in Table 3, below. **See Figure 7 – Soil Map.**

Soil Type	Jaucas Sand (0% to 5% Slopes)	Haleiwa Silty Clay (0% to 2% Slopes)	Tropaquepts
Drainage Class	Excessively Drained	Well Drained	Poorly Drained
Runoff Class	Low	Very Low	Negligible
Permeability	High to very high (6.00 to 19.88 in/hr)	Moderately high to high (0.60 to 1.98 in/hr)	Moderately high (0.20 to 0.57 in/hr)
Depth to Restrictive Layer	More than 80 inches	More than 80 inches	More than 80 inches

Table 3: Soil Properties

5.1.2 Existing Topography and Drainage Patterns

The existing property is a vacant parcel that was formerly occupied by a Chevron Service station. Since cessation of operations, the parcel remained vacant with vegetation consisting of clumps of short grass scattered throughout. Available topographic survey indicates elevations at the site range from 4.9 to 8 feet above Mean Sea Level, with a high point within the project site and shallow slopes that drain outward toward all property lines. **See Figure 8 – Topographic Map.**

5.1.3 Existing Wetlands

There are no wetlands within the project property. However, existing wetlands are present in the general area; Loko Ea Pond lies 65 feet northeast of the project site's northeastern border and Anahulu Stream is located approximately 300 feet south of the project site.

5.1.4 Existing Flood Hazards

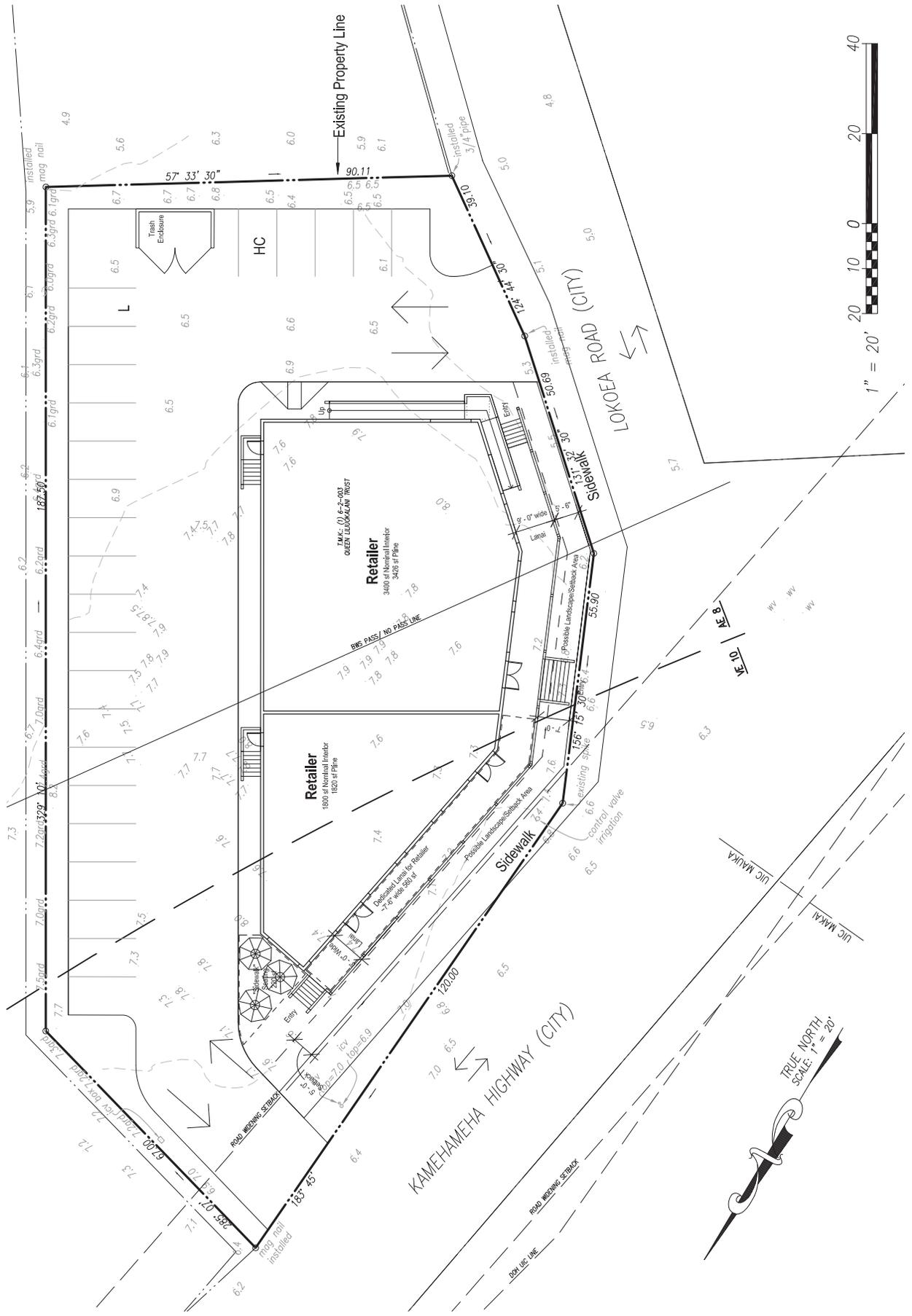
The project site is located within Flood Zones AE and VE, areas within the 100-year flood zone and 100-year flood zone with velocity hazards, respectively. At the project site, Flood Zone AE has a Base Flood Elevation (BFE) of 8 feet above mean sea level while Flood Zone VE has a BFE of 10 feet above mean sea level. **See Figure 9–Flood Zones.**

5.2 Potential Drainage Requirements

Project site located completely within the 100 year FEMA flood zones. As such, proposed improvements will comply with the Revised Ordinances of Honolulu Chapter 21A – Flood Hazard Areas, which include regulations for development within a flood hazard district.

The parking lot serving the proposed retail spaces is less than 10,000 square feet. As such, Low Impact Development (LID) is not required by the City. Since there are no subsurface drainage systems in the general area, drainage improvements will be limited to grading and surface features.

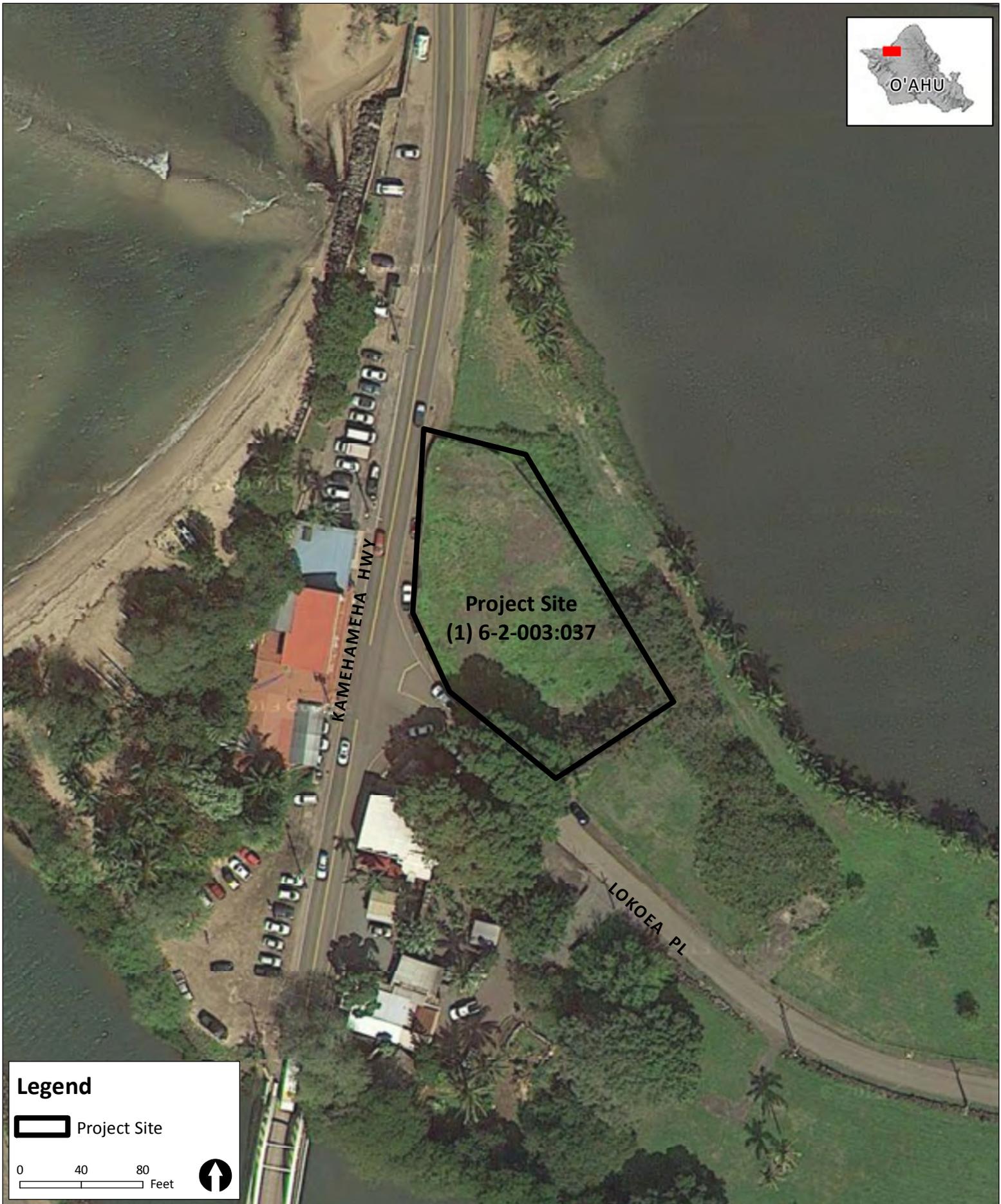
Existing drainage patterns will remain and proposed runoff rates will be attenuated to be less than existing stormwater runoff rates for the 10-year design storm.





