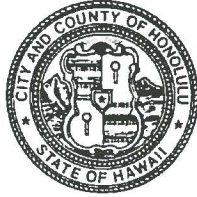


DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

2017/ED-9(JD)

July 11 2017

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

Dear Mr. Glenn:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu
Draft Environmental Assessment (DEA)

Project: Lualualei Homestead Road 21-Lot Residential Subdivision
Applicant: CJ Group LLC (Zoe Miner Zhang)
Agent: Allen Ng & Associates (Allen Ng)
Location: 85-029 Lualualei Homestead Road - Waianae
Tax Map Key: 8-6-015: 053

RECEIVED
17 JUL 12 P1:43
AFC. OF ENVIRONMENTAL
QUALITY CONTROL

With this letter, the Department of Planning and Permitting hereby transmits the DEA and Anticipated Finding of No Significant Impact (DEA-AFNSI) for the CJ Group LLC Project located on Tax Map Key Parcel 8-6-015: 053, in the Waianae District on the island of Oahu, for publication in the next edition of "The Environmental Notice", on **July 23, 2017**.

We respectfully request publication. Enclosed, please find one hard copy and one electronic copy of the DEA and the Publication Form. The Publication Form, including Project summary was also sent via electronic mail to your office.

Should you have any questions, please contact Jordan Dildy at 768-8027 or by email at jdildy@honolulu.gov.

Very truly yours,

Handwritten signature of Kathy K. Sokugawa in black ink.
Kathy K. Sokugawa
Acting Director

Enclosures: DEA, one hard copy and one CD
One copy of OEQC Publication Form

18-1019

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

Project Name: Lualualei Homestead Road 21-Lot Residential Subdivision

Applicable Law: Chapter 25, Revised Ordinances of Honolulu

Type of Document: Draft Environmental Assessment

Island: Oahu

District: Waianae

TMK: (1) 8-6-015: 053

Permits Required: SMA Use Permit (Major), Building Permit, Subdivision Approval, Utility Connection Permits/Approval, Park Dedication, NPDES Permit, Grading/Grubbing Permit.

Applicant or Proposing Agency: CJ Group LLC, Miner Zhang (Contact)
419 Atkinson Drive, Suite 1101, Honolulu, Hawaii 96814
Tel: 808-670-6934
Email: newlookjoey@hotmail.com

Approving Agency or Accepting Authority: City and County of Honolulu, Department of Planning and Permitting (DPP), 650 South King Street, 7th Floor, Honolulu, Hawaii 96813
Contact Person - Jordan Dildy
Tel: 808-768-8027
Email: jdildy@honolulu.gov

Consultant: Allen Ng AIA NCARB, 1720 Ala Moana Boulevard, Suite A-6, Honolulu, Hawaii 96815
Tel: 808-389-0904, Email: anaarch99@yahoo.com

Status: DEA-AFNSI

Project Summary:

The Applicant, CJ Group LLC Developer proposes to subdivide one 3.175-acre vacant lot into 21 zoning lots and develop 21 single-family, middle-income residential units within the SMA. The site is bordered by Pokai Bay Street and residential properties to the west, Lualualei Homestead Road to the north, commercial properties to the east, and a lined drainage canal to the south.

DRAFT
ENVIRONMENTAL ASSESSMENT

FOR

LUALUALEI HOMESTEAD ROAD SINGLE-FAMILY RESIDENTIAL SUBDIVISION
WAIANAЕ, OAHU ISLAND, HAWAII

TAX MAP KEY: (1) 8-6-015-053

May 2017

Prepared For:

CJ Group, LLC
419A Atkinson Drive #1101
Honolulu, Hawaii 96814

Prepared By:

WCP, Inc.
99-061 Koaha Way, Suite 208
Aiea, Hawaii 96701

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ACRONYMS

| | |
|--------|--|
| AFONSI | Anticipated Finding of No Significant Impact |
| AA | Archaeological Assessment |
| AD | Average Daily (per vehicles, seconds) |
| AMSL | Above mean sea level |
| BMP | Best Management Practices |
| BMPP | Best Management Practices Plan |
| BWS | Board of Water Supply, City and County of Honolulu |
| CCH | City and County of Honolulu |
| CIA | Cultural Impact Assessment |
| CZMA | Coastal Zone Management Act |
| DEA | Draft Environmental Assessment |
| DLNR | Department of Land and Natural Resources, State of Hawaii |
| DOTHD | Department of Transportation – Highways Division, State of Hawaii |
| DPP | Department of Planning and Permitting, City and County of Honolulu |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EISPN | Environmental Impact Statement Preparation Notice |
| FEA | Final Environmental Assessment |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| FONSI | Finding of No Significant Impact |
| gpd | Gallons per day |
| HAR | Hawaii Administrative Rules |
| HDOH | Hawaii Department of Health, State of Hawaii |
| HECO | Hawaiian Electric Company |
| HEPA | Hawaii Environmental Policy Act |
| HRS | Hawaii Revised Statutes |
| HTCOM | Hawaiian Telcom |
| LOS | Level-of-Service |
| LUC | Land Use Commission |

| | |
|------|--|
| OEQC | Office of Environmental Quality Control, State of Hawaii |
| OHA | Office of Hawaiian Affairs, State of Hawaii |
| OTWC | Oceanic Time Warner Cable |
| PV | Photovoltaic |
| ROH | Revised Ordinance of Honolulu |
| SHPD | DLNR-State Historic Preservation Division, State of Hawaii |
| SHWB | Solid and Hazardous Waste Branch |
| SMH | Sewer Manhole |
| SMP | Special Management Area Use Permit |
| VPH | Vehicles per hour |
| WSCP | Waianae Sustainable Communities Plan |

1. INTRODUCTION

The applicant, CJ Group, LLC Developer, is proposing to subdivide and develop a 3.175-acre parcel of presently vacant land into 21 single-family residential units. The subject property is located along the leeward coast of Oahu in the town of Waianae at 85-029 Lualualei Homestead Road.

1.1. General Information

| | |
|-----------------------------------|---|
| Project Summary: | Applicant is seeking a Special Management Area Use Permit-Major to construct a 21-unit single-family residential subdivision |
| Applicant and Recorded Fee Owner: | Zoe Miner Zhang, President CJ Group, LLC Developer 419A Atkinson Drive #1101 Honolulu, Hawaii 96814 |
| Applicant's Agent: | Allen Ng, AIA Allen Ng & Associates, Architect 1720 Ala Moana Boulevard, Suite A-6 Honolulu, Hawaii 96815 (808) 389-0904 anaarch99@yahoo.com |
| EA Preparer: | WCP Inc. 99-061 Koaha Way, Suite 208 Aiea, HI 96701 Contact: Richard Stook (808) 242-0218 rstook@wcpohawaii.com |
| Approving Agency: | Department of Planning and Permitting City & County of Honolulu 650 South King Street Honolulu, Hawai'i 96813 |
| TMK: | (1) 8-6-015:053 |
| Land Area: | 3.175 acres (138,303 square feet) |
| State Land Use Designation: | Urban |
| Zoning District: | R-5 Residential |
| Community Plan Area: | Waianae Sustainable Communities Plan |
| Special Management Area: | Within the SMA |

FEMA Flood Designation: VE (el 12) and VE (el 14) – coastal flood zone with velocity hazard, BFE determined
AE (el 10) – 100-year flood, BFE determined
X – outside the 0.2% annual chance floodplain

Required Permits/Approvals: SMA Use Permit-Major Building Permit
Subdivision Approval Utility Connection Permits/Approvals
Park Dedication NPDES Permit
Grading/Grubbing Permit

1.2. Scope and Authority

This Environmental Assessment (EA) has been prepared in accordance with the Revised Ordinance of Honolulu (ROH) Chapter 25 , Special Management Areas, pursuant to authority conferred by the Hawaii's Coastal Zone Management Act (CZMA) as codified in Hawai'i Revised Statutes (HRS) Chapter 205A.

This EA fulfills the environmental review requirements in accordance with ROH Chapter 25 "Content Guide for Preparing an Environmental Assessment Required with an Application for a Special Management Area Use Permit (SMP)", and the procedural requirements of the Hawai'i Environmental Policy Act (HEPA), HRS Chapter 343 and associated Hawaii Administrative Rules (HAR) Title 11, Chapter 200.

The intent of this EA is to ensure that comprehensive and systematic consideration is given to potential impacts of the proposed action upon the human environment, and specifically the Special Management Area. It is intended to serve as an environmental disclosure document, which identifies the purpose and need of the proposed action, reasonable implementation alternatives, existing environmental conditions, potential environmental impacts, and mitigation measures to avoid or minimize such impacts. The finding presented in this EA will provide the basis to determine whether an Environmental Impact Statement (EIS) or Final Environmental Assessment/Finding of No Significant Impact (FEA/FONSI) is appropriate.

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2. DESCRIPTION OF THE PROPOSED PROJECT

2.1. Project Location

The project site is located at 85-029 Lualualei Homestead Road in the town of Waianae on the island of Oahu. The project site is situated south of Lualualei Homestead Road and east of Pokai Bay Drive and is identified as Tax Map Key: Division 1, Zone 8, Section 6, Plat 015, Parcel 053 (TMK: 1-8-6-015:053). The site is comprised of two contiguous parcels, Lot 490-B-1 (2.785 acres) and DLU Lot A (0.39 acres) encompassing a total area of approximately 3.175 acres.

The project site consists of gently sloping land, which is currently vacant and covered by various weeds and grasses. The site has been previously cleared and modified in the recent past with the addition of several feet of fill over the majority of the lot. The shape of the project site can be described as a “dog legged” shaped lot entering from Lualualei Homestead Road on the west and terminating on Pokai Bay Drive on the south and it is surrounded by a mix of mostly residential and a few commercial land uses. To the immediate east is the No. 1 Chinese and Barbeque Restaurant and former Ark of Safety Christian Fellowship. The parking lot of the former Ark of Christian Fellowship occupies a small portion of the eastern section of the property. There is also a small fenced off area in the eastern portion of the property that was previously used by the former tenants (Ark of Safety Christian Fellowship) as an outside play area for children. To the north is Lualualei Homestead Road across which are residential homes, an 8-story apartment building, and an Aloha Petroleum gas station/7-Eleven store. To the west lie residential homes and Pokai Bay Drive. To the south is a City and County of Honolulu drainage canal, across which are residential homes. Project location and TMK maps are shown in Figures 1 through 3 (Appendix A).

2.2. Technical Characteristics

2.2.1 Use Characteristics

The Proposed Action involves the subdivision and development the subject property into 21 single-family residential units. The residential units will be designed as both one and two-level plantation style homes. There are five proposed model home types ranging in size between 1,558 ft² to 1,750 ft² on lot sizes ranging between 5,006 ft² to 7,950 ft². Home models will be wood frame and constructed as either slab-on-grade, or with elevated floors 10 feet above grade slab, with a two-car carport below on the living area. Home models will offer either 3 bedroom/2 bath or 4 bedroom/3 bath floor plan options. Figures 4 through 8 show the proposed subdivision layout as well as illustrations depicting the perspectives, elevations, and floor plans of the five proposed home models.

Proposed home exteriors would include horizontal siding in muted pastel colors, with lanais and trellises. Though still in the preliminary design phase, proposed houses may include, but not be limited to the following construction/architectural features and improvements.

- Lanai/Railings: Plantation style lanai/railings to articulate the proportions of house façade elevations along the roadway view.
- Windows: Green energy efficient insulated (double pane), wind/debris interply.
- Doors: Exterior doors to be prefinished paneled hollow metal doors or solid core exterior grade. Interiors hinged doors to be prefinished panel hollow core wood doors or hollow core flush doors. Closet doors to be sliding mirror doors.
- Kitchen: Cabinets to be natural wood veneered finish with plywood interior core. Countertops to be of natural polished stone.
- Bathrooms: Cabinets to be natural wood veneered finish with plywood interior core. Countertops to be natural polished stone.
- Flooring: Hard tiles at entry, kitchen and bathrooms. Laminate flooring at living room/dining room, and carpeted bedrooms.
- Roofing: Treated plywood substrates, thick butt fiberglass shingles. R-19 insulation at underside of roof.
- Skylights: Double glazed self-venting aluminum framed skylights
- Solar: PV panels/inverters, water heating panels/storage tanks

2.2.2 Physical Characteristics

The project site consists of vacant, unimproved parcel of land which has been almost entirely cleared of vegetation and is predominantly covered by various low lying weeds and grasses. A small number of coconut palms, plumeria trees, papaya trees, small banana trees, a single mango tree, and breadfruit tree are also present within the project site, along with a few koa haole and kiawe trees scattered along portions of the project site perimeter.

Historically, the project site has never been developed and has remained vacant over the years (Figure 9). The project site has undergone some minor alterations including the importation of fill material in the 1980's and subsequent grading efforts to address on-site drainage issues. A narrow portion running along the northeast perimeter of the site has been paved. This paved area is approximately 20,100 square feet in size, and formerly served as the rear parking lot of the former Ark of Christian Fellowship, and is in poor condition and appears to have not been maintained. Photographs of existing site conditions are attached as Appendix B.

2.2.3 Construction Characteristics

The general construction sequence of the Proposed Action will likely include but not be limited to the following general construction practices:

Installation of erosion control measures: silt fencing, dust screens, and stabilization of the construction entrance from Lualualei Homestead Road. A grade adjustment concrete masonry

unit (CMU) retaining wall will then be constructed along the lower-elevation, northwestern boundary of the site to prevent any runoff into neighboring properties. Swales will also be constructed along the southern portion of the CMU retaining wall, and along the western property lines of proposed lots 11 and 14. Subsequently, mass grading of the site will commence, reshaping the surface and topography of the property to redirect runoff sheet flow toward the existing CCH drainage canal. All proposed drainage improvements will be in full compliance with the CCH DPP's "Rules Relating to Storm Drainage Standards".

Underground utilities will also be installed during the mass grading process. Additional grading would be performed to create building pad for the slab on grade houses in flood zone AE and building pads for the elevated houses in the flood zone VE. As the mass grading will constitute an area of greater than one acre, a National Pollution Discharge Elimination System (NPDES) permit will be required.

Graded areas will be stabilized with landscaping materials to minimize fugitive dust and soil erosion during subsequent construction activities. Construction of the home lots will commence once all the preceding activities have been completed. Proposed grading and drainage details, including future spot elevations (relative to existing elevations), drainage swales, inlets, and surface runoff direction are shown in Figure 10.

2.2.4 Utility Characteristics

2.2.4.1 Water and Sewer

The project site is vacant and not serviced by any water or sewer utilities. There is an existing 12-inch sewer line on Lualualei Homestead Road and an existing 12-inch sewer line on Pokai Bay Drive that will be utilized to provide sewer service for the proposed subdivision. Sewer infrastructure within the proposed subdivision will be comprised of 8-inch and 6-inch sewer lines within the main access cul-de-sac and within 10-foot sewer easements, respectively. The proposed sewer lines will connect to existing 12-inch sewer lines along Lualualei Homestead Road and Pokai Bay Drive. Sewer lines within the subdivision will be serviceable via sewer manholes (SMH). A total of 12 SMH will be installed along the main access cul-de-sac and within 10-foot sewer easements. Average and peak wastewater flows that would be generated by the Proposed Action are estimated to be 6,300 gallons per day (gpd), and 31,500 gpd, respectively.

Water lines in the proposed subdivision are proposed to be 8-inch lines, which will connect to existing 8-inch water lines along Lualualei Homestead Road and Pokai Bay Street. The existing 8-inch water line on Lualualei Homestead Road has the capacity to provide the domestic flow and fire protection flow requirements for the Proposed Action. Each lot will be provided with a water lateral and meter box for domestic water service. Average daily consumption for each household is estimated at approximately 500 gpd, or 10,500 gpd for the entire subdivision.

Two fire hydrants will be installed along the main access cul-de-sac to provide fire protection for the subdivision. On Pokai Bay Drive, the existing 8-inch water main will need to be extended approximately 85 feet and an additional new fire hydrant will be installed to provide fire protection for lots 12 and 13 fronting Pokai Bay Drive. The proposed water system will be built to CCH Board of Water Supply (BWS) standards will be owned and maintained by the BWS. Proposed water, sewer, and fire protection improvements are shown in Figure 11.

2.2.4.2 Power and Communications

There are no existing power and communication utility systems within the project site. Existing electrical utilities (power, telecommunications and cable television) are situated adjacent to the project site along Lualualei Homestead Road, Pokai Bay Drive and Farrington Highway are overhead. Existing electrical, telecommunication, and cable television services along Lualualei Homestead Road and Pokai Bay Drive are owned and maintained by local utility companies (i.e., Hawaiian Electric Company (HECO), Hawaiian Telcom (HTCOM) and Oceanic Time Warner Cable (OTWC), respectively). Power and communication services are currently provided to residential properties adjacent to the project site along Lualualei Homestead Road and Pokai Bay Drive. Existing residential properties via overhead drops from the existing overhead systems.

Power and communications utilities for the proposed subdivision will be provided via an underground system. New underground concrete ductlines will be installed from a set of underground pullboxes within the project site connecting to the existing overhead system along Lualualei Homestead Road. Conduit risers will extend up existing poles providing a path for the utility companies to convert their overhead systems to an underground system. New underground boxes and concrete encased ductlines will be installed along the proposed cul-de-sac roadway within the project site. HECO, HTCOM and OTWC will route their respective cabling systems through the proposed underground distribution infrastructure.

Electrical service to individual residences will be underground and originate from the pad mount transformers. Concrete pads for HECO pad mount transformers will be constructed at various locations within the proposed subdivision. The quantity and sizes of the pad mount transformers will be determined by HECO based on anticipated loads and will be quantified during final design of the project. HTCOM telephone and OTWC television service to individual residences will also originate from the proposed underground distribution system. Each residence will have a ductline extending from the underground distribution system to a termination point within the residence.

Farrington Highway, Lualualei Homestead Road and Pokai Bay Drive have existing utility pole mounted street lights. The proposed street lighting system within the subdivision will be designed in accordance with CCH standards. Street light poles will have underground concrete foundations. Electrical service to street light will also be underground and originate from underground infrastructure pullboxes.

The proposed subdivision will be designed with energy-efficiency in mind. In addition to being equipped with dual-pane energy efficient windows, double-glazed self-venting aluminum framed skylights, and PV panels/inverters, water heating panels/storage tanks, homes will also include further energy saving fixtures such as LED or CFL bulbs and energy star rated appliances.

2.2.5 Solid Waste Characteristics

Solid waste generated by the Proposed Action will be collected by either the CCH Department of Public Works, Refuse Division or a private contractor. The project site is presently not serviced for solid waste refuse collection. However, when developed, the subdivision will be serviced in a manner similar to adjacent neighborhood residences utilizing typical 85-gallon waste receptacles. Curbside waste, recycling, and bulky item collection services will be provided to each of the proposed 21 units. However, a schedule for collection has not yet been determined.

2.2.6 Access Characteristics

There are two existing access points into the project site. The main access frontage is along Lualualei Homestead Road and a secondary, narrower, access frontage is in the southwest corner of the site along Pokai Bay Drive. Access into the proposed subdivision will utilize these same access points.

Access to Lots 12 and 13 will be via Pokai Bay Drive, and access to Lot 21 will be directly off Lualualei Homestead Road. The main entrance into the subdivision will be via a new cul-de-sac roadway that will be constructed approximately 200-feet west of the intersection at Lualualei Homestead Road and Farrington Highway. The new road will provide access, via Lualualei Homestead Road, to the remaining 18 lots within the subdivision

2.3 Economic and Social Characteristics

2.3.1 Cost and Phasing

The cost of constructing the Proposed Action is estimated to be approximately \$10.7 million. The Proposed Action will be privately funded and no government funding will be sought or utilized. After construction has been completed, the subdivision single-family homes will be available for purchase to the public at prevailing market rates

Additionally the proposed subdivision will be subject to the CCH Park Dedication requirements. Based on the estimated value of the property purchase price of \$1,500,000, the square footage of land required for park dedication would be 7,000 SF of land or in estimated \$75,950 fee payment (based on estimated current property purchase price) in lieu of dedication of park land.

The actual monetary fee amount will be determined by the CCH at the time the SMP is submitted.

Groundbreaking is presently targeted for summer 2018, and construction is targeted for completion in late 2019.

2.3.2 Social Characteristics

The town of Waianae is predominantly associated with agriculture and farming and the general “country” feeling that prevails in Oahu’s Leeward Waianae Coast. The project site is located in Waianae’s more densely populated and developed urban land use district, identified by predominantly residential and commercial uses. According to the 2010 census, Waianae had a total population of 13,177 occupying 2,925 housing units at an average of 859.2 units per square mile (U.S. Census, 2010)

The project site is surrounded by a mix of mostly residences and a few commercial establishments. To the immediate east is the No. 1 Chinese and Barbeque Restaurant (former Waianae Shell service station) and former Ark of Safety Christian Fellowship. To the north is Lualualei Homestead Road across which are residential homes, an 8-story apartment building, and an Aloha Petroleum gas station/7-Eleven store. To the west lie residential homes and Pokai Bay Drive. To the south is a City and County of Honolulu drainage canal, across which are residential homes. The project site is Zoned R-5 (single family residential) as are all adjoining properties, with the exception of the northeast adjoining property which is zoned B-2 (community business district). Surrounding land use is addressed in greater detail in Section 3.2.1.

3. SUMMARY OF AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

3.1. Natural Environment

3.1.1. Topography and Soils

Topography of the project site has been altered as a result of past filling and grading activities. According to public records grading of the project site was proposed in 1981 to raise lot elevations to allow for future development and collect storm runoff in ditches to flow to the CCH drainage channel located on the south side of the property. However, it is unknown if this work was completed. According to files from the Hawaii Department of Health (HDOH), Solid and Hazardous Waste Branch (SHWB), a complaint filed by the CCH Department of Planning and Permitting (DPP) on 29 December 2011 stated that the site was illegally filled with construction debris (i.e., concrete with rebar, soil, etc.). In a warning letter of 2 February 2012 from the SHWB, indicated that a site visit revealed that the southeastern portion of the subject property had been graded with fill consisting of concrete slabs, rebar, green waste, soil, coral, and rubbish consisting of plastic buckets, lumber, and roofing material. The southern banks of the subject property were noted with concrete slabs mixed with soil at a height of approximately three feet from the original grade and extending from west to east of the property for approximately 336 feet (WCP, 2015).

The general existing topography of the project site is highest along the north boundary and gently slopes toward the south and southeast to its lowest grade at the southern boundaries. The higher elevations ranging between approximately 11 to 14 feet above mean sea level (AMSL) in the north/northwest portion of the site, and, the lower elevations ranging between 6 to 10 feet AMSL in the south/southwest (Figure 12).

Soils underlying the project site consist of Mokuleia clay (Mtb) and Ewa Silty Clay Loam (EmB) which comprise the south and north sections of the site, respectively. Mokuleia soil series occur as small areas on the coastal plains, and are characterized as well-drained soils occurring over in recent alluvium deposited over coral sand. MtB soils have a slower permeability than Mokuleia clay loam, and have a representative profile consisting of a very dark grayish brown clay loam surface layer about 16 inches thick, and a dark brown and light-gray, single-grain sand and loamy sand layer 34 to more than 48 inches thick. EmB soils are gently sloping at 3 to 6 percent, and are characterized by slow runoff with a slight erosion hazard (USDA, 1972). Soil classifications underlying the project site and surrounding area are shown in Figure 13.

Potential Impacts and Mitigation Measures

A geotechnical assessment of soils underlying the project site was conducted to address the feasibility of developing the subject property for the proposed residential lots (Attached as

Appendix C). Based upon the findings of the geotechnical assessment the Proposed Action is feasible with respect to topographic and soil characteristics at the project site. No significant adverse impacts to topography or soils are anticipated as the Proposed Action will incorporate design and engineering elements, including but not limited to, the preliminary foundation design parameters identified in the geotechnical assessment.

The Proposed Action would also involve some excavating, grading, and fill activities which would alter the existing topography at the project site. However, alteration of the site topography would not be significant, and as described above, past grading and filling activities at the project site have resulted in surface runoff from the site being discharged into, and adversely affecting, adjacent properties along the western boundary of the project site. Therefore, proposed alteration of the site topography, and subsequent installation of drainage improvements (see Sections 3.1.3 and 3.2.2.1) would result in beneficial impacts as the site topography would be modified to better accommodate and manage onsite surface runoff.

Construction-related activities will conform to all applicable rules relating to soil erosion standards and guidelines, including strict erosion control and dust control measures. A construction best management practices plan (BMPP) will be developed and may include, but not be limited to, mitigation measures including silt fences and temporary catch basins to prevent any sediment from transporting off-site and/or from reaching the existing CCH drainage canal. Additionally, ground cover plantings and landscaping will eventually be put in place when construction is completed, thereby minimizing potential soil loss over the long-term life of the project.

3.1.2. Water Resources

The project area receives an average of 21.5 inches (547 mm) of rainfall per year with the wettest months being December through January and the driest months being June through July (Giambelluca et al. 2013). There are no surface water features within the project site. Surface water bodies nearest to the project site are the City and County of Honolulu drainage canal, which is adjacent to the southern boundary of the project site, and the Pacific Ocean which is approximately 200 feet southwest of the project site. With the exception of the City and County of Honolulu drainage canal the nearest inland surface water feature is the intermittent Kaupuni Stream located approximate 0.5 miles north of the project site (Figure 14). Groundwater underlying the project site is part of the Lualualei Aquifer System of the Waianae Aquifer Sector, and generally flows in a southwesterly direction. The shallow caprock aquifer is an unconfined, moderately saline aquifer occurring in segments and is neither drinking water nor ecologically important, with vulnerability to contamination. The deeper, basal aquifer is a confined aquifer with moderate salinity in volcanic dike compartments, and is neither drinking water nor ecologically important, with a low vulnerability to contamination. The depth to groundwater is

estimated to be between 11.6 to 12.5 feet below ground surface at the adjacent No. 1 Chinese and Barbeque restaurant and similar conditions are assumed underlying the project site. (WCP, 2015)

Potential Impacts and Mitigation Measures

The purpose of the proposed subdivision is to provide additional residential housing units to the community within the already developed, urban area of Waianae. The proposed subdivision will function similar to existing single-family homes within the project's immediate surrounding area. Based on the relatively small number of homes proposed and non-industrial nature of the Proposed Action, significant adverse impact to ground water resources and/or nearby surface streams are not anticipated

3.1.3. Drainage and Surface Runoff

The project site is presently vacant and undeveloped and has been in such a state over many years (Figure 9). As such, there are no man-made utility improvements, including drainage systems, present on site. Storm water entering the project site is released off-site via percolation and/or surface water runoff. A swale located in the southwest portion of the project site, running in a northwest to southeast direction, drains into the CCH drainage canal. Existing surface runoff volume from the project site is approximately 7.24 cubic feet per second (cfs).

The proposed subdivision roadway will incorporate drainage improvements in its design, including slope from Lualualei Homestead Road down to the cul-de-sac, and lots will be sloped to the street for drainage. Additionally, a drainage collection system consisting of catch basins and underground piping will collect the storm water runoff from the street and discharge it into the CCH drainage canal on the east side of the project site. Proposed drainage improvements and a typical road section are shown in Figure 10.

Potential Impacts and Mitigation Measures

Impermeable surface area within the project site is expected to increase as a result of the Proposed Action. However, as mentioned in Section 2.2.2, an existing area approximately 20,100 square feet in size, along the northeastern boundary of the project site is already paved (see figure 2). With the proposed subdivision's cul-de-sac roadway estimated to encompass an area of 19,410 square feet, and the footprints and ancillary pavement areas of the individual homes encompassing approximately 49,979 square feet, totaling an overall area of approximately 69,289 square feet. Therefore, upon completion of the Proposed Action impermeable surface area of the site will increase by approximately 49,289 square feet.

The estimated increase in overall impermeable surface area is not anticipated to result in adverse impacts on onsite and offsite drainage. This is reflected in the difference between existing and future surface runoff quantities for the project site. Under existing conditions surface water runoff volume is estimated to be approximately 7.24 cubic feet per second (cfs). Surface water

runoff volumes after subdivision development are estimated to be approximately 9.31 cfs, resulting in a net overall surface runoff increase of 2.07 cfs, which equates to a surface water runoff increase of approximately 28%. Table 3-1 below summarizes the change in impermeable surface area and surface water runoff volumes as a result of the Proposed Action.

**Table 3-1
Surface Water Runoff Calculations**

| | Existing Conditions | Proposed Action | Increase in Area/Flow | Percent Increase |
|--------------------------|------------------------|------------------------|------------------------|------------------|
| Impermeable Surface Area | 20,100 ft ² | 69,289 ft ² | 49,289 ft ² | 245% |
| Surface Runoff Flow | 7.24 cfs | 9.31 cfs | 2.07 cfs | 29% |

As previously noted, all proposed drainage improvements will be in full compliance with the CCH DPP's "Rules Relating to Storm Drainage Standards". Furthermore, in addition to proposed drainage improvements discussed in Section 2.2.3, stabilized landscaped/vegetated areas will also be incorporated into the subdivision's final design. Landscaped areas would be distributed throughout the subdivision, and where practicable, surface runoff will be directed into these areas. Similarly, roof drains would be designed to flow to stabilized landscaped areas. To reduce irrigation demand, water-conserving native vegetation will be incorporated into the landscaping plan, to the extent practicable.

BMPs for on-site drainage will also be implemented which may include, but not be limited to, the following measures:

- Provide vegetated landscaped areas to collect storm water runoff and allow percolation into the ground before discharge into the subdivision storm drain system and CCH drainage canal.
- Automatic irrigation systems will be employed for landscaped areas to minimize the runoff of excess irrigation water into the storm drain system.
- The irrigation system will be designed to minimize runoff of excess irrigation water.
- Shutoff devices will be used to prevent irrigation during/after precipitation.
- Storm drain inlet notices with prohibitive language to not dump waste into the drainage system will be stenciled at appropriate locations.
- Paved areas will be designed to drain towards vegetated/landscaped areas.
- Roof runoff will drain to landscaped areas in the front and sides of the structures.
- Rear yard areas will be raised to allow runoff to drain towards the front yard landscaped areas and then into the subdivision storm drain system.