The Shops at Anahulu
 Project Location Map
 Lokoea Kai Partners, LLC

Figure 2



Legend

 Project Site

0 40 80
Feet



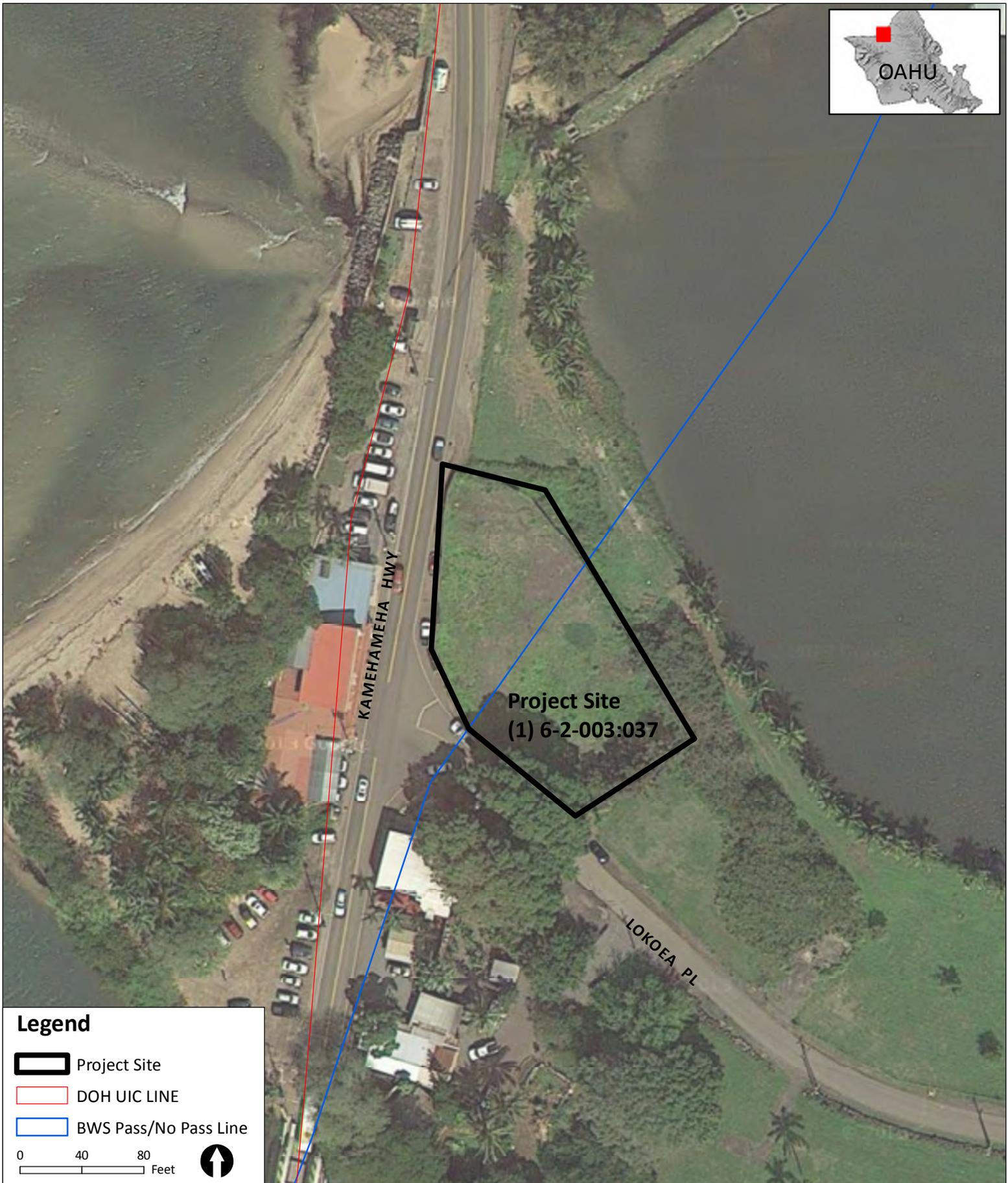
The Shops at Anahulu
Project Site

Lokoea Kai Partnes, LLC

Figure 3

Prepared By: Ana Salgado





The Shops at Anahulu
DOH UIC Line and
BWS Pass/No Pass Line
Lokoea Kai Partnes, LLC



Source: Soils, 2014 - USDA NRCS SSURGO

The Shops at Anahulu Soil Map

Lokoea Kai Partners, LLC

Figure 7

Prepared By: Ana Salgado



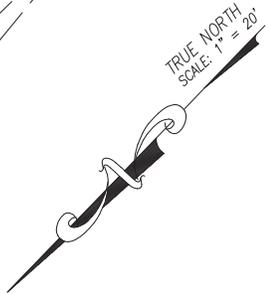
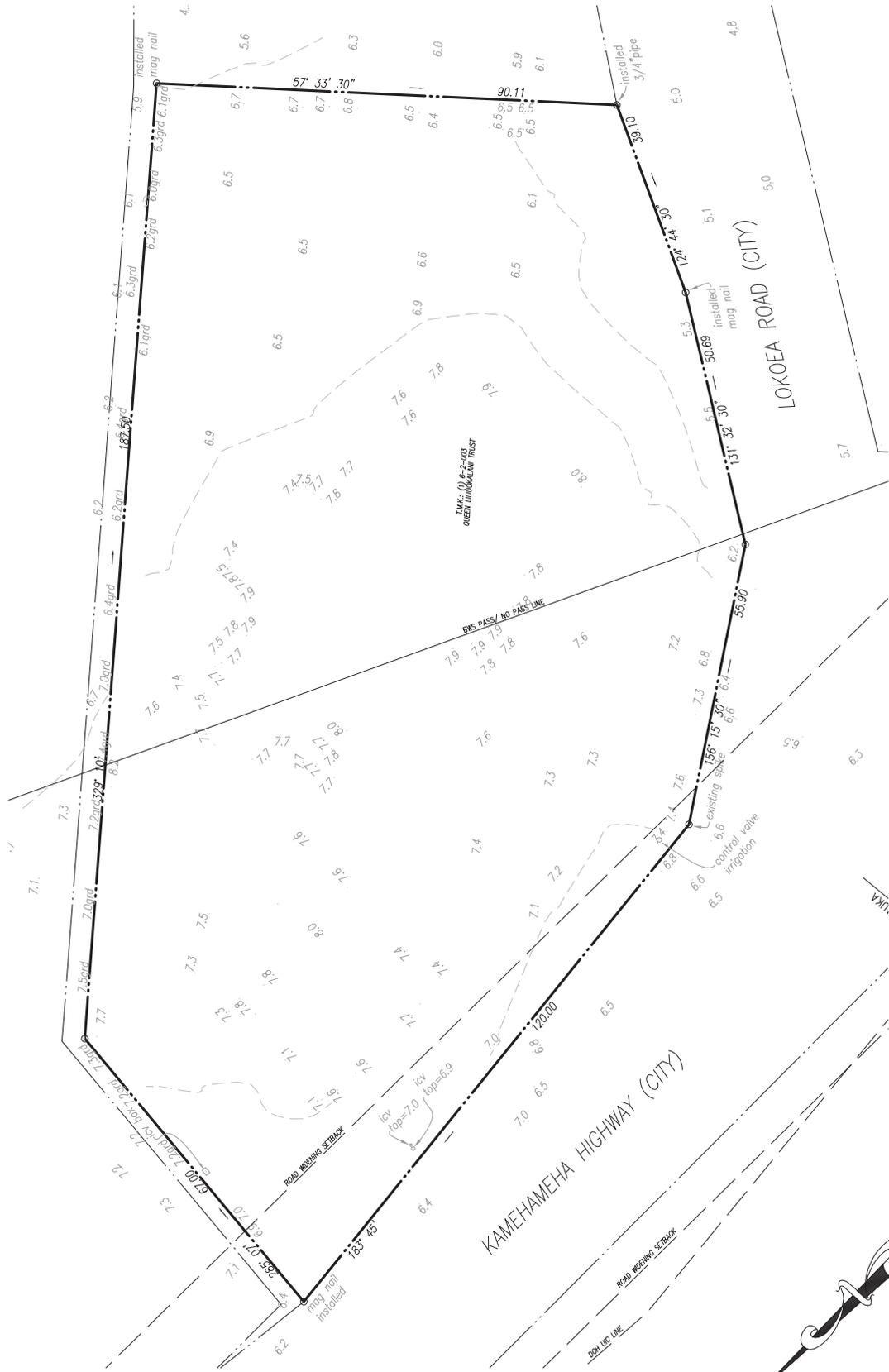