Beneficial impacts with respect to drainage would also occur as a result of the Proposed Action. As previously noted in Section 3.1.1 past grading and filling activities have altered the topography of the project site. These past activities have also adversely affected on-site drainage negatively impacting neighboring adjacent properties, particularly along the western boundary of the project site. Grade adjustments within the project site along with proposed drainage improvements will rectify the existing surface runoff issues on the project site.

Therefore, though there would be a net increase of surface runoff of just over 2 cfs, the Proposed Action would result in beneficial impacts over the long-term by, installing drainage infrastructure, and better containing and directing surface runoff into the CCH drainage canal rather than onto neighboring residential properties. Furthermore, Proposed Action would result in additional long-term beneficial impacts as proposed drainage improvements would prevent soils and sediment from being transported off-site as occurs under existing conditions.

3.1.4. Biological Resources

The project site is located within the town of Waianae, and both the project site and its surrounding area have been previously disturbed and are dominated by manmade structures and areas paved over with asphalt or cement. Existing land uses in the surrounding area are predominantly urban in nature and include commercial and residential structures. In general, biological resources are relatively not diverse and/or abundant at the project site due to the populated and developed urban nature of the immediate surrounding area.

On July 21, 2016, a biological resources survey of the flora and fauna within the project site was conducted and is attached as Appendix D. The vascular flora inventoried at the project site consisted of a total of 31 species. None of the plant species inventoried are endemic to Hawaii, and only three of the species are considered to be native to the islands. The native species on site are either indigenous or likely to have been brought to the Hawaiian Islands by the early Polynesians from elsewhere in the Pacific. The number of native plants is small, but typical for lowland and upland areas on O'ahu where disturbances of the vegetation have been extensive. In general, the plants found on the project site are common species widely distributed throughout the islands. A complete listing of plants found on the project site can be found in Appendix D.

Fauna observed on the project site consisted of only 16 avian species. With the exception of a single domesticated Cockatiel (*Nymphicus hollandicus*) and a single Black-crowned Night Heron (*Nycticorax hoactli*), the latter flying over the property, all birds observed on the project site consisted of common, non-native avian species. The most common species encountered included, the spotted dove (*Streptopelia chinensis*), zebra dove (*Geopelia striata*), and House Sparrow (*Passer domesticus*) which accounted for 70% of all birds species encountered on site. In addition, there were no waterbirds observed in the adjacent CCH drainage ditch. (AECOS, 2017).

Non-avian fauna observed during the survey included two domestic dogs (*Canis familiaris*). However, given the urban character of project site and its surroundings, terrestrial fauna which likely also exist within the project site include feral animals such as cats (*Felix domesticus*), rats (*Rattus spp.*), and Small Indian Mongoose (*Herpestes auro punctatus*) (Ibid). A complete listing of fauna encountered on the project site can be found in Appendix D.

Potential Impacts and Mitigation Measures

The Proposed Action is not expected to adversely impact native flora or fauna at the project site or the nearby vicinity as suitable habitats are not present. In summary, the project site is not located in current or proposed critical habitat, and there are no jurisdictional wetlands, perennial streams occurring within the project site. Furthermore, there are no plant or animal species listed as endangered, threatened, proposed, or candidate species by the U.S. Fish and Wildlife Service under the Endangered Species Act or the State of Hawaii laws under HRS 13-124(3a) occurring on the project site.

3.1.5. Air Quality

Air quality in the project area, as with most areas of the island of Oahu, is generally considered good due to the presence of prevailing northeast trade winds from inland areas out to sea. Likewise, at the project site air quality is also considered good as it is in a coastal area and is also influenced heavily by circulating ocean winds.

The rural nature of the adjacent Waianae community and the absence of nearby major sources of industrial or vehicular emissions further contributes to the good air quality of the region. The state of Hawai'i Department of Health (HDOH) maintains a limited network of air monitoring stations around the state to gather data on the pollutants listed in Table 3-1 above. There are four HDOH air monitoring stations on the island of Oahu. The monitoring station nearest the project site is the Kapolei Station, located approximately 10 miles to the southeast. Based on the most recent published air quality data from the Kapolei Station the ambient air quality in the vicinity of the project site is very good with criteria pollutant concentrations falling well below both the state and federal ambient air quality standard thresholds (HDOH, 2017)

Potential Impacts and Mitigation Measures

Short-term impacts to localized air quality would likely be generated by construction activities at the project site. Construction vehicular activity would increase automotive pollutant concentrations at the project site. Construction activities would also generate fugitive dust emissions resulting in an increase of particulate matter levels in the project area. However, these sources of pollutants are temporary in nature and would not result in long term adverse impacts on the ambient air quality.

During the construction period, fugitive dust control measures would be implemented to reduce the amount of particulate matter emissions at the site in conformance with state Department of Health administrative rules, Title 11, Chapter 60 (Air Pollution). The erection of dust screens around the construction site and the frequent watering of unpaved, newly graded areas can help with on-site dust control. Dust would be further minimized by paving newly graded areas as soon as practicable.

No long-term adverse impacts to air quality resulting from future activities are expected as the Proposed Action will not significantly increase the discharge of vehicular emissions relative to the surrounding urban environment. Additionally a strong trade wind persistent in the islands disperses air pollutants rapidly and minimizes any significant impacts.

3.1.6. Flood Hazard

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), the seaward half of the property is situated in Flood Zone VE which are areas inundated by 1% annual chance flooding with velocity hazard (wave action). The areas of the project site within the VE Flood Zone have base flood elevations determined at 14 feet and 12 feet. Most of the mauka half of the project site is within Flood Zone AE with a base flood elevation of 10 feet; the northeast corner of the project is situated within Flood Zone X which are areas determined to be outside of the 500-year floodplain and outside of the 1% and 0.2% annual chance floodplain (FIRM Panel 15003C0183H, November 5, 2014), Designated flood zones within the project site are shown in Figure 15.

Potential Impacts and Mitigation Measures

Similar to existing homes in the project area, adverse impacts to homes in the proposed subdivision resulting from flood hazards are not anticipated. To mitigate potential flood hazards, the proposed subdivision will be developed in full compliance with all applicable FEMA flood zone development requirements. As described in Section 2.2.1 and depicted in Figures 6 and 7 proposed house lots within the AE Flood Zone will have slab on grade construction and house lots within the VE Flood Zone to have elevated floors to 10 feet above grade slab. Similar to neighboring existing homes the lower covered slab will house a two-car carport and partial enclosed breakaway utility/storage area..

3.2. Man-Made Environment

3.2.1. Land Use

Surrounding land use to the project site is a mix of mostly residential housing and a few commercial enterprises. To the immediate east is the No. 1 Chinese and Barbeque Restaurant (former Waianae Shell service station) and former Ark of Safety Christian Fellowship. To the

north is Lualualei Homestead Road across which are residential homes, an 8-story apartment building, and an Aloha Petroleum gas station/7-Eleven store. To the west lie residential homes and Pokai Bay Drive. To the south is a City and County of Honolulu drainage canal, across which are more residential homes.

The State of Hawaii's Land Use Commission (LUC) sets the boundaries and classifies all lands within the State into one of four district classifications; Conservation, Agricultural, Rural, and Urban. The project site and the surrounding area are classified as Urban by the LUC. The State Land Use Urban District is characterized by a "city like" concentration of a population and its required services. As such, much of the surrounding populated areas in the vicinity of Farrington Highway are classified as Urban. State land use classifications are shown in Figure 16.

The City and County of Honolulu maintains jurisdiction and administration of land uses within the Rural and Urban Districts in order "to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies...and to promote and protect the public health, safety and welfare..." (Chapter 21, Land Use Ordinance). Under the CCH's classification system, the project site is zoned residential (R-5). Adjacent land along the eastern boundary of the project site is zoned Community Business District (B-2), while the remaining adjacent lands immediately north, west, and south of the project site are also zoned R-5 Residential. The entire project site is also located within the Special Management Area as designated by the CCH. County zoning designations and SMA boundaries relative to the project site are shown in Figures 17 and 18, respectively.

Potential Impacts and Mitigation Measures

Lands within Waianae's urban core are populated and developed and the existing land uses around the project site are urban in nature and include predominantly residential homes and commercial business establishments. Therefore, the Proposed Action will not result in significant impacts to land use as it will be consistent with surrounding land uses and development as permitted within both the state LUC Urban district and the CCH R-5 Residential zone.

Since the Proposed Action is located within the SMA, it is subject to the requirements of Chapter 25 of the Revised Ordinances of Honolulu. A Special Management Area Use Permit (Major) will be required prior to the start of construction, and the project must meet the objectives and policies relating to the Coastal Zone Management Act (CZMA) and the Special Management Area, as set forth in Chapter 205A-26 HRS. Consistency with CZMA and SMA objectives and policies are addressed in further detail in Section 5.5.

3.2.2. Utilities and Infrastructure

3.2.2.1. Water and Sewer

There are currently no water or sewer utilities servicing the project site, and implementation of the Proposed Action would result in the installation of such utilities as previously described in Section 2.2.4.1.

Potential Impacts and Mitigation Measures

As noted in Section 2.2.4.1 the estimated wastewater that will be generated by the proposed subdivision would be approximately 6,300 gpd and 31,500 gpd during average and peak flows, respectively. The Wastewater Branch of the CCH Department of Planning and Permitting and the Department of Environmental Services were consulted regarding the Proposed Action. A sewer connection application (No. 2017/SCA-0527) for the Proposed Action was submitted to the CCH Department of Planning and Permitting and was approved on 29 March 2017. Based on their review of the project and proposed wastewater improvements, DPP has confirmed that the existing sewer infrastructure to which the proposed subdivision's sewer lines will connect is adequate to support the proposed increase in waste water flow. As such, no significant adverse impacts to the existing sewer infrastructure is anticipated as a result of the Proposed Action.

Similarly, consultation with the BWS has been initiated regarding the Proposed Action's water consumption. The BWS will make its final determination at the time the SMP is submitted for review. However, it is anticipated that the existing water system is adequate to accommodate the estimated 10,500 gpd of water usage resulting from the Proposed Action, and significant adverse impacts are not anticipated.

3.2.2.2. Power and Communications

There are currently no electrical or communication utilities servicing the project site, and implementation of the Proposed Action would result in the installation of such utilities as previously described in Section 2.2.4.2. Furthermore, as previously discussed, the proposed subdivision will be designed with energy-efficiency in mind. Homes will be equipped with dual-pane energy efficient windows, double-glazed self-venting aluminum framed skylights, PV panels/inverters, water heating panels/storage tanks, energy saving fixtures such as LED or CFL bulbs, and energy star rated appliances.

Potential Impacts and Mitigation Measures

No significant adverse impacts to power and communication are anticipated as the addition of 21 single family homes would not result in exceeding or overloading the capacities of HECO, HTCOM, or OTWC utilities.

3.2.3. Public Services

3.2.3.1. Solid Waste

There are currently no solid waste collection services at the project site, and implementation of the Proposed Action would result in the implementation of such services as previously described in Section 2.2.5

Potential Impacts and Mitigation Measures

No significant adverse impacts are anticipated. The 21 new homes will not contribute significant amounts of residential solid waste relative to the overall solid waste generation for the island of Oahu. Furthermore, Oahu recycling rates are above the national average and Honolulu ranks among the top cities in the country in landfill diversion. By employing both recycling and waste-to-energy, more than 70% of Oahu's municipal solid waste is being diverted from Waimanalo Gulch Landfill. Expansions to the H-POWER waste-to-energy plant and increases in recycling will further decrease what goes to landfill. (DES, 2016)

In addition to not having adverse impacts resulting from solid waste generation, the Proposed Action would result in beneficial impacts over the long-term. Over the years, the project site has remained vacant and undeveloped. These conditions have attracted both the homeless settlements and illegal dumping activities to occur at the site, which in turn result in the accumulation of large amounts of solid waste and debris. Such conditions result in adverse impacts to the visual aesthetics of the site and/or hazardous conditions to human health and/or safety. The Proposed Action would result in beneficial impacts as the site would no longer be vacant and susceptible to illegal dumping activities and/or homeless settlements.

3.2.3.2. Protective Services

The Waianae Fire Station (Honolulu Fire Department Station #26) is located at 85-645 Farrington Highway and will serve the proposed subdivision. The Waianae Fire Station is located approximately 0.75 miles north of the project site. The Waianae police station is located at 85-939 Farrington Highway, approximately one block north of the project site. The nearest medical facility to the project site is the Waianae Coast Comprehensive Health Center located at 85-260 Farrington Highway, approximately one mile south of the project site. The nearest hospitals to the project site are Pali Momi Medical Center and Kaiser Permanente Moanalua in Aiea, approximately 20 miles from the project site.

Potential Impacts and Mitigation Measures

The project is not anticipated to have significant impacts on the fire and police services. With the addition of 21 new homes the Pali Momi and Kaiser facilities would have to accommodate these residents for hospital and/or emergency-related needs. However, servicing of these relatively small number of residents will result in only negligible impacts and not significant impacts to these hospital facilities.

3.2.4. Aesthetic and Recreational Resources

The aesthetic or visual quality of an area is composed of various resources—the physical features that make up the landscape, including land forms, water, vegetation, and man-made features (e.g., buildings and other structures). The project site is located entirely within a populated, developed, urban area with limited public views. The visual landscape in the vicinity of the project site is characterized by developed features and is comprised of a mixture of facilities that range from commercial buildings (e.g., gas stations, restaurants, convenience stores, fast food establishments, etc.) and residential housing. Overall, the project area has a developed appearance and the visual resources are typical of similar urban environments

As previously discussed project site itself has been in a vacant and undeveloped state for many years. The site is not used for any recreational activity nor does it provide access to other recreational areas. The vacant and undeveloped conditions at the project site have resulted in past illegal dumping of trash as well as the congregation and establishment of homeless encampments on the site. This has in turn resulted in adverse visual and aesthetic impacts within the project site as well as the surrounding area.

Potential Impacts and Mitigation Measures

Impacts to visual and aesthetic resources are evaluated on the basis of the amount or severity of change to the aesthetic and visual resources of the affected environment, as well as the resulting extent of diminished viewing opportunities or enjoyment. Factors considered in determining whether an alternative would have an adverse impact on visual resources include the extent or degree to which its implementation would result in any of the following:

- Introduce physical features that are substantially out of character with adjacent landscape and visual setting;
- Be inconsistent with the visual resource regulations and policies governing aesthetics and visual resources, or
- Alter a site so that a sensitive viewing point is obstructed or adversely affected, or if the scale or degree of change appears as a substantial, obvious, or disharmonious modification of the overall view.

Short-term impacts to the visual and aesthetic character of the project site and surrounding area would occur as a result of construction activities. The visual character may be altered as a result of dust screens, heavy equipment, construction vehicles, etc. However, these impacts would be temporary in nature and less than significant.

Over the long-term, the Proposed Action would result in beneficial impacts to visual and aesthetic resources. New homes will replace the existing vacant lot conditions. As discussed in Section 2.2.1 proposed homes would be designed to be consistent with the existing surrounding residential character of the area. Relative to the existing unsightly visual character of the project site, beneficial impacts would likely result from the more aesthetically appealing homes as well as landscaped areas within the subdivision. In summary, no long-term, adverse impacts to existing visual, aesthetic, or recreational resources are anticipated to occur. Conversely, long-term impacts to visual and aesthetic resources would be beneficial.

There will be no impacts on recreational resources as the project site is private property and serves no recreational value, nor does it provide access to or from recreational areas.

3.2.5. Traffic and Circulation

This section addresses potential traffic-related impacts resulting from the Proposed Action. Traffic engineering consultation services were undertaken in support of this EA and attached as Appendix E. The information presented in this section is based primarily on the findings presented in Appendix E.

Roadways in the immediate vicinity of the project site are Lualualei Homestead Road adjacent to and north of the site, Farrington Highway to the east, and Pokai Bay Drive to the west. Lualualei Homestead Road and Pokai Bay Drive are operated and maintained by the CCH, and Farrington Highway is operated and maintained by the state of Hawaii. As part of the Proposed Action a new cul-de-sac road will be constructed. This new cul-de-sac will connect to Lualualei Homestead Road at a new intersection approximately 300 feet west of the existing signalized intersection with Farrington Highway and will provide access to 18 of the proposed 21 residential lots within the subdivision. Two lots occupying the southwest corner of the proposed subdivision (Lots 12 and 13) will front on and obtain access via Pokai Bay Drive, approximately 500 feet south of its intersection with Lualualei Homestead Road. The remaining lot occupying the northwest corner of the subdivision (lot 21) will directly front and be accessed via Lualualei Homestead Road. Roadway configuration of the project area in relation to the proposed subdivision lots are shown in Figures 4 and 5.

Potential Impacts and Mitigation Measures

Traffic estimates for the Proposed Action were made using generally acceptable rates for vehicular traffic generation. The traffic estimates were compared with readily available recorded traffic volumes (taken in January 2014) and various criteria that have been used to

determine when a traffic study should be prepared. These criteria, which were applied to the surrounding streets and to nearby segments of the highway system, include:

- An impact of 100 or more added vehicles during the peak hour (ITE, 2005)
- An impact of 500 or more added vehicles per day (DOTHD, 2011)
- An impact resulting in at least a 3% increase in traffic volumes
- An impact to a City street where congested traffic conditions exist

The State Department of Transportation Highways Division (DOTHD) has a program in which traffic counts are taken for a continuous 48-hour period at various locations. In January 2014, counts were taken on Farrington Highway, between the intersections with Waianae Valley Road and with Lualualei Homestead Road (based on the reported GPS coordinates, the count was taken on Farrington Highway 220 feet north of Lualualei Homestead Road). Traffic Count data from 2014 is shown below in Table 3-2.

Table 3-2 – 2014 Traffic Count Data

| (SB = southbound, NB = northbound) | Daily traffic | | AM Peak Hour | | PM Peak Hour | |
|---|---------------|--------|--------------|-------|--------------|-------|
| | SB | NB | SB | NB | SB | NB |
| Tuesday, January 28, 2014 | 16,919 | 13,946 | 1,332 | 1,044 | 1,075 | 1,123 |
| Wednesday, January 29, 2014 | 16,752 | 13,811 | 1,277 | 1,050 | 972 | 1,107 |
| Source: State of Hawaii Department of Transportation, Highway Planning Branch (February 2016) | | | | | | |

In addition to the above DOTHD traffic data, turning movement counts were taken during the morning and afternoon peak periods in August and September 2016 (Appendix E). The 2016 traffic count data were used in level of service (LOS) analyses of the signalized intersection of Farrington Highway and Lualualei Homestead Road to confirm that the project would have only minor impacts. The analyses were based on the signalized intersection analysis procedure described in Chapter 16 of the *2000 Highway Capacity Manual (TRB, 2000)*; the results include LOS based on the average delay per vehicle, as described Table 3-3 below. Level of Service D or better is considered acceptable for peak hour conditions.

Table 3-3 – Level-of-Service Descriptions

| <u>Average Delay (seconds per vehicle)</u> | <u>General Description of Delay</u> | <u>LOS</u> |
|--|-------------------------------------|------------|
| ≤ 10 | Little or no delay | A |
| > 10 and ≤ 25 | Short traffic delays | B |
| > 25 and ≤ 35 | Average traffic delays | C |
| > 35 and ≤ 55 | Long traffic delays | D |
| > 55 and ≤ 80 | Very long traffic delays | E |
| > 80 | Very long traffic delays | F |

Utilization (volume-to-capacity ratio) was approximately 60% in each peak hour, for both the 2016 counted volumes and with the Plus Project traffic volumes. LOS analyses were done for

two-phase signal operations with peak hour cycle lengths of 90 and 120 seconds, shown in Tables 3-4 and 3-5, respectively.

**Table 3-4 – Results of Analysis of Signalized Intersection
Farrington Highway and Lualualei Homestead Road**

| 90-second cycle | 2016 counts | | | plus project traffic | | |
|--|--------------|-------------|----------|----------------------|-------------|----------|
| | vph* | AD | LOS | vph | AD | LOS |
| AM Peak Hour | | | | | | |
| Farrington Highway southbound | 955 | 9.0 | A | 957 | 9.0 | A |
| Lualualei Homestead Road westbound | 203 | 39.5 | D | 203 | 40.7 | D |
| Lualualei Homestead Road eastbound | 85 | 29.0 | C | 97 | 29.5 | C |
| Farrington Highway northbound | 998 | 8.4 | A | 1,000 | 8.4 | A |
| Overall | 2,241 | 12.2 | B | 2,257 | 12.5 | B |
| PM Peak Hour | | | | | | |
| Farrington Highway southbound | 1,013 | 9.2 | A | 1,019 | 8.7 | A |
| Lualualei Homestead Road westbound | 174 | 36.7 | D | 175 | 37.2 | D |
| Lualualei Homestead Road eastbound | 77 | 29.6 | C | 85 | 29.9 | C |
| Farrington Highway northbound | 1,143 | 8.8 | A | 1,150 | 9.7 | A |
| Overall | 2,407 | 11.6 | B | 2,429 | 11.8 | B |
| * vph = volume, vehicles per hour, AD = Average Delay per vehicle, seconds, LOS = Level of Service | | | | | | |

**Table 3-5 – Results of Analysis of Signalized Intersection
Farrington Highway and Lualualei Homestead Road**

| 120-second cycle | 2016 counts | | | plus project traffic | | |
|--|--------------|-------------|----------|----------------------|-------------|----------|
| | vph* | AD | LOS | vph | AD | LOS |
| AM Peak Hour | | | | | | |
| Farrington Highway southbound | 955 | 10.2 | B | 957 | 10.3 | B |
| Lualualei Homestead Road westbound | 203 | 51.1 | D | 203 | 52.5 | D |
| Lualualei Homestead Road eastbound | 85 | 38.3 | D | 97 | 38.8 | D |
| Farrington Highway northbound | 998 | 9.4 | A | 1,000 | 9.5 | A |
| Overall | 2,241 | 14.6 | B | 2,257 | 14.9 | B |
| PM Peak Hour | | | | | | |
| Farrington Highway southbound | 1,013 | 9.6 | A | 1,019 | 9.7 | A |
| Lualualei Homestead Road westbound | 174 | 51.5 | D | 175 | 52.4 | D |
| Lualualei Homestead Road eastbound | 77 | 40.6 | D | 85 | 41.0 | D |
| Farrington Highway northbound | 1,143 | 8.9 | A | 1,150 | 9.0 | A |
| Overall | 2,407 | 13.3 | B | 2,429 | 11.8 | B |
| * vph = volume, vehicles per hour, AD = Average Delay per vehicle, seconds, LOS = Level of Service | | | | | | |

As shown in the tables above, the overall LOS during the AM and PM after the implementation of the Proposed Action will remain at LOS B. The overall LOS B results for both the morning and afternoon peak hours indicate that the nearby intersection is not congested and level of service will not change with the addition of traffic generated by the proposed project. Similar conditions would prevail on the CCH streets leading into the intersection.

In summary, the Proposed Action will not result in significant traffic impacts. As discussed above, traffic resulting from the full utilization of the subdivision (21 single-family dwellings) will be considerably less than the thresholds commonly used to determine the need for a traffic impact study. Traffic impacts would be minor as the average daily traffic generated by the subdivision will be less than 200 vehicles per day, and the total (in plus out) traffic due to the project would be 22 vehicles per hour or less during peak hours. Furthermore, analyses with existing traffic data confirms that levels of service at the nearest access to Farrington Highway will remain unchanged at LOS B.

3.2.6. Noise Environment

Due to the predominantly urban surroundings, sound levels in the project area are typical of more populated areas. In the vicinity of the project site, ambient sound levels are influenced primarily by ambient noise typical of urban environments derived from mainly from motor vehicles, with occasional noise from road use, sirens, and heavy trucks which travel along Farrington Highway, and residential maintenance activities. Additionally, the portions of the project site nearer to Pokai Bay Drive are also influenced by ambient noise resulting from recreational beach users, ocean waves, and wind.

Potential Impacts and Mitigation Measures

Changes in ambient noise levels at the project site will occur as the site will no longer be undeveloped and the existing vacant land conditions at the project site will be occupied by residential homes. However, long-term, significant adverse noise impacts are not anticipated as the residential subdivision will be limited in its number of homes and noise generated by the subdivision would be consistent with the existing ambient noise typical of the surrounding urban environment.

Short-term noise impacts generated from construction-related activities at the project site would result from the Proposed Action. Noise generated by such activities (e.g. earth moving equipment, construction vehicles, etc.) can generate intermittently high noise levels, particularly during close-in construction work. However, these impacts would not be significant as they would be short-term and temporary in nature and would not result in long-term adverse impacts to the surrounding noise environment. Short-term noise impacts activities would be conducted in compliance and mitigated in accordance with HDOH regulations for Community Noise Control (HAR 11-46).

3.2.7. Archaeological, Historic, and Cultural Resources

This section addresses archaeological, historic, and cultural resources that could potentially be affected by the Proposed Action. An archaeological assessment (AA) and cultural impact assessment (CIA) were prepared in support of this EA. The purpose of the AA was to determine if any archaeological and historic properties are present within the project site and the purpose of the CIA is to assess cultural practices and resources within the project area and surrounding areas that may be impacted by the proposed project. The information presented in this section is based primarily on the findings presented in the AA and CIA which have been referenced accordingly.

The project Site is located within the ahupuaa of Lualualei is located in the moku (district) of Waianae on the leeward side of the island of Oahu. The moku of Waianae has long been known for its abundance of marine resources. The name Waianae, literally translates to “mullet water”. The naming of Waianae can be attributed to a large freshwater pond containing mullet called Pueha (Pacific Legacy, 2016). Lualualei became one of the first areas on the Waianae coast to be utilized for large-scale ranching activities. Today, Waianae and Lualualei are utilized for residential, commercial, and small-scale agricultural purposes. The majority of inland Lualualei Valley is still in use by the United State Military for ammunition storage for Pearl Harbor.

Potential Impacts and Mitigation Measures

Archaeological and Historic Resources

As part of the AA effort, archaeological field investigations were conducted between 25 July and 5 August 2016. Prior to these undertakings no previous archaeological investigations had been performed at the project site (Pacific Legacy, 2015, 2016). Prior to the initiation of subsurface investigations for the AA the entire site was surveyed and no surface archaeological resources or cultural deposits were identified. Subsurface investigations for the AA involved the excavation twenty linear test trenches ranging in size from approximately 5.5 to 10 meters in length by 0.60 to 1.9 meter in width by 0.36 to 1.66 meter in depth. Special care was taken to test the makai portion of the parcel located along Pokaī Bay Street, as well as the southern portion of the lot that abuts an existing CCH drainage canal (Pacific Legacy, 2016).

Based on the findings of the AA, the depositional sequence within the project site consists of a variety of modern imported fill material overlying sterile natural soils on top of solid coral limestone. Modern imported fill material was encountered throughout the entirety of the project site and, the coral limestone shelf was encountered at various depths throughout approximately 60% of the project site (Ibid.).

No historic or traditional cultural material, subsurface archaeological features, or human remains were encountered during the AA. Varying amounts of modern trash and construction debris was observed. Given that no historic properties were identified in the project area, no

significant impacts would occur to archaeological or historic properties as a result of the Proposed Action. Based on the lack of archaeological findings, the previously disturbed nature of the project area, and the presence of a relatively shallow coral limestone shelf, the AIS recommended no further or archaeological monitoring for the proposed project. However, in the unlikely event that potentially significant cultural materials, such as burial pit features or human burials, are encountered during construction, all work should immediately halt and the State Historic Preservation Division and/or the Oahu Island Burial Council shall be immediately contacted.

Cultural Resources

According to the State of Hawaii Department of Health - Office of Environmental Quality Control Guidelines for Assessing Cultural Impacts (OEQC 2011), the CIA prepared in support of this EA implemented the following protocol:

1. Identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a;
2. Identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;
3. Receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;
4. Conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;
5. Identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and
6. Assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

A rigorous effort was made to identify and locate persons knowledgeable about traditional cultural practices that took place in the past or that currently take place in project area and broader geographical area that could potentially be impacted by the Proposed Action. In addition to prior CIA reports written about the Lualualei and Waianae Ahupua'a proximal to the project area, the State of Hawaii Office of Hawaiian Affairs (OHA) and OEQC were consulted for a listing of Cultural Assessment Providers. Also contacted were the Aha Moku Advisory Committee, Waianae and Makaha Hawaiian Civic Clubs, Waianae Coast Rotary Club, and elected officials of the Waianae Coast Neighborhood Board (No. 24). Koa Ike, a 501(c)3 Foundation based out of Waianae that is centered on preservation of Hawaiian traditions and cultural resources, was also solicited for help finding cultural practitioners willing to participate in interviews regarding the project area. Of the thirteen knowledgeable individuals identified through research or referral, contact information was found for eleven kupuna and cultural practitioners, all of whom were solicited for participation. Individuals contacted were comprised of culturally knowledgeable Lualualei and Waianae kupuna

Based on archival research and informant interviews, the CIA found that Lualualei and Waianae Ahupua'a have a rich cultural and legendary history. However, similar to the findings of the AA little information pertains to the specific project property. By looking at the previous archaeological, historical, and ethnographical research done on the project area and surrounding areas, there are no cultural resources being utilized or cultural practices that are being carried out on the property (Pacific Legacy, 2017).

In summary, the Lualualei and Waianae Ahupua'a are rich in oral tradition and history as is evidenced by the archival research and ethnographic interview provided in this assessment. However, due to the fact that the majority of the project area has been heavily disturbed for construction endeavors, it is highly improbable that any contemporary cultural practices will be negatively impacted by the Proposed Action. Evidence of past cultural activities purported to have occurred in the project area are now either obliterated or encapsulated by agricultural and/or construction activities of the past. As such, no significant impacts to cultural practices and/or resources are anticipated as a result of the Proposed Action (Ibid).

3.2.8. Socioeconomic Setting

There are currently no homes present on the project site, and implementation of the Proposed Action would result in the availability of 21 new single-family residences. The proposed residential units would be implemented within the existing socioeconomic environment as previously described in Section 2.3.2.

Potential Impacts and Mitigation Measures

The Proposed Action would result in adverse impacts on the socio-economic environment. Rather, the Proposed Action would result in beneficial impacts on socio-economic conditions in both the short and long-term.

Short-term beneficial impacts would result from the creation of construction and construction-related support jobs for civilian contractors and crews, and the local purchase of goods and services would add to business and tax revenue. The proposed Action would also result in an increase demand on schools and recreational facilities. However, these increases would be negligible on a regional scale.

In the long-term the Proposed Action would alleviate the demand on housing by providing new market value-priced homes to the public, and increasing the area workforce, and property tax revenues. As such, the Proposed Action would overall result in temporary and long-term beneficial impacts to the socio-economic environment.

4. ANTICIPATED DETERMINATION

HEPA establishes procedures by which environmental impacts resulting from a Proposed Action are disclosed. The rules governing the implementation of Chapter 343 HRS are found in Section 11-200-12, HAR, which establishes thirteen (13) significance criteria that are used in evaluating an action's impacts. While this EA is prepared pursuant to Chapter 25, ROH, the following discussion is intended to demonstrate how the Proposed Action relates to generally recognized significance criteria, which, when applied, would support a finding of no significant impact:

1. *The Proposed Action will not involve an irrevocable commitment, loss or destruction of and natural or cultural resources.* No natural or cultural resources will be committed or lost. The surrounding area comprises the urban core of Waianae, and has been highly developed over the years for both residential and commercial uses.
2. *The Proposed Action will not curtail the range of beneficial uses of the environment.* The Proposed Action expands and in no way curtails beneficial uses of the environment. This is evidenced by the Proposed Action being implemented in an urban, developed, and populated as opposed to expansion into less-developed rural and/or agricultural areas of Waianae.
3. *The Proposed Action will not conflict with the state's long term-environmental policies.* The state's long-term environmental policies are set forth in Chapter 344, HRS. the broad goals of the policy are to conserve natural resources and enhance the quality of life. The Proposed Action fulfills the aspects of the policies by fostering safe, sanitary, and decent housing for the public. The Proposed Action also recognizes community appearance as major economic and aesthetic assets of the County and State by encouraging development in urban areas; preserving natural resources, including rural and agricultural lands, and mountain-to-ocean vistas.
4. *The Proposed Action will not substantially affect the economic or social welfare of the community or state.* Over time the Proposed Action will benefit the social welfare of the community by providing additional residential housing and contributing to the local and state economies.
5. *The Proposed Action does not substantially affect the public health in and detrimental way.* The Proposed Action will benefit public health by utilizing unused vacant land, which in the past has been subject to illegal dumping and as a settlement area for Oahu's homeless population.
6. *The Proposed Action will not involve substantial secondary impacts such as population changes or effects on public facilities.* No secondary effects are anticipated to result from the Proposed Action, which will improve the availability of residential housing and not induce significant in-migration or affect public facilities, as the scale of the development is limited to only 21 residential units.
7. *The Proposed Action will not involve a substantial degradation of environmental quality.* As discussed in previous sections the Proposed Action will not significantly degrade the quality

of the environment. The project will occur in a developed urban area and there are no natural or cultural resources of significance on the project site.

8. *The Proposed Action will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The Proposed Action is located in a populated urban area and will not impact any rare, threatened, or endangered species as none are present on or in the immediate vicinity of the project site.
9. *The Proposed Action is not one which is individually limited but cumulatively may have considerable effects upon the environment or involves a commitment for larger actions.* The Proposed Action is not related to additional activities in the regions in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. Additionally, the Proposed Action is confined to the geographic area of the project site and future development or expansion beyond the 21-unit subdivision is neither proposed and/or feasible.
10. *The Proposed Action will not detrimentally affect air or water quality or ambient noise levels.* No adverse effects on these resources will occur. As discussed previously, mitigation of construction phase impacts will preserve water, air and noise quality. Disturbance during the construction phase will be temporary and limited to permissible daytime hours.
11. *The Proposed Action does not affect or would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous lane, estuary, fresh water, or coastal area.* The Proposed Action is located within flood and tsunami inundation zones. Therefore, there is a possibility of from tsunami and flooding, however the project is within sounding range of evacuation sirens and is near and accessible via Farrington Highway where emergency vehicles are able to alert businesses and residents of a tsunami. With respect to flood hazards, the development will comply with the requirements of the Federal flood Insurance Program. As discussed in previous sections and shown in appended figures, the development will be designed to meet all applicable flood zone requirements. As such, no significant impacts resulting from flood hazards are anticipated.
12. *The Proposed Action will not substantially affect scenic vistas and view planes identified in the county or state plans or studies.* No scenic view planes will be adversely affected by the project. As discussed in previous sections, the proposed subdivision homes will be designed to be consistent with the existing surrounding residential character of the area and would provide beneficial visual impacts relative to the exiting conditions as the site is currently a fenced in vacant lot and is not a quality coastal scene..
13. *The Proposed Action will not require substantial energy consumption.* Initial construction of the subdivision will require additional consumption of energy. However once the subdivision is built this additional consumption should be reduced through, previously discussed, green design features that provides for using less energy. Therefore, there will be no long-term adverse effects on the capacity of the electrical utility to supply power to the subdivision.

5. RELATIONSHIP TO PLANS POLICIES AND CONTROLS

5.1. State Land Use Law

All lands within the State of Hawai'i are classified into one of four land use districts – Urban, Rural, Agriculture, or Conservation – by the State Land Use Commission pursuant to Chapter 205, HRS. The project site is situated within the State Land Use Urban District (Figure 16). The State Land Use Urban District is essentially defined as a “city-like” concentration of a population and its required services. Most of the populated areas near and around Farrington Highway are classified as “Urban”. The proposed project is consistent with the State Urban classification.

5.2 State of Hawaii Environmental Policy

Chapter 344, HRS, the State Environmental Policy, encourages productive and enjoyable harmony between people and their environment. The policy promotes efforts which will prevent or eliminate damage to the environment and biosphere, stimulate the health and welfare of humanity, and enrich the people of Hawaii's understanding of ecological systems and natural resources. The Environmental Policy seeks to conserve natural resources and enhance the quality of life for residents of Hawaii. Expanding citizen participation in the decision-making process is one of the guidelines specified in Chapter 344, HRS.

As discussed in Section 4, the Proposed Action fulfills the aspects of policies set forth in Chapter 344 HRS by fostering safe, sanitary, and decent homes. The Proposed Action also recognizes community appearances as major economic and aesthetic assets of the county and State by encouraging development in urban areas; preserving natural resources, including rural and agricultural lands, and mountain-to-ocean vistas. Furthermore, the Proposed Action will not result in significant impacts based on the thirteen (13) significance criteria established in Section 11-200-12, HAR.

5.3 City and County of Honolulu General Plan

The City and County of Honolulu General Plan defines the entire Waianae Coast Area as “Rural”. This area has a relatively small population compared with the other areas on Oahu. The intent is to keep the Waianae area with a rural feel, preserving the natural environment, while also meeting housing needs of the existing residents. The Proposed Action meets these requirements by providing the residents with needed housing, while not significantly impacting the rural feel, by keeping development within the urban core of Waianae which already contains numerous residential and commercial developments.

5.4 Waianae Sustainable Communities Plan

As noted Section 5.2 above, the CCH's objective is to keep Waianae as rural in both its landscape as well as its feel. The Waianae Sustainable Communities Plan (WSCP) is consistent with that theme. The WSCP principal policies are to: Preserve Open Space; Preserve Historic and Cultural Resources; Preserve Agricultural Lands; No increase in lands designated for residential use; Encourage commercial and light industrial businesses that will serve the community. (DPP, 2012) The Proposed Action will be constructed on vacant undeveloped land that is located in Waianae's urban core on land zoned for residential purposes. As such the Proposed Action is consistent with the WSCP as it will provide the community with residential homes, utilizing the existing property for its designated residential purpose, while impacting no historic or cultural resources, preserving open space and agricultural lands, and not increasing lands designated for residential use.

5.5 Special Management Area

As previously discussed, the project site is located within the SMA as delineated by the CCH (Figure 18). Therefore, the Proposed Action is subject to the requirements of Chapter 25 ROH. A Special Management Area Use Permit (Major) will be required prior to the start of construction, and the Proposed Action must meet the policies and objectives relating to the CZMA and SMA, as set forth in Chapter 205A-26 HRS. A discussion of how the Proposed Action meets CZMA and SMA policies and objectives is discussed below.

1. All development in the SMA shall be subject to reasonable terms and conditions set by the authority in order to ensure:

- A. *Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and national reserves is provided to the extent consistent with sound conservations principles;*
- B. *Adequate and properly located public recreation areas and wildlife preserves are reserved;*
- C. *Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and*
- D. *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, erosion, siltation, or failure in the event of earthquake.*

Discussion: The Proposed Action will not adversely affect access to publicly owned recreational areas, beaches, natural reserves, or adversely impact public recreation areas of wildlife reserves. The Proposed Action would appropriately manage and dispose of regulated solid waste in accordance with applicable federal, State, and local regulations and ordinances. The Proposed Action would not adversely impact water resources or scenic and recreational amenities. The

subdivision would also be required to meet all applicable construction codes to ensure minimum flood, erosion, and siltation hazards, and/or or failures resulting from earthquakes or other natural hazards.

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

- A. *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 substantial adverse effect, and elimination of planning options;*
- B. *That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and*
- C. *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 Proposed Action will not have substantial adverse environmental or ecological effects as evidenced by the findings of this EA and as discussed in Section 5.2 above. The Proposed Action is also consistent with county general plan, zoning requirements, and other applicable plans and policies discussed above. Lastly, the proposed Action would require that an appropriate SMA permit application be prepared and submitted to the City for review and approval.

3. The authority shall seek to minimize, where reasonable:

- A. *Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;*
- B. *Any development which would reduce the size of any beach or other area usable for public recreation;*
- C. *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;*
- D. *Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and*
- E. *Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

Discussion: The Proposed Action does not involve any dredging, filling, or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon, and as such would have no impact on such water bodies. The Proposed Action would not impact public access to or use of coastal areas, including tidal and submerged lands and beaches, or portions of rivers or streams. The

Proposed Action would not interfere with or detract from the line of sight toward the sea from the segment of Farrington Highway east of the project site. As addressed in previous sections of this EA, the Proposed Action would not adversely impact the quality of ground water, surface waters, shoreline areas, fisheries, fishing grounds, wildlife habitats, or agricultural lands.

The project relates to the CZM objectives and policies as follows:

- 1) *Recreational resources.* As discussed in section 3.2.4, The site is currently, vacant, unused, and fenced in. It is currently not accessible, available, or functioning as an active recreational use area. Utilization of the site for the proposed subdivision will not reduce or remove recreational resources.
- 2) *Historic resources.* As discussed in section 3.2.7, no historical or cultural resources will be affected as none are documented or known to exist on the project site.
- 3) *Scenic and open space resources.* As discussed in Section 3.2.4, scenic and open space resources will not be impacted by the project. As stated in previous sections, the proposed subdivision homes will be designed to be consistent with the existing surrounding residential character of the area and would provide beneficial visual impacts relative to the existing conditions as the site is currently a fenced in vacant lot and is not a quality coastal scene.
- 4) *Coastal Ecosystems.* As discussed in previous sections the project will not significantly impact coastal ecosystems as surface runoff volumes from the subdivision will not increase significantly from existing surface runoff volumes. Furthermore, drainage discharging from the subdivision will be collected, managed, and diverted into the existing CCH drainage canal, as discussed in previous sections and shown in appended figures.
- 5) *Economic uses.* As previously discussed, project will provide residential housing and infrastructure improvements important to the local and State economies. The site is located in an appropriate location to meet the communities' housing needs and provide economic benefits to the nearby commercial enterprises.
- 6) *Coastal Hazards.* As previously discussed, the project site is situated within the established tsunami inundation zone. Therefore, there is a possibility of hazard to life and property from tsunami and flooding. However the project is within sounding range of evacuation sirens and is near and accessible via Farrington Highway where emergency vehicles are able to alert businesses and residents of a tsunami. With respect to flood hazards, the development will comply with the requirements of the Federal Flood Insurance Program, and as previously discussed and shown in appended figures, the development will be designed to meet all applicable flood zone requirements. Therefore, no flood hazards are anticipated.
- 7) *Managing Development.* The project will follow all applicable permitting requirements including, but not limited to the SMA process, CZM objectives, NPDES permit requirements, and all applicable CCH construction-related permits.
- 8) *Public participation.* As presented in the Section 6 below, the project has and will continue to engage the public, providing opportunities for public participation through both the HEPA and SMA review processes.
- 9) *Beach Protection.* The subdivision will be located mauka of Pokai Bay Drive and will not

adversely impact nearby beach access or activities, and will not increase street parking.

10) Marine Resources. As previously discussed, the project will not significantly impact marine resources. Surface runoff volumes from the subdivision will not increase significantly from existing surface runoff volumes. Furthermore, as discussed in Section 3.1.3, surface runoff discharging from the subdivision will be diverted, collected, and managed, and into proposed drainage improvements before being discharged into the existing CCH drainage canal.

In summary, the Proposed Action will not result in significant adverse environmental effects on Hawaii's coastal zone and SMA. Furthermore, the project is also in compliance with federal, state, and local plans, policies, and controls as discussed above and in the previous sections.

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6. CONSULTED PARTIES AND PUBLIC INVOLVEMENT

6.1. Early Consultation

In accordance with Hawai'i Revised Statutes Chapter 343, and Hawaii Administrative Rules Title 11, Chapter 200 early consultation efforts were undertaken as part of this EA preparation. In July 2016 early consultation request letters were distributed to federal, state and local agencies; stakeholders groups; and individuals to solicit input on the Proposed Action. A total of 12 early consultation letters were disseminated to agencies and interested parties and a total of 5 comment letters were received during this phase of the EA process. The distribution list and comment letters received are provided in Appendix F.

6.2. Public Outreach and Informational Meeting

In addition to the above-described early consultation efforts, in October of 2016 a total of 54 letters were mailed to adjacent property owners and residents in the immediate vicinity of the project site. The letters provided area residents information about the Proposed Action and informed them of a scheduled informational meeting regarding the Proposed Action at the upcoming November 1, 2016 Waianae Neighborhood Board meeting. Subsequently, a presentation providing information about the Proposed Action was presented to the Waianae community at the said Waianae Neighborhood Board Meeting. At the neighborhood board meeting some community members expressed interest and/or support for the Proposed Action while others had concerns and/or were opposed. Among the main concerns expressed during the neighborhood board meeting included, potential traffic, drainage/flooding, and real estate cost/economic impacts. The meeting minutes from the November 1, 2016 Waianae Neighborhood Board meeting are provided in Appendix F.

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7. ALTERNATIVES

7.1. No Action Alternative

Under the No Action Alternative the proposed subdivision would not be constructed. As a result, all associated impacts, short and long-term, adverse and beneficial, presented in this EA would not occur. Similarly, the No Action Alternative would result in maintaining the status quo, undeveloped, conditions at the project site and continuance of associated adverse and/or beneficial impacts. The No Action Alternative would result in an opportunity cost as there would be a loss of potential gain from not selecting an action alternative.

7.2. Alternative Site Plan

During the preliminary design stages of the proposed project alternative design options for the subdivision (e.g., number of lots, lot configurations, roadway access and layout, home design, etc.) were considered. Based on this design process it was determined that the proposed subdivision layout provides the most efficient, safe, and cost-effective alternative. An alternative site plan would not result in substantially different environmental impacts from those of the Proposed Action.

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9. APPENDICES

Appendix A – Figures

Appendix B – Site Photographs

Appendix C – Geotechnical Assessment

Appendix D – Biological Assessment

Appendix E – Traffic Engineering Assessment Letter Report

Appendix F – Early Consultation and Public Involvement

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APPENDIX A – FIGURES



Subject Property

Locator Map



0 250 500 1,000 Meters

Figure

1

LOCATION MAP

Waiānae, Oahu, Hawaii

Environmental Assessment for
Luualaei Homestead Road Single-Family Residential Subdivision



Pokai Bay Beach Park

7-11 Waiānae

No. 1 Chinese / BBQ Restaurant

Former Ark of Safety Christian Fellowship

Drainage Canal

Pacific Ocean

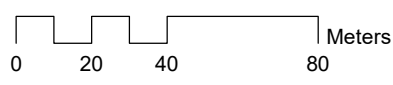
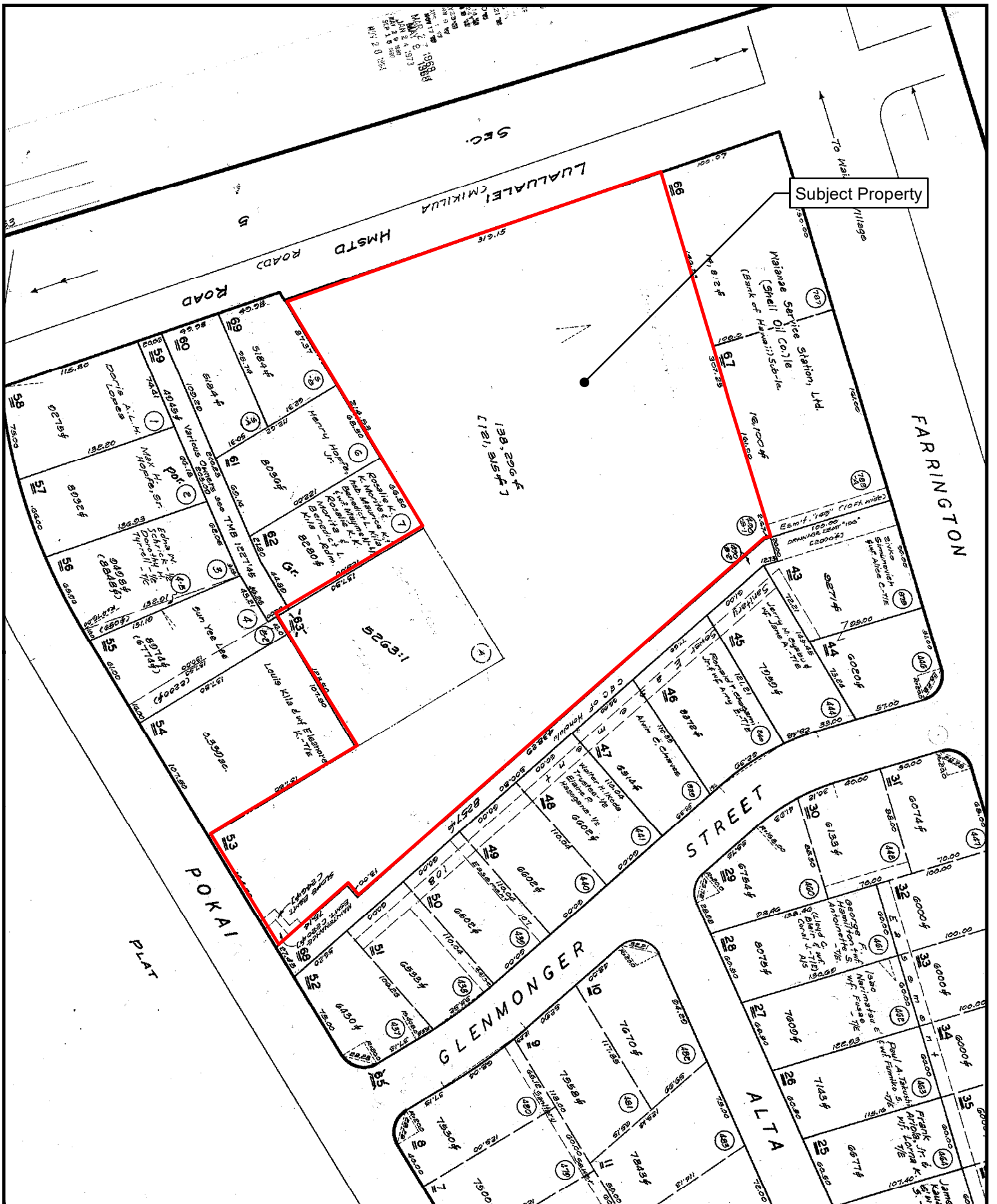


Figure 2

SITE MAP

Waiānae, Oahu, Hawaii

Environmental Assessment for Lualualei Homestead Road Single-Family Residential Subdivision



Subject Property

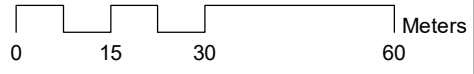
Figure

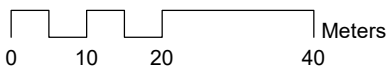
3

TAX MAP KEY (TMK) MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
Luualalei Homestead Road Single-Family Residential Subdivision





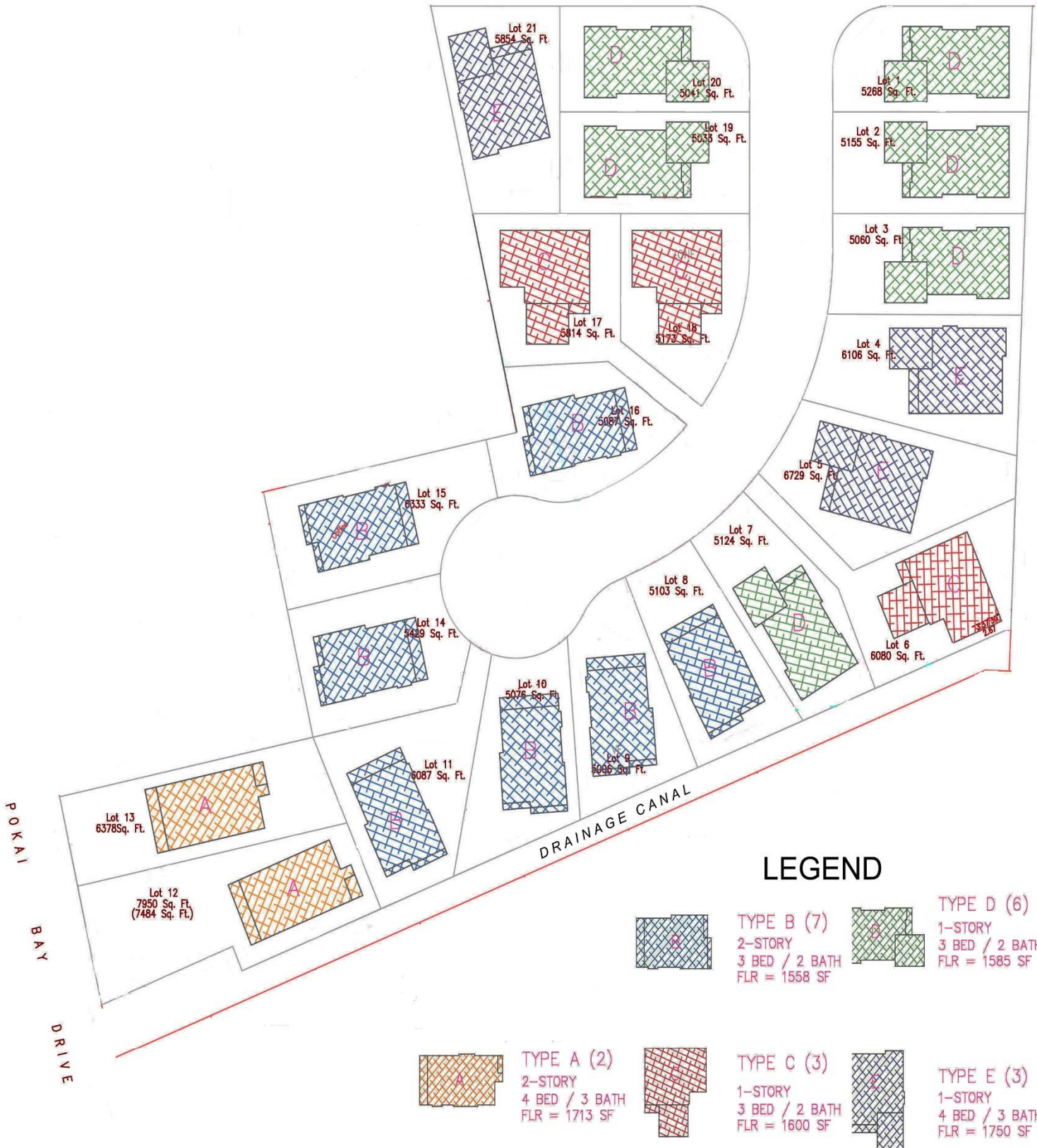
Figure

4

PROPOSED SUBDIVISION

Waianae, Oahu, Hawaii

Environmental Assessment for
Luaualei Homestead Road Single Family Residential Subdivision



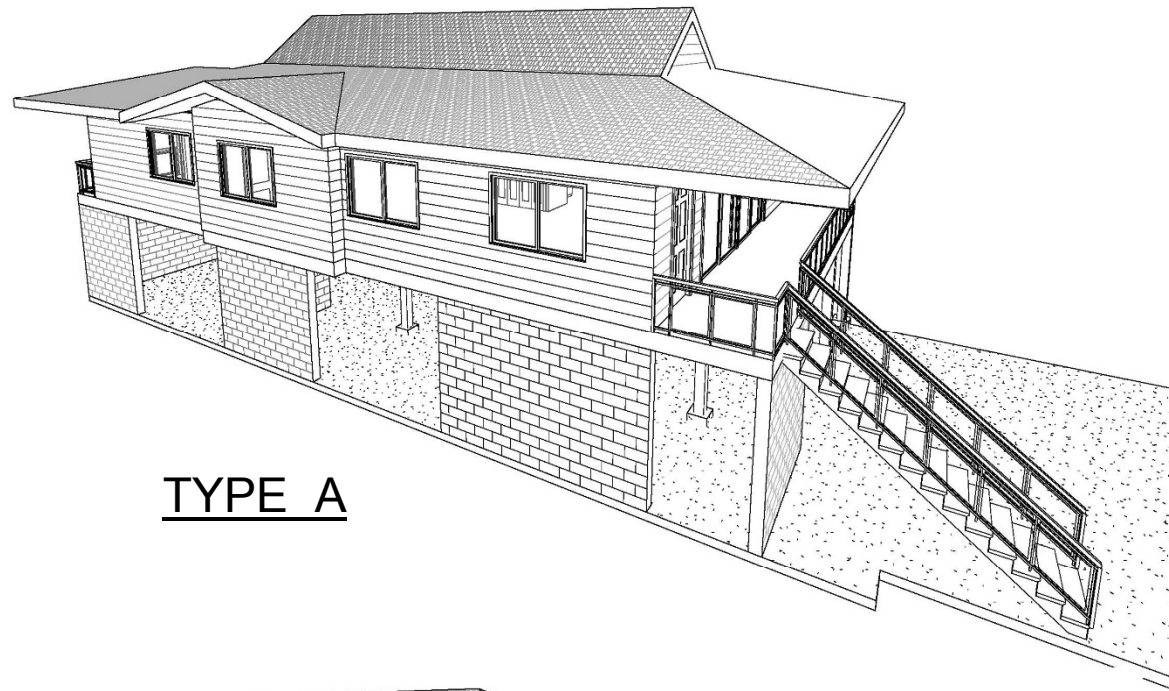
NOT TO SCALE

Figure
5

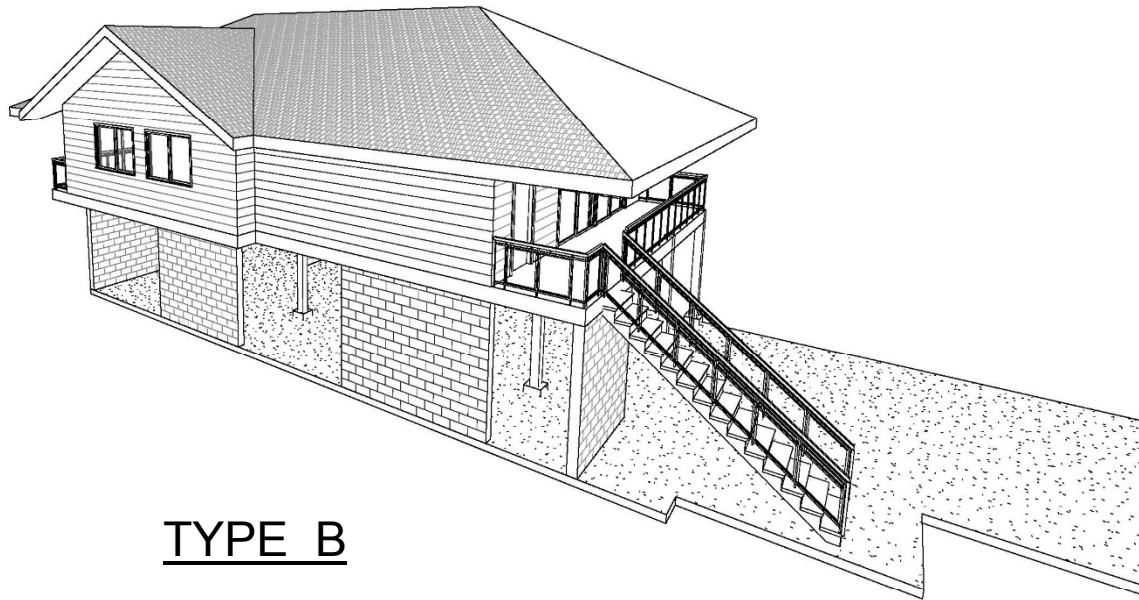
MODEL HOME and LOT PLAN

Waianae, Oahu, Hawaii

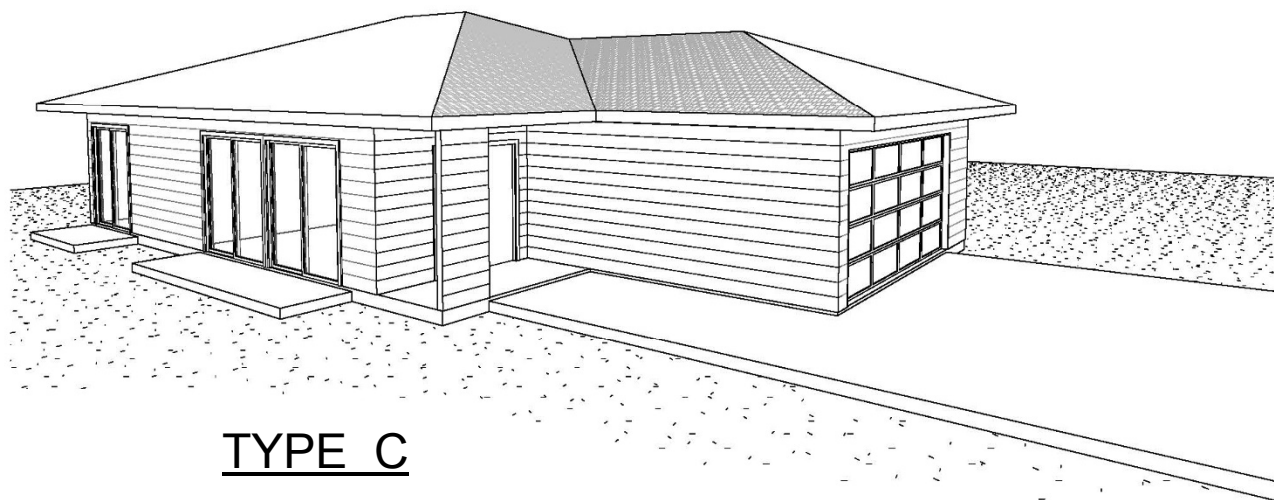
Environmental Assessment for
Lualualei Homestead Road Single-Family Residential Subdivision