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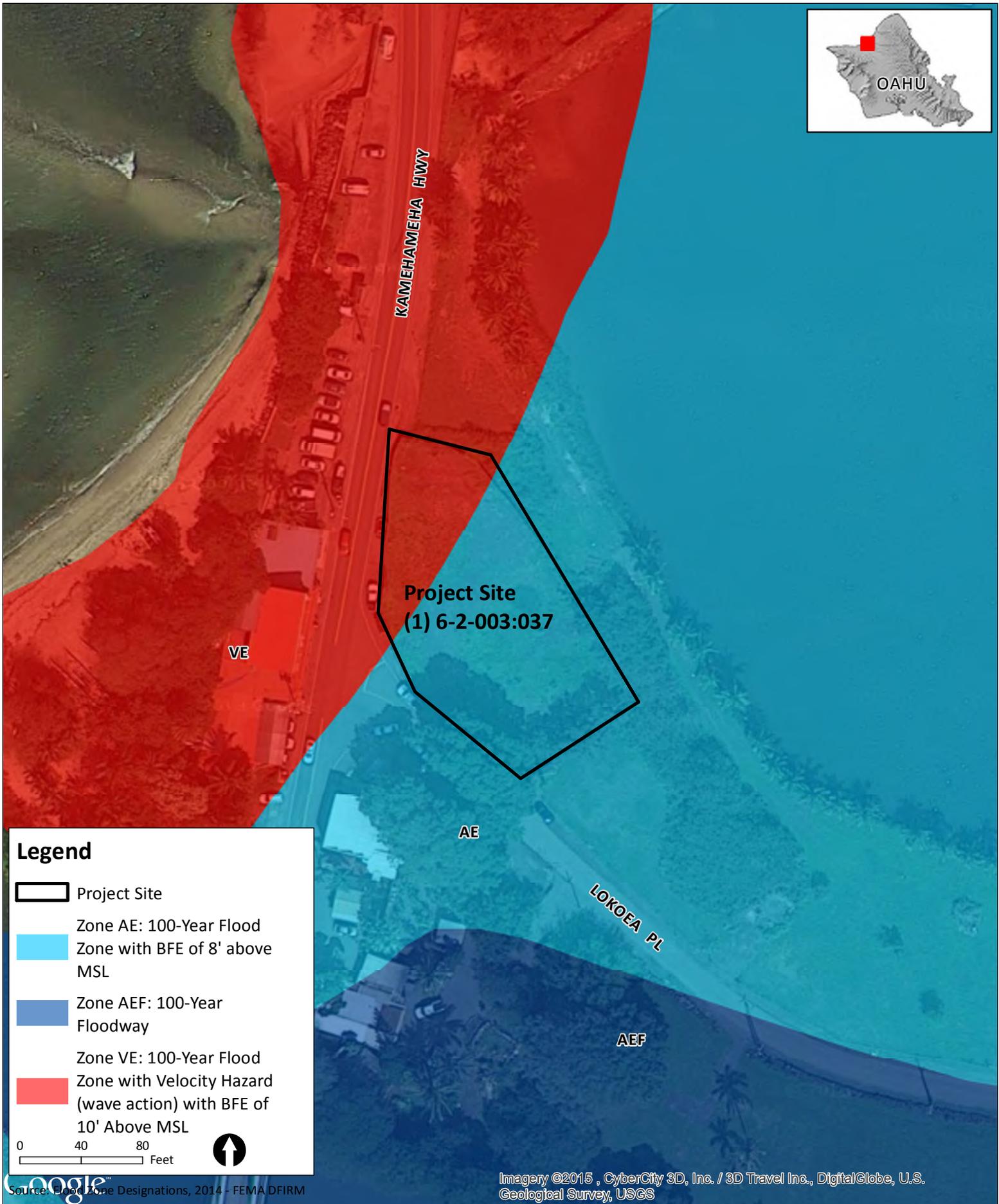
THE SHOPS AT ANAHULU TOPOGRAPHIC MAP

CAD DRAWING:
 214059-01 Topomap
 SCALE: 1"=20'
 DATE: October 2, 2015
 PROJECT #: 214059-01

FIGURE

8





Legend

-  Project Site
-  Zone AE: 100-Year Flood Zone with BFE of 8' above MSL
-  Zone AEF: 100-Year Floodway
-  Zone VE: 100-Year Flood Zone with Velocity Hazard (wave action) with BFE of 10' Above MSL

0 40 80 Feet 

Source: Flood Zone Designations, 2014 - FEMA DFIRM

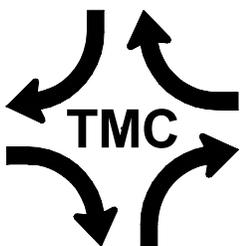
Imagery ©2015 , CyberCity 3D, Inc. / 3D Travel Inc., DigitalGlobe, U.S. Geological Survey, USGS

Appendix F

TRAFFIC ASSESSMENT REPORT

TRAFFIC ASSESSMENT REPORT
FOR THE PROPOSED
THE SHOPS AT ANAHULU
HALE`IWA, OAHU, HAWAII
TAX MAP KEY: (1) 6-2-003:037

PREPARED FOR
GROUP 70 INTERNATIONAL, INC.
OCTOBER 27, 2015

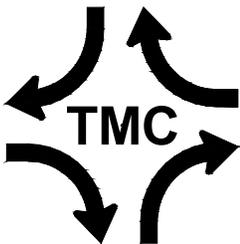


PREPARED BY
THE TRAFFIC MANAGEMENT CONSULTANT

TRAFFIC ASSESSMENT REPORT
FOR THE PROPOSED
THE SHOPS AT ANAHULU

HALE`IWA, OAHU, HAWAII

TAX MAP KEY: (1) 6-2-003:037



THE TRAFFIC MANAGEMENT CONSULTANT

RANDALL S. OKANEKU, P.E., PRINCIPAL * 1188 BISHOP STREET, SUITE 1907 * HONOLULU, HI 96813

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TRAFFIC ASSESSMENT REPORT
FOR THE PROPOSED
THE SHOPS AT ANAHULU

HALE`IWA, OAHU, HAWAII
TAX MAP KEY: (1) 6-2-003:037

I. Introduction

A. Project Description

The proposed The Shops at Anahulu site is located at 62-594 Kamehameha Highway, on the northeast corner of the intersection of Kamehameha Highway and Lokoea Place in Hale`iwa Town. The 2,284 square foot project site is identified as Tax Map Key: (1) 6-2-003:037, and is located directly across from the Surf N Sea Shop on Kamehameha Highway. Figure 1 depicts the location of The Shops at Anahulu.

The Shops at Anahulu is proposed to be developed into a retail project with a total of 5,200 square feet of gross leasable floor area (SFGLFA) and 25 parking stalls. Table 1 summarizes the potential retail tenants.

Table 1. The Shops at Anahulu	
Land Use	SFGLFA
Specialty Retail	3,400
Coffee Shop	1,800
Totals	5,200

Access is proposed on Kamehameha Highway and on Lokoea Place. For the purpose of this traffic assessment, The Shops at Anahulu is expected to be built out by the Year 2017. The proposed site plan is depicted on Figure 2.



Figure 1. Location and Vicinity Map



Figure 2. Site Plan



B. Purpose and Scope of the Study

The purpose of this study is to assess the traffic impacts resulting from The Shops at Anahulu. This report presents the findings and recommendations of the study, the scope of which includes:

1. A description of the proposed project.
2. An evaluation of existing roadways and traffic conditions.
3. The analysis of the future traffic conditions without the proposed project.
4. The development of trip generation characteristics of the proposed project.
5. The identification and analysis of the traffic impacts resulting from the development of the proposed project.
6. The recommendations of roadway improvements, which would mitigate the traffic impacts identified in this study.

C. Methodologies

1. Capacity Analysis Methodology

The highway capacity analysis, performed for this study, is based upon procedures presented in the Highway Capacity Manual (HCM), published by the Transportation Research Board. HCM defines Level of Service (LOS) as “a quality measure describing operational conditions within a traffic stream”. Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience.

LOS's “A”, “B”, and “C” are considered satisfactory Levels of Service. LOS “D” is generally considered a “desirable minimum” operating level of service. LOS “E” is an undesirable condition, and LOS “F” is an unacceptable condition. Intersection LOS is primarily based upon delay. Table 2 summarizes the LOS criteria.

Table 2. Level of Service Criteria (HCM)	
LOS	Unsignalized Intersections
	Control Delay (sec/veh)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50



Worksheets for the capacity analysis performed throughout this study are compiled in the Appendix.

2. Trip Generation Methodology

The trip generation methodology is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in Trip Generation, 9th Edition. ITE trip rates were developed by correlating the total vehicle trip generation data with various activity/land use characteristics, such as the vehicle trips per hour (vph) per 1,000 square feet of gross leasable floor area (SFGLFA). The ITE rates for a specialty retail center and coffee shop were used for this traffic assessment.

A portion of the peak hour trips generated by a retail project is considered “pass-by” trips, i.e., traffic already on the road stopping at a “secondary” destination. The percentages of pass-by trips were correlated with the gross leasable floor areas of the retail shops, which were taken from studies that were compiled by ITE. The results of the analysis were published in the Trip Generation Handbook, 2nd Edition, June, 2004.

3. Left-Turn Lane Warrant

The left-turn lane analysis on a two-lane highway is based upon A Policy on Geometric Design of Highways and Streets, 2011, published by the American Association of State Highway and Transportation Officials (AASHTO). The AASHTO guide analyzes the combination of the left-turn volume (minimum of 5 percent of the advancing volume), the advancing volume (left-turn, through and right-turn volume totals), the opposing volume (left-turn, through and right-turn volume totals), and operating speed (minimum 40 miles per hour). The AASHTO guide is based upon the "Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections", Highway Research Record 211, Highway Research Board, 1967, by M. D. Harmelink. The Harmelink left-turn volume warrant analyzes the probability of the arrival of an advancing vehicle slowing and/or stopping behind a vehicle, which is waiting to turn left from the through lane.

II. Existing Conditions

A. Roadways

Kamehameha Highway is the primary collector roadway in Hale`iwa Town. Kamehameha Highway is a two-way, two-lane roadway with a posted speed of 25 miles per hour (mph).

Lokoea Place is a two-way, two-lane local roadway with a posted speed of 15 mph. Lokoea Place is stop-controlled at its skewed Tee-intersection with Kamehameha Highway.



An exclusive left-turn lane is not provided on southbound Kamehameha Highway at Lokoea Place.

B. Existing Peak Hour Traffic Volumes and Operating Conditions

1. Field Investigation and Data Collection

A bi-directional traffic count survey was conducted on Kamehameha Highway, north of Lokoea Place, on April 9, 2015 (Thursday) from 2:00 PM to 6:00 PM, April 10, 2015 (Friday) from 12 noon to 2:00 PM, and April 11, 2015 (Saturday) from 12 noon to 6:00 PM, to determine the afternoon peak periods of weekday and Saturday traffic. Turning movement count traffic surveys were conducted at the intersection of Kamehameha Highway and Lokoea Place on April 10, 2015 (Friday), during the PM peak period of weekday traffic, from 12:00 noon to 2:00 PM, and April 11, 2015 (Saturday), during the Saturday peak period of traffic, from 12 noon to 3:00 PM.

2. Existing Weekday PM Peak Hour Traffic

The existing PM peak hour of weekday traffic occurred from 12:30 PM to 1:30 PM. Kamehameha Highway carried about 900 vehicles per hour (vph), total for both directions, during the existing PM peak hour of weekday traffic. Lokoea Place carried 32 vph, total for both directions.

Lokoea Place operated at LOS “B” at Kamehameha Highway, during the existing PM peak hour of weekday traffic. The other traffic movements at the intersection operated at LOS “A”. The left-turn demand from Kamehameha Highway to Lokoea Place did not meet the AASHTO volume warrant for an exclusive left-turn lane, during the existing PM peak hour of weekday traffic. Figure 3 depicts the existing weekday PM peak hour traffic volumes.

3. Existing Saturday Peak Hour Traffic

The existing Saturday peak hour of traffic occurred between 2:15 PM and 3:15 PM. Kamehameha Highway carried over 1,100 vph, total for both directions. Lokoea Place carried 24 vph, total for both directions, during the existing Saturday peak hour of traffic.

Lokoea Place continued to operate at LOS “B” at Kamehameha Highway, during the existing Saturday peak hour of traffic. The other traffic movements at the intersection operated at LOS “A”, during the existing Saturday peak hour of traffic. The left-turn demand from Kamehameha Highway to Lokoea Place did not meet the AASHTO volume warrant for an exclusive left-turn lane, during the existing Saturday peak hour of traffic. The existing Saturday peak hour traffic volumes are depicted on Figure 4.

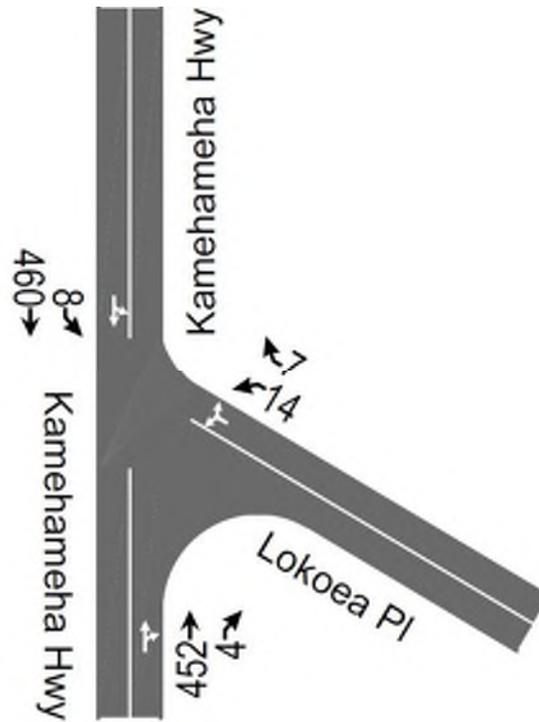


Figure 3. Existing Weekday PM Peak Hour Traffic

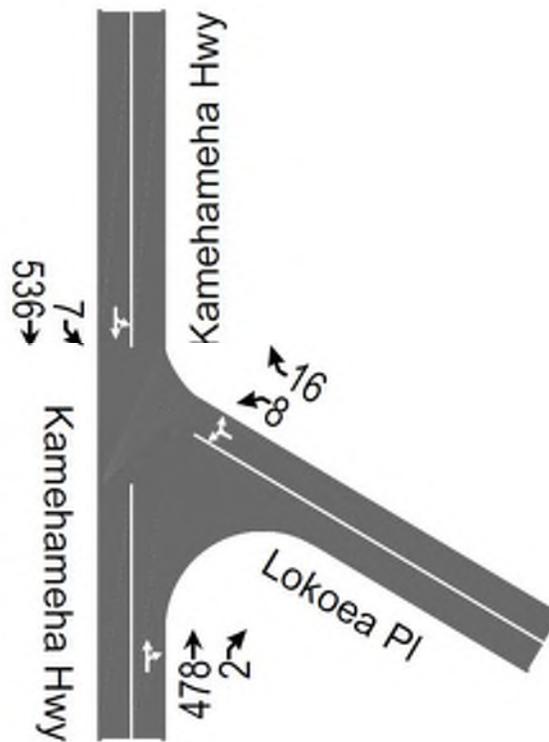


Figure 4. Existing Saturday Peak Hour Traffic



III. Future Traffic Conditions Without the Proposed Project

A. Background Growth in Traffic

The population and employment forecasts for Oahu were published in the Oahu Regional Transportation Plan 2035, by the Oahu Metropolitan Planning Organization in April, 2011. By the Year 2035, the population of the North Shore of Oahu is expected to increase by about 0.5 percent per year, while employment is expected to decline. For the purpose of this analysis, a background growth in traffic of 0.5 percent per year was assumed. A growth factor of 1.01 was uniformly applied to the existing (Year 2015) peak hour traffic demands to estimate the Year 2017 peak hour traffic demands without the proposed project.

B. 7-Eleven Hale`iwa Project

The former Union 76 gas station, on the southwest corner of the intersection of Kamehameha Highway and Hale`iwa Road, is being redeveloped into a 7-Eleven Store. The 14,733 square foot site is identified as Tax Map Key: (1) 6-6-001:033. The project site will contain a 7-Eleven convenience store with 2,309 square feet of gross floor area (SFGFA), two (2) fuel pumps with a total of four (4) fueling positions.

The Traffic Access Analysis Report for the Proposed 7-Eleven Hale`iwa Project, was prepared by The Traffic Management Consultant, dated September 26, 2011. The 7-Eleven Hale`iwa Project is expected to generate 101 vph and 129 vph, during the PM and Saturday peak hours of traffic, respectively. The 7-Eleven Hale`iwa Project traffic was added to the background growth in traffic for this traffic assessment.

C. Weekday PM Peak Hour Traffic Without the Proposed Project

Lokoea Place is expected to operate at LOS “C”, during the PM peak hour of weekday traffic without the proposed project. The left-turn demand from Kamehameha Highway to Lokoea Place is not expected to meet the AASHTO volume warrant for an exclusive left-turn lane, during the PM peak hour of weekday traffic without the proposed project. Figure 5 depicts the weekday PM peak hour traffic without the proposed project.