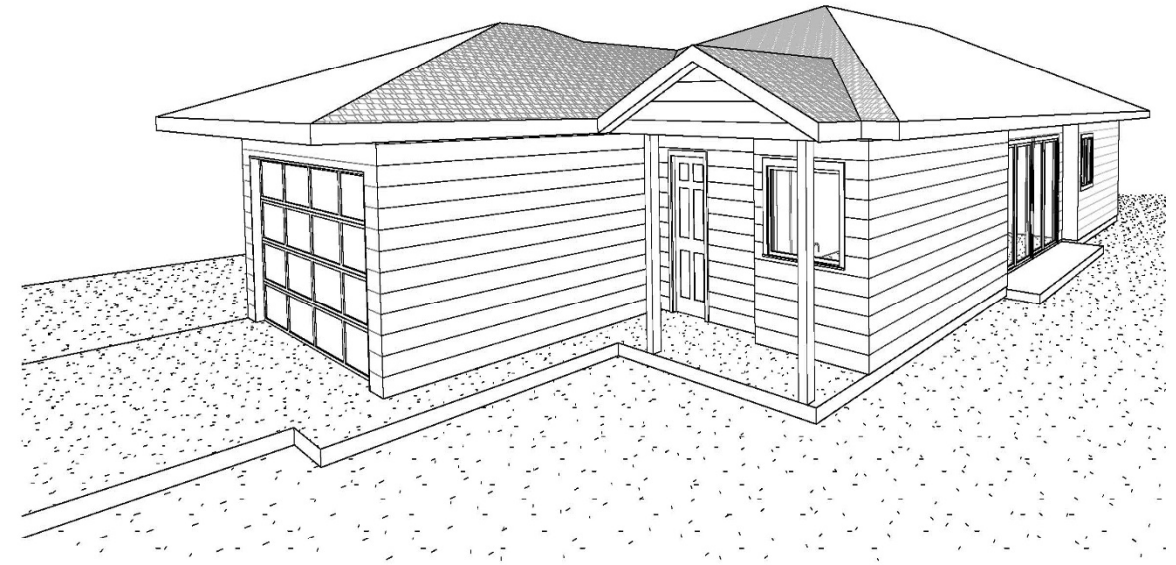
TYPE A



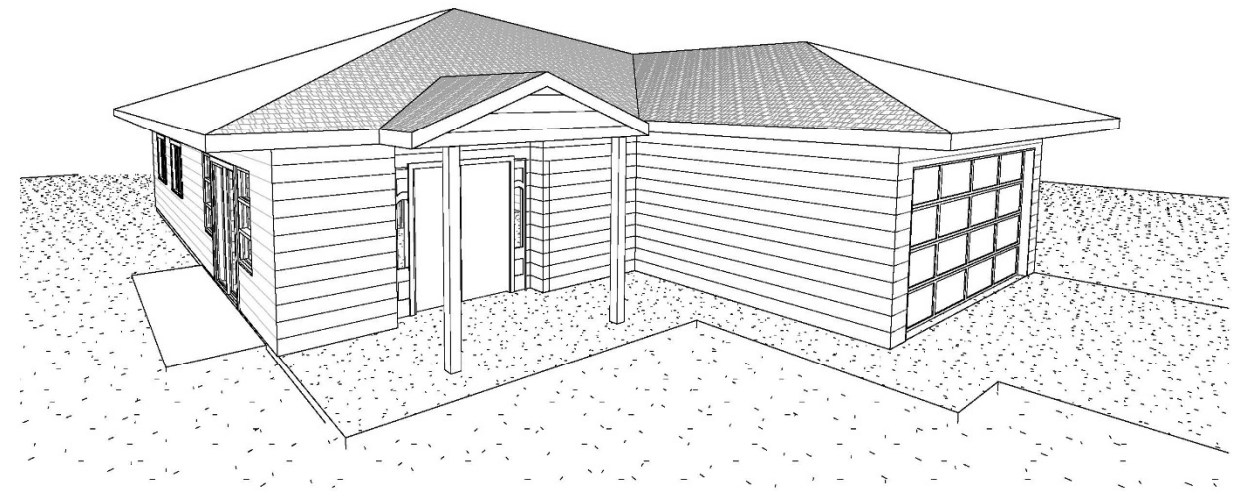
TYPE B



TYPE C



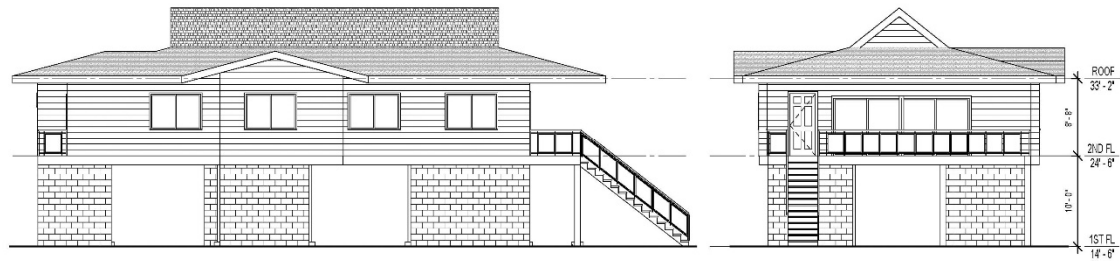
TYPE D



TYPE E

| | | |
|--------------|----------------------------|---|
| NOT TO SCALE | <p>Figure 6</p> | <p>MODEL HOME PERSPECTIVES Waianae, Oahu, Hawaii Environmental Assessment for Lualualei Homestead Road Single-Family Residential Subdivision</p> |
|--------------|----------------------------|---|

TYPE A



TYPE A - LEFT

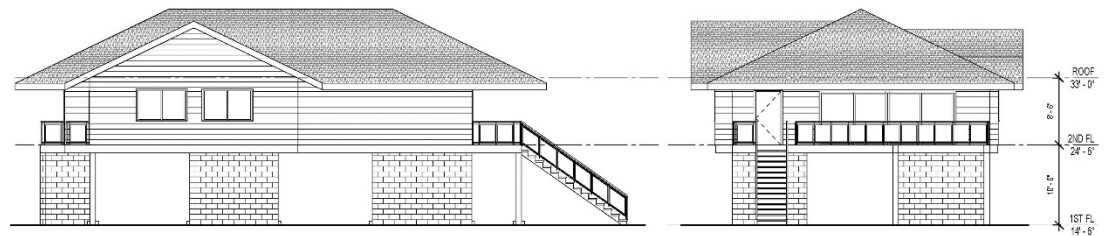
TYPE A - FRONT



TYPE A - REAR

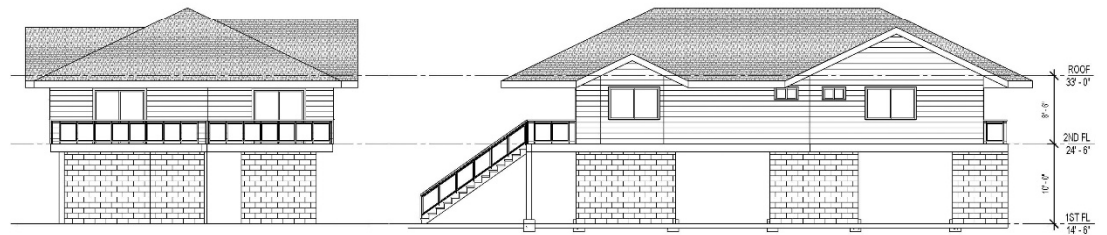
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TYPE B



TYPE B - LEFT

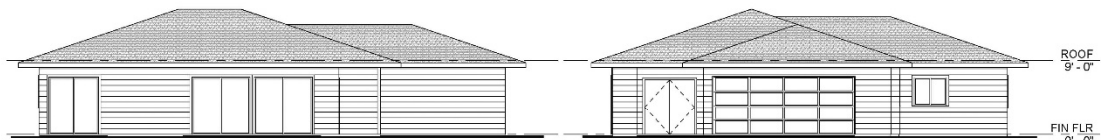
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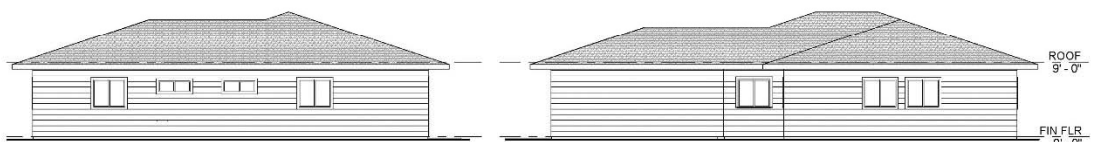
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TYPE C



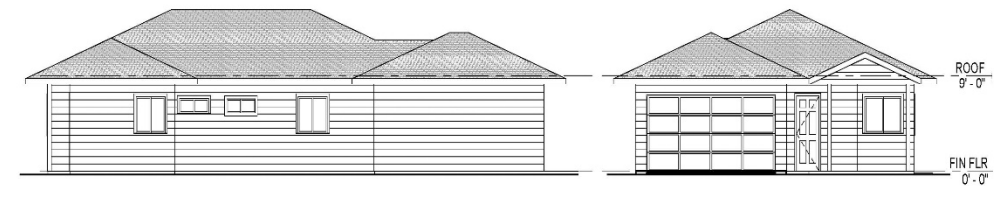
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TYPE C - FRONT



TYPE C - REAR

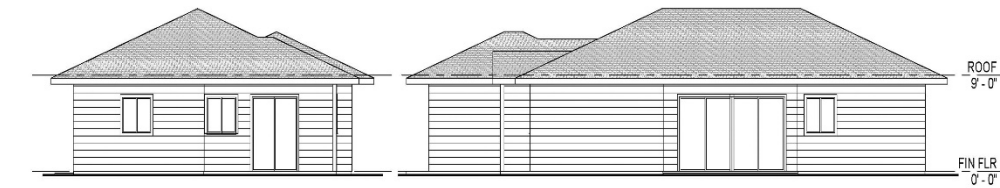
TYPE C - RIGHT



TYPE D - LEFT

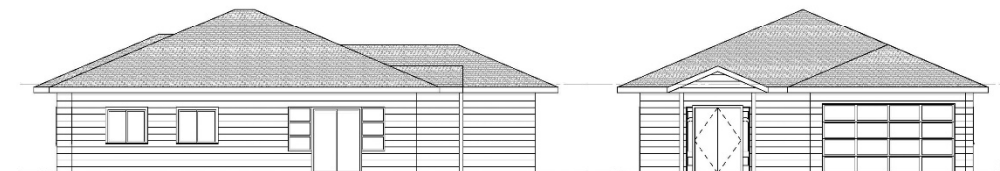
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TYPE D



TYPE D - REAR

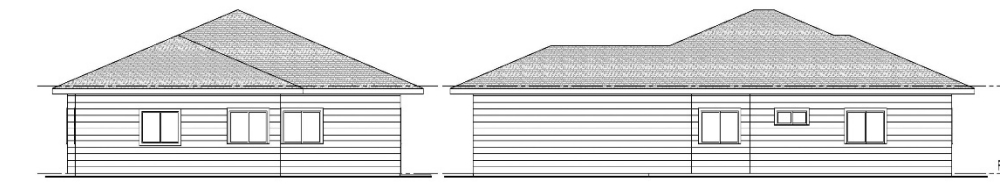
TYPE D - RIGHT



TYPE E - LEFT

TYPE E - FRONT

TYPE E



TYPE E - REAR

TYPE E - RIGHT

NOT TO SCALE

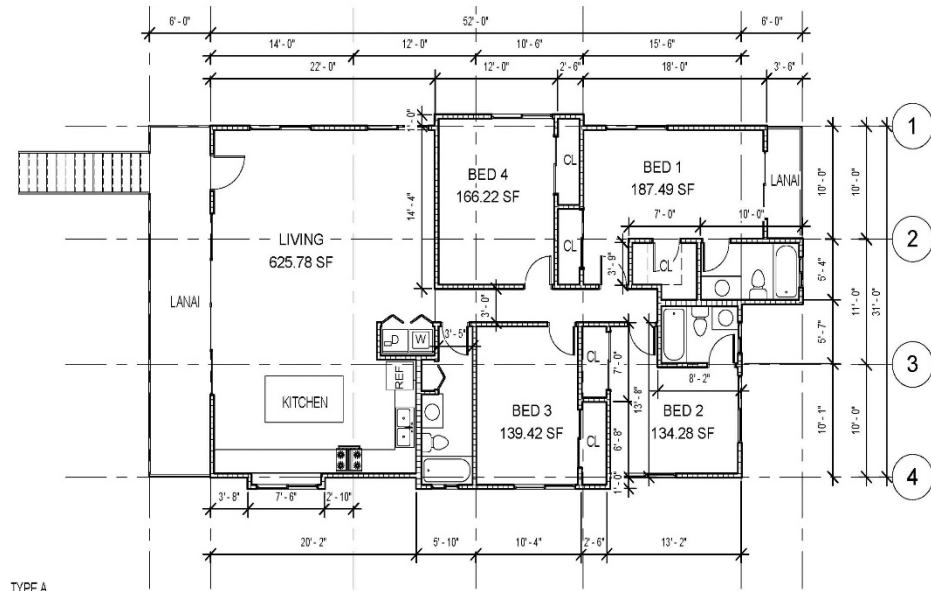
Figure
7

MODEL HOME ELEVATIONS

Waianae, Oahu, Hawaii

Environmental Assessment for
Lualualei Homestead Road Single-Family Residential Subdivision

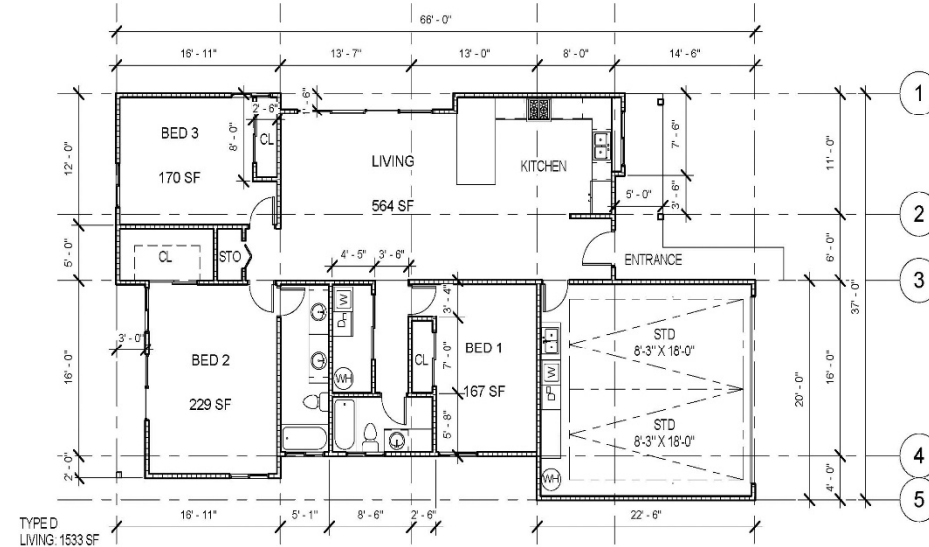
TYPE A



TYPE A
LIVING= 1713 SF
LANAI=220SF
4 BED / 3 BATH
FLOOD ZONE

TYPE A - FLR PLAN

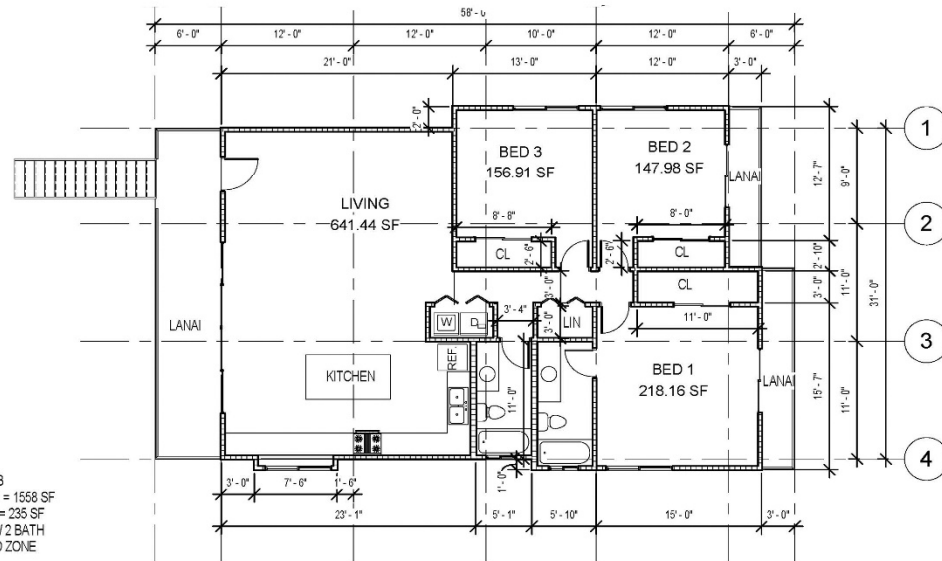
TYPE D



TYPE D
LIVING: 1533 SF
LANAI: 131 SF
GARAGE: 450 SF
3 BED / 2 BATH

TYPE D - FLR PLAN

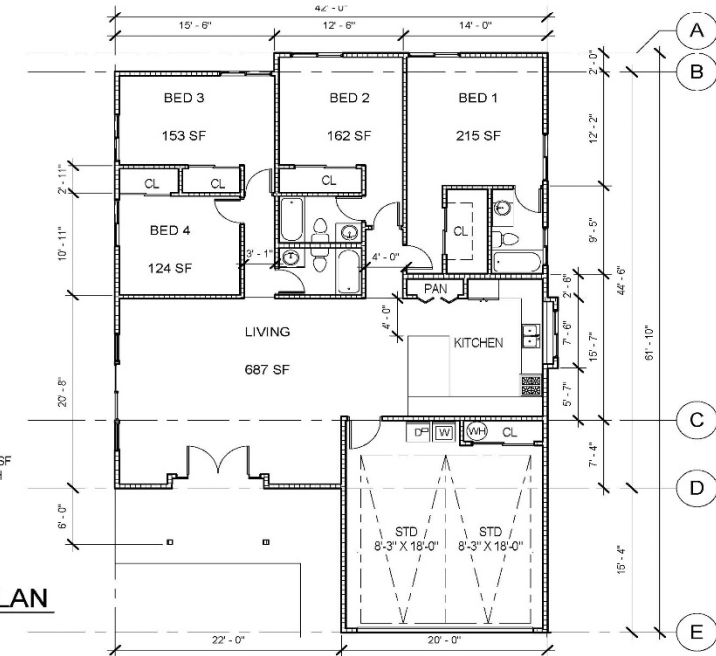
TYPE B



TYPE B
LIVING = 1558 SF
LANAI = 235 SF
3 BED / 2 BATH
FLOOD ZONE

TYPE B - FLR PLAN

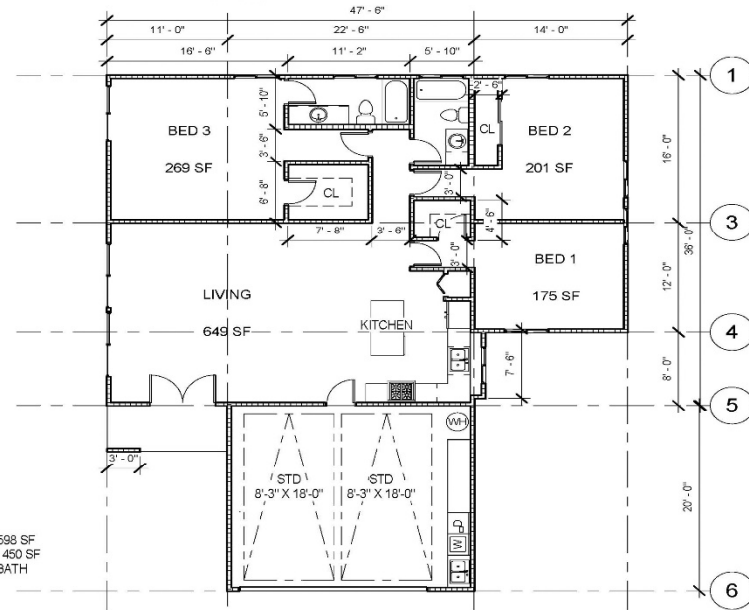
TYPE E



TYPE E
FLR = 1772 SF
GARAGE: 453 SF
4 BED / 3 BATH

TYPE E - FLR PLAN

TYPE C



TYPE C
LIVING: 1,598 SF
GARAGE: 450 SF
3 BED / 2 BATH

TYPE C - FLR PLAN

NOT TO SCALE

Figure
8

MODEL HOME FLOOR PLANS

Waianae, Oahu, Hawaii

Environmental Assessment for
Lualualei Homestead Road Single-Family Residential Subdivision

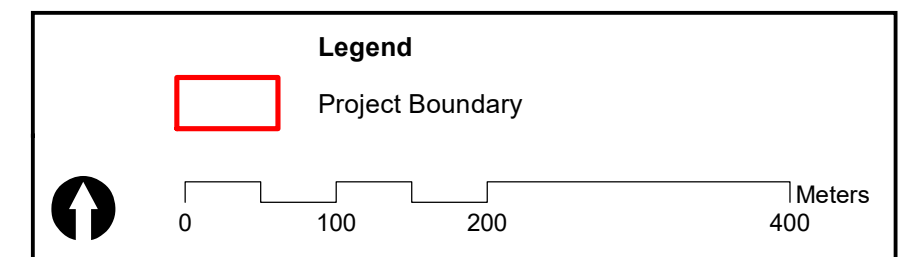


Figure 9 PROJECT SITE - HISTORICAL CONDITIONS

Waianae, Oahu, Hawaii

Environmental Assessment for
Luualaei Homestead Road Single-Family Residential Subdivision

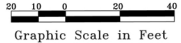


Figure 10

PRELIMINARY GRADING AND DRAINAGE PLAN

Waianae, Oahu, Hawaii

Environmental Assessment for Luualaei Homestead Road Single-Family Residential Subdivision





Legend

- a.c. asphaltic concrete
- h height
- s spread
- d diameter
- b bottom
- lc top curb
- bc bottom curb
- lw top wall
- bw bottom wall
- up utility pole
- gw sewer manhole
- smh sewer manhole
- wv water valve hand hold
- wv water valve
- th fire hydrant

NOTES:

Location of all underground utility lines and appearances from record information available and are approximate only.

Elevations refer to C&G Street Monument
 PC Monument on Ala Street
 Elevation = 7.43

Boundaries shown graphically in relation to 1/2" pipe at the Southeast corner of property

Owner information taken from C&G Real Property Tax Office records

Graphic Scale in Feet

Figure 11

WATER AND SEWER PLAN

Waianae, Oahu, Hawaii

Environmental Assessment for
 Lualualei Homestead Road Single-Family Residential Subdivision

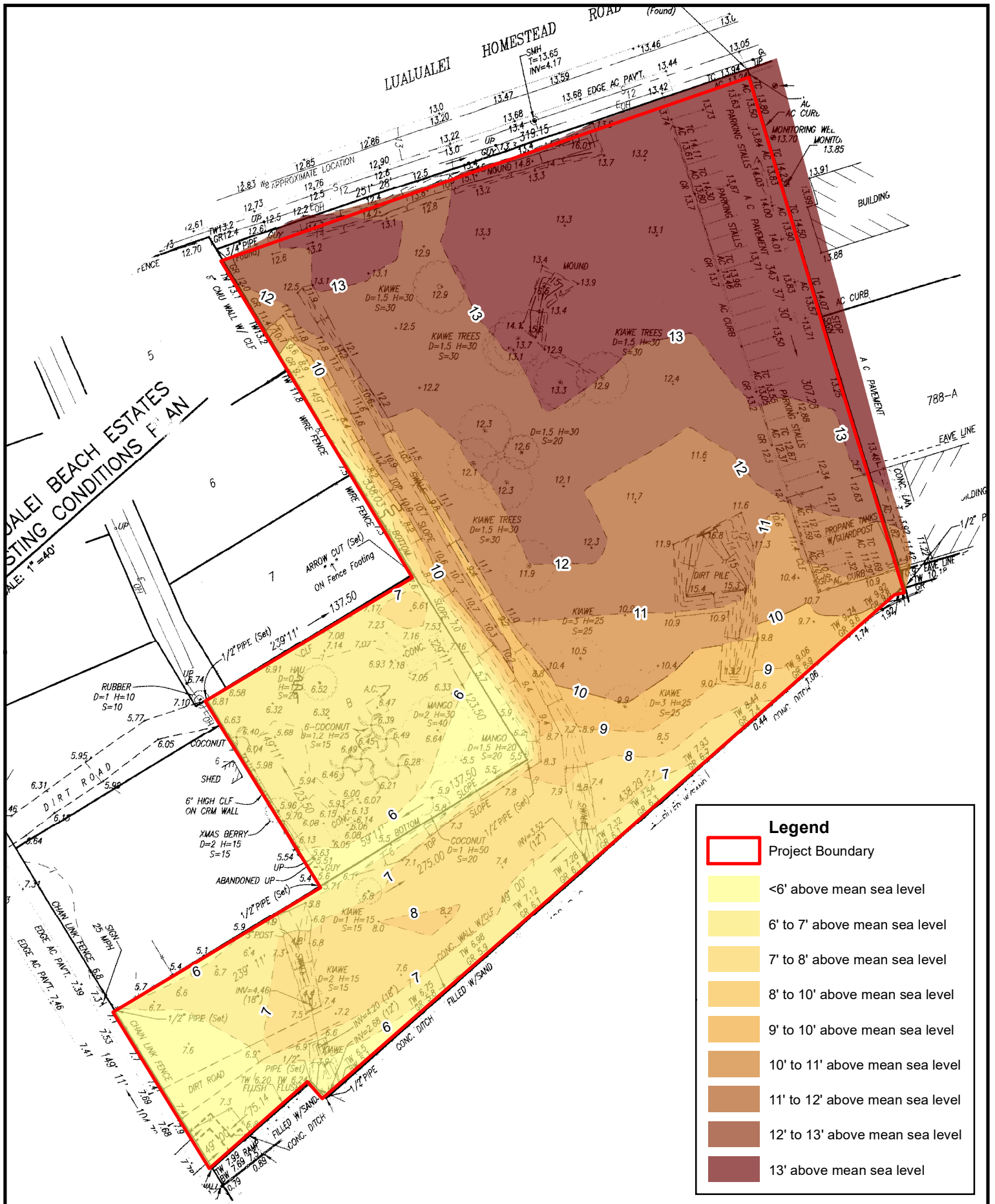


Figure
12

SITE TOPOGRAPHIC MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
Luualualei Homestead Road Single-Family Residential Subdivision

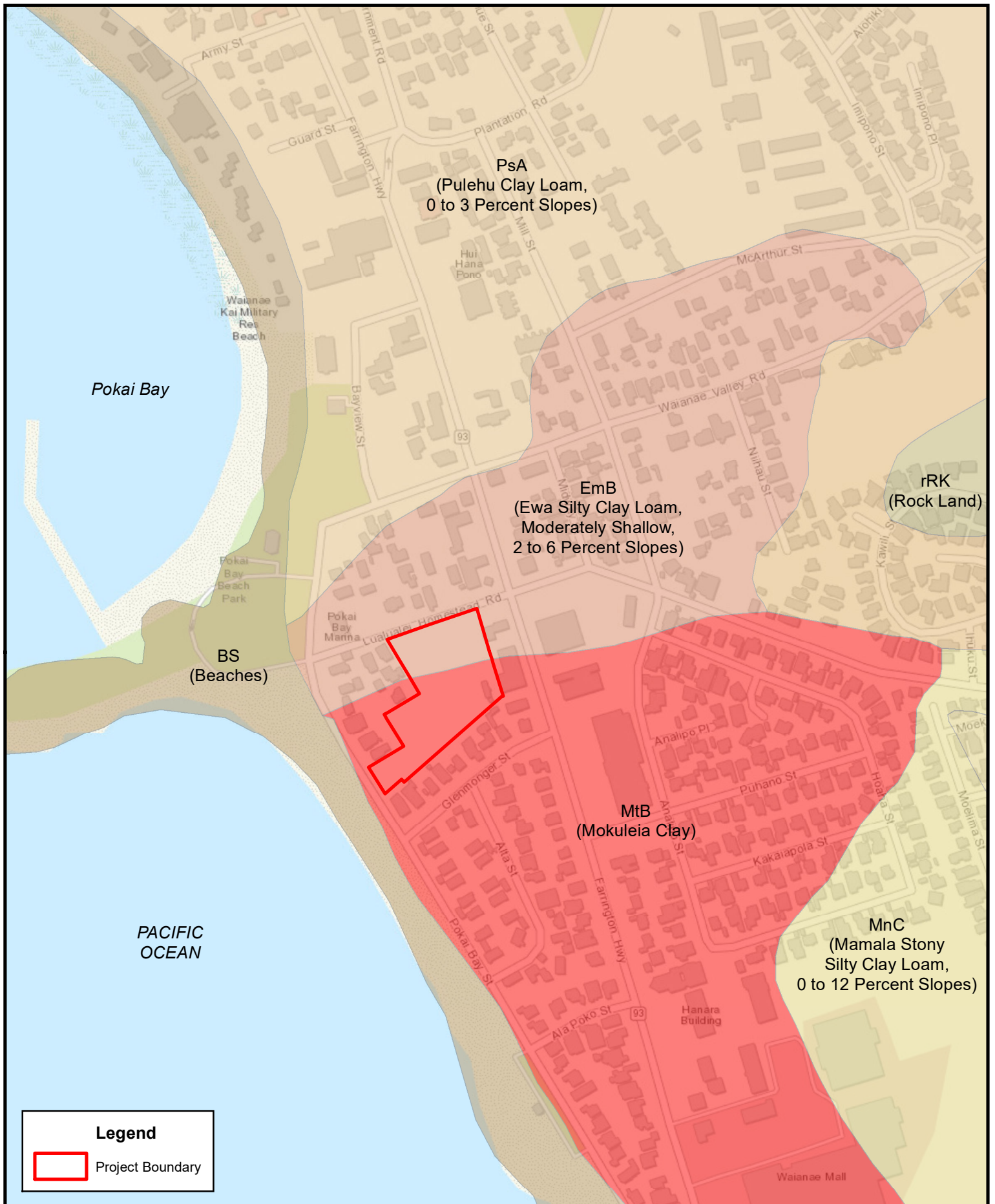


Figure 13

SOILS MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
 Luualalei Homestead Road Single-Family Residential Subdivision