D. Weekday Saturday Peak Hour Traffic Without the Proposed Project

During the Saturday peak hour of traffic without the proposed project, Lokoea Place is expected to operate at LOS “B”. The left-turn demand from Kamehameha Highway to Lokoea Place is not expected to meet the AASHTO volume warrant for an exclusive left-turn lane, during the Saturday peak hour of traffic without the proposed project. The Saturday peak hour traffic without the proposed project is depicted on Figure 6.

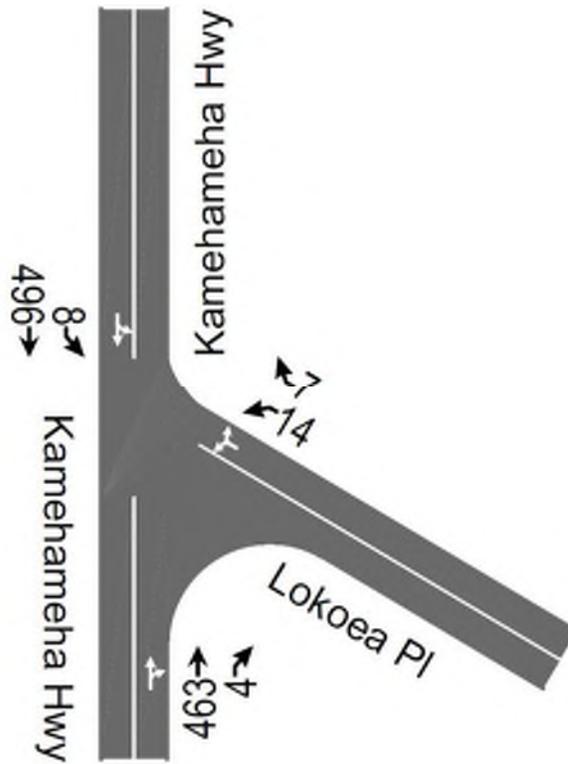


Figure 5. Weekday PM Peak Hour Traffic Without Project

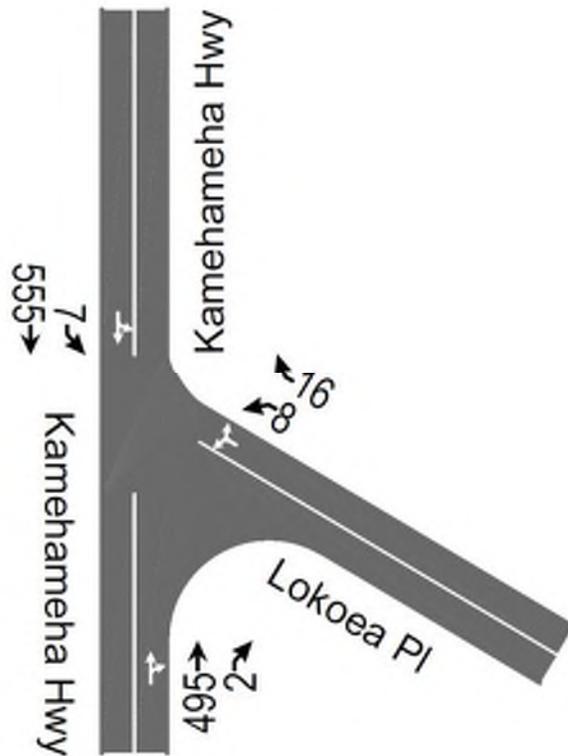


Figure 6. Saturday Peak Hour Traffic Without Project



IV. Traffic Assessment

A. Trip Generation Characteristics

The Shops at Anahulu trip generation characteristics were based upon the ITE trip rates for a coffee/doughnut shop and specialty retail center. The Shops at Anahulu are expected to generate totals of 65 vph and 132 vph, during the PM peak hour of weekday traffic and the Saturday peak hour of traffic, respectively. Of the total site trips, 42 vph and 106 vph are expected to be pass-by trips, during the PM peak hour of weekday traffic and the Saturday peak hour of traffic, respectively. The proposed project is expected to generate 23 vph and 26 vph primary (new) trips, during the PM peak hour of weekday traffic and the Saturday peak hour of traffic, respectively. The trip generation characteristics for the proposed project are summarized in Table 3.

Table 3. Trip Generation Characteristics							
Land Use (ITE Code)	SFGLA	PM Peak Hour (vph)			Saturday Peak Hour (vph)		
		Enter	Exit	Total	Enter	Exit	Total
Specialty Retail (826)	3,400	10	8	18	7	6	13
Coffee Shop (936)	1,800	23	24	47	57	62	119
Subtotal Site Trips		33	32	65	64	68	132
Pass-By Site Trips		21	21	42	53	53	106
Net Increase in Site Trips		12	11	23	11	15	26



B. Weekday PM Peak Hour Traffic With Proposed Project

During the PM peak hour of traffic with the proposed project, Lokoea Place is expected to operate at LOS “C”. The Kamehameha Driveway and the Lokoea Driveway are expected to operate at LOS “C” and LOS “A”, respectively. The left-turn demands from Kamehameha Highway to Lokoea Place and to the Kamehameha Driveway are not expected to meet the AASHTO volume warrant for exclusive left-turn lanes, during the PM peak hour of weekday traffic with the proposed project. The weekday PM peak hour traffic with the proposed project is depicted on Figure 7.

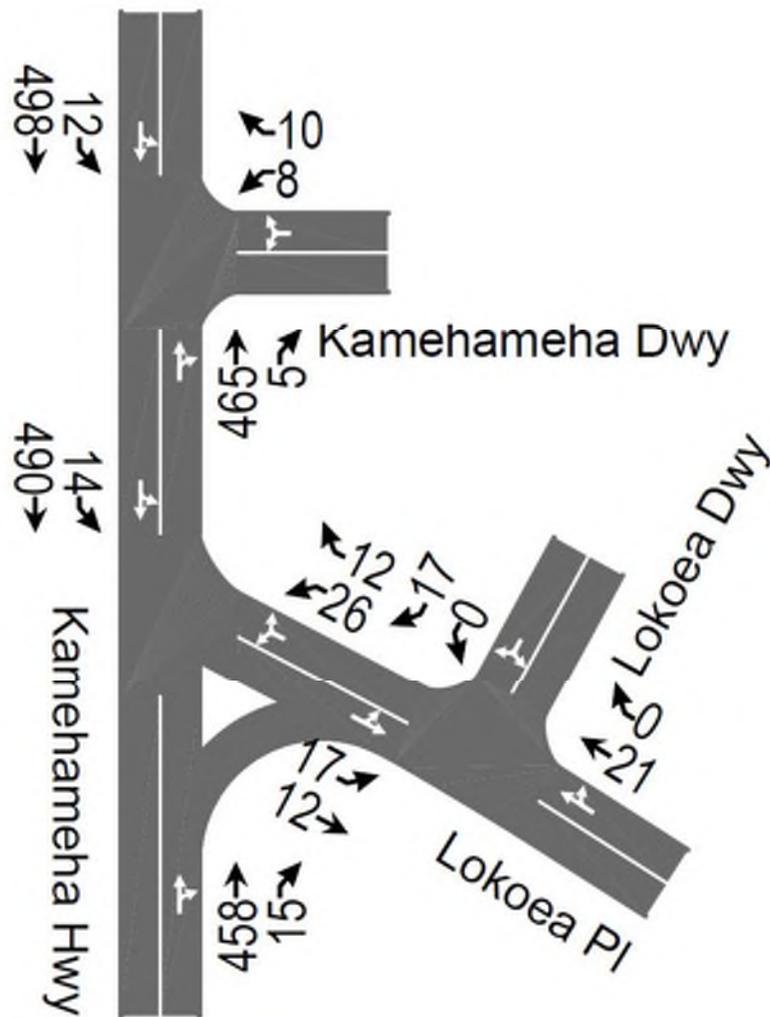


Figure 7. Weekday PM Peak Hour Traffic With Project



C. Weekday Saturday Peak Hour Traffic With Proposed Project

Lokoea Place is expected to operate at LOS “C”, during the Saturday peak hour of weekday traffic with the proposed project. The Kamehameha Driveway and the Lokoea Driveway are expected to operate at LOS “C” and LOS “A”, respectively. The left-turn demands from Kamehameha Highway to Lokoea Place and to the Kamehameha Driveway are not expected to meet the AASHTO volume warrant for exclusive left-turn lanes, during the Saturday peak hour of traffic with the proposed project. Figure 8 depicts the Saturday peak hour traffic with the proposed project.

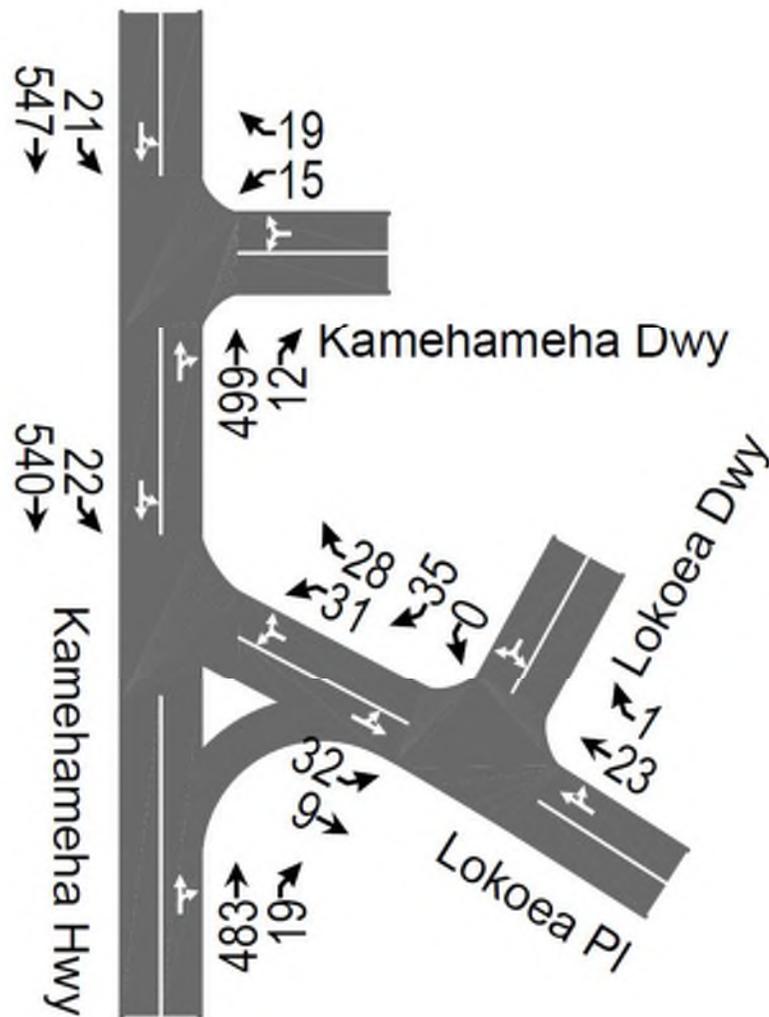


Figure 8. Saturday Peak Hour Traffic With Project



V. Recommendations and Conclusions

A. Recommended Traffic Improvements

1. The site access driveways should be constructed as far from the intersection of Kamehameha Highway and Lokoea Place as feasible.
2. The site frontages on Kamehameha Highway and Lokoea Place should be improved to include curbs, gutters, and sidewalks.
3. The intersection of Kamehameha Highway and Lokoea Place should be channelized to improve pedestrian safety. The intersection channelization should include a pedestrian island on the southeast corner of the intersection, and the reduction of the radius of the curb return on the northeast corner of the intersection.
4. Crosswalks should be striped on all legs of the intersection of Kamehameha Highway and Lokoea Place.

B. Conclusions

Lokoea Place intersects Kamehameha Highway at a skewed angle, which results in a large intersection area. Pedestrian traffic crossing the intersection of Kamehameha Highway and Lokoea Place can be expected to increase with the development of The Shops at Anahulu. The recommended improvements are expected to enhance pedestrian safety by restricting the vehicular paths and limiting the pedestrian traffic to the marked crosswalks at the intersection of Kamehameha Highway and Lokoea Place.

Lokoea Place is expected to operate at LOS “C” at Kamehameha Highway, during the PM peak hour of weekday traffic and the Saturday peak hour of traffic, respectively. The Kamehameha Driveway also is expected to operate at LOS “C”, during the PM and Saturday peak hours of traffic. The Lokoea Driveway is expected to operate at LOS “A”, during the peak hours of traffic. The left-turn demands from Kamehameha Highway to Lokoea Place are not expected to meet the AASHTO volume warrant for an exclusive left-turn lane, during the weekday PM and the Saturday peak hour of traffic with the proposed project.

Over 80 percent of the peak hour trips, which are expected to be generated by The Shops at Anahulu, are expected to be pass-by trips, i.e., traffic already on the road stopping at a “secondary” destination. The trips generated by the proposed project are expected to increase peak hour traffic on Kamehameha Highway by less than two (2) percent. The Shops at Anahulu are not expected to significantly impact traffic operations on Kamehameha Highway, during the peak hours of traffic.