Legend

Project Boundary

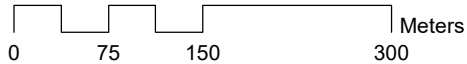


Figure 14

SURFACE WATER RESOURCES

Waianae, Oahu, Hawaii

Environmental Assessment for
Luualae Homestead Road Single-Family Residential Subdivision

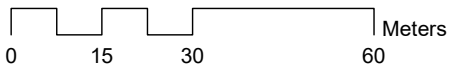
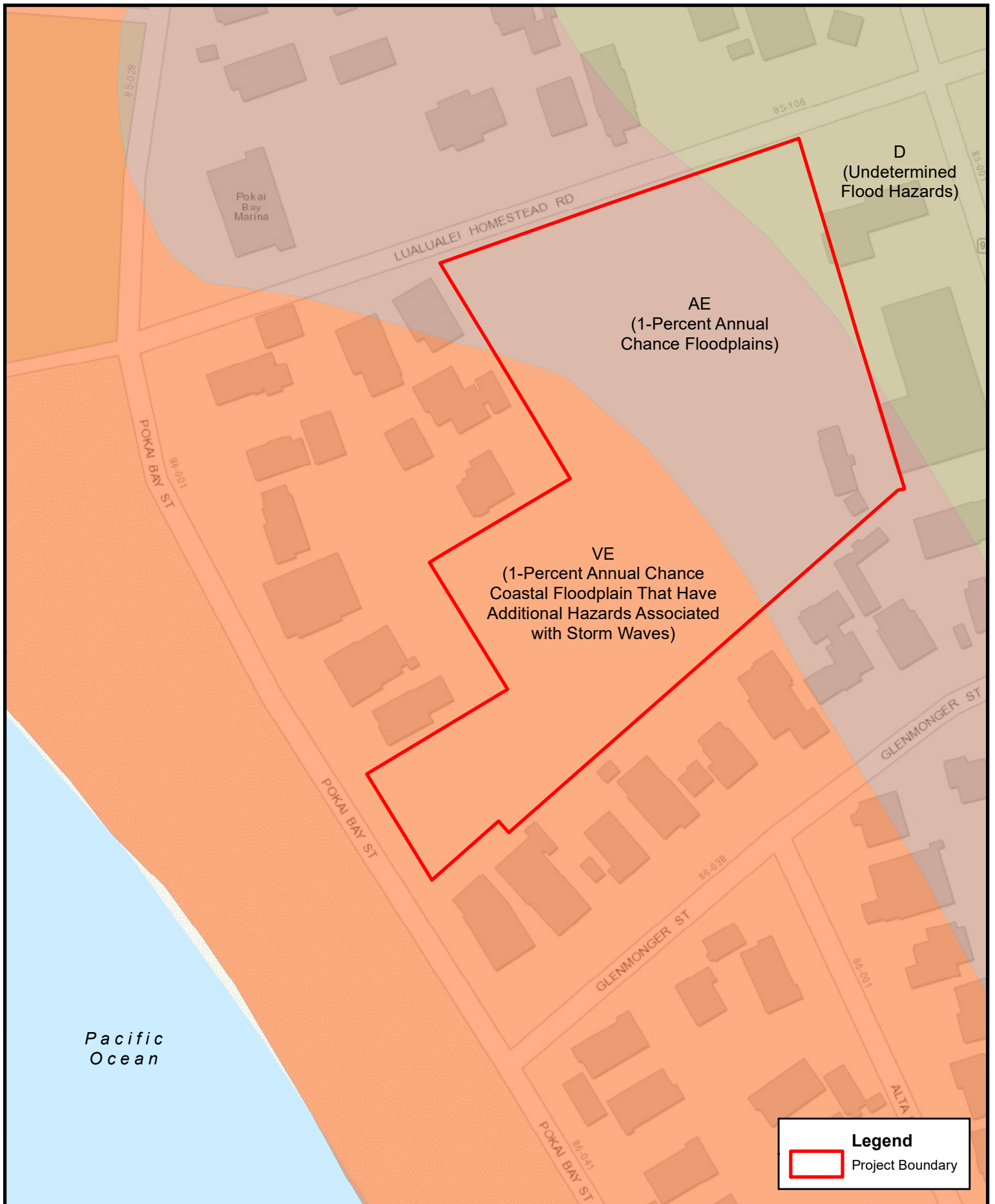


Figure 15

FLOOD ZONE MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
Lualualei Homestead Road Single-Family Residential Subdivision

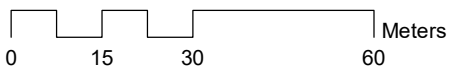



Figure
16

LAND USE DISTRICT MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
Lualualei Homestead Road Single-Family Residential Subdivision



Legend
 Project Boundary

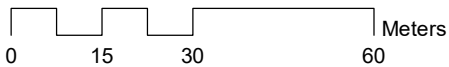
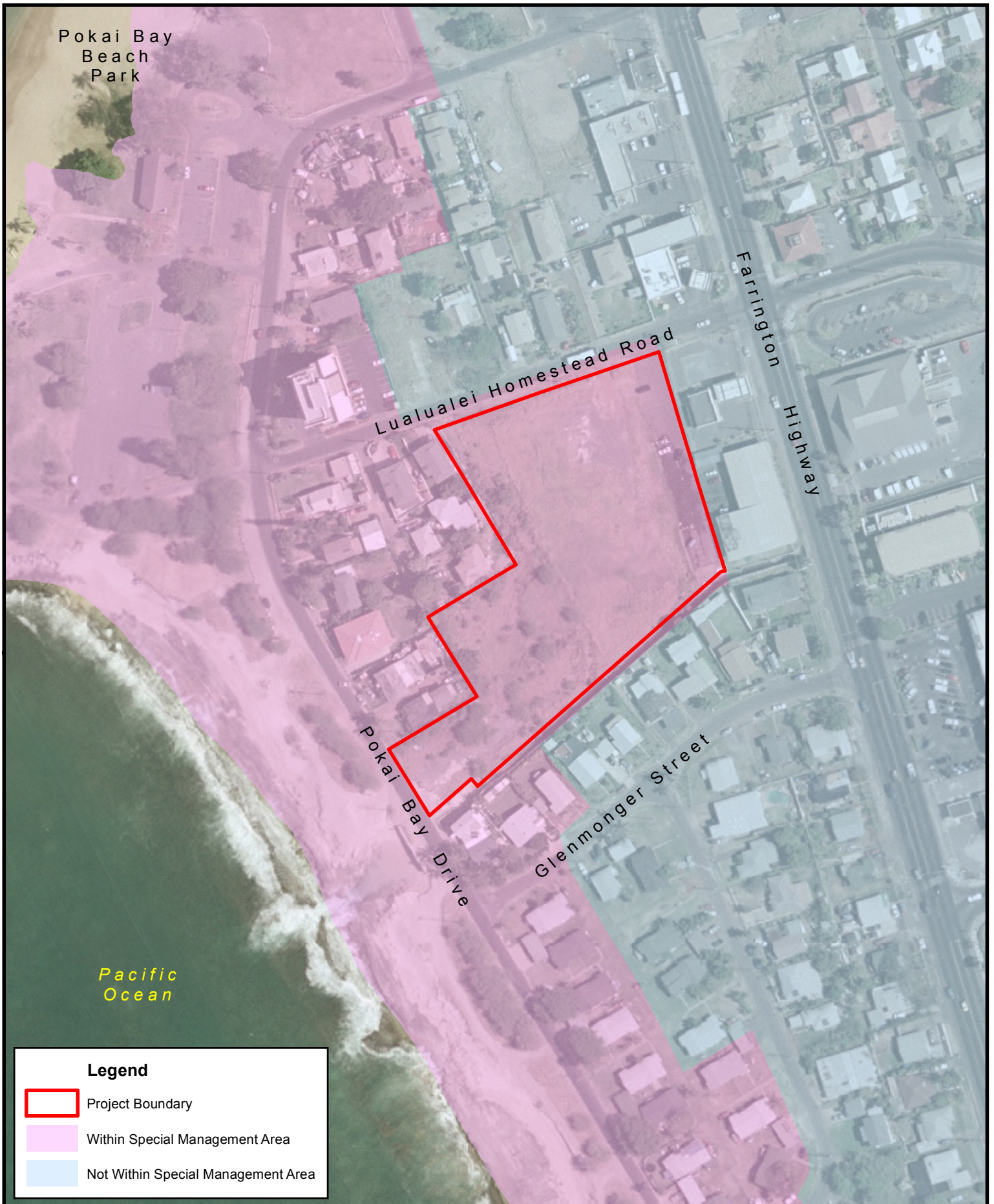


Figure 17

ZONING MAP

Waianae, Oahu, Hawaii

Environmental Assessment for
 Luualualei Homestead Road Single-Family Residential Subdivision



Pokai Bay
Beach
Park

Lualualei Homestead Road

Farrington
Highway

Pokai Bay Drive

Glenmonger Street

*Pacific
Ocean*

Legend

- Project Boundary
- Within Special Management Area
- Not Within Special Management Area

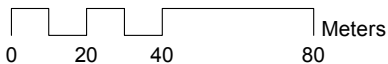


Figure
18

SPECIAL MANAGEMENT AREA (SMA) MAP

Waianae, Oahu, Hawaii

Environmental Assessment
Vacant Land at 85-029 Lualualei Homestead Road

APPENDIX B – SITE PHOTOGRAPHS



1. View of the north boundary (and illegal dumping/rubbish accumulation), Lualualei Homestead Road to the left. View facing east.



2. View of the eastern section of site (paved area). View facing south.



3. View of the City and County drainage canal along site southern boundary. View facing northeast.



4. View of the east boundary, Pokai Bay Drive to the left. View facing north.



5. View of the project site from the northeast corner. View facing south.



6. View of the project site from the southeast corner. View facing northeast.



7. Drainage swale located in the southeast corner of the project site. View facing north.



8. Drainage swale connecting to the City and County drainage canal. View facing south.



9. North boundary of project site along Lualualei Homestead Road (on right). View facing west.



10. Illegal dumping of solid waste on the project site. View facing southeast.



11. Project site seen from east boundary (Lualualei Homestead Road on right/Pokai Bay Road foreground). View facing west.



12. View of northwest site boundary showing elevated bank/topography from past grading/fill activities. View facing north.

APPENDIX C – GEOTECHNICAL ASSESSMENT

SHINSATO ENGINEERING, INC.

CONSULTING GEOTECHNICAL ENGINEERS

98-747 KUAHAO PLACE, SUITE E
PEARL CITY, HAWAII 96782
PHONE: (808) 487-7855
FAX: (808) 487-7854

July 23, 2015
Project No. 15-0106

Allen Ng and Associates, Architect
1720 Ala Moana Boulevard, Suite A-6
Honolulu, Hawaii 96815

Subject: Due Diligence Report
Lualualei Homestead Property
85-029 Lualualei Homestead Road
Waianae, Hawaii
TMK: (1) 8-6-015:053

Gentlemen:

This report presents the results of a due diligence assessment of the subject property.

1.0 INTRODUCTION

This report was prepared for the purpose of providing a geotechnical assessment as to the feasibility of developing the subject property for residential lots. The location of the site, relative to the existing streets and landmarks, is shown on the Vicinity Map, Plate 1.

2.0 SCOPE OF WORK

The services included the following:

- a. A site visit to observe the existing surface conditions.
- b. A review of soil and geologic information of the area.
- c. An engineering assessment as to the feasibility of constructing single family residences on the property.

3.0 SITE CONDITIONS

3.1 Surface

The property, designated by Tax Map Key Number (1) 8-6-015:053, is located in Waianae on Lualualei Homestead Road. The lot is bordered by existing residences to the west and southeast, by commercial lots to the east, Lualualei Homestead Road to the north and Pokai Bay Street to the southwest.

The topography of the lot generally consists of relatively flat to gently sloping ground. At the southwest side of the property, the ground slopes gently downward to Pokai Bay Street.

There is an existing drainage channel that runs parallel to the southeast property line.

3.2 Subsurface

From the USDA Soil Conservation Service "Soil Survey of the Island of Hawaii, State of Hawaii", the near surface soils at the site are designated as:

- Ewa silty clay loam, moderately shallow, 2 to 6 percent slopes (EmB)
- Mokuleia clay (MtB)

a) The Ewa series consists of well-drained soils in basins and on alluvial fans. They developed in alluvium derived from basic igneous rock.

A representative profile of the Ewa series generally consists:

| | |
|--------------------------------------|---|
| Surface layer about 18-inches thick: | dark reddish-brown silty clay loam |
| Subsoil about 42-inches thick: | dark reddish-brown and dark-red silty clay loam |
| Substratum: | coral limestone, sand, or gravelly alluvium |

In the EmB portion of the series, the depth to coral limestone is 20 to 50 inches.

Typical soil properties include:

| | |
|--------------------------------|---|
| Unified Soil Classification: | ML or CL (low plasticity SILT or CLAY). |
| Shrink-swell potential: | moderate |
| Corrosivity to uncoated steel: | low |
| Corrosivity to concrete: | low |

b) The Mokuleia series consists of well-drained soils along coastal plains on the islands of Kauai and Oahu. These soils formed in recent alluvium deposited over coral sand.

A representative profile of the Mokuleia series generally consists:

| | |
|--|--|
| Surface layer about 16-inches thick: | very dark grayish-brown clay loam |
| Subsoil (34 to more than 48 inches thick): | dark-brown and light-gray, single grained sand and loamy sand. |

Typical soil properties include:

| | |
|--------------------------------|---|
| Surface layer: | |
| Unified Soil Classification: | CL or SM (low plasticity CLAY or silty SAND). |
| Shrink-swell potential: | moderate to low |
| Corrosivity to uncoated steel: | moderate |
| Corrosivity to concrete: | low |
| Subsoil (below 16 inches): | |
| Unified Soil Classification: | SP (poorly-graded sand) |
| Shrink-swell potential: | low |
| Corrosivity to uncoated steel: | low |
| Corrosivity to concrete: | low |

3.3 Previous Grading Work

- a) Documents from 1981 indicate that lot grading was proposed for the property. The purpose of the work was to "... raise lot elevations to allow for future development and collect storm runoff in ditches to flow to an existing channel located on the south side of the property."

It is unknown if this work was completed.

- b) In 2012, the State issued a warning letter regarding illegal dumping on the site. The letter indicates that "...the southern east portion of the property had been graded with fill consisting of concrete slabs, rebar, greenwaste, soil, coral and rubbish consisting of plastic buckets, lumber, and roofing material." The letter further states that there is reason to believe that solid waste was buried in different areas within the property.

4.0 GEOTECHNICAL SITE ASSESSMENT

Based on the site observations and a review of soil and geologic literature, we opine that from a geotechnical perspective, the site may be developed for the intended use. Special considerations for the development of the site may include but may not be limited to the following:

- a) A portion of the site is located within a flood-designated zone. Foundations for the proposed structures may require additional embedment depths due to the potential for scouring of the soil.

For the portion of the site is located within the flood zone, the recommended soil description for use in designing the additional embedment depth is "loose SAND". The following table may be used to determine the estimated depth of scour for the footings.

TABLE 1.0 - ESTIMATED MINIMUM SCOUR

| Soil Description | Distance from Shoreline | |
|------------------|-----------------------------|------------------------------------|
| | Up to 300 Feet ¹ | Greater than 300 Feet ² |
| Loose Sand | 80% h | 60% h |
| Dense Sand | 50% h | 35% h |
| Soft Silt | 50% h | 25% h |
| Stiff Silt | 25% h | 15% h |
| Soft Clay | 25% h | 15% h |
| Stiff Clay | 10% h | 5% h |

¹ Values may be reduced by 40% if a substantial dune or berm higher than the regulatory flood elevation protects the building site.

² Values may be reduced 50% if the entire region is essentially flat.

³ The estimated minimum depth of soil scour below existing grade as a percentage of the depth (h) of water at the location.

⁴ Shallow foundation types are not permitted unless the natural supporting soils are protected on all sides against scour by a shore protection structure, preferably a bulkhead. Shallow foundations may be permitted beyond 300 feet from the shoreline provided they are founded on natural soil and at least

two feet below the anticipated depth of scour and provided not more than 3 feet of scour is expected at the structure.

Reference: Revised Ordinances of Honolulu, Sec. 16-11.5.

- b) Dense to very dense CORAL and cemented SAND are likely to be found in the subsurface formation. Excavations into the dense to very dense material will likely require powered equipment for removal.
- c) The Department of Health (DOH) indicates that as of this date, the warning of 2012 has not been cleared. If the corrective work has not been completed to the satisfaction of DOH and the City, then any future development of the property will require remediation. This will include removal of all unacceptable material and debris, and if necessary replacement with properly compacted fill.

5.0 PRELIMINARY FOUNDATION DESIGN PARAMETERS

It is anticipated that spread and continuous footings may be used to support the proposed residential structures. Preliminary foundation design parameters are as follows:

- a) Allowable soil bearing value:
 - 2,000 to 3,000 psf for footings bearing on firm on-site soils or properly compacted fill.
 - 5,000 to 6,000 psf for footing bearing on the underlying CORAL
- b) Footing embedment depth:
 - Minimum footing embedment should be 12 inches below lowest adjacent grade (measured to bottom of footing).
 - Additional embedment depth may be required to minimize the adverse impacts from scouring.
 - For footings located adjacent to utility trenches, the bottom of the footing shall be deepened below a 1 horizontal to 1 vertical plane projected upwards from the edge of the utility trench.
 - For footings located on or adjacent to slopes, the footing shall be deepened such that there is a minimum horizontal distance of 5 feet from the edge of the footing to the slope face.
 - Where footings are to be located adjacent to retaining walls or other structural elements which are not designed for surcharge loading, the new footing shall be deepened below a 45-degree plane projected upwards from the adjacent structure.
- c) Estimated foundation settlement: less than 1-inch
- d) Passive earth resistance: 300 pcf
- e) Frictional resistance: 0.4 to 0.6 times the dead load for the on-site soils or imported select granular fill
- f) Active earth pressure: 30 pcf free-standing wall, level backfill using imported select granular fill that extends within a 1 horizontal to 2 vertical (1H:2V) plane projected upwards and outwards from the heel of the wall footing.

For restrained conditions, the active earth pressure shall be increased by 50 percent. Additional increase shall be made for surcharge loading and sloping backfill

- g) Site Class Definition: D - "stiff soil" (2006 IBC)
- h) Slab-on-grade: Provide a minimum of 6 to 12 inches of select granular fill beneath concrete floor slabs-on-grade.
- i) Roadway pavement design: 2-inch AC, 4-inch ATB, 6-inch aggregate base course gravel.
- j) Slopes: 2H:1V for on-site and imported soil
1H:2V for CORAL and cemented SAND

6.0 REMARKS

This report was made for the purpose of providing a due diligence geotechnical assessment of the property. No warranties are either expressed or given.

If detailed foundation design recommendations are desired, a full soils investigation should be performed which would typically include soil explorations, laboratory testing to determine the pertinent engineering properties of the soil, and an engineering analysis of the data.

Respectfully submitted,

SHINSATO ENGINEERING, INC.



Lawrence S. Shinsato, P.E.
President



LSS:ls

This work was prepared by me
or under my supervision.
License Expires 04/30/16

VICINITY MAP



TRUE
NORTH



SITE
LOCATION

REFERENCE:
USGS TOPOGRAPHIC MAP
WAIANA E QUADRANGLE
DATED 1998

LUALUALEI DEVELOPMENT DUE DILIGENCE

SHINSATO ENGINEERING, INC.
CONSULTING GEOTECHNICAL ENGINEERS

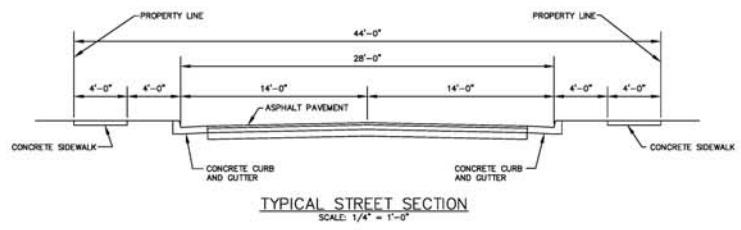
98-747 KUAHAO PL. PEARL CITY, HI 96782

PROJECT NO.
15-0106

DATE:
07/15

SCALE:
1"=2000'

PLATE 1



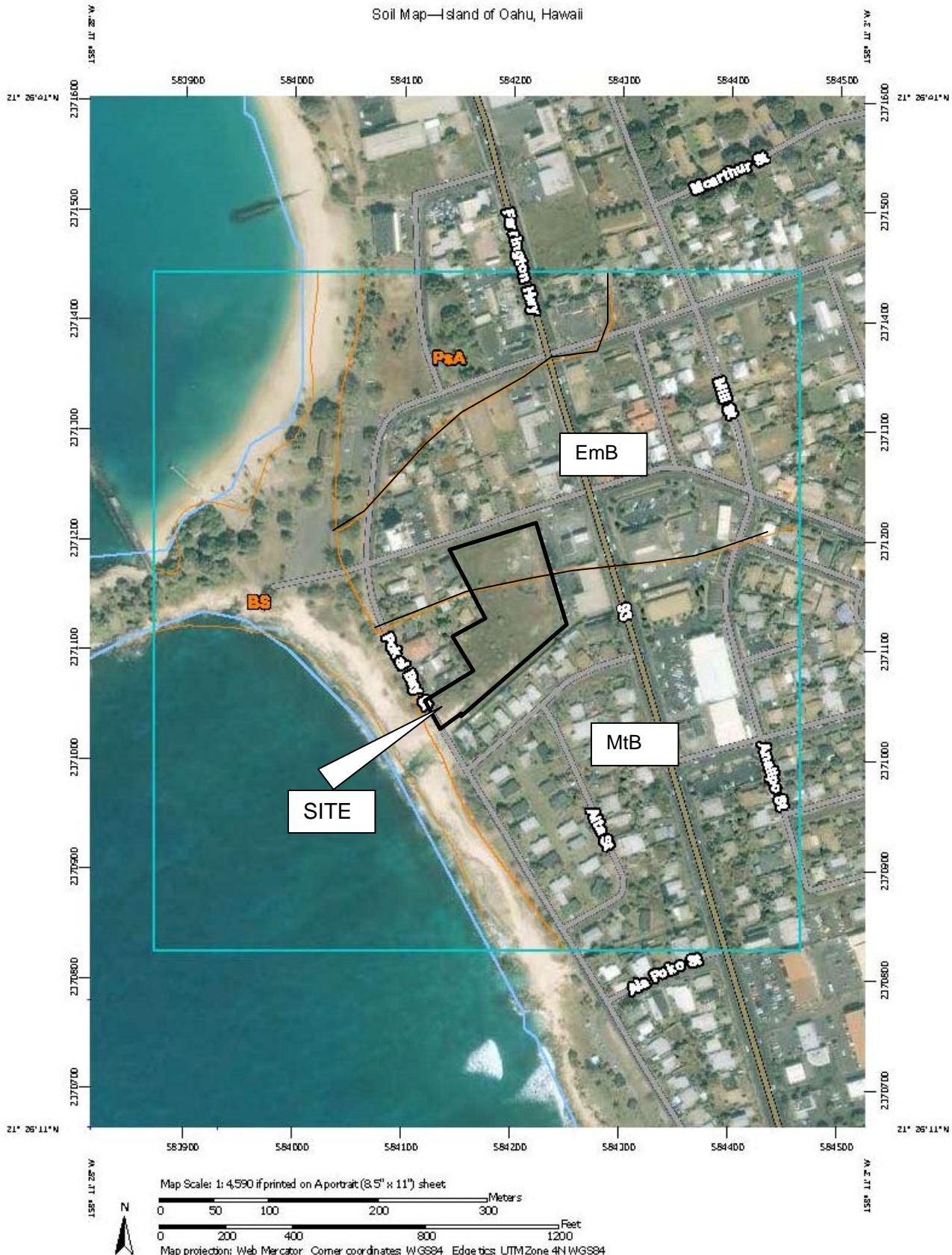
LUALUALEI HOMESTEAD PROPERTY DUE DILLIGENCE STUDY
85-029 LUALUALEI HOMESTEAD ROAD
WAIANA'E, HAWAII 96792
TMK: 8-6-015:053
SITE PLAN
ALLEN NG AIA, NCARB
1720 ALA MOANA BLVD., SUITE A-6
HONOLULU, HAWAII 96815

PROJECT: LUALUALEI DEVELOPMENT
DUE DILIGENCE
PROJECT NO.: 15-0106

SHINSATO ENGINEERING, INC.
Consulting Geotechnical Engineers
98-747 Kuahao Place, #E, Pearl City, HI 96782

PLATE
2.0

Soil Map—Island of Oahu, Hawaii



PROJECT: LUALUALEI DEVELOPMENT
DUE DILIGENCE
PROJECT NO.: 15-0106

SHINSATO ENGINEERING, INC.
Consulting Geotechnical Engineers
98-747 Kuahao Place, #E Pearl City, HI 96782

PLATE
SM-1.0

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APPENDIX D – BIOLOGICAL RESOURCES SURVEY

Biological surveys for a Lualualei Homesteads Road Subdivision in Mākaha, O‘ahu¹

February 15, 2017

AECOS No. 1480

Eric Guinther and Chad Linebaugh
AECOS, Inc.
45-939 Kamehameha Hwy, Suite 104
Kāne‘ohe, Hawai‘i 96744
Phone: (808) 234-7770 Fax: (808) 234-7775 Email: aecos@aecos.com

Introduction

The subject property (TMK: 8-6-15:053) is located in Mākaha off Lualualei Homestead Road *makai* of Farrington Highway (Figure 1). Lualualei Homestead Road borders the parcel on the north and Pokai Bay Road borders a narrow portion on the southwest (Figure 1). A small, concrete-lined drainage canal lies along the entire southeast side just off the property. This report relates the results of a biological survey of the 3.17 ac (138,296 sq.ft) lot undertaken to assess impacts on natural resources likely to occur from development activities on the presently vacant land.

The subject parcel is more or less completely graded level and includes some paved areas. Paved parking areas behind Farrington Highway businesses are on the subject parcel. A shallow, dry drainage ditch runs north-south across the southern part of the lot, discharging into the drainage canal that borders the southeast side. At the time of the survey, the adjacent drainage canal held a body of stagnant water. Other than the fact that the parcel formerly TMK: 8-6-15:063 and now incorporated into TMK: 8-6-15: 053 is several feet lower in elevation, the lot is flat and featureless.

¹ Report prepared for Will Chee Planning, Inc. for use in project planning and permitting. This document will become part of the public record for project entitlements.



Figure 1. Parcel TMK: 8-6-15:053 in Mākaha (outlined in red) and showing avian survey station locations.

Methods

A biological survey of the subject parcel was on July 21, 2016 by the authors. A pedestrian botanical survey encompassed all areas of the parcel², the botanist identifying all vascular plants encountered, and keeping a tally of relative

² The southeast corner portion of the subject parcel is located behind a high chain-link fence with a locked gate. This area was not entered, but is entirely paved and weeds growing there could be identified from outside the fence.

abundance for each species. The vertebrate biology survey also covered all parts of the property

The avian survey was conducted on the morning of July 21, 2016 between 0750 and 0930 hrs. The survey included two stationary point-count stations (locations shown in Fig. 1) at which all birds observed during an 8-minute period were recorded within a visible radius of the observer and by listening for vocalizations. Visualizations were aided by Leica Ultravid 8 x 42 binoculars. Stations were located near the northern (Sta. 1) and southern property boundaries (Sta. 2; see Fig. 1). In addition, a single 30-minute waterbird count was conducted along the drainage canal adjacent to the southeastern property boundary (location “waterbird” shown in Fig. 1). A running tally of bird species not observed during point-counts was conducted while traversing the property.

A list of mammal species observed in the project area was noted as biologists conducted botanical and avian surveys. Visual observation for tracks, scat, or other sign of mammalian usage of the Project area was also undertaken. Weather conditions during the survey period were cloudy with light winds. The limited vegetation on the property resulted in excellent visibility across the survey area.

Plant names used here follow *Manual of the Flowering Plants of Hawai‘i* (Wagner, Herbst, & Sohmer, 1990; Wagner & Herbst, 1999) for native and naturalized flowering plants and *A Tropical Garden Flora* (Staples & Herbst, 2005) for gymnosperms and ornamental plants. More recent name changes for naturalized plant species follow Imada (2012). Bird species identifications were verified with: *A Photographic Guide to the Birds of Hawaii: the Main Islands and Offshore Waters* (Denny, 2010). Taxonomy follows the Checklist of North and Middle American Birds by American Ornithologists' Union (AOU, 2014) for indigenous and naturalized species and Avibase (2016) for domesticated species.

Results

Vegetation

Conditions on the site are not conducive to extensive vegetation growth as much of the northern part is paved or covered by gravel road base and most of the site has been recently trimmed with a weed wacker. Scattered trees are present on the parcel, and the small drainage ditch towards the south end supports shrub-like *kiawe* (*Prosopis pallida*).

Flora

Table 1 is a list of the plant species observed (flora). The vascular flora of the project area comprises mostly ruderal weeds with scattered plantings of trees totaling only 31 taxa. Of these 31 species, 3 species (10%) are indigenous natives and one other (3%) is an early Polynesian introduction (so-called “canoe plant”). These percentages are low, but not unexpected given the poor condition of suitable plant habitats on the parcel.