TRAFFIC ASSESSMENT REPORT
FOR THE PROPOSED
THE SHOPS AT ANAHULU
HALE`IWA, OAHU, HAWAII
TAX MAP KEY: (1) 6-2-003:037

APPENDIX A
TRAFFIC COUNT DATA

Study Name Kamehameha Hwy S of Lokoea PI

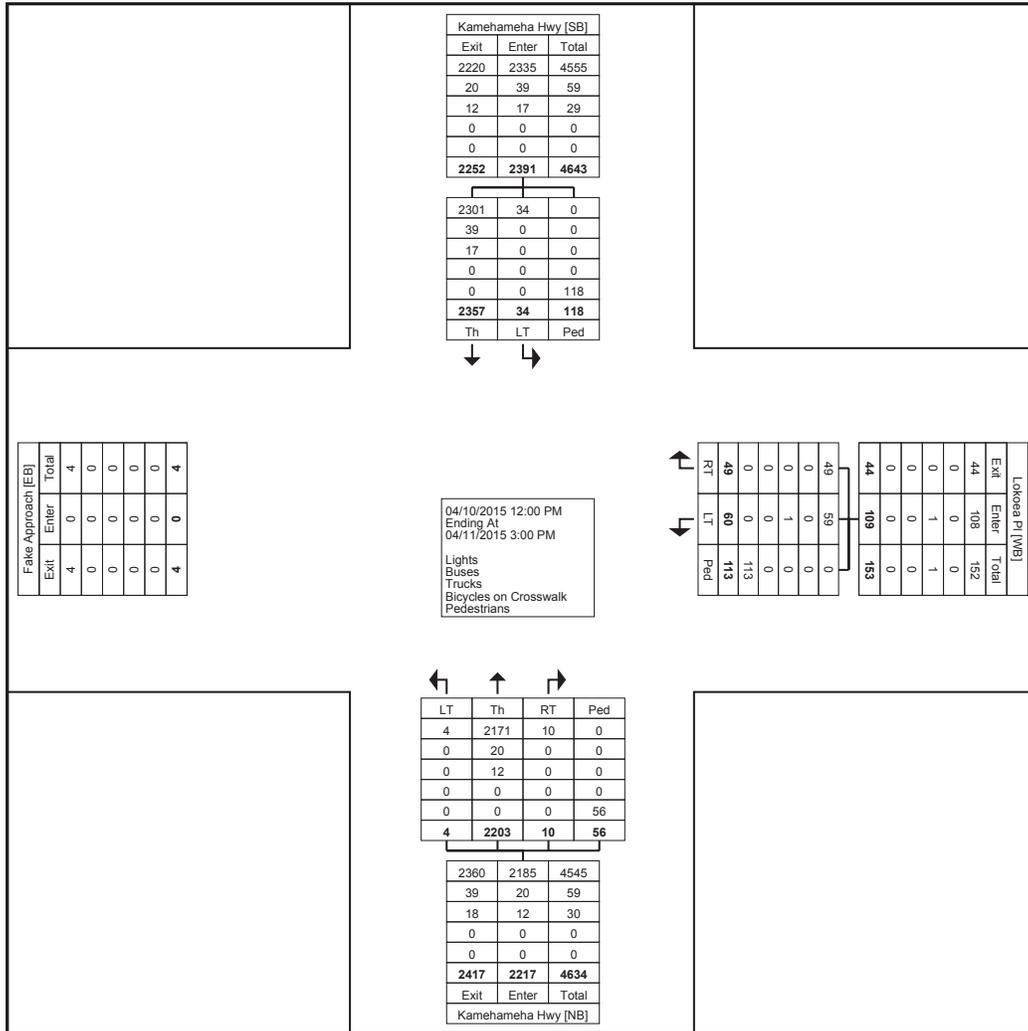
Start Date 04/09/2015

Start Time 2:00 PM

From	To	Direction	Direction	Total
		Southbound	Northbound	
Thursday, April 09, 2015				
2:00 PM	2:15 PM	102	84	186
2:15 PM	2:30 PM	91	103	194
2:30 PM	2:45 PM	111	93	204
2:45 PM	3:00 PM	105	90	195
3:00 PM	3:15 PM	115	89	204
3:15 PM	3:30 PM	99	94	193
3:30 PM	3:45 PM	124	107	231
3:45 PM	4:00 PM	90	117	207
4:00 PM	4:15 PM	113	92	205
4:15 PM	4:30 PM	95	90	185
4:30 PM	4:45 PM	113	89	202
4:45 PM	5:00 PM	113	87	200
5:00 PM	5:15 PM	97	95	192
5:15 PM	5:30 PM	96	91	187
5:30 PM	5:45 PM	100	74	174
5:45 PM	6:00 PM	112	89	201
Friday, April 10, 2015				
12:00 PM	12:15 PM	119	92	211
12:15 PM	12:30 PM	90	96	186
12:30 PM	12:45 PM	109	89	198
12:45 PM	1:00 PM	125	122	247
1:00 PM	1:15 PM	130	110	240
1:15 PM	1:30 PM	114	132	246
1:30 PM	1:45 PM	102	95	197
1:45 PM	2:00 PM	99	85	184
Saturday, April 11, 2015				
12:00 PM	12:15 PM	117	112	229
12:15 PM	12:30 PM	125	105	230
12:30 PM	12:45 PM	128	111	239
12:45 PM	1:00 PM	116	115	231
1:00 PM	1:15 PM	111	120	231
1:15 PM	1:30 PM	144	122	266
1:30 PM	1:45 PM	143	126	269
1:45 PM	2:00 PM	135	106	241
2:00 PM	2:15 PM	132	117	249
2:15 PM	2:30 PM	122	114	236
2:30 PM	2:45 PM	122	111	233
2:45 PM	3:00 PM	135	110	245
3:00 PM	3:15 PM	126	113	239
3:15 PM	3:30 PM	120	121	241
3:30 PM	3:45 PM	153	83	236
3:45 PM	4:00 PM	124	91	215
4:00 PM	4:15 PM	120	128	248
4:15 PM	4:30 PM	150	97	247
4:30 PM	4:45 PM	111	82	193
4:45 PM	5:00 PM	132	81	213
5:00 PM	5:15 PM	85	83	168
5:15 PM	5:30 PM	117	88	205
5:30 PM	5:45 PM	90	81	171
5:45 PM	6:00 PM	141	75	216

Turning Movement Data

Start Time	Lokoea PI Westbound				Kamehameha Hwy Northbound					Kamehameha Hwy Southbound				Int. Total
	Left-Turn	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Peds	App. Total	
12:00 PM	2	0	3	2	0	94	0	3	94	1	113	1	114	210
12:15 PM	1	3	0	4	1	95	0	3	96	5	91	0	96	196
12:30 PM	4	1	4	5	1	86	2	5	89	2	106	1	108	202
12:45 PM	3	0	1	3	0	124	1	2	125	1	121	1	122	250
Hourly Total	10	4	8	14	2	399	3	13	404	9	431	3	440	858
1:00 PM	5	2	1	7	0	108	1	1	109	3	124	0	127	243
1:15 PM	2	4	9	6	0	134	0	5	134	2	109	8	111	251
1:30 PM	1	4	0	5	1	92	1	4	94	2	100	0	102	201
1:45 PM	1	1	2	2	0	84	1	1	85	0	101	0	101	188
Hourly Total	9	11	12	20	1	418	3	11	422	7	434	8	441	883
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	7	5	7	12	0	116	0	0	116	2	109	8	111	239
12:15 PM	3	0	11	3	0	105	0	0	105	2	121	11	123	231
12:30 PM	6	2	9	8	0	111	1	0	112	1	117	18	118	238
12:45 PM	3	1	4	4	0	118	1	0	119	0	114	11	114	237
Hourly Total	19	8	31	27	0	450	2	0	452	5	461	48	466	945
1:00 PM	2	6	2	8	0	123	2	7	125	2	115	9	117	250
1:15 PM	0	4	0	4	0	125	0	1	125	3	143	6	146	275
1:30 PM	5	2	6	7	1	125	0	3	126	2	142	0	144	277
1:45 PM	1	4	9	5	0	105	0	5	105	0	136	11	136	246
Hourly Total	8	16	17	24	1	478	2	16	481	7	536	26	543	1048
2:00 PM	3	0	15	3	0	112	0	0	112	2	127	9	129	244
2:15 PM	5	6	7	11	0	117	0	6	117	4	119	11	123	251
2:30 PM	2	3	10	5	0	114	0	3	114	0	120	6	120	239
2:45 PM	4	1	13	5	0	115	0	7	115	0	129	7	129	249
Hourly Total	14	10	45	24	0	458	0	16	458	6	495	33	501	983
Grand Total	60	49	113	109	4	2203	10	56	2217	34	2357	118	2391	4717
Approach %	55.0	45.0	-	-	0.2	99.4	0.5	-	-	1.4	98.6	-	-	-
Total %	1.3	1.0	-	2.3	0.1	46.7	0.2	-	47.0	0.7	50.0	-	50.7	-
Lights	59	49	-	108	4	2171	10	-	2185	34	2301	-	2335	4628
% Lights	98.3	100.0	-	99.1	100.0	98.5	100.0	-	98.6	100.0	97.6	-	97.7	98.1
Buses	0	0	-	0	0	20	0	-	20	0	39	-	39	59
% Buses	0.0	0.0	-	0.0	0.0	0.9	0.0	-	0.9	0.0	1.7	-	1.6	1.3
Trucks	1	0	-	1	0	12	0	-	12	0	17	-	17	30
% Trucks	1.7	0.0	-	0.9	0.0	0.5	0.0	-	0.5	0.0	0.7	-	0.7	0.6
Bicycles on Crosswalk	-	-	0	-	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	0.0	-	-	-	-	0.0	-	-	-	0.0	-	-
Pedestrians	-	-	113	-	-	-	-	56	-	-	-	118	-	-
% Pedestrians	-	-	100.0	-	-	-	-	100.0	-	-	-	100.0	-	-



Turning Movement Data Plot

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Lokoea PI Westbound				Kamehameha Hwy Northbound					Kamehameha Hwy Southbound				Int. Total
	Left-Turn	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Peds	App. Total	
12:30 PM	4	1	4	5	1	86	2	5	89	2	106	1	108	202
12:45 PM	3	0	1	3	0	124	1	2	125	1	121	1	122	250
1:00 PM	5	2	1	7	0	108	1	1	109	3	124	0	127	243
1:15 PM	2	4	9	6	0	134	0	5	134	2	109	8	111	251
Total	14	7	15	21	1	452	4	13	457	8	460	10	468	946
Approach %	66.7	33.3	-	-	0.2	98.9	0.9	-	-	1.7	98.3	-	-	-
Total %	1.5	0.7	-	2.2	0.1	47.8	0.4	-	48.3	0.8	48.6	-	49.5	-
PHF	0.700	0.438	-	0.750	0.250	0.843	0.500	-	0.853	0.667	0.927	-	0.921	0.942
Lights	13	7	-	20	1	443	4	-	448	8	448	-	456	924
% Lights	92.9	100.0	-	95.2	100.0	98.0	100.0	-	98.0	100.0	97.4	-	97.4	97.7
Buses	0	0	-	0	0	4	0	-	4	0	5	-	5	9
% Buses	0.0	0.0	-	0.0	0.0	0.9	0.0	-	0.9	0.0	1.1	-	1.1	1.0
Trucks	1	0	-	1	0	5	0	-	5	0	7	-	7	13
% Trucks	7.1	0.0	-	4.8	0.0	1.1	0.0	-	1.1	0.0	1.5	-	1.5	1.4
Bicycles on Crosswalk	-	-	0	-	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	0.0	-	-	-	-	0.0	-	-	-	0.0	-	-
Pedestrians	-	-	15	-	-	-	-	13	-	-	-	10	-	-
% Pedestrians	-	-	100.0	-	-	-	-	100.0	-	-	-	100.0	-	-

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Lokoea PI Westbound				Kamehameha Hwy Northbound					Kamehameha Hwy Southbound				Int. Total
	Left-Turn	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Peds	App. Total	
1:00 PM	2	6	2	8	0	123	2	7	125	2	115	9	117	250
1:15 PM	0	4	0	4	0	125	0	1	125	3	143	6	146	275
1:30 PM	5	2	6	7	1	125	0	3	126	2	142	0	144	277
1:45 PM	1	4	9	5	0	105	0	5	105	0	136	11	136	246
Total	8	16	17	24	1	478	2	16	481	7	536	26	543	1048
Approach %	33.3	66.7	-	-	0.2	99.4	0.4	-	-	1.3	98.7	-	-	-
Total %	0.8	1.5	-	2.3	0.1	45.6	0.2	-	45.9	0.7	51.1	-	51.8	-
PHF	0.400	0.667	-	0.750	0.250	0.956	0.250	-	0.954	0.583	0.937	-	0.930	0.946
Lights	8	16	-	24	1	473	2	-	476	7	521	-	528	1028
% Lights	100.0	100.0	-	100.0	100.0	99.0	100.0	-	99.0	100.0	97.2	-	97.2	98.1
Buses	0	0	-	0	0	3	0	-	3	0	14	-	14	17
% Buses	0.0	0.0	-	0.0	0.0	0.6	0.0	-	0.6	0.0	2.6	-	2.6	1.6
Trucks	0	0	-	0	0	2	0	-	2	0	1	-	1	3
% Trucks	0.0	0.0	-	0.0	0.0	0.4	0.0	-	0.4	0.0	0.2	-	0.2	0.3
Bicycles on Crosswalk	-	-	0	-	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	0.0	-	-	-	-	0.0	-	-	-	0.0	-	-
Pedestrians	-	-	17	-	-	-	-	16	-	-	-	26	-	-
% Pedestrians	-	-	100.0	-	-	-	-	100.0	-	-	-	100.0	-	-

TRAFFIC ASSESSMENT REPORT
FOR THE PROPOSED
THE SHOPS AT ANAHULU
HALE`IWA, OAHU, HAWAII
TAX MAP KEY: (1) 6-2-003:037

APPENDIX B
CAPACITY ANALYSIS WORKSHEETS

Intersection

Int Delay, s/veh	0.6
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	7	452	4	8	460
Conflicting Peds, #/hr	13	10	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	44	84	50	67	93
Heavy Vehicles, %	7	0	2	0	0	3
Mvmt Flow	20	16	538	8	12	495

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1070	566	0
Stage 1	551	-	-
Stage 2	519	-	-
Critical Hdwy	6.47	6.2	-
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.3	-
Pot Cap-1 Maneuver	239	528	0
Stage 1	567	-	0
Stage 2	587	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	233	516	1016
Mov Cap-2 Maneuver	233	-	-
Stage 1	561	-	-
Stage 2	578	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBL	SBT
Capacity (veh/h)	- 418	1016	-
HCM Lane V/C Ratio	- 0.086	0.012	-
HCM Control Delay (s)	- 14.4	8.6	0
HCM Lane LOS	- B	A	A
HCM 95th %tile Q(veh)	- 0.3	0	-

Intersection

Int Delay, s/veh	0.6					
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	16	478	2	7	536
Conflicting Peds, #/hr	16	26	0	17	17	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	40	67	96	25	58	94
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	20	24	498	8	12	570

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1118	541	0
Stage 1	524	-	-
Stage 2	594	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	231	545	0
Stage 1	598	-	0
Stage 2	555	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	222	526	-
Mov Cap-2 Maneuver	222	-	-
Stage 1	585	-	-
Stage 2	546	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBL	SBT
Capacity (veh/h)	- 487	1038	-
HCM Lane V/C Ratio	- 0.09	0.012	-
HCM Control Delay (s)	- 13.1	8.5	0
HCM Lane LOS	- B	A	A
HCM 95th %tile Q(veh)	- 0.3	0	-

Intersection

Int Delay, s/veh	0.6
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	7	463	4	8	496
Conflicting Peds, #/hr	13	10	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	44	84	50	67	93
Heavy Vehicles, %	7	0	2	0	0	3
Mvmt Flow	20	16	551	8	12	533

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1121	579	0 - 564 0
Stage 1	564	-	- - - -
Stage 2	557	-	- - - -
Critical Hdwy	6.47	6.2	- - 4.1 -
Critical Hdwy Stg 1	5.47	-	- - - -
Critical Hdwy Stg 2	5.47	-	- - - -
Follow-up Hdwy	3.563	3.3	- - 2.2 -
Pot Cap-1 Maneuver	223	519	- 0 1018 -
Stage 1	560	-	- 0 - -
Stage 2	564	-	- 0 - -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	217	507	- - 1005 -
Mov Cap-2 Maneuver	217	-	- - - -
Stage 1	554	-	- - - -
Stage 2	554	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBTWBLn1	SBL	SBT
Capacity (veh/h)	- 390	1005	-
HCM Lane V/C Ratio	- 0.092	0.012	-
HCM Control Delay (s)	- 15.2	8.6	0
HCM Lane LOS	- C	A	A
HCM 95th %tile Q(veh)	- 0.3	0	-

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	16	495	2	7	555
Conflicting Peds, #/hr	16	26	0	17	17	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	40	67	96	25	58	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	24	516	8	12	590
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1157	559	0	-	542	0
Stage 1	542	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	219	532	-	0	1037	-
Stage 1	587	-	-	0	-	-
Stage 2	543	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	211	513	-	-	1022	-
Mov Cap-2 Maneuver	211	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	13.6		0		0.2	
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1	SBL	SBT			
Capacity (veh/h)	- 463	1022	-			
HCM Lane V/C Ratio	- 0.095	0.012	-			
HCM Control Delay (s)	- 13.6	8.6	0			
HCM Lane LOS	- B	A	A			
HCM 95th %tile Q(veh)	- 0.3	0	-			

Intersection

Int Delay, s/veh	1.1
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	26	12	458	15	14	490
Conflicting Peds, #/hr	25	20	0	30	30	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	44	84	50	67	93
Heavy Vehicles, %	7	0	2	0	0	3
Mvmt Flow	37	27	545	30	21	527

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1139	600	0
Stage 1	570	-	-
Stage 2	569	-	-
Critical Hdwy	6.47	6.2	-
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.3	-
Pot Cap-1 Maneuver	218	505	-
Stage 1	556	-	-
Stage 2	557	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	202	482	-
Mov Cap-2 Maneuver	202	-	-
Stage 1	544	-	-
Stage 2	527	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	350	988
HCM Lane V/C Ratio	-	-	0.184	0.021
HCM Control Delay (s)	-	-	17.6	8.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0.1

Intersection

Int Delay, s/veh	3.3					
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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	12	21	0	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	59	66	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0
Mvmt Flow	18	20	32	0	0	18

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	32	0	89
Stage 1	-	-	32
Stage 2	-	-	57
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1593	-	917
Stage 1	-	-	996
Stage 2	-	-	971
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1593	-	907
Mov Cap-2 Maneuver	-	-	907
Stage 1	-	-	996
Stage 2	-	-	960

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1048
HCM Lane V/C Ratio	0.012	-	-	-	0.018
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh	0.4
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	10	465	5	12	498
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	84	92	93	92
Heavy Vehicles, %	0	0	2	0	0	3
Mvmt Flow	9	11	554	5	13	541

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1123	556	0 0 559 0
Stage 1	556	-	- - - -
Stage 2	567	-	- - - -
Critical Hdwy	6.4	6.2	- - 4.1 -
Critical Hdwy Stg 1	5.4	-	- - - -
Critical Hdwy Stg 2	5.4	-	- - - -
Follow-up Hdwy	3.5	3.3	- - 2.2 -
Pot Cap-1 Maneuver	230	534	- - 1022 -
Stage 1	578	-	- - - -
Stage 2	572	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	226	534	- - 1022 -
Mov Cap-2 Maneuver	226	-	- - - -
Stage 1	578	-	- - - -
Stage 2	562	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 333	1022	-
HCM Lane V/C Ratio	-	- 0.059	0.013	-
HCM Control Delay (s)	-	- 16.5	8.6	0
HCM Lane LOS	-	- C	A	A
HCM 95th %tile Q(veh)	-	- 0.2	0	-

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	31	28	483	19	22	540
Conflicting Peds, #/hr	30	50	0	35	35	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	66	75	96	70	76	94
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	47	37	503	27	29	574
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1185	588	0	0	553	0
Stage 1	553	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	211	513	-	-	1027	-
Stage 1	580	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	188	477	-	-	997	-
Mov Cap-2 Maneuver	188	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	19.2		0		0.4	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	337	997	-	
HCM Lane V/C Ratio	-	-	0.25	0.029	-	
HCM Control Delay (s)	-	-	19.2	8.7	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	32	9	23	1	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	41	39	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	35	22	59	1	0	38

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	60	0	152
Stage 1	-	-	60
Stage 2	-	-	92
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1556	-	844
Stage 1	-	-	968
Stage 2	-	-	937
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1556	-	825
Mov Cap-2 Maneuver	-	-	825
Stage 1	-	-	968
Stage 2	-	-	915

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1556	-	-	-	1011
HCM Lane V/C Ratio	0.022	-	-	-	0.038
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection

Int Delay, s/veh	0.7
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	15	19	499	12	21	547
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	96	92	93	94
Heavy Vehicles, %	0	0	1	0	0	3
Mvmt Flow	16	21	520	13	23	582

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1153	526	0 0 533 0
Stage 1	526	-	- - - -
Stage 2	627	-	- - - -
Critical Hdwy	6.4	6.2	- - 4.1 -
Critical Hdwy Stg 1	5.4	-	- - - -
Critical Hdwy Stg 2	5.4	-	- - - -
Follow-up Hdwy	3.5	3.3	- - 2.2 -
Pot Cap-1 Maneuver	220	556	- - 1045 -
Stage 1	597	-	- - - -
Stage 2	536	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	213	556	- - 1045 -
Mov Cap-2 Maneuver	213	-	- - - -
Stage 1	597	-	- - - -
Stage 2	518	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 325	1045	-
HCM Lane V/C Ratio	-	- 0.114	0.022	-
HCM Control Delay (s)	-	- 17.5	8.5	0
HCM Lane LOS	-	- C	A	A
HCM 95th %tile Q(veh)	-	- 0.4	0.1	-