Table 1. A relative abundance list of plant species found on the survey property, TMK: 8-6-15:053 in Mākaha.

| Species listed by family | Common name | Status | Abundance | Notes |
|---|---------------------|------------|-----------|-------|
| <i>FLOWERING PLANTS</i> | | | | |
| <i>DICOTYLEDONES</i> | | | | |
| AMARANTHACEAE | | | | |
| <i>Alternanthera pungens</i> Kunth | khaki weed | Nat | Uu | |
| ANACARDIACEAE | | | | |
| <i>Mangifera indica</i> L. | mango | Nat | R | <1> |
| <i>Schinus terebinthefolius</i> Raddi | Christmas berry | Nat | R | |
| APOCYNACEAE | | | | |
| <i>Plumeria rubra</i> L. | graveyard flower | Orn | R | <1> |
| ASTERACEAE (COMPOSITAE) | | | | |
| <i>Tridax procumbens</i> L. | coat buttons | Nat | O | |
| CARICACEAE | | | | |
| <i>Carica papaya</i> L. | papaya | Nat | R | |
| CHENOPODIACEAE | | | | |
| <i>Atriplex semibaccata</i> R. Br. | Australian saltbush | Nat | Uc | |
| CONVOLVULACEAE | | | | |
| <i>Ipomoea obscura</i> (L.) Ker-Gawl | --- | Nat | Uo | |
| <i>Jacquemontia ovalifolia</i> (Choisy) H. Hallier | <i>pā‘ūohi‘iaka</i> | Ind | R | |
| EUPHORBIACEAE | | | | |
| <i>Euphorbia hirta</i> L. | garden spurge | Nat | R | |
| <i>Euphorbia prostrata</i> Aiton | prostrate spurge | Nat | R | |
| FABACEAE | | | | |
| <i>Desmanthus pernambucanus</i> (L.) Thellung | virgate mimosa | Nat | O | |
| <i>Indigofera hendicaphyla</i> Jacq. | creeping indigo | Nat | Oc | |

Table 1 (continued).

| Species listed by family | Common name | Status | Abundance | Notes |
|---|---------------------|------------|-----------|-------|
| FABACEAE (continued) | | | | |
| <i>Leucaena leucocephala</i> (Lam.) deWit | <i>koa haole</i> | Nat | O | |
| <i>Prosopis pallida</i> (Humb. & Bonpl. ex Willd.) Kunth | <i>kiawe</i> | Nat | Ou | |
| MALVACEAE | | | | |
| <i>Sida ciliaris</i> L. | --- | Nat | A | |
| <i>Sida fallax</i> Walp. | <i>'ilima</i> | Ind | R | |
| <i>Waltheria indica</i> L. | <i>'uhaloa</i> | Ind | A | |
| MORACEAE | | | | |
| <i>Artocarpus altilis</i> (Z) Fosberg | <i>'ulu</i> | Pol | R | <1> |
| <i>Ficus microcarpa</i> L. f. | Chinese banyan | Nat | R | |
| NYCTAGINACEAE | | | | |
| <i>Boerhavia coccinea</i> Mill. | <i>false alena</i> | Nat | R | |
| PORTULACEAE | | | | |
| <i>Portulaca oleracea</i> L. | pigweed | Nat | O | |
| ZYGOPHYLLACEAE | | | | |
| <i>Tribulus terrestris</i> L. | puncture vine | Nat | R | |
| FLOWERING PLANTS | | | | |
| MONOCOTYLEDONES | | | | |
| ARECACEAE | | | | |
| <i>Cocos nucifera</i> L. | coconut palm | Nat | Uu | <1> |
| LILIACEAE | | | | |
| <i>Crinum cf. asiaticum</i> L. | giant lily | Nat | R | <2> |
| POACEAE | | | | |
| <i>Cenchrus ciliaris</i> L. | buffelgrass | Nat | AA | |
| <i>Chloris barbata</i> (L.) Sw. | swollen fingergrass | Nat | Uu | |
| <i>Cynodon dactylon</i> (L.) Pers. | Bermuda grass | Nat | C | |
| <i>Megathyrus maximus</i> (Jacq.) R. Webster | Guinea grass | Nat | U | |
| <i>Digitaria</i> sp. | crabgrass | Nat | R | <2> |
| <i>Sporobolus diandrus</i> (Retz.) P. Beauv. | Indian dropseed | Nat | U | <2> |

Legend to Table 1

STATUS = distributional status for the Hawaiian Islands:

- Ind** = indigenous; native to Hawaii, but not unique to the Hawaiian Islands.
Nat = naturalized, exotic, plant introduced to the Hawaiian Islands since the arrival of Cook Expedition in 1778, and well-established outside of cultivation.

Table 1 (continued).

| | |
|--|---|
| Orn = | A cultivated plant; a species not thought to be naturalized (spreading on its own) in Hawai‘i. |
| Pol = | An early Polynesian introduction. Introduced before 1778. |
| ABUNDANCE = occurrence ratings for plant species: | |
| R - Rare | seen in only one or perhaps two locations. |
| U - Uncommon | seen at most in several locations |
| O - Occasional | seen with some regularity |
| C - Common | observed numerous times during the survey |
| A - Abundant | found in large numbers; may be locally dominant. |
| AA - Very abundant | abundant and dominant; defining vegetation type. |
| Lower case letters (u,o,c) following qualitative rating of abundance indicate localized abundance is greater than occurrence rating. For example, Rc would be a plant encountered only once or twice, but very numerous where encountered. | |
| NOTES: | <1> - Former landscape planting. |
| | <2> - Plant lacking key diagnostic characteristics (flower, fruit); identification, therefore, uncertain. |

Birds

During stationary point counts at two stations, 97 individual birds from 9 families were observed (Table 2). Most birds encountered are naturalized residents, and Common Waxbill (*Estrilda astrild*), Spotted Dove (*Streptopelia chinensis*), Zebra Dove (*Geopelia striata*) and House Sparrow (*Passer domesticus*) accounted for the bulk (70%) of the birds observed in stationary point counts. A single Black-crowned Night Heron (*Nycticorax nycticorax hoactli*) flew over the property during our survey and represents the only native bird species observed.

An additional seven birds (three species) not represented in the stationary point counts were observed while traversing the property. Scaly-breasted Munia (*Lonchura atricapilla*) and African Silverbill (*Lonchura cantans*) were observed in *kiawe* trees in the southwestern part of the project site. Red-crested Cardinal (*Paroaria coronata*) utilized the western margin of the property near Pokai Bay Drive.

A single domesticated bird was observed as well during the survey: a Cockatiel (*Nymphicus hollandicus*) was seen along the fence line and powerlines adjacent south of the property. Bird species observed during the 30-minute waterbird survey were the same species recorded at station counts and no waterbirds were detected using the drainage canal.

Table 2. Results of the July 21, 2016 avian survey on parcel TMK: 8-6-15:053.

| PHYLUM, CLASS, ORDER, | | | | SPC | | Relative abundance (total/No SPC) |
|---|--|-------------------------|--------|-------|-------|--------------------------------------|
| FAMILY | | Common name | Status | Sta.1 | Sta.2 | |
| <i>Genus species</i> | | | | | | |
| CHORDATA, AVES | | BIRDS | | | | |
| COLOMBIFORMES | | | | | | |
| COLUMBIDAE | | | | | | |
| <i>Geopelia striata</i> Linnaeus | | Zebra Dove | Nat | 11 | 6 | 8.50 |
| <i>Streptopelia chinensis</i> Scopoli | | Spotted Dove | Nat | 10 | 4 | 7.00 |
| AVES, PASSERIFORMES | | | | | | |
| ESTRILDIDAE | | | | | | |
| <i>Estrilda astrild</i> Linnaeus | | Common Waxbill | Nat | -- | 20 | 10.00 |
| <i>Lonchura atricapilla</i> Vieillot | | Scaly-breasted Munia | Nat | -- | -- | incidental (2) |
| <i>Lonchura cantans</i> Gmelin | | African Silverbill | Nat | -- | -- | incidental (2) |
| <i>Lonchura oryzivora</i> Linnaeus | | Java Sparrow | Nat | 8 | -- | 4.00 |
| <i>Sicalis flaveola</i> Linnaeus | | Saffron Finch | Nat | 2 | -- | 1.00 |
| FRINGILLIDAE | | | | | | |
| <i>Haemorhous mexicanus</i> P. L. Statius Müller | | House Finch | Nat | -- | 2 | 1.00 |
| PASSERIDAE | | | | | | |
| <i>Passer domesticus</i> Linnaeus | | House Sparrow | Nat | 14 | 5 | 9.50 |
| PYCNONOTIDAE | | | | | | |
| <i>Pycnonotus cafer</i> Linnaeus | | Red-vented Bulbul | Nat | -- | 5 | 2.50 |
| <i>Pycnonotus jocosus</i> Linnaeus | | Red-whiskered Bulbul | Nat | -- | 1 | 0.50 |
| STURNIDAE | | | | | | |
| <i>Acridotheres tristis</i> Linnaeus | | Common Myna | Nat | 3 | 2 | 2.50 |
| <i>Paroaria coronata</i> J.F. Miller | | Red-crested Cardinal | Nat | -- | -- | incidental (3) |
| ZOSTEROPIDAE | | | | | | |
| <i>Zosterops japonicus</i> Temminck & Schlegel | | Japanese White- eye | Nat | -- | 2 | 1.00 |
| AVES, PSITTACIFORMES | | | | | | |
| PSITTACACIDAE | | | | | | |
| <i>Nymphicus hollandicus</i> Kerr | | Cockatiel | Dom | -- | 1 | 0.50 |

Table 2 (continued).

| PHYLUM, CLASS, ORDER, | | Common name | Status | SPC | | Relative abundance (total/No. SPC) |
|-----------------------|---|---|------------|-------|-------|---------------------------------------|
| FAMILY | <i>Genus species</i> | | | Sta.1 | Sta.2 | |
| AVES, PELECANIFORMES | | | | | | |
| ARDEIDAE | | | | | | |
| | <i>Nycticorax nycticorax</i> <i>hoactli</i> Gmelin | ' <i>auku'u</i> ; Black-crowned Night Heron | Ind | -- | 1 | 0.50 |

Key to Table 2

| | | |
|--------------------|--|--|
| Status | | |
| A | Alien – Introduced to the Hawaiian Islands by humans | |
| Dom | Domesticated species | |
| Ind | Indigenous native species | |
| Nat | Naturalized, non-native species; alien species | |
| SPC | Species count by count station | |
| Relative Abundance | Number of birds detected divided by the number of count stations (2) | |

Terrestrial Mammals

Two domestic dogs (*Canis familiaris*), probably strays, were present on the property. Several other dogs came on the site from neighboring yards during the survey. Though no rats or mice were observed during the survey, it is possible that one or more of the four naturalized rodents (Family Muridae) in the Hawaiian Islands utilize parts of the Project area.

Assessment

Botanical Resources

No botanical resources are present on the subject property of any special interest or conservation value. The number of trees (especially coconut trees) appears substantially reduced from what can be seen on earlier aerial images, such as Google Earth, 2013. Presumably, these mature coconut trees were moved elsewhere.

No plant species currently protected or proposed for protection under either federal or state endangered species programs were detected during the course

of this survey. The state plant list follows the federal one (HDLNR, 1998; USFWS, 2016).

Avian Resources

Naturalized, urban dwelling birds comprise the bulk of species encountered in the Project vicinity. A single native species—Black-crowned Night Heron—was observed flying over the site. The project is not expected to adversely impact native avian resources at the site or in the vicinity as suitable avian habitats are not present.

No avian species currently protected or proposed for protection under either the federal or State of Hawai'i endangered species programs were detected during the course of this survey (HDLNR, 2015; USFWS, 2005, 2016).

Terrestrial Mammal Resources

No mammalian species currently protected or proposed for protection under either the federal or state endangered species programs were detected during the course of this survey (DLNR, 2015; USFWS; 2005, 2016). Hawaiian hoary bat or 'ōpe'ape'a (*Lasiurus cinereus semotus*) was not detected during the course of our survey and there is no potential roosting habitat here. Removal of trees taller than 15 ft (4.6 m) during the bat pupping season between June 1 and September 15 could result in displacement and possibly death of a bat pup on the remote chance a female bat selects one of the few tall trees on the property for pupping.

No mammalian species currently protected or proposed for protection under either the federal or State of Hawai'i endangered species programs were detected during the course of this survey (HDLNR, 2015; USFWS; 2005, 2016).

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APPENDIX E – TRAFFIC ENGINEERING ASSESSMENT LETTER REPORT

Julian Ng Incorporated

Transportation Engineering Consultant

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Kaneohe, Hawaii 96744-0816

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February 22, 2017

Mr. Derek Yasaka, President
WCP, Inc.
99-061 Koaha Way, Suite 208
Aiea, Hawaii 96701

Subject: Traffic Assessment of Proposed 21-lot residential subdivision
Waianae, Oahu, Hawaii [TMK 8-6-015:053]

Dear Mr. Yasaka:

We have reviewed the project information provided by you and have prepared this assessment of the probable traffic impacts of the proposed project. The proposed project, after completion of house construction and fully occupied, will not have significant impacts to traffic conditions in the area.

Summary

The scope of our work did not include tasks normally done as part of a traffic impact study, such as a site visit, intersection turning movement counts, intersection level of service analyses, and the identification of alternatives to mitigate any adverse impacts or unacceptable conditions. However, we have calculated project traffic impacts, which are considerably lower than the thresholds typically considered to require that a traffic study be conducted. The project, therefore, is not expected to have any significant impact to traffic conditions.

Project Traffic Estimates

The proposed project is the subdivision of 3.175 acres of vacant land at 85-029 Lualualei Homestead Road in Waianae, Oahu, Hawaii to create 21 residential lots for single-family detached housing. Another lot will be created to become a local street that will provide access to 19 of the residential lots in the subdivision; this street will connect to Lualualei Homestead Road at a new intersection approximately 300 feet west of the existing signalized intersection with Farrington Highway. The other two lots will front on and obtain access from Pokai Bay Street, approximately 500 feet south of its intersection with Lualualei Homestead Road (which is approximately 700 feet west of Farrington Highway).

Traffic estimates for the proposed project were made using generally acceptable rates for vehicular traffic generation. These estimates were compared with the recommendations from the Institute of Transportation Engineers that a traffic study should be done when a project's impact is at least 1,000 additional vehicle trips per day or 100 or more added vehicles during the peak hour¹ of a typical day.

¹ Institute of Transportation Engineers, *Transportation Impact Analyses for Site Development* (2005)

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Other criteria (that have been used locally) to determine when a traffic study should be prepared include.

- an impact of 500 or more added vehicles per day
- an impact resulting in at least a 3% increase in traffic volumes

The *Trip Generation Manual*² published by the Institute of Transportation Engineers is a commonly-used and widely-accepted source for estimating project traffic in traffic studies. The manual includes factors that can be applied to project parameters to compute the number of vehicular trips that a proposed use would generate. The factors are based on many studies over a period of more than forty years, typically in suburban settings across the United States. The published rates for detached single-family dwellings and the computed traffic for 21 dwellings are shown in Table 1.

Table 1 – Trip Generation Rates and Estimate for 21 Dwellings

| Trip factors* (per dwelling) | | | Vehicle trips generated | | |
|----------------------------------|------|------|-------------------------|-------|------|
| For Single-Family Detached units | rate | % in | total | enter | exit |
| Average weekday | 9.52 | 50% | 200 | 100 | 100 |
| AM Peak Hour of adjacent street | 0.75 | 25% | 16 | 4 | 12 |
| AM Peak Hour of generator | 0.77 | 26% | 16 | 4 | 12 |
| PM Peak Hour of adjacent street | 1.00 | 63% | 21 | 13 | 8 |
| PM Peak Hour of generator | 1.02 | 64% | 22 | 14 | 8 |
| Typical Saturday | 9.91 | 50% | 208 | 104 | 104 |
| Saturday peak hour | 0.93 | 54% | 20 | 11 | 9 |
| Typical Sunday | 8.62 | 50% | 182 | 91 | 91 |
| Sunday peak hour | 0.86 | 53% | 18 | 10 | 8 |

* Source: Institute of Transportation Engineers, *Trip Generation Manual, 9th Edition* (2012)

The average daily traffic generated by the subdivision will be less than 200 vehicles per day. Total (in plus out) traffic due to the project would be 22 vehicles per hour or less during peak hours. The project impact would be less than the volume criteria listed above.

Comparison with Available Traffic Count Data

The State Highways Division has a program in which traffic counts are taken for a continuous 48-hour period at various locations. In January 2014, counts were taken on Farrington Highway, between the intersections with Waianae Valley Road and with Lualualei Homestead Road (based on the reported GPS coordinates, the count was taken on Farrington Highway 220 feet north of Lualualei Homestead Road); Table 2 summarizes the daily and peak hourly volumes from that count.

² Institute of Transportation Engineers, *Trip Generation Manual, 9th Edition* (2012)

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Table 2 – 2014 Traffic Count Data

| (SB = southbound, NB = northbound) | Daily traffic | | AM Peak Hour | | PM Peak Hour | |
|------------------------------------|---------------|--------|--------------|-------|--------------|-------|
| | SB | NB | SB | NB | SB | NB |
| Tuesday, January 28, 2014 | 16,919 | 13,946 | 1,332 | 1,044 | 1,075 | 1,123 |
| Wednesday, January 29, 2014 | 16,752 | 13,811 | 1,277 | 1,050 | 972 | 1,107 |

Source: State of Hawaii Department of Transportation, Highway Planning Branch (February 2016)

Based on the criteria related to the percentage increase in traffic, significant impacts would be the addition of 400 vehicles per day (3% of 13,811 = 414) or 29 vehicles per hour (3% of 972) in one direction on Farrington Highway. The project impacts (Table 1) are less than these thresholds (project traffic impact will be even less, since project traffic will be distributed in both the north and south directions on the highway and east into the Waianae and Lualualei valleys).

Conclusions

The development of the property, which is presently vacant and unused, will generate additional traffic. However, the added traffic due to full use of the subdivision (21 single-family dwellings) will be considerably less than the thresholds commonly used to determine the need for a traffic study, which indicates that the project would not have a significant impact to traffic conditions.

Should you have any questions, please contact me.

Sincerely,

JULIAN NG INCORPORATED



Julian Ng, P.E., P.T.O.E.
President

**Traffic Count Data
(August/September 2016)**

TRAFFIC COUNT SUMMARY WORKSHEET

PROJECT: Laulaulei Homestead Road Single Family Residential
 INTERSECTION: Laulaulei Homestead Road at Farrington Highway
 DAY & DATE: Thursday, September 22, 2016
 START TIME: 6:30 am
 END TIME: 8:30 am

15-Minute Volumes Beginning at:

| Interval | Start Time | North Approach | | | East Approach | | | South Approach | | | West Approach | | | Totals |
|----------|------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|--------|
| | | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | |
| 1 | 6:30 am | 4 | 163 | 7 | 9 | 6 | 9 | 10 | 164 | 1 | 6 | 8 | 4 | 391 |
| 2 | 6:45 am | 5 | 220 | 11 | 21 | 7 | 10 | 6 | 169 | 3 | 4 | 6 | 1 | 463 |
| 3 | 7:00 am | 4 | 221 | 13 | 28 | 12 | 13 | 6 | 209 | 3 | 3 | 9 | 4 | 525 |
| 4 | 7:15 am | 3 | 206 | 10 | 30 | 9 | 7 | 9 | 262 | 4 | 9 | 15 | 7 | 571 |
| 5 | 7:30 am | 4 | 217 | 19 | 37 | 7 | 9 | 2 | 236 | 3 | 6 | 5 | 10 | 555 |
| 6 | 7:45 am | 3 | 237 | 18 | 24 | 12 | 15 | 14 | 246 | 4 | 1 | 14 | 2 | 590 |
| 7 | 8:00 am | 3 | 253 | 17 | 13 | 8 | 8 | 14 | 152 | 1 | 7 | 15 | 2 | 493 |
| 8 | 8:15 am | 2 | 221 | 19 | 19 | 8 | 14 | 16 | 153 | 2 | 5 | 5 | 2 | 466 |

Maximum: 4 237 19 37 12 15 14 262 4 9 15 10 590

Hourly Volume of Each Movement

| | | | | | | | | | | | | | | |
|---------|---------|----|-----|----|-----|----|----|----|-----|----|----|----|----|------|
| 6:30 am | 7:30 am | 16 | 810 | 41 | 88 | 34 | 39 | 31 | 804 | 11 | 22 | 38 | 16 | 1950 |
| 6:45 am | 7:45 am | 16 | 864 | 53 | 116 | 35 | 39 | 23 | 876 | 13 | 22 | 35 | 22 | 2114 |
| 7:00 am | 8:00 am | 14 | 881 | 60 | 119 | 40 | 44 | 31 | 953 | 14 | 19 | 43 | 23 | 2241 |
| 7:15 am | 8:15 am | 13 | 913 | 64 | 104 | 36 | 39 | 39 | 896 | 12 | 23 | 49 | 21 | 2209 |
| 7:30 am | 8:30 am | 12 | 928 | 73 | 93 | 35 | 46 | 46 | 787 | 10 | 19 | 39 | 16 | 2104 |

Peak Hour Volume 14 881 60 119 40 44 31 953 14 19 43 23 2241

Per Cent of Approach 1% 92% 6% 59% 20% 22% 3% 95% 1% 22% 51% 27%

Peak Hour Factor: 0.88 0.93 0.79 0.80 0.83 0.73 0.55 0.91 0.88 0.53 0.72 0.57 0.95

| | | | | |
|------------------|------|-----|------|-----|
| Total Arrivals | 955 | 203 | 998 | 85 |
| Total Departures | 1095 | 134 | 944 | 68 |
| Total | 2050 | 337 | 1942 | 153 |

TRAFFIC COUNT SUMMARY WORKSHEET

PROJECT: Laulaulei Homestead Road Single Family Residential
 INTERSECTION: Laulaulei Homestead Road at Farrington Highway
 DAY & DATE: Thursday, September 22, 2016
 START TIME: 3:00 pm
 END TIME: 5:00 pm

15-Minute Volumes Beginning at:

| Interval | Start Time | North Approach | | | East Approach | | | South Approach | | | West Approach | | | Totals |
|----------|------------|----------------|-----|----|---------------|----|----|----------------|-----|----|---------------|----|----|--------|
| | | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | |
| 1 | 3:00 pm | 4 | 163 | 7 | 9 | 6 | 9 | 10 | 164 | 1 | 6 | 8 | 4 | 391 |
| 2 | 3:15 pm | 5 | 220 | 11 | 21 | 7 | 10 | 6 | 169 | 3 | 4 | 6 | 1 | 463 |
| 3 | 3:30 pm | 4 | 221 | 8 | 28 | 12 | 13 | 6 | 209 | 3 | 3 | 9 | 4 | 520 |
| 4 | 3:45 pm | 3 | 20+ | 10 | 30 | 9 | 7 | 9 | 262 | 4 | 9 | 15 | 7 | 385 |
| 5 | 4:00 pm | 4 | 217 | 19 | 37 | 7 | 9 | 2 | 336 | 3 | 6 | 5 | 10 | 655 |
| 6 | 4:15 pm | 3 | 237 | 18 | 24 | 12 | 15 | 14 | 346 | 4 | 1 | 14 | 2 | 690 |
| 7 | 4:30 pm | 3 | 253 | 17 | 13 | 8 | 8 | 14 | 252 | 1 | 7 | 15 | 2 | 593 |
| 8 | 4:45 pm | 2 | 221 | 19 | 19 | 8 | 14 | 16 | 153 | 2 | 8 | 5 | 2 | 469 |

Maximum: 4 253 19 37 12 15 16 346 4 8 15 10 690

Hourly Volume of Each Movement

| | | | | | | | | | | | | | | |
|---------|---------|----|-----|----|-----|----|----|----|------|----|----|----|----|------|
| 3:00 pm | 4:00 pm | 16 | 624 | 36 | 88 | 34 | 39 | 31 | 804 | 11 | 22 | 38 | 16 | 1759 |
| 3:15 pm | 4:15 pm | 16 | 678 | 48 | 116 | 35 | 39 | 23 | 976 | 13 | 22 | 35 | 22 | 2023 |
| 3:30 pm | 4:30 pm | 14 | 695 | 55 | 119 | 40 | 44 | 31 | 1153 | 14 | 19 | 43 | 23 | 2250 |
| 3:45 pm | 4:45 pm | 13 | 727 | 64 | 104 | 36 | 39 | 39 | 1196 | 12 | 23 | 49 | 21 | 2323 |
| 4:00 pm | 5:00 pm | 12 | 928 | 73 | 93 | 35 | 46 | 46 | 1087 | 10 | 22 | 39 | 16 | 2407 |

Peak Hour Volume 12 928 73 93 35 46 46 1087 10 22 39 16 2407

Per Cent of Approach 1% 92% 7% 53% 20% 26% 4% 95% 1% 29% 51% 21%

Peak Hour Factor: 0.75 0.92 0.96 0.63 0.73 0.77 0.72 0.79 0.63 0.69 0.65 0.40 0.87

Total Arrivals 1013 174 1143 77
 Total Departures 1196 158 996 57
 Total 2209 332 2139 134

TRAFFIC COUNT SUMMARY WORKSHEET

PROJECT: Lauilaulei Homestead Road Single Family Residential
 INTERSECTION: Lauilaulei Homestead Road at Pokai Bay Road
 DAY & DATE: Tuesday, August 23, 2016
 START TIME: 6:30 am
 END TIME:

15-Minute Volumes Beginning at:

| Interval | Start Time | North Approach | | | East Approach | | | South Approach | | | West Approach | | | Totals |
|----------|------------|----------------|----|----|---------------|----|----|----------------|----|----|---------------|----|----|--------|
| | | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | Rt | Th | Lt | |
| 1 | 6:30 am | | 7 | 3 | 4 | 0 | 1 | 3 | 16 | | 1 | 2 | 1 | 38 |
| 2 | 6:45 am | | 2 | 4 | 7 | 0 | 1 | 3 | 12 | | 2 | 4 | 2 | 37 |
| 3 | 7:00 am | | 11 | 4 | 6 | 0 | 3 | 2 | 7 | | 1 | 0 | 0 | 34 |
| 4 | 7:15 am | | 10 | 2 | 3 | 0 | 3 | 5 | 11 | | 0 | 2 | 0 | 36 |
| 5 | 7:30 am | | 2 | 5 | 5 | 0 | 1 | 3 | 10 | | 1 | 2 | 1 | 30 |
| 6 | 7:45 am | | 3 | 4 | 6 | 0 | 1 | 7 | 7 | | 4 | 2 | 0 | 34 |
| 7 | 8:00 am | | | | | | | | | | | | | 0 |
| 8 | 8:15 am | | | | | | | | | | | | | 0 |

Maximum: 11 4 7 0 3 5 16 2 4 2 38

Hourly Volume of Each Movement

| | | | | | | | | | | | | | | |
|---------|---------|---|----|----|----|---|---|----|----|---|---|---|---|-----|
| 6:30 am | 7:30 am | 0 | 30 | 13 | 20 | 0 | 8 | 13 | 46 | 0 | 4 | 8 | 3 | 145 |
| 6:45 am | 7:45 am | 0 | 25 | 15 | 21 | 0 | 8 | 13 | 40 | 0 | 4 | 8 | 3 | 137 |
| 7:00 am | 8:00 am | 0 | 26 | 15 | 20 | 0 | 8 | 17 | 35 | 0 | 6 | 6 | 1 | 134 |
| 7:15 am | 8:15 am | 0 | 15 | 11 | 14 | 0 | 5 | 15 | 28 | 0 | 5 | 6 | 1 | 100 |
| 7:30 am | 8:30 am | 0 | 5 | 9 | 11 | 0 | 2 | 10 | 17 | 0 | 5 | 4 | 1 | 64 |

Peak Hour Volume 0 30 13 20 0 8 13 46 0 4 8 3 145

Per Cent of Approach 0% 70% 30% 71% 0% 29% 22% 78% 0% 27% 53% 20%

Peak Hour Factor: 0.00 0.68 0.81 0.71 0.00 0.67 0.65 0.72 0.00 0.50 0.50 0.38 0.95

Total Arrivals 43 28 59 15
 Total Departures 69 34 42 0
 Total 112 62 101 15

TRAFFIC COUNT SUMMARY WORKSHEET

PROJECT: Laulaulei Homestead Road Single Family Residential
 INTERSECTION: Laulaulei Homestead Road at Pokai Bay Road
 DAY & DATE: Tuesday, August 23, 2016
 START TIME: 3:30 pm

Laulaulei Homestead Road S2ngle Family Residential

Laulaulei Homestead Road 2t Pokai Bay Road

Tuesday, August 23, 20162

| Interval | Start Time | North Approach | | | East Approach | | | 2outh Approach | | | West Approach | | | Totals |
|----------|------------|----------------|----|----|---------------|----|----|----------------|----|----|---------------|----|----|--------|
| | | Rt | Th | Lt | Rt | Th | Lt | R1 | Th | Lt | Rt | Th | Lt | |
| 1 | 3:30 pm | 0 | 0 | 7 | 5 | 0 | 1 | 3 | 7 | 0 | 2 | 5 | 2 | 32 |
| 2 | 3:45 pm | 0 | 10 | 2 | 9 | 0 | 1 | 1 | 12 | 0 | 1 | 2 | 2 | 40 |
| 3 | 4:00 pm | 0 | 14 | 7 | 7 | 0 | 2 | 2 | 14 | 00 | 1 | 2 | 1 | 50 |
| 4 | 4:15 pm | 0 | 10 | 10 | 6 | 0 | 5 | 2 | 6 | 0 | 1 | 2 | 2 | 44 |
| 5 | 4:30 pm | 0 | 12 | 7 | 9 | 0 | 2 | 2 | 13 | 0 | 4 | 10 | 3 | 62 |
| 6 | 4:45 pm | 0 | 12 | 5 | 4 | 0 | 0 | 2 | 5 | 00 | 2 | 4 | 1 | 35 |
| 7 | 5:00 pm | 0 | 13 | 2 | 1 | 0 | 4 | 2 | 7 | 0 | 2 | 1 | 1 | 33 |
| 8 | 5:15 pm | 0 | 3 | 5 | 6 | 0 | 0 | 0 | 7 | | 2 | 4 | 1 | 28 |
| Maximum: | | 0 | 13 | 7 | 9 | 0 | 4 | 2 | 13 | 0 | 4 | 10 | 3 | 62 |

Hourly Volume of Each Movement

| | | | | | | | | | | | | | | |
|---------|---------|---|----|----|----|---|----|---|----|---|----|----|---|-----|
| 3:30 pm | 4:30 pm | 0 | 34 | 26 | 27 | 0 | 9 | 8 | 39 | 0 | 5 | 11 | 7 | 166 |
| 3:45 pm | 4:45 pm | 0 | 46 | 26 | 31 | 0 | 10 | 7 | 45 | 0 | 7 | 16 | 8 | 196 |
| 4:00 pm | 5:00 pm | 0 | 48 | 29 | 26 | 0 | 9 | 8 | 38 | 0 | 8 | 18 | 7 | 191 |
| 4:15 pm | 5:15 pm | 0 | 47 | 24 | 20 | 0 | 11 | 8 | 31 | 0 | 9 | 17 | 7 | 174 |
| 4:30 pm | 5:30 pm | 0 | 40 | 19 | 20 | 0 | 6 | 6 | 32 | 0 | 10 | 19 | 6 | 158 |

196

Peak Hour Volume

| | | | | | | | | | | | | | | |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Per Cent of Approach | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Peak Hour Factor: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Arrivals | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |
| Total Departures | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |
| Total | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |

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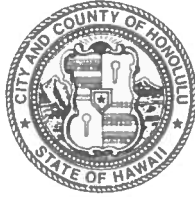
APPENDIX F – EARLY CONSULTATION AND PUBLIC INVOLVEMENT

**EA for Lualualei Homestead Road Single-Family Residential Subdivision
Early Consultation Distribution List**

| No. | Consulted Party | Person | Title | Street Address | City & Zip Code | Date Sent | Comment |
|------------|---|----------------------------|----------------------------|-----------------------------------|-----------------------------|------------------|----------------|
| | State Agencies | | | | | | |
| 1 | Office of Planning, Coastal Zone Management Program | Leo R. Asuncion, Jr., AICP | Director | P.O. Box 2359 | Honolulu, Hawaii 96804-2359 | 7/19/16 | 7/28/16 |
| 2 | Department of Health, Environmental Health Administration | Keith Kawaoka | Deputy Director | P.O. Box 3378 | Honolulu, Hawaii 96801 | 7/19/16 | 8/9/16 |
| 3 | Department of Land and Natural Resources | Suzanne Case | Chairperson | P.O. Box 621 | Honolulu, Hawaii 96809 | 7/19/16 | 8/11/16 |
| 4 | DLNR Historic Preservation Division | Alan J. Downer | Adminstrator | 601 Kamokila Boulevard, Rm 555 | Kapolei, Hawaii 96707 | 7/19/16 | 11/9/16 |
| 5 | Office of Hawaiian Affairs | Kamana'opono Crabbe | Chief Executive Officer | 560 North Nimitz Highway, Ste 200 | Honolulu, Hawaii 96817 | 7/19/16 | No Comment |
| | County Agencies | | | | | | |
| 6 | Department of Planning and Permitting | George I. Atta, FAICP | Director | 650 South King Street, 7th Flr | Honolulu, Hawaii 96813 | 7/19/16 | No Comment |
| 7 | Department of Transportation Services | Michael D. Formsby | Director | 650 South King Street, 3rd Flr | Honolulu, Hawaii 96813 | 7/19/16 | No Comment |
| 8 | Department of Facility Maintenance | Ross S. Sasamura, P.E. | Director | 1000 Uluohia Street, Ste 215 | Kapolei, Hawaii 96707 | 7/19/16 | No Comment |
| 9 | Honolulu Fire Department | Manuel P. Neves | Chief | 636 South Street | Honolulu, Hawaii 96813 | 7/19/16 | No Comment |
| 10 | Honolulu Police Department | Louis M. Kealoha | Chief | 801 South Beretania Street | Honolulu, Hawaii 96813 | 7/19/16 | 7/28/16 |
| 11 | Board of Water Supply | Ernest Y.W. Lau, P.E. | Manager and Chief Engineer | 630 South Beretania Street | Honolulu, Hawaii 96813 | 7/19/16 | No Comment |
| | Community Interests | | | | | | |
| 12 | Waianae Neighborhood Board #24 | Cedric Gates | Chair | P.O. Box 1162 | Waianae, Hawaii 96792 | 7/19/16 | No Comment |
| | | | | | | | |

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

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



KIRK CALDWELL
MAYOR

LOUIS M. KEALOHA
CHIEF

MARIE A. McCAULEY
CARY OKIMOTO
DEPUTY CHIEFS

OUR REFERENCE MT-DK

July 28, 2016

Ms. Celia Shen
Planner
WCP Inc.
99-061 Koaha Way, Suite 208
Aiea, Hawaii 96701-5626

Dear Ms. Shen:

This is in response to your letter dated July 19, 2016, requesting comments an Environmental Assessment to support a Special Management Area Use Permit-Major application for the proposed 20-unit, single-family residential subdivision in Waianae.

The Honolulu Police Department has reviewed this project and has concerns regarding construction debris and disturbances and the safe flow of traffic at the project site.

Precautionary measures should be taken to prevent the possibility of having any construction site debris (i.e., dust, soil, rocks, etc.) reach the roadways and cause a hindrance for motorists or pedestrians. The contractor should take into consideration the disturbance of construction noise coming from the project site that may become overwhelming for the community.

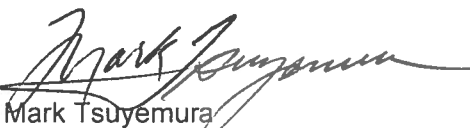
We recommend that the contractor implement traffic safety oversights and controls (e.g., flag persons, special duty officers, signs, cones, etc.) at the project site. This will ensure a safe means of ingress/egress for construction vehicles, motorists, and pedestrians in the vicinity.

If there are any questions, please call Major Sean C. Naito of District 8 (Kapolei) at 723-8403.

Thank you for the opportunity to review this project.

Sincerely,

Louis M. Kealoha
Chief of Police

By 
Mark Tsuyemura
Management Analyst VI
Office of the Chief



WCP Inc.

October 14, 2016

Louis M. Kealoha, Chief of Police
City and County of Honolulu - Police Department
801 South Beretania Street
Honolulu, HI 96813

Dear Chief Kealoha:

Subject: Early Consultation Request for the *ROH 25 Environmental Assessment to Support a Special Management Area Use Permit-Major Application*; 86-029 Farrington Highway, Waianae, Hawaii 96792; TMK: (1) 8-6-015:053.

Thank you for your letter dated July 18, 2016 providing comments on the subject project. Your comments, summarized below have been noted and will be considered in the preparation of the Environmental Assessment which will be available for your review when published.

- The Honolulu Police Department (HPD) has concerns regarding construction debris and disturbance and the safe flow of traffic at the project site.
- Precautionary measures should be taken to prevent the possibility of having any construction site debris (i.e., dust, soil, rocks, etc.) reach the roadways and cause a hindrance for motorists or pedestrians.
- The contractor should take into consideration the disturbance of construction noise coming from the project site that may impact the surrounding community.
- HPD recommends that the contractor implement traffic safety oversights and controls (e.g., flag persons, special duty officers, signs, cones, etc.) at the project site to ensure a safe means of ingress/egress for construction vehicles, motorists, and pedestrians in the vicinity.

Thank you again for your comments, suggestions, and interest in the proposed project and for your participation in the environmental review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Stook', written over a light blue rectangular background.

Richard Stook
Planner

cc: Allen Ng, AIA

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Land Use Planners and Environmental Consultants



OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
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-15253

July 28, 2016

Ms. Celia Shen
WCP Inc.
99-061 Koaha Way, Suite 208
Aiea, Hawaii 96701-5626

Dear Ms. Shen:

Subject: Chapter 25, Revised Ordinances of Honolulu (ROH), Environmental Assessment to Support a Special Management Area Use Permit Application for a 20-unit Single-family Residential Subdivision; 86-029 Farrington Highway, Waianae, Oahu; Tax Map Key: (1) 8-6-015: 053

This acknowledges the receipt of your pre-consultation request, dated July 19, 2016, for an Environmental Assessment (EA) to support a special management area (SMA) use permit application.

According to the information your pre-consultation request provides, the applicant, GJ Group, LLC Developer, proposes to subdivide and develop the approximately 3.175-acre property into 20 single-family residential units along the leeward coast of Oahu. An EA is required for, SMA use permit application pursuant to Chapter 25, ROH.

The Office of Planning (OP) has reviewed your EA pre-consultation request and has the following comments to offer.

1. OP provides technical assistance to state and county agencies in administering the statewide planning system in Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan. The Hawaii State Plan presents the goals, objectives, priorities, and priority guidelines for growth, development, and the allocation of resources through the State. The Hawaii State Plan includes diverse policies and objectives of state interest including but not limited to the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, climate change adaptation, and sustainability.

The subject EA should include an analysis on the Hawaii State Plan, that addresses how the proposed development conforms to state and county plans, policies and controls. The analysis should include a discussion on the project's ability to meet the objectives and policies, and priority guidelines listed in HRS Chapter 226.

2. The coastal zone management (CZM) area is defined as “all lands of the State and the area extending seaward from the shoreline to the limit of the State’s police power and management authority, including the United States territorial sea” see HRS § 205A-1 (definition of “coastal zone management area”).

HRS Chapter 205A requires all state and county agencies to enforce the CZM objectives and policies. The assessment on compliance with HRS Chapter 205A is an important component for satisfying the requirements of HRS Chapter 343.

The EA should include an assessment as to how the proposed action conforms to CZM objectives and its supporting policies set forth in HRS § 205A-2. These objectives and policies include: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection and marine resources.

3. As a supporting document for the SMA use permit application, the EA should specifically discuss the compliance with the requirements of SMA use by consulting with the Department of Planning and Permitting, City and County of Honolulu, for the proposed development.
4. **Attachment B** indicates that a City and County of Honolulu drainage canal is located to the south of the subject property. The EA for the SMA use permit application should discuss site-specific mitigation measures, including onsite drainage system and landscaping, to mitigate potential runoff from the increased level of impervious surface.
5. Given that more than one acre of land will be disturbed from the proposed project, the applicant should consult with the State of Hawaii Department of Health as to whether a National Pollutant Discharge Elimination System permit is required for the proposed construction.

Ms. Celia Shen
WCP Inc.
July 28, 2016
Page 3

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

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Asuncion', with a stylized flourish extending to the right.

Leo R. Asuncion
Director



WCP Inc.

October 14, 2016

Leo R. Asuncion, Director
State of Hawaii – Office of Planning
235 South Beretania Street, 6th Floor
Honolulu, HI 96813

Dear Mr. Asuncion:

Subject: Early Consultation Request for the *ROH 25 Environmental Assessment to Support a Special Management Area Use Permit-Major Application*; 86-029 Farrington Highway, Waianae, Hawaii 96792; TMK: (1) 8-6-015:053.

Thank you for your letter dated July 28, 2016 providing comments on the subject project. Your comments, summarized below, have been noted and will be considered in the preparation of the environmental assessment.

- The proposed project should be consistent with the goals, objectives, and policies of the Hawaii State Plan (HRS Chapter 226).
- The proposed project should be consistent with the goals, objective, and policies of the Hawaii Coastal Zone Management program (HRS Chapter 205A).
- The proposed project is located within the Special Management Area (SMA). As such, the proposed project will be subject to the requirements of a SMA permit administered by the City and County of Honolulu Department of Planning and Permitting..
- As there is a drainage canal is located bdirectly south of the project site, the EA for the SMA permit application should discuss site-specific mitigation measures, including onsite drainage system and landscaping, to mitigate potential runoff from the increased level of impervious surface.
- Since more than of acre of land will be disturbed as a result of the proposed project, the State Department of Health should be consulted as to whether or not a National Pollution Discharge Elimination System permit is required.

The draft Environmental Assessment will be available for your review when published. In the meantime, thank you again for your comments, suggestions, and interest in the proposed project and for your participation in the environmental review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Stook', written over a light blue horizontal line.

Richard Stook
Planner

cc: Allen Ng, AIA

Providing Services Since 1976
Land Use Planners and Environmental Consultants



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

In reply, please refer to:
File:

EPO 16-273

August 9, 2016

Ms. Celia Shen
Planner
WCP Inc.
99-061 Koaha Way, Suite 208
Aiea, Hawaii 96701
Email: cshen@wcp-hawaii.com

Dear Ms. Shen:

**SUBJECT: Environmental Assessment to Support a Special Management Area Use Permit (EA SMAUP)
86-029 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-015:053**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your EA SMAUP to our office on July 25, 2016.

In the development and implementation of all projects, EPO strongly recommends regular review of State and Federal environmental health land use guidance. State standard comments and available strategies to support sustainable and healthy design are provided at: <http://health.hawaii.gov/epo/landuse>. Projects are required to adhere to all applicable standard comments. EPO has recently updated the environmental Geographic Information System (GIS) website page. It now compiles various maps and viewers from our environmental health programs. The eGIS website page is continually updated so please visit it regularly at: <http://health.hawaii.gov/epo/egis>. EPO also encourages you to examine and utilize the Hawaii Environmental Health Portal at: <https://eha-cloud.doh.hawaii.gov>. This site provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings.

We suggest you review the requirements of the Clean Water Branch (HAR, Section 11-54-1.1, -3, 4-8) and/or the National Pollutant Discharge Elimination System (NPDES) permit (HAR, Chapter 11-55) at: <http://health.hawaii.gov/cwb>. If you have any questions, please contact the Clean Water Branch, Engineering Section at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov. If your project involves waters of the U.S., it is highly recommended that you contact the Army Corps of Engineers, Regulatory Branch at: (808) 835-4303.

Please note that all wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". We reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please review online guidance at: <http://health.hawaii.gov/wastewater> and contact the Planning and Design Section of the Wastewater Branch at (808) 586-4294.

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: <http://eha-web.doh.hawaii.gov/oegc-viewer>. This viewer geographically shows where some previous Hawaii Environmental Policy Act (HEPA) {Hawaii Revised Statutes, Chapter 343} documents have been prepared.

Ms. Celia Shen
Page 2
August 9, 2016

In order to better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: <http://www.epa.gov/ejscreen>.

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design. Thank you for the opportunity to comment.

Mahalo nui loa,



Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

LM:nn

Attachment 1: Environmental Health Management Web App Snipit of Project Area: <http://health.hawaii.gov/epo/egis>

Attachment 2: Clean Water Branch: Water Quality Standards Map - Oahu

Attachment 3: Wastewater Branch: Recycled Water Use Map of Project Area

Attachment 4: OEQC Viewer Map of Project Area

Attachment 5 U.S. EPA EJSCREEN Report for Project Area

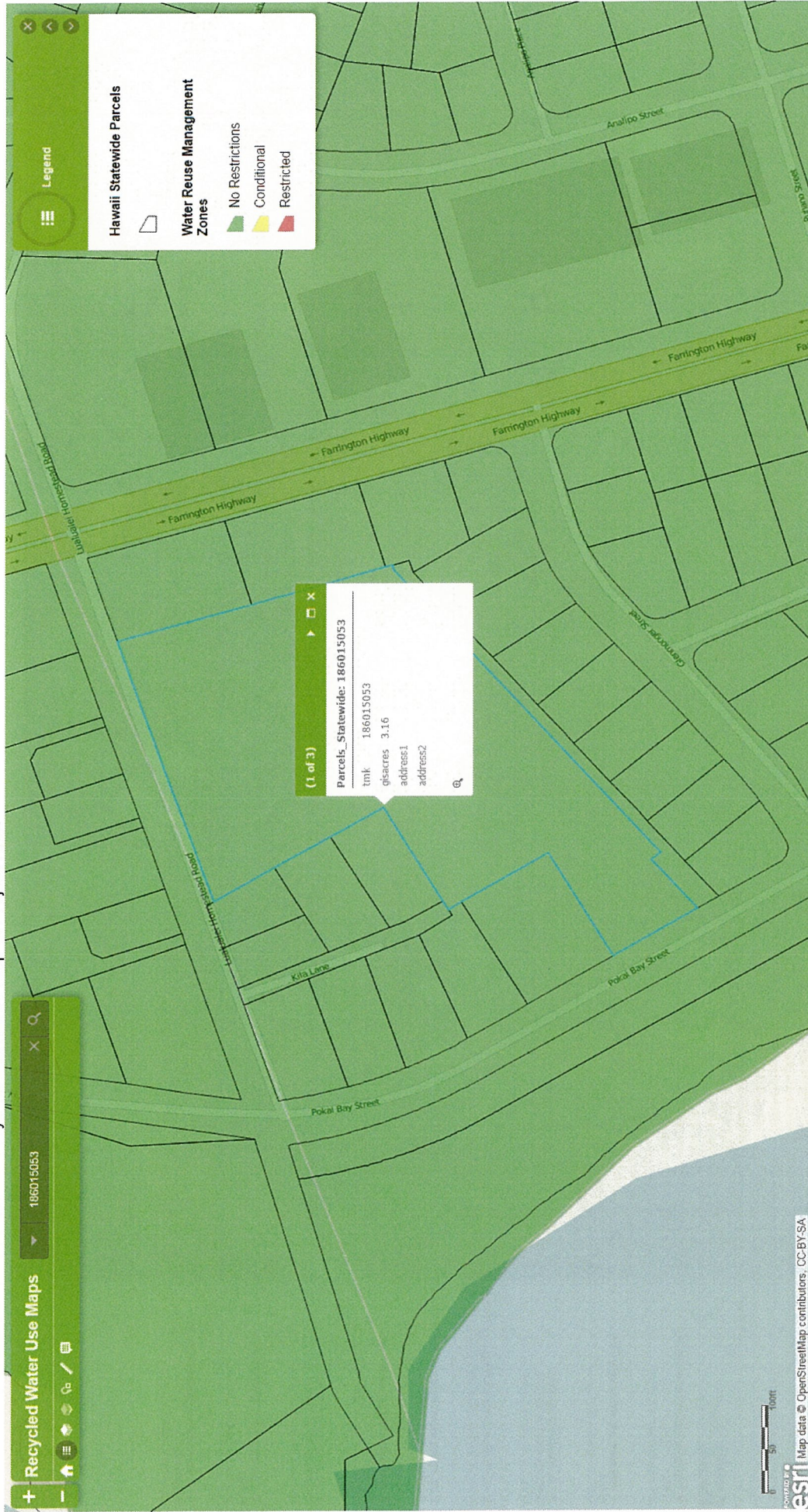
c: Allen Ng, Allen Ng & Associates, Architect {via email: anaarch99@yahoo.com}

DOH: CWB, WWB {via email only}

Attachment 1: Environmental Health Management Web App Snipit of Project Area: <http://health.hawaii.gov/epo/legis>



Attachment 3: Wastewater Branch: Recycled Water Use Map of Project Area



Attachment 4: OEQC Viewer Map of Project Area



Stay Connected

OEQC Viewer

Search: farrington highway 9 sites found

Results Filter

- 📍 **Farrington Highway** Hanalei (FEA-FONSII) Environmental Assessment (Agency)
- 📍 **Farrington Hwy Imp** Hanalei (DEA-AFNSI) Environmental Assessment (Agency)
- 📍 **KALANANAOLE HIGHWAY IMPROVEMENTS** (FEA-FONSII) Environmental Assessment (Agency)
- 📍 **Iao Stream Bridge** (DEA-AFNSI) Environmental Assessment (Agency)
- 📍 **Kuhio Hwy Bypass Road** (DEA-AFNSI) Environmental Assessment (Agency)
- 📍 **Honoapiilani Realignment Widening** (FEA-EISP) Environmental Impact Statement (Agency)
- 📍 **Waihehu Iao Stream Bridge Rehabilitation** (FEA-FONSII) Environmental Assessment (Agency)
- 📍 **FORT WENNER RD WIDENING** (FEA-FONSII) Environmental Assessment (Agency)
- 📍 **Queen Kaahumanu Highway Waterline** (FEA-FONSII) Environmental Assessment (Agency)



Map data © 2016 Google, Imagery © 2016 DigitalGlobe, U.S. Geological Survey, USDA | Terms of Use | Report a Problem

Google

Attachment 5: U.S. EPA EJSCREEN Report for Project Area



EJSCREEN Report (Version 2016)

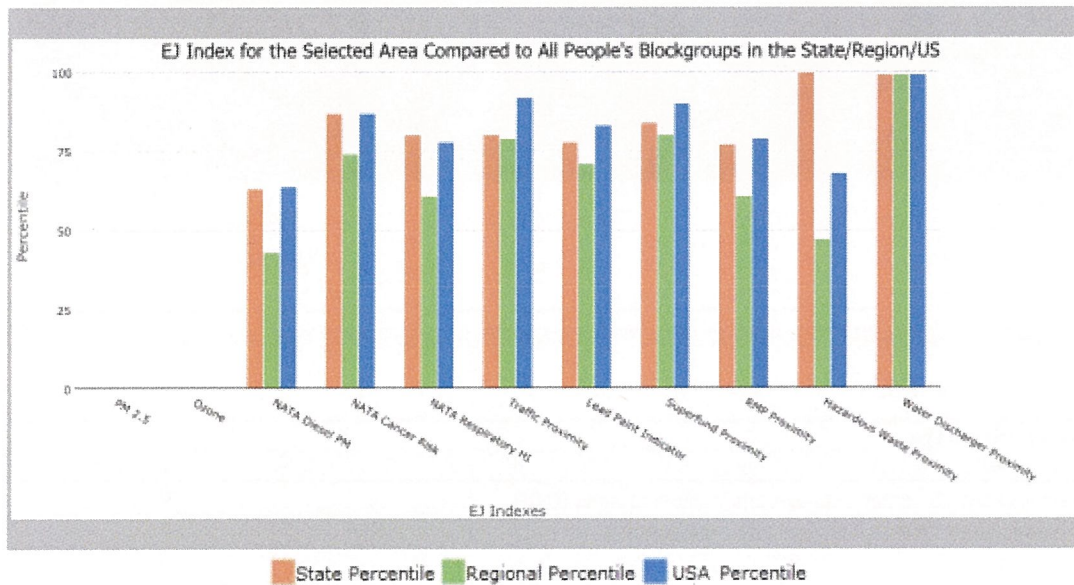


1 mile Ring Centered at 21.440767, -158.187500, HAWAII, EPA Region 9

Approximate Population: 8,499

Input Area (sq. miles): 3.14

| Selected Variables | State Percentile | EPA Region Percentile | USA Percentile |
|---|------------------|-----------------------|----------------|
| EJ Indexes | | | |
| EJ Index for PM2.5 | N/A | N/A | N/A |
| EJ Index for Ozone | N/A | N/A | N/A |
| EJ Index for NATA [*] Diesel PM | 63 | 43 | 64 |
| EJ Index for NATA [*] Air Toxics Cancer Risk | 87 | 74 | 87 |
| EJ Index for NATA [*] Respiratory Hazard Index | 80 | 61 | 78 |
| EJ Index for Traffic Proximity and Volume | 80 | 79 | 92 |
| EJ Index for Lead Paint Indicator | 78 | 71 | 83 |
| EJ Index for Superfund Proximity | 84 | 80 | 90 |
| EJ Index for RMP Proximity | 77 | 61 | 79 |
| EJ Index for Hazardous Waste Proximity | 100 | 47 | 68 |
| EJ Index for Water Discharger Proximity | 99 | 99 | 99 |



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



1 mile Ring Centered at 21.440767,-158.187500, HAWAII, EPA Region 9

Approximate Population: 8,499

Input Area (sq. miles): 3.14



| Sites reporting to EPA | |
|--|---|
| Superfund NPL | 0 |
| Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | 0 |
| National Pollutant Discharge Elimination System (NPDES) | 1 |

EISCREEN Report (Version 2016)



1 mile Ring Centered at 21.440767,-158.187500, HAWAII, EPA Region 9

Approximate Population: 8,499

Input Area (sq. miles): 3.14

| Selected Variables | Value | State Avg. | %ile in State | EPA Region Avg. | %ile in EPA Region | USA Avg. | %ile in USA |
|---|--------|------------|---------------|-----------------|--------------------|----------|-------------|
| Environmental Indicators | | | | | | | |
| Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$) | N/A | N/A | N/A | 9.37 | N/A | 9.32 | N/A |
| Ozone (ppb) | N/A | N/A | N/A | 51 | N/A | 47.4 | N/A |
| NATA* Diesel PM ($\mu\text{g}/\text{m}^3$) | 0.0474 | 0.149 | 28 | 0.978 | <50th | 0.937 | <50th |
| NATA* Cancer Risk (lifetime risk per million) | 28 | 34 | 32 | 43 | <50th | 40 | <50th |
| NATA* Respiratory Hazard Index | 0.7 | 1 | 31 | 2 | <50th | 1.8 | <50th |
| Traffic Proximity and Volume (daily traffic count/distance to road) | 440 | 990 | 65 | 1100 | 57 | 590 | 76 |
| Lead Paint Indicator (% Pre-1960 Housing) | 0.12 | 0.16 | 54 | 0.24 | 48 | 0.3 | 39 |
| Superfund Proximity (site count/km distance) | 0.084 | 0.098 | 67 | 0.15 | 57 | 0.13 | 61 |
| RMP Proximity (facility count/km distance) | 0.092 | 0.19 | 48 | 0.57 | 17 | 0.43 | 24 |
| Hazardous Waste Proximity (facility count/km distance) | 0 | 0 | 100 | 0.11 | 19 | 0.072 | 26 |
| Water Discharger Proximity (facility count/km distance) | 1.6 | 0.34 | 98 | 0.2 | 99 | 0.31 | 97 |
| Demographic Indicators | | | | | | | |
| Demographic Index | 70% | 52% | 92 | 47% | 80 | 36% | 88 |
| Minority Population | 94% | 77% | 84 | 58% | 88 | 37% | 93 |
| Low Income Population | 45% | 26% | 85 | 36% | 65 | 35% | 69 |
| Linguistically Isolated Population | 7% | 6% | 70 | 9% | 54 | 5% | 77 |
| Population With Less Than High School Education | 19% | 9% | 87 | 17% | 61 | 14% | 72 |
| Population Under 5 years of age | 8% | 6% | 75 | 7% | 68 | 6% | 72 |
| Population over 64 years of age | 9% | 15% | 21 | 13% | 39 | 14% | 29 |

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

EISCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EISCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EISCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.



WCP Inc.

October 14, 2016

Laura Leialoha Phillips McIntyre, Program Manager
State of Hawaii
Department of Health - Environmental Planning Office
Post Office Box 3378
Honolulu, HI 96801

Dear Ms. Phillips McIntyre:

Subject: Early Consultation Request for the *ROH 25 Environmental Assessment to Support a Special Management Area Use Permit-Major Application*; 86-029 Farrington Highway, Waianae, Hawaii 96792; TMK: (1) 8-6-015:053.

Thank you for your letter dated August 9, 2016 providing comments on the subject project. We acknowledge that the Environmental Planning Office (EPO) recommends the review of online resources available through the EPO and the Hawaii Environmental Health Portal websites, as well as the websites of Department of Health Clean Water Branch, Office of Environmental Quality Control, and the U.S. Environmental Protection Agency, in an effort to promote sustainable, innovative, inspirational, transparent, and healthy project design.

Your comments have been noted and will be considered in the preparation of the environmental assessment which will be available for your review when published. Thank you again for your comments, suggestions, and interest in the proposed project and for your participation in the environmental review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Stook', written over a light blue rectangular background.

Richard Stook
Planner

cc: Allen Ng, AIA

Providing Services Since 1976
Land Use Planners and Environmental Consultants

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

August 11, 2016

WCP Inc.
Attention: Ms. Celia Shen, Planner
99-061 Koaha Way; Suite 208
Aiea, Hawaii 96701-5626

via email: cshen@wcp-hawaii.com

Dear Ms. Shen:

SUBJECT: ROH Environmental Assessment (EA) to Support a Special Management Area Use Permit – Major Application

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

At this time, enclosed are comments from the (a) Engineering Division and (b) Land Division – Oahu District on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII



RECEIVED
LAND DIVISION

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

2016 AUG -1 AM 10:55

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 26, 2016

MEMORANDUM

TO:
FR:

DLNR Agencies:

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

FROM:
SUBJECT:

Russell Y. Tsuji, Land Administrator
ROH Environmental Assessment (EA) to Support a Special Management
Area Use Permit – Major Application

LOCATION:
APPLICANT:

Waianae, Island of Oahu; TMK: (1) 8-6-015:053
CJ Group, LLC Developer

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **August 10, 2016**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

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

Signed:

Print Name:

Carty S. Chang, Chief Engineer

Date:

8/11/16

cc: Central Files

16 JUL 27 AM 10:57 ENGINEERING

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

To: Land Division

Ref: ROH EA SMA Major Waianae, Oahu

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a designated Flood Hazard.

The owner or the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zone designations can be found using the Flood Insurance Rate Map (FIRM), which can be accessed through the Flood Hazard Assessment Tool (FHAT) (<http://gis.hawaiiinfip.org/FHAT>).

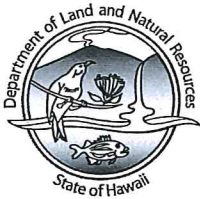
National Flood Insurance Program establishes the rules and regulations of the NFIP - Title 44 of the Code of Federal Regulations (44CFR). The NFIP Zone X is a designation where there is no perceived flood impact. Therefore, the NFIP does not regulate any development within a Zone X designation.

Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may take precedence over the NFIP standards as local designations prove to be more restrictive. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- o Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- o Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- o Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- o Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: 
CARTY S. CHANG, CHIEF ENGINEER

Date: 9/11/16



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 26, 2016

MEMORANDUM

RECEIVED
LAND DIVISION
2016 JUL 28 AM 11:06
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

FROM: ~~TO~~

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

TO: ~~FROM~~

SUBJECT: Russell Y. Tsuji, Land Administrator
ROH Environmental Assessment (EA) to Support a Special Management Area Use Permit – Major Application

LOCATION: Waianae, Island of Oahu; TMK: (1) 8-6-015:053

APPLICANT: CJ Group, LLC Developer

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **August 10, 2016**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

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

Signed: _____

Print Name: _____

Date: _____

T. Chee

Max Chee

7/28/16

cc: Central Files



WCP Inc.

October 14, 2016

Russell Tsuji, Land Administrator
State of Hawaii
Department of Land and Natural Resources - Land Division
Post Office Box 621
Honolulu, HI 96809

Dear Mr. Tsuji:

Subject: Early Consultation Request for the *ROH 25 Environmental Assessment to Support a Special Management Area Use Permit-Major Application*; 86-029 Farrington Highway, Waianae, Hawaii 96792; TMK: (1) 8-6-015:053.

Thank you for your letter dated August 11, 2016 in which you indicated the Land Division had distributed or made available the subject early consultation request to other DLNR divisions for their review and comment. We acknowledge that the Land Division has no comments at this time. Comments were received from DLNR's Engineering Division, and are summarized below.

- Rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a designated Flood Hazard.
- The owner of the property and/or their representative is responsible to research the Flood Hazard Zone for the project.
- The NFIP Zone X is a designation where there is no perceived flood impact. Therefore, the NFIP does not regulate any development within a Zone X designation..
- 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may take precedence over the NFIP standards as local designations prove to be more restrictive.

The above comments have been noted and will be considered in the preparation of the draft environmental assessment which will be available for your review when published. In the meantime, thank you again for your comments, suggestions, and interest in the proposed project and for your participation in the environmental review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Stook', written over a horizontal line.

Richard Stook
Planner

cc: Allen Ng, AIA

Providing Services Since 1976
Land Use Planners and Environmental Consultants

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

November 9, 2016

Russell Y. Tsuji, Land Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

IN REPLY REFER TO:
Log No. 2016.01776
Doc No. 1611GC03
Archaeology

Dear Mr. Tsuji:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Pre-Consultation for DEA to Support SMA Major Application
86-029 Farrington Highway, Waianae, HI 96792
Waianae Ahupua'a, Waianae District, Island of O'ahu
TMK: (1) 8-6-015:053**

Thank you for the opportunity to review and provide comments on this submittal to support a *Special Management Area Use Permit Major* and a *Draft Environmental Assessment* (Log No. 2016.01776). We received this submittal on August 3, 2016, we apologize for the delayed review. The applicant, CJ Group, LLC Developer, is seeking to construct a 20-unit, single-family residential subdivision, with appurtenances, on a vacant 3.17 acre parcel identified as TMK: (1) 8-6-015:053.

SHPD records indicate this parcel has not been subjected to an archaeological inventory survey (AIS). They also show that several archaeological studies conducted within the larger Waianae District have identified numerous subsurface traditional sites, cultural deposits, and surface historic plantation-era and ranching sites.

SHPD does not have enough information to determine potential effects the proposed project may have on historic properties. Thus, pursuant to HAR §13-284, **SHPD requests** that an archaeological inventory survey (AIS) with a subsurface testing component be conducted and that an AIS report meeting the requirements of HAR §13-276-5 be submitted to SHPD for review and acceptance **prior to initiation of project related work.**

The AIS shall be conducted by a qualified archaeologist in order to adequately identify and document any archaeological historic properties that may be present, to assess their significance, to determine the potential impacts of this project on any identified archaeological historic properties, and to identify and ensure appropriate mitigation is implemented, if needed. A list of permitted archaeological firms is provided on the SHPD website at: <http://dlnr.hawaii.gov/shpd/about/branches/archaeology/>.

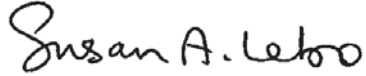
SHPD requests the project proponent and archaeological firm consult with our office regarding an appropriate testing strategy **prior to initiation of the AIS.**

SHPD looks forward to receiving and reviewing an AIS report meeting the requirements of Hawaii Administrative Rules (HAR) §13-276-5, as well as any subsequent mitigation plans, as appropriate, based on the survey findings, prior to project related work proceeding. **SHPD will notify you when the required reports and/or plans have been reviewed and accepted and project may proceed.**

Mr. Tsuji
November 9, 2016
Page 2

Please contact me at Susan.A.Lebo@hawaii.gov or at (808) 692-8019 for any questions regarding this letter.

Aloha,

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

Susan A. Lebo, PhD
Archaeology Branch Chief

cc: Lydia Morikawa, DLNR-Land (Lydia.M.Morikawa@hawaii.gov)
Celia Shen, WCP Inc. (cshen@wcp-hawaii.com)



WCP Inc.

November 15, 2016

Susan A. Lebo, Archaeology Branch Chief
State of Hawaii
Department of Land and Natural Resources – State Historic Preservation Division
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Ms. Lebo:

Subject: Early Consultation Request for the *ROH 25 Environmental Assessment to Support a Special Management Area Use Permit-Major Application*; 86-029 Farrington Highway, Waianae, Hawaii 96792; TMK: (1) 8-6-015:053.

Thank you for your letter dated November 9, 2016 providing comments on the subject project. Your comments, summarized below, have been noted and will be considered in the preparation of the environmental assessment.

- Your records show that several archaeological studies conducted within the larger Waianae District have identified numerous subsurface traditional sites, cultural deposits, and surface historic plantation-era and ranching sites.
- Your records show that the subject parcel has not been subjected to an archaeological inventory survey (AIS).
- SHPD does not have sufficient information to determine potential effects of the proposed project on historic properties, and requests an AIS with a subsurface testing component be conducted. And that the AIS meet the requirements of HAR 13-276-5 and be submitted to SHPD for review and acceptance prior to the initiation of project-related work.

The above comments have been noted and will be considered in the preparation of the draft environmental assessment which will be available for your review when published. We also note that an AIS will be prepared for the subject project and SHPD will be consulted in the AIS development and review process. Thank you again for your comments, suggestions, and interest in the proposed project and for your participation in the environmental review process.

Sincerely,

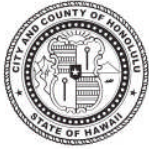
A handwritten signature in black ink, appearing to read 'Richard Stook', written over a horizontal line.

Richard Stook
Planner

cc: Allen Ng, AIA

Providing Services Since 1976
Land Use Planners and Environmental Consultants

**Waianae Neighborhood Board Meeting Minutes
(November 1, 2016)**



WAIANAE COAST NEIGHBORHOOD BOARD NO. 24

c/o NEIGHBORHOOD COMMISSION • 925 DILLINGHAM BOULEVARD, SUITE 160 • HONOLULU, HAWAII, 96817
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET: <http://www.honolulu.gov/nco>

DRAFT REGULAR MEETING MINUTES

TUESDAY, NOVEMBER 1, 2016

WAIANAE DISTRICT PARK – MULTI-PURPOSE ROOM

CALL TO ORDER – Chair Marcus Paaluhi called the meeting to order at 6:30 p.m. **A quorum was established with seven (7) Board members present.** Note – This nine (9) member Board requires five (5) members to establish a quorum and to take official Board action. Chair Paaluhi read the rules of speaking.

Board Members Present – Julie-Ann Cachola, Calvin Endo, Cedric Gates, Glen Kila, Ken Koike, Marcus Paaluhi Sr., Sharlette Poe, and Kellen Smith.

Board Members Absent – Kaukaohu Wahilani.

Vacancies – There were no vacancies at this time.

Guests: Firefighter Jordan Santos (Honolulu Fire Department); Acting Lieutenant Ivan Sanches and Sergeant Derrick Kalahui (Honolulu Police Department); Kathleen Davenport and Chelsea Kewley (Councilmember Kymberly Pine's Office); Ed Burke (Senator Maile Shimabukuro's Office); Allen Ing (AIA Architect); Richard Stoke (WCP Inc.); Neal Dixon (Tetrattech); Dennis Drake (US Army Hawaii); Cynthia Rezendes and Richard Landford (Nanakuli-Mailii Neighborhood Board No. 36); Hannah Neagle (Hawaii Bicycling League); Marie Lawen; Sam Iokia; Dean Toyama; Stephanie Kawelo; Dan and Sue Carpenter; Barbara Clark; Gaylynn Paaluhi; Bernadette Pascua; Theresa Rivera; Nic Pascua; Jack DeFeo; Anna and Rock Winslow; Karen Young; Michael Talalotu; Fred Dodge; Mele Savea; Jewelynn Kirkland; Kawika Ho; Kapua Keliikoa-Kamai James Manaku Sr.; C. Pono Higa; and Relley Araceley (Neighborhood Commission Office).

Pule – Endo lead the pule.

PUBLIC SAFETY REPORTS

Honolulu Police Department (HPD) – Sergeant Derrick Kalahui conducted a survey of the crowd regarding the community's interest in including violent crimes to the HPD's crime mapping tool on its website. The crowd and board supported the addition of violent crimes to the crime map.

- **October 2016 Statistics:** Lieutenant Ivan Sanches reported that there were 47 motor vehicle thefts, 57 burglaries, 172 thefts, and 61 unauthorized entries in motor vehicles (UEMVs), and 6,360 total calls for service.

Questions, comments, and concerns followed: **Reporting:** Resident James Manaku Jr. asked and Lieutenant Sanches responded that the crime statistics represent the Waianae District.

Honolulu Fire Department (HFD) – Firefighter Jordan Santos reported the following:

- **October 2016 Statistics:** There was 1 structure fire, 9 wildland/brush fires, 5 nuisance fires, 1 cooking fire, 2 activated alarms, 197 medical emergencies, 4 motor vehicle crashes, and 1 mountain rescue.
- **Thanksgiving Day Fire Safety Tips** – Thanksgiving Day is the peak day for home cooking fires followed by Christmas Day and Christmas Eve. Unattended cooking is the leading contributing factor in cooking fires and deaths nationwide. The following are safety tips for the upcoming Thanksgiving Day holiday:
 - Stay in the kitchen when cooking; do not leave cooking unattended.
 - Keep children at least three (3) feet away from the stove.
 - For an oven fire, turn off the heat, and keep the oven door closed.
 - The HFD discourages the use of turkey fryers, as they may lead to burns and other injuries and can cause property damage, due to the large amount and high temperature of oil being used.
- **Kalua Turkey** – Kalua turkey is a popular alternative and imu, or underground ovens are common cooking methods:
 - Dig the imu where the fire cannot accidentally spread and create a fire hazard.
 - Avoid placing the imu where the smoke will blow into or across homes.
 - Let the neighbors know the plans, so they are aware of the smoke.
 - Call the HFD prior to lighting the imu fire at 723-3473.

Ocean Safety (OS) – No representative was present; no report was available.

Division of Conservation and Resources Enforcement (DOCARE) – No representative was present; no report was available.

BOARD BUSINESS

Approval of the October 12, 2016 Minutes – **The board APPROVED the minutes as AMENDED, 7-0-0 (AYE: Cachola, Endo, Kila, Koike, Paaluhi, Poe, and Smith; NAY: None; ABSTAIN: None).** The amendments are as follows: Resident James Manaku Sr clarified his concern in regards to the zoning of the Halona Road housing project.

Treasurer's Report – Treasurer Endo reported a balance of \$54.50. The report was filed. **Koike moved and Endo seconded that the Waianae Neighborhood Board No. 24 request more funding from the Neighborhood Commission for the remainder of the fiscal year on the condition that all committees will submit their agendas and minutes at the same time as the regular board meeting agenda and minutes.**

The motion was APPROVED UNANIMOUSLY, 7-0-0 (AYE: Cachola, Endo, Kila, Koike, Paaluhi, Poe, and Smith; NAY: None; ABSTAIN: None).

Disclosure of Member's Attendance at Other Meetings – Paaluhi reported that Paaluhi, Gates, and Koike were present at the recent 175th Waianae Protestant celebration. Koike reported that Paaluhi, Gates, and Koike were present at the recent candidate forum.

BOARD COMMITTEE REPORTS AND MEMBERSHIPS

Agriculture and Intergovernmental Affairs – Committee Chair Smith noted the next meeting is scheduled for Monday, November 7, 2016 at Kahumana Organic Farm Café beginning at 6:30 p.m. A pot-luck and plant seed exchange will be occurring.

Education Committee – Co-Chair Endo noted there would be no November 2016 meeting. Endo urged more school involvement from local businesses.

Hawaiian Affairs, Business, Economic Development, and Tourism (HABEDT) – Committee Co-Chair Poe provided a handout summarizing various recommendations from the HABEDT committee as follows:

- New Members: Lena Conrad and Ed Burke were nominated to be included to the HABEDT committee.
- Sub-Committees: Two (2) sub-committees were recommended for implementing work meetings for the Hawaiian Affairs and the Business, Economic Development, and Tourism portions of the committee respectively.
- Conduct: Co-Chair Poe recommended the committees follow a process similar to the Neighborhood Commission Office (NCO) process of three (3) absences. Three (3) absences from committee meetings would make a committee member ineligible to vote. Good standing could be renewed through communication to the Committee and presence at the next full HABEDT Committee hearing.
- Goals:
 - Business, Economic Development, and Tourism: A draft of Community Development Principles was recommended.
 - Hawaiian Affairs: Hawaiian standards and principles in future development within the area was recommended.

Poe moved and Koike seconded that the Waianae Neighborhood Board No. 24 adopt the recommendation for the HABEDT Committee. The motion was APPROVED UNANIMOUSLY, 7-0-0 (AYE: Cachola, Endo, Kila, Koike, Smith, Paaluhi, and Poe; NAY: None; ABSTAIN: None).

Parks, Land, and Natural Resources – Chair Koike announced that a panel will be held at the Wednesday, November 9, 2016 committee meeting. Department of Hawaiian Home Lands (DHHL) Deputy Director William Aila, Eric Enos, Carl Jellings, Barry Usagawa from the Board of Water Supply (BWS), three (3) members of the Hawaii Commission on Water Resource Management, and other individuals with insight to water resource management will be participating in the panel. Smith introduced students from Nanakuli High School from the 'A'ali'i Program who read and introduced a resolution regarding water rights in Waianae.

Questions, comments, and concerns followed:

1. Thanks: Various board members and community members voiced their gratitude to the students for being a part of the discussion.
2. Direction: Cachola asked and Smith noted that the Honua stream is currently flowing past the homestead. Cachola encouraged the students to continue to become more knowledgeable on the issues.
3. DHHL: Cachola noted that DHHL has the right to reserve water before other uses.
4. Community: Poe asked if the 'A'ali'i program has considered community outreach or education. A teacher with the program responded that Makaha Studios is recording the program and will be putting it out for people to see what the program does. The teacher also stated that the program is looking to build an "auwai" (irrigation ditch) and welcomes the community to assist in building the auwai.
5. Commend: Resident James Pakele commended the high school students for the work that they are doing.
6. Aquifer: Resident Jack DeFeo stated that the BWS aquifers take roughly 25 years to be replenished.

Koike moved and Endo seconded to include the 'A'ali'i Program resolution to the agenda. The motion was APPROVED UNANIMOUSLY, 8-0-0 (AYE: Cachola, Endo, Kila, Koike, Smith, Wahilani, and Poe; NAY: None; ABSTAIN: None).

'A'ali'i Resolution – Koike moved and Endo seconded that the Waianae Neighborhood Board No. 24 adopt the 'A'ali'i Resolution. The motion was APPROVED UNANIMOUSLY, 7-0-0 (AYE: Cachola, Endo, Kila, Koike, Smith, Paaluhi, and Poe; NAY: None; ABSTAIN: None).

Housing and Development Committee – Co-Chair Paaluhi reported the following:

- Halona Road Modular Housing Project: Paaluhi, Koike, Gates, and Wahilani were present at the unveiling of the Halona Road Modular Housing Project. The units are tentatively scheduled to open by the end of November 2016.
- Homelessness Coordinator Meeting: Co-Chair Cachola reported that the State Homelessness Coordinator stated that there is a two (2)-year plan for the relocation of the Pu'uuhonua with the assistance of two (2) Hawaiian planners.
- Next Meeting: Co-Chair Paaluhi announced that the next housing meeting would be held on Thursday, November 10, 2016 beginning at 7:00 p.m. at the Waianae District Park.

Transportation Committee – Committee Co-Chair Cachola reported that the Transportation Committee would not be holding a meeting until after the General Election.

Hearing no objections Chair Paaluhi moved the agenda to item 7.2.

NEW BUSINESS

Request to Honor Papa Fred Perreira – Chair Paaluhi passed the gavel to Koike at 7:50 p.m.

Paaluhi moved and Endo seconded that the Waianae Neighborhood Board No. 24 support renaming the Waianae Boxing Club Gym to Papa Fred's Gym.

Discussion followed:

- Clarification: Resident Cynthia Rezentes noted that the gymnasium complex is currently named after a Congressional Medal of Honor winner from Waianae. Rezentes noted that the City Council would also have to address the issue of renaming the gym.
- Boxing Gym: Chair Paaluhi asked if it would be possible to rename the boxing club as the Papa Fred Boxing Club. Resident Michael Talalotu and another resident stated that "Papa Fred" has been coaching boxing at the Waianae Gym for the past 50 years.
- Clarification (continued): Kila asked and Rezentes stated that it may be that the Waianae Gymnasium Complex has already been named.

Paaluhi restated the motion that the Waianae Neighborhood Board No. 24 support the renaming of the Waianae Boxing Gym facilities to Papa Fred's Boxing Gym and that signage and certificates be presented.

The motion was APPROVED UNANIMOUSLY, 7-0-0 (AYE: Cachola, Endo, Kila, Koike, Smith, Paaluhi, and Poe; NAY: None; ABSTAIN: None).

Koike returned the gavel to Chair Paaluhi at 8:00 p.m.

20-Unit Single Family Residential Subdivision Project at 86-029 Lualualei Homestead Road – Allen Ing introduced Richard Stoke of WCP and gave a brief presentation and reported the following:

- Layout: The lot will actually allow for 21 units and is a little over three (3) acres of land. The lot is zoned R-5 and will be designed as single family homes at market value prices. There is no design yet for presentation.
- WCP: WCP will be taking care of the environmental assessment (EA) and the special management area (SMA) permits. Stoke noted that various EA and SMAs will be required but is not complete yet. Stoke stated that there is no current timeline on the availability of the documents.

Questions, comments, and concerns followed:

1. Committee: Koike asked and Stoke responded that they would be willing to be present at an upcoming committee meeting after more information is available.
2. Land Owner: Cachola asked and Ing responded that the landowner developer is CJ Group LLC. Cachola asked that the Waianae Neighborhood Board No. 24 be included on the pre-consultation list. Stoke responded that the board is already on the pre-consultation list and that the EA is a part of the SMA and will go through the public hearing process as well as the City Council.
3. Affordability: Cachola asked and Ing responded that pricing is not yet available, but the target range will be for middle income families.
4. Location: A resident asked and Ing responded that the lot is makai of Farrington Highway or 86-029 Lualualei Homestead Road. A resident noted opposition to the project due to the traffic increase that the homes will create. The resident asked if the lot is in a flood inundation zone and Ing responded in the affirmative.
5. Notification: Resident Hanale Hopfe reported that he lives adjacent to the project property but did not receive a notification letter. Stoke noted that the developer is not required to send out the notification letter but that the developer wished to keep the community informed prior to a notice from the Department of Permitting and Planning (DPP). Stoke apologized that the resident did not receive a letter of notification.
6. Trash: Resident Dan Carpenter noted concern with the piling up of trash that occurs at the lot site due to possible squatters. Carpenter also noted concerns with illegal landfills which affect flooding of the surrounding area. Carpenter noted the area needs an improved drainage system. Ing responded that the homeless and trash issues of the area are being addressed.
7. Sewage Line: Resident Dean Austrowski noted that the sewer line is full and asked if the project was able to get a waiver. Ing answered that the developers have looked into it and that the civil engineer for the project has applied and received an increase on the number of units on the sewer line after further calculations.
8. Patsy Mink: Kila stated that there were various violations posted on the lot in the past and that the complaints were filed with the office of Patsy T. Mink.
9. Impact: Poe asked what the economic impact would be on the Waianae Coast. Poe noted that as the income levels of the area changes due to the possible influx of homeowners with the increase of the value of homes, the economic gap between the long-time inhabitants of the Waianae Coast and the new residents would be detrimental to the community.

HAWAIIKI Fiber Optic Cable Landing Project – HAWAIIKI Submarine Cable Project – Neal Dixon and Steve Ruff distributed a handout and reported the following:

- Permitting: Ruff noted that there have been previous meetings with other neighborhood boards and Hawaiian Civic Clubs and that the environmental impact assessment (EIA) can be made available upon request when it is publicly available. HAWAIIKI will be presenting to the Nanakuli Neighborhood Board No. on Tuesday, November 15, 2016.
- Installation: The landing station will be constructed on a property owned by HAWAIIKI near the Kahe Power Plant and the cable will be connected via a hole drilled below ground (under the highway) and surfacing a half mile out in a sandy patch of the ocean. No trenching or digging will be done. Local fishermen and jet-ski operators will be hired for the half day to connect the cable from the boat to the landing station. The HAWAIIKI building will be about 4,000 square feet and 15 feet high with local flora landscaping. A second building will be built for the generators and will have sound baffles to minimize noise. During construction of the building there will be traffic monitors and land will be leased from the adjacent properties to allow parking of heavy machinery.

Questions, comments, and concerns followed:

1. Follow-Up: Koike asked if the presenters would be willing to return for a follow-up presentation. Ruff responded in the affirmative.
2. Cable: A resident asked and Ruff explained that HAWAIIKI is installing a submarine cable along the Pacific that will connect the United States with Australia and increase internet reliability and speed along the line. HAWAIIKI plans to construct a landing station on Oahu. Cachola asked and Ruff responded that the HAWAIIKI cable will be "carrier-neutral", meaning that the data capacity will be sold to larger data companies.
3. Information: Cachola asked and Dixon responded that the EA will likely be published by late November 2016.

Chair Paaluhi exited the meeting at 8:28 p.m. Six (6) members were present. The gavel was passed to Vice-Chair Koike.

4. Community Benefit: Cachola asked and Ruff responded that the data capacity provided by the cable will allow the data providers to purchase capacity at a lower rate which could lead to lower costs for the consumers.
5. Other Cables: Endo asked and Ruff responded that there are various other submarine landing cables in the area. Endo asked why HAWAIIKI decided on the current plans as opposed to landing in the Makaha area. Ruff responded that the developers with HAWAIIKI may have been more cognizant of the possible environmental impacts.
6. Cables: Smith asked and Ruff responded that satellite laser communication will be open to the public by possibly 2026 and that there is currently a large performance gap between satellite and fiber-optic cable.
7. Landing Sites: Manaku encouraged HAWAIIKI to visit other possible landing sites. Resident Ed Burke asked and Koike responded that the cable landing will not be in the same area as the proposed off-shore windmill project.
8. Boring: Ruff responded that HAWAIIKI had conversations with Uncle Shad and that through cultural assessments they found that there are no iwi in the area.
9. Minutes: Manaku requested the committee minutes be made publicly available.

Pu'u Pahe'ehe'e Ridge Development – Resident Marie Lawen distributed a handout and gave an update on the Pu'u Pahe'ehe'e Ridge Development above Kawili Street. Lawen reported that the land was zoned preservation prior to 2015 and is now designated P-2. DPP issued a citation on the project due to grading being done without a permit. The workers cleaned out a blocked drainage but no restoration, debris removal, and revegetation was done. A letter was sent to Mayor Kirk Caldwell requesting his intervention but a response letter noted that the Mayor supports the development of a basil farm in the area. Lawen noted concerns that genetically modified organisms (GMOs) would be used. Lawen noted that DPP Director George Atta has not responded to recent questions. Kila noted that the property is on the mauka side of Leihoku Elementary school which was zoned preservation historically. The current lot is being allowed to be developed as a basil farm which will likely create dust issues. Kila circulated an image of excavation occurring in the area and noted concerns as to why a basil farm would require such excavation. Kila voiced concerns with the permitting violation and the lack of screens at the construction site.

Hawaii Bicycling League (HBL) – Hannah Neagle circulated a handout and reported the following:

- Flag Project: The flag project was implemented through HBL's "Vision Zero" program in response to the community's request for more traffic and pedestrian safety. The flag project is short-term and that possible long-term solutions that have been suggested are traffic cameras and traffic beacons.
- Leeward Bikeway: The path will be about 23 miles of off-road path on the mauka side of the railroad tracks running from Kapolei to Kahe Point Beach. The path will be separate from the roadways.
- Beyond Nanakuli: HBL is requesting a safe walking and ride path from Lualualei Roadway to Makaha. Plans have been mentioned since 1977. In 2016 House Concurrent Resolution (HCR) 169 passed and urged the Department of Transportation (HDOT) to start construction on the bike path before the end of 2016. The route will offer a safe route for children.
- Ownership: HBL would like to help the community with ownership of the Leeward Bikeway.

Questions, comments, and concerns followed:

1. Cost: Poe asked and Neagle answered that the project will be built in two (2) phases. Phase 1 has 80% federal and 20% local funding. Phase 2 does not have funding yet.
2. Parking: Smith asked if parking access will be impeded and suggested the bikeway be extended past Makaha.

3. Committee: Koike requested HBL make a presentation to the Transportation Committee.
4. Flag Program: Manaku stated the difficulty of seeing the crosswalk flags in the evenings especially when it is raining. Manaku urged the board to push for flashing lights at the crosswalks. Neagle responded that HBL would like to reach out and educate the community on how to properly utilize the flag program. Neagle noted that HBL is accepting donations that will be 100% used to fund the Waianae project.

COMMUNITY REPORTS

Board of Water Supply (BWS) – No representative was present; a report was provided.

U.S. Army Garrison – Colonel Tony Lugo reported the following:

- Lightning Forge 2016: Lightning Forge will run until November 26, 2016.
- Makua Cleanup: The Army Garrison is working with Protector of Paradise to do a cleanup. Around 15 to 20 soldiers will be participating in the cleanup.
- Parade: The 25th Infantry Band will participate in the Saturday, November 5, 2016 Waianae Veteran's Day Parade.

Questions, comments, and concerns followed: Thanks: Kila thanked the U.S. Army for providing water for the Kunia residents and community.

U.S. Navy – No representative was present; no report was provided.

Aha Moku Advisory Council (AMAC) – Hanale Hopfe thanked the Waianae Hawaiian Civic Club for the recent event at Makua. Hopfe thanked all the stakeholders for the cleanup at Makua and reported the following:

- Meeting: Hopfe noted that he will be present at the Wednesday, November 9, 2016 panel discussion regarding water rights in Waianae.
- Memorials: The memorials are currently being moved but the Department of Land and Natural Resources (DLNR) has not been doing it.

ELECTED OFFICIALS

Senator Maile Shimabukuro – Senator Shimabukuro circulated a handout and reported the following:

- Community Legislation: Three (3) pieces of legislation ideas were submitted to Senator Shimabukuro's office through the Waianae Neighborhood Board No. 24. The industrial hemp, legalizing raw milk, and education savings accounts resolutions were submitted.
- Contraflow: The contraflow is a temporary fix and is not scheduled to last in perpetuity. The contraflow project is only an interim solution while the left-turn lane project is being completed.
- Makaha Surfing Beach Update: The City has pushed the sand to prevent the deep drop-off from the parking lot. The Department of Facility Maintenance (DFM) has been contacted to address the request of pushing more sand from the Honolulu end of the beach to the Makaha end.
- Road Usage Charges (RUC): HDOT is experimenting with the possibility of utilizing the RUC method to address possible losses in the gas tax. Senator Shimabukuro noted that there are still many benefits for fuel-efficient vehicles.

Questions, comments, and concerns followed:

1. Educations Concerns: Endo noted supported Educations Savings Accounts and noted that teachers are distraught with the concept of paying more in RUC taxes due to their need to drive farther to get to and from work. Senator Shimabukuro responded that the people most affected will be at the opposite ends of the current gas tax meter.
2. RUC: Pakele stated opposition to paying the RUC tax as a single yearly payment. Senator Shimabukuro responded that the study regarding RUC is still ongoing.
3. HDOT Meeting: Koike asked if HDOT Deputy Director Ed Sniffen could be present in the community to discuss RUC. Senator Shimabukuro will follow up.

Board Member Kila left the meeting at 9:20 p.m. Five (5) members were present.

4. State Energy Goal: Poe asked and Senator Shimabukuro responded that the RUC is an attempt to address the shortfall of the gas tax from more fuel efficient vehicles.
5. Alternatives: Resident Kapua Keliikoa-Kamai asked if the administration would be doing more surveys

within the communities before suggesting tax changes. Senator Shimabukuro will follow up. Keliikoa-Kamai suggested the studies include various alternatives.

6. Noise Complaints: Carpenter voiced concern with continued noise pollution in the area.
7. Contraflow: Richard Landford requested the possible opening of the back roads to allow more of the eastbound drivers to access the roads that are currently difficult to access due to the prohibited left turns during contraflow hours.
8. Democratic Party: Keliikoa-Kamai stated disappointment with the Democratic Party's inability to uphold their bylaws in the recent elections. Various residents voiced both support and opposition.

Representative Tupola – Representative Tupola distributed a handout and reported the following:

- Waianae Protestant Church: The Waianae Protestant Church recently celebrated its 175th anniversary.
- RUC: Representative Tupola noted that very few states are currently testing the RUC model and suggested that the state wait before trying to implement the new tax.
- Traffic Flags: The entire community will need to help in educating the rest of the community in how to properly utilize the flag crossing program. Keliikoa-Kamai noted agreement with the concept of educating the community on how to use the flags.

Governor David Ige's Representative – DHHL Deputy Director William Aila circulated the Capitol Connections and reported the following:

- Homestead Lots: 44 lots were drawn in Waimanalo. Governor Ige drew the first name and stayed through the entire process.
- Capitol Connections Highlights: Deputy Aila highlighted articles relating to the development of Kalihi, HDOT issues with fuel tax and weight tax, and the honoring of the Teacher of the Year Finalist from Waianae Intermediate School, Luane Higuchi.

Questions, comments, and concerns followed:

1. DHHL Funding: Keliikoa-Kamai urged Governor Ige to support the full funding of DHHL and reiterated her concerns with the Democratic Party of Hawaii.
2. Education Superintendent: Endo asked and Director Aila responded that the Department of Education (DOE) Superintendent will not continue past the current contract expiration date and that an announcement regarding that is upcoming.

Councilmember Kimberly Pine – Kathy Davenport circulated a handout and reported the following:

- Boxing Gym: Councilmember Pine's Office will look into the board's request to rename the boxing facility in honor of Papa Fred Perreira.
- Grants in Aid (GIA): The GIA applications are currently available and are due by Monday, November 14, 2016.

The meeting adjourned at 9:55 p.m.

Submitted by: Relley Araceley, Public Relations Assistant

Reviewed by: Neil Baarde; Neighborhood Assistant II

Reviewed and Finalized by: