

**NEPA Action EA/EIS
Publication Form**

Project Name: Draft Environmental Assessment and Anticipated Finding of No Significant Impact for Proposed Electrical Renovations for US. Coast Guard Air Station Barbers Point

Island: O'ahu

District: 'Ewa

TMK: (1)9-1-013:031,(1)9-1-013:063,(1)9-1-013:064, and State of Hawaii DOT ROW

Permits: NPDES Permit, Permit to perform work in the State Right of Way

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Summary: The US Coast Guard proposes to renovate the electrical utility system for Air Station Barbers Point in Kalaeloa, O'ahu, Hawai'i. Renovations include installation of a transmission distribution system in the State of Hawai'i Department of Transportation right-of-way. The action is needed to respond to the Navy's planned disposition of the existing system that is past its life expectancy.

**DRAFT
ENVIRONMENTAL ASSESSMENT FOR
PROPOSED ELECTRICAL RENOVATIONS FOR
USCG AIR STATION BARBERS POINT**



UNITED STATES COAST GUARD
Facilities Design and Construction Center, Detachment Seattle
915 2nd Ave, Room 2664
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February 2019

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
AIS	Archaeological Inventory Survey
APE	area of potential effects
ASBP	Air Station Barbers Point
ASEF II	Aloha Solar Energy Fund II
BGS	below ground surface
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIA	Cultural Impact Assessment
CWA	Clean Water Act
CZM	Coastal Zone Management (State of Hawaii)
CZMA	Coastal Zone Management Act
dBA	decibel (A-weighted scale)
DOFAW	Division of Forestry and Wildlife, State of Hawaii Department of Land and Natural Resources
DOH	Department of Health, State of Hawaii
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HDD	horizontal directional drilling
HDOT	State of Hawaii Department of Transportation
HDPE	high-density polyethylene
HECO	Hawaiian Electric Company
HRHP	Hawai'i Register of Historic Places
HRS	Hawaii Revised Statutes
IPCC	Intergovernmental Panel on Climate Change
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAS	Naval Air Station
NEPA	National Environmental Policy Act

NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
OTEC	ocean thermal energy conversion
PV	photovoltaic
RLS	Reconnaissance Level Survey
ROW	right of way
SHPO	State Historic Preservation Officer
SLR	sea level rise
SMA	Special Management Area
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WQC	Water Quality Certification

CHAPTER 1

PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

The United States Coast Guard (USCG) proposes to renovate the electrical utility system for Air Station Barbers Point (ASBP) in Kalaeloa, O‘ahu, Hawaii (proposed action). Renovations include installation of a transmission distribution system in the State of Hawaii Department of Transportation (HDOT) right-of-way (ROW). The action is needed to respond to the Navy’s planned disposition of the existing system that is past its life expectancy.

The purpose of this document is to demonstrate the USCG’s compliance with the National Environmental Policy Act (NEPA). Because the action is not categorically excluded from further review, this NEPA environmental assessment (EA) is being prepared and the findings will be used by the USCG to determine one of the following outcomes:

- Issue a finding of no significant impact (FONSI).
- Prepare an environmental impact statement (EIS).
- Take no action.

This EA is being prepared in accordance with the NEPA, as amended (42 United States [U.S.] Code [U.S.C.], § 4321, et seq.); the Council on Environmental Quality (CEQ) regulations for implementing the procedural provision of NEPA (40 Code of Federal Regulations [CFR] §§ 1500–1508); Department of Homeland Security Management Directive 023-01-001-01, Revision 01; and the USCG’s implementing procedures for NEPA in Commandant Instruction M16475.1D.

1.2 BACKGROUND

The ASBP was first commissioned in 1948 on the former Naval Air Station (NAS) Barbers Point. Subsequent to base closure in July 1999, the area was recognized as Kalaeloa, as depicted on Figure 1-1. With the recent acquisitions of parcels A and D, the federally-owned ASBP is approximately 58 acres (Figure 1-1).

The existing electrical system is believed to have been installed when modernization of ASBP began in 1968. The approximately 50-year-old system exceeds the typical life expectancy of 35 to 45 years for such types of electrical cables installed in the 1970s and 1980s. When the NAS Barbers Point closed in July 1999, future electrical support became an issue of concern because (1) it was no longer in the Navy’s interest to support the long-term utility interests of ASBP, (2) the local utility, Hawaiian Electric Company (HECO), would not accept ownership of the distribution system because the system did not meet HECO standards, and (3) HECO could not access the duct banks/manholes within the airport area. The Naval Facilities Engineering Command is the current Navy entity responsible for supplying electricity from HECO using the Navy’s 1,700 linear feet of underground utility conduit between the north side of the Kalaeloa Airport and ASBP.



Figure 1-1: Location of Air Station Barbers Point (ASBP)

In 2011, the Navy informed the USCG that it was seeking to divest the former NAS Barbers Point electrical system, and that the USCG should work with the Hawaii Community Development Authority (HCDA) and HECO to pursue the development of a new electrical distribution system to supply ASBP. Since that time, the USCG has been actively exploring electrical improvement options. Studies were prepared and include the following:

- *Facility Condition Assessment USCG Air Station Barbers Point (ASBP), Kapolei, Hawaii* (Kai Hawaii 2013)
- *Feasibility Study for Air Station Barbers Point Electrical Utilities* (AECOM 2014)
- *Feasibility Study: Standalone Power System to Support U.S. Coast Guard Air Station Barbers Point Final Draft* (URS 2014)

The USCG's initial improvement proposal capitalized on the State's proposed Kalaeloa East Energy Corridor project, as described in the *Final Environmental Assessment Kalaeloa East Energy Corridor* (Belt Collins 2014). The USCG proposed to connect to the HECO grid via the State's proposed 15 kilovolt (kV) line at Tripoli Street and Coral Sea Road. After completing a NEPA categorical exclusion for this anticipated action in 2015, the USCG learned in 2016 that state funding for the Kalaeloa East Energy Corridor project had shifted to other redevelopment projects.

In 2016, the USCG reconsidered the findings from its 2014 feasibility studies and proposed a fully underground electrical distribution system along Coral Sea Road. During the USCG's contract negotiations for planning and design in July 2017, a private developer (Aloha Solar Energy Fund II [ASEF II], LLC) publicly released its proposal for a renewable energy project, including development of a transmission distribution system along most of the Coral Sea Road alignment that that USCG had proposed for use. Unfortunately, the timing and the proprietary nature of the private developer's proposal did not allow for a partnership with USCG. The private developer's project is, therefore, a separate and independent action that the USCG intends to use if the private developer's project meets the USCG's purpose and need. Should the private developer's proposal not meet the USCG's purpose and need, the USCG is evaluating the full installation of the transmission distribution infrastructure system along Coral Sea Road as a contingency (Option B) in this EA.

1.3 PURPOSE AND NEED

The purpose of the USCG's proposed action is to provide reliable and up-to-date electrical power to USCG ASBP. To meet the current and anticipated future electrical needs of ASBP, as documented in the *Feasibility Study for Air Station Barbers Point Electrical Utilities* (AECOM 2014), electrical objectives include:

- Provide an estimated connected load at ASBP of 2100 kilowatts, which would require a distribution voltage of 12.47 kV.
- Design and install a system that would be supported by HECO.

The proposed action is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that is past its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest

its interest at NAS Barbers Point, the Navy has not improved the lines, and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines (one of which has already failed) that run beneath the Kalaeloa Airport. The imminent loss of the Navy's limited maintenance, in addition to the overriding risk of the unreliable electrical distribution system, was underscored in 2011 when the Navy informed the USCG that it was seeking to divest the former NAS Barbers Point electrical system and that the USCG should work with HCDA and HECO to pursue the development of a new future electrical distribution system to ASBP. Presently, the Navy is in the process of disposing of its electrical system (and other utilities) through the General Services Administration.

Reliable electrical power is needed to ensure that the USCG ASBP can continue to fulfill its mission of maritime security, enforcement of the Maritime Transportation Security Act of 2002, maritime safety, protection of natural resources and fisheries, and search and rescue. Its presence enhances readiness with long-range patrol (e.g., HC-130 aircraft) and logistical support capabilities, as well as quick and versatile search and rescue response. The ASBP is part of the USCG's Fourteenth District, which is commissioned to protect 12.2 million square miles of open ocean, atolls, and island nations.

1.4 SUMMARY OF KEY ENVIRONMENTAL ASSESSMENT REQUIREMENTS

This EA is being prepared in accordance with the NEPA, as amended (42 U.S.C. § 4321, et seq.); the CEQ regulations for implementing the procedural provision of NEPA (40 CFR §§ 1500–1508); Department of Homeland Security Management Directive 023-01-001-01, Revision 01; and the USCG's Commandant Instruction M16475.1D, *National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts*. These requirements include the review of special areas of considerations and, in the case of this proposed action, which involves the use of the both federal and state lands, the consideration of multiple levels of government authorities and approvals. A summary of requirements associated with this EA is provided as follows.

1.4.1 National Environmental Policy Act (NEPA)

NEPA requires that federal agencies consider potential environmental consequences of their proposed actions. The law's intent is to protect, restore, or enhance the environment through well-informed federal decisions. Because the proposed action is not categorically excluded from further review, this EA is being prepared in accordance with the NEPA.

1.4.2 Clean Air Act (CAA) and Conformity Requirements

The Clean Air Act (CAA) (42 U.S.C. §§ 7401–7671, as amended) provided the authority for the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. Pursuant to the CAA and amendments, state-operated permit programs serve to control emissions. In Hawaii, the operating permit program is implemented by the State of Hawaii Department of Health (DOH), and emissions of regulated air pollutants within the State may be subject to permitting as required under Hawaii Administrative Rules (HAR) 11-60.1.

Federal conformity rules require federal agencies to determine whether their proposed projects conform to an applicable federal or state implementation plan, which are intended to maintain and

improve air quality and reduce air quality violations. Conformity rules apply only in non-attainment and maintenance areas. Because the State of Hawaii is in attainment of the NAAQS, these rules do not apply.

1.4.3 Clean Water Act (CWA)

The Clean Water Act (CWA) of 1977 (33 U.S.C. § 1251 et seq.) regulates water pollutant discharges that could affect aquatic life forms or human health and safety. Section 402 requires a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges, which include storm water discharges associated with construction activities (disturbing equal to or greater than 1 acre of land) and dewatering activities. The construction contractor will be required to obtain a NPDES storm water permit for construction and dewatering activities.

No navigable waters would be affected by the proposed action. Therefore, the provisions of CWA Section 404, which requires a Department of the Army permit for the discharge of dredged or fill material into Waters of the United States, and CWA Section 401 Water Quality Certification (WQC), which enables the states the opportunity to protect their waters, are not applicable.

1.4.4 National Historic Preservation Act (NHPA)

The National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470, as amended), recognizes the nation's historic heritage and establishes a national policy for the evaluation and preservation of historic properties as well as the creation of the National Register of Historic Places (NRHP), which is the federal government's official list of districts, sites, buildings, structures, and objects deemed worthy of preservation for their historical significance. Section 106 of NHPA requires federal agencies to consider the effects of federal undertakings on historic properties within the project area of potential effects (APE) and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on actions that result in "adverse effect" determinations. As defined in 36 CFR Part 800, the Section 106 process provides for the identification and evaluation of historic properties, determination of the effects of undertakings on such properties, and development of resolving adverse effects with the State Historic Preservation Officer (SHPO) and other NHPA consulting parties.

1.4.5 Native American Graves Protection and Repatriation Act and American Indian Religious Freedom Act

The Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. §§ 3001–3013) requires federal agencies to consult with Native American Tribes and Native Hawaiian organizations prior to excavation or removal of human remains and certain objects of cultural importance. The American Indian Religious Freedom Act (AIRFA) of 1996 (42 U.S.C. § 1996) protects and preserves the right of freedom to believe, express, and exercise the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and Native Hawaiians. Rights granted to these groups include the right to access sacred sites, freedom to worship through ceremonial and traditional rites, and use and possession of objects considered sacred. Under AIRFA, federal agencies are required to accommodate access to and use of religious sites to the extent that the use is practicable and consistent with the federal agency's functions.

1.4.6 Endangered Species Act (ESA) Section 7

The Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531–1544, as amended) establishes a process for identifying and listing threatened and endangered species. It provides measures for the protection of plant and animal species that are federally listed as threatened or endangered, and for the conservation of habitats that are critical to the continued existence of those species. Section 7 of the act requires consultations with federal wildlife management agencies, U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA) on actions that may affect threatened or endangered species, or their designated critical habitat.

1.4.7 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. §§ 703–712, as amended) governs and implements a bilateral treaty with Canada, Mexico, Japan, and Russia to protect migratory birds. The act makes it unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg of any such bird, unless authorized by a permit issued by the Secretary of the U.S. Department of the Interior.

1.4.8 Coastal Zone Management Act (CZMA) – Federal Consistency

The federal Coastal Zone Management Act (CZMA), Section 307, requires federal agency activities and development projects affecting any coastal use or resource to be undertaken in a manner consistent to the maximum extent practicable with the State of Hawaii Coastal Zone Management (CZM) program. The CZMA Federal Consistency provision ensures that federal agencies cannot act without regard for, or in conflict with, state policies that have been officially incorporated into a state’s CZM program. Federal actions affecting any coastal use or resource must be reviewed by the State CZM program to ensure that proposed activities are consistent with state enforceable policies. The Federal Consistency procedures and requirements are established in 15 CFR 930. The USCG’s proposed action (on both federal and state land) and applicability to the CZMA and Hawaii’s program is presented in Section 3.2.1.

1.4.9 Hawaii Revised Statutes (HRS) Chapter 343

Hawaii Revised Statutes (HRS) Chapter 343, *Environmental Impact Statements*, establishes a system of environmental review to ensure that environmental concerns are given appropriate consideration in decision-making, along with economic and technical considerations. Nine types of actions require the application and processing of a Hawaii Environmental Policy Act (HEPA) environmental review. Pursuant to HAR Section 11-200-8(a), the HDOT has determined several classes of actions shall generally be exempt from the requirement to prepare a State EA under HRS Chapter 343. The proposed action, where it is located within the DOT ROW, falls into DOT Exemption Class 3. Specifically, this exemption is for utility service connection and installation along and across state highway or roads, and in airports and harbors. Without a finding of significant effect on protected resources such as those eligible or listed on the NRHP, no requirement for a HRS Chapter 343 EA or EIS has been identified from the USCG’s early consultation.

1.4.10 Special Management Area (SMA)

The Special Management Area (SMA) permit process was established in 1975 by the State of Hawaii with the enactment of Act 176, known as the Shoreline Protection Act. The legislature found that

special controls on developments within the designated SMA along the shoreline were necessary to avoid permanent loss of valuable shoreline resources. The SMA permit is a management tool to assure that uses, activities, or operations on land, or in or under water within an SMA, are designed and carried out in compliance with the CZM objectives and policies and SMA guidelines. Pursuant to HRS §206E-8.5, all requests for developments within an SMA for developments in the Kalaeloa Community Development District shall be submitted to and reviewed by the State Office of Planning. For interagency coordination purposes, the SMA intersects with the proposed action on Coral Sea Road (as shown on Figure 1-2). SMA permitting is not applicable to this federal proposed action.

1.4.11 Applicable Executive Orders

1.4.11.1 EO 11514 PROTECTION AND ENHANCEMENT OF ENVIRONMENTAL QUALITY

Executive Order (EO) 11514 was established to provide federal leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life. EO 11514 directs the federal government to initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals.

1.4.11.2 EO 11988 FLOODPLAIN MANAGEMENT, AS REVISED BY EO 13690 ESTABLISHING A FEDERAL FLOOD RISK MANAGEMENT STANDARD AND A PROCESS FOR FURTHER SOLICITING AND CONSIDERING STAKEHOLDER INPUT

EO 11988 requires federal agencies to take action to consider the proximity of their actions to or within floodplains, and further requires the agency to reduce the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural beneficial values served by floodplains when implementing the proposed action.

1.4.11.3 EO 13112 INVASIVE SPECIES

EO 13112 directs federal agencies to not authorize, fund, or carry out actions that are likely to cause or promote the introduction of invasive species in the U.S. or elsewhere. EO 13112 is applicable unless the agency has determined and made public its determination that the benefits of such actions clearly outweigh the harms caused by invasive species, and that all feasible and prudent measures to minimize the risk of harm will be taken in conjunction with the actions.

1.4.11.4 EO 12989 FEDERAL ACTIONS TO ADDRESS ENVIRONMENTAL JUSTICE IN MINORITY POPULATIONS AND LOW-INCOME POPULATIONS

EO 12989 directs federal agencies to identify and address adverse human health or environmental effects of their actions on minority and low-income populations and directs agencies to develop a strategy for implementing environmental justice.



Figure 1-2: Special Management Area

1.4.11.5 EO 11593 PROTECTION AND ENHANCEMENT OF THE CULTURAL ENVIRONMENT

EO 11593 directs the federal government to preserve, restore, and maintain the historic and cultural environment of the Nation. Federal Agencies shall administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations, (2) initiate measures necessary to direct their policies, plans, and programs in such a way that federally owned sites, structures, and objects of historical, architectural, or archaeological significance are preserved, restored, and maintained for the inspiration and benefit of the people, and (3) in consultation with the ACHP (16 U.S.C. § 470i), institute procedures to assure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance.

CHAPTER 2

PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The USCG proposes to renovate the aging Navy underground electrical distribution system servicing ASBP. This includes (1) replacing the existing substandard distribution voltage of 4.160 kV with 12.47 kV on ASBP and (2) installing a new transmission distribution system to connect the ASBP to the HECO island-wide grid. Activities on ASBP are schematically shown on Figure 2-1 and would include:

- Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers).
- Replacement of the existing 4.16 kV distribution system, which does not meet HECO standards, with a 12.47 kV distribution system, which will meet HECO standards.
- Replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would comply with HECO requirements and consist of a 12.47 kV distribution system. Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO standards and requirements. Such standards and requirements address the seismic zone, risk for flooding, presence in a tsunami inundation zone, and full immersion in water, among others. All infrastructure would be installed by USCG by its contractor, anticipated to be HECO. Once installed and deemed to meet HECO approval, infrastructure ownership will be conveyed from USCG to HECO. Thereafter, HECO would install the electrical cables in concrete-encased ducts with open trenches or high-density polyethylene (HDPE) pipe casing with horizontal directional drilling (HDD) and pad-mounted transformers.

The proposed action consists of two options. Option A represents the case in which the private developer's (ASEF II, LLC) proposed 12kV distribution system would be developed in time to meet the USCG's purpose and need. Option B represents the case in which the private developer's proposed 12kV distribution system would not be developed in time to meet the USCG's purpose and need.

Both options propose the similar activities on ASBP and within the HDOT's existing Coral Sea Road ROW between ASBP and the proposed Aloha Solar facility (Figure 2-2). Option B includes Option A, plus an electrical distribution system length of approximately 9,660 feet (1.8 miles) toward Roosevelt Avenue.

Option A. This option includes the installation of a new 12 kV underground infrastructure system within the HDOT's existing ROW along Coral Sea Road between ASBP and the proposed new 12 kV distribution line associated with the proposed new solar power facility south of Tripoli Road (Figure 2-2). The approximate length of this segment within the HDOT ROW is 4,840 feet (0.9 miles).

Option A is contingent on the timing and successful installation of the proposed new 12 kV distribution line being proposed by a private developer. The overall plan is presented in Appendix A. This separate and independent action was identified in July 2017 when the private developer published its EA in the State Office of Environmental Quality's *The Environmental Notice*. Details of this separate and independent action are documented in the *Final Environmental Assessment for the Aloha Solar Energy Fund II – Kalaeloa* (G70 2017).

Option B. This option includes the installation of a new 12kV combined underground and overhead infrastructure system within the HDOT's existing ROW along Coral Sea Road between ASBP and an existing HECO service manhole just south of Roosevelt Avenue (Figure 2-2). The approximate length of this segment within the HDOT ROW is 14,500 feet (2.7 miles). Option B would be implemented should the Aloha Solar proposal not meet the USCG's timing or requirements.

The overhead distribution system is designed and will be installed to avoid existing electrical poles and lines. HECO has indicated that should Option B be implemented, it would use 60-foot long poles, installed to a depth of approximately 8 feet below ground surface. At 52 feet above ground surface, the poles can be installed within the ROW to avoid conflicts with the existing overhead distribution system that is approximately 40 feet above ground surface.

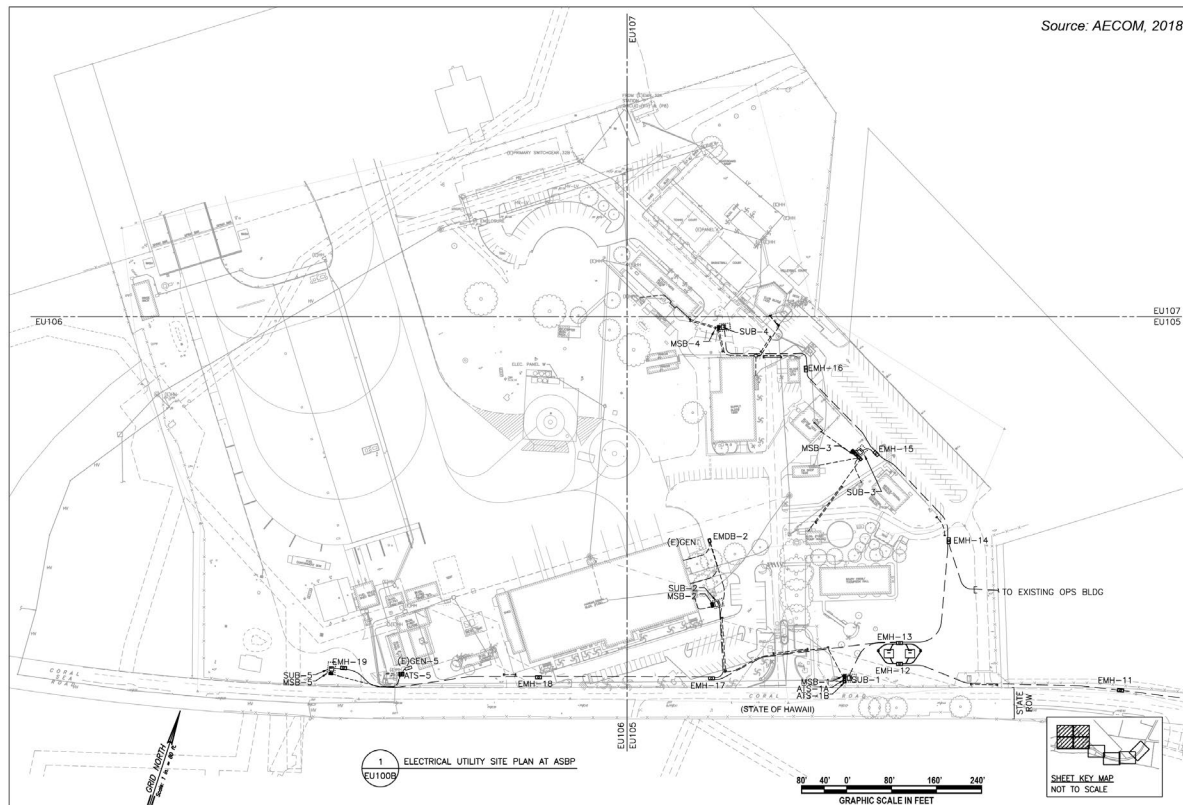


Figure 2-1: Proposed Action – On-site Improvements

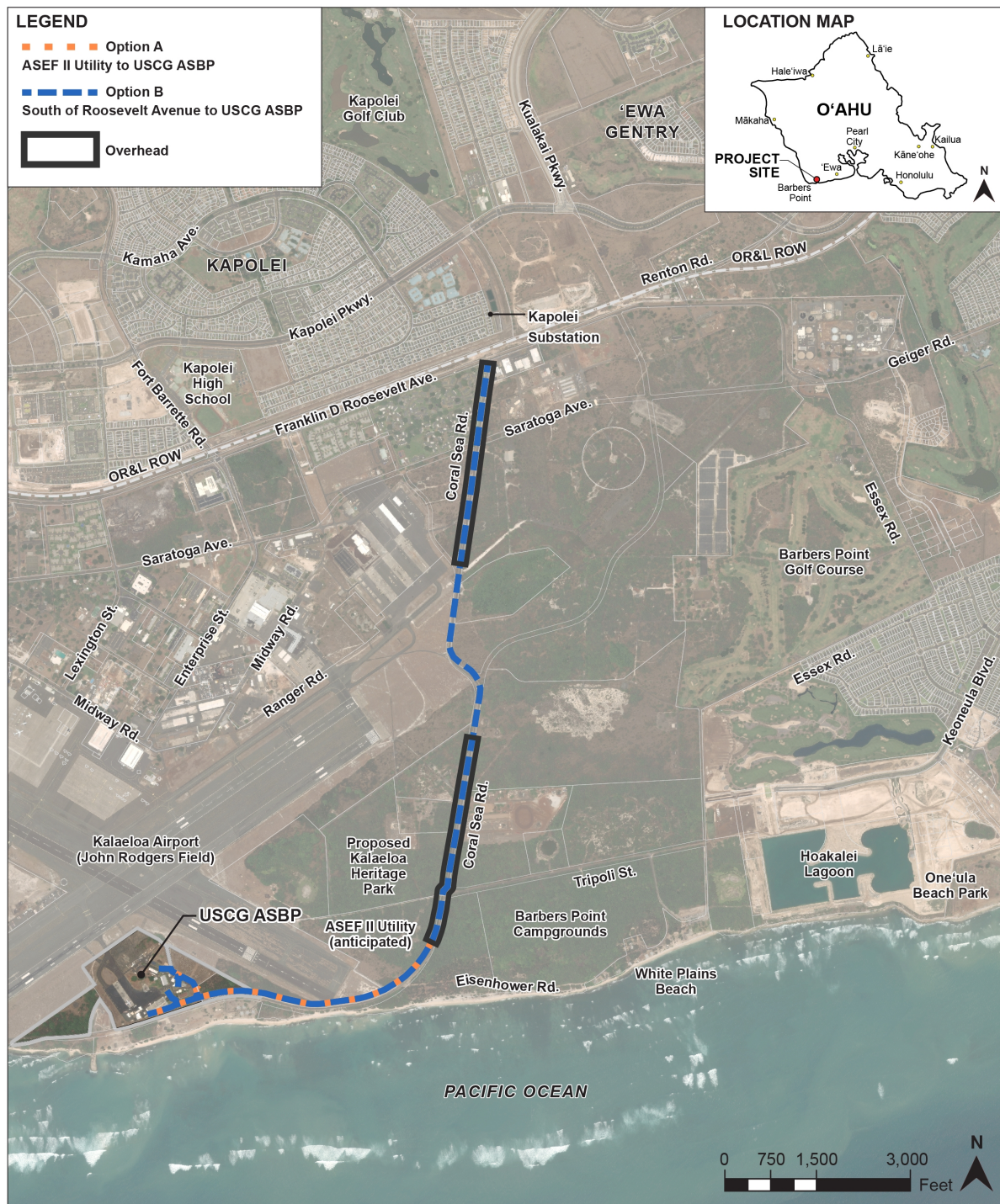


Figure 2-2: Proposed Action – Coral Sea Road

2.1.1 Construction Activities

Open trenching and/or HDD would be used to install the underground infrastructure both on and off the ASBP. With open trenching, infrastructure would be installed at approximately 3 to 6 feet below ground surface (BGS) and concrete-encased ducts would be used. Maximum height for construction equipment is estimated at 20 feet. Typical equipment is listed in Table 2-1.

Typical construction equipment associated with HDD is listed in Table 2-1. Equipment could include a small to medium drill rig that would need an area of approximately 12 feet by 100 feet, and HDPE that would need an area near the exit pits of at least the length of the HDPE and sufficient width for assemblage. Additional areas would be needed to accommodate the control unit with a power plant, mud mixing truck, vacuum extractor truck for mud removal, roller to lay the assembled duct line prior to installation, crane, excavator, and dumpster or dump truck. With HDD, the infrastructure would be installed at least to the depth of open trenches to approximately 20 feet BGS, depending on various factors such as soil conditions, anticipated heat dissipation, bends, and known obstacles. HDD can be used to avoid known obstructions and sensitive areas below the ground surface. A crane and excavator would be used to install underground vaults. Maximum height for construction equipment is estimated at 70 feet.

HDD involves the use of a drill rig with an electronically guided drill head that is guided from a predetermined entrance pit to a predetermined exit pit, following a programmed slope and depth profile. The drilling process involves use of a bentonite mud slurry to keep the drill head lubricated and the borehole open, so proper water management would be required. Additional passes would be used to obtain the desired borehole size. At the exit pit, a HDPE casing would be assembled and pulled back through the borehole toward the entrance pit. Because HECO requires vaults every 500 feet, the length between each entry and exit pit is not expected to exceed 500 feet.

Installation of overhead lines would involve the installation of wood poles with a boom truck. With an installed pole height of approximately 52 feet above ground surface, maximum height for construction is estimated at 60 feet. The poles would be installed at approximately 8 feet BGS.

The construction equipment staging and laydown areas would be limited to areas on ASBP and the exiting ROW.

Table 2-1: Typical Construction Equipment

Activity	Typical Equipment
Concrete-encased duct construction and installation (open trenching)	Backhoe, crane, ready-mix concrete trucks, dump truck
Manhole installation (open trenching)	Pre-cast manholes, excavating equipment, dump truck, crane
Vault installation (open trenching)	Pre-made vaults, excavating equipment, dump truck, crane
Borehole construction and HDPE installation (HDD)	Drill rig, control unit with a power plant, mud mixing truck, vacuum extractor truck for mud removal, roller for HDPE, crane, and dumpster/dump truck

2.1.2 Operational Activities

The proposed action would provide electrical infrastructure to meet HECO's standards and therefore reliable and long-term service to ASBP. The reliable firm-power will allow the USCG ASBP to fulfill its mission of maritime security, enforcement of the Maritime Transportation Security Act of 2002, maritime safety, protection of natural resources and fisheries, and Search and Rescue.

2.2 ALTERNATIVES

2.2.1 No Action

The no action alternative provides a baseline condition for comparison to the potential effects from the proposed action. No action involves continued use of the existing aged 4.16kV Navy electrical lines that run beneath the Kalaeloa Airport, will eventually fail, and will result in a power loss to ASBP. The no action alternative is not a reasonable alternative for the operational USCG facility.

2.2.2 Alternatives Considered and Eliminated from Further Evaluation

A range of alternatives were evaluated and included the use of the existing HECO island-wide grid with new power lines (both above- and belowground) and various alignments; renewable power generation such as photovoltaics (PV) and ocean thermal energy conversion (OTEC); on-site fossil-fuel power generation (diesel generators or microturbines); a combination of on-site fossil-fuel and renewable power generation; and microgrids (on-site fossil-fuel and renewable power generation with storage). With the nearby presence of the Kalaeloa Airport, an all aboveground power line alternative was not feasible or prudent. Many alternatives were eliminated from further consideration because they did not meet the purpose and need, or they were not feasible or prudent. Alternatives considered and eliminated from further evaluation are summarized from the following documents:

- *Feasibility Study for Air Station Barbers Point Electrical Utilities* (AECOM 2014)
- *Feasibility Study: Standalone Power System to Support U.S. Coast Guard Air Station Barbers Point Final Draft* (URS 2014)
- *Memorandum from Steven F. Osgood, CAPT, CG CEU OAKLAND to COMDT (CG-43) on the Subject of Addendum and Executive Summary for DD 1391 (PP): Improve Utility Infrastructure at Air Station Barber's Point (ASBP) (SFRL#14-2719127)* (USCG 2017)

Replace In-Kind (belowground)

The replacement of existing power lines beneath the Kalaeloa Airport would require negotiation for ownership with HECO. Installation of the new lines under runways would also require negotiation with HDOT for access. For these reasons, this alternative was not further considered.

Use of Existing HECO Island-wide Grid with New Power Lines along Eisenhower Road (above- and belowground power lines)

This alternative was the costliest of all alternatives because of the length of the line and the circuitous route around Eisenhower Road. It would involve the use of belowground power lines that respect airport operations and temporary aboveground power lines that would eventually be replaced

with underground lines. Because this alternative was dependent on the then-proposed East Kalaheo Energy Corridor project, which was never funded, this alternative was not further considered.

Use of Existing HECO Island-wide Grid with New Power Lines along Saratoga Street (above and belowground + belowground)

Considering comparable costs to the USCG relative to the proposed action, these alternatives—(a) above and belowground and (b) belowground—were not selected for the following reason: the HDOT Airports Division is unlikely to approve these routes beneath the runways.

Use of Existing HECO Island-wide Grid with New Power Lines along Saratoga Street (belowground) + Future Development near the Kamokila Boulevard Extension and North of Roosevelt Avenue (belowground)

Considering comparable costs to the USCG relative to the proposed action, this alternative was not selected for the following reason: this alternative would be dependent on other entities' infrastructure, such as HCDA or other Kalaheo developers.

On-site Renewable Power Generation

None of the on-site renewable power generation alternatives, e.g., PV and wind, meet the USCG's purpose and need, unless coupled with one of the other firm-power sources (e.g., power lines connected to the existing HECO island-wide grid). Renewable power alone cannot provide the USCG the reliable power that it needs, and USCG resources would be required to operate and maintain the system. Additionally, on-site renewable power generation could be at risk during natural disasters, such as tsunamis, that can destroy such systems. For these reasons, this alternative was not further considered.

On-site Diesel-powered Generation

On-site diesel-powered generation cannot provide the USCG the reliable power that it needs, and USCG resources would be required to operate and maintain the system. Additionally, on-site diesel-powered generation could be at risk during natural disasters, such as tsunamis, that can destroy such systems. For these reasons, this alternative was not further considered.

On-site Diesel-powered Generation with On-site Renewable Power Generation

On-site diesel-powered generation with renewable power generation cannot provide the USCG the reliable power that it needs, and USCG resources would be required to operate and maintain the system. Additionally, on-site diesel-powered generation with renewable power generation could be at risk during natural disasters, such as tsunamis, that can destroy such systems. For these reasons, this alternative was not further considered.

On-site Microturbine with On-site Renewable Power Generation (PV)

While microturbines require extremely low maintenance compared to generators, the on-site microturbine with renewable power generation system cannot provide the USCG the reliable power that it needs, and USCG resources would be required to operate and maintain the system. Additionally, on-site microturbine with renewable power generation could be at risk during natural

disasters, such as tsunamis, that can destroy such systems. For these reasons, this alternative was not further considered.

2.3 MANAGEMENT MEASURES

The proposed action presumes use of management measures that include standard best management practices (BMPs), standard operating procedures, and conservation measures that would serve to avoid or minimize potential impacts. Management measures can include those required under the CWA Section 402 NPDES permits for construction stormwater, HAR 11-60.1-33 for control of fugitive dust, traffic controls as required for work in the State ROW, and HAR 11-46 for control of noise. Management measures, e.g., protective barrier fencing, proposed under the USCG's NHPA Section 106 consultation with the SHPD and other consulting parties will be made part of the proposed action with SHPD concurrence, along with avoidance and minimization measures resulting from the USCG's ESA Section 7 consultation with USFWS (Section 3.6.2).

Additionally, the USCG acknowledges the concern of the State of Hawaii Department of Land and Natural Resources Division of Forestry and Wildlife (DOFAW) for the state endangered Hawaiian short-eared owl or Pueo and will require preconstruction twilight surveys should clearing be needed in the following types of vegetation cover: non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub. If nests are present, DOFAW will be notified and a buffer zone will be established in which no clearing would occur until nesting ceases and chicks have fledged. To prevent any potential impact on the Pueo, barbed wire fencing will not be used in this proposed action (Section 3.6.2).

CHAPTER 3

AFFECTED ENVIRONMENT AND POTENTIAL ENVIRONMENTAL CONSEQUENCES

3.1 PRELIMINARY ANALYSIS OF RESOURCES

This EA identifies potential environmental consequences associated with implementing the USCG's utilities improvement project for ASBP. Existing documents were reviewed to identify resources in the area and the likely potential for impact with the USCG's proposed action. These documents were also reviewed for any controversy on environmental grounds, properties protected under NHPA Section 106, and inconsistencies with any Federal, State, or other local law or administrative determination relating to the environment. These documents include:

- *Final Environmental Assessment for the Aloha Solar Energy Fund II – Kalaeloa* (G70 2017)
- *Environmental Assessment Kalaeloa Renewable Energy Park* (Commander, Navy Region Hawaii 2012)
- *Final Environmental Assessment Kalaeloa East Energy Corridor* (Belt Collins 2014)
- *Final Environmental Impact Statement for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii* (DON 1999)

Table 3-1 identifies resources and issues based on the above documents and any input from early consultation described in Section 5.1. The table summarizes the proposed action with the consideration(s) used to determine whether further evaluation is needed to evaluate potential for significant environmental impact or controversy. For the resources or issues in which further evaluation is needed, the section of the EA that addresses the resource or issue is identified. For those resources/issues anticipated to incur either negligible or no environmental impact or controversy, no further examination is required under the NEPA.

Resources and issues not needing further evaluation: Air Quality; Topography, Soils, & Geology; Groundwater, Surface Water (including wetlands), & Drainage; Noise; Visual Resources; Traffic, Comprehensive Environmental Response, Compensation, and Liability Act/Hazardous Building Materials; Natural Hazards; and Public Services.

Resources and issues to be further evaluated:

- Land Use
- Utilities and Infrastructure (electrical, telecommunications, water, wastewater)
- Archaeology and Traditional Cultural Practices
- Historic Structures
- Biological Resources
- Navigable Airspace
- Socioeconomics (EO for Environmental Justice)

For each of these resources, potential direct, indirect, and cumulative impacts are evaluated in the subsequent section of this chapter. Direct effects are those caused by the action and occur at the same time and place. Indirect effects are those caused by the action and occur later in time or are farther removed in distance, but are reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural systems, including ecosystems (40 CFR Part 1508.8).

Table 3-1: Resources/Issues Considered for Further Evaluation

Resource/Issue	Consideration(s) Used to Determine Need for Further Evaluation	Section for Further Evaluation
Air Quality	No significant impact anticipated. Construction-related air quality impacts of the proposed action would be temporary and comply with applicable regulations for fugitive dust control, e.g., HAR 11-60.1-33. The electricity used to support ASBP's needs would support existing demand. Future demand would continue to be supplied by the island-wide grid and its generators. No significant impact to air quality would occur from this additional generation because stationary source permits prohibit emissions that exceed National and State Ambient Air Quality Standards.	No further evaluation needed.
Topography, Soils, & Geology	No significant impact anticipated. Construction related earthmoving impacts affecting topography, soils, and geology associated with excavation and drilling would be temporary. No change in grades or slopes would occur. Best management practices to include use of clean fill should contaminated soils be encountered would be used. After excavation and drilling, voids would be backfilled with existing soils or clean soil (should contaminated soils be encountered).	No further evaluation needed.
Groundwater, Surface Water (including wetlands), & Drainage	No significant impact anticipated. Best management measures would be implemented for open trenching and drilling in groundwater. Designs and construction methods would account for this anticipated occurrence. As there are no surface water bodies, including wetlands, in the project area, and best management practices to contain construction storm water within the working area will be required, no impact to surface water outside of the project area would occur. No impact on drainage would occur as the proposed action would be designed to account for existing drainage and requirements and no change to the existing topography would occur.	No further evaluation needed.

Resource/Issue	Consideration(s) Used to Determine Need for Further Evaluation	Section for Further Evaluation
Noise	<p>No significant impact anticipated. Temporary noise is expected to occur from earth-moving equipment, drill rigs, heavy-duty vehicles, and on-site generators and would be managed to minimize noise near residential areas.</p> <p>HAR Title 11 Chapter 46 (HAR 11-46) defines maximum permissible sound levels and provides for protection, control, and abatement of noise pollution from stationary sources and agricultural, construction, and industrial equipment. It establishes maximum permissible sound levels for excessive noise sources. Typical noise levels of construction equipment can range from 80 to 95 A-weighted decibels (dBA) at 50 feet. Drilling equipment can exceed 100 dBA. Considering that seven housing complexes are within 50 feet from Coral Sea Road, a noise permit or variance from the DOH would be required, along with abatement. Any noise abatement, such as a noise attenuating barrier, must be placed within the ROW, within the APE evaluated under the NHPA Section 106 consultation process and HRS Chapter 6E for cultural resources.</p> <p>Construction activities would be limited to the daytime period between 7 a.m. to 6 p.m., in accordance with either a Permit to Perform Work Upon State Highways, authorized by HDOT, or the noise permit or variance from the DOH. No nighttime construction work would occur.</p> <p>Any noise generated in the electrical line during the operational phase would be negligible.</p>	No further evaluation needed.
Visual	<p>No significant impact anticipated. Other than the temporary construction activities, no visual impact would occur from the fully undergrounded system in Option A. Under Option B, the overhead utility poles and electrical lines would not affect significant scenic views to the shoreline.</p>	No further evaluation needed.

Resource/Issue	Consideration(s) Used to Determine Need for Further Evaluation	Section for Further Evaluation
Land Use	The proposed action would include the utility improvements on the ASBP, owned by the United States, and a distribution system that would supply electricity in an existing ROW, owned by the HDOT. Use of federal-owned and state-owned properties would be consistent with and supportive of land use policies and development plans. Because of the multiple levels of government potentially affected by the proposed action and the questions raised during early consultation, applicable land use requirements are identified. As requested during early consultation (Section 5.1), the evaluations of the following are provided: the effect on any uses and/or resources of the State of Hawaii CZM area, pursuant to 15 CFR 930, and demonstration of the consistency of the proposed action with the O‘ahu General Plan, ‘Ewa Development Plan, and the Kalaeloa Community Development District’s Kalaeloa Master Plan.	Section 3.2.
Utilities and Infrastructure (electrical, telecommunications, water, wastewater)	The proposed action would be designed to avoid existing utilities and infrastructure. Option B would be designed to avoid existing Navy utility poles. Utilities improvements need to consider ownership, approvals, and maintenance. As an example, HECO requires a formal service request from USCG with load and schedule information. This request was submitted on by USCG to HECO on August 4, 2017.	Section 3.3.
Traffic	No significant traffic impacts are anticipated on the lightly used Coral Sea Road from temporary construction activities. In accordance with HDOT construction permit requirements, a traffic control plan will be prepared and approved by HDOT. This plan will prevent significant impacts on traffic from occurring. All construction staging, equipment, and parking will be limited to the existing ROW.	No further evaluation needed.

Resource/Issue	Consideration(s) Used to Determine Need for Further Evaluation		Section for Further Evaluation
Cultural Resources	Archaeological Resources and Traditional Cultural Practices	Based on the cultural history and past archaeological assessments in the project area, further evaluation of the proposed action is needed to identify the potential for significant impacts on archaeological resources and traditional cultural practices. As identified as a concern in early consultation (Chapter 5), the O‘ahu Railway & Land would not be affected as it is located north of the proposed action and outside of the USCG’s APE.	Section 3.4.
	Historic Structures	Based on the potential for historic structures (those 50 years or older) in the project area, further evaluation of the proposed action was conducted to identify the potential for significant impacts on historic structures.	Section 3.4.
Biological Resources	Based on past biological surveys in the project area and input received from the DLNR Division of Forestry and Wildlife during early consultation, further evaluation of the proposed action was conducted to identify the potential for significant impacts on biological resources.		Section 3.6.
CERCLA/Hazardous Building Materials	No significant impact anticipated. Based on the past use of the area and the Navy’s environmental baseline surveys to address the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), construction activities are not expected to encounter CERCLA or hazardous building materials. However, should contaminated soils be encountered, HECO’s construction best management practices to include appropriate evaluation and disposition, and use of clean backfill, would be used.		No further evaluation needed.

Resource/Issue	Consideration(s) Used to Determine Need for Further Evaluation	Section for Further Evaluation
Natural Hazards	No significant impact anticipated. The proposed action is in a tsunami inundation zone and located in Flood Zone D—unstudied area where flood hazards are undetermined, but flooding is possible, and abuts Zone VE—coastal flood zone with velocity hazard. The proposed action will be designed in accordance with HECO standards and requirements that require the consideration of the project area’s seismic zone, risk for flooding (FEMA), and presence in the tsunami inundation zone.	No further evaluation needed.
Climate Change and Sea Level Rise	Based on sea level projections recognized by the State of Hawaii and the requests during early consultation (Section 5.1) for plans to address sea level rise due to climate change on the proposed underground distribution system, further evaluation of the proposed action was conducted to identify the potential for significant impacts from sea level rise.	Section 3.7.
Navigable Airspace	Based on the proximity of the Kalaeloa Airport in the project area, further evaluation of the proposed action was conducted to avoid conflicts with construction equipment and the proposed aboveground distribution system with navigable airspace.	Section 3.8.
Socioeconomics	The electrical transmission distribution system in the Coral Sea Road ROW would provide beneficial impacts, should it be used in separate future actions by others in the Kalaeloa area. Land along the alignments is proposed for conveyance to the City for future park development.	Section 3.9.
Public Services	No significant impact anticipated. The proposed action will not affect public services in the foreseeable future.	No further evaluation.

3.2 LAND USE

The proposed action involves federal-owned and state-owned land in the former NAS Barbers Point, now referred to as Kalaeloa. The ASBP is owned by the United States. The ROW for Coral Sea Road is solely owned by the State of Hawaii. Surrounding parcels in the proposed action alignment are owned by the United States and State of Hawaii. Land ownership is illustrated on Figure 3-1. Land use and land use controls are further discussed below.

3.2.1 Affected Environment

The proposed action involves federal-owned and state-owned land in the former NAS Barbers Point, now referred to as Kalaeloa. The various federal, state, and county land use requirements that need to be considered by the USCG and other agencies providing authorizations for the USCG's proposed action are described in detail below.

3.2.1.1 FEDERAL

Coastal Zone Management Act

The entire State of Hawaii is included in the CZMA Program Area; however, federally owned or controlled areas such as ASBP are excluded. The federal CZMA requires that when a federal agency undertakes an action in the coastal zone, or an action on federal property that may affect resources in the coastal zone, the activities must be consistent to the maximum extent practicable with State CZMA programs. Because this project involves both federal-owned and state-owned properties, the CZMA includes different applicable procedures. For federally owned properties, if no impact on coastal resources would occur, a Negative Declaration would be filed in accordance with the federal agency's procedures; if an effect is anticipated, the federal proponent would complete a CZMA Federal Consistency review through the State Office of Planning. For a federal action on state-owned properties, the federal proponent would complete a CZMA Federal Consistency review through the State Office of Planning. The USCG is submitting its determinations with the State Office of Planning, concurrent with the distribution of this EA.

3.2.1.2 STATE

Unique among states, Hawaii has designated land use zoning districts at the State level. These are in addition to more detailed land use regulations at the County level. Under provisions of HRS Chapter 205, the State has delegated land use decision-making and regulations in the State "Urban" zones to their respective Counties. State zoning and HCDA regulations and the applicable regulatory schemes as applied to this current project are outlined below.

Land Use District Boundaries, HRS Chapter 205

At the State level, all lands within the State are designated into one of four land use districts: Conservation, Agriculture, Rural, and Urban. As noted above, Urban designated lands are administered by their respective counties or other designated entity. The proposed project site is located within the State's Urban district.

Hawaii State Plan and Functional Plans, HRS Chapter 226

The Hawaii State Plan, embodied in HRS Chapter 226, serves as a guide for goals, objectives, policies, and priority guidelines for the State. The Hawaii State Plan provides a basis for determining priorities, allocating limited resources, and improving coordination of State and County plans, policies, programs, projects, and regulatory activities. The Hawaii State Plan is implemented through the development of Functional Plans and county General Plans. State Functional Plans are prepared by various state agencies, with community input and focus on specific areas including agriculture, conservation lands, education, employment, energy, health, historic preservation, housing, human services, recreation, tourism, and transportation.



Figure 3-1: Land Ownership

Hawaii Community Development Authority, HRS Chapter 206E

Pursuant to Act 153, Session Laws of Hawaii (SLH) 1976, authority was granted by the State Legislature to the HCDA to supersede county land use ordinances in special Community Development districts. Under the Act and as codified in HRS Chapter 206E, HCDA has the authority to regulate development, zoning, and land use within these districts and to issue permits for land use proposals within these areas. The project site is located within the boundaries of the HCDA Kalaeloa Community Development District and is subject to compliance with HCDA's Kalaeloa Master Plan, the Kalaeloa Community Development District Administrative Rules (Rules), and the Kalaeloa Airport Master Plan (HDOT 1998; HCDA 2006; DBEDT 2012). These documents are discussed below.

Kalaeloa Master Plan

The Kalaeloa Master Plan was adopted by HCDA in 2006 (HCDA 2006). As described in the Plan, "HCDA has prepared this Kalaeloa Master Plan to navigate through the challenges facing redevelopment and to chart an economically feasible and realistic course toward the vision of Kalaeloa as a Wahi Ho'okela (Center of Excellence)." The plan is illustrated on Figure 3-2.

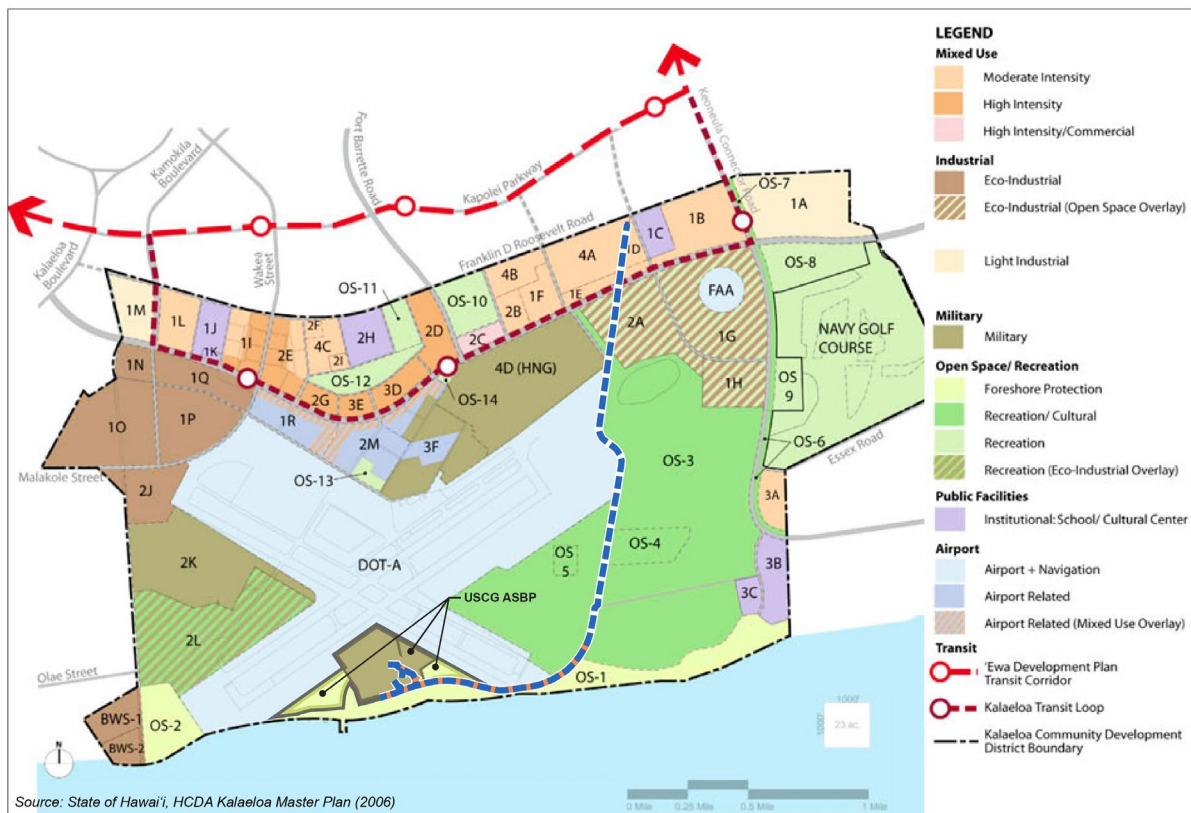


Figure 3-2: Kalaeloa Land Use Plan (2006)

Kalaeloa Community Development District Administrative Rules 2012

The Kalaeloa Community Development District Administrative Rules were established in 2012 to carry out the vision and concepts of the Kalaeloa Master Plan. This was done by classifying and regulating the types and intensities of development and land uses within the District, and ensuring development is consistent with the policies and objectives of the Plan. These Rules, along with the Plan, govern all real property within the Kalaeloa Community Development District.

As shown in the Regulating Plan of the Rules, the proposed action would be located within areas listed as Planned Roadways, T2 Rural Open Space, and T3 General Urban Zone. The roadway ROWs within which the proposed underground infrastructure would be placed are designated:

- B-2 Lane Street with bicycle ROW 44 feet
- F-2 Lane Avenue with median/turn and parking lanes ROW 80 feet

Cross sections of both of these types of roadways are shown on Figure 3-3.

The Kalaeloa Infrastructure Master Plan Update was prepared in 2010. At this time, it is not an officially adopted HCDA document and was initially prepared for a private developer in the Kalaeloa area. HCDA is in the process of conducting survey work that can then be used for future planning activities at Kalaeloa, such as those for infrastructure (personal communication, 8 November 2017).

3.2.1.3 COUNTY

The O‘ahu General Plan consists of themes, goals, objectives, and policies focused on general topic areas such as population, economy, physical environment, facility systems, and sociocultural advancement. An update to the General Plan is currently underway, and is expected to be finalized in the coming months and subsequently adopted by the City Council. While the overall General Plan is the first tier of the planning process, the second tier consists of eight regional Development Plans and a Sustainable Communities Plan related to specific areas of O‘ahu. The proposed project is located in the ‘Ewa Development Plan area.

‘Ewa Development Plan

The Plan along with HCDA’s Kalaeloa Master Plan are the guiding land use documents for the ‘Ewa region, including the project area. Figure 3-4 details the land use designations for the Kalaeloa area from the ‘Ewa Development Plan (CCH DPP 2013).

As shown on the map below, the proposed action would be located in areas designated in the ‘Ewa Development Plan for industrial, military, and parks/golf courses and within existing State of Hawaii road ROW.

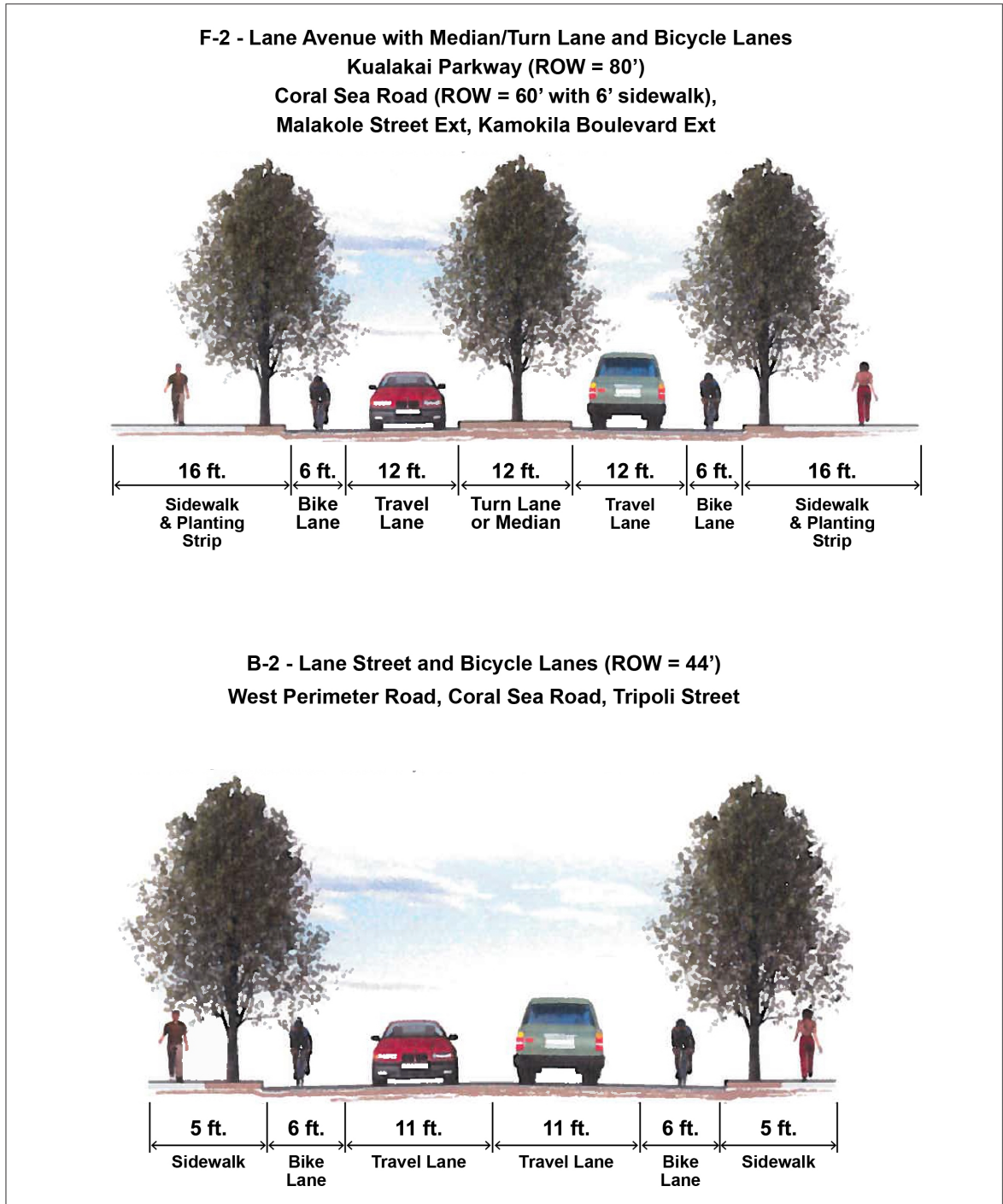


Figure 3-3: Kalaeloa Community Development District Rules for ROW

Source: DBEDT 2012.

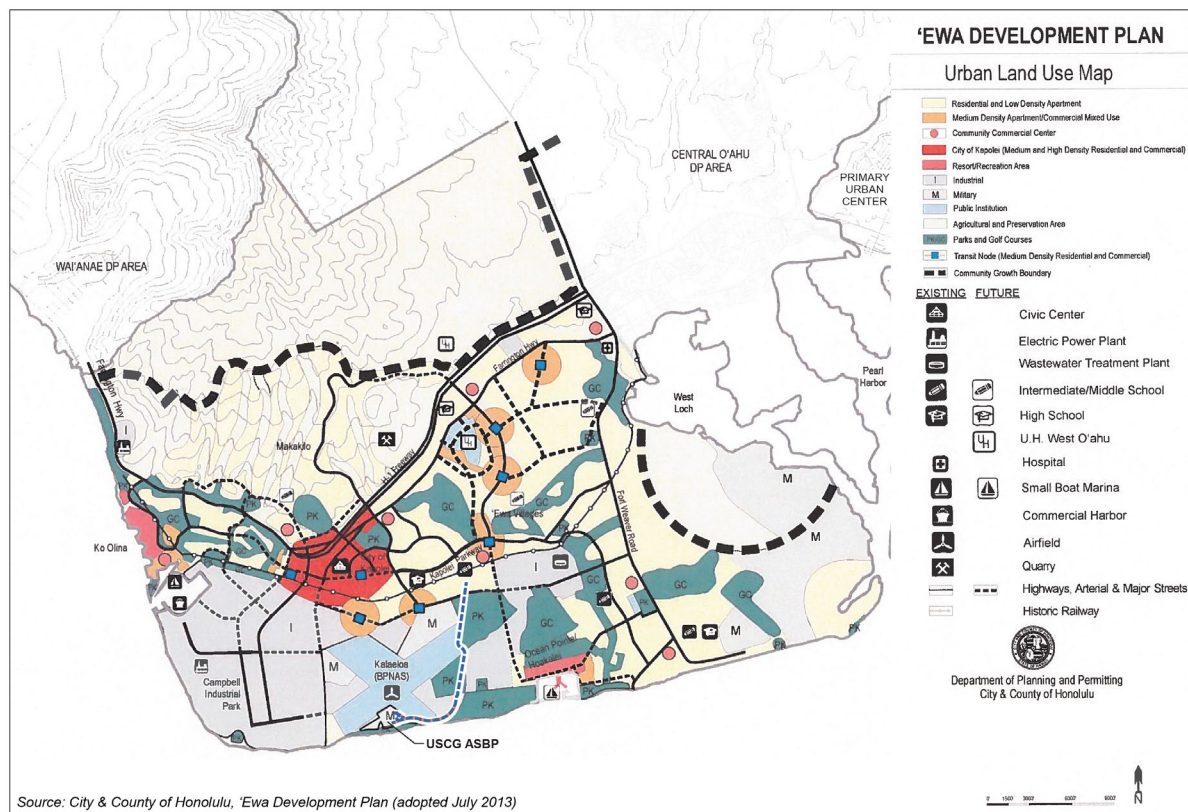


Figure 3-4: 'Ewa Urban Land Use Map (2013)

3.2.2 Environmental Consequences

For either action alternative, acquisition of ROW easements and construction of the proposed electrical infrastructure improvements within road ROWs would not conflict with or be inconsistent with land use or land ownership on the project site or in the surrounding areas. Construction of the proposed underground and overhead infrastructure is consistent with existing land use designations and with the surrounding uses in the project area. Use of the State ROW for the proposed action will require a Use and Occupancy Agreement. This agreement would be between HECO and HDOT. In addition, the following permits would be required by the State of Hawaii:

- Permit to perform work in the State ROW
- NPDES permits

3.2.2.1 PROPOSED ACTION (OPTIONS A AND B)

Coastal Zone Management Program

The following relevant objectives and policies of the State of Hawaii CZM Program outlined in HRS 205A are applicable to the proposed action (Options A and B).

Historic resources

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

As this project involves excavating and ground disturbance, care will be taken to ensure archaeological and cultural resources preservation techniques are followed and consultations with appropriate agencies completed (Sections 3.4 and 3.5).

Scenic and open space resources

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

This utility renovation project proposes underground installations (Figure 2-2) near the shoreline that would serve to minimize impacts to shoreline resources, including coastal access and view corridors. Once construction is complete, the scenic and open space resources in the area will return to their previous state prior to the project construction. The project also involves the construction of overhead electrical lines on utility poles up to 52 feet in height. The aboveground poles will be constructed in an area generally perpendicular to the shoreline and will not impact the quality of coastal scenic and open space resources.

Economic uses

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

The proposed action is to improve electrical utility system for the USCG ASBP. This is being done in response to the Navy's planned disposition of the existing electrical system that is past its life expectancy. This utility connection could enhance electrical infrastructure in the Kalaeloa area and would allow future users along its route to connect to the system. This type of infrastructure improvement is consistent with HCDA's policies to facilitate the development and redevelopment of Kalaeloa through infrastructure improvements.

The USCG has determined that the portion of the proposed action on federal property would have no direct or indirect adverse effect on any coastal use or resource and that a Federal Consistency Review is not required. For USCG's proposed action on non-federal property, the USCG has determined that the proposed action is consistent to the maximum extent practicable with the objectives and policies of the State CZM Program outlined in HRS 205A-2. These determinations will be reviewed by the State Office of Planning, concurrent with public review of the EA.

State Land Use Zoning Districts

The proposed action is located within the State's Urban District. The proposed action is consistent with the uses and structures allowed in the Urban District.

Hawaii State Plan and Functional Plans

Under provisions outlined in HRS Chapter 226, the Hawaii State Plan identifies objectives and policies for various elements of the Plan including population, economy, agriculture, visitor industry, federal expenditures, potential growth activities, land-based shoreline and marine resources, scenic natural beauty and historic resources, land air and water quality, facility systems, solid and liquid wastes, water, transportation, energy/telecommunications, housing, health, education, social services, leisure, individual rights and personal well-being, culture, public safety, and government. Relevant objectives and policies applicable to the proposed action are discussed below. These objectives fall into three broad categories:

- **Federal expenditures.** Promote the development of federally supported activities in Hawaii that respect state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment.

This project is federally funded, would renovate the ASBP electrical infrastructure whose operations serve community needs, and would provide capacity for future developments in the Kalaeloa area to connect to this new infrastructure where permissible.

- **Facility systems.** Accommodate the needs of Hawaii's people through the coordination of facility systems and capital improvement priorities in consonance with State and County plans.

This project would be designed to meet HECO standards and requirements, and connect to the existing HECO electrical grid system. This enhanced infrastructure is consistent with goals and objectives of County and State plans for the area pertaining to infrastructure improvements to facilitate development in the Kalaeloa area.

- **Energy/Telecommunications.** Ensure a sufficient supply of energy to enable power systems to support the demands of growth. Encourage public and private sector efforts to develop means for adequate, ongoing telecommunication planning.

This project would ensure a sufficient and reliable source of energy is provided for the USCG. The infrastructure would be available for future users and would support the development needed since the closure of NAS Barbers Point in 1999.

While most Functional Plans' policies and objectives do not apply to this project, the proposed action does comply with an overarching objective of the Energy Functional Plan to create "dependable, efficient and economical energy systems capable of supporting Hawaii's needs".

Kalaeloa Master Plan

The Plan designates lands in the project corridor as Airport and Open Space/Recreation. The proposed project is consistent with these land use designations. The proposed action is consistent with the Plan's electrical policy to assure that improvements to the electrical distribution system serve the increased development in Kalaeloa. USCG understands that a HCDA development permit is not needed for its proposed action.

Kalaeloa Community Development District Rules

As shown in the Regulating Plan of the Rules, the proposed action would be located within areas listed as Planned Roadways, T2 Rural Open Space, and T3 General Urban Zone. The roadway ROWs within which the proposed infrastructure would be placed are designated B-2 Lane Street with bicycle ROW 44 feet and F-2 Lane Avenue with median/turn and parking lanes ROW 80 feet. These ROWs are wide enough to accommodate the proposed electrical infrastructure without impacting the roadway or traffic flow.

Infrastructure Plan

The proposed action is consistent with the intent of the 2010 Infrastructure Master Plan Update. It is designed to provide reliable and up-to-date power to the USCG in response to the Navy's disposition of the existing, aging electrical distribution system.

Kalaeloa Airport Master Plan

This project would require FAA review and approval prior to the start of construction. See Section 3.8 for additional information on compliance with requirements associated with the navigable airspace for airport operations.

‘Ewa Development Plan

The sole applicable policy of the ‘Ewa Development Plan relevant to the project is outlined below:

- Give strong consideration to placing any new transmission lines underground where possible under criteria specified in State law.

The proposed action is generally consistent with this policy. Project areas closest to the shoreline and on federal property would all contain underground utilities. The utilities will also be placed underground near the flight path of the Kalaeloa Airport. Inland areas generally perpendicular to the shoreline would contain aboveground utility poles up to 52 feet in height.

3.2.2.2 NO ACTION

There will be no land use impacts or any change or impacts to land ownership with the no action alternative.

3.3 UTILITIES AND INFRASTRUCTURE

3.3.1 Affected Environment

Utilities and infrastructure in the project area include potable water, wastewater, telecommunications, electrical, and the paved Coral Sea Road. Coral Sea Road is the main north-south road through Kalaeloa. Its alignment, connecting Roosevelt Avenue and ASBP, is used for utilities in full or in part. Utilities and infrastructure in the area were originally developed to support the former NAS Barbers Point.

HECO requires a formal service request with load and schedule information. This request was submitted by USCG to HECO on August 4, 2017.

Use of the State ROW for the proposed action will require a Use and Occupancy Agreement. Because USCG plans to contract HECO to install its proposed electrical distribution system, HECO plans to use its Use and Occupancy Agreement with HDOT.

3.3.2 Environmental Consequences

3.3.2.1 PROPOSED ACTION (OPTIONS A AND B)

Construction

No significant impact on the existing utility or the paved Coral Sea Road would occur. The electrical distribution system was designed to avoid existing utilities and infrastructure. Option A would be fully underground. Option B would include a combined overhead and underground system, as represented by Figure 2-2. As described in Section 3.2, the overhead poles and line are proposed at an approximate 52 feet above ground surface to avoid conflicts with the existing overhead electrical system.

Operations

The operation of the proposed action would significantly and beneficially impact the USCG ASBP. Since NAS Barbers Point was closed in 1999 and the electrical distribution system was known to be in need of renovation, the uncertainty of the electrical service at ASBP would be resolved and the USCG would then be able to focus on its operational mission at ASBP.

Significant and beneficial indirect impacts on future regional utility and infrastructure are anticipated. After base closure in 1999, the lack of sufficient infrastructure, particularly an electrical distribution system, has been attributed to the lack of successful development in the region. With the proposed action, the distribution system could be used by other users along the alignment and considered by prospective developers, which may help to advance successful development in Kalaeloa area.

3.4 ARCHAEOLOGY AND TRADITIONAL CULTURAL PRACTICES

3.4.1 Affected Environment

Cultural resources include archaeological resources, structures, neighborhoods, prominent topographic features, habitats, plants, animals, and minerals that Native Hawaiians consider essential for the persistence of traditional culture. The USCG has consulted with the SHPD during early consultation to identify the appropriate level of evaluation for use in identifying archaeological resources in the project area. The APE for the proposed action was identified as portions of the ASBP and the HDOT ROW along Coral Sea Road, as shown on Figure 3-5. An Archaeological Inventory Survey (AIS) was conducted in accordance with the NHPA Section 106 and the State Historic Preservation Act (HRS Chapter 6E); the AIS included a pedestrian survey and subsurface archaeological testing within the identified APE. No archeological deposits were encountered during subsurface testing. Three of the sites encountered were recommended as eligible for listing on the NRHP and the Hawai'i Register of Historic Places (HRHP). A Cultural Impact Assessment (CIA) was also conducted in the identified APE (Appendix C).



Figure 3-5: Area of Potential Affect (APE)

Findings of the AIS and CIA are summarized below:

The project area is within the ahupua'a of Honouliuli, bound by Pearl Harbor to the east and Wai'anae mountain range to the west in the 'Ewa District, characterized by the 'Ewa Plain. The project is within Kalaeloa, the traditional Hawaiian name for the area, which means "long point". During early human occupation, the 'Ewa Plain was likely an open grassland characterized by small shrubs of *Pritchardia*, wiliwili, noni, and kou. Forest clearing for agriculture likely occurred during the early years of Polynesian settlement; however, early post-contact documentation indicates that the area was marginally used. The 'Ewa District is one of the largest districts on O'ahu, and was traditionally associated with the ali'i, or royalty, of O'ahu. Dryland planting techniques took advantage of the numerous pit caves and sinkholes of the 'Ewa karst, and artificial stone mounds allowed for the development of small agricultural systems in the 'Ewa District. 'Ulu, or breadfruit, was planted along the eastern edge of the 'Ewa plain in large excavations. However, due to lack of water resources and poorly developed soils, agriculture was sparse in the district until the mid-19th century.

After the Mahele, the major land redistribution of the Hawaiian Islands, occurred in 1848, the ahupua'a of Honouliuli was awarded to Kekau'ōnohi, the granddaughter of Kamehameha through his son Kahō'anokū Kīna'u. After Kekau'ōnohi's passing in 1851, the land was given to her husband Levi Ha'alele'a. In 1864, the land was transferred again by Ha'alele'a's second wife and widow, Anadelia Amoe, to her brother-in-law John H. Coney. Coney sold the land to James Campbell in 1877, which is when intensive ranching began in Honouliuli.

During the plantation period, following the construction of water infrastructure (artesian wells), sugarcane cultivation and ranching dominated the 'Ewa plain region. Sisal (*Agave sisalana*) cultivation, used for fiber production, also became predominant in the area following installation of artesian wells. The 300-acre 'Ewa sisal plantation extended into the area of the former NAS and the northern portion of the project area, and production continued into the 1920s.

Military use of the land became dominant in the 1930s, following construction of training areas, defense areas, and coastal highways. In 1941, prior to the Japanese attack on Pearl Harbor, construction on NAS Barbers Point began; following the attack on Pearl Harbor military activity ramped up in the area. By April of 1942, the station was commissioned and in September, 'Ewa Marine Corps Air Station was formally established. The USCG became established in the Hawaiian Islands in 1945 with the original command at NAS Kāne'ohe Bay. In 1949, the USCG presence shifted to NAS Barbers Point and by 1965, their own division of the station had been established and named USCG ASBP. The USCG ASBP remains in operation today (Appendix B).

Hawaiian burials can be found in close proximity to portions of the project area. State Site 50-80-17-053, an extensive (approximately four acre) pre-Contact habitation complex, is located close to the project area APE along the Coral Sea Road ROW. A number of the sinkholes and rock mound features in this complex are known to contain human burials (iwi) from the pre-Contact and early post-Contact periods. Despite the close proximity of known Hawaiian burials, no cultural deposits, secondarily deposited artifacts, or subsurface archaeological deposits were encountered during AIS subsurface investigations. Further, available subsurface soil deposition is likely not significant enough to permit burial in the APE.

The following cultural resources and uses were identified in the CIA and/or the AIS:

- Kalaeloa Heritage Park – Located on Long Island Street, west of Coral Sea Road.
- Ranch at Kalaeloa – Located on Long Island Street, east of Coral Sea Road.
- Known fishing, shellfish collection, and limu-gathering sites along the shores of Kalaeloa.
- Plants around the APE are contemporary sources of wood, food, medicine, and lei-making material. Important plants include la‘au, uhaloa, kauna‘oa, and kiawe.
- White Plains Beach – Popular beach and surfing site, located makai of Tripoli Road and more than 4,000 feet east of Coral Sea Road.

Resources listed above are in the project vicinity, but not directly located in the APE. There were no current cultural uses of land immediately within the APE identified. Figure 3-6 illustrates the abundance of historic sites in the vicinity.

The following archeological resources were identified in the APE and are shown on Figure 3-7:

- Two stone mounds – Age unknown, may relate to agricultural activity, NRHP eligible.
- Stone alignment remnant – Age unknown, may relate to military activity, NRHP eligible.
- Military enclosure – Mid-20th century, NRHP eligible.

The three archeological sites identified in the AIS are eligible for listing on the NRHP and the HRHP, and are therefore considered significant historic properties. Refer to Appendix B for the full AIS, and Appendix C for the CIA.

3.4.2 Environmental Consequences

3.4.2.1 PROPOSED ACTION (OPTIONS A AND B)

Construction

The three historic properties identified in Section 3.4.1 and those identified just outside of the APE (as identified in Section 3.5.2) will all be cordoned off from construction activities with protective fencing. Should archaeological or cultural resources be encountered during construction, all work will be stopped in the immediate area and SHPD will be notified in accordance with HRS Chapter 6E Historic Preservation. With these conditions and its consultation in accordance with Section 106 of the NHPA, the USCG has made a determination of “no historic properties affected.” The USCG’s consultation history is presented in Appendix E and summarized herein.



Figure 3-6: Archaeological Sites Identified Outside of APE

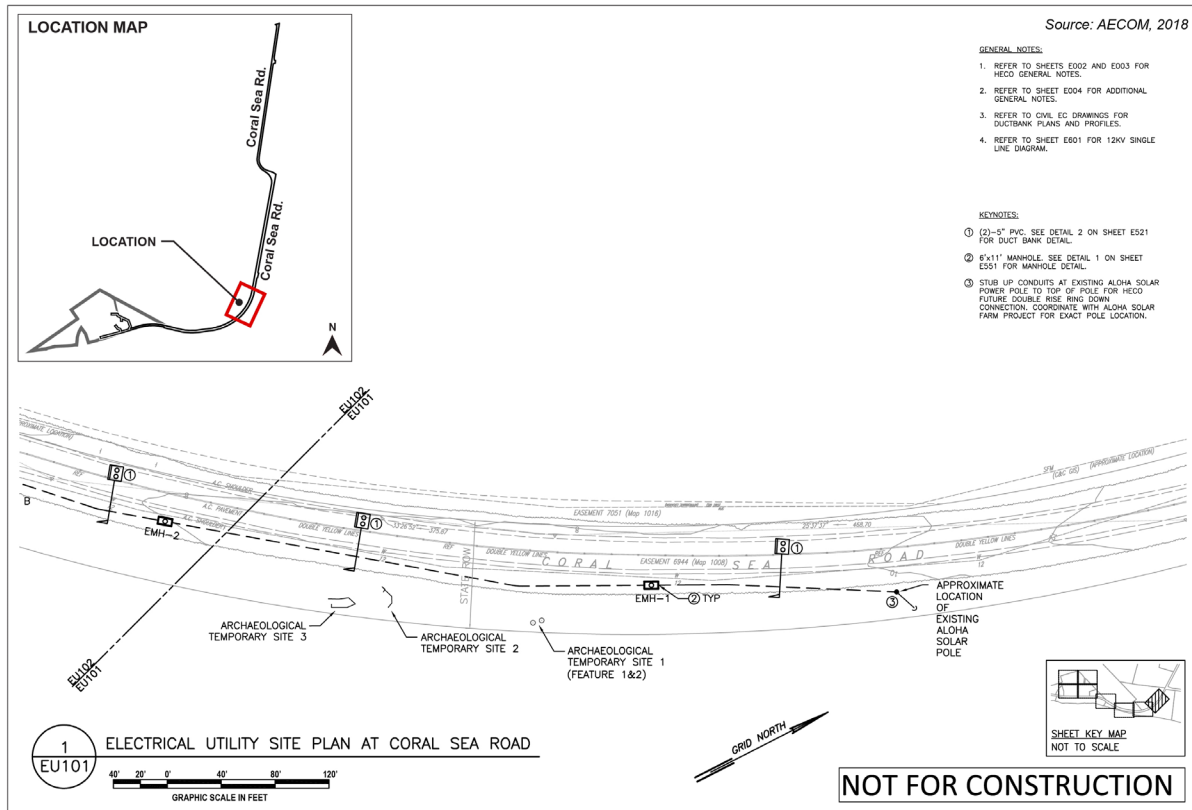


Figure 3-7: Archaeological Inventory Survey Temporary Sites

The USCG initiated consultation under Section 106 of the NHPA with the SHPO in its letter dated April 3, 2018. Letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, 'Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none were received. Based on the USCG's identification and evaluation of historic properties in accordance with 36 CFR Part 800.4, the USCG made a determination of "no historic properties affected" in its letter to SHPO, dated December 12, 2018. Determination letters, dated January 15, 2019, were mailed to other NHPA Section 106 consulting parties. Consultation correspondence is presented in Appendix E.

Based on the AIS, CIA, and NHPA Section 106 consultation, no known or potential traditional cultural practices or other cultural practices are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during previous construction activities. However, a few cultural and lineal

descendants requested cultural monitoring. Because cultural monitoring guidelines do not exist, the USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching from Aloha Solar (approximately 850 feet south of Tripoli Road) to ASBP will occur.

Traffic controls, as required in the State ROW during construction, will prevent access impacts to users of the Kalaeloa Heritage Park and other important cultural sites.

Operations

There would be no impact to archeological resources or cultural practices. None of the encountered archeological sites identified in the AIS are eligible for listing under the NRHP, and no concerns over operations on archaeological or cultural practices were identified in NHPA Section 106 consultation and the CIA.

3.4.2.2 No ACTION

There would be no change and therefore no impact on archaeological resources or cultural practices under the no action alternative.

3.5 HISTORIC STRUCTURES

3.5.1 Affected Environment

Historic structures include standing buildings, districts, bridges, dams, and other structures of historic or aesthetic significance. Historic structures generally must be greater than 50 years old to be considered for inclusion in the NRHP; however, more recent structures may warrant protection if they have the potential to gain significance in the future. Historic properties refer to cultural resources that meet specific criteria for eligibility for listing on the NRHP. Section 106 of the NHPA does not require the preservation of historic properties but ensures that the decisions of federal agencies concerning the treatment of these places result from meaningful consideration of cultural and historic values.

In addition to the AIS and CIA, a Reconnaissance Level Survey (RLS) was conducted along the State's Coral Sea Road ROW to identify historic structures. Refer to Appendix D-1 for full RLS.

The RLS identified the following structures over 50 years old within, or near, the APE:

- Coral Sea Road – c. 1942, not eligible for NRHP.
- Tripoli Road – c. 1943, not eligible for NRHP.
- Other roads extending off of coral road – Various built dates, none eligible for NRHP.
- Building 183 Foundation – 1943, not eligible for NRHP.

- Four below-grade octagonal concrete chambers – 1942, eligible as contributing features to nearby Telephone Exchange Building, eligible per Criterion A & C. These four chambers were later surveyed and determined to be outside of the APE (Appendix D-2).
- Bombproof Telephone Exchange Building (Building 92) – 1942, eligible under the NRHP. Outside of APE.

Structures over 50 years old on ASBP located in the vicinity of the APE were also identified (Appendix D-3). None of these historic structures would be affected by the activities of the proposed action.

3.5.2 Environmental Consequences

3.5.2.1 PROPOSED ACTION (OPTIONS A AND B)

Construction

No historic properties were identified within the APE. Historic properties identified just outside the APE as well as the properties that lacked the integrity needed to meet the eligibility criteria, as identified in Section 3.4.1, will all be cordoned off from construction activities with protective fencing. Should historic properties be encountered during construction, all work will be stopped in the immediate area and SHPD will be notified in accordance with HRS Chapter 6E Historic Preservation. With these conditions and its consultation in accordance with Section 106 of the NHPA, the USCG has made a determination of “no historic properties affected.” The USCG’s consultation history is presented in Appendix E and summarized herein.

The USCG initiated consultation under Section 106 of the NHPA with the SHPO in its letter, dated April 3, 2018. Letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG’s undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O’ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu’ohai Residents Association, Kaupe’a Homestead Association, Hawaiian Railway Society, Hawai’i Aviation Preservation Society, ‘Ahahui Siwila Hawai’i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none was received. Based on the USCG’s identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of “no historic properties affected” in its letter to SHPO, dated December 12, 2018. Determination letters, dated January 15, 2019, were mailed to other NHPA Section 106 consulting parties. Consultation correspondence is presented in Appendix E.

Operations

There would be no impact to historic structures. None of the encountered structures eligible for listing under the NRHP identified in the RLS are within the APE, and no concerns over operations on historic structures were identified in NHPA Section 106 consultation.

3.5.2.2 NO ACTION

There would be no change and therefore no impact on historic structures under the no action alternative.

3.6 BIOLOGICAL RESOURCES

Biological resources addressed in this section include native or naturalized plants and wildlife and the habitats in which they occur. The evaluation of biological resources and field surveys were conducted by SWCA under contract to AECOM and summarized herein. Further details are available in Appendix B.

3.6.1 Affected Environment

Protected biological resources include any plant or animal species listed under the ESA as threatened or endangered, or proposed for listing by the USFWS and the Migratory Bird Treaty Act (MBTA). The ESA protects listed species against take, including the killing, harming, and harassing of the species. The ESA also protects the habitat critical for their survival. The MBTA of 1918, as amended, makes it unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; and possess, offer to sell or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product. Additionally, HRS Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants, recognizes the protected species under the ESA.

On behalf of the USCG, a letter was sent to the USFWS on November 15, 2017, requesting a list of federally threatened and endangered species, candidate species, proposed species, plants and animals of concern, and critical habitat in the vicinity of the proposed project (Appendix G). The letter also requested guidance for measures to reduce impacts to these species and habitats. The USFWS responded to this request in its letters dated December 11, 2017 (Letter Reference: 01EPIF00-2018-SL-0056; Appendix G).

The following federally threatened and endangered species were identified by the USFWS to potentially occur in and/or transit through the vicinity of the project area: Endangered Hawaiian goose (*Branta sandvicensis*), endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), threatened Newell's shearwater (*Puffinus auricularis newelli*), endangered Hawaiian petrel (*Pterodroma sandwichensis*), endangered band-rumped storm-petrel (*Oceanodroma castro*), endangered Hawaiian stilt (*Himantopus mexicanus knudseni*), endangered Hawaiian moorhen (*Gallinula galeata sandvicensis*), endangered Hawaiian coot (*Fulica alai*), and endangered Hawaiian duck (*Anas wyvilliana*).

In addition to the potential presence of threatened and endangered species, pre-consultation with USFWS indicated designated critical habitat (O'ahu-Lowland Dry-Unit 11) near the project sites (Figure 3-8). O'ahu-Lowland Dry-Unit 11 is the last remaining site containing the endangered 'Ewa Plains 'akoko plant (*Euphorbia skottsbergii* var. *skottsbergii*) and is designated as unoccupied critical habitat for another 16 endangered plants (*Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Euphorbia celastroides* var. *kaenana*, *Euphorbia haelealeana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyrifolium*, *Melanthera*

tenuifolia, *Neraudia angulata*, *Nototrichium humile*, *Pleomeleforbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*).

No anchialine pools, which frequently provide habitat for regionally rare and sometimes endemic invertebrate and algal species, including Hawaiian shrimp (*Halocaridina rubra*), were observed during the SWCA survey, and none were encountered during the archaeological survey conducted by International Archaeology, LLC, on January 12 and February 28, 2018.

Last, the state endangered Hawaiian short-eared owl or Pueo (*Asio flammeus sandwichensis*) has the potential to occur in the project vicinity but was not observed during the field survey. Suitable habitat for nesting and foraging was noted during the survey. For nesting, suitable habitat includes non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub vegetation types. For foraging, suitable habitat includes the roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, coastal strand, and landscaped vegetation types.

3.6.1.1 FLORA

Based on the botanical surveys conducted in 2013 and 2017 for the ASEF II Project, vegetation along Coral Sea Road and the surrounding area consists primarily of assorted grasses buffelgrass (*Cenchrus ciliaris*) and guinea grass (*Urochloa maxima*), keawe (*Prosopis pallida*) scarlet spiderling (*Boerhavia coccinea*), indigo (*Indigofera suffruticosa*), and haole koa (*Leucaena leucocephala*). Much of the roadway corridor is vegetation-free or consists of short grasses. Special species potentially present in the project area are discussed below (G70 2017). Indigenous species recorded included 'ilie'e (*Plumbago zeylanica*) and 'ilima (*Sida fallax*), both common species in dry mesic environments. The survey also identified endemic kupala (*Sicyos pachycarpus*), which is common in the 'Ewa District during at certain times of the year (G70 2017). None of the threatened and endangered species protected under Section 7 of the ESA were observed. Additional attention presented on the 'akoko because of its ephemeral nature, meaning it has a very short, seasonal lifespan that tends to correspond with the rainy season, and the slight potential for 'akoko to occur in the study area on the uplifted karst geology, especially in the area between San Juacinto Street and Tripoli Road.

'Ewa Plains 'Akoko. The federally endangered 'Ewa Plains 'akoko was not detected in any of these botanical surveys (the May 9, 2018, survey was conducted specifically for 'akoko in the Coral Sea Road ROW between San Juacinto Street and Tripoli Road). 'Ewa Plains 'akoko occurred historically in this area and is currently found nearby. This species occurs in the nearby Critical Habitat Lowland Dry-Unit 11, which is located approximately 100 yards east of Coral Sea Road (Figure 3-8). It has also recently been out-planted in the Kalaeloa Heritage Park, just west of the Proposed Action alignment. Two pairs of surveys for this species were recently completed along portions of Coral Sea Road, where this species would be most likely to be encountered, given its proximity to known populations. The first pair of surveys was completed on June 6, 2013, and February 17, 2017, for the ASEF II Project. The second pair of surveys was performed by SWCA for the subject project on November 9, 2017, and May 9, 2018.



Figure 3-8: Critical Habitat

3.6.1.2 FAUNA

Fauna at the project site consists primarily of avian species, most of which are non-native to the Hawaiian Islands, including the common myna (*Acridotheres tristis*), common waxbill (*Estrilda astrild*), gray francolin (*Fringilla pondicerianus*), house sparrow (*Passer domesticus*), red-vented bulbul (*Pyconotus cafer*), spotted dove (*Streptopelia chinensis*), and zebra dove (*Geopelia striata*). Native species observed include the manu-o-ku or white fairy tern (*Gygis alba*) and the kolea or Pacific golden plover (*Pluvialis fulva*). MBTA protected species include the white fairy tern, the Pacific golden plover, the Eurasian skylark (*Alauda arvensis*), the house finch, the northern mockingbird (*Mimus polyglottos*), and the ruddy turnstone (*Arenaria interpres*). Terrestrial mammal species include the Indian mongoose (*Herpestes auropunctatus*), feral cats (*Felis catus*), and loose dogs (*Canis familiaris*).

ESA threatened and endangered species with the potential to occur in and/or transit the project area are described below.

Hawaiian Hoary Bat. The federally endangered Hawaiian hoary bat, or ‘ope‘ape‘a, is the only land mammal native and endemic to the islands of Hawai‘i, Maui, Moloka‘i, O‘ahu, and Kaua‘i. The species has been detected during acoustic surveys and captured in mist-netting surveys on O‘ahu (First Wind Energy, LLC 2014). The bat is nocturnal and insectivorous, feeding primarily on moths (Lepidoptera) and beetles (Coleoptera) (USFWS 2011a). The Hawaiian hoary bat is a solitary bat that roosts in both native and non-native trees with no strong preference for any single species (USFWS 2011a). The bat typically roosts in trees greater than 15 feet with dense canopy foliage and open access for launching into flight. Bats are most often observed foraging in open areas, near the edge of native forests, and over open water (USFWS 2011a). The bats forage for insects at heights ranging from as low as 3 feet to higher than 500 feet above the ground (USFWS 2017). When barbed wire is used for fencing, Hawaiian hoary bats can become entangled (USFWS 2017). They may fly more than 12 miles one-way in the course of a night, usually returning to their original roost site by sunrise (USFWS 2011a), while foraging young are left unattended in nursery trees and shrubs (USFWS 2017). The Hawaiian hoary bat breeding season is from June 1 to September 15 (USFWS 2017).

Hawaiian Seabirds. The federally endangered Hawaiian petrels, federally endangered banded-rump storm-petrels, and federally threatened Newell’s shearwaters are known to nest in colonies in the mountains and cliff faces of the islands of Hawai‘i, Maui, Lāna‘i, and Kaua‘i (USFWS 1983, 2005). These birds also have been observed flying over and may nest in the mountains of O‘ahu (personal communication, Johnathon Kraska, USFWS, August 28, 2018). Therefore, these birds may fly over the project area at night during breeding season (March 1 to December 15) (USFWS 2017).

Hawaiian Goose. Federally endangered Hawaiian goose, or nene, populations are found on the islands of Hawai‘i, Maui, Moloka‘i, and Kaua‘i, with a recent small population re-establishing on O‘ahu through captive breeding programs (USFWS 2004, 2017). Hawaiian goose were first observed on O‘ahu in 2014 where they nested and produced offspring at the James Campbell National Wildlife Refuge (NWR). They are known to travel between Mililani (Agriculture Park and local golf course), James Campbell NWR, and Turtle Bay Resort on the north shore of O‘ahu. Nene typically nest on the ground, in a shallow scrape, in the shade of dense shrubs, or in other vegetation.

Most nesting occurs during the rainy season from October to March, with most gosling hatching during December and January; eggs have been observed during all months of the year except May, June, and July (USFWS 2004). Nene occupy a variety of habitats and vegetation communities including coastal dunes, non-native grasslands (such as golf courses and pastures), sparsely vegetated lava flows, native and non-native shrublands, cinder deserts, native alpine grasslands and shrublands, and open and non-native alpine shrubland-woodland community interfaces (USFWS 2004). Nene are browsing grazers feeding on berries, grass, and other vegetation. The Hawaiian goose is capable of both inter-island and high-altitude flight (Banko, Black, and Banko 1999).

Hawaiian Waterbirds. The federally endangered Hawaiian moorhens, federally endangered Hawaiian coots, federally endangered Hawaiian ducks, and federally endangered Hawaiian stilts use a variety of natural and manmade wetland habitats for nesting and feeding. Moorhens and coots are generally found in freshwater marshes, taro patches, lotus fields, reedy margins of waterways, reservoirs, wet pastures, and occasionally saline and brackish water areas. Ducks and stilts will use a wider range of habitats wherever ephemeral or persistent standing water is found. The estimated statewide population of pure Hawaiian ducks is 2,200 birds, with 2,000 on Kauaʻi and 200 on the island of Hawaiʻi. The majority of ducks on Oʻahu and Maui are believed to be Hawaiian duck-mallard hybrids, approximately 300 ducks are present Oʻahu and approximately 50 on Maui (USFWS 2011b). During the 2018 field survey, SWCA noted a lack of appropriate habitat for these species in the study area.

3.6.2 Environmental Consequences

3.6.2.1 PROPOSED ACTION (OPTIONS A AND B)

Construction

No significant impacts to biological resources would occur as a result of the proposed action. No federal or state-listed threatened or endangered species, proposed or candidate federal or state-listed threatened or endangered species, critical habitat, or rare native Hawaiian plant species were identified in surveys of the project area. However, because certain protected species may occur in the project area, the USCG consulted under Section 7 of the ESA and, as a result, avoidance and minimization measures (including standard BMPs) were identified and will be made part of the proposed action with USFWS concurrence. With the avoidance and minimization measures made part of the proposed action, the USCG determined that its proposed action may effect, but is not likely to adversely affect the endangered Hawaiian goose, endangered Hawaiian hoary bat, threatened Newell's shearwater, endangered Hawaiian petrel, endangered band-rumped storm-petrel, endangered Hawaiian stilt, endangered Hawaiian moorhen, endangered Hawaiian coot, endangered Hawaiian duck, and endangered ʻEwa Plains ʻakoko. The USCG's consultation history is presented in Appendix G.

Additionally, the USCG acknowledges the DOFAW's concern for the state endangered Hawaiian short-eared owl or Pueo and will require preconstruction twilight surveys should clearing be needed in the following types of vegetation cover: non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub. If nests are present, DOFAW will be notified and a buffer zone will be established in which no clearing would occur until nesting ceases and chicks have fledged.

To prevent any potential impact on the Pueo, barbed wire fencing will not be used in this proposed action.

Operations

Operational impacts on biological resources are not anticipated. The proposed action includes the installation of new utility poles and lines along the portion of Coral Sea Road where such existing structures exist.

3.6.2.2 NO ACTION

There would be no change and therefore no impact on biological resources under the no action alternative.

3.7 CLIMATE CHANGE AND SEA LEVEL RISE

3.7.1 Affected Environment

The effects of greenhouse gases (GHGs) on climate, as documented by organizations such as the Intergovernmental Panel on Climate Change (IPCC) may be controversial. However, warming temperatures and the associated ongoing sea level rise (SLR) that is currently being observed are cause for responsible resiliency planning. The CEQ interprets that under the Procedural Provisions of NEPA, 40 CFR parts 1500-1508, Environmental Impact Statements should “consider the effects of greenhouse gas emissions and the effects of climate change” (81 Federal Register 51866). GHGs trap heat in the atmosphere by absorbing and emitting radiant energy. GHG emissions are generally monitored and reported in CO₂e, or CO₂ equivalent, typically reported in metric tons. GHGs differ from criteria air pollutants due to rapid dispersion into the atmosphere; impacts from GHGs are not localized but are global and cumulative. GHG emissions are attributable to human activities associated with the transportation, industrial/manufacturing, electric utility, residential, commercial, and agricultural categories. GHGs exhibit effects in a cumulative manner and are therefore addressed in Chapter 4, Cumulative Impacts and Other Considerations.

As recognized by the State of Hawaii, local SLR is relatively consistent with global projections, with a mean sea level (MSL) height of 3.2 feet expected by the year 2100 under business-as-usual scenarios (Climate Commission 2018). The CEQ has set forth guidelines to address impacts from climate change, such as SLR, during NEPA review. The Army Corps of Engineers (USACE) planning guidance (EC 1165-2-211) recommends an analysis of SLR at low, intermediate, and high levels at 20, 50, and 100 years (USACE 2009). The State of Hawaii has set forth spatial models that allow for this preliminary analysis in compliance with guidelines set forth by the CEQ and USACE.

SLR projections, as calculated for the State of Hawaii, are based on the IPCC global SLR projections from the business-as-usual scenario. Under this scenario, it is predicted that MSL will rise by 0.5 feet in 2030, 1.1 feet in 2050, 2.0 feet by 2075, and 3.2 feet by 2100. More recent SLR models and scientific literature suggest that a 3.2-foot rise in MSL could occur as early as 2060 (HCCMAC 2017).

3.7.2 Environmental Consequences

3.7.2.1 PROPOSED ACTION (OPTIONS A AND B)

Construction

As summarized in Section 2.2, a range of alternatives, including various on-site renewable energy sources, were evaluated: PV, wind, future OTEC, combined PV with microturbine, and combined PV with on-site fossil-fueled generators. While renewable energy alternatives were viable, none were selected for further consideration because of the concern for reliability, which was a key component of the USCG's purpose and need. Additionally, on-site systems (fossil-fuel based and renewable) could be at risk during natural disasters, such as tsunamis, that can destroy such systems. Likewise, when planning for SLR, underground systems designed for use in water tables or water-prone areas, such as that proposed, is considered most resilient. No significant impact from SLR is anticipated during construction.

Operation

The proposed action could increase GHG emissions with increased distribution capacity and future demand. However, considering that the increase in GHG emissions would represent a negligible increase relative to island-wide power GHG emissions, it is acknowledged but not considered significant. The proposed action ultimately connects to the existing HECO island-wide power grid, and GHG emissions emitted as a result of the project would be dependent on the energy source (fossil-fueled or renewable) of the island-wide grid.

Understanding that SLR at any one location will be dependent on many factors, strictly assuming a rise in sea level of 3.2 feet (by the year 2100), the portion of Coral Sea Road that traverses south of Runway 29 would be inundated, essentially blocking access to the USCG ASBP, based on spatial models developed by the State of Hawaii DLNR. The inundation would be a result of passive flooding and coastal erosion; high wave flooding would further inundate areas north of the roadway during annual high wave events. Models do not explicitly include flooding through storm drain systems and underground infrastructure (PacIOOS 2017). Further, minimal road inundation would begin under the approximately 2.0 feet SLR scenario, expected in 2075.

While the proposed action utility alignment is located within a SLR exposure area, it is not likely to suffer damage. The proposed action will be designed and rated for complete immersion in water and therefore sea level inundation. Personnel access to the facility, however, would continue to be an issue along Coral Sea Road.

Spatial models of SLR developed by the State of Hawaii do not account for any mitigation actions which could include, but are not limited, to coastal restoration and retreat, shoreline softening, flood proofing, land raising/elevated development, and coastal armoring. Further, the spatial models do not account for less frequent high wave events or storm surges. Spatial modeling is intended to provide an initial screening tool for SLR vulnerability.

3.7.2.2 NO ACTION

Coral Sea Road would be inundated under the no action alternative. Inundation would likely begin to occur at 2.0 feet of SLR expected in 2075 under the business-as-usual scenario. Further inundation

inland would occur following current SLR trends. Personnel access to the USCG ASBP facility would be blocked by sea inundation.

3.8 NAVIGABLE AIRSPACE

3.8.1 Affected Environment

The proposed project is located directly east of Kalaeloa Airport, also known as John Rodgers Field (JRF). JRF is a 752-acre public airport owned and operated by the State Department of Transportation Airport Division (DOT-A). JRF serves as a reliever airport to Daniel K. Inouye International Airport (HNL). Additionally, JRF is used for military and civil flight training.

To promote air safety and efficient use of navigable airspace, the FAA administers 14 CFR Part 77. The process is implemented by conducting aeronautical studies based on information provided through the FAA Form 7460-1, Notice of Proposed Construction or Alteration. The 14 CFR Part 77.9 states that a notice must be filed with the FAA if requested by the FAA or when anyone proposes any of the following types of construction or alteration:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
 - 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport described in 14 CFR 77.9(d), with its longest runway more than 3,200 feet in actual length, excluding heliports.
 - 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport described in 14 CFR 77.9(d), with its longest runway no more than 3,200 feet in actual length, excluding heliports.
 - 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport described in 14 CFR 77.9(d).
- Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward as defined in 14 CFR 77.9(c), would exceed a standard of 14 CFR 77.9 (a) or (b).
- Any construction or alteration located on an airport described in 14 CFR 77.9(d).

The notification requirements were established to ultimately protect the FAR Part 77 imaginary surfaces depicted in Figure 3-9, below.

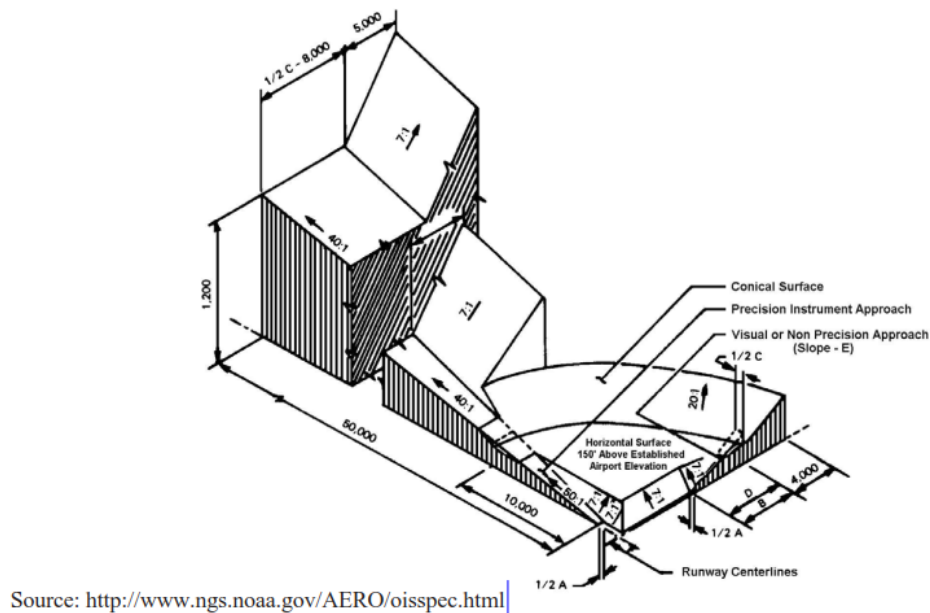


Figure 3-9: FAR Part 77 Imaginary Surfaces

3.8.2 Environmental Consequences

3.8.2.1 PROPOSED ACTION (OPTIONS A AND B)

A two-step process is used to evaluate potential conflicts with navigable airspace. The first step involves consideration of the 14 CFR Part 77.9 criteria, one of the key criteria being illustrated in Figure 3-10. If FAA notification is determined to be needed, the second step—a review of Part 77 surfaces by FAA—generally follows. Accordingly, the proposed action's anticipated maximum heights associated with short-term construction and long-term operations with respect to a key Part 77 surface is provided herein to identify potential conflicts with navigable airspace.

Option A

Construction

Construction activities along the alignment proposed in Option A are likely to exceed the 100-to-1 notification surface, as defined in Section 3.9.1. The distance between Option A and the nearest runway, Runway 11/29, is approximately 550 feet (Figure 3-10), which means any construction or alteration exceeding 5.5 feet in height (550 feet/100 feet) or 15.5 feet MSL would require notification under 14 CFR Part 77.

The distribution system proposed in Option A could be installed with either open trenching or HDD methods, with a presumed maximum equipment height of approximately 70 feet above ground. At this height, a Form 7460-1, Notice of Proposed Construction or Alteration, must be submitted to the FAA. A preliminary analysis presuming a runway end elevation of 10 feet MSL and an equipment height of 70 feet or 80 feet MSL, shows that the equipment may penetrate the Part 77 surfaces in a section of the alignment, south of Runway 29 (Figure 3-11).

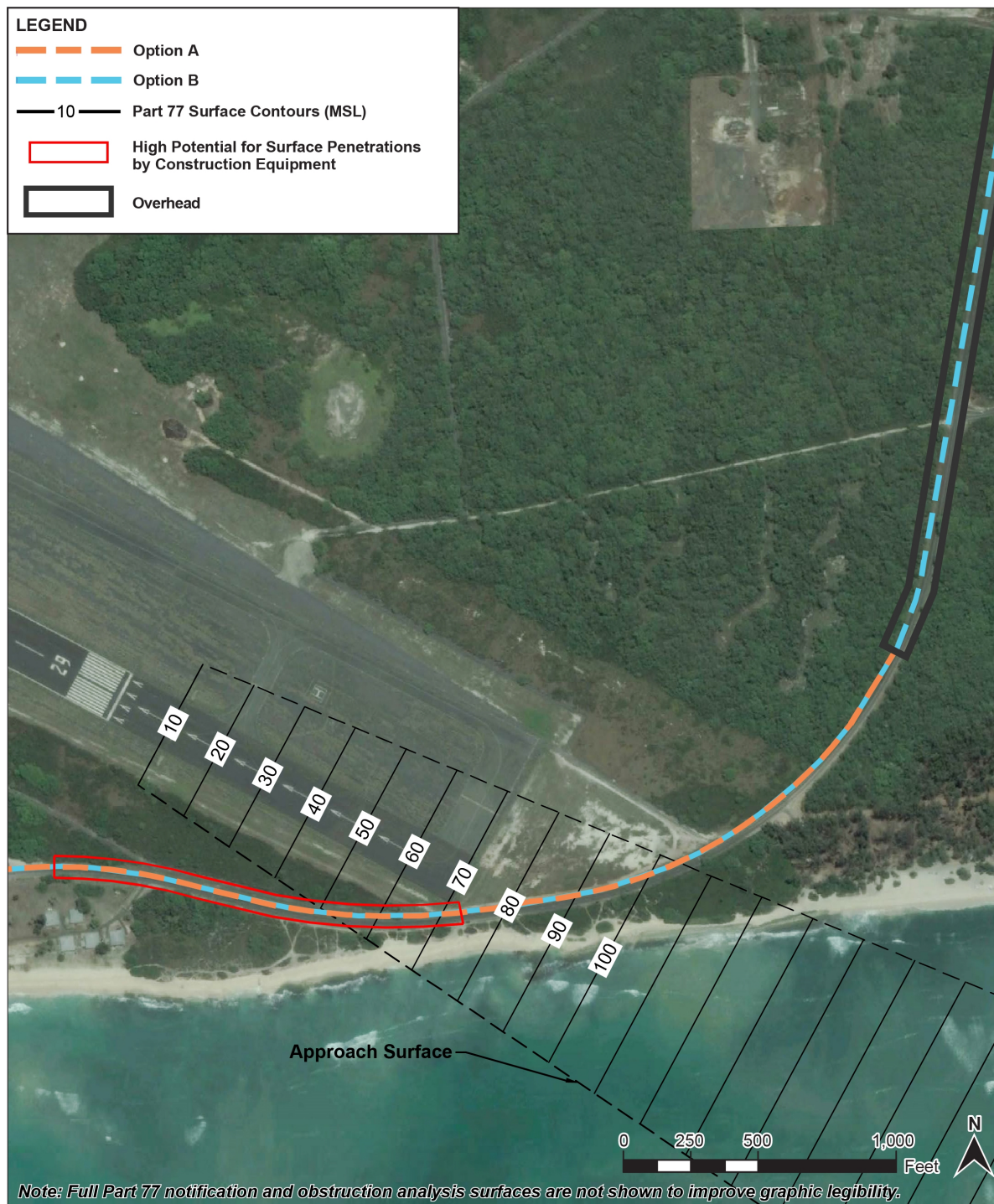


Figure 3-11: Part 77 Surfaces for Runway 29

For Runway 4R/22L, the 100 to 1 notification surface associated with Runway 4R/22L is also likely to be exceeded. The nearest distance between Option B and the runway is approximately 1,630 feet, which means any construction or alteration exceeding 16.3 feet in height (1,630 feet/100 feet) or 43.3 feet MSL would require notification under 14 CFR Part 77 (Figure 3-11).

The distribution system proposed in Option B could be installed with either open trenching or HDD methods with a presumed maximum equipment height of approximately 70 feet. At this height, a Form 7460-1, Notice of Proposed Construction or Alteration, must be submitted to the FAA. A preliminary analysis presuming a runway end elevation of 27 feet MSL, and an equipment height of 70 feet or 97 feet MSL, shows that the equipment associated with Option B is not likely to penetrate Runway 4R/22L FAA Part 77 surfaces (Figure 3-12).

Any impacts to navigable airspace during construction would be temporary and not significant. Specific actions to be taken by the contractor will be dependent on the FAA 7460-1 determination and may include adding flags and/or obstruction lights to the top of the construction equipment or restricting operations on Runway 11/29.

Operations

The distribution system in Option B would be underground and overhead. The poles would stand approximately 52 feet above ground at intervals of 200 feet along the roadway. At this height, a Form 7460-1, Notice of Proposed Construction or Alteration, must be submitted to the FAA. A preliminary analysis, presuming a runway end elevation of 27 feet MSL and a pole height of 52 feet, shows that the poles along the alignment of Option B are not likely to penetrate Runway 4R/22L FAA Part 77 surfaces (Figure 3-12).

Impacts to navigable airspace are not anticipated; however, specific actions may be directed based on the FAA 7460-1 determination and may include adding obstruction lights to the tops of the poles.

3.8.2.2 NO ACTION

Under the no action alternative, there would be no change and therefore no impact on navigable airspace.

3.9 SOCIOECONOMICS

3.9.1 Affected Environment

The 'Ewa Development Plan region is O'ahu's fastest-growing development area (CCH DPP 2013). As outlined in the Kalaeloa Master Plan of 2006, the 'Ewa region is the area on O'ahu most likely to accommodate population growth. The 'Ewa Development Plan area had a population of 102,180 in 2010 and is projected to grow to over 164,000 by 2035 (Commander, Navy Region Hawaii 2012).

As the "Second City" on O'ahu, Kapolei and the surrounding 'Ewa region are being designed and planned to accommodate projected growth. Residential, industrial, and commercial growth for the island will continue to be directed to this area.



Figure 3-12: Part 77 Surfaces for Runway 22L

The lack of adequate infrastructure in this area is one limiting factor to development. With the departure of the Navy from NAS Barbers Point in the early 1990s and the Navy policy to not maintain and instead seek disposal of its infrastructure systems, the limited infrastructure that does exist in the area continues to deteriorate.

Reuse of the base and development of the Kalaeloa area, consistent with both the Kalaeloa Master Plan and the 'Ewa Development Plan, has not proceeded at an accelerated pace as preferred by the State and HCDA. This slow pace of development coincides with a severe lack of affordable housing on O'ahu and continued traffic congestion in the area, as an anticipated jobs-housing balance through industrial and commercial development in Kalaeloa has not occurred. While Kapolei continues to develop primarily along the H-1 freeway commercial area, the Kalaeloa area of the former NAS Barbers Point has experienced very limited development.

3.9.2 Environmental Consequences

Implementation of the proposed action would result in an investment in modern infrastructure for the Kalaeloa area. While most existing new development in Kalaeloa is concentrated in the mauka (toward the mountain) areas closer to Kapolei's existing infrastructure, construction of this electrical and communications line will help facilitate new development in makai (toward the ocean) areas and reuses at the former NAS Barbers Point. Connecting to these lines could result in a significant cost savings to the developers as each would not need to extend this infrastructure individually, nor as far to their planned facilities. The electrical distribution system would be funded entirely by federal monies and will not require State or City financial assistance, yet will provide benefits and possibly cost savings to local residents and businesses. The proposed action therefore would have significant beneficial impacts to the socioeconomic environment of Kalaeloa, O'ahu, and the State as a whole.

Construction-related impacts would include an increase in construction-related jobs. Because the proposed action could enable the planned development long overdue with the closure of NAS Barbers Point, additional indirect construction related jobs and long-term operational employment with each development could increase jobs, tax revenues for the City and State, and cultural and natural resources parks that require minimal infrastructure.

Under the no action alternative, there would be no impact to the socioeconomic environment because the existing site conditions would continue.

EO 12898, Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to address the potential for disproportionately high and adverse human health and environmental effects of their actions on minority and low-income populations. No disproportionate effects on minority and low-income populations would occur, because no significant impacts have been identified and most of the alignment is unpopulated.

CHAPTER 4

CUMULATIVE IMPACTS AND OTHER CONSIDERATIONS

4.1 CUMULATIVE IMPACTS

Under 40 CFR 1508.7, a cumulative impact is defined as an impact on the environment that results from the incremental impacts of the action when added to other past, present, or reasonably foreseeable future actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. To perform this evaluation, other projects that could contribute to potential cumulative impacts on similarly impacted resources/issues resulting from the USCG's proposed action were identified. Potential impacts on the same resources could then be evaluated for potential significance.

The projects considered in the cumulative effects evaluation include the following.

Aloha Solar Energy Farm. The Aloha Solar Energy Fund published a Final EA for the construction of a five megawatt photovoltaic utility installation and an approximate 1.78-mile long, 12 kV electrical distribution line to provide renewable energy to the island (as described in Section 1.2 this distribution line would include most of the northern alignment under Option B of the USCG's proposed action). The solar farm would be located on a HCDA parcel just to the south of the proposed Kalaeloa Heritage Park. This project, if completed, will have a beneficial impact on meeting energy demand and the State's renewable portfolio standards (RPS) (G70 2017).

Kalaeloa Development Activities. A private developer is launching plans that would redevelop several parcels of mostly vacant land north of Kalaeloa Airport and south of Roosevelt Avenue, totaling approximately 537 acres extending from Kamokila Blvd. to Barbers Point Golf Course. Plans for the parcels to be developed include residential lots for small condos and single family homes (approximately 4,000-homes after completion), employment and business centers, further infrastructure improvements (e.g., sewer trunk lines, potable water lines, and undergrounding of utility lines) (Magin 2018). Development would ultimately conform to plans set forth in the Kalaeloa Master Plan (HCDA 2006).

Hawaii Army National Guard. Hawaii Army National Guard (HIARNG) is a major occupant in Kalaeloa. It has approximately 150 acres, which includes various former Navy hangers and barracks from the former Barbers Point Naval Air Station facility. HIARNG is continuing to consolidate its operations from across the island to Kalaeloa. Part of the relocation/consolidation plan includes moving aviation units from Wheeler Army Airfield, Joint Force Headquarters from Fort Ruger and the construction of various support facilities on the 150 acre site. An EA was completed for these activities in 2010, and the move is ongoing.

Kalaeloa Heritage Park. HCDA acquired 77 acres from the Navy after the closure of NAS Barbers Point. This area is located just to the east of the airport on the west side of Coral Sea Road, as shown on Figure 3-1. HCDA has prepared a master plan and environmental assessment (2014) for the park and is partnering with Kalaeloa Heritage and Legacy Foundation to create the Kalaeloa Heritage Park on the site. This park is designated as an interpretive cultural park. Aside from some vegetative clearing and the construction of a Native Hawaiian kauhale (homestead), no further construction has occurred at the Park to date.

Kalaeloa Regional Park (Mauka and Makai). As identified in the ‘Ewa Development Plan, there are two areas along the route of the proposed action, which the City and County of Honolulu has designated for future regional parks. The Kalaeloa Regional Park will consist of two non-contiguous sites; one stretching along the beachfront southeast of Coral Sea Road and a larger parcel mauka and to the east of Coral Sea Road. The proposed park is envisioned as a major regional park center drawing visitors from all of O‘ahu. Currently, the makai section of this park is developed with comfort stations and campsites. The mauka portion of the park is vacant and will not be developed until electricity, sewer and water are extended to the site (personal communication between Mr. Glen Kajiwaru of the City and County of Honolulu Department of Parks and Recreation District 3 and Mr. Jeff Merz of AECOM, 28 December 2017).

Department of Hawaiian Home Lands Property. DHHL controls properties in the Kalaeloa area including a parcel across Coral Sea Road from the proposed Kalaeloa Heritage Park and north of Tripoli Street. The DHHL Kapolei Regional Plan from 2010 designates the DHHL controlled parcels closest to the project site as “Mixed Use”. These lands are not intended for residential homestead use, but instead for revenue generation. No formal proposals for this property have been prepared at this time.

Kapolei. As described in the ‘Ewa Development Plan, the Secondary Urban Center (Kapolei) will provide a wide range of employment opportunities by 2035 and possibly consist of:

- A major office, retail, and residential center at the City of Kapolei (projected to have over 17,000 private non-construction jobs by 2035)
- A Secondary Civic Center with main headquarters for some State and City agencies (projected to have 2,600 government jobs)
- A major resort destination area at Ko Olina (projected to have 5,500 hotel and resort condominium units)
- A marina resort/mixed use area at Ocean Pointe (projected to have 950 visitor units)
- A deep draft harbor at Kalaeloa Barbers Point, a major industrial center at Campbell Industrial Park, and civilian reuse of Kalaeloa compatible with the rest of ‘Ewa (projected to collectively provide almost 21,000 jobs)
- University of Hawai‘i West O‘ahu (projected to have 1,040 faculty and staff and 7,600 students)

To date, most of the projects above listed for Kapolei have been started, but few are complete. A major retail and business center is developing around the Ka Makana Ali‘i shopping mall, and includes two motels and office facilities. The secondary Civic Center has developed around the Kamokila Boulevard corridor, and included both City and State agency offices and facilities. The University of Hawaii West O‘ahu campus initially opened in 2012 and continues with expansion plans. The Wai Kai Lagoon area near the Hoakalei residential area is under construction and will contain a lagoon surrounded by a residential community. A Final EIS is currently pending acceptance for various improvements and minor capacity expansions at Kalaeloa Barbers Point Harbor. None of the projects outlined in the paragraph above are within the immediate vicinity of the proposed action.

The proposed action to improve the electrical infrastructure at ASBP would provide key infrastructure that would enable future users in the region to further develop the region. The latter has been desired prior to the closure of NAS Barbers Point and continues to be the goal as reflected in State and local plans. With further development of the region, it is reasonable to assume that applicable laws, regulations/rules, and best management practices on current and future development will serve to prevent significant impacts on protected resources. For example, air emissions for electrical generation is highly regulated under the CAA and amendments, thus no significant cumulative impacts on air quality from electrical generation would result from regional increases in demand.

Considering the USCG's proposed action and the projects described above, the most likely cumulative impacts would occur on the following resources/issues:

- Increased GHG emissions resulting from increases in fossil-fuel based electrical generation.
- Traffic associated with the increase in vehicular use with regional development.
- Increased need for updates to utilities and infrastructure.
- Increased need for public services, e.g., schools, to support planned development.

Cumulative impacts to specific resources are summarized in Table 4-1.

Table 4-1: Cumulative Impacts by Resource/Issue

Resource/Issue	Cumulative Impact
Air Quality	No significant cumulative impacts to air quality would be anticipated. The island of O'ahu is in attainment for all criteria air pollutants. Criteria air pollutants highly regulated under CAA, air emissions for electrical generation is highly regulated under the CAA and amendments.
Topography, Soils, & Geology	No significant cumulative impacts are anticipated. Construction related earthmoving impacts affecting topography, soils, and geology associated with excavation and drilling would be temporary. No significant change in grades or slopes would be anticipated from increased development facilitated by the project. It is assumed after excavation and drilling, voids will be backfilled with existing soils or clean soil for all development activities.
Groundwater, Surface Water (including wetlands), & Drainage	No significant cumulative impacts are anticipated. Cumulative impacts may result from increased development facilitated by increased utility distribution capacity. It is assumed best management measures will be implemented for all development activities to minimize impacts to groundwater and surface water.

Resource/Issue	Cumulative Impact
Noise	No significant cumulative impacts are anticipated. Noise permits or noise variance from the State Department of Health (DOH) would be required for any activities exceeding permissible levels during construction activities.
Visual	No significant cumulative impacts are anticipated. Cumulative impacts may result from increased development facilitated by increased utility distribution capacity. All development is assumed to conform to Kalaeloa Master Plan and current zoning ordinances.
Land Use	No significant cumulative impacts to land use are anticipated. Development activities are anticipated to conform to the current land use plan which allows for moderate and high intensity mixed use development, eco-industrial development, and military development primarily in areas north of the project site.
Utilities and Infrastructure (electrical, telecommunications, water, wastewater)	Planned development activities would require infrastructure improvements for water, and wastewater. Developers would be required to secure additional potable water sources, as current water supply is inadequate to support current proposed residential development plans. Assuming other infrastructure improvements are completed prior to development no significant cumulative impacts would occur.
Traffic	Cumulative impacts may result from increased development facilitated by increased utility distribution capacity. The Kalaeloa Master Plan focuses on transit-oriented development. Increased residential development will lead to more cars on the road; traffic impacts would be minimized so that they are not significant with successful implementation of appropriate roadway and transportation plans.
Archaeology and Traditional Cultural Practices	No cumulative impacts to these resources are anticipated, future development activities in the area would be required to follow guidelines set forth by SHPD to protect cultural and archeological resources.
Historic Structures	No cumulative impacts to historic resources are anticipated, as a result of the project. Future development activities in the area would be required to follow guidelines set forth by SHPD to protect historic resources.
Biological Resources	No significant cumulative impacts with existing federal and state laws that serve to protect special status species. Future development activities would be required to avoid areas of critical habitat designated in the area.

Resource/Issue	Cumulative Impact
CERCLA/Hazardous Building Materials	No cumulative impacts are associated with the Proposed Action. It is assumed all potentially hazardous materials would be disposed of appropriately in accordance with State and Federal guidelines (HAR §11-262-11).
Natural Hazards	No cumulative impacts from Natural Hazards. Development activities would be designed to meet building codes and flood insurance and zoning requirements.
Climate Change and Sea Level Rise	Impacts from increased electric distribution capacity and associated increase in electric utility generation would increase GHG emissions, contributing cumulatively to climate change. However, the GHG emissions produced by electric utility generation are dependent on the energy source (e.g., fossil-fuel versus solar) for the electricity produced by the utility company. Sea level is expected to rise in the project vicinity, development activities in the SLR exposure area are anticipated to be more strictly regulated in the future. No cumulative impacts from SLR are anticipated. Current proposed development is located outside the SLR exposure area.
Navigable Airspace	Any development activities facilitated by increased electrical distribution capacity would be required to follow FAA regulations. No cumulative impacts are anticipated.
Socioeconomics	Cumulative impacts on socioeconomics include changes in population from increased residential development, increased median income for the census area, increased employment opportunities, and more affordable housing available for local residents.
Public Services	Cumulative impacts would be managed and not significant with the existing development plans for the area. There is an anticipated increased need for public services (e.g., schools, fire departments, and police), associated with the increased development activities that could be facilitated with increased utility distribution capacity following conveyance of utility line to HECO.

4.1.1 GHG Emissions

While renewable and alternative energy generation is increasing notably with solar and wind energy generation, the State of Hawaii has few energy resources and currently consumes more energy than produced on island (DOE 2007; EIA 2017). The proposed project increases distribution capacity of the system from 4.16 kV to 12.47 kV, once complete the infrastructure ownership would be conveyed to HECO. The State is encouraging initiatives to modernize its transmission grids and interconnect them to enable more efficient power generation and to support increased development of renewable energy resources; approximately of 80% of the utility scale electricity is supplied from

non-renewable sources (HECO 2018). The proposed project is a distribution capacity expansion, and increases HECO's overall capacity to distribute electricity, but does not directly increase GHG emissions. The GHG emissions associated with increased distribution capacity is dependent on the source of the electrical energy generated or utilized by HECO (e.g., fossil-fuels versus solar). The State of Hawaii Renewable Portfolio Standard (RPS) aims to achieve 100% renewable energy by 2045 reducing the overall GHG emissions indirectly produced by the project. It should be noted that some forms of renewable energy, including biomass burning and biofuels produce substantial GHG emissions (HECO 2018; State of Hawaii 2018).

4.1.2 Utilities and Infrastructure

Proposed development would require significant improvements in utility (water, wastewater, and electrical) infrastructure. Assuming that developers complete utility upgrades prior to the start of proposed development cumulative impacts are not anticipated.

4.1.3 Traffic

Potentially significant cumulative impacts are likely to occur on traffic and public services with anticipated increased development. Traffic and public services will continue to be managed with statewide transportation plans, regional plans, and Kalaeloa Community Development District Rules. Alternative forms of transit (bicycles paths and mass transit options) are also planned for the region (HCDA 2006).

4.1.4 Public Services

With increased residential development, there would be increased need for public services including schools, fire and police departments, and civic facilities. The Kalaeloa Master Plan proposes three school locations within the Kalaeloa region. It is assumed fire and police services would meet needs for proposed development.

With plans and development approvals in place, no significant cumulative impacts are anticipated. Hence, the proposed action, when considered with past, present, and reasonably foreseeable actions in the area, would not result in significant cumulative impacts on environmental resources.

4.2 RELATIONSHIP BETWEEN SHORT-TERM USES AND MAINTENANCE OF LONG-TERM PRODUCTIVITY

The relationship between short-term uses and maintenance of long-term productivity typically considers the trade-offs of extracting or depleting resources in lieu of the proposed action. In this case, the proposed action along Coral Sea Road is designed in an existing road ROW; therefore, no resources would be extracted or depleted. The proposed action would provide reliable and modern electrical and communications infrastructure for the ASBP. Reliable electrical power would allow the USCG ASBP to continue to carry out its mission of maritime security, enforcement of the Maritime Transportation Security Act of 2002, maritime safety, protection of natural resources and fisheries, and Search and Rescue.

Additionally, the proposed infrastructure, which would traverse the entire north-south length of Kalaeloa within an existing road ROW, would enable future regional development. To date, the

required infrastructure has been cost-prohibitive or has served as a major barrier. With the closure of the former NAS Barbers Point, Kalaeloa has been envisioned by the community to include a mix of development, including natural and cultural resources parks, mixed used residential areas, eco-industrial and light industrial uses. Electricity is required to serve such development and would help the area develop to its envisioned potential.

The no action alternative is not an option for the USCG as it would jeopardize its mission and future operations. No action would leave the Kalaeloa area without a reliable source of electricity.

4.3 IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

Irretrievable commitments represent the loss of production, harvest, or use of renewable resources. These opportunities are foregone for the period of the proposed action, during which other resource uses cannot be realized. Such decisions are reversible, but the utilization opportunities foregone are irretrievable.

Irreversible commitments are those that result in the permanent loss of future options. This applies primarily to non-renewable resources, such as minerals or cultural resources, the loss of a species, and to those factors that are renewable only over long time spans.

The installation of the electrical infrastructure in an existing road ROW will require a commitment of labor, building materials, energy, funding, and land, which represent irretrievable commitments of resources simply because they could be used for other unidentified things. Other than land, no other irreversible commitment of resources has been identified with the proposed action, as no loss of resources would occur. Land used for the proposed action is considered an irreversible commitment during the time frame that the land is used for the electrical and communications infrastructure. However, such need for alternative land use is unlikely, considering that the project is in an existing road ROW. Should the need for the electrical line becomes obsolete, the line can be removed and the land returned to its previous state.

4.4 SUMMARY OF PERMITS AND APPROVALS

Key permits and approvals needed for the USCG to undertake the proposed action include:

Federal

- NEPA
- NHPA Section 106 Consultation
- ESA Section 7 Consultation

State of Hawaii

- CZM Federal Consistency Review
- Permit to perform work in the State ROW (Construction Permit)
- NPDES permits

Other key permits and approvals would be needed by USCG's contractor, anticipated to be HECO, and include and are not limited to:

- Use and Occupancy Agreement (HECO plans to use its existing agreement/master authorization with HDOT)

CHAPTER 5

AGENCY AND PUBLIC INVOLVEMENT

5.1 EARLY CONSULTATION

Early consultation was conducted in October 2017 to obtain input for use in preparing the draft EA. The agencies and organizations in Table 5-1 were contacted by mail. A sample of the USCG's letter and attachment used to request input are provided in Appendix H. Correspondence responding to the USCG's request is also included in Appendix H. Since early consultation was conducted, Alternative 2 was eliminated from further consideration. Any comments related to that alternative are no longer applicable. In summary, the following concerns were received:

- SLR due to climate change on the proposed underground distribution system. Discuss how the design of the project and proposed operations at the project site will mitigate for the potential risk, and provide resilience and recovery from flooding and coastal erosion concerns.
- Potential use of electrical power to other users along the alternative alignments. Land along both alignments is proposed for conveyance to the City for future park development.
- List of required approvals and permits.
- Consistency of the proposed action with the O'ahu General Plan, 'Ewa Development Plan, and the Kalaeloa Community Development District's Kalaeloa Master Plan.
- Effect of additional utilities lines to the Navy's existing utility poles and the accompanying risks with use of these poles.
- Hawaii Gas has determined that the area is currently clear of utility gas facilities.
- NHPA Section 106 consultation, should the proposed action affect O'ahu Railway & Land.
- Buried cultural resources.
- State DOFAW recommendations to survey for rare and endangered plants that historically occur in the area such as 'akoko and 'ihi'ihi; avoidance of barbed wire for consideration of bats; time any site clearing to avoid bat breeding, birthing, and pupping; twilight pre-construction surveys prior to vegetation clearing; if Pueo nests present, establishment of buffer zone and notification of DOFAW staff; and if nighttime lighting or construction required, use of fully shielded lights.
- Provide justification that no SMA permit is required for the proposed underground utilities.
- Proposed action needs to be evaluated on the effect on any uses and/or resources of the State of Hawaii CZM area, pursuant to 15 CFR 930.
- HECO awaits the submittal of a formal service request with load and schedule information for the proposed facility. (This was later determined to have been submitted on August 4, 2017.)

Table 5-1: Early Consultation Mailing List

Name	Agency/Organization
Federal Agencies	
Ms. Mary Abrams	United States Department of the Interior, Fish and Wildlife Service Pacific Islands
Captain Richard D. Hayes III	United States Department of the Navy, Naval Facilities Engineering Command, Hawaii
Rear Admiral Brian P. Fort	United States Department of the Navy, Navy Region Hawaii
Mr. Gordon Wong	United States Department of Transportation, Federal Aviation Administration Honolulu Airports District Office
State Agencies	
Ms. Carilyn Shon	State of Hawaii, Department of Business, Economic Development and Tourism, State Energy Office
Mr. Leon Asuncion	State of Hawaii, Department of Business, Economic Development and Tourism, Office of Planning
Brig. Gen. Kenneth S. Hara	State of Hawaii, Department of Defense, Army National Guard
Brigadier General Ryan T. Okahara	State of Hawaii, Department of Defense, Air National Guard
Ms. Jobie Masagatani	State of Hawaii, Department of Hawaiian Home Lands
N/A	State of Hawaii, Department of Health, Environmental Planning Office
Mr. David Smith	State of Hawaii, Department of Land and Natural Resources, Division of Forestry and Wildlife
Hinaleimoana Wong-Kalu	State of Hawaii, Department of Land and Natural Resources, O'ahu Island Burial Council
Dr. Alan Downer, Ph.D.	State of Hawaii, Department of Land and Natural Resources, State Historic Preservation Division
Mr. Jade Butay	State of Hawaii, Department of Transportation, Director, Statewide Transportation Planning
Mr. Chris Yamamoto	State of Hawaii, Department of Transportation, Highways Division, Right-of-Way Branch
Mr. Jesse Souki	State of Hawaii, Hawaii Community Development Authority – Kaka‘ako Office
Ms. Tesha Malama	State of Hawaii, Hawaii Community Development Authority – Field Office
Dr. Kamana‘opono Crabbe, Ph.D.	Office of Hawaiian Affairs

Name	Agency/Organization
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Mr. Melvin Kaku	City and County of Honolulu, Department of Emergency Management
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Ms. Kathy Sokugawa	City and County of Honolulu, Department of Planning and Permitting
Kymberly Marcos Pine	County Council Representative
Mr. Mitchell Tynanes	Neighborhood Board Representative – ‘Ewa NB #23
Ms. Evelyn Souza	Neighborhood Board Representative – Makakilo/Kapolei/Honokai Hale NB #34
Organizations	
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Ms. Alicia Moy	Hawai‘i Gas
Mr. Scott Barber	Hawaiian Telcom
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Mr. Jim Dodson	‘Ewa by Gentry Community Association
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Mr. Joe Kuhio Lewis	Kapolei Community Development Corporation
Michelle Kauhane	Kaupe‘a Homestead Association
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N/A	Wakea Garden Apartments
Ms. Kiersten Faulkner	Hawaii Historic Foundation
Ms. Dana Beckstead, CAPS	Greystar
Ms. Sharene Saito Tam	Haseko Development, Inc.
Mr. Colin Perry	Hawaii Aviation Preservation Society

On May 17, 2018, USCG leadership presented information about the project at a HCDA community meeting. Questions and comments were invited.

5.2 DRAFT EA

The notice of availability of the Draft EA was announced in the Honolulu Star-Advertiser and *The Environmental Notice*, which is published by the State of Hawaii Office of Environmental Quality Control (OEQC). The DEA was made available for download by OEQC in its online document library at:

<http://health.hawaii.gov/oeqc/>

A paper copy of the EA can be reviewed at the following public libraries: 'Ewa Beach and Kapolei.

Comments were requested within 30 calendar days of the date of OEQC publication.

CHAPTER 6

FINDINGS AND DETERMINATIONS

Table 6-1 presents a comparative summary of potential environmental impacts of the alternatives.

Table 6-1: Comparative Summary of Potential Environmental Impacts by Alternative

Resources/ Issues	Proposed Action	No Action Alternative
Land Use	No significant impact. The proposed action would be located within the federally controlled ASBP and HDOT ROW and would be consistent with and supportive of land use policies and development plans.	No impact.
Utilities and Infrastructure	<p>Significant and beneficial direct impact on electrical utility on ASBP. The proposed action would increase distribution capacity of the system from 4.16 kV to 12.47 kV and provide a reliable and up-to-date system for ASBP.</p> <p>Significant and beneficial indirect impact on future electrical distribution in the Kalaeloa region. With the proposed action, the distribution system could be used by other users along the alignment and considered by prospective developers, which may help to advance successful development in Kalaeloa area.</p> <p>No adverse impact to other utilities and infrastructure. The proposed action was designed and will be installed to avoid existing utilities and infrastructure, e.g., wastewater, potable water, and power poles.</p>	Adverse impact. Under the no action alternative, the current electrical system cannot adequately fulfill the USCG's needs. The current system is past its life expectancy.
Traffic	No significant impact. A traffic control plan will be prepared as required by HDOT and will address any traffic minimization measures such as equipment staging outside of existing lanes, signage, and the use of flag men to minimize construction impacts. All impacts are temporary.	No impact.

Resources/ Issues	Proposed Action	No Action Alternative
Archaeology and Traditional Cultural Practices	<p>No significant impacts. The proposed action would not affect historic properties or Native Hawaiian cultural resources, beliefs, and practices. Traffic controls, as required in the State ROW during construction, will prevent access impacts to users of the Kalaeloa Heritage Park and other important cultural sites. Based on information obtained from the CIA, AIS, and input from the NHPA Section 106 consultation process, the USCG will install temporary fencing prior to construction around the three archaeological sites (historic properties). USCG will also provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching from Aloha Solar (approximately 850 feet south of Tripoli Road) to ASBP will occur.</p> <p>In accordance with NHPA Section 106 and its implementing regulations, 36 CFR Part 800.4, the USCG has consulted with the SHPO, Native Hawaiian organizations, and other consulting parties regarding the proposed action and its potential effect on historic properties eligible for listing on the NRHP. As a result of the NHPA Section 106 process, USCG has made a determination of “no historic properties affected.” USCG requested concurrence from SHPO within 30 days of the date of its letter dated December 12, 2018.</p>	No impact.
Historic Structures	<p>No significant impact. No historic structures were identified within the APE. One of the underground telephone chambers associated with the nearby eligible Bombproof Telephone Exchange Building (Building 92), which is near but outside the APE, will be fenced off to ensure this significant historic structure is not affected by construction related activities. The other nearby chamber already has existing barrier fencing.</p> <p>In accordance with NHPA Section 106 and its implementing regulations, 36 CFR Part 800.4, the USCG has consulted with the SHPO, Native Hawaiian organizations, and other consulting parties regarding the proposed action and its potential effect on historic properties eligible for listing on the NRHP. As a result of the NHPA Section 106 process, USCG has made a determination of “no historic properties affected.” USCG requested concurrence from SHPO within 30 days of the date of its letter dated December 12, 2018.</p>	No impact.

Resources/ Issues	Proposed Action	No Action Alternative
Biological Resources	<p>No significant impact to biological resources. Threatened and endangered plants were not identified within the project area during plant surveys for the project. The nearest critical habitat is approximately 100 yards to the east and would not be affected.</p> <p>Because certain protected species may occur in the project area, the USCG consulted under Section 7 of the ESA and, as a result, avoidance and minimization measures (including standard BMPs) were identified and will be made part of the proposed action with USFWS concurrence. With the avoidance and minimization measures, the USCG determined that its proposed action may effect, but is not likely to adversely affect the endangered Hawaiian goose, endangered Hawaiian hoary bat, threatened Newell's shearwater, endangered Hawaiian petrel, endangered band-rumped storm-petrel, endangered Hawaiian stilt, endangered Hawaiian moorhen, endangered Hawaiian coot, endangered Hawaiian duck, and endangered 'Ewa Plains 'akoko.</p> <p>Additionally, preconstruction twilight surveys will be conducted for the state endangered Pueo should clearing be needed in non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub. If nests are present, DOFAW will be notified and a buffer zone will be established in which no clearing would occur until nesting ceases and chicks have fledged. To prevent any potential impact on the Pueo, barbed wire fencing will not be used in this proposed action.</p>	No impact.
Climate Change and Sea Level Rise	<p>No significant impact on the proposed action. However, access to the USCG facility along coral road may be obstructed in the future due to sea level inundation. While the project is located within the State designated SLR Exposure Area, the electrical distribution system will be an underground and designed for complete immersion in water.</p> <p>GHG emissions resulting from the project is dependent on the source of the electrical energy generated or utilized by HECO (e.g., fossil-fuels versus solar).</p>	<p>No impact.</p> <p>However, access to the USCG facility along coral road may be obstructed in the future due to sea level inundation.</p>

Resources/ Issues	Proposed Action	No Action Alternative
Navigable Airspace	No significant impact. FAA 7460-1 determination will determine actions to prevent impacts to navigable airspace. Any impacts to navigable airspace during construction would be temporary and not significant. Any overhead electrical distribution system would be designed around navigable airspace and be undergrounded where needed.	No impact.
Socioeconomics	Significant and beneficial impacts. Increased electrical distribution capacity would enable future development of the area, as envisioned in current master plans for the area.	No impact.
Public Services	No significant impact. Cumulative impacts would be managed with existing development plans for the area.	No impact.

CHAPTER 7

LIST OF PREPARERS

This report was prepared for, and under the direction of, Mr. Raven James Smith, USCG Project Environmental Protection Specialist.

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Appendix A: Overall Plan

1. REFER TO SHEETS EU101-EU104 FOR
NEW WORK ALONG CORAL SEA ROAD.

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ISSUE		
4	09/24/18	100% CD
3	08/27/18	100% PROGRESS SET
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-	-	-
MARK	DATE	DESCRIPTION

A/E PROJECT NO:	2719127
CAD FILE NAME:	2719127EU100A.DWG
DESIGNED BY:	KATE LUCAJ
DRAWN BY:	ROGELIO I. PLASCENCIA
EDITED BY:	AMIN AMINI
CHECKED BY:	FRANK MCBRIDE

SCALE: AS NOTED PLOT SCALE: 1:1

SHEET TITLE	
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RENOVATE ELECTRICAL UTILITIES
CG AIR STATION BARBERS POINT
KAPOLEI HI
HECO 12.47KV DIST SYS
ELECTRICAL
OVERALL SITE PLAN

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
FIC	TEAM LEADER	

	<u> </u> COMMANDING OFFICER	<u> </u> DATE
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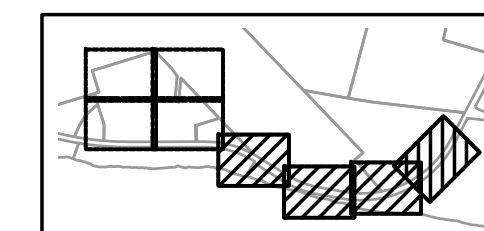
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2719127	EU100A

DISCIPLINE/SHT NO	
E	SHEET 15 OF 81

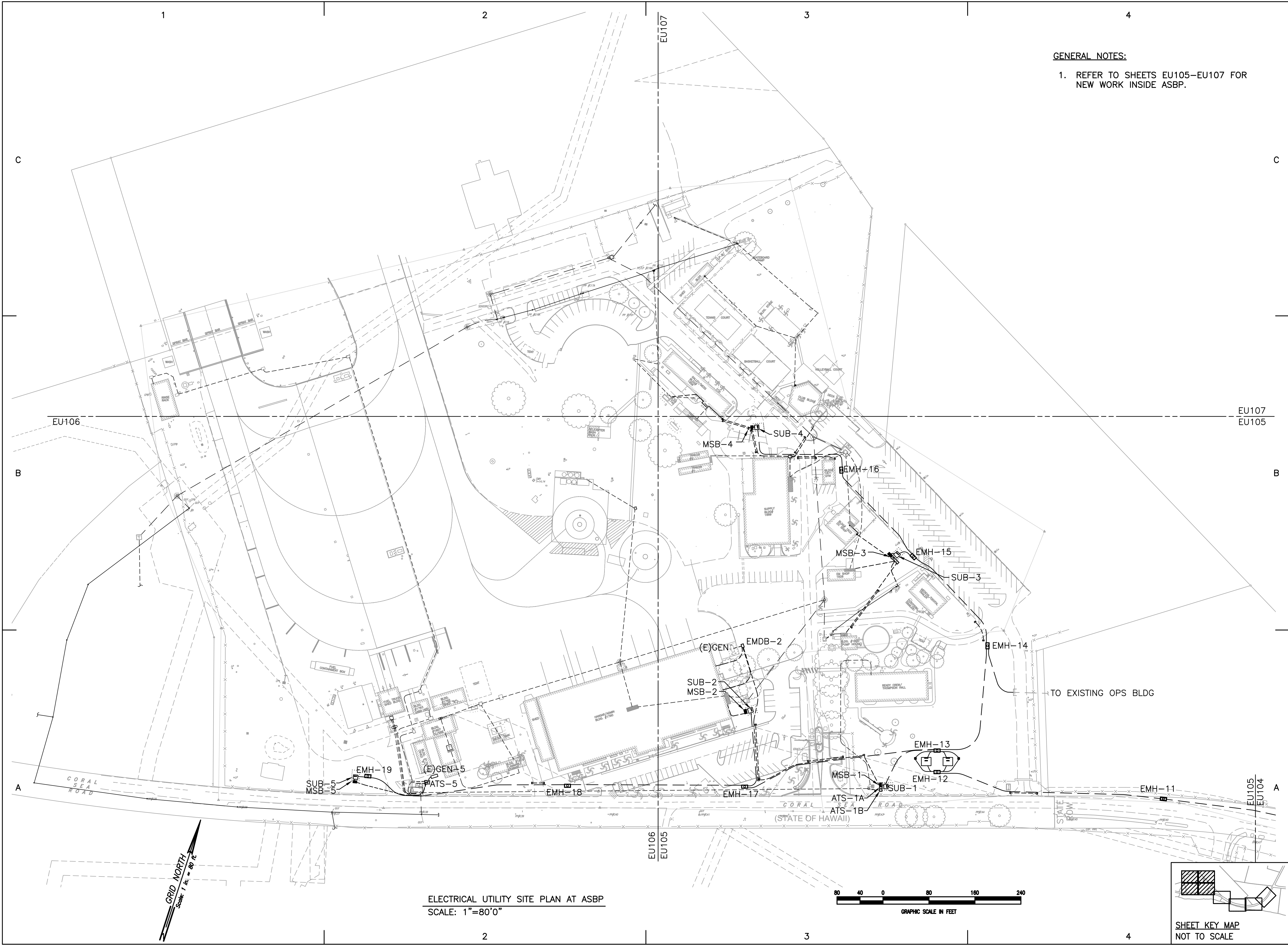
ELECTRICAL OVERALL UTILITY SITE PLAN AT CORAL SEA ROAD
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GRID NORTH
Scale: 1 in. = 1 mi.



SHEET KEY MAP
NOT TO SCALE



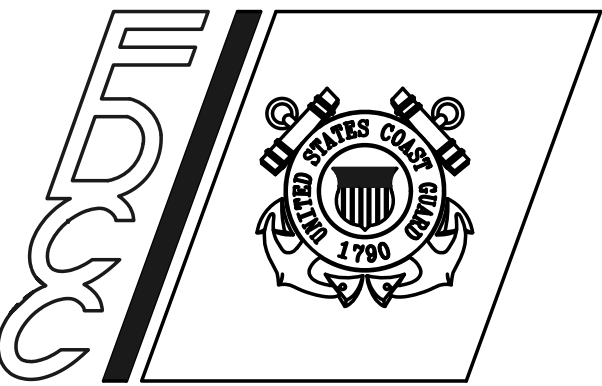
GENERAL NOTES:
1. REFER TO SHEETS EU105-EU107 FOR
NEW WORK INSIDE ASBP.

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FACILITIES DESIGN & CONSTRUCTION
CENTER - SEATTLE DETACHMENT**



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ISSUE		
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3	08/27/18	100% PROGRESS SET
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MARK	DATE	DESCRIPTION

A/E PROJECT NO: 2719127
CAD FILE NAME: 2719127EU100B.DWG
DESIGNED BY: KATE LUCAJ
DRAWN BY: ROGELIO L. PLASCENCIA
EDITED BY: AMIN AMINI
CHECKED BY: FRANK MCBRIDE

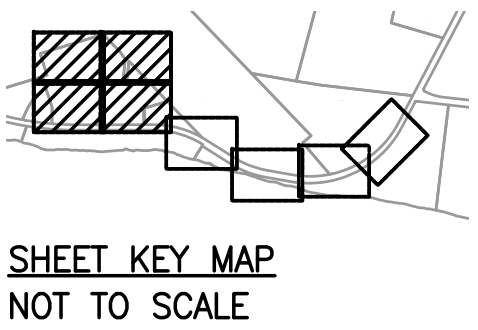
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SHEET TITLE
**RENOVATE ELECTRICAL UTILITIES
CG AIR STATION BARBERS POINT
KAPOLEI HI
HECO 12.47KV DIST SYS
ELECTRICAL
OVERALL SITE PLAN**

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
EIC	TEAM LEADER	

COMMANDING OFFICER	DATE
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PROJECT NUMBER	DRAWING NUMBER
2719127	EU100B
DISCIPLINE/SHT NO	
E	SHEET 16 OF 81



Appendix B:
Archaeological Inventory Survey

1 Archaeological Inventory Survey in Support of
2 Proposed Utilities Renovations at the United
3 States Coast Guard Facility, Air Station Barbers
4 Point, 'Ewa, O'ahu Island, Hawai'i

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6 TMK: (1) 9-1-013:063 por. and Coral Sea Road Right of Way por.
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39 *INTERNATIONAL ARCHAEOLOGY, LLC*
40 *NOVEMBER 2018*
41



**ARCHAEOLOGICAL INVENTORY SURVEY IN SUPPORT OF
PROPOSED UTILITIES RENOVATIONS AT THE UNITED STATES COAST
GUARD FACILITY, AIR STATION BARBERS POINT, ‘EWA,
O‘AHU ISLAND, HAWAI‘I
TMK: (1) 9-1-013:063 POR. AND CORAL SEA ROAD RIGHT OF WAY POR.**

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November 2018

ABSTRACT

Under contract to AECOM, International Archaeology, LLC, completed an archaeological inventory survey (AIS) in support of renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i. The project proponent is the United States Coast Guard, which is the land owner of the Air Station Barbers Point facility (ASBP). The total survey area is approximately 28.07 acres, comprised of portions of the United States Coast Guard Facility (TMK: (1) 9-1-013:063 por.) and the Hawai'i Department of Transportation Coral Sea Road Right of Way. The project is defined as an undertaking as defined in 36 CFR 800.16(y) of Section 106 of the NHPA. This work was conducted in compliance with the Antiquities Act of 1906, Section 106 of the NHPA, the Archaeological Resources Protection Act of 1979 and implementing regulations (32 Code of Federal Regulations Part 229), and, as the project involves state land (Coral Sea Road Right of Way), it is also subject to compliance with Hawaii Revised Statute (HRS) 6E-8 and Hawaii Administrative Rules §13-276.

The AIS included a pedestrian survey and subsurface archaeological testing within the NHPA Area of Potential Effect (APE) and the HRS Chapter 6E Project Area. The Project Area is a subset of the APE and is a portion of the Hawai'i Department of Transportation Coral Sea Road Right of Way.

The purpose of the AIS was to identify historic properties, and if present, to document them, assess their integrity and significance, evaluate if identified properties are eligible for inclusion in the National Register of Historic Places, determine the potential for the project to adversely affect significant historic properties and, if so, to propose appropriate mitigation commitments. Identification of properties of religious and cultural significance to Native Hawaiians was also one of the purposes of the project. The pedestrian survey took place on January 12 and February 28, 2018, and the subsurface testing was conducted on May 25 and 28 of 2018. A follow up observation was made on July 18, 2018. The pedestrian survey included 100% coverage of the surface of the APE. After the pedestrian survey was completed, manual subsurface testing was conducted with the excavation of eight 50 cm by 50 cm shovel tests at the ASBP. A total of eight shovel tests were excavated to the underlying coralline substrate.

Three archaeological sites (Temporary Sites 1-3) comprised of a total of four features were documented through the pedestrian survey. Temporary Site 1 is a pair of low stone mounds that may relate to past agricultural activities. Temporary Site 2 is a C shape and an alignment which was probably related to traditional habitation activities. There is also evidence that the site was used during the military era. Temporary Site 3 is an enclosure which likely functioned as a traditional habitation. Double twisted barbed wire covers the feature and surrounding area, suggesting that this site was also used as a military-training structure. No archaeological deposits were encountered during subsurface testing.

Temporary Sites 1-3 are recommended as eligible for listing on the National Register of Historic Places and are significant properties per Hawaii Administrative Rules §13-275. The sites were fully documented during completion of the AIS. Although construction activities proposed within the APE will not impact these sites, temporary fencing is recommended to be installed prior to construction to ensure no impacts occur and archaeological monitor is recommended to be present when construction occurs within 20 feet of the sites. Because of the possibility of encountering sand sediments that have the potential, although with low probability, to contain buried cultural deposits or human skeletal remains, archaeological monitoring is also recommended in the southern area of Coral Sea Road Right of Way

1 where underground trenching is proposed--from the Aloha Solar Facility (approximately 850 feet south of
2 Tripoli Road) to the ASBP.
3

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I. INTRODUCTION

Under contract to AECOM, International Archaeology, LLC (IA) completed an archaeological inventory survey (AIS), including subsurface testing, for the United States Coast Guard in support of its utilities renovations at Air Station Barbers Point (ASBP), 'Ewa, O'ahu Island, Hawai'i. The AIS was conducted under United States Coast Guard Task Order HSCG50-17-D-PASBP1. Field investigations were conducted within an approximately 28.07-acre survey area, which includes areas on ASBP, owned by the United States of America (Coast Guard), and the entire Coral Sea Road Right of Way (ROW), owned by the State of Hawaii (Department of Transportation) from Roosevelt Road to ASBP, Figure 1.

The project proponent, the United States Coast Guard, has determined that the project is an undertaking as defined in 36 CFR 800.16(y) of Section 106 of the National Historic Preservation Act (NHPA). This work was conducted in compliance with the Antiquities Act of 1906, Section 106 of the NHPA, the Archaeological Resources Protection Act of 1979 and implementing regulations (32 Code of Federal Regulations Part 229), and, as the project involves state land, it is also subject to compliance with Hawaii Revised Statute 6E-8 and Hawaii Administrative Rules §13-276.

The NHPA Area of Potential Effect (APE) includes portions of ASBP (TMK: (1) 9-1-013:063 por.) and the Hawai'i Department of Transportation (HDOT) Coral Sea Road ROW (Figure 1 and Figure 2). The HRS Chapter 6E Project Area is a subset of the APE and corresponds to a portion of the HDOT Coral Sea Road ROW.

PROJECT DESCRIPTION

The project includes portions of ASBP and a portion of the HDOT Coral Sea Road ROW in Kalaeloa. The project is proposed in the *ahupua'a* of Honouliuli in the *moku* of 'Ewa on the island of 'Oahu. Planned activities associated with the project include replacement of the electrical distribution infrastructure servicing ASBP, replacement of the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP, and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric Company (HECO) island-wide grid system. The location of the APE is shown in Figure 1 and Figure 2. The APE and USCG buildings over 50 years of age are shown in Figure 3 and include:

- replacement of all ASBP building transformers to step down 12.47 kV to 480/277V and 208/120V and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP will occur in the HDOT's existing ROW whose alignment is illustrated in Figures 1-2. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue.

Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 1,475 m (4,840 ft.) of a 12kV underground distribution system between the ASEF II Utility and ASBP. However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 4,420 m (14,500 ft.) of a 12kV underground (or combined underground and overhead) distribution system between the existing HECO electrical manhole and ASBP.

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would include installation of pad-mounted transformers. Installation would include electrical conduit.

SCHEDULE AND PERSONNEL

Alex E. Morrison, Ph.D., was the Principal Investigator for all phases of the project. He is a qualified archaeologist per the Secretary of the Interior (SOI) standards. Dr. Morrison supervised all aspects of the AIS including the development of the pedestrian survey and subsurface testing strategies, and is the lead author of the technical report. Fieldwork for the project was carried out in two phases: 1) pedestrian survey; and, 2) subsurface testing. The pedestrian survey took place on January 12 and February 28, 2018, with the goal of identifying potential surface historic properties (e.g., architectural features, artifact scatters). Field personnel for this phase included Dr. Morrison, Darby Filimoehala, B.A., and Sara Balmuth, B.A.

The second phase of fieldwork was subsurface testing on ASBP. Subsurface testing entailed the excavation of eight 50 cm by 50 cm shovel test pits (STPs). STPs were excavated to the underlying coralline substrate. STPs were placed where the buried utility lines will be installed on ASBP. The subsurface excavation fieldwork was conducted on May 25 and 28, 2018. Field personnel included Dr. Morrison and Rona Ikehara-Quebral, Ph.D. A follow up visit was made on July 18, 2018 by Dr. Morrison and Dr. J.S. Athens.

DISPOSITION OF FIELD NOTES AND OTHER MATERIALS

Original field notes, other field and report files are temporarily curated at the IA facility in Honolulu.

CONSULTATION

Letters were sent to consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands Historic Hawaii Foundation O'ahu Island Burial Council Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association Kaupe a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none were received.

A cultural impact assessment (CIA) with the intent of satisfying Hawaii State Act 50 SLH 2000 was prepared in case the HDOT decides a HRS Chapter 343 EA is needed. Based on the CIA findings,

no known or potential cultural impacts are foreseen in or in the vicinity of the proposed project APE. The majority of the land proposed for use by the project is within an existing road corridor and, therefore, has been significantly altered. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. An archaeological monitor is recommended to be present when construction occurs within 20 feet of the three sites that occur within the APE. The USCG will also provide on-site archaeological monitoring in the southern area of Coral Sea Road, where sand sediments may be encountered and where underground trenching from Aloha Solar (approximately 850 feet south of Tripoli Road) to ASBP will occur.

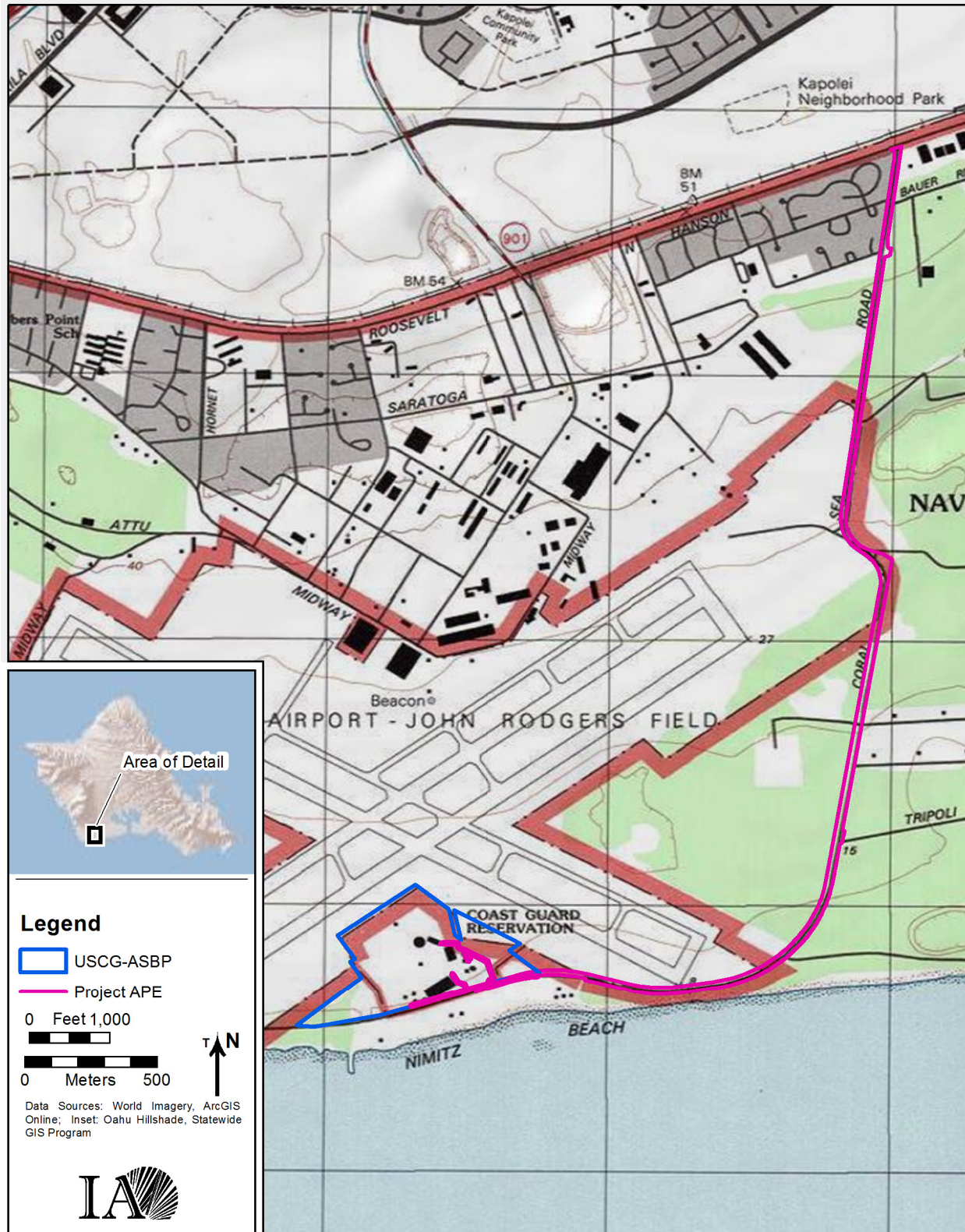
PUBLIC INVOLVEMENT

The following public involvement opportunities have been made and are planned.

- On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. This distribution included the parties listed in the June 27, 2018, consultation above. A project information sheet and site map were included that described the preliminary elements of the USCG's project and solicited stakeholder comments for use in focusing the evaluation of potential environmental impacts in the EA. The USCG's purpose and need for the proposed action, alternatives, environmental resources, issues and key approvals/permits; and next steps were presented.
- On 17 May 2018, the USCG presented at a Hawaii Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- When the draft EA is completed it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://ocqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

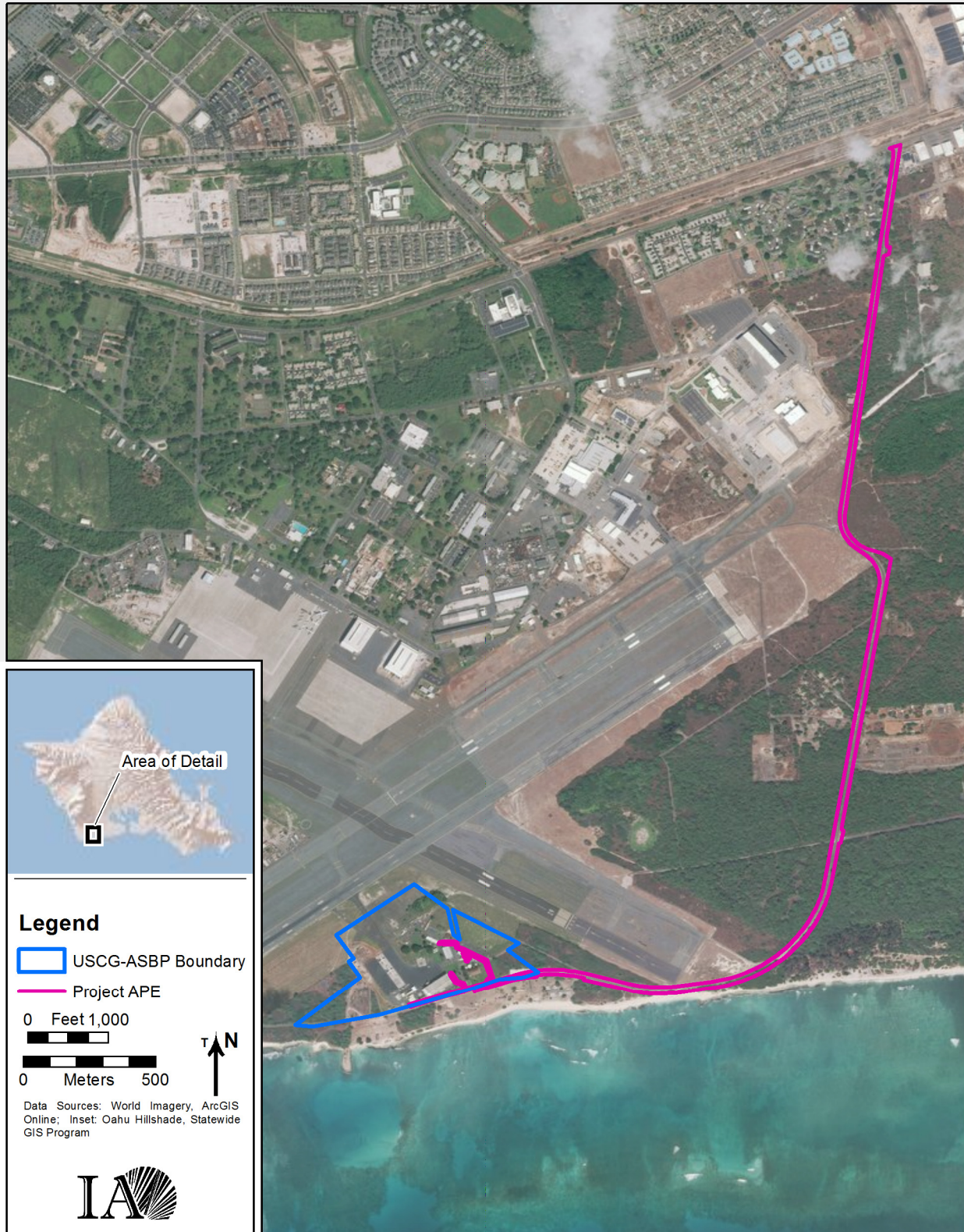
REPORT ORGANIZATION

Section I provides an overview of the project and the personnel involved. Section II summarizes relevant physical environmental characteristics, important cultural background information, and previous archaeological investigations and findings. Section III addresses the research questions that guided field work and the field methods that were employed. Section IV presents the results of the fieldwork. Section V discusses the results of the fieldwork in the context of the research questions developed in Section III. Section VI provides National Register of Historic Places (NRHP) and State of Hawai'i significance evaluations for the three sites identified during the fieldwork. The report concludes with a list of references cited and a glossary of Hawaiian words used in the text.



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2 Figure 1. Location of the APE on USA Topo Maps topographic quadrangle.



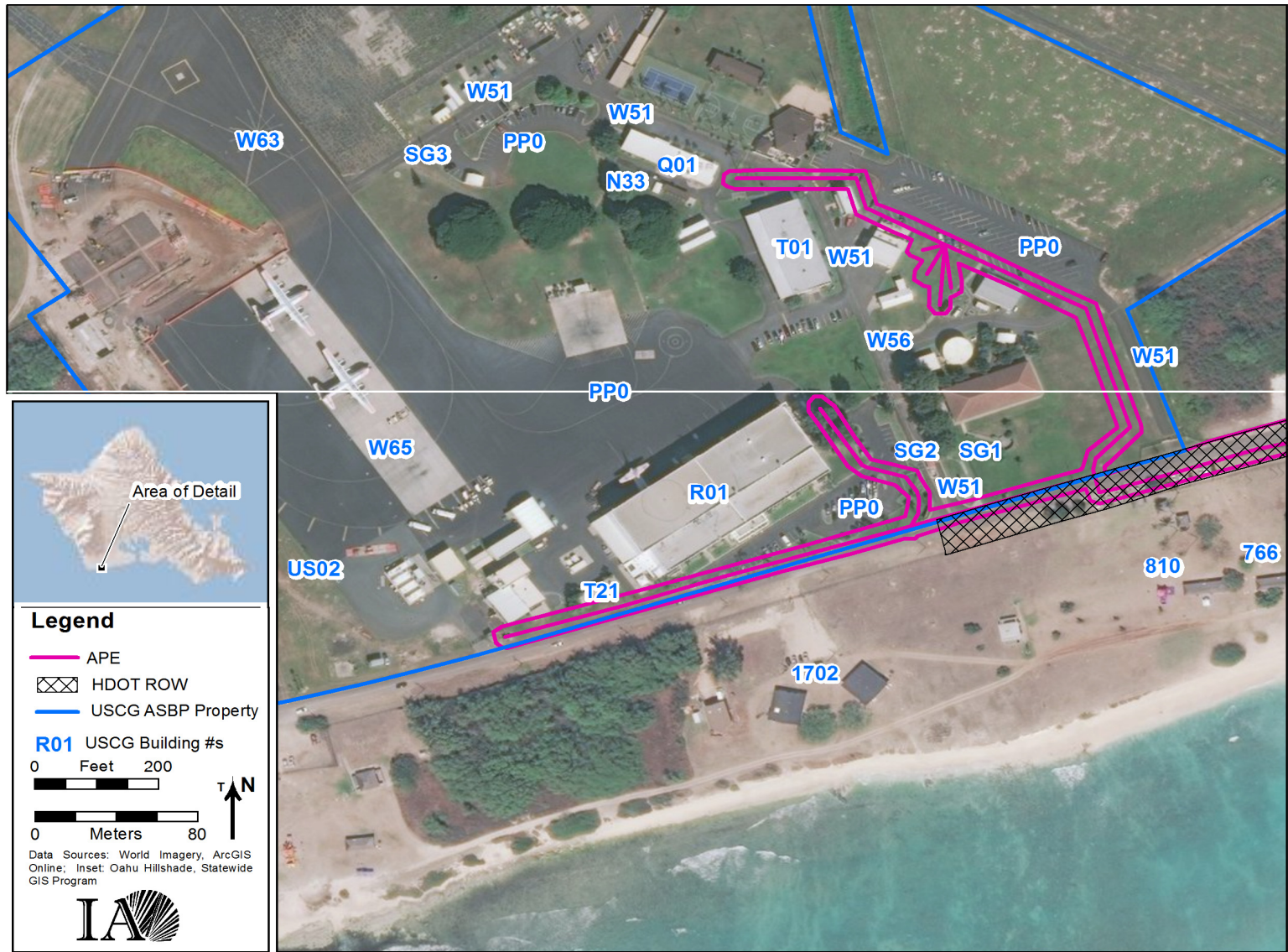
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Figure 2. Location of the APE on recent satellite World Imagery.

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3 Figure 3. APE on United States Coast Guard ASBP. (Note: Portion of APE within HDOT Coral Sea Road ROW is also shown).

II. ENVIRONMENTAL AND CULTURAL BACKGROUND

This section provides background context for the project. It summarizes information about the physical environment, the cultural history of the ‘Ewa Plain and Honouliuli Ahupua‘a, and archaeological data that provide context for the fieldwork and results. Much of the background information is based on discussions in Kingsbury and Spear (2017), Lauer and Morrison (2017), Medrano et al. (2014), and Tuggle and Tomanari-Tuggle (1997a, b).

PHYSICAL ENVIRONMENT

The APE is within the *ahupua‘a* of Honouliuli, which is bound by Pearl Harbor to the east and the Wai‘anae Range to the west. Honouliuli is situated within the larger ‘Ewa District, which is characterized by the ‘Ewa Plain, an emergent coral reef platform formed approximately 125,000 years ago (MacDonald et al. 1979:355).

The environment of the Ewa Plain during early human occupation was likely open grassland characterized by small groves of *Pritchardia*, *wiliwili*, *noni*, and *kou* (Davis 1990). According to data gathered during sediment coring from the ‘Ewa Plain by Athens et al. (1999), the savanna-like grassland replaced a dryland forest in the initial years after Polynesian settlement of the island. This environmental transformation was likely due to the introduction of invasive species, most notably the Polynesian rat, (*rattus exulans*), as well as forest clearing for agriculture and resource procurement (Athens et al 2002).

Average annual rainfall for the ‘Ewa District ranges from 300 to 500 mm (11.8 to 19.7 in.), this comparatively low amount is the result of a rain-shadow effect caused by the Wai‘anae Range. However, annual rainfall on the ‘Ewa Plain is highly variable, with two rain stations registering a range of 152.4 to 1,041.4 mm (6 to 41 in.) from 1902 through 1936 (Tuggle and Tomonari-Tuggle 1997:16). No visible water sources are present within the current APE; however, the water table is 3 to 6 m (10 to 20 ft.) below the surface in some areas and may yield small amounts of fresh water within the area’s limestone dissolution pits (Kingsbury and Spear 2017).

Soil maps in Foote et al. (1972:29) show that the majority of the APE is within a Coral outcrop series (CR) (Figure 4). Past coral reefs formed within shallow ocean waters during a previous high stand of the sea in the last interglacial period (Szabo et al. 1994). Small areas of coral outcrop are exposed on the ocean shore, along the coastal plains, and at the foot of the uplands (Foote et al. 1972:29). On the ‘Ewa Plain, this manifests in a karstic landscape formed by receding sea levels. Post sea-level fall features, such as sinkholes, caves, and fissures, were created by chemical and physical erosion.

Nearly 100% of the APE is comprised of this Coral outcrop series. The remainder is made up of mixed fill land near the middle of the APE related to urban and military development and the Kalaeloa Airport (formerly Naval Air Station Barbers Point), which borders the APE. Calcareous beach sand deposits are present near where the APE meets the coastline. Calcareous sand deposits would have formed as a marshy strand with pools and ponds during the middle to late Holocene which, over time, would have been infilled by shoreline progradation leading to the development of beach sand deposits (Pacheco 2013, Lauer and Morrison 2017). In contrast, along the northern section of the APE the limestone substrate is covered by a thin accumulation of Māmala series soils that have collected as alluvium from the nearby Wai‘anae Range (Athens et al. 1999).

Soils present south of the alluvial deposits are typically constrained to sinkholes and depressions within the coral outcrop series. These soils are generally clays and silts formed from the weathering of the local substrate with some inclusion of transported non-local material and are characterized by poor water retention and high aeration (Davis 1995). In general, soil formation within the APE is minimal with the limestone substrate occurring at, or close to, the surface.

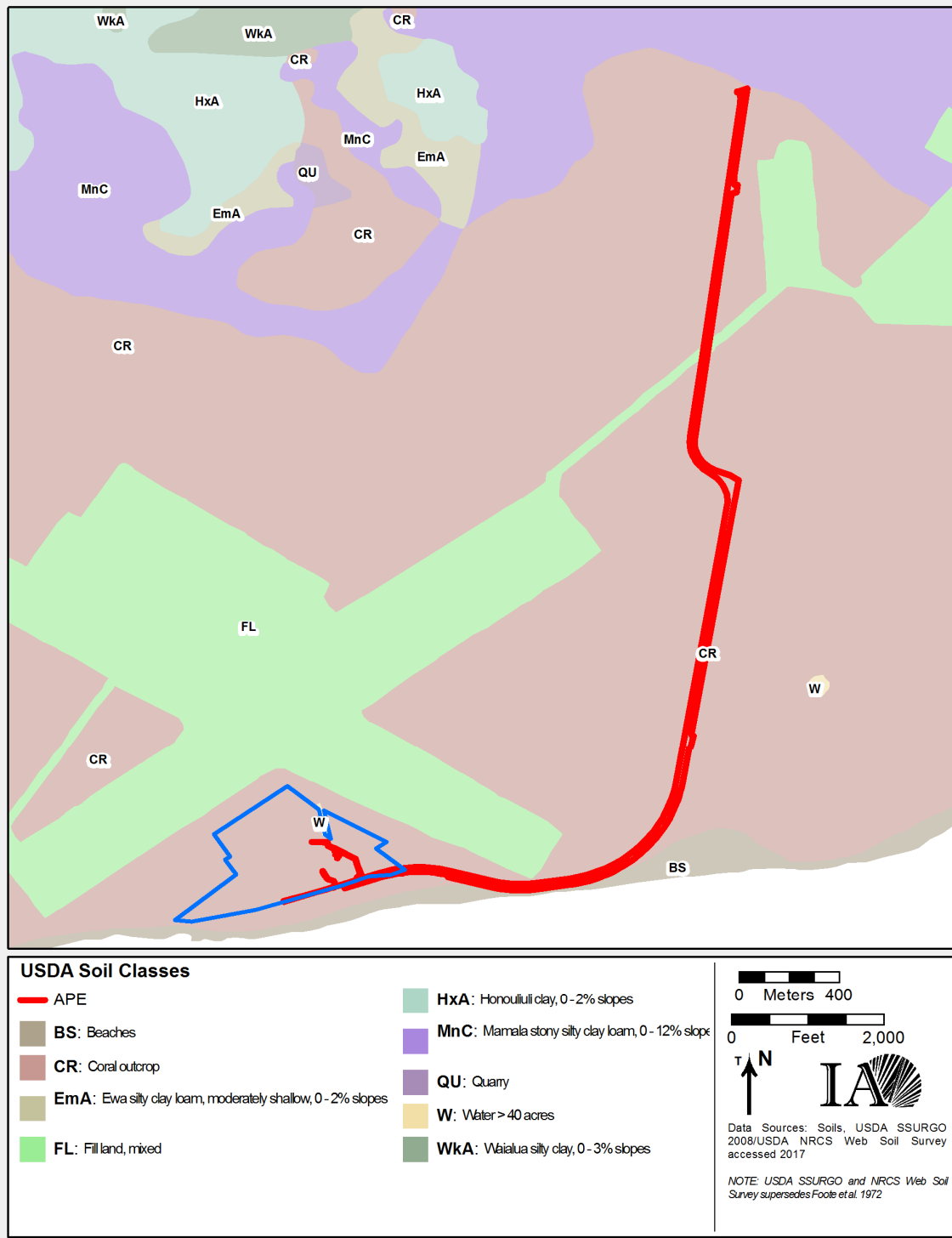


Figure 4. Soils within and around the APE and the surrounding area.

FLORA AND FAUNA

Vegetation near Coral Sea Road consists of *Prosopis pallida* (kiawe), *Asystasia gangetica* (Chinese violet), *Cryptostegia* cf. *grandifolia* Roxb (rubber vine), *Spathodea campanulata* (African Tulip), *Schinus terebinthifolius* Raddi (Christmas berry), *Chenopodium murale* L. ('aheahea), *Leucaena leucocephala* (koa haole), *Cenchrus ciliaris* (buffalograss), and *Urochloa maxima* var. *trichoglume* (Guinea grass) (Kingsbury and Spear 2017).

Prior to Western contact, the 'Ewa Plain would have likely been covered by scrub-type vegetation that was able to withstand the arid environment. Common plants would have included *wiliwili* (*Erythina sandwicensis*), *lama* (*Diospyros ferrea*), *'iliahi* (*Santalum* sp.), *'a'ali'i* (*Dodonea ericarpa*), *'ohi'a* (*Metrosideros collina*), and *pili* (*Heteropogon contortus*) (Whistler 1995).

Mongoose (*Herpestes auropunctatus*), rats (*Rattus rattus* and *Rattus exulans*), and mice (*Mus musculus*) dominate the terrestrial fauna. Twenty four species of avifauna, including native species and historical introductions, have been recorded on the plain (Ogden 1994). The present avifauna represents a severely depleted community since the time of initial Polynesian settlement of the island (Athens et al. 2002; Olson and James 1982).

HISTORICAL BACKGROUND

The APE is within the *ahupua'a* of Honouliuli in the *moku* of 'Ewa. As mentioned earlier, 'Ewa was one of the largest districts on O'ahu. Honouliuli is the largest and westernmost *ahupua'a* within 'Ewa, and includes much of the 'Ewa Plain as well as the lands extending north towards the Wai'anae Range. The project is within Kalaeloa, the traditional name for the area. Kalaeloa literally means the long point (*ka-lae* = cape or point and *loa* = long) (Pukui et al. 1974:72).

This subsection focuses on traditional and historic land uses, and the history of O'ahu as it relates to the *ahupua'a* of Honouliuli.

TRADITIONAL HISTORY

The district of 'Ewa was a place associated with the *ali'i* of O'ahu (McAllister 1933). In his discussion of Hawaiian political history, which relies on genealogical reckoning for chronology, Cordy (1996) suggests that beginning in the early 14th century, the 'Ewa chiefs became important politically. 'Ewa, along with Kona and Ko'olaupoko, were the dominant political districts on the island, ruled by the sons of the high chief Māweke (Cordy 2002:21). They reigned until about AD 1520-1540, with their major royal center located at Līhu'e in inland 'Ewa (Cordy 2002:24).

After the last chief of the Māweke line was slain, power shifted among the chiefs of different districts from the 1500s until the early 1700s, when Kūali'i achieved control of all of O'ahu by defeating the chiefs of 'Ewa (Cordy 2002:32). Peleiohōlani, the heir of Kūali'i, gained control of O'ahu around 1740, and later conquered parts of Moloka'i. He ruled O'ahu until his death in 1778 when Kahahana of the 'Ewa line of chiefs became ruler of O'ahu (Cordy 2002:24-41).

During the second half of the 18th century, Waipi'o was the focus of political intrigue and warfare. In 1783, the forces of the Maui chief Kahekili gained control of the island of O'ahu by defeating Kahahana (Cordy 1981:207). Kahahana, his wife, Kekuapoi, and his friend Alapa'i, fled westward, hiding at many places in 'Ewa, including Waipi'o Peninsula; Kahahana was finally captured and killed at Waikele (Cordy 2002:19).

1 The defeated O'ahu chiefs plotted to kill the Maui chiefs, and succeeded in killing Hu'eu, to
2 whom Kahekili had given control over the districts of 'Ewa, Wai'anae, and Ko'olauloa. The murderers of
3 Hu'eu were found in Waipi'o, "therefore Ewa became famed as a land of deadly plots" (Sterling and
4 Summers 1978:3, quoting *Ka Nupepa Kuokoa*, December 5, 1868; HEN Volume I, p. 2734). Waipi'o
5 was given the name "Waipi'o kīmopō," or "Waipi'o of secret rebellion" (Pukui 1983:319) due to all the
6 covert planning (Kamakau 1961:138). Following the plan's failure, Kahekili took revenge on the 'Ewa
7 and Kona districts (Kamakau 1961:138):

8 ... and when Ka-hekili learned that Elani of 'Ewa was one of the plotters, the districts of Kona and
9 'Ewa were attacked and men, women, and children were massacred, until the streams of Makaho
10 and Niuhelewai in Kona and of Kahoa'ai'ai in 'Ewa were choked with the bodies of the dead, and
11 their waters became bitter to the taste, as eyewitnesses say, from the brains that turned the water
12 bitter. All the O'ahu chiefs were killed and the chiefesses tortured.

13 Kahekili and the Maui chiefs retained control of O'ahu until the 1790s. In 1794, Kahekili died at
14 Waikīkī. His son and heir, Kalanikūpule, was defeated by Kamehameha the following year at the battle
15 of Nu'uano. Kamehameha then redistributed the O'ahu lands, including Waipi'o Ahupua'a, among his
16 favorite followers. This resulted in the displacement of many families: "Land belonging to the old chiefs
17 was given to strange chiefs and that of old residents on the land to their companies of soldiers, leaving the
18 old settled families destitute" (Kamakau 1961:376-377).

19 AGRICULTURE AND SUBSISTENCE

20 The Kalaeloa area of Honouliuli Ahupua'a was an agriculturally marginal environment due to a
21 lack of reliable water sources and poorly developed soils. However dryland planting techniques took
22 advantage of the numerous pit caves and sinkholes of the 'Ewa karst as well as artificial stone mounds
23 would have allowed for the development of agricultural systems (Tuggle and Tomanari-Tuggle 1997a).

24 Kamakau (1991:110) describes the introduction of 'ulu (breadfruit; *Artocarpus altilis*) to Hawai'i
25 at Pu'uloa, at the eastern edge of the 'Ewa Plain; Kaha'i-a-Ho'okamali'i first brought breadfruit to
26 Pu'uloa where it was planted "in a large excavation." Tuggle and Tomanari-Tuggle (1997) interpret this
27 as possibly meaning that breadfruit was planted in one of the many limestone pit caves found in the area.
28 Breadfruit is also more closely tied to the APE, in particular Kualaka'i (once located directly seaward of
29 the ASBP property), in the story of Namakaokapa'o'o. He was the child of a god-chief Ka'uluakaha'i,
30 who was abandoned by his father in Ho'ae'ae, the *ahupua'a* to the east of Honouliuli. He then found his
31 father's royal garments in a gourd at the base of a breadfruit tree in Kualaka'i. His father's name
32 translates to "the standing breadfruit of Kaha'i," and the place name Kualaka'i may be a corruption of
33 Ka'uluakaha'i (Fornander 1916-20, II:224 ff.). Though breadfruit has not been noted in the recent
34 environmental surveys of 'Ewa, it is clear from the above stories that it has a close association with the
35 region, including places surrounding the APE.

36 Another point of interest relating to Hawaiian use of resources on the 'Ewa Plain is the
37 importance of avifauna to the initial settlement of the region. It has been postulated that early forays onto
38 the plain were conducted by bird hunters exploiting avian resources during temporary trips (Davis 1990,
39 Tuggle and Tomanari-Tuggle 1997). As described by Sinoto (1978) and Olson and James (1982), several
40 pit cave excavations at Barbers Point revealed the presence of extensive deposits of avifaunal remains,
41 including several extinct species.

EARLY POST-CONTACT PERIOD

The first description of the ‘Ewa Plain by a European visitor comes from Vancouver in 1792 (Vancouver 1798:I,167):

This point is low flat land, with a reef round it, extending about a quarter of a mile from shore. The reef and low land continue some distance eastwards toward Whyteete Bay.... Not far from the S.W. point is a small grove of cocoa-nut trees, and along these shores are a few struggling fishermen’s huts.

A few years later, in 1796, a ship under the command of Captain Henry Barber ran aground near Kalaeloa, becoming the first ship to land on this area of O‘ahu. Various accounts tell of his dealings with the native population of the area, as well as with Kamehameha, and afterwards the point was relabeled in his name (Kamakau 1961).

One of the earliest maps of the area, by Malden (1825), labels the entire central portion of the plain as “low uncultivated plain” indicating an area that was marginally used. However, depicted on the map are several small population centers along the coastline, one such village is near Kualaka‘i, which is described above (Tuggle and Tomanari-Tuggle 1997a:Appendix A).

Archival and ethnographic evidence strongly suggests that the coastline of the ‘Ewa Plain, Kualaka‘i in particular, was occupied continuously after Western contact until approximately a century ago. There is no direct evidence for an interior settlement during this period, although a trail depicted in Malden’s map suggests that there was at least some activity in the inland region (Filimochala 2011).

PLANTATION AND RANCHING

In the mid-19th century, a massive restructuring and redistribution of the lands of Hawai‘i, occurred under the reign of Kamehameha III. This is referred to as the Mahele. During the Mahele, the *ahupua‘a* of Honouliuli was awarded to Kekau‘ōnohi, the granddaughter of Kamehameha through his son Kahō‘anokū Kīna‘u. After Kekau‘ōnohi’s passing in 1851, the land was given to her husband Levi Ha‘alele‘a. In 1864, the land was transferred again by Ha‘alele‘a’s second wife and widow, Anadelia Amoe, to her brother-in-law John H. Coney. Coney sold the land in 1877 to James Campbell, which is when intensive ranching began in Honouliuli (Tuggle and Tomanari-Tuggle 1997).

The purchase of the land by James Campbell and the subsequent formation of Honouliuli Ranch resulted in the construction of fencing and water development, and Campbell soon had a prosperous cattle ranch. Other ranch activities of the late 19th and early 20th centuries included beekeeping, limestone quarrying, and probably *kiawe* cutting for charcoal production (Meeker 1995:101). Many features associated with ranching (including fences, walls, roads, and windmills) are shown on the 1928 USGS map. The construction chronology of these features is not known, but it is probable that many of these were built in the late 19th century.

Campbell was convinced of the value of the ‘Ewa Plain for sugarcane cultivation and hired a well digger to begin excavation of a series of artesian wells to provide a reliable source of water. He was successful, and in 1889, leased most of his land to Benjamin Dillingham, who then subleased portions of the land to W.R. Castle, the founder of the Ewa Plantation Company. Dillingham also built the Oahu Railroad and Land Company (OR&L) railway line across the ‘Ewa Plain in the 1890s. The land north of the line became fertile sugarcane plantations and the land south of the line remained ranch land (Filimochala 2011).

1 The newly built artesian wells also allowed the introduction of sisal (*Agave sisalana*) cultivation.
2 Records show that the Hawaiian Fibre Company was established in 1898 for the cultivation of sisal, with
3 one plantation at Waipahu and another on the 'Ewa Plain (MacCaughey and Weinrich 1918:43, in Kelly
4 1991:165). The 300-acre 'Ewa sisal plantation extended into the area of the former Naval Air Station
5 (NAS) and the northern portion of the APE and production continued into the 1920s.

6 **MILITARY LAND USE**

7 Military use of the 'Ewa Plain began in the 1930s with the construction of training areas,
8 defenses, and a coastal highway (see Tuggle and Tomanari-Tuggle 1997a:Fig. 5). In 1931, at Pu'u-o-
9 Kapolei, the Army began construction of Battery Hatch, which would contain the largest guns installed in
10 coastal defense prior to World War II. These two 16-inch guns had an effective range of 44,000 yards.
11 The military reservation on which the battery stood was named Fort Barrette (Tuggle and Tomanari-
12 Tuggle 1997).

13 In 1941, prior to the Japanese attack on Pearl Harbor, construction on NAS Barbers Point began.
14 After the attack and with the onset of American involvement in World War II (WWII), construction of the
15 station ramped up and its operational capacity was increased. Yoklavich et al. (1992:17) records that "of
16 the 251 buildings remaining from the 1940s two are listed as being built in 1941, 187 were built in 1942-
17 43, 53 were completed in 1944, 3 in 1945, and only 6 in the next four years, 1946 to 1949." By April of
18 1942, the station was commissioned and in September, 'Ewa Marine Corps Air Station was formally
19 established (Medrano et al. 2014).

20 NAS Barbers Point saw continued use through the ensuing decades with various functions depending on
21 military needs. The decision to close NAS Barbers Point was made in 1993 under the 1990 Defense Base
22 Closure and Realignment Act (DBCRA), as amended by the 1993 Base Realignment and Closure
23 (BRAC) process (U.S. Navy 1999). It was closed in July 1999.
24

25 The United States Coast Guard became established in the Hawaiian Islands in 1945 with the
26 original command at NAS Kāne'ohe. In 1949, the Coast Guard presence shifted to NAS Barbers Point
27 and by 1965, their own division of the station had been established and named Coast Guard Air Station
28 Barbers Point. United States Coast Guard Air Station Barbers Point remains in operation today (Naval
29 Air Station Museum Barbers Point 2018: <http://nambp.org/coast-guard-air-station-barbers-point>).

30 **ARCHAEOLOGICAL BACKGROUND**

31 A substantial number of archaeological investigations have been completed near Barbers Point
32 and on the greater 'Ewa Plain. Many of the features and sites that have been recorded relate to 19th and
33 early 20th century use of the area during the plantation and military eras. Older, pre-Contact sites are also
34 present, in the form of buried subsurface cultural deposits as well as surface features related to agriculture
35 and habitation. This section focuses on those sites and features that are in proximity to the APE. The
36 discussion is drawn largely from the Kingsbury and Spear (2017).

37 Six archaeological inventory surveys (Haun 1991; Hazlett and Spear 2014; Jones 1993;
38 Kingsbury and Spear 2017; Medrano et al. 2014; Thurman et al. 2011), two archaeological field
39 inspections (O'Hare and Hammat 2003; Hammat and Shideler 2012c), two archaeological field
40 assessments (Hammat and Shideler 201a, b, c), one archaeological reconnaissance survey (Welch 1987),
41 one osteological report (Trembly 1995), and one cultural resource inventory (Tuggle and Tomanari-
42 Tuggle 1997a, b), have been completed within or adjacent to the APE (Table 1; Figure 5). Kingsbury and
43 Spear's (2017) APE corresponds with the Coral Sea portion of the current APE/Project Area. Six

subsurface trenches were also conducted during the Kingsbury and Spears (2017) project. No cultural resources were identified (Figure 6). A total of 60 archaeological sites have been identified within 1 km (3,281 ft.) of the APE: (Figures 7 to 9, Figure 2). These sites document pre-Contact, historic period, and military use of the landscape.

Considering the results of the previous studies, features such as walls, enclosures, and mounds are anticipated, which may date from the pre-Contact to military periods. Buried archaeological deposits are considered to be unlikely finds.

Table 1. Previous Archaeological Investigations and Finds Within and Near the APE; Arranged Chronologically by Reference.

Reference	Location	Site No.	Description
Welch (1987)	Former Ewa Marine Corps Air Station, Barbers Point Naval Air Station	50-80-12-3721; 50-80-12-3722	-3721: Features 1-4 are traditional Hawaiian enclosures, Feature 5 is a possibly historical alignment -3722: Cobble-filled coral alignment, likely plantation-era wall
Haun (1991)	Naval Air Station, Barbers Point	50-80-12-1717 through 1757; Site 532; Site 50-80-12-2220	Sites include enclosures, sinkholes, modified sinkholes, mounds, platforms, alignments, walls, pavements, trails; 73% are pre-Contact sites with 27% post-Contact sites
Jones (1993)	Naval Air Station, Barbers Point	Re-documented SIHP Sites 50-80-12-1718 through -1720, -1723, and -1726	Recorded previously undocumented Hawaiian habitation and agricultural features; previously undocumented historic and military features
Trembly (1995)	Nimitz Beach	Added to Site 50-80-12-2220	Native Hawaiian burial; flexed pit burial of child 2-3 years old
Tuggle and Tomanari-Tuggle (1997a,b)	Naval Air Station, Barbers Point	50-80-12-5093 through -5130, and -5307	Pre-Contact habitation sites, 19th century habitation and ranching features, and trail remnants, early 20th century habitation features, WWII buildings and sites, and Cold War structures; paleo-environmental samples collected from pit caves and wetland features
O'Hare and Hammatt (2003)	Portion of the former Naval Air Station	No cultural resources identified	--
Thurman et al. (2011)	Portion of the former Naval Air Station, proposed USCG hangar locations	Newly documented additional features associated with Site 50-80-12-5121	Limited cultural material identified (basalt cobbles and a volcanic glass flake)
Hammatt and Shideler (2012a, 2012b, 2012c)	Hawaii Army National Guard Kalaeloa Facility, former Naval Air Station	No cultural resources identified	--

Reference	Location	Site No.	Description
Hazlett and Spear (2014)	Kalaeloa East Energy Corridor	50-80-12-7572 through -7574	-7572: 10 surface features consisting of military sewer and water infrastructure -7573: military structure foundation -7574: military concrete sidewalk
Medrano et al. (2014)	Parcel bounded by Coral Sea Road to the east and John Rodgers Airport to the west	Sites 50-80-12-5119, and -5120, -7483 through -7494, -7496 through -7504	Pre- and post-Contact sites, including trails; two military sites
Kingsbury and Spear (2017)	Coral Sea Road between Franklin D. Roosevelt Avenue and Eisenhower Road	No cultural resources identified	Six subsurface trenches were also conducted

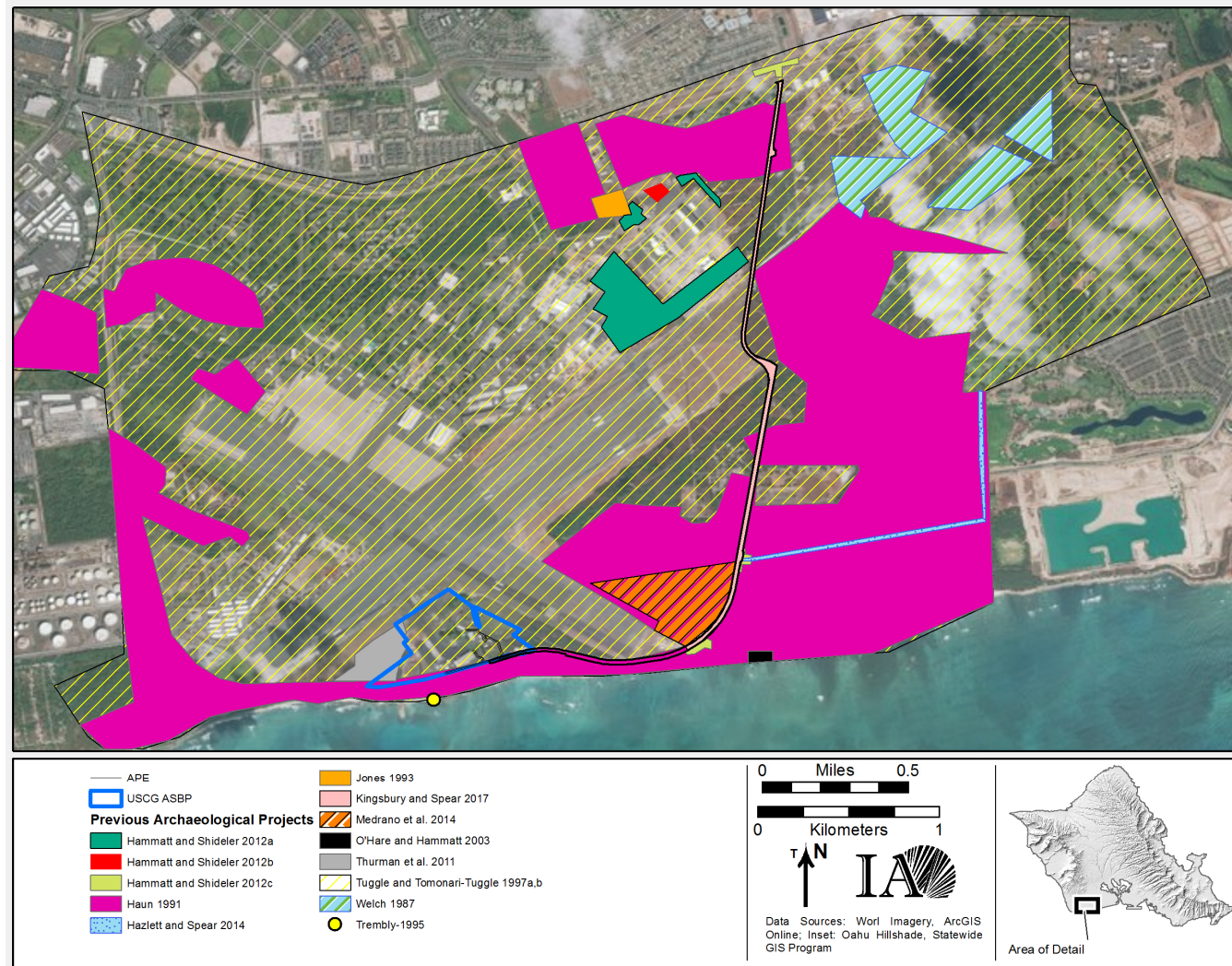
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1 Table 2. Previous Archaeological Sites Within and Near the APE

SIHP	Total Features	Feature Types	Function	Significance Recommendation	Mitigation Recommendation	Comments
1729	12	Karst pits, and the largest pit has bird bone and midden	Ag/refuse and habitation	d	Preservation	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1745	4	Karst pits, walled karst pits, crab remains, and bird bone	Ag/refuse	d	Data Recovery if necessary	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1746	4	Cairn remnant (possible burial), mounds (agriculture), and stone-lined trails (transportation)	Ag/refuse, possible burial component, and transportation	not eligible		Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1747	3	Karst pits, C-shaped structure, and bird bone	Military or historic use	d	Preservation, Data recovery if necessary	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1748	10	Enclosure,stone-lined trail leading to a possible wooden outhouse, platforms (1 possible burial), walls,and C-and L-shaped structures (with historic material)	Ag/refuse, habitation, military, historic, possible burial component, transportation, and waste management	d	Preservation, Data recovery if necessary	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1749	3	Cairn remnant (with fallen uprights), enclosure (habitation), platform (broken beer bottle), and walls ('opihi shell with historic and military debris).	Habitation, military, historic, refuse, and possible religious component	d	Preservation	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
1751	1	Wall (with military debris in the area)	Military	d	No further action	Hahn 1991:104
1753	51(5+)	Karst pits, bird bone, mounds, alignments, uprights, paved trail bordered by limestone slabs (with debris from plane crash), cairn (collapsed with possible burial), enclosures (one has possible cupboard), wall, and C-, J-, L-, and U-shaped structures	Ag/refuse, habitation, military, historic, burial, and possible religious component	a, c, d	Preservation	Haun 1991; Tuggle and Tomonari-Tuggle 1997b; Wickler and Tuggle 1997
2220		Dune site. Pit and slab lined features with deposit of ash, charcoal, midden and coral abrader. Human burial was removed in 1974	Habitation, and burial component	a, d	Preservation	Haun 1991; Tuggle and Tomonari-Tuggle 1997b
3721	5(3)	Stone features	Habitation	d	Data reovery if necessary	Tuggle and Tomonari-Tuggle 1997b
3722		Sisal walls	Historic ag	d	No further action	Tuggle and Tomonari-Tuggle 1997b
5094	5+	Karst pits, bird bone, burial	Ag/refuse, burial component	c, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5096	1	Concrete gun emplacement	Military	a,d	No further action	Tuggle and Tomonari-Tuggle 1997b
5097	5	Gun positions, sentry post, Armco steel magazine, and coral road	Military and military transportation	a, c, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5098	2	Karst pits, midden, and burial,	Possible ag/refuse, habitation, and burial component	d	Data reovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5099		Military housing	Military/historic habitation	not eligible		Tuggle and Tomonari-Tuggle 1997b
5100	17	Walls and vaulted mounds	Prehistoric to early historic habitation and agriculture	c, d	Data reovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5101	3	Two gun positions, sentry post and a rifleman's trench	Military	a, c, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5102		Stone structures (traditional Hawaiian, but later modified by military)	Habitation, and military	not eligible		Tuggle and Tomonari-Tuggle 1997b
5103	1	Earthen berm	Military	not eligible		Tuggle and Tomonari-Tuggle 1997b
5104	1	Ordy Pond		c, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5106		Grenade range, barbed wire, and drylaid masonry feature	Military	d	No further action	Tuggle and Tomonari-Tuggle 1997b
5107		Karst pits	(No cultural deposits)	d	Data recovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5108		Karst pit, bird bone, dense deposit, and burial	Ag/refuse, burial component	c, d	Presevation	Tuggle and Tomonari-Tuggle 1997b
5109	10+	Moving target range, firing position, and biovoac area	Military	d	No further action	Tuggle and Tomonari-Tuggle 1997b
5110	1	Rifle and pistol range, backtop earthen berm	Military	d	No further action	Tuggle and Tomonari-Tuggle 1997b

SIHP	Total Features	Feature Types	Function	Significance Recommendation	Mitigation Recommendation	Comments
5111		Bivouac area, drylaid stone walls	Military	d	No further action	Tuggle and Tomonari-Tuggle 1997b
5113		Karst pits	(No cultural deposits)	d	Data recovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5114		Military plane wreck	Military	a, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5115		Machine-gun positions, double-apron barbed wire, and a sentry post	Military	a, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5116	1	Dynamite storage facility, roads, small features	Military, and military transportation	d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5117	1	Sisal wall	Historic ag	a,d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5118		Salt Flat	Salt cultivation	c, d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5119	37	Karst pits, and C-, L-, and U- shaped structures	Ag/refuse, storage, and habitation complex	d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5120	10+	Karst pit, wall, concrete pad, guard shack and concrete enclosure, foundations, and pillbox	Ag/refuse, military boundary	d	Preservation	Tuggle and Tomonari-Tuggle 1997b; Medrano et al. 2014
5121		Karst pits	Refuse (pits filled with bulldozed rubble)	d	Data recovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5125	8	Pillboxes	Military	a ,d	Preservation	Tuggle and Tomonari-Tuggle 1997b
5130		Karst pits	Refuse (pits filled with bulldozed rubble)	d	Data recovery if necessary	Tuggle and Tomonari-Tuggle 1997b
5307	34	Military bivouac area	Military	d	No further action	Tuggle and Tomonari-Tuggle 1997b
7483	10	Karst pits, mounds (possible buiral), mounds (agriculture)	Ag/refuse with possible burial component	d, e	Preservation	Medrano et al. 2014
7484	3	Karst pits, midden scatter	Ag/refuse , habitation complex	d	Preservation	Medrano et al. 2014
7485	2	Karst pit, mound	Ag/refuse	d	Preservation	Medrano et al. 2014
7486	5	Karst pits, linear path, and rock mound	Ag/refuse, ranching, transportation w possible burial component	d, e	Preservation, Data Recovery (Features 2A-2C)	Medrano et al. 2014
7487	12	Karst pits, airplane crash remnants, concrete remnants, concrete pads, L-shaped structure, and platform wall	Ag/refuse, storage, military, and boundary	d	Preservation	Medrano et al. 2014
7488	1	Karst pits	Ag/refuse	d	Preservation	Medrano et al. 2014
7489	2	Karst pits	Ag/refuse	d	Preservation	Medrano et al. 2014
7490	3	Karst pits, walled karst pit	Ag/refuse	d	Preservation	Medrano et al. 2014
7491	1	Path	Transportation	d	Preservation	Medrano et al. 2014
7492	45	Rock mounds, enclosures, enclosures, and c-, reverse J-, L-, T-, and U-shaped structures	Ag/habitation complex	d	Preservation	Medrano et al. 2014
7493	1	Karst pit	Storage/refuse	d	Preservation	Medrano et al. 2014
7494	1	Walled karst pit	Ag/storage	d	Preservation	Medrano et al. 2014
7496	2	Platform, platform mound	Ag/habitation and storage complex	d	Preservation	Medrano et al. 2014
7497	1	rock mound	Ag	d	Preservation	Medrano et al. 2014
7498	3	Karst pits	Ag/refuse, storage complex	d	Preservation	Medrano et al. 2014
7499	3	Karst pits, walled karst pit	Ag/storage and refuse complex	d	Preservation	Medrano et al. 2014
7500	1	Karst pit	Ag/refuse	d	Preservation	Medrano et al. 2014
7501	1	Mound	Dozer push pile	d	Preservation	Medrano et al. 2014
7502	1	Mound	Ag	d	Data Recovery (Feature 1)	Medrano et al. 2014
7503	1	C-shaped structure	Habitation	d	Preservation	Medrano et al. 2014
7504	2	Karst pit, mound	Ag/refuse	d	Preservation	Medrano et al. 2014

1



2

3 Figure 5. Locations of previous archaeological investigations near the current APE. Note that the Tuggle and Tuggle 1997a, b project area
4 corresponds to the entirety of the former NAS Barbers Point.

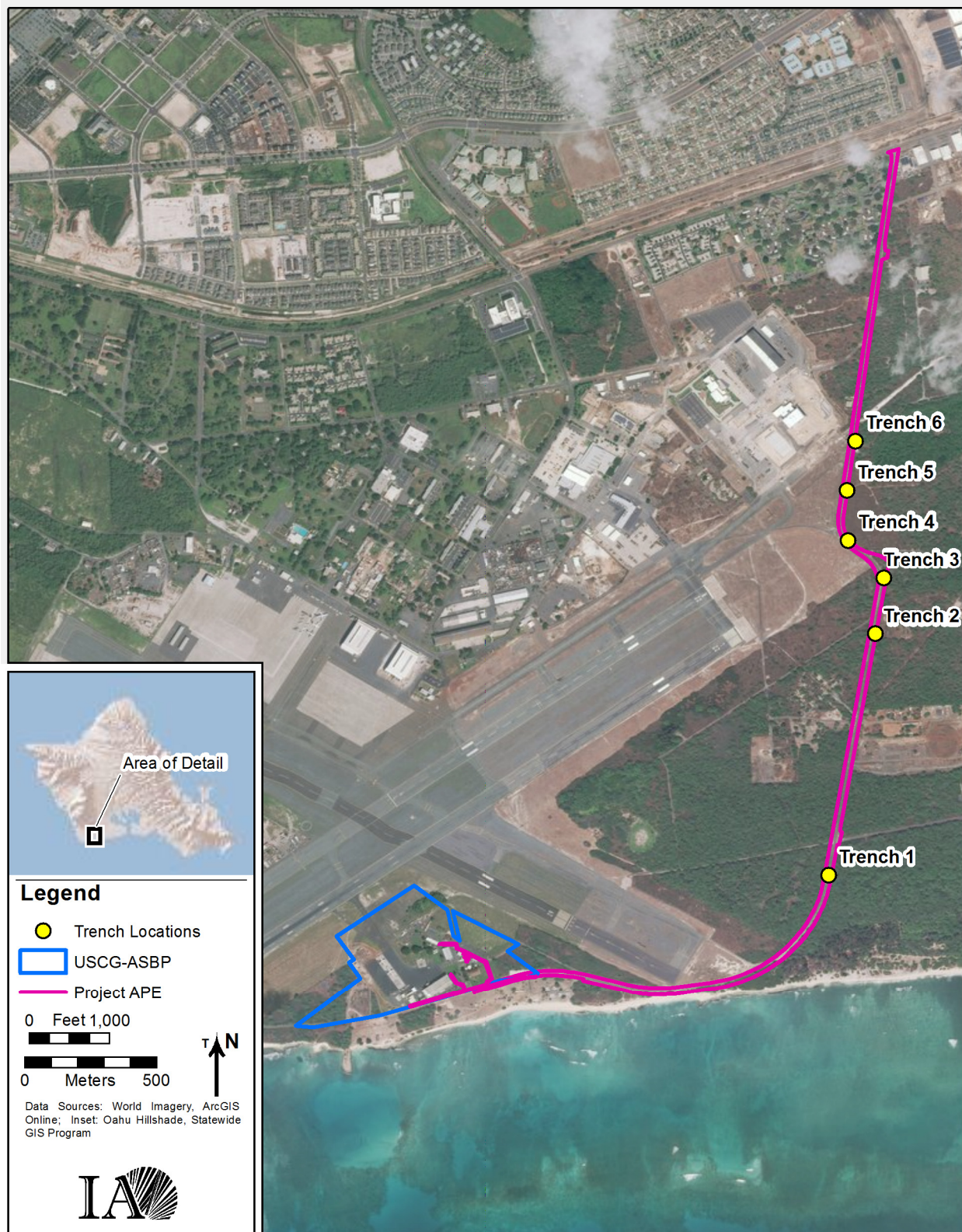


Figure 6. Location of subsurface trenches conducted by Kingsbury and Spears (2017).

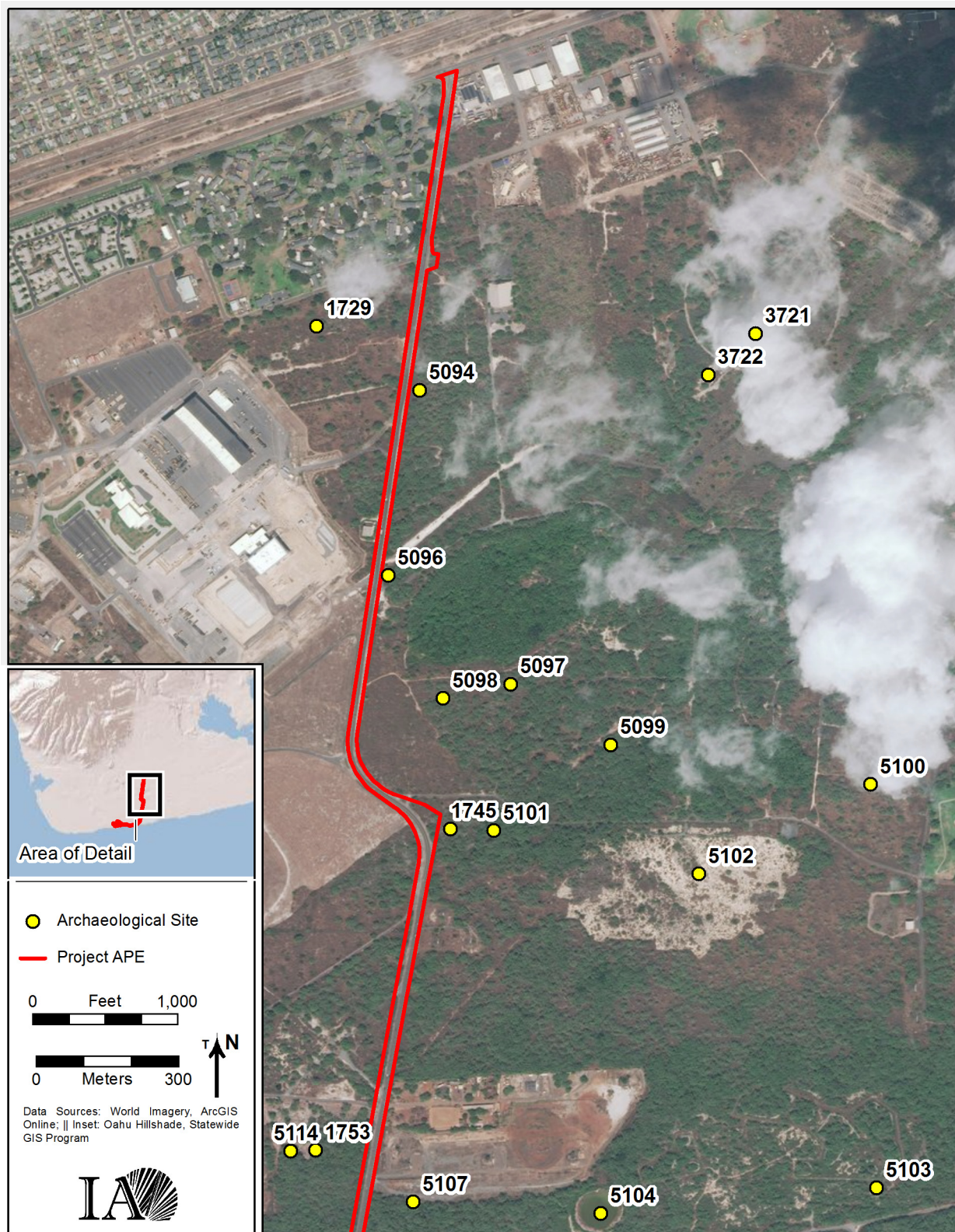


Figure 7. Known archaeological sites near the northern portion of the current APE. Only sites within 1000 meters of the project APE are depicted.

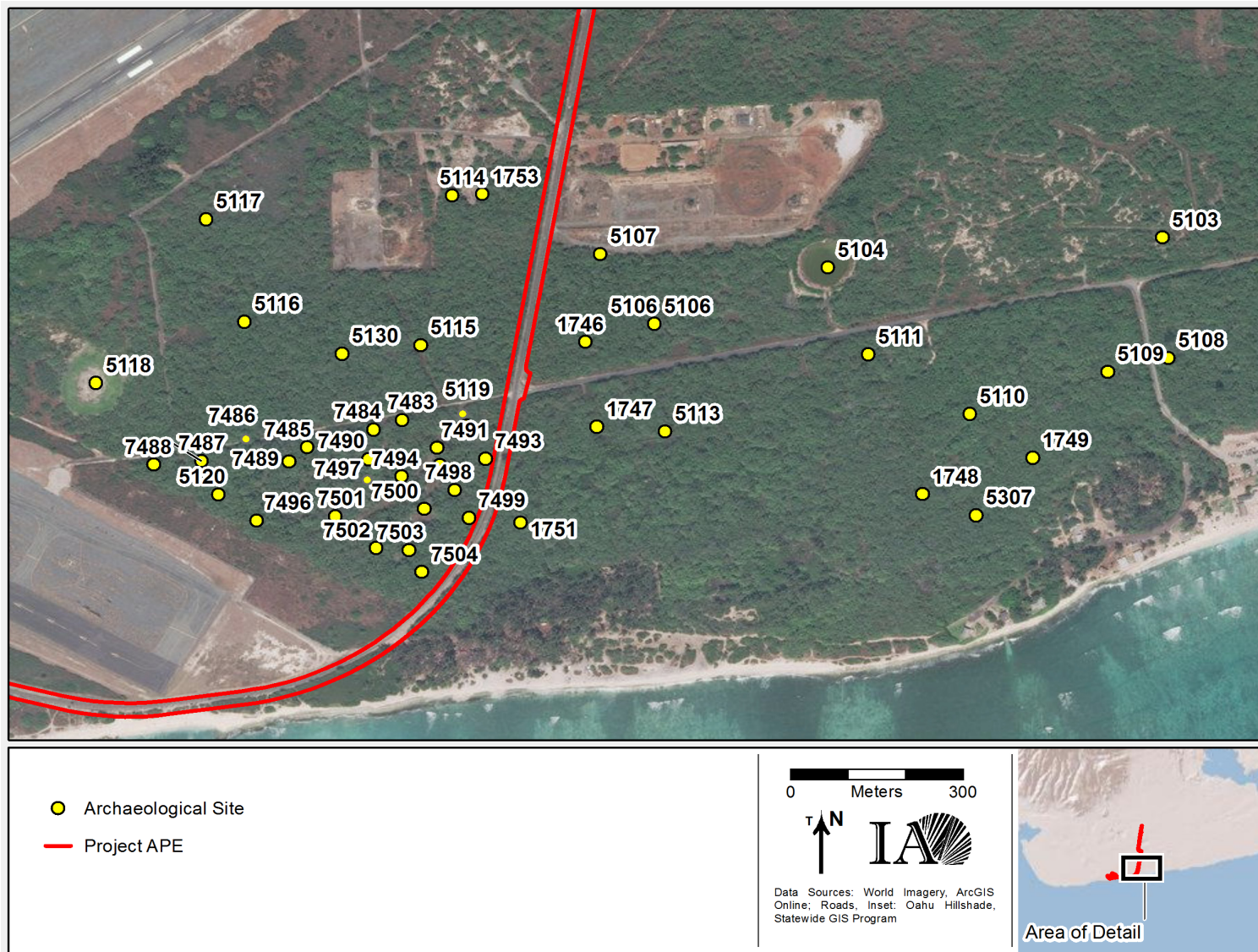


Figure 8. Known archaeological sites near the southeastern portion of the current APE. Only sites within 1000 meters of the project APE are depicted

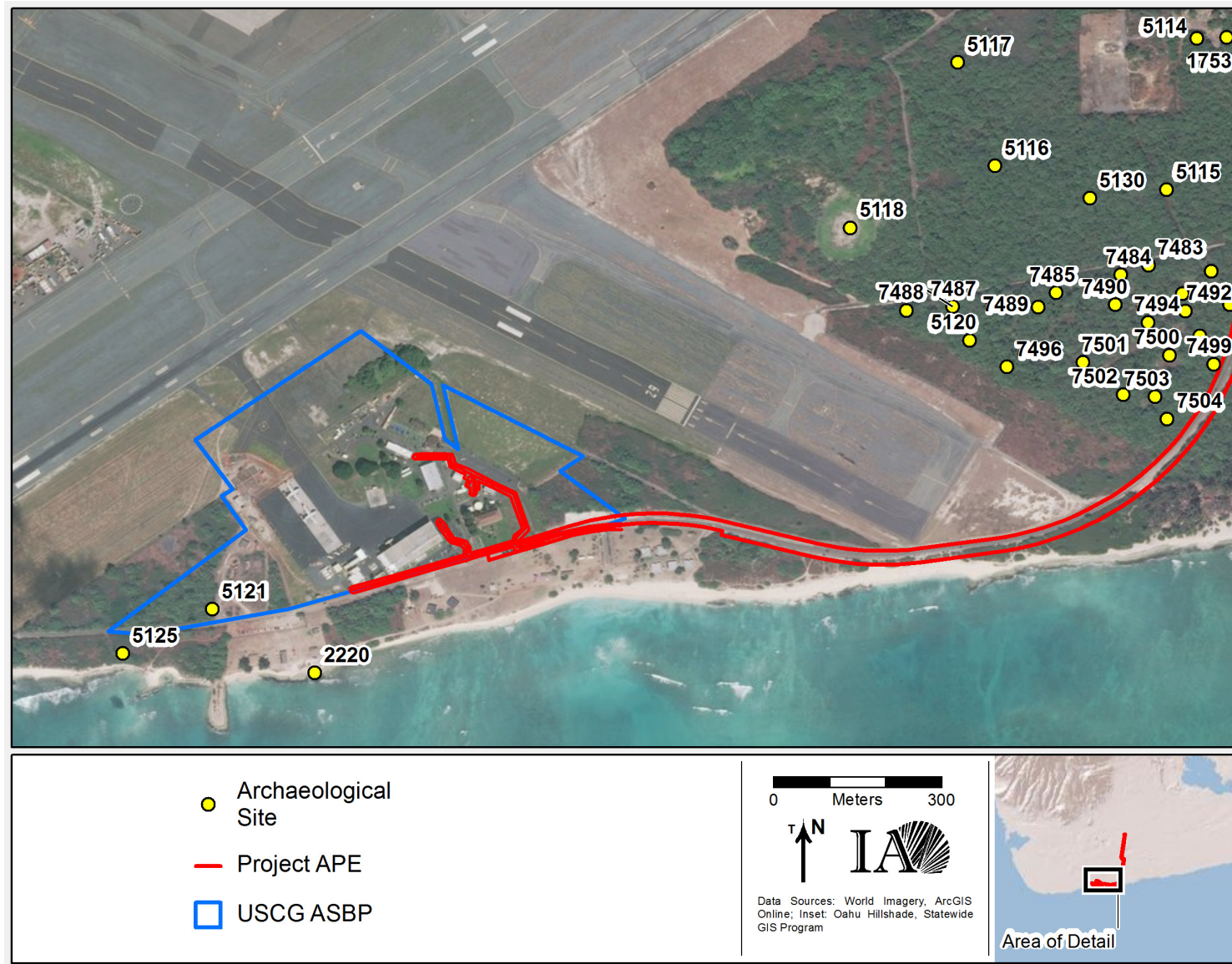


Figure 9. Known archaeological sites near the southwestern portion of the current APE. Only sites within 1000 meters of the project APE are depicted

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III. RESEARCH QUESTIONS AND METHODS

The following section presents the research questions that guided the survey and the fieldwork methods that were employed.

RESEARCH QUESTIONS

1) Are surface features and/or archaeological deposits present? If so, what activities are represented? The proximity of the APE to a number of previously recorded pre-Contact and historic era sites raises the possibility that traditional Hawaiian and historical surface features and/or archaeological deposits may be encountered. Though limited soil development on the 'Ewa Plain suggests that deposition of any archaeological materials will be largely surficial.

2) What is the nature of subsurface deposits within the ASBP portion of the project APE? Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low. However, the subsurface within the ASBP is not as well understood and information from this project can be used to better document the nature of the area's soils and sediments. For example, do the calcareous deposits located directly seaward of the ASBP property extend into the project APE, and if so, do they contain buried cultural deposits related to previous occupation of the area?

3) Are burials or displaced human skeletal remains present? The proximity of Site 50-80-12-2220, a flexed infant burial of 2 to 3 years of age, raises the possibility that burials or displaced human skeletal remains may be identified during archaeological investigations.

FIELD METHODS

The field methods used to address these research questions are discussed below.

PEDESTRIAN SURVEY METHODS

The entirety of the APE was systematically surveyed with pedestrian transects spaced at 5 m intervals. The purpose of the pedestrian survey was to determine the presence or absence of any surface archaeological features, artifact scatters, or burial features that would be adversely impacted during project construction activities. The locations of survey transects were recorded using a professional-grade Trimble Geo XH 6000 global positioning system (GPS) unit with an accuracy of approximately 25 centimeters. All identified cultural resources were recorded using Samsung Galaxy Notebook tablets with standardized forms. Recording included detailed descriptions, sketch maps, and photography. Digital photographs were taken of each surface feature and the orientation and photo number was recorded in the project photography log.

SUBSURFACE ARCHAEOLOGICAL TESTING METHODS

After the identification of surface features during the pedestrian survey, Shovel Test Pit (STP) excavations were conducted within the ASBP portion of the APE. Based on the results of previous subsurface excavations during an AIS conducted by Kingsbury and Spears (2017), in addition to

1 consultation with SHPD and HDOT, subsurface testing along the Coral Sea Road portion of the APE was
2 not conducted. Eight STPs were excavated to determine the presence or absence of subsurface cultural
3 deposits and to examine the nature of the area's stratigraphy. All test units were 50 cm by 50 cm and
4 were excavated to the underlying coralline limestone substrate.

5 STPs were conducted manually using trowels, shovels, and other hand tools, as needed. No
6 cultural deposits were encountered during testing and therefore, sediment was not screened. At the
7 completion of each STP a scaled profile was drawn of one wall. Soil characteristics recorded consisted of
8 color (Munsell Color 2000), texture, moisture content, structure, consistence, presence and size of roots
9 and rocks, presence of cultural materials, and lower boundary distinctness and topography (U.S.
10 Department of Agriculture Soil Survey Staff 1951, 1962). The depositional nature of soils was recorded
11 when possible (e.g. presence of fill deposits, construction debris, grading or removal, aeolian derived
12 sands). Photographs containing a scale and north arrow were taken of each unit showing stratigraphy.
13 All excavation units were backfilled and their locations were recorded as a GPS point.

IV. RESULTS

Survey and subsurface testing resulted in the identification of three archaeological sites (Temporary Sites 1-3) comprised of a total of four surface features within the Coral Sea Road ROW portion of the APE (Figure 10; Table 3). Temporary Site 1 consists of two mounds that may relate to agricultural activities. Temporary Site 2 is a C shape and alignment. Temporary Site 3 is a small enclosure. Temporary Sites 2 and 3 show evidence of use during the military era as well as traditional Hawaiian construction attributes. Descriptions of these features are presented below. No subsurface deposits were encountered during the project.

In addition to the three sites, a complex of approximately 30 dissolution pits was recorded within the Coral Sea Road ROW (Figure 11). Although none of these features showed signs of human modification, their locations were recorded and representative photographs were taken. Initially field technicians identified a possible coral gravel path segment during the pedestrian survey conducted on January 12, 2018. However, during a site visit conducted on July 18, 2018, Alex E. Morrison PhD and J.S. Athens PhD determined the coral path to be a modern foot path lacking the characteristics of traditional or historic transportation features. The modern foot path was created by clearing vegetation from the ground surface and the associated nearby branches. The fresh breakage patterns on the tree branches indicate recent clearance by a hand or chain saw. It is likely that the path is used by the area's transient residents.



1

2 Figure 10. Locations of Temporary Sites 1-3 documented within the APE.

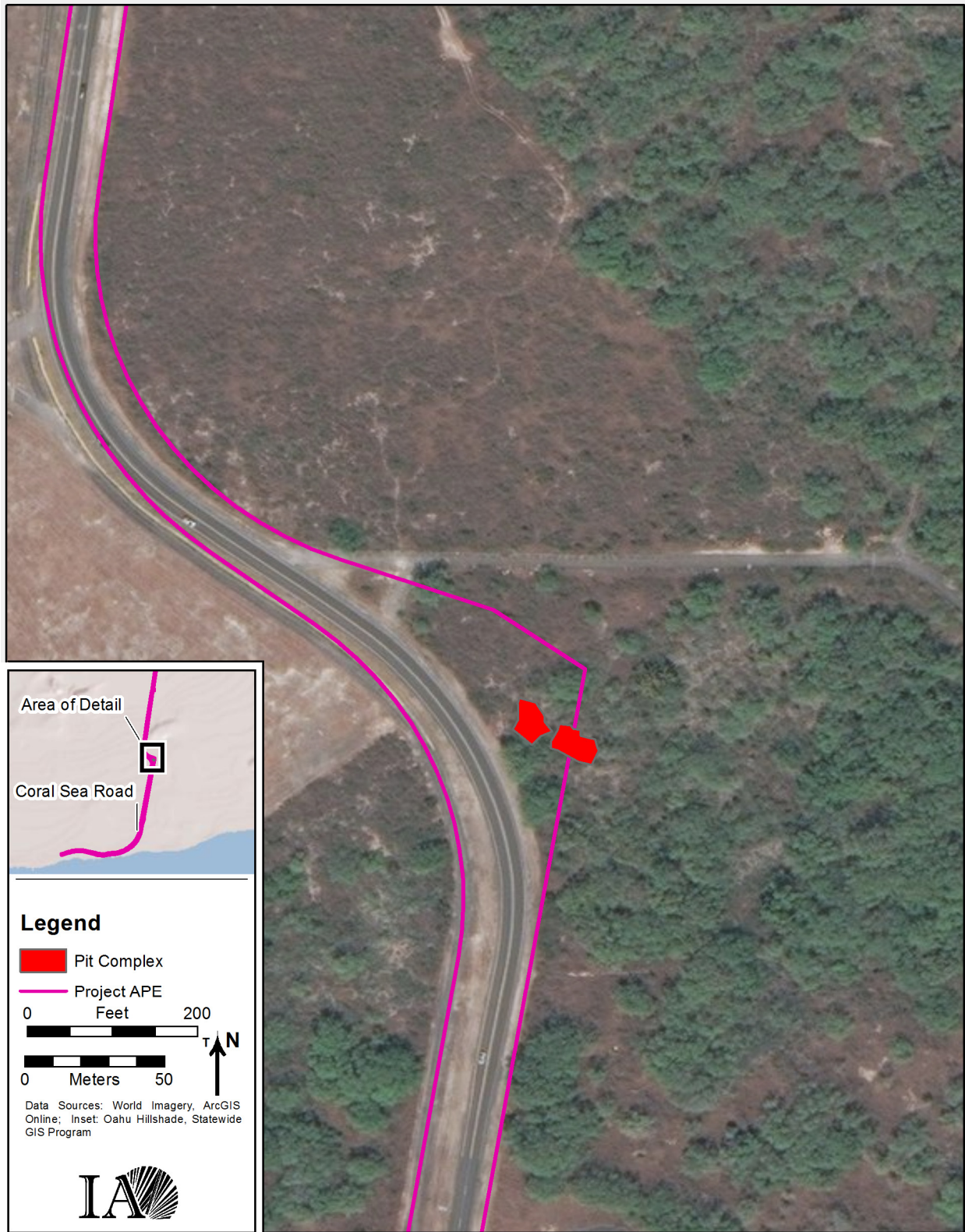


Figure 11. Locations of dissolution pit complex identified during the pedestrian survey. None of the pits are considered archaeological features.

1 TEMPORARY SITE 1

2 Temporary Site 1(Figure 12) consists of two mounds (Features 1 and 2). Feature 1 is a low
3 mound constructed of unconsolidated limestone ranging in size from boulders to cobbles (Photo 1). The
4 mound is roughly rectangular and trends north-south. A second mound (Feature 2) lies approximately 1
5 m to the south (Photo 2). An alignment of small limestone cobbles and boulders connects the two
6 mounds. A beer bottle manufactured in 1945 sits on the surface just south of this feature. Feature 2 is a
7 low mound constructed of an exterior ring of large limestone boulders and one large central boulder with
8 smaller limestone cobbles placed into the interior. The feature is roughly circular with a small spur
9 extending from the northeast towards Feature 1. A large *kiawe* tree grows over the southeast corner; the
10 *kiawe* tree has been mechanically stripped of several large branches. A fragment of thick, iron rebar is
11 also present on a large boulder. The mounds were likely used for agricultural activities and probably date
12 to the pre-Contact period.

13
14 Temporary Site 1 is recommended as eligible for listing on the NRHP under Criterion D, and is
15 significant per HAR §13-275-6 under Criterion d. The site has the potential to yield information
16 important for research on prehistory or history. The site represents traditional agricultural features and
17 technologies in place on the 'Ewa Plain. Other similar archaeological sites have been recorded in the area
18 and have also been recommended as significant under Criterion d (see Table 2; Medrano et al 2014). For
19 example, Medrano et al. (2014) documented similar mounds to the southwest of Temporary Site 1,
20 including sites 7497, 7501, 7502, and 7504. These sites were recommended as significant under Criterion
21 d. Photographs of Temporary Site 1 were taken and the location was recorded with a Trimble GPS
22 receiver. The project will not affect the site because an Archaeological Monitor will be present when
23 construction is within 20 feet of the sites and temporary fencing will be installed prior to construction to
24 ensure no impacts occur.



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2 Photo 1. Temporary Site 1, Feature 1, mound.



1

2 Photo 2. Temporary Site 1, Feature 2, mound.

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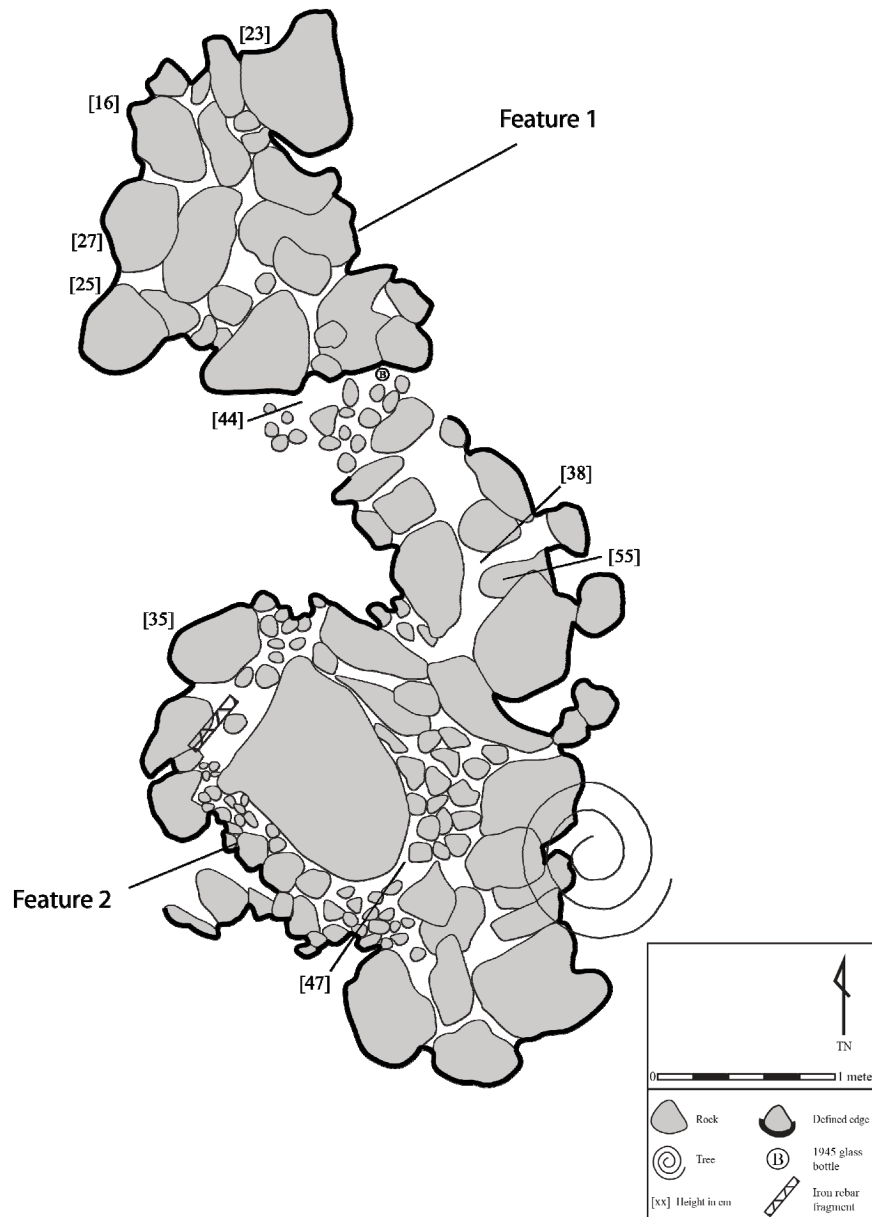


Figure 12. Planview map of temporary site 1.

TEMPORARY SITE 2

Temporary site 2 is a multi-component site (Figure 13). The southernmost feature is a stone alignment constructed of medium to large sized boulders. The stone alignment is roughly C-shaped and abuts a small east-west trending wall along its northern terminus. A single strand of barbed wire lies on top of the alignment. The stone wall consists of two to three courses of stacked limestone boulders, trending east to west. A large *kiawe* tree is growing immediately to the east and has impacted the stone wall. The third component of the site is a north-south trending stone alignment that once abutted the

stone wall along the southern edge at some point. The alignment is constructed of large faced limestone boulders. The large kiawe tree has displaced many of these limestone boulders and is also damaging the stone wall feature. It is possible that this multi-component feature was once a larger continuous structure in the past.

Temporary Site 2 is recommended as eligible for listing on the NRHP under Criterion D, and is it significant per HAR §13-275-6 under Criterion d. The site may provide information regarding traditional habitation on the 'Ewa Plain, as well as military use of the area during the 20th century. Temporary Site 2 shares similarities with other archaeological sites that have been recorded nearby including sites 5102, 1747, 1749, 1753, and 7503. All of these sites are recommended as eligible under either Criterion D for the NHPA or significant under Criterion d. Photographs of the site were taken and the location was captured with a Trimble GPS receiver. The project will not affect the site resources because an Archaeological Monitor will be present when construction is within 20 feet of the sites and temporary fencing will be installed prior to project execution to eliminate any potential damage caused by construction related activities.

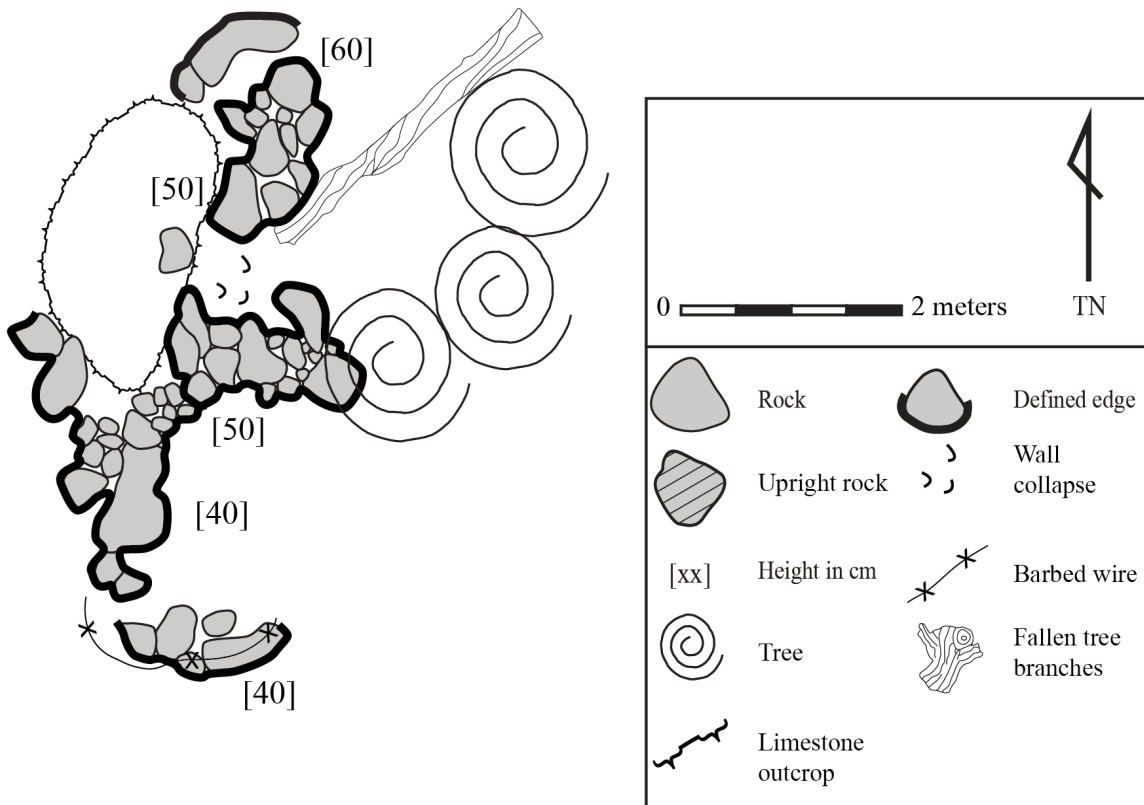


Figure 13. Planview map of temporary site 2.

1



2

3 Photo 3. Temporary Site 2, multi-component site.

4 **TEMPORARY SITE 3**

5 Temporary Site 3 (Figure 14; Photo 4) is a roughly rectangular stone enclosure constructed of two
 6 to three courses of stacked limestone boulders. A small spur extends off the northeast corner. The spur is
 7 constructed of a single course of limestone boulders. The western wall is the most intact with several
 8 sections still faced and core filled. A large upright limestone boulder is present in the northeastern
 9 interior. The floor of the enclosure is formed from a level shelf of uplifted limestone. Approximately 20
 10 cm of soil have developed atop this surface. Strands of modern/20th century double barbed wire sit atop
 11 the feature (largely the western wall, facing Coral Sea Road) and lie on the surface in the surrounding
 12 area. The barbed wire is not constructed into the feature so its placement post-dates the construction of
 13 the enclosure. Several beer bottles dating from 1945 are in proximity to the feature. Like many features
 14 in the surrounding area, this enclosure is likely traditional Hawaiian in origin but modified for military
 15 use in the 1940s (Tuggle and Tuggle 1997). For example, Site 5102, also shows evidence of the presence
 16 of traditional Hawaiian habitation structures that were later modified for use by the military.

1 Temporary Site 3 is recommended as eligible for listing on the NRHP under Criterion D and it is
2 significant per HAR §13-275-6 under Criterion d. The site has the potential to yield information
3 important for research on prehistory or history. The site may provide information regarding traditional
4 habitation on the 'Ewa Plain, as well as military use of the area during the 20th century. For example, Site
5 5102, also shows evidence of the presence of traditional Hawaiian habitation. The project will not affect
6 the site resources because an Archaeological Monitor will be present when construction is within 20 feet
7 of the site and temporary fencing will be installed prior to project execution to eliminate any potential
8 damage caused by construction related activities.



10
11 Photo 4. Temporary Site 3, Partial shaped enclosure with barbed wire.

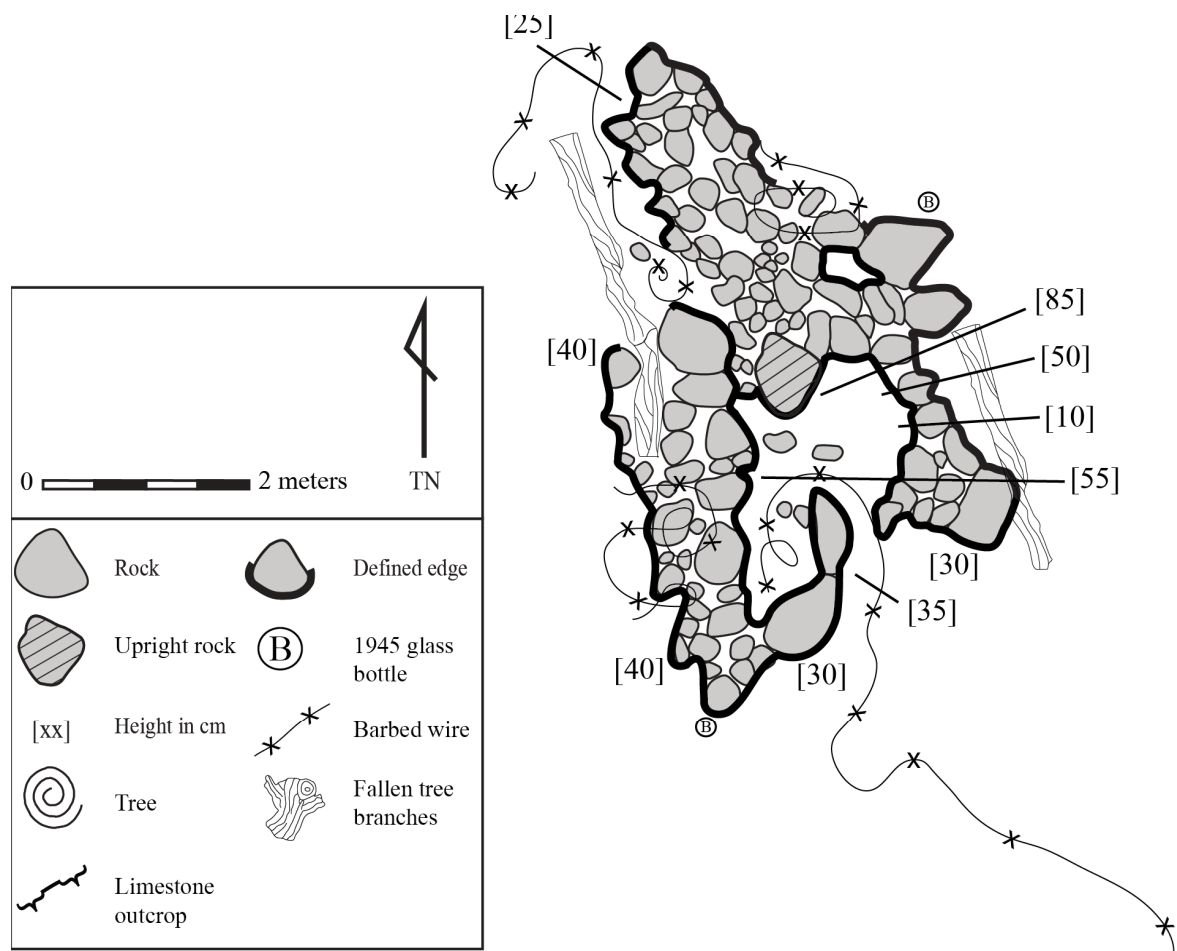


Figure 14. Planview map of temporary site 3.

SUMMARY OF EXCAVATIONS

Eight 50 cm by 50 cm STPs were excavated within the ASBP portion of the APE (Figure 15). In general, soils in the area were poorly developed and shallow, extending on average to 35 cm below the surface (cm bs) with a maximum depth of 60 cm bs. No cultural deposits or secondarily deposited artifacts were encountered during the excavations. Construction fill, including cement and asphalt were found at times within the subsurface deposits.



4 Figure 15 Locations of STPs excavated at the ASBP portion of the APE. STPs 1-3 appear out of the final APE which was reduced after field
5 work was conducted.

STP 1

STP 1 was in the northwestern portion of ASPB. Layer I (0-5 cm bs) is a slightly compacted brown (10YR 4/3) sandy loam containing numerous roots and rocks (Figure 16; Photo 5). The sediment is loose and structureless, slightly sticky and non-plastic, and the interface with Layer II is abrupt and smooth. Layer II (5-30 cm bs) is a brown (10YR 4/3) sandy loam fill deposit, approximately 50% of which is comprised of fragments of asphalt, coral, basalt, and cement. The sediment is very compacted and the lower boundary is abrupt and wavy. Layer III (25-35 cm bs) is a dark gray-brown (10YR 3/2) sandy loam containing coral pebbles and cobbles. The sediment is loose and non-plastic with a clear and smooth lower boundary. At the base of the excavation is a very pale brown (10YR 8/2) coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

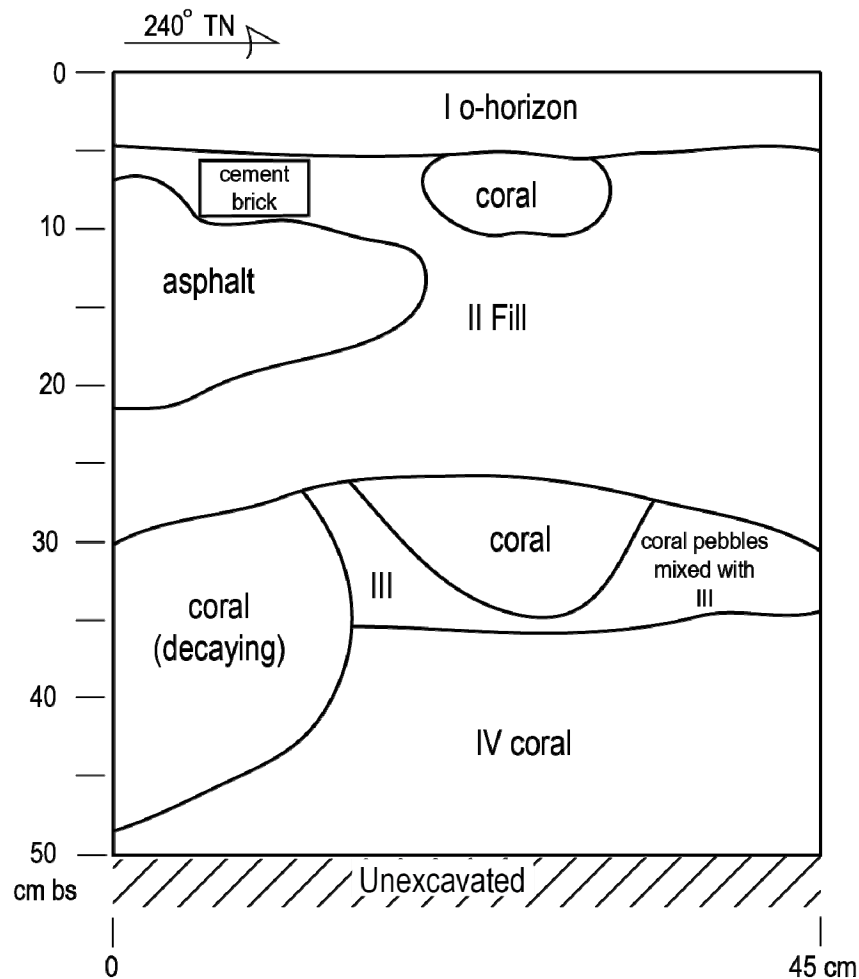


Figure 16. Southeast profile of STP 1.



1
2 Photo 5. STP 1 profile. View to southwest.

STP 2

STP 2 (Figure 17; Photo 6) was placed along the western portion of ASBP. Layer Ia (0-5 cm bs) is a disturbed fill layer. It is a dark reddish brown (5YR 3/3) sandy loam containing many fine roots as well as coral pebbles and cobbles. The sediment is loose, non-sticky and non-plastic, with an abrupt, smooth lower boundary. Layer Ib (3-35 cm bs) is a brown (10YR 4/3) sandy loam containing numerous coral cobbles and boulders. The sediment is compacted, non-sticky and non-plastic, with an abrupt and smooth lower boundary. At the base of excavation is coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

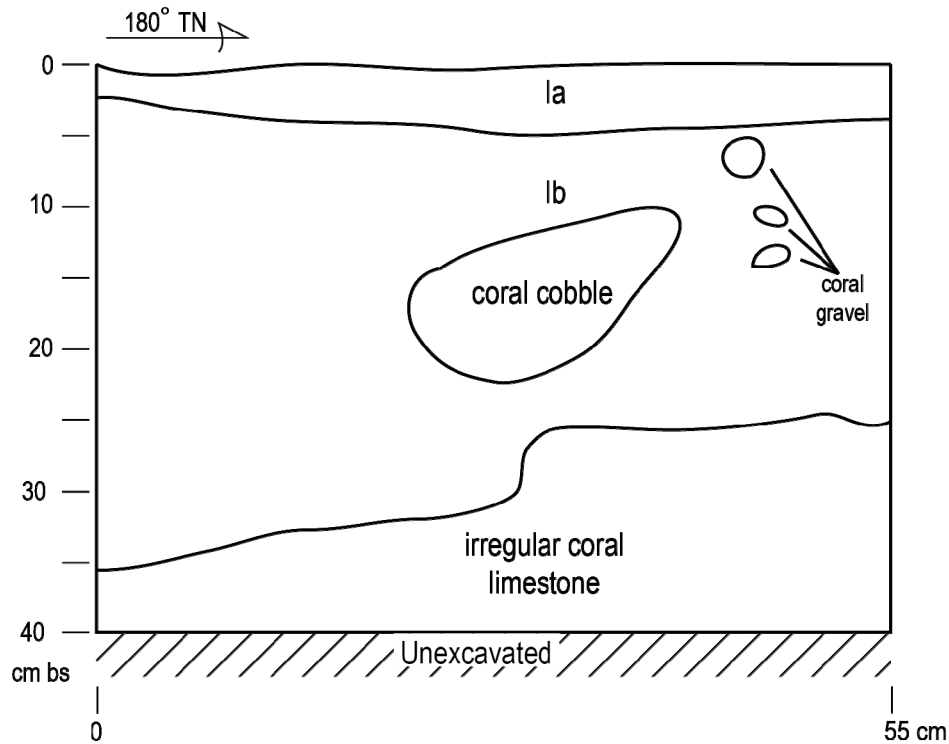


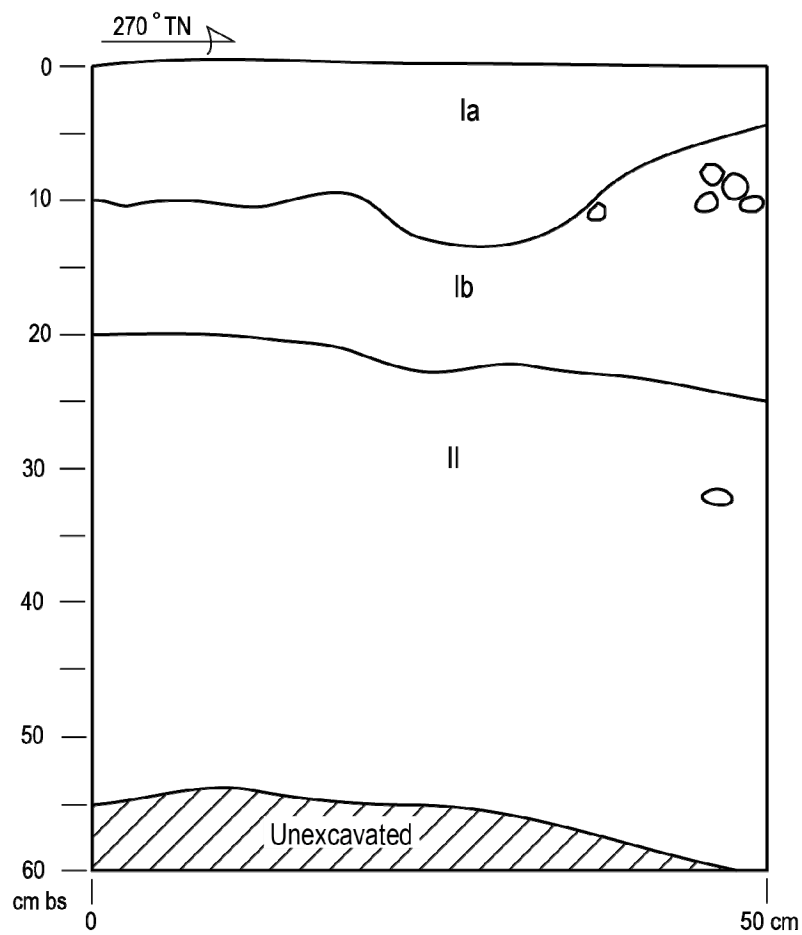
Figure 17. South Profile of STP 2.



Photo 6. STP 2 Profile. View to south.

STP 3

STP 3(Figure 18; Photo 7) was placed along the western portion of ASBP. Layer Ia (0-14 cm bs) is a brown (10YR 5/3) medium-grained sandy loam containing numerous coral granules and pebbles. Fine roots are common throughout, and the lower boundary is clear and wavy. Layer Ib (5-25 cm bs) is a pale brown (10YR6/3) fine-grained sand containing few coral pebbles and cobbles. The sediment is loose, non-sticky and non-plastic, with a clear and smooth lower boundary. Layer II (20-60 cm bs) is a very pale brown (10YR7/3) very-fine grained and loose sand containing few coral granules and pebbles. At the base of excavation is coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.



1
2 Figure 18. North Profile of STP 3.



Photo 7. STP 3 profile. View to northeast.

STP 4

STP 4 (Figure 19; Photo 8) was placed in the southern area of ASBP and the western portion of the APE. Layer I (0-9 cm bs) is likely an imported top soil. It is a dark reddish brown (5YR 3/3) clay loam that is slightly sticky and slightly plastic. Fine roots are common and the lower boundary is abrupt and smooth. Layer II (9-12 cm bs) is a thin lens of very pale brown (10YR 8/2) crushed coral with an abrupt and smooth lower boundary. Layer III (12-22 cm bs) is yellow-red (5YR 4/6) decaying basalt with a clear and wavy lower boundary. Layer IV (22-25 cm bs) is a very dark gray-brown (10YR 3/2) decaying coral and silt. The sediment is loose and fine with an abrupt and smooth lower boundary. At the base of excavation is very pale brown (10YR 8/2) coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

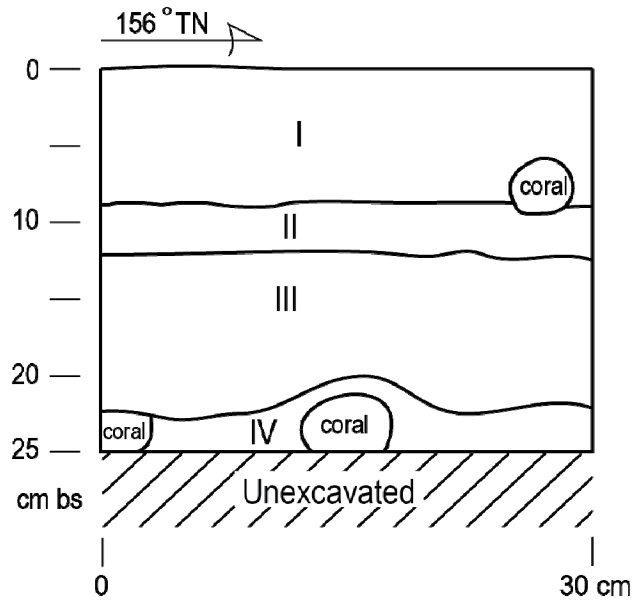


Figure 19. South Profile of STP 4.



Photo 8. STP 4 profile. View to southeast.

STP 5

STP 5 (Figure 20; Photo 9) was placed in the southern area of ASBP and the western portion of the APE. Layer I (0-2 cm bs) is likely an imported top soil. It is a dark reddish brown (5YR3/3) sandy loam, non-sticky and non-plastic. Fine grass roots are very common throughout the layer and it has an abrupt, smooth lower boundary. Layer II (2-17 cm bs) is a dark reddish brown (5YR 3/3) clay loam with inclusions of decaying basaltic rock. The sediment is very compact, non-sticky and slightly plastic, with fine roots present. The lower boundary is abrupt and smooth. Layer III (17-21 cm bs) is a dark yellow-brown (10YR 4/4) loam. The sediment is very compacted, non-sticky, non-plastic, and has an abrupt and smooth lower boundary. At the base of excavation is very pale brown (10YR 8/2) coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

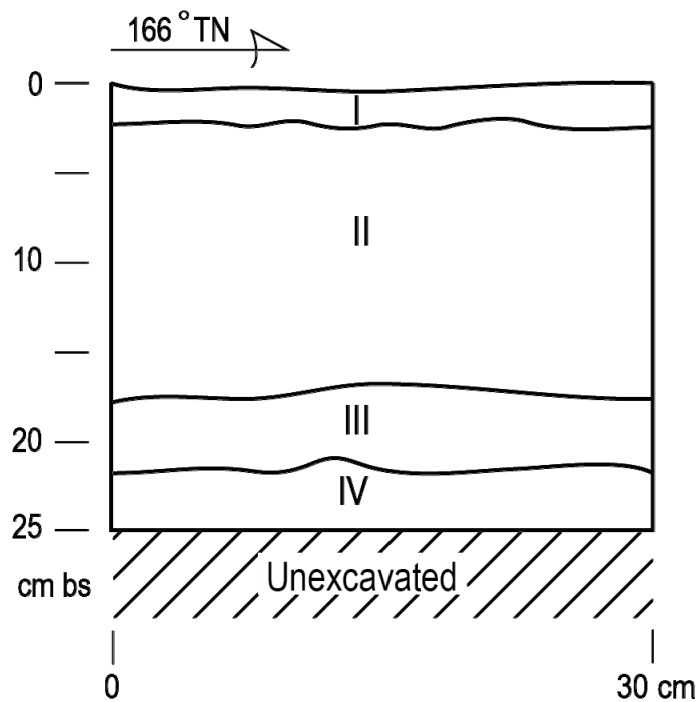


Figure 20. South Profile of STP 5.



Photo 9. STP 5 profile. View to south.

STP 6

STP 6 (Figure 21; Photo 10) was placed in the southern area of ASBP and the western portion of the APE. Layer I (0-18 cm bs) is a dark reddish brown (5YR 3/3) sandy loam containing many fine roots as well as coral granules and pebbles. The sediment is loose, non-sticky, and non-plastic and the lower boundary is smooth and abrupt. Layer II (12-42 cm bs) is a light brown-gray (10YR 6/2) medium-grained sand containing many coral pebbles and cobbles. At the base of excavation is very pale brown (10YR 8/2) coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

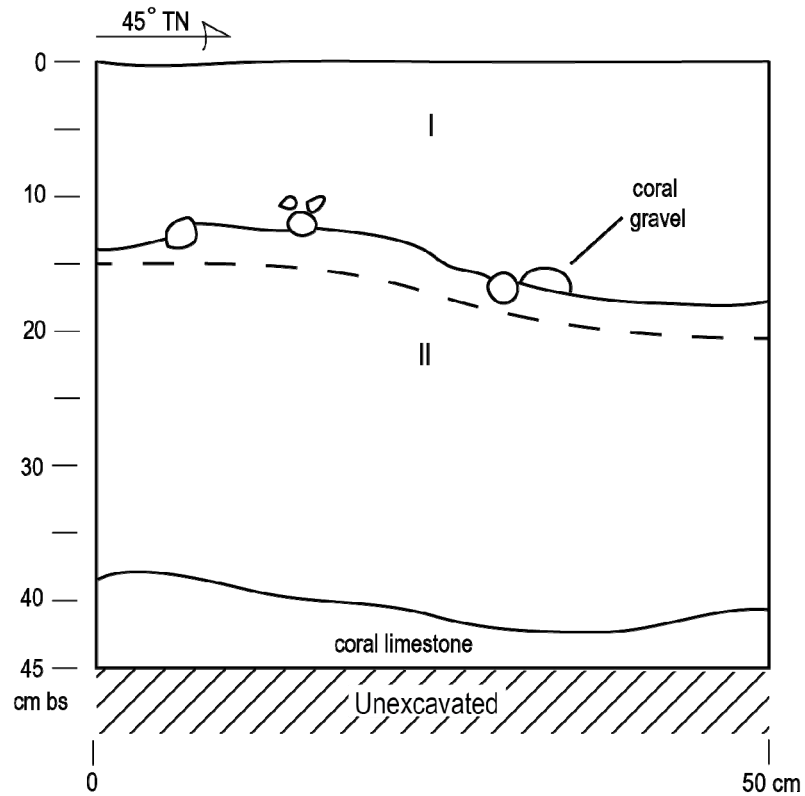


Figure 21. East Profile of STP 6.



Photo 10. STP 6 profile. View to northeast.

STP 7

STP 7 (Figure 22; Photo 11) was placed along the central portion of ASBP and the APE. Layer I (0-30 cm bs) is a dark reddish brown (5YR 3/3) clay loam that is slightly sticky and plastic. Fine roots are present and the lower boundary is abrupt and smooth. Layer II (25-50 cm bs) is a dark brown (10YR 3/3) silty clay loam containing coral granules and pebbles. Fine roots are present and the lower boundary is clear and wavy. Layer III (45-55 cm bs) is a brown (10YR 4/3) sandy loam containing coral pebbles and cobbles. At the base of excavation is a very pale brown (10YR 8/2) coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.

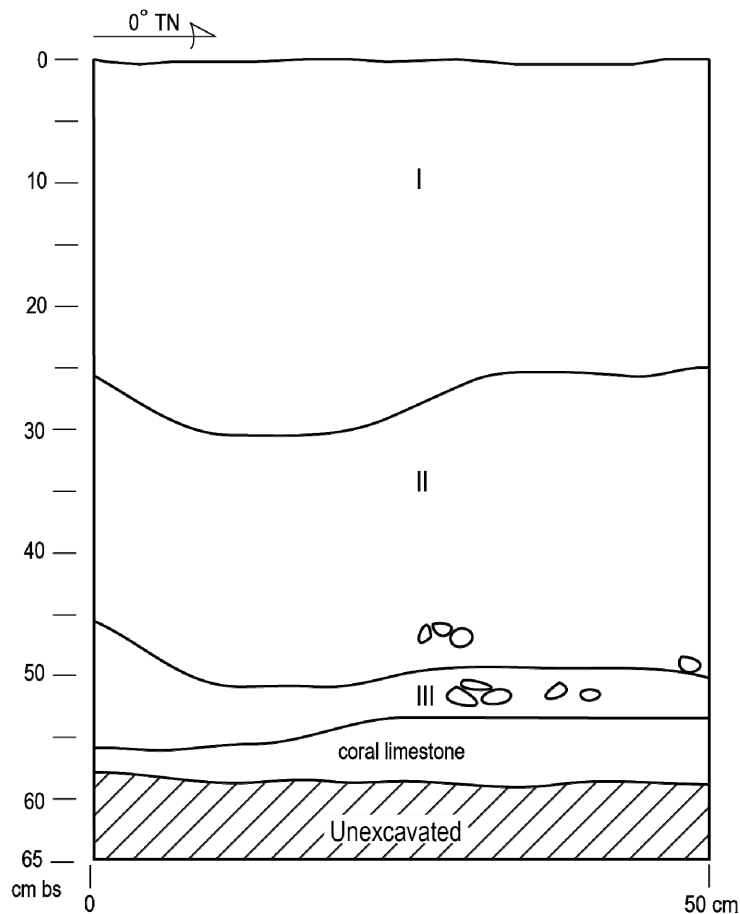


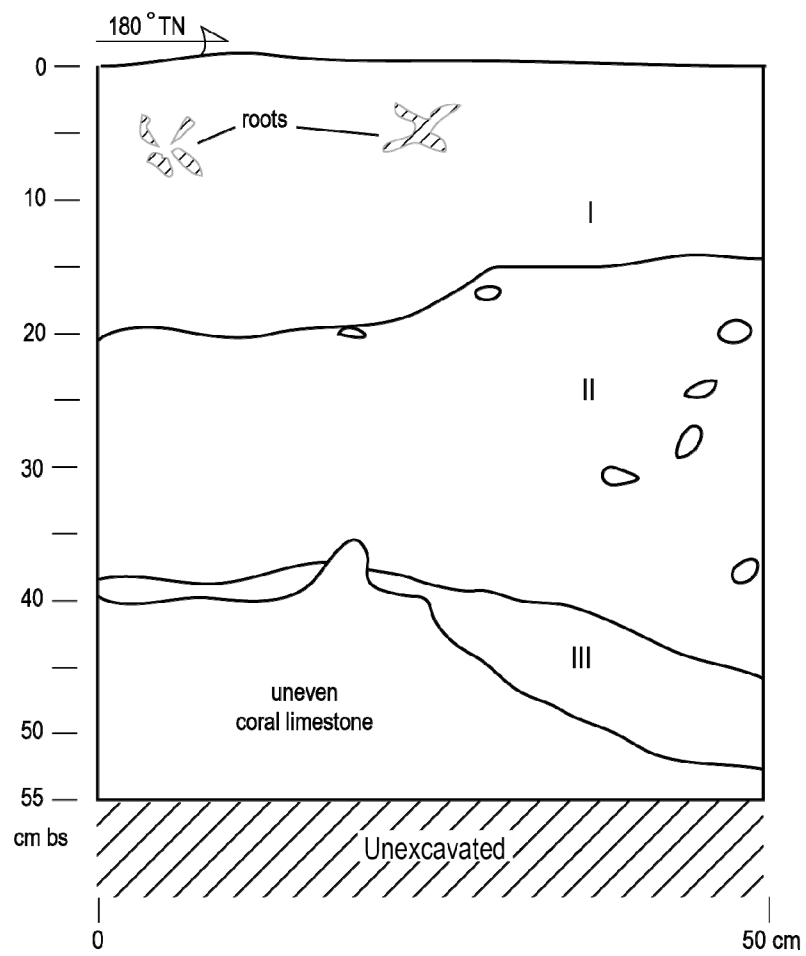
Figure 22. West Profile of STP 7.



Photo 11. STP 7 profile. View to northwest.

STP 8

STP 8 (Figure 23; Photo 12) was placed in the central area of ASPB and the northeastern portion of the APE. Layer I (0-20 cm bs) is a dark reddish brown (5YR 3/2) sandy loam. The layer contains many fine to medium roots as well as coral granules and pebbles. It is non-sticky and non-plastic with a clear and wavy lower boundary. Layer II (15-45 cm bs) is a brown (10YR 5/3) fine to medium grained sand containing many coral granules and pebbles with few cobbles. It is loose, non-sticky and non-plastic, with a clear and smooth lower boundary. Layer III (38-53 cm bs) is loose and very fine-grained sand with coral inclusions. At the base of excavation is an uneven coralline limestone substrate. No cultural deposits or secondarily deposited artifacts were encountered during the excavation.



1
2 Figure 23. South Profile of STP 8.



1

2 Photo 12. STP 8 profile. View to south.

V. DISCUSSION

This following section discusses the project results in light of the three research questions presented in section III.

RESEARCH QUESTION 1: ARE ARCHAEOLOGICAL SURFACE FEATURES OR SUBSURFACE DEPOSITS PRESENT?

During the pedestrian survey, three archaeological sites were identified within the Coral Sea Road portion of the APE. Temporary Site 1 consists of two small mounds that may be related to agriculture. Temporary Site 2 is a C shape and alignment, which may date to the pre-Contact and historic periods given the presence of barbed wire atop a feature with traditional Hawaiian construction attributes. Temporary Site 3 is a small enclosure of traditional Hawaiian origin but likely also used for military training during the mid-20th century. No subsurface archaeological deposits were encountered.

RESEARCH QUESTION 2: WHAT IS THE NATURE OF SUBSURFACE DEPOSITS WITHIN THE ASBP PORTION OF THE PROJECT APE?

Test excavations were conducted within the ASBP portion of the APE to [1] characterize the soils and sediments in this area, which are generally not well understood; and [2] to determine if buried cultural deposits exist. Further, calcareous sand deposits are known to exist directly seaward of the ASBP property. Eight shovel tests were excavated, none of which revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm bs. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

RESEARCH QUESTION 3: ARE BURIALS OR DISPLACED HUMAN SKELETAL REMAINS PRESENT?

No burials or human skeletal remains were encountered during the pedestrian survey or subsurface testing phases of the project. Test excavations indicate that calcareous sand deposits do not extend into the current APE and the subsurface is generally shallow (~35 cm bs) and therefore available subsurface deposition is likely not significant enough to permit burial. As a result of these conditions, the opportunity to encounter interments is limited with the possible exception of limestone dissolution pits which will not be impacted during the project.

VI. CONCLUSIONS AND RECOMMENDATIONS

International Archaeology, LLC completed an archaeological inventory survey in support of utilities renovations at the United States Coast Guard Facility, Air Station Barbers Point. The APE, which includes the HRS Chapter 6E Project Area along the Coral Sea Road ROW as well as a portion of the USCG ASBP facility, totals 28.07 acres. Pedestrian survey resulted in the identification of three archaeological sites (Temporary Sites 1-3) comprised of a total of four surface features within the Coral Sea Road ROW portion of the APE. Temporary Site 1 consists of two mounds that may relate to agricultural activities; the site likely dates to the pre-Contact period. Temporary Site 2 is a C shape and alignment, which may date to the pre-Contact and historic periods given the presence of barbed wire atop a feature with traditional Hawaiian construction attributes. Temporary Site 3 is a small enclosure of traditional Hawaiian origin but likely also used for military training during the mid-20th century. Subsurface testing within the ASBP portion of the APE documented relatively shallow, culturally sterile soils overlying limestone bedrock.

SIGNIFICANCE ASSESSMENTS

Significance evaluations were conducted for the three newly documented sites following criteria set forth in 36 CFR 800 for listing on the NRHP, and Hawai'i Administrative Rules §13-275-6. The three sites are located on HDOT property and are therefore subject to evaluation under HRS Chapter 6E and Hawai'i Administrative Rules §13-275-6. Furthermore, since the project is funded by the United States Coast Guard, a federal entity, the three sites are also evaluated under 36 CFR 800. Table 3 summarizes the newly documented sites and their eligibility evaluations.

NATIONAL REGISTER OF HISTORIC PLACES SIGNIFICANCE CRITERIA

The identified sites were evaluated in terms of the significance criteria of the NRHP. The Department of the Interior defines the criteria of evaluating the significance of cultural resources as follows (36 CFR 60):

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials workmanship, feeling, and association and:

Criterion A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B. that are associated with the lives of persons significant in our past; or

Criterion C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D. that have yielded, or may be likely to yield, information important in prehistory or history

The National Register Bulletin 16A (Anonymous 1997:1) indicates that, "Properties listed in the NRHP possess historic **significance** and **integrity**" (emphasis added in original). Historical integrity

1 must be evident in some combination of the qualities of location, design, setting, materials, workmanship,
2 feeling, and association. As explained in the National Register Bulletin, “All seven qualities do not need
3 to be present for eligibility as long as the overall sense of past time and place is evident” (Anonymous
4 1997:4). Also, for archeological sites (as opposed to standing historical structures), integrity is “generally
5 based on the degree to which remaining evidence can provide important information” (Anonymous
6 1997:4). Finally, listed or eligible properties must be “significant when evaluated in relationship to major
7 trends of history in their community, State, or the nation” (Anonymous 1997:1).

8 **HAWAI‘I REVISED STATUTES 6E SIGNIFICANCE CRITERIA**

9 For the State of Hawai‘i, the sites were evaluated following HRS Chapter 6E and its
10 implementing rules, HAR §13-275-6, which states “[t]o be significant, a historic property shall possess
11 integrity of location, design, setting, materials, workmanship, feeling, and association” and will meet one
12 or more of Criterion a through e. These criteria are:

13 Criterion a. Be associated with events that have made an important contribution to the broad
14 patterns of our history;

15 Criterion b. Be associated with the lives of persons important in our past;

16 Criterion c. Embody the distinctive characteristics of a type, period, or method of construction;
17 represent the work of a master; or possess high artistic value;

18 Criterion d. Have yielded, or is likely to yield, information important for research on prehistory
19 or history; or

20 Criterion e. Have an important value to the native Hawaiian people or to another ethnic group of
21 the State due to associations with cultural practices once carried out, or still carried out, at the property or
22 due to associations with traditional beliefs, events or oral accounts—these associations being important to
23 the group’s history and cultural identity.

24 25 **PROJECT EFFECT**

26 The project specific effect recommendation based on the findings of the AIS is “no historic
27 properties affected” as precautionary measures will be taken to avoid the historic properties during
28 construction activities. These precautionary measures include the installation of a protective barrier prior
29 to the commencement of construction, and the presence of an archaeological monitoring when
30 construction activities are to occur within 20 feet of the three historic properties.

31 **RECOMMENDATIONS**

32 Temporary Sites 1-3 are recommended as being eligible for listing on the NRHP under criterion
33 D, and are significant per HAR §13-275-6 under criterion d. Table 3 presents significance evaluations
34 and recommended actions for the sites recorded during the survey. The three sites have been fully
35 documented as part of the AIS and will not be affected during the current project. However, as
36 precautionary measures, it is recommended that temporary fencing be installed prior to construction to
37 ensure no impacts to the historic properties occur and that an archaeological monitor be present when
38 construction occurs within 20 feet of the archaeological sites.

Because of the potential to encounter sand sediments that have the potential, although with low probability, to contain buried cultural deposits or human skeletal remains, archaeological monitoring is also recommended in the southern area of Coral Sea Road where underground trenching is proposed-- from the Aloha Solar Facility (approximately 850 feet south of Tripoli Road) to the ASPB (Figure 24).

Table 3. Sites Recorded within the APE.

Site No.	Features	Age	Function	NRHP Eligibility & State Significance Criterion	Recommended Action
Temp. Site 1	Two stone mounds	Likely traditional	Agriculture	D, d	Archaeological Monitoring and temporary fencing
Temp. Site 2	Enclosure	Likely traditional and historic	Habitation, military	D, d	Archaeological Monitoring and temporary fencing
Temp. Site 3	C-Shape, stone alignment	Likely traditional and historic	Habitation, military	D, d	Archaeological Monitoring and temporary fencing

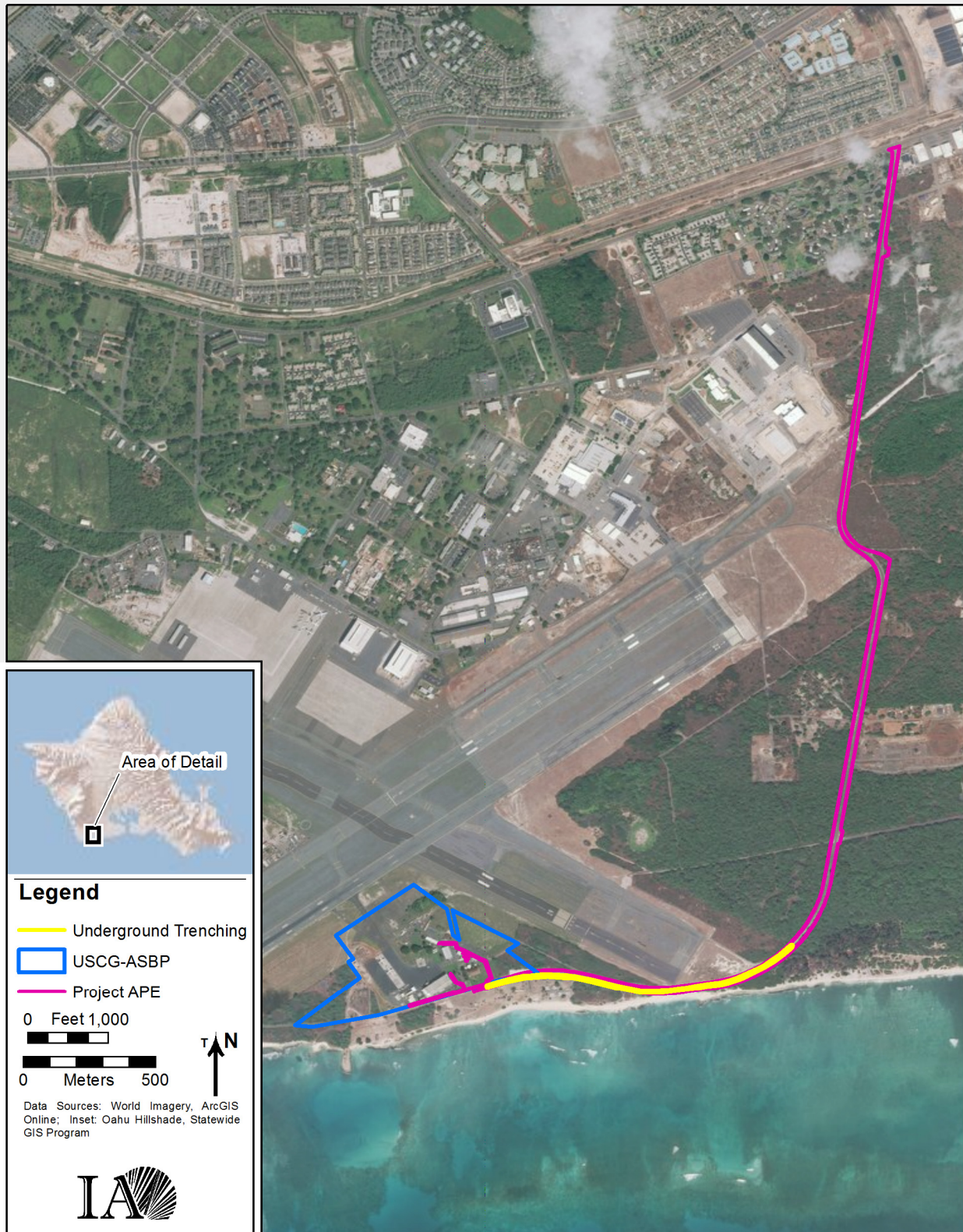


Figure 24. The location of underground trenching within the APE recommended for archaeological monitoring.

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GLOSSARY OF HAWAIIAN WORDS

Hawaiian Spelling*	Definition
‘a‘ali‘i	native shrub, <i>Dodonaea viscosa</i>
‘āheahea	native pigweed, <i>Chenopodium oahuense</i>
ahupua‘a	land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (<i>ahu</i>) of stones surmounted by an image of a pig (<i>pua‘a</i>), or because a pig or other tribute was laid on the altar as tax to the chief
ali‘i	chief, chiefess, officer, ruler, monarch, peer, headman, noble, aristocrat, king, queen, commander
‘ilima	shrub, <i>Sida fallax</i>
kiawe	invasive mesquite tree, <i>Prosopis pallida</i>
ko‘a	fishing shrine
kou	flowering tree, <i>Cordia subcordata</i>
koa haole	introduced shrub or small tree, <i>Leucaena leucocephala</i>
lae	cape, point
lama	native flowering tree, <i>Diospyros sandwicensis</i>
loa	length, distance
moku	district; island
noni	fruiting tree, <i>Morinda citrifolia</i>
‘ohi‘a	native flowering evergreen tree, <i>Metrosideros polymorpha</i>
pili	grass used for thatching, <i>Heteropogon contortus</i>
‘ulu	breadfruit, <i>Artocarpus altilis</i>
wiliwili	native flowering tree, <i>Erythrina sandwicensis</i>

2 * Adapted from Mary K. Pukui and Samuel H. Elbert, 1986, *Hawaiian Dictionary*, University of Hawaii
3 Press, Honolulu, unless otherwise noted.

Appendix C: **Cultural Impact Assessment**

A Cultural Impact Assessment in Support of Proposed
Utilities Renovations at the United States Coast Guard
Facility, Air Station Barbers Point, 'Ewa, O'ahu Island,
Hawai'i. TMK: (1)-9-013:063 por. and Coral Sea Road
Right of Way por.

Prepared by:
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INTERNATIONAL ARCHAEOLOGY, LLC
AUGUST 2018

A Cultural Impact Assessment in Support of Proposed
Utilities Renovations at the United States Coast Guard
Facility, Air Station Barbers Point, 'Ewa, O'ahu Island,
Hawai'i. TMK: (1)-9-013:063 por. and Coral Sea Road
Right of Way por.

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August 2018

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I. INTRODUCTION

Under contract to AECOM, this Cultural Impact Assessment (CIA) has been prepared for International Archaeology, LLC (IA) by Usha K. Prasad, LLC at the request of AECOM. The CIA assesses the possible impacts to cultural practices in and around the proposed utilities renovations improvements project area at the United States Coast Guard Facility, Air Station Barbers Point (ASBP), 'Ewa, O'ahu Island, Hawai'i. The project was conducted under Task Order HSCG50-17-D-PASBP. The Area of Potential Effect (APE), which includes portions of ASBP (TMK: (1) -9-1-013:063 por.) and the Hawai'i Department of Transportation (HDOT) Right of Way (ROW) along Coral Sea Road (Figure 1). The project proponent is the United States Coast Guard, which is the landowner of ASBP; the State of Hawaii is the landowner of the Coral Sea Road ROW.

Preparation of the CIA, as explained in the State of Hawai'i CIA guidance document (Environmental Council 1997), involves collection of ethnographic and ethnohistorical information for the purpose of identifying impacts of a "proposed action on cultural practices and features associated with the project area." The conclusions of this study are based on ethnographic and documentary data collected about the project area. While ethnographic data gathering did not identify individuals with direct ties to the project area, evidence of previous (historic) cultural uses of the land by Native Hawaiians is quite evident. Ethnographic data for this study consists largely of interviews with *kūpuna* (Hawaiian elders) and others knowledgeable about traditional cultural uses of the area. Documentary information comes from previous CIA documents and archaeological studies in the immediate and general vicinity of the project area, land and survey maps, and land records maintained at the State of Hawai'i Bureau of Conveyances.

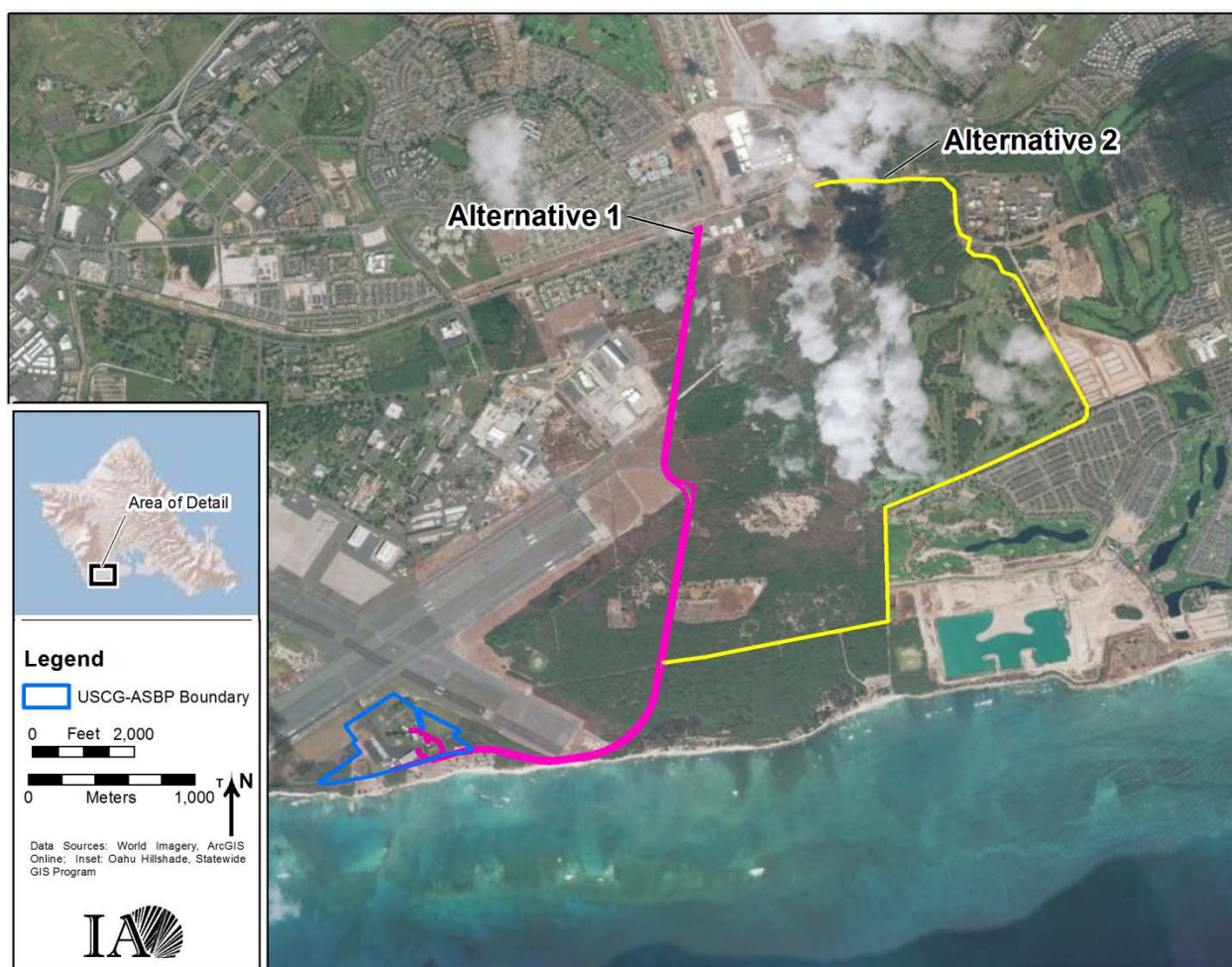


Figure 1. The location of Alternative Route 1 and Alternative Route 2.

PROJECT DESCRIPTION

The proposed undertaking includes portions of ASBP and the HDOT ROW along Coral Sea Road and in Kalaeloa, within the *ahupua'a* of Honouliuli in the *moku* of 'Ewa on the island of 'Oahu. Planned activities associated with the project include replacement of the electrical distribution infrastructure servicing ASBP, replacement of the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP, and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric Company (HECO) island-wide grid/Hawaiian Telcom (HAWTEL) system. Activities on ASBP include:

- replacement of all ASBP building transformers to step down 12.47 kV to 480/277V and 208/120V and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP will occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 1,475 m (4,840 ft.) of a 12kV underground (or combined underground and overhead) distribution system between the ASEF II Utility and ASBP. However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 4,420 m (14,500 ft.) of a 12kV underground (or combined underground and overhead) distribution system between the existing HECO electrical manhole and ASBP.

An alternative alignment, Alternative 2, includes the use of other land owners and is a substantially longer alignment. This alternative includes the installation of approximately 17,160 feet (3.3. miles) of a 12kV distribution system between existing overhead lines south of Renton Road and ASBP, via Essex Road, Tripoli Street, and Coral Sea Road (see Figure 1).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would include installation of pad-mounted transformers. Installation would include electrical conduit.

Based on the results of the CIA, there are no known or observed traditional and cultural activities within the project area. However, along with pre-Contact and post-Contact Hawaiian historic sites, contemporary cultural uses of the land exist adjacent to the project APE along Coral Sea Road and along the shoreline fronting the ASBP property. Based on the information gathered, a finding of "no cultural impacts" is presented here. However, during the construction phase of the project, there may be potential short-term impacts to the contemporary cultural practices on lands adjacent to Coral Sea Road if construction activities hinder access to the Kalaeloa Heritage Park. However, with the required traffic management plan on the State ROW, construction activities will not adversely affect access to the Park. The remainder of this report presents the data, assessment and basis for this conclusion.

PROJECT GOALS

Articles IX and XII of the State Constitution of Hawai'i (Chapter 343, Hawai'i Revised Statutes) require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups. As such, environmental impact assessments and statements need to study the impacts of a proposed action on cultural practices and features associated with a project area. Act 50 (April 26, 2000), Section 343-2, of the Hawai'i Revised Statutes (HRS) further amends the definition of environmental impact statement to include "effects of a proposed action on the economic [and] welfare, social welfare, and cultural practices of the community and State." The "Guidelines for Assessing Cultural Impacts," adopted by the Environmental Council of the State of Hawai'i, on November 19, 1997, identifies the protocol for conducting cultural assessments (see Appendix A). The present study follows the guidelines established by the Environmental Council (EC); its results are presented in accordance with the six protocols established by the EC guidelines.

An important note regarding the guidelines for completing CIA studies in the State of Hawai'i (see Appendix A) is the need "to promote and preserve the cultural beliefs, practices, and resources of

native Hawaiians, as well as those of other ethnic groups.” For much of the 20th century, the project area has served as the main vehicular access to military facilities operating along Coral Sea Road at Naval Air Station (NAS) Barbers Point and USCG-ASBP. A fairly comprehensive understanding of the Native Hawaiian uses of the area was gained only upon the proposed closure of NAS Barbers Point in the 1990s (c.f. Tuggle 1995; Athens et al. 1999). Based on radiocarbon dates acquired during the areas numerous archaeological studies, Native Hawaiian uses of the project area have been discontinued for a fairly lengthy period. Interviews and discussions with *kūpuna* and Hawaiian residents, some of whom continue to live in the *ahupua‘a* (traditional Hawaiian land unit) of Honouliuli, add to the knowledge about possible uses and significance of the general area. The information from these interviews and discussions is included in this CIA study.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt 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.

The CIA study meets all of these protocol and the methods used to conduct the research are discussed in the following section.

PROJECT METHODS

Attempts to locate *kūpuna* were made by contacting the State Historic Preservation Office (SHPD) and the Office of Hawaiian Affairs (OHA). Neither of these organizations could help identify *kūpuna* for the project area, but OHA provided names of individuals who could be contacted for information about the general Kalaeloa area. In addition, Uncle Shad Kane of the Kalaeloa Heritage Foundation (KHF) and Tesha Malama of Department of Hawaiian Homelands (DHHL), provided names of area residents, *kahuna* and others who could serve as a resource person for this study.

In addition to the interviews and discussions with area residents who are of Hawaiian ancestry, previous oral histories completed by this researcher (Prasad 2007; 2008) with *kūpuna*, some of whom continue to live in the *ahupua‘a* (traditional Hawaiian land unit) of Honouliuli, are also included in this CIA report. Attempts were made to contact some of these *kūpuna* who shared their *mo‘ōlelo* and at least

three of these elders are no longer living. This additional information added significantly to the known information about past and present cultural practices of the Kalaeloa area.

Visits to the project site and the Kalaeloa area were made to 1) conduct interviews and talk-story sessions, 2) identify cultural features that may or may not be potentially affected by the project, and 3) to observe and identify any cultural activities and practices in the project area and its vicinities. In addition to on-site meetings, interviews were also completed via telephone. Ethnohistoric information was gathered primarily by reviewing previous studies, consisting primarily of CIAs and archaeological reports conducted near the project area, and meetings with researchers who had previously prepared CIAs for the Kalaeloa area.

PROJECT LOCATION

The project is located in the *ahupua'a* of Honouliuli in the *moku* (traditional Hawaiian district) of 'Ewa, along the western side of Oahu Island (see Figure 2 and Figure 3). Figure 2 and Figure 3 show the Area of Potential Effect (APE) for the project. These figures also show the Kalaeloa Heritage Park, which encompasses many of the known (previously documented) historic properties in the vicinity of the project area which make up part of State Site 50-80-17-053.

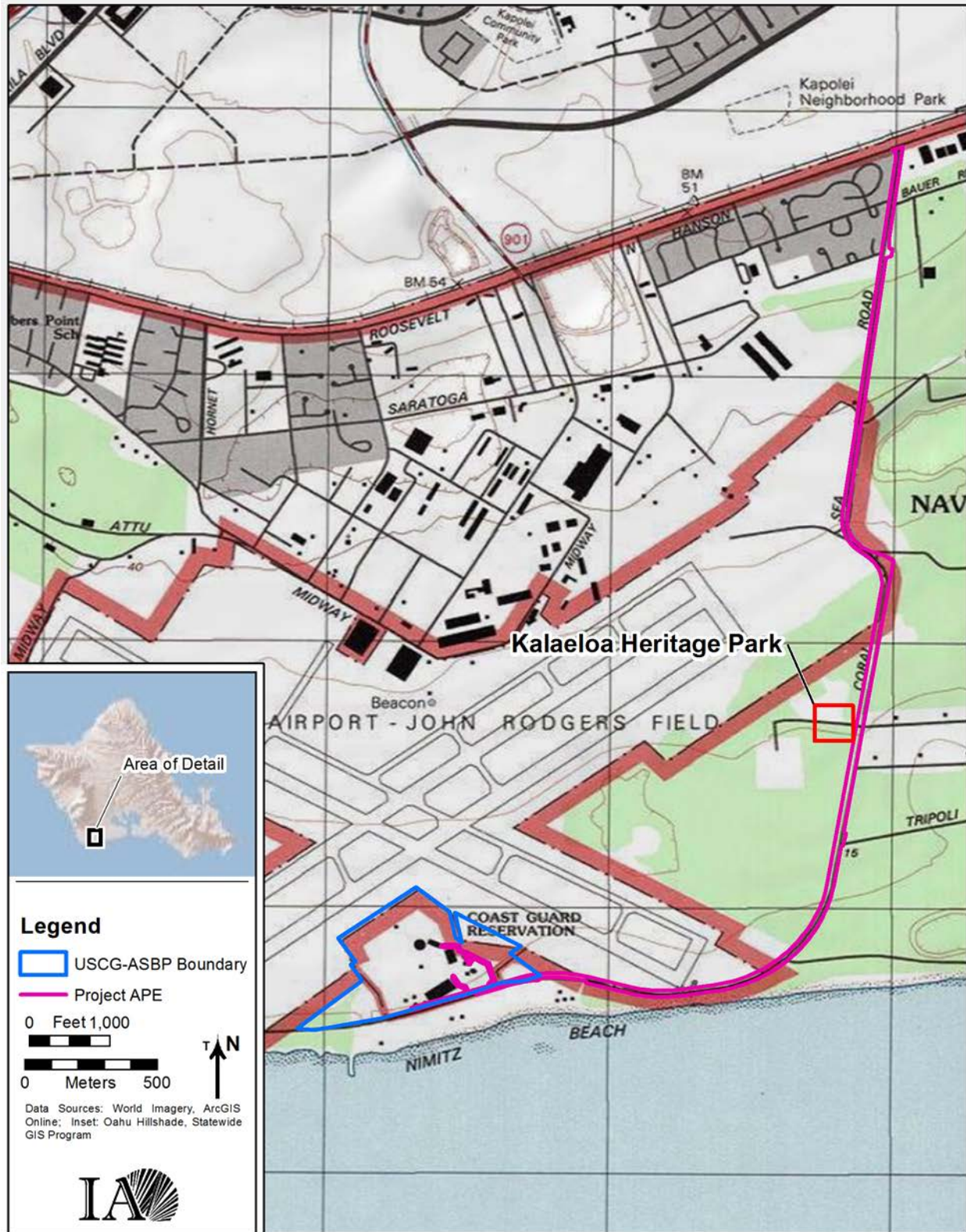


Figure 2. Location of the APE/project area on USA Topo Maps topographic quadrangle.

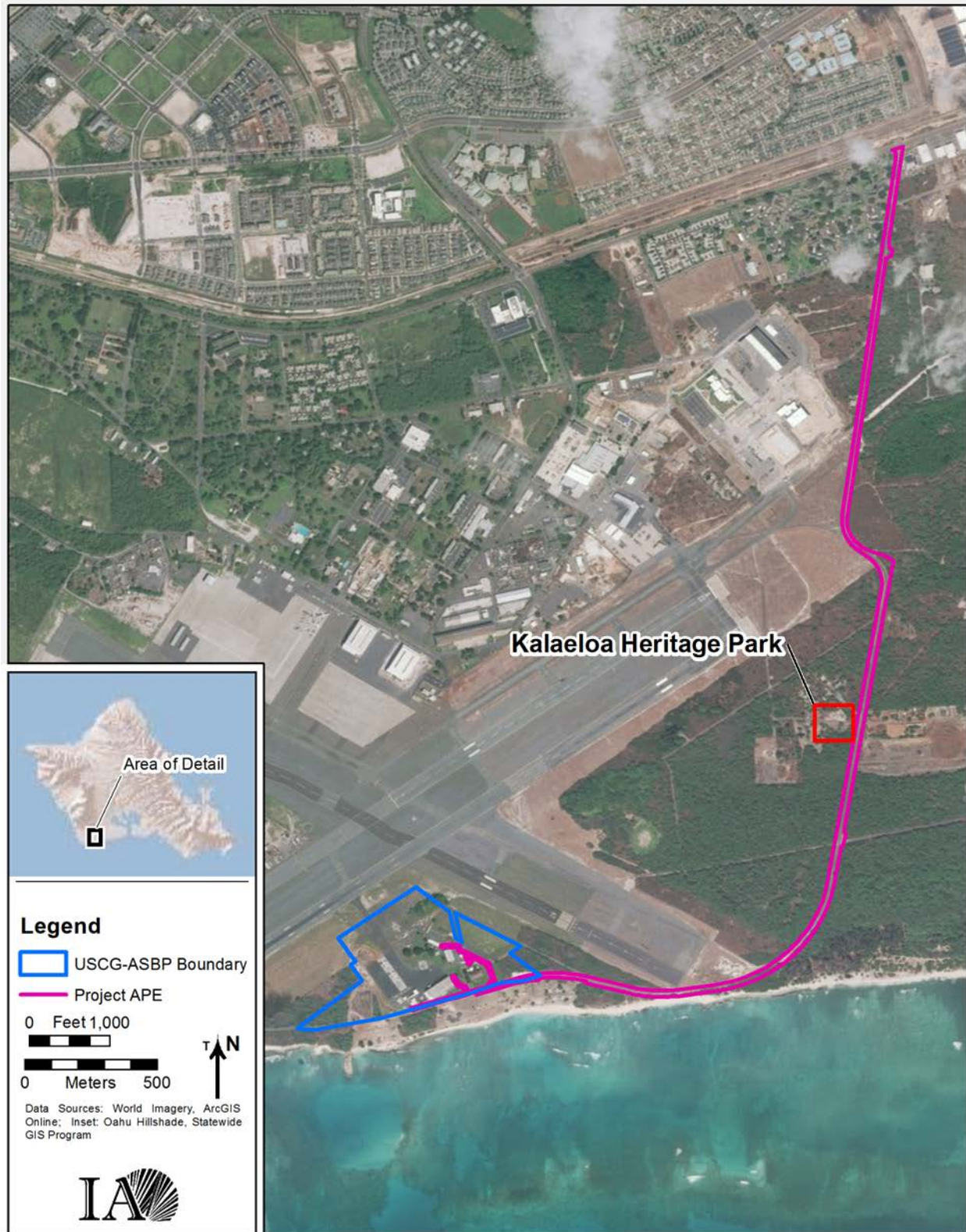


Figure 3. . Location of the APE/project area on recent satellite World Imagery.

II. TRADITIONAL AND CULTURAL SIGNIFICANCE OF THE PROJECT AREA

This section of the CIA study discusses the prehistory and history of the Kalaeloa region. The traditional and cultural significance of the project area is best understood within this historical context. Traditional history discussed in *Sites of Oahu* (Sterling and Summers 1978) tells of the importance of the *mauka* or upland areas of Honouliuli Ahupua‘a. Honouliuli was one of the largest *ahupua‘a* on O‘ahu, and served as a crossroads for many points east (towards Pearl Harbor and Honolulu), west (towards Wai‘anae) and north (towards Wahiawā and Waialua). Archaeological studies (c.f. Tuggle 1995; Vernon and Desilets 2013;) along the *makai* (coastal) portions of Honouliuli, many of which are associated with the closure of Naval Air Station Barbers Point (renamed Kalaeloa after closure of the base), add to this knowledge by the findings of historic sites directly associated with Native Hawaiian land uses of Honouliuli. The information presented on the traditional and cultural significance of the project area comes largely from this study and also Prasad (2007).

THE AHUPUA‘A OF HONOLIULI

The project area lies in the *ahupua‘a* of Honouliuli in the *moku* (traditional Hawaiian district) of ‘Ewa (Figure 4) and is part of the unique geological feature known as the ‘Ewa Plain. The uniqueness of this geological base is directly related to the traditional Native Hawaiian uses of the area.

There are several places within Honouliuli Ahupua‘a that are associated with traditional Hawaiian land uses. The current project area lies within the southwest portion of Honouliuli; the original Hawaiian name for this area was either Lae Loa or Kalaeloa; both names are seen in historic maps and text. *Lae* meaning cape or point and *loa* meaning distance or length, is seen on 1873 and 1889 maps. Lae Loa is also a point south of Hōnaunau Bay on Hawai‘i Island (Pukui et al. 1976:126). Kalaeloa may translate to “clear or calm stretch” of either water or land. According to Pukui et al. (1975:52), *kala‘e* means “clear or calm.” Barbers Point is the post-contact name of the area and is attributed to Captain Henry Barber, whose ship ran aground on the shoals of Kalaeloa in 1796. According to Kamakau (1991:174):

In October, 1796, a ship [Arthur, under Henry Barber] went aground at Kalaeloa, Oahu. This ship had visited the island on several occasions during the rule of Ka-lani-ku-pule. This was the first time a foreign ship had grounded on these shores. Kamehameha was on Hawaii, but Young had remained on Oahu. All the men on the ship came ashore at night in their boats. At daylight when the ship was seen ashore Ku-i-helani placed a ban on the property of the ship and took care of the foreigners. Hawaiian divers recovered the valuables, and they were given over to the care of Ku-i-helani, but part were given by Captain Barber to the men who had recovered them.

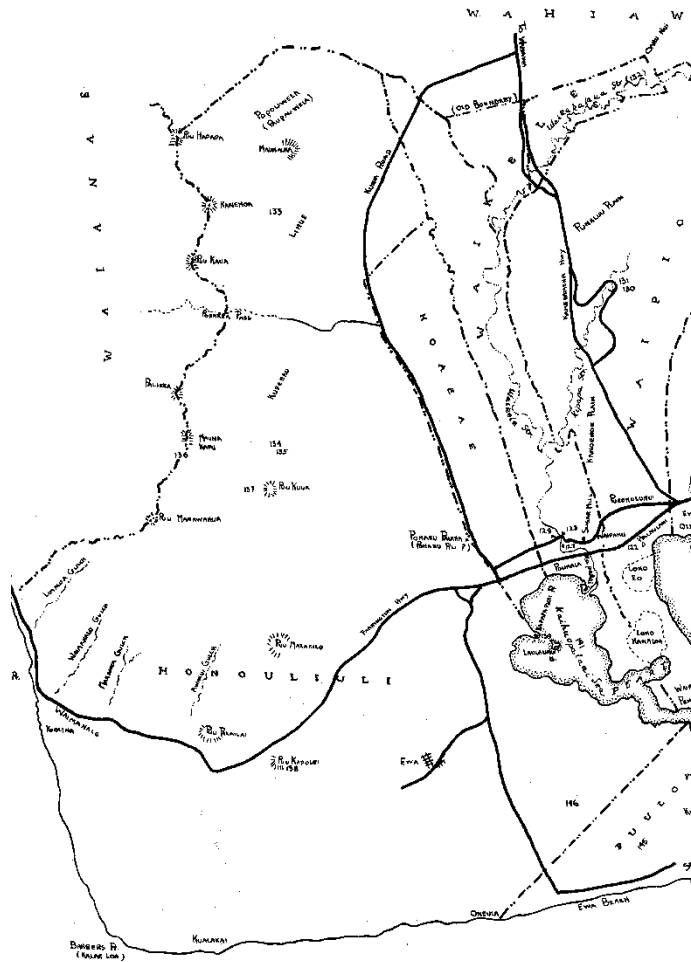


Figure 4. The *ahupua'a* of Honouliuli (from Sterling and Summers 1978).

Sterling and Summers (1978) describe accounts related to Captain Barber, mostly re-telling the same event(s) with slight variations. One of the stories recalls an incident just prior to the ship running aground when Captain Barber tried to trick Kamehameha by giving the king a gift of a keg of diluted brandy because he felt that providing a keg of good brandy would be a waste. After the wreck of his ship, Barber appealed to the king for assistance in retrieving goods that had been stolen off the ship. During a feast, the ship's captain found the 'awa he was given had been similarly diluted by Kamehameha (Joseph Emerson, as told to Mrs. Beatrice Greenwell, in Sterling and Summers 1978:39). Some accounts describe Barber as an unscrupulous man whose primary interest was in trading sea otter pelts and transporting supplies to and from penal colonies in Australia (Sterling and Summers 1978:39-40). Personality aside, Captain Barber's visit to Kalaeloa made a lasting mark on Hawaiian history, so much so that the point bears his name today.

PREHISTORIC LAND USE IN THE VICINITY OF THE PROJECT AREA

While mo'ōlelo for the *mauka* portion of Honouliuli Ahupua'a significantly outnumber those for the *makai* area, the number of archaeological studies conducted in and around Barbers Point outnumbers those done for the upland locations. As will be presented in this CIA, interviews with Uncle Shad Kane

(completed for the current project and previously in 2005), create a picture of how land use and traditions of the *mauka* (upland) and *makai* (coastal) portions of Honouliuli *ahupua'a*, should not necessarily be considered separately. Largely known from oral histories, *mauka* sites are less studied simply because they no longer exist or have been highly disturbed as a result of sugar-related land use disturbances within Honouliuli. In the low-lying plains, however, the archaeological data show a fairly consistent and important history, especially about the subsistence base of early Hawaiians using the coastal areas. Subsistence activities appear to have centered on bird hunting, fishing, and collection of seaweed and shellfish. The recovery of extinct bird bones has become almost synonymous with the prehistory of the area around Barbers Point (Davis 1990).

Along with various land birds and seabirds, a number of flightless birds from the Anatidae and Rallidae families are found in some of the area's sites. However, the greatest number of bird bone remains come from members of the seabird family (Procellariiformes) and are found in non-cultural contexts (Davis 1990: 345). Davis (1990: 330) argues that our current knowledge of the area's pre-human environment is poorly understood and therefore, the issue of whether human predation led to the extinction of various bird species found in the Barbers Point sites cannot currently be resolved. A number of more recent studies suggest that there was a pre-human extinction of birds and other animals. For example, work by Wickler and Tuggle (1997), and Athens et al. (1999), indicate that the time of extinction may well predate human settlement of the area. These studies suggest that avifaunal extinctions coincided with the decline of the area's lowland forests before human settlement.

The majority of paleontological and archaeological finds discussed above are found within the extensive cave (commonly referred to as sink holes in archaeological studies)¹ systems in the general vicinity of the project area. The geological formation of the 'Ewa Plains, particularly closer to the shoreline, lends to natural depression-like formations that were culturally significant to Hawaiians.² Wickler and Tuggle (1997:105) found that, "structurally modified sinkholes are common in 'Ewa sites and include a variety of formal types...sinkholes with rock mounds or walls in close proximity, enclosed sink opening, filled or capped sinks, and stone structures built within sinkholes." Many of these archaeological features presently lie within the protected boundaries of Kalaeloa Heritage Park (see following discussion).

State Site 50-80-17-053, an extensive (approximately four acre) pre-Contact habitation complex, is located close to the project area APE along the Coral Sea Road ROW. A number of the sinkholes and rock mound features in this complex are known to contain human burials (*iwi*) from the pre-Contact and early post-Contact periods (Tuggle 1995). Based on extensive work associated with the closure of NAS Barbers Point, Tuggle and Tomonari-Tuggle (1997) conclude that "burials have been found in virtually every undisturbed area that has been archaeologically surveyed" (Tuggle and Tomonari-Tuggle 1997:71). Photographs of two of the features within Site 50-80-17-53 are shown in Photo 1.

¹ According to karstographers and speleologists, sinkholes is an inappropriate term for describing these "typical small dissolution pit caves" (Mylroie and Carew 1995:60, in Halliday 1998).

² According to Halliday (1998), some of the sinking streams and closed depressions within the karst are artificial, and the likely result of past water diversion for farming, ranching and domestic use. He adds that "most of the land surface of the karst has been subjected to more than a century of extensive reworking by man" (1998:2).



Photo 1. Rock mound and Trail (*ala loa*) features at Kalaeloa Heritage Park.

Along with the area's documented archaeological features and sites, there are also areas such as Kualaka'i; (Figure 4), that is an important and well documented traditional place in Honouliuli. Though possibly no longer identifiable archaeologically, Kualaka'i is a coastal strip within the former NAS Barbers Point that had a famous spring called "Hoaka-lei." Hoaka-lei (lei reflection) is named so because Hi'iaka (sister of the goddess Pele) picked *lehua* flowers here to make a lei and saw her reflection in the water" (Pukui et al. 1976:119). Tax records and ethnographic data indicate that people lived at Kualaka'i until the beginning of the 20th century (Kelly 1991:152), additional traditional historical information suggests that it may be the place where breadfruit was first introduced to Hawai'i (Tuggle and Tomonari-Tuggle 1997).

The following section describes the 'Ewa Plain after European contact. Much of the historical background in the following section is based on research in Magnuson (1999).

THE 'EWA PLAIN AFTER CONTACT: HISTORIC LAND USE

During the early 1800s, Honouliuli Village was the only significant community on the 'Ewa Plain. There were as many as ten missionary schools in the area but these later closed due to a lack of students (Kamakau 1961:424). During the land reforms that occurred during the mid-1800s, the *ahupua'a* of Honouliuli was awarded to Kekau'ōnohi, the daughter of Wahinepi'o; Wahinepi'o was the sister of Kalanimōkū, who had been given the land by Kamehameha after his conquest of O'ahu (Indices of Awards 1929; Kame'eleihiwa 1992:112-114). Kekau'ōnohi was also the granddaughter of Kamehameha through his son Kahō'anokū Kīna'u.

About 150 acres of Honouliuli Ahupua'a were set aside for *kuleana* or land awards for commoners. There was a total of 74 Land Commission Awards (LCA) made in Honouliuli Ahupua'a, all of which were in or adjacent to Honouliuli Gulch (Indices of Awards 1929). The primary land use in the area, as indicated in claims and testimonies (Native Register and Native and Foreign Testimonies, Hawai'i State Archives) was growing taro. The Land Commission records indicate that within the *ahupua'a*, nearly every award included a parcel for a house or houses for extended family members (Magnuson 1999:9). While the cultivation of taro was focused around Honouliuli Gulch, irrigated pondfields and coastal fishponds were used for raising fish.

One of the most informative features of Land Commission Awards³ (LCA) is the written recorded of the type(s) of land use for a particular LCA. Often, the LCA record is accompanied by notes or

³ Land Commission Awards can be reviewed by area (*ahupua'a*) at the Bureau of Conveyances. In addition, archival information about land use and tenancy can be found at the Hawai'i State Archives office.

comments that further describe the specific locality of the award. In her work for the West Loch Estates, Silva (1987) summarized all 74 of the LCA for Honouliuli Ahupua'a. For the most part, the awarded lands appear to be the upland, slope areas of Honouliuli. The lack of any awards may indicate that lands were usurped or claimed by a royal family or one of its members.⁴ Between the years of 1885 and 1888, the names of 45 taxpayers are found for nearby Kualaka'i (see Appendix B). Three taxpayers are on record for the year 1885 (Tuggle and Tomonari-Tuggle 1997:39); only one name, "Keoni," is listed under Kalaeloa.

According to Magnuson (1999:9), LCA records and government documents suggest that there was once a women's prison in the Honouliuli area. An 1848 letter from a school teacher named Naheana describes "prisoners taro patches" were overgrown and neglected. Privy Council Records from 1851 document "disorders existing at Ewa" which resulted in the need "to have the prison for women in Ewa enclosed by a secure fence" (Privy Council Records 6:342, in Silva 1987:A-8).

Previous ethnographic research indicates that people lived at Kualaka'i until at least the turn of the 20th century. The following account is cited by Kelly (E. Williamson n.d., in Kelly 1991:152):

In the Honouliuli area the train stopped among the *kiawe* (algaroba) trees and *malina* (sisal) thickets. We disembarked with the assorted food bundles and water containers. Some of the Kualaka'i 'ohana met us to help carry the 'ukana (bundles) along a sandstone pathway through the *kiawe* and *malina*. The distance to the frame house near the shore seemed long...When we departed our 'ukana contained fresh lobsters, *limu* (algae), fresh and *i'a malo'o* (dried fish)...Tutu ma (grandfolks and others) shared and ate the seafoods with great relish.

Following Kekau'ōnohi's death in 1851, her husband Levi Ha'alelea inherited her property. In 1863, the *kuleana* lands were deeded to Ha'alelea by their owners in payments for their various debts⁵ (Frierson 1973:12, in Magnuson 1999:10). Ha'alelea died in 1864, and his second wife transferred ownership of the lands to her brother-in-law, John Coney (Yoklavich et al. 1995:16, in Magnuson 1999:10). In 1871, Coney rented the Honouliuli lands to James Dowsett and John Meek for cattle ranching. Except for the 'ili of Pu'uloa (see Figure 4) the remaining Honouliuli lands were sold to James Campbell in 1871. Campbell continued ranching on the *mauka* lands but converted a substantial portion for agricultural use. Lanikūhonua,⁶ the Campbell family estate, was set up on the western edge of the 'Ewa Plain (Photo 2).

⁴ According to William Aila, claims for land by commoners could be superseded by a claim to the same piece of land by someone of royalty. Given the importance of traditional use/occupation of Kalaeloa lands, it is very likely that there were family or lineage claims to the land other than just by royalty.

⁵ It is assumed that the entirety of the 150 acres that made up the 74 LCAs were deeded to Ha'alelea.

⁶ Lanikūhonua sits between the resort of Kō'olina and Paradise Cove and is home to Germaine's Luau.



Photo 2. Photographs showing *ahu* and *aniani kū* fishpond (looking west) at Lanikūhonua.

Campbell leased a large portion of Honouliuli Gulch to Chinese rice farmers, and rice farming soon became a major agricultural product from the region. Figure 4 shows Honouliuli taro and rice fields in the northwestern end of the *ahupuaʻa*. It seems likely that rice replaced taro after the Hawaiian population declined and the Chinese began farming the land.⁷ In 1889, James Campbell leased Honouliuli to B.F. Dillingham, whose main business venture was the the development of the Oahu Railway and Land Company. In 1890, Dillingham in turn, leased the lower portions of Honouliuli to Ewa Plantation Company for sugarcane cultivation (Figure 5). Figure 6 also shows that by 1939, much of the north and east portions of the ʻEwa Plain were subdivided into home lots.

⁷ In oral histories completed with *kupuna* Pops Fujishiro during a field trip to identify the terraced fields found at Schofield Army Base, this researcher learned that Chinese farmers often used the existing *loʻi* to grow rice. The farmers found that *loʻi* provided a very suitable terrain and, as well, were of manageable size for use as rice paddies.

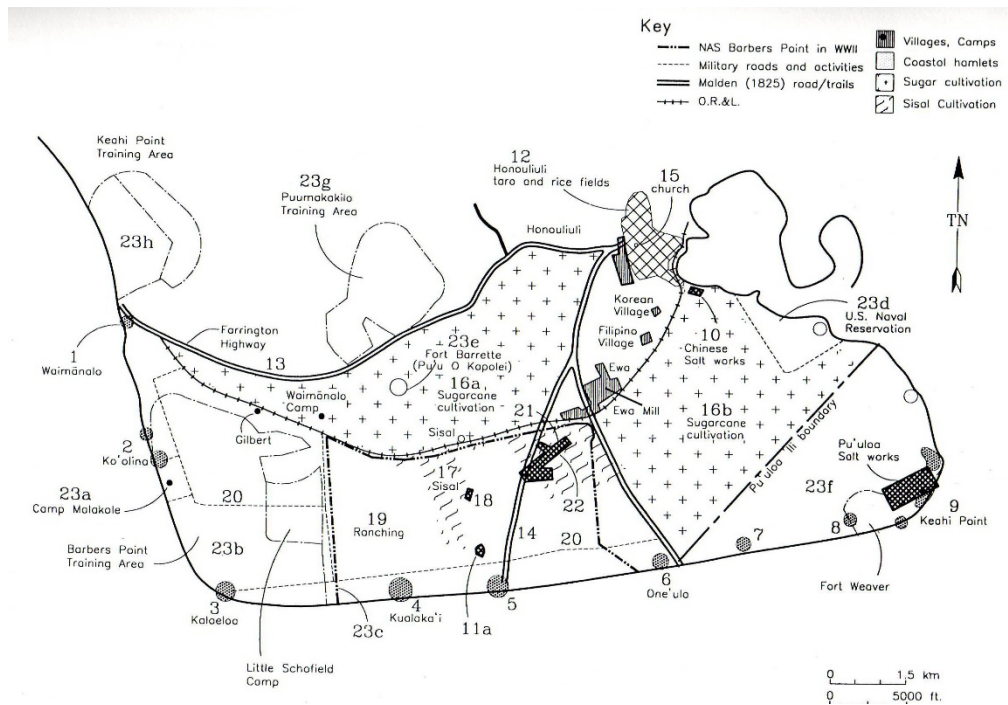


Figure 5. Historical Features of the 'Ewa Plain from 1825 to World War II (from Tuggle and Tomonari-Tuggle 1997:32).

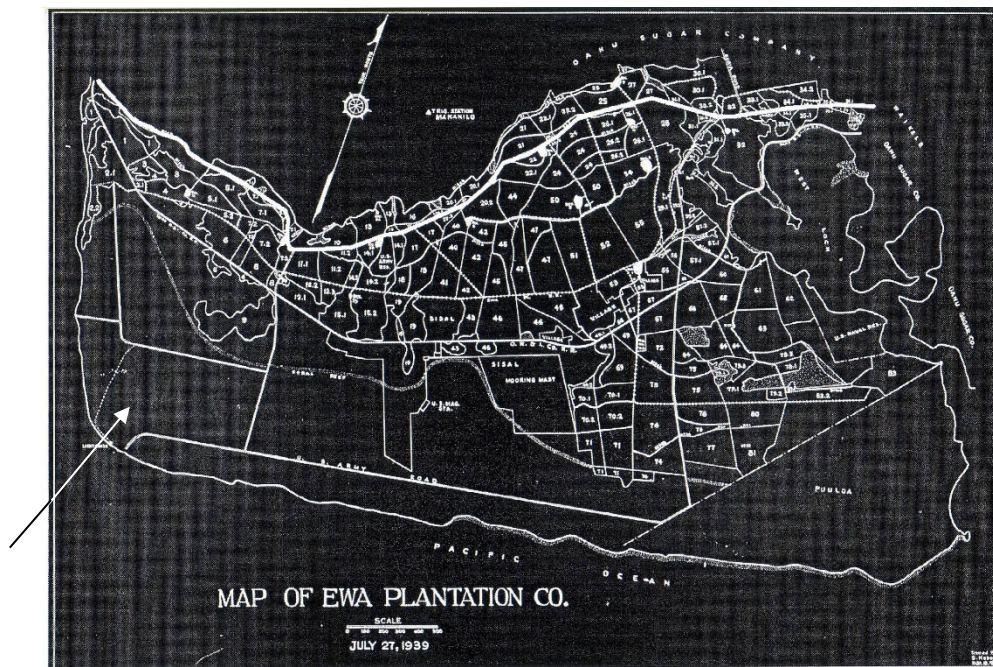


Figure 6. Ewa Plantation Company, 1939, showing Farrington Highway, Oahu Rail and Land Company (OR&L) Railroad, and the Ewa Plantation Company sugar railroads (Conde and Best 1973:285).

The next major land use change began in the 1930s, as the U.S. military moved into the 'Ewa Plain. The various military facilities included Barbers Point Training Area, Camp Malakole, Little Schofield Camp, Fort Weaver, Fort Barrette, Puu Makakilo Training Area, U.S. Naval Reservation, and Keahi Point Training Area. By 1947, the Ewa Plantation Company ended its use of the areas railroads; that same year, the Oahu Railway and Land Company ran its last train on the 'Ewa Plain (Magnuson 1999:11).

CURRENT CULTURAL LAND USES OF THE PROJECT AREA AND ITS VICINITIES

There are no current cultural uses of the land within the APE. The nearby Kalaeloa Heritage Park, although not in the APE is noteworthy. Kalaeloa Heritage Park came to fruition under the guidance and determination of Shad Kāne. The park was established to help perpetuate, share and actively invite people to learn about the Native Hawaiian cultural history of the Kalaeloa area. The types of cultural activities that occur within the Park include discussions about the history of the area, to irrigation projects oriented towards regenerating native plants. A *hale* (Photo 3) built by volunteers, serves as a gathering place for anyone working at or visiting the park. Cultural activities at the park include demonstrations/presentations on the uses of Native Hawaiian plants and the cultural history of the Kalaeloa area. The park also serves as a meeting place for more general community events.



Photo 3. Hale at Kalaeloa Heritage Park

inconvenienced by vehicles and/or construction activities along this portion of Coral Sea Road ROW. However, since the proposed project bordering Coral Sea Road is fairly wide in this area, there is likely to be little direct effects from construction activities.

Also situated on Long Island Street and Coral Sea Road, and directly across the entrance to Kalaeloa Heritage Park, is The Ranch at Kalaeloa. The ranch is operated by Tanya Cummings and provides boarding for horses, horseback riding lessons to *keiki* (children), a 4-H children's livestock club, and a petting zoo. There is also some light gardening (much of the soil has to be imported into the area), and bee farming activities (company which manufactures *Keawe honey*), neither of which reflect traditional Hawaiian cultural practices but are important to the local community nonetheless. Tanya noted that there are sinkholes throughout the property; none of these are noted as historic cultural properties. The Ranch at Kalaeloa will not be affected by the

activities associated with the current project; at a minimum, the entrance to the ranch may be

Other cultural activities that are known to occur within and around Kalaeloa include fishing (commercial and residential), and gathering/collecting of marine and plant resources. Although the entire project area is situated inland, ocean access is an easy walk from much of Coral Sea Road ROW and the

USCG ASBP. Fishing, gathering *limu* (seaweed), and shellfish all occur along the shores of Kalaeloa. Although the majority of the fishermen use Kalaeloa for near shore fishing, open water or commercial fishing from small and large boats is also commonly conducted. Commercial fishing in this area is primarily for *akule*, but other types of fish (particularly reef fish) are also sought after. Recreational and subsistence fishing also take place along the shoreline of Kalaeloa, extending all the way to the Kalaeloa Deep Draft Harbor. Some fishermen travel to Kalaeloa from as far as the windward towns of Waimanalo, Kane'ohe, and Kailua as a result of its reputation for catching *halalu* or baby *akule*. Prasad (2007) indicates that when the *halalu* “are running” (in season), the number of fishermen along the harbor’s walls increases significantly.

*Kūpe‘e (Nerita polita)*⁸ is an important traditional Hawaiian food and material source; its meat is consumed and its shell is used to make *lei*. *Kūpe‘e* is a marine invertebrate found along the rocky shorelines of the islands. The harvesting of *kūpe‘e* was not observed at Kalaeloa during this or previous studies; it is an activity that may take place primarily at night since the animal is nocturnal. It is also highly likely that most *kūpe‘e* collectors comb the accessible rocky shorelines on or near full moon nights when it is easier to see the mollusk. Since other marine invertebrates such as *pipipi* and *‘opihi* are also found along Kalaeloa’s shoreline, it is likely this shoreline is used for general (food) shellfish collection. *Limu* picking, however, was observed on previous field visits to the coastal areas that front the project APE (Prasad 2007; 2008).

Plants that remain in and around the project area APE which are contemporary sources of food, medicine, hula and *lei* making include *la‘au*, *uhaloa*, *kaunaoa* and *kiawe*.⁹ Mrs. Ginger Burch (in Vernon and Desilets 2013), a former resident of the Kalaeloa area, recalls that the former Naval Air Station at Barbers Point was where *kiawe* was grown during historic times. A CIA study recently done by Dagher and Spear (2017) mentions the concern individuals have expressed about the negative impacts of construction projects on these plants. Within Kalaeloa Heritage Park, Uncle Shad Kane is making an effort to restore some of the native plants that would have once been found at the site. Plants found at the park which probably date to the time of Hawaiian occupation include *ulu* (breadfruit), *noni* and *uala* (sweet potato). None of the native plants that currently can be found at Kalaeloa Heritage Park are in danger from construction activities as they are not located within the proposed project area APE. Across the road, at “The Ranch at Kalaeloa”, the planting of trees, shrubs and grass has been deliberately done to provide shade, stable soil, and to create a better landscaped environment. None of these plants are actively used for cultural or traditional purposes (T. Cummings, pers. comm.).

Ala loa and *ala kalakai* (inland and coastal trails, respectively) form part of the significant historic properties in the vicinity of the project area APE. None of these trails are known to be currently in use however archaeological evidence for their existence has been documented. Burial features are also found within close proximity of the project area. None of these features have yet been associated with living descendants, although according to Tesha Malama and Kawika McKeague (pers. comm.), over twenty descendants of the Kalaeloa/Honouliuli lands have been identified.

⁸ *Kūpe‘e* is a small nocturnal mollusk, similar to *pipipi* (*N. picea*). According to William Aila, *kūpe‘e* appear along rocky shoreline at night only. It is larger than its molluscan cousin, the *pipipi*, and has a ‘glowing’ effect at night.

⁹ A sign for the sale of *kiawe* wood is currently posted at the entrance to Kalaeloa Heritage Park.

III. ORAL HISTORIES OF THE ‘EWA PLAINS AREA

This section of the CIA presents the information gathered from oral histories of the ‘Ewa Plains area and the *ahupua‘a* of Honouliuli. These oral histories are the result of ethnographic studies conducted during the present study as well as during previous interviews (Prasad 2007; Prasad 2008). Oral histories are one of the primary means for establishing the significance of a feature, place, or a previous activity. Among the important memories and uses of the land are those that tell of the traditions and beliefs associated with the past people who once lived in this region. Traditional histories, particularly those associated with a known place such as Kualaka‘i, have been drastically interrupted by plantation and military uses of the ‘Ewa Plain. Sadly, and gradually, even those who shared these histories are becoming fewer in number.

KALAELOA HERITAGE PARK AND UNCLE SHAD KANE

Currently, there is probably no one person who is better connected to the project area and its immediate environment than Uncle Shad Kane.¹⁰ The first interview done with Uncle Shad by this researcher occurred in 2005 (Prasad 2007). The focus of the earlier project was to help determine traditional cultural properties at Kalaeloa; oral interviews were a significant contribution to that study. The information Uncle Shad shared then (incorporated in this report as well), told of the cultural significance of the Kalaeloa area. Since the initial interview, Uncle Shad has been able to transform much of his own personal experience and the stories (*mo‘olelo*) about Kalaeloa into the Kalaeloa Heritage Park. Many of these stories are included in his book *Cultural Kapolei* (Kāne 2011). There are a number of elements about this park that make it a unique place. For example, it represents an effort in both the preservation of the Hawaiian past and an active revival of the current Hawaiian culture. At present, volunteers are helping to restore the park without compromising its integrity (sites/features and plants). According to Uncle Shad, the area chosen for placement of the *hale* and other newly constructed features were identified with the help of archaeologist H. David Tuggle. The direction that the parking is developing ensures that it will carry on as a living legacy to the Hawaiians that once lived around Kalaeloa. Meeting with Uncle Shad at Kalaeloa Heritage Park during research for this project provided a better understanding of how the area now known as Kalaeloa fits into the cultural history of O‘ahu Island.

As previously mentioned, one of the most important, although lesser known areas within Kalaeloa’s boundaries is Kualaka‘i. Uncle Shad talked about meeting *kupuna* Sara Kauka who was aware of Kualaka‘i and visited the area during the 1930s:

As a young woman, Auntie Sara visited Kualaka‘i with her family. She remembers taking the train to ‘Ewa, and from there going on horseback to Kualaka‘i. There was a cobblestone wall which the horses followed to Kualaka‘i. She would go with her family to buy *limu*, fish, and lobster from a Hawaiian family that lived at Kualaka‘i. She recalls the sand dunes here that had to be crossed over in order to reach the ocean. She also

¹⁰ Uncle Shad Kane represents several the ‘Ewa Moku in multiple organizations including, O‘ahu Island Burial Council and the State of Hawai‘i Aha Moku Council for the island of Oahu, City Council Clean Water and Natural Lands Commission, O‘ahu Council Hawaiian Civic Club and Native Hawaiian Representative on the U.S. Navy Historic Preservation Partners group.

recalls a lake (possibly the spring) that was just *mauka* of Kualaka‘i (S. Kane, pers. comm., 2005).

Uncle Shad expanded on his knowledge about Kualaka‘i during our visits for the current project.

Ka ‘ulu’ a kahai is the tone name for Kualaka‘i. It translates to ‘chief who goes to get and bring back the breadfruit.

Map maker Mulden¹¹ named the area Kualaka‘i on a British map of the area (the map would have been drawn at the time that Vancouver commissioned for the harvesting of *iliah* [sandalwood]). Rubellite [referring to Rubellite Johnson, a primary Hawaiian historian for the area], interprets Ku-ala-kai using a story of Kahai, a Tahitian chief, and not Kamalii. Kahai may have been born here. Kahai is the grandson of Moi Keha.

Breadfruit or ‘ulu (breadfruit, *Artocarpus altilis*) is one of the terrestrial food sources known from the Kalaeloa area. According to Kamakau, the “first breadfruit was planted at Pu‘uloa, ‘Ewa, brought by Mo‘ikeha’s grandson, Kaha‘i-a-Ho‘okamali‘i, in a round-trip voyage that began at Kalaeloa” (Kamakau 1991:110). Fornander recorded several myths concerning the planting of breadfruit at Pu‘uloa in ‘Ewa, Oahu. In one account, Kaha‘i, the son of Moikeha of Waipi‘o, Hawaii, is said to have made a voyage to Kahiki (possibly Tahiti) and brought back the breadfruit from ‘Upolu (Fornander 1916-17:392, in Handy and Handy 1991:150). In another myth, Fornander tells of two fishermen who brought back the breadfruit from Kane-huna-moku (The hidden land of Kane or Kahiki) after they were blown out to sea (ibid).

While the exact location of Kualaka‘i may be difficult to determine, it seems very likely that the place did exist at Kalaeloa, and perhaps in close proximity to the *makai* most boundary of the current project area. As the oral histories indicate, it is also very likely that that *ulu* played a significant role in prehistoric Kalaeloa, ‘Ewa and perhaps Pu‘uloa.

MARINE RESOURCES ALONG THE KALAELOA SHORELINE: FISH, LIMU, AND KŪPE‘E

Beginning at the age of four, Kawika McKeague recalls visiting the shores of Kalaeloa nearly every weekend. His first memories are of gathering *limu* with his grandfather:

This area has a very strong connection for me...I was born and raised in ‘Ewa and Makakilo....this area then was under Navy control. At that time, only one or two other people, and me and my dad used the harbor. We would go camping for three to four days at a time. This was our ‘ice box’ [in reference to the ocean] (Kawika McKeague pers. comm. 2018).

Oral histories completed for earlier Kalaeloa studies (Prasad 2007) identified at least one family that regularly camped along the shores of Kalaeloa before construction of the barge harbor. Logan Williams, who worked at Kalaeloa in 2005, is the grandson of Mary Lou Keaulana, the aunt of well-known surfing legend Buffalo Keaulana. Uncle “Buff” was raised by his sister and he is her younger brother. Logan has spent his entire life around Kalaeloa. His great grandfather (patriarch of the Keaulana clan) worked for Oahu Sugar Company as a truck driver. As a truck driver, “Papa” (grandfather) was given keys to access the coastal area. He regularly took his family to Kalaeloa, where Logan spent many

¹¹ Lieutenant Charles Robert Mulden was a cartographer for Lord Byron on the HMS Blonde; he created maps of the some of the Hawaiian islands in 1825.

summer months. The family would often set up camp for as long as three months. Logan believes that camp was nicknamed “Kole:”

We would pitch tents and stay the whole time. Papa would go back to work but we would just stay...fish and play here. When I was little, there was no harbor. The current harbor opening was only about one hundred to hundred-fifty yards, and we would swim from this end (east side of the entrance) to the Kō‘olina end. It was too far to walk around to Kō‘olina so we would just pack things in a dingy and swim/boat across (Logan Williams, pers. comm. 2005).

Kalaeloa provides one of the most important fishing grounds on the island of O‘ahu. Commercial, subsistence, and recreational fishing all take place in the waters of Kalaeloa. Commercial fishermen who fish in the Kalaeloa area, come primarily from the Wai‘anae coast. According to Karl Jellings, a prominent fisherman, there are six to ten boat operations conducting near-shore fishing in the Wai‘anae area (Karl Jellings, pers. comm. 2005). Waianae Boat Harbor is the only public docking area near Kalaeloa and subsistence fishermen also appear to be primarily from the Wai‘anae area. However, recreational fishermen come from all parts of O‘ahu.

Fishing along Kalaeloa is a traditional activity that is still important today. Although some of the methods employed during fishing have changed over the decades, the importance of fishing along the Kalaeloa coastline is well documented in historic references. In earlier oral history research conducted with Keone Nunes, *kupuna* Walter Kamana expressed the importance of the fish and other marine resources of the Wai‘anae coast. *Kupuna* Kamana lived and fished along this coastline for the duration of his life. During his earlier years, in the early 1900s, the marine life in the area was abundant. Fishing was done in accord with only what was needed and during specific seasons. Today, seasonal fishing for *halalu* is still done near the project area. However, the traditional way of fishing that once took place along the shores of Kō‘olina appears to have completely ended. For example, according to Logan Williams, *akule* and *aholehole* are two of the major fishes caught along the ‘Ewa-Wai‘anae coastline. However, no fishing is currently allowed in Kō‘olina’s private harbor.

One fishing location that remains important is Lanikūhonua, a fishing village located at neighboring Kō‘olina. The *kahu* (caretaker) for Lanikūhonua, Auntie Nettie Tiffany, was born and raised on these lands and her family’s history in the area extends quite far into the past. For example, her grandfather was a *kahuna* in Kamehameha’s time. Her mother, who was *kahu* of Lanikūhonua and she spent a great deal of time with Kamakila Campbell. It was Mrs. Campbell who set aside Lanikūhonua for future preservation. Auntie Tiffany inherited the position of *kahu* from her mother. She recalls that her mother would ‘*ai* (feed) the fish at *aniani kū*, the fishpond (enclosure) immediately fronting the shore of Lanikūhonua. *Aniani kū*, which means “looking glass” (translated as “standing mirror” by Pukui et al. 1975:13), was the birthing pond for *aholehole*, ‘*ama’ama*, and the white *weke*, all important subsistence fish.

Lanikūhonua (see Photo 2) was the residence of James Campbell during the late 1800s. However, it may once have been the small coastal village of Kō‘olina. It may also have been the site of the village that John Papa Ii witnessed being burned when he was a small child visiting relatives in Nanakuli (Ii 1959:29, in Tuggle and Tomonari-Tuggle 1997):

The overseer in charge of the burning told them that it was so ordered by the royal court because the people there had given shelter to the chiefess, Kuwahine, who ran away from her husband Kalanimoku after associating wrongfully with someone...She had remained hidden for about four or five days before she was found. Here we see the sadness that

befell the people through the fault of the chiefs. The punishment fell on others, though they were not to blame.

Kō'olina (or Lanikūhonua) is also described as “a vacationing place for chief Kakuihewa and the priest Napuaikamao was the caretaker of the place...It is a lovely and delightful place and the chief, Kakuihewa, loved this home of his” (*Ke Au Hou*, July 13, 1910).

In describing the historical significance of fishing along this coastline, Auntie Tiffany recalls the changes that have resulted from both the resort and harbor development of the area. The traditional practices of controlling the number and amount of fish caught, of feeding ('*ai*) the fish, and fishing only for subsistence, have all changed. Part of this change is a reflection of the changing times, e.g. sport fishing is more common nowadays, and part of it is due to changes of the fishing grounds as a result of development of the coastline.

In addition to the areas fish resources, *limu* is an important traditional and contemporary Hawaiian food item. The 'Ewa coastline is well known for its special varieties of *limu*. There has been a joint effort by the Department of Land and Natural Resources (DLNR) and the community to create a “fisheries management area” to manage *limu* (Alden Miyasaka, pers. comm.). Known as the “Ewa Limu Program”, one of the central elements of this project is the role of the cultural advisor who provides traditional knowledge about *limu* resources. Prior to his death, *kupuna* Kamana served as the cultural advisor for this program.¹² Although the 'Ewa Limu Program does not extend into the current project area, the importance of *limu* gathering along this general coastline remains clear. Several fishermen indicated that they gather seaweed on the shoreline near the project area along the entrance to the harbor channel.

In an interview provided for a recent CIA study (in Dagher and Spear 2017), Kumu Michael Kumukauoha Lee, a traditional cultural practitioner of *limu* medicine, shared the importance of the *lipoa* (a *limu* known only from the Kalaeloa area). Kumu Lee still gathers *limu* from the Kalaeloa area for his medicinal practice. Lee is very concerned that ground disturbing activities may impact the underground karst system through which the fresh water flows to the ocean. This in turn may “negatively affect the balance of freshwater/seawater ratio, which will negatively impact the *limu*” (Dagher and Spear 2017:62).

In general, there are numerous accounts of the historical importance of the marine resources of the 'Ewa Plain area. Many of these are associated with the food gathering activities around Pearl Harbor. Closer to the project area, along the southern coast of the 'Ewa Plain, the favored seaweed *lipoa* (*Dictyopteris*) and the '*o'io* (*Albula vulpes*) fish were once found (Kelly 1991:155). *Lipoa* was gathered along the shoreline between Keahi and Kualaka'i; the '*o'io* came from Keahi. Stories such as the following by Pukui (1943, in Sterling and Summers 1978:44) tell of the value '*o'io* from Keahi:

Those caught at Keahi have a fragrance somewhat like the *lipoa* sea weed and when brought to market, sold readily. All the market man had to say was “These are from Keahi”, and his supply would vanish in a short time. There were times when the market man would try to palm off some '*o'io* from another locality as Keahi's but no old timer was ever deceived, for his nose knew the difference.

In addition to fish, *Kūpe'e* is a food item of the traditional Hawaiian diet; its shell is also valued as an ornament. Although the frequency with which this particular mollusk is collected has likely

¹² Since Walter Kamana's death, Uncle Henry Chang Wo has taken over the role of cultural advisor.

changed with population depletion and general changes to the Hawaiian diet, the significance of *kūpe‘e* in the Hawaiian diet of earlier times has been well documented by Titcomb et al. (1978).

The traditional Hawaiian food economy, there was great dependence upon marine resources to supplement *poi*, the starchy mainstay among terrestrial based foods. The figurative expression for food was *i‘a a me poi* (fish and *poi*). The term *i‘a* signified not only fish but all animal foods from the sea. While the emphasis was on the use of marine invertebrates as food, they were also used for medicinal purposes and in making tools. It was chiefly women’s work to gather shellfish and seaweeds (*limu*) (Titcomb et al. 1978:326, 338-344).

The name *pūpū* was used by itself to indicate snail shells in general; there is some indication that it was sometimes used in a more specific sense to connote various shells that terminate in a point, or perhaps to connote all nocturnal species...In addition to *pūpū*, frequently encountered Hawaiian names for gastropods include *hihiwai*, *kūpe‘e*, *leho*, *‘opihi*, and *pipipi*. These terms, which were widely used throughout the Hawaiian Islands, seem to have been treated as names for shell groups rather than for particular kinds of shells... Snails included in these groups were obviously the most important gastropod food sources... All *pūpū* are gathered during the day, as well as the night when they come out from hiding and climb up onto the stones. There is a special word for this journeying: *e‘e*. *Ua e‘e ka pūpū* means “the *pūpū* have come up onto the rocks”... *kūpe‘e* come out on some nights but lie under the sand or rocks during the day.

Titcomb et al. (1978) combine written information with oral histories conducted throughout the islands. It is clear from their descriptions that *kūpe‘e* is a category of several shellfish all of which are classified by their outward appearance. According to Titcomb et al. (1978:339), the following types of *kūpe‘e* are collected by Hawaiians:

Kūpe‘e: *N. polita*, a polished nerite, a dweller of sandy, rocky shores with strikingly nocturnal habits, similar in form to the *pipipi* (in fact, closely related to it in the *haole* classification) but sharply differentiated from the latter by the Hawaiians on the basis of the differences in behavior and habitat. The Hawaiians had names for many *kūpe‘e* according to their markings. There were the *kūpe‘e‘ula* (red); the *ānuenuē* (rainbow), red or black striped; the *palaoa* (what tooth ivory), creamy white, the *‘ele‘ele* (black), the most common; the *kāni‘o* (vertical stripes), black with white streaks; the *mahiōle* (warrior’s helmet), white with red stripes; and the *puna*, rare. The rarest were the *‘ula*, *ānuenuē*, *mahiōle*, and *puna*, and these were therefore saved for the chiefs. The rare *‘ula* was believed to have the ability to leap and hide. The common *kūpe‘e* were used by commoners.

As with many small snail type marine shells, the animal (flesh of *kūpe‘e*) had to be removed from its shell by using a small pricking type tool.

Information from two oral histories (William Aila and Shad Kane) indicates that *kūpe‘e* is still collected by fishermen and Hawaiian families who use this shellfish as a food source and ornament in the making of *lei*. Uncle Shad recalls harvesting *kūpe‘e* from the Honolulu side of Kō‘olīna before the resort was developed. Mr. Aila emphasized that the *lei* made from the *kūpe‘e* shell is often used by hula dancers. The significance of the shell is that it “captures any bad things that approach the person wearing the shell” (W. Aila, pers. comm.). Mr. Aila took the author (Prasad) to look for *kūpe‘e* off the Waianae Boat Harbor but we didn’t see any during our brief attempt. He added that the *kūpe‘e* appear at night and have a special ‘glow’ about them, so they are best seen during the full moon. Gathering of *kūpe‘e* was and is a common cultural practice along Hawai‘i’s shorelines today. In an oral history completed with

kupuna Elizabeth Lee, she describes the weekends and summer months she spent as a young girl camping and collecting shellfish with family along the shores of Kailua Bay:

On weekends, we walked down from Holualoa [to Kailua], leaving on Saturday morning. The walk was about two hours long. We would also camp for the whole of the summer months. We ate just what was there...didn't waste anything. We would pick '*opihi*, *hā'u**uke'u**ke*, *wana*, *pipipi* and *kūpe'e* as snacks. We didn't use the shells (of *kūpe'e*) for lei making but we did use *leho* (the general Hawaiian name for cowries) for making bracelets and lei.

In addition to *limu* and *kūpe'e*, the shoreline along Kalaeloa provides several other important marine food sources. The *a'ama* (also known to some as the "dryland" crab); *Paiea* (the "wet one"); and *he'e* (octopus; more commonly referred to as *tako* [Japanese]) are all caught around the harbor. According to Mr. Williams, the breeding season for the *he'e* is in January. At this time, it is possible to catch *he'e* without entering the water by waiting on the "males to chase the females up onto the rocks" (L. Williams, pers. comm.). He has found that females actually "sun" themselves on the rocks in the harbor.

Kalaeloa is also known as a place where turtles used to inhabit (Sterling and Summers 1978:40). One legend tells of Pohaku-o-Kaua'i, near Kalaeloa, which is said to be the home of a famous giant *kupua* (magical) fish, *Uhumakaikai*; this fish taught Kawelo, a chief who lived in the time of Kakuhihewa, the art of fighting (ibid:41).

SOURCES OF FRESH WATER

In an earlier interview (Prasad 2007), *Kumu hula* John Ka'imikaua told about the ancient stories of the area relating to the gods Kāne and Kanaloa. He noted that there are several places along the Wai'anae coastline where the gods traveled and stopped for fresh water. Kāne would dig into the freshwater springs to get water for making '*awa*. The coralline shoreline of Kalaeloa and its surrounding areas were known by the ancient Hawaiians for the freshwater lens that lies below and behind it.

Many of the caves (sink holes) discussed earlier in this report were an important resource for native Hawaiians. The (fresh water) spring named Hoaka-lei at Kualaka'i is well recorded in traditional Hawaiian lore. But as Kumu Ka'imikaua suggests, there were likely numerous caves that held fresh water known to the Hawaiians who lived in the region. Along with use as sources for fresh water, the caves in the area were important for other cultural activities. According to Kumu Ka'imikaua, "some of the holes were used for shelter... some had steps built into them while others were smaller holes purposely dug for use as burials...they dug little nooks and lay the bodies into them...that's how they (Hawaiians) buried on this ('Ewa) side". Caves with steps were pointed out by Uncle Shad and can be found within the large habitation complex (Site 1753) at Kalaeloa Heritage Park.

PU'UKAPOLEI

One of the most significant and culturally important places in the vicinity of the project area is Pu'ukapolei. In his island-wide survey, McAllister (1933) recorded a destroyed *heiau* on Pu'ukapolei. The *heiau* may have been associated with the sun (Fornander 1916-20, III:292). Tuggle and Tomonari-Tuggle (1997:28) make the inference that Pu'ukapolei ("hill of beloved Kapo") might have been the gate of the setting sun since the eastern gate of Kumukahi in Puna is the rising sun and is associated with Kapo. The authors also infer that Pu'ukapolei "may have been a jumping-off place (also connected with the setting sun) and associated with the dead who roam the Plain of Kaupe'a (Tuggle and Tomonari-

Tuggle 1997:28). Pu'ukapolei was also an important landmark for travelers between Pearl Harbor and the Wai'anae coast, and a trail from Honouliuli Village ran past Pu'ukapolei to the shoreline.

In interviews with Auntie Jane Ross and Auntie Martha Makaiwi (pers. comm. 2005), the story of Kapo was retold. Both of these *kūpuna* recall that early Hawaiians had much reverence for this goddess, who was a sister of Pele. Although the mound at Kapolei has been significantly altered (used as a bunker during WWII) in this century, it is the original home of Kapo. Goddess Kapo had the ability to change into an eel. She likely traveled between the sea and the land. Kamakila Campbell, who herself was known to be a *kahuna*, paid great respect to Kapo. Today, there is a statue of Kapo near the police station in Kapolei.

According to Uncle Shad (Shad 2011), the city of Kapolei takes its name from Pu'u Kapolei.

The largest *heiau* was located at Puu Kapolei and there was a small quarry on the *mauka* side. The foundation of the Old Government Road (now Farrington Highway) came from Pu'u O Kapolei. According to Rubellite Johnson, Pu'u O Kapolei was a hula *heiau*.

AN ACCOUNT OF NIGHT MARCHERS IN THE KŌ'OLINA-HONOKAI HALE AREA

According to Auntie J. Ross, night marchers have been seen and are known from the Kō'olina-Honokai Hale area. She knows this area, including Kalaeloa, was had a sizable Hawaiian population, and believes many of these ties to the land remain. Auntie Ross, along with Auntie Makaiwi, has lived in Honokai Hale since 1964; they purchased one of the first homes built in this subdivision. Both women have witnessed night marchers in the area. Auntie Ross recalls once seeing these 'figures' near the corner of La'aloa Street. Both ladies recall some of the unusual events [which they attribute to the past habitation of these lands by Hawaiians] that occurred during the construction of the Kō'olina resort. Other incidents that she recalled include strange things being found, rocks returning to their original place of location, engines of bulldozers turning on by themselves, and a woman in white who is said to be seen along Farrington Highway prior to accidents.

One account by Pukui (1943:60-61, in Sterling and Summers 1978:44) tells of the "homeless ghosts" of the plain of Kaupē'a:

We (my cousin, aunt and I) were walking to Kalae-loa (Barbers Point) from Pu'uloa accompanied by Teto, the dog. The dog was a native dog (not the so-called poi dog of today) with upright ears and a body the size of a fox terrier. For no accountable reason, Teto fell into a faint and lay still. My aunt exclaimed and sent me to fetch sea water at once which she sprinkled over the dog saying, "*Mai hana ino wale 'oukou i ka holoholona a ke kaikamahine. Uoki ko 'oukou makemake ilio*" ("Do not harm the girl's dog. Stop your desire to have it"). Then with a prayer to her *'aumakua* for help she rubbed the dog. It revived quickly and after being carried a short way, was frisky and lively as ever. Then it was that my aunt told me of the homeless ghosts and declared that some of them must have wanted Teto that day because she was a real native dog, the kind that were roasted and eaten long before foreigners ever came to our shores.

In two previous studies (Prasad 2003; Prasad 2005), two residents told accounts of night marchers. One area is near the Kūkaniloko Birthing Stones at Helemano, O'ahu, where accounts of night marchers were given by both Hawaiian and non-Hawaiian residents of the area. A similar account was related by a *kupuna* who resides on *kuleana* lands along Ī'ao Stream in Wailuku, Maui. Current accounts

of the presence of night marchers at Honokai Hale supports the idea that beliefs associated with the area's past Hawaiian uses are still known from the general area.

IV. NO CULTURAL IMPACTS: A SUMMARY

The preceding sections of this report have presented the cultural history of the project area and its general surroundings. The 'Ewa Plain and Honouliuli Ahupua'a are places of traditional and historic significance to Hawaiians. Ethnographic data show that traditions, beliefs, and cultural uses of the area continue to the present day. Archaeological evidence of pre-Contact and historic land use attest to the area's overall significance. In addition, there are active efforts to restore/revive the history and cultural significance of the 'Ewa Plain area. In summary, the following information was found during the research conducted for this CIA:

1. Traditional Hawaiian uses of the land along the Kalaeloa coastline are known from pre-Contact times, and to varying degrees, continue to the present day. (Use of the area for traditional activities seems to have changed primarily due to limited access to the shoreline and marine resources as a result of military development). Access to these areas will not be compromised by the proposed project.
2. Traditional Hawaiian beliefs and customs associated with Kalaeloa and the 'Ewa Plain still persists today. These beliefs and traditions are supported by both written and oral data.
3. Hawaiian burials are found in close proximity to portions of the project area. The discovery of *iwi* within the project APE, although unlikely, would require that lineal descendants of these lands be involved in the oversight and decision-making process in accordance with State law.¹³

The following conclusions and recommendations are based on historic and ethnographic data gathered for this CIA study:

No known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. Alternative 1 (both options A and B) is a shorter route with less urban development; Alternative 2 traverses a lengthier segment that has multiple contemporary urban uses along Essex Road (see Figs. 1 and 2). The project Archaeological Inventory Survey report (Morrison and Chambers 2018) for which this CIA supports, provides a more thorough description of the project area and its historical context. Given the location of the Kalaeloa Heritage Park at the intersection of Coral Sea and Long Island roads (see Figs. 1 and 2) it would be important to consider how the project construction activities will affect access to Kalaeloa Heritage Park. With the traffic management plan on the State ROW that will be required by Hawaii Department of Transportation, construction activities will not adversely affect access to the Park.

¹³ According to Tesha Malama and Kawika McKeague, there are many cultural descendants of these lands. However, attempts to obtain names of these individuals from SHPD were unsuccessful.

Cultural Monitoring

Three individuals who contributed to this CIA study made a request for cultural monitoring of the proposed project. This request comes from Kawika McKeague, Uncle Shad Kane and Tesha Malama. All three individuals either have cultural and lineal ties to the land, and/or are in a position to oversee the lands for future use by Native Hawaiians. In addition, Kumu Michael Lee, a Native Hawaiian *limu* practitioner, has expressed concerns over damage to the fresh water lens as a result of ground disturbing/construction-related activities for earlier projects. The request for cultural monitoring is based on two known factors: the existence of archaeological features; and cultural traditions, beliefs and uses of the lands in and around Kalaeloa. The CIA process is intended to “assess the impacts of development on the traditional practices of Native Hawaiians...although traditional practices may have been interrupted for many years, these customary practices cannot be denied in the future.” (Act 50, SLH 2000). As presented in this study and similar reports addressing the history and prehistory of Kalaeloa, the project area and its immediate surroundings have had a great deal of physical disturbance (and consequent, discontinued use). However, the cultural significance of the area clearly remains, including factors that may be unknown as of yet. Therefore, the recommendation for an individual to oversee any cultural issues involved with the project would simply contribute to the overall knowledge about the history of the area.

In conclusion, this study has met the guidelines (see Appendix A) set forth for completing CIA studies in Hawai‘i. Efforts were made to contact *kūpuna*, lineal descendants of Kalaeloa, and other residents/knowledgeable individuals who could share information about the cultural traditions, beliefs, and uses of the project area and its general environment. Appendix C is a list of individuals who contributed to the current study, and those who have contributed to previous studies about this area.

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APPENDIX A

GUIDELINES FOR ASSESSING CULTURAL IMPACTS
ADOPTED BY THE ENVIRONMENTAL COUNCIL, STATE OF HAWAI'I NOVEMBER 19,
1997

I. INTRODUCTION

It is the policy of the State of Hawaii under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making. Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

II. CULTURAL IMPACT ASSESSMENT METHODOLOGY

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment. An ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua'a and the geographical extent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

- (4) 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;
- (5) identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;
- (6) 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.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of the informant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials, published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

III. CULTURAL IMPACT ASSESSMENT CONTENTS

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.
2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.
3. Ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.
4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.
5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.

6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.
7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project.
8. An explanation of confidential information that has been withheld from public disclosure in the assessment.
9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.
10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.
11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call us at 586-4185.

APPENDIX B

LIST OF TAXPAYERS IN KUALAKA'I, 1855-1888 (After Tuggle and Tomonari-Tuggle 1997)

List of Taxpayers in Kualaka'i, 1855-1888.

Name	1855	1865	1866	1867	1869	1870	1871	1872	1873	1874	1875	1876	1878	1879	1880	1881	1882	1884	1885	1887	1888
Kekai	x								x	x	x										
Oili	x		P	x	x																
Kalimahaalulu	x				x																
Okoi	x	P	P																		
Hannaele	x																				
Kamau 1	x	P		x	x	x	x														
Kamau 2	x	P	P																		
Kawelea	x																				
Kawahalepo	x																				
Kuiki	x																				
Oniole	x																				
Kahula	x																				
Kamekupuna	x																				
Mahe	x																				
Keoni	K		P	x	x								x	x							
Mihie (?)					x																
Keioha/Kealoha				P	x																
Kuia					x																
Kekua						x	x														
Mahoe	P						x		x	x	x	x		x	x	x					
Kiliona							x														
Kaiehu																					
S.B. Pewrows									x												
J. Kauwa									x												
Geogi (?)									x												
Pua									x												
W.B. Aarona										x	x	x	x	x	x	x	x	x	x	x	x
Kekapala										x	x										
Kalaukou										x	x			x	x	x	x				
Hali										x	x	x									
Nioloopua										x	x	x									
Makuli											x										
Uluui										x											
Mahoe Napikao										x	x	x	x	x	x			P	P		
Kou											x										
Keaupuni													x	x	x	x	x	x	x	x	x

Name	1855	1865	1866	1867	1869	1870	1871	1872	1873	1874	1875	1876	1878	1879	1880	1881	1882	1884	1885	1887	1888
Makua															x	x	x	x			
Makai																					
Kalimahuki								P					P	x					x	x	x
Kaanana																				x	x
Kupihia																				x	x
Kimo																				x	x
Pupue																				x	x
I. Naole																					x
TOTAL BY YEAR	15	3	4	4	8	3	3	6	11	11	12	9	5	8	7	6	5	4	5	7	4

P = listed under Puuloa
K = listed under Kalaaloa

APPENDIX C

***KŪPUNA* AND OTHERS CONSULTED FOR INFORMATION ABOUT TRADITIONAL BELIEFS AND LAND USES IN THE PROJECT AREA FOR THE CURRENT AND PREVIOUS STUDIES COMPLETED IN THE ‘EWA PLAIN**

Individuals/Organizations Contacted/Interviewed¹⁴

Shad Kane, Kalaeloa Heritage Park
Tessa Malama, Department of Hawaiian Home Lands
Kawika McKeague, Group 70
Tanya Cummings, The Ranch at Kalaeloa
Teresa Kaniakua, Office of Hawaiian Affairs
Kai Markel, Office of Hawaiian Affairs
Kalahiki Solis, State Historic Preservation Division
Manulani Meyers, University of Hawai‘i, West O‘ahu
Kehaulani Kupihea
Tom Eisen, Office of Environmental Quality Control
Cathy Dagher, Scientific Research Consultants
Kalaeloa Neighborhood Board
Kapolei Neighborhood Board
Kapolei Hawaiian Civic Club

Kūpuna interviewed for previous studies at Kalaeloa and Honouliuli

Kupua Agnes Cope
Kupua Elizabeth Lee
Kupua Martha Makaiwi
Kupua Henry Chang Wo, ‘Ewa Limu Program’
Kumu hula John Ka‘imikaua
Kahu Nettie Tiffany, Lanikūhonua *Kupua* Josephine Ho‘okano**
Kupua Sonny Naone
Kupua Naomi Wampler (nee Ho‘omana)

Maeda Timson, Kapolei Neighborhood Board Chair
Ken Williams, Kō‘olina Community Association
Ku‘ulei Jalonino, President - Honokai Hale/Nanakai Gardens Community Association
Cynthia Rezentes, Chair Waianae Neighborhood Board
Logan Williams, Kalaeloa Deep Draft Harbor Officer
Mary Emerson, Real Estate Manager, Campbell Estate
William Aila, Harbormaster, Waianae Boat Harbor
Donna Goth, Campbell Estate
Tarisha McMurdo, Campbell Estate
Eric Enos, Ka‘ala Farms Inc./Opelo Project
Puanani Burgess, Waianae Lands Use Concern Committee
Eric Whitman, ‘Ewa Limu Program
Alden Miyasaka, Aquatic Resources, DLNR
Alan Murakami, Native Hawaiian Legal Corporation
Dietrix Duhaylonsod, fisherman
Audi, fisherman
Victor, fisherman
Mark, fisherman

¹⁴ It should be noted that telephone calls to several organizations on the list provided by USCG in January, 2018, didn’t meet with a response. Among these were the Makakilo/Kapolei/Honokai Hale Neighborhood Board, Hoakalei Cultural Foundation, Kanehili Homestead Association, and Ahahui Siwila Hawaii O Kapolei.

Karl Jellings, commercial fisherman
Jane Ross, Honokai Hale resident

Appendix D: Historical Structure Documentation

Appendix D-1:
Coral Sea Road Right of Way RLS Report



Mason Architects
20 August 2018

CORAL SEA ROAD RIGHT OF WAY RLS REPORT

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Executive Summary

Facilities surveyed for this Reconnaissance Level Survey (RLS) report included Coral Sea Road, roads and remnant roads branching off of Coral Sea Road, facilities identified through maps and other sources that were potentially extant along Coral Sea Road right of way (ROW), and previously unidentified facilities observed during survey of the ROW. Of eighteen features identified in an initial windshield survey, nine features were surveyed and included in this report. Of these, a total of four features were evaluated as eligible for the National Register of Historic Places (NRHP) under Criteria A and C. These four octagonal concrete underground structures were designed as cable conduits access points for Building 92. The features were constructed in 1942, as a direct response to the Japanese Imperial Navy attack of December 7, 1941, and during the World War II period of significance for the area. They were key parts of the base's (and Ewa Field's) infrastructure, and have sufficient integrity to convey their significance. These four features were later determined by AECOM to be outside of the ROW. The remaining eight features surveyed were evaluated as not eligible for the NRHP. The remainder of the features were also determined to be outside of the ROW. See page Appendix B-1 for additional information on these features.

Project information

This survey looked at the planned U.S. Coast Guard (USCG) project to update the electrical distribution system between Franklin D. Roosevelt Avenue and the Coast Guard's Air Station Barbers Point (ASBP) includes the installation along Coral Sea Road (primarily on the east side) of overhead electrical lines on above-grade wood poles, carrying two lines, spaced between approximately 140-200+ feet apart on the east side of the road. The existing poles will remain.

History:

The Coral Sea Road corridor is located in the Ewa district, in Honouliuli ahupuaa. The area was inhabited prior to western contact, and after the Mahele in 1848, was used primarily for cattle grazing until it was sold to James Campbell in 1877. Campbell ran a small amount of cattle before drilling wells to expand his Honouliuli Ranch operation. During this period, the cattle fed on the kiawe (mesquite/algarroba) trees that had been introduced to the area. In 1889, Benjamin Dillingham leased the ranchlands as part of his overall scheme to develop sugar plantations and a railroad to serve them. The next year, Dillingham sublet land to the Ewa Plantation Company, most was planted in sugar cane, but a number of acres were used to grow sisal. While sugar proved to be a successful venture, the sisal operation ultimately failed, and the Hawaiian Fiber Company sold their lease to the Hawaiian Pineapple Company in 1918.

Shortly thereafter, in 1925, the U.S. Navy leased 206 acres from Dillingham's Oahu Railway and Land Company, mainly in the area of the former sisal plantation. This land was used to construct the Ewa Mooring Mast for use with navy airships. Although it was rarely used, the navy retained the land for a potential airship airbase. With Hawai'i's buildup in the years just prior to World War II, plans were made to construct a new naval air station at Barbers Point. In the meantime, the Marine Corps took control of the former mooring mast station, and began to construct a separate temporary air station for Marine use. By the time of the Japanese attack on December 7, 1941, the Ewa Mooring Mast Field was largely complete. Barbers Point Naval Air Station (BPNAS) was much

less complete. Plans had only been completed in October 1941, and the consortium, Contractors Pacific Naval Air Bases (CPNAB), which constructed the base began work only after the Marine Corps Ewa Mooring Mast Field was operational. Most of the construction on BPNAS was done after the attack, and the base became operational in 1942. By December 1942, the runway was the largest in the Pacific. Coral Sea Road acted as an access and main artery for BPNAS during the war, and constituted a dividing line between the two important bases. Ewa Mooring Mast Field was used until 1951, when the airfield was closed, and the base was folded into BPNAS next door.

BPNAS was occupied by the Navy until 1994. After base closure, the Navy transferred most of the land that made up the base to numerous other entities. The Coast Guard, who had been tenants of the Navy base since 1949, retained use of the runways (shared with the Kalaeloa Airport/John Rogers Field), and its property to the south of the runway and north of Coral Sea Road. The road has continued to serve as the main access route to the Coast Guard Air Station.

Features along Coral Sea Road Right of Way

Of the nine features included in this survey report (shown in Table 1 and map Figs. 1-6 in Appendix A), only one eligible feature was initially thought to be located within the ROW. This is one of the underground octagonal chambers (Figs. 1-2). Later GPS survey by AECOM determined that none of the octagonal chambers are inside of the ROW. To follow is a description of the nine features.

Coral Sea Road

Coral Sea Road is an asphalt paved roadway that extends from Roosevelt Road at the north, southward beyond Tripoli Road where it curves around the USCG Barbers Point runway and extends westward near the coastline. One drainage grate was located along its length; however no other features directly associated with the road were noted. It is evaluated as not eligible for the NRHP.

Named in honor of the Battle of the Coral Sea, fought from May 4-8, 1942, the road has retained its original alignment since construction. NASBP was planned as an auxiliary airfield to NAS Ford Island in late 1941, and expanded to accommodate more troops after the December 7, 1941 attack. Coral Sea road was planned along with the rest of the base at this time, and built during its original construction period shortly thereafter. The 1941 plan for the road showed that its northern portion aligned with a planned 36" rail line to the east, and the planned northernmost curve of the road followed a "High Explosive Transfer Siding" of the same rail line. The rail line was ultimately linked with the Oahu Railway & Land line, and with the Navy's line that extended to West Loch. It appears that the actual construction of the road resulted in omitting the northernmost curve toward the east, and instead continued directly south until the location of today's S curve. Although it was extended beyond its original termination point near Tripoli Road, the extension was likely completed during the war, the 2008 Cultural Landscape Report (CLR) for Navy Outlying Areas indicates that the extension was completed by 1944, and extended along the beach, and to the west of the airfield, and it first appears on a 1945 map of NASBP. World War II-era maps indicate that the road was paved to its original terminus near Tripoli Road. The CLR notes that the extension along the beach and west of the runway was paved by the early 1980s. Coral Sea Road is identified in the CLR as a "contributing landscape feature" in both Kalaeloa's "West Parcel Character Area," and the "Nimitz Beach Character Area." The CLR notes that it is "a

main road through the installation that passes along the route it has followed since at least the 1940s.” It serves as the western and northern boundaries of the two character areas, respectively. Additionally, the CLR recommends, as a secondary priority for both parcels, to “Consider retaining and maintaining, and if feasible, continuing to use this segment of this road which is a small part of the longer route that historically served as a main road of the installation’s circulation system.”

Roads branching off of Coral Sea Road

Tripoli Road is an asphalt paved road that extends at approximately a 90 degree angle from Coral Sea Road, north of the coastline, continuing to the east. It is evaluated as not eligible for the NRHP. It was constructed by 1943, as shown on a map of the base at this date. It was later extended west toward the Barbers Point runway. The eastern portion still exists as a paved road today, providing access to White Plains Beach.

The other extant road remnants off of Coral Sea Road are evaluated as not eligible for the NRHP. Although they are more than 50 years old, most appear to have been added after the end of World War II, and are not associated with the area’s WWII period of significance.

Building 183 Foundation

The foundation of Building 183 is a board-formed concrete foundation approximately curb-height. It is rectangular in plan, with a secondary rectangle on its northern perimeter. This remnant structure is evaluated as not eligible for the NRHP. According to lists of buildings on various World War II and later era maps, it appears to have been the Crane & Battery Storage facility constructed in 1943. As a secondary storage facility it would not have been particularly important during the period of significance. In addition, with the loss of the majority of the structure sometime after 1951, the integrity of the original building is lost, and the foundation does not appear to have been used for other purposes since its abandonment.

Vehicle Ramp & Attachment

The Vehicle Ramp and attachment are both poured concrete structures with curbed edges. The ramp is elevated slightly above grade, approximately twelve to eighteen inches; the attachment is at grade. The ramp has metal stanchions, with two rows of chain to either side of it, and is surrounded by a non-historic chain link fence; the attachment is not within the fenced enclosure. These features are evaluated as not eligible for the NRHP. They do not appear on any maps older than 50 years. They also do not appear in a 1983 map. The earliest they can be found is in 1994, and are believed to have been constructed at some point between these two dates. As structures less than 50 years in age, they would need to meet Criterion Consideration G, exceptional significance to be eligible for the NRHP. As small, relatively ubiquitous support-type features, it is highly unlikely that they meet this consideration.

Below-grade octagonal concrete chambers

These four below-grade concrete structures are octagonal in shape, with an octagonal curb, typically above the ground that contains a circular access opening with a circular metal or concrete cover that can be moved using metal handles. The chamber below is larger, and also octagonal, approximately 6 feet across. Along one wall is a panel that contains twelve round openings; some openings hold large wires that extend into the chamber. These structures are evaluated as eligible for the NRHP under Criterion A and C, and are associated with the nearby eligible Bombproof Telephone Exchange Building (Building 92), constructed in 1942.

Note: Even if the bombproof Building 92 were to be demolished, these ancillary structures would remain individually eligible, although their integrity would likely be reduced. As shown on original drawings, these facilities connected directly to a “Telephone Manhole” located below the first floor of Building 92, via conduits that could accommodate up to twelve 3½” ducts. Original drawings show that manholes for the building were planned to be located to the north, south and east of Building 92 with actual locations for the facilities to be determined by the contractor during construction. Their function, to provide protected routes for communication lines between the facility, the two airfields (NAS Barbers Point, and MCAS Ewa Field) it supported, and the rest of the world, was critical to the two adjacent bases’ operations after the December 7, 1941 attack. It was at this time that additional attacks on Hawaii’s military bases were expected. Four of these structures were located in the field, one (Chamber 2) to the south of Building 92, one just east of Building 92 (Chamber 1), one across Coral Sea Road to the northeast (Chamber 3), and another across Coral Sea Road to the southeast (Chamber 4). It is possible that additional chambers may be located to the north of Building 92. As determined by AECOM’s GPS mapping, none of these chambers is located within the ROW.

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Documents

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Maps

14th Naval District Maps

- "Roads, Walkways & Bldgs Layout, Key Plan and Area 'A' through 'N'." Map # OA-N1-176, 313 through OA-N1-176,327. December 18, 1941.
- "Barbers Point, Oahu, T.H. Naval Air Station Showing Conditions on June 30, 1942." Map # OA-N1-541. June 30, 1942.
- "Nimitz Recreation Area." Map # OA-N1-605. February 22, 1943.
- "Fleet Recreation Facilities, Navy Beach." Map # OA-N1-646. May 31, 1943.
- "Key Plan Barbers Point." Map # OA-N1-519. June 27, 1943.
- "Warm Up Platform, runway extens. & taxi ways MCAS Ewa." Map # OA-N1-652. July 9, 1943.
- "NAS Barbers Point showing conditions." Map # OA-N1-678. June 30, 1943.
- "Building Layout." Map # OA-N1-816. 1943.
- "Marine Corps Air Station, Ewa." Map # OA-N1-978. June 30, 1944.
- "Barbers Point, Oahu, T.H. Naval Air Station." Map # OA-N1-1490. No date.
- "Ewa, Oahu, T.H.." OA-N1-658. June 30, 1948.
- "Barbers Point, Oahu, T.H.." Map # OA-N1-1962. June 30, 1949.
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Naval Facilities Engineering Command Maps

“U.S. Naval Air Station Barbers Pt., Oahu, Hawaii General Development Map Station Plot Plan.” Map # 7900558. August 1, 1974

“Utilization of Military Prop. StaPlotPlan.” No map number, July 7, 1983.

“U.S. Naval Air Station Barbers Pt., Oahu, Hawaii General Development Map Station Plot Plan, Revised to reflect current status as of 30 Sep 85.” Map # 7900558. August 1, 1974.

Naval Facilities Engineering Command Public Works Center Pearl Harbor Maps

“U.S. Naval Air Station BP., Oahu, Hawaii General Development Map Station Plot Plan.” Map # 7900558.
No date, updated to February 22, 1994.

“U.S. Naval Air Station BP., Oahu, Hawaii General Development Map Station Plot Plan.” Map # 7900558.
No date, updated to April 11, 1995.

City & County of Honolulu

Department of Taxation. “Tax Map 9-1-013.” July 8, 2015.

Appendix A – Table and maps of evaluated resources along Coral Sea Road Right of Way including evaluation of effect and proposed mitigation

Evaluation of effect

6e: “No historic properties affected”

106: Historic properties are present within the APE, however, the 106 finding is “no historic properties affected” because the 106 undertaking will not impact the features/properties evaluated as eligible for the NRHP.

The eligible underground chambers would likely rarely have been occupied by people, so the visual effect on them due to new poles is evaluated as not significant enough to constitute an adverse effect.

Proposed Mitigation:

Because the evaluations of effect are “no historic properties affected” for both Sections 6e and 106, no mitigation is proposed.

TABLE 1 – CORAL SEA ROAD RESOURCES


FEATURE NAME	YEAR BUILT	SIGNIFICANCE/ELIGIBILITY EVALUATION	PROPOSED WORK	INTEGRITY	PHOTO
Coral Sea Road	c. 1942	Not eligible for the NRHP. Identified in 2011 CLR as an “essential character defining feature” to Nimitz Beach and West Parcel character areas (May be eligible under Criterion A as a contributing feature to a historic district, if one is identified in the future.)	New wood utility poles along Coral Sea Road right of way: 47.5’ above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area.	N/A	




TABLE 1 – CORAL SEA ROAD RESOURCES					
FEATURE NAME	YEAR BUILT	SIGNIFICANCE/ELIGIBILITY EVALUATION	PROPOSED WORK	INTEGRITY	PHOTO
Tripoli Road	c. 1942	Not eligible for the NRHP.	New wood utility poles along Coral Sea Road right of way: 47.5' above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area	N/A	
Other Roads off Coral Sea Road	Various	Not eligible for the NRHP.	New wood utility poles along Coral Sea Road right of way: 47.5' above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area	N/A	 



TABLE 1 – CORAL SEA ROAD RESOURCES					
FEATURE NAME	YEAR BUILT	SIGNIFICANCE/ELIGIBILITY EVALUATION	PROPOSED WORK	INTEGRITY	PHOTO
Building 183 Foundation	1943	Not eligible for the NRHP.	New wood utility poles along Coral Sea Road right of way: 47.5' above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area	N/A	
Vehicle Ramp & Attachment	c. 1990	Not eligible for the NRHP.	New wood utility poles along Coral Sea Road right of way: 47.5' above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area	N/A	



TABLE 1 – CORAL SEA ROAD RESOURCES					
FEATURE NAME	YEAR BUILT	SIGNIFICANCE/ELIGIBILITY EVALUATION	PROPOSED WORK	INTEGRITY	PHOTO
Below-Grade Octagonal Concrete Chambers (4)	1942	Eligible for the NRHP under Criteria A & C for providing protected routes for communication lines during WWII.	New wood utility poles along Coral Sea Road right of way: 47.5' above grade carrying 2 lines, spaced between 140 and 200+ feet apart. Existing poles to remain. Underground duct line at aviation approach area	Good, minimal alterations, somewhat diminished integrity of setting, and materials due to deterioration and loss.	 



Figure 1: Overall Coral Sea Road ROW Facilities.

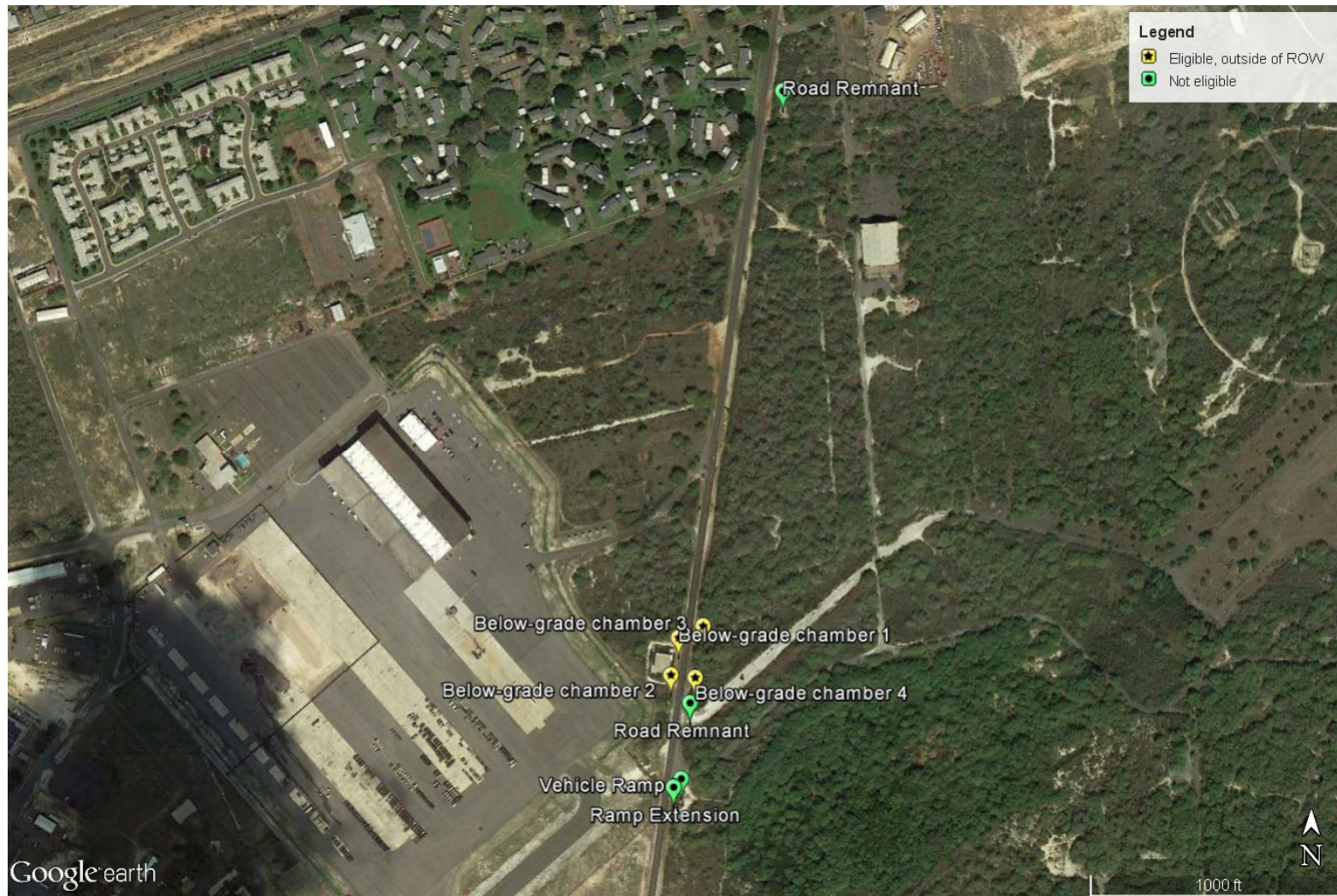


Figure 2: Northern portion of Coral Sea Road, south of intersection with Franklin D Roosevelt Road.



Figure 3: Central portion of Coral Sea Road, south of Figure 2.



Figure 4: Southern portion of Coral Sea Road south of Figure 3.



Figure 5: Southern portion of Coral Sea Road, south of Figure 4.



Figure 6: Southern portion of Coral Sea Road, south of Figure 5.

Appendix B –Preliminary identification of facilities potentially within the Coral Sea Road Right of Way with field findings.

Potentially historic properties along Coral Sea Road ROW (N-S):			
Facility	Building #	Construction date/notes/survey rationale	Field notes
Coral Sea Road itself – to its 1943 termination point at Tripoli St	No fac. #	Existed prior to 1943 in the same overall alignment	N/A
Warehouses	1141	1944 (if still extant, not visible during windshield survey MAI did a project on 1141, not sure if it was mitigation for demolition of one or both of these buildings) [no need for survey of this building for this project]	N/A
Warehouses	1147	1944 (if still extant, not visible during windshield survey. MAI did a project on 1141, not sure if it was mitigation for demolition of one or both of these buildings)	Not found in the field – appear to have been demolished and replaced
Houses	4127, 4129, 4133, 4140, 4141, 4158, 4162, 4245, 4239	Two of these may be the two remaining 1944 buildings in the housing area.	Appear to be outside of ROW – houses close to ROW appear newer
Telephone Exchange (Bombproof)	92	1942 (2- page HABS completed some years back) [does not need survey as HABS already exists]	N/A
Unknown building	1884	? (if still extant, not visible on aerial or during windshield survey)	Not found during field work
WWII Fuse and Detonator magazines	170	1940-1945 (not visible during windshield survey – may be hidden in overgrowth)	Outside of ROW
WWII Fuse and Detonator magazines	171	1940-1945 (not visible during windshield survey – may be hidden in overgrowth)	Outside of ROW
WWII High explosive magazines	176,	1940-1945	Outside of ROW
WWII High explosive magazines	179	1940-1945	Outside of ROW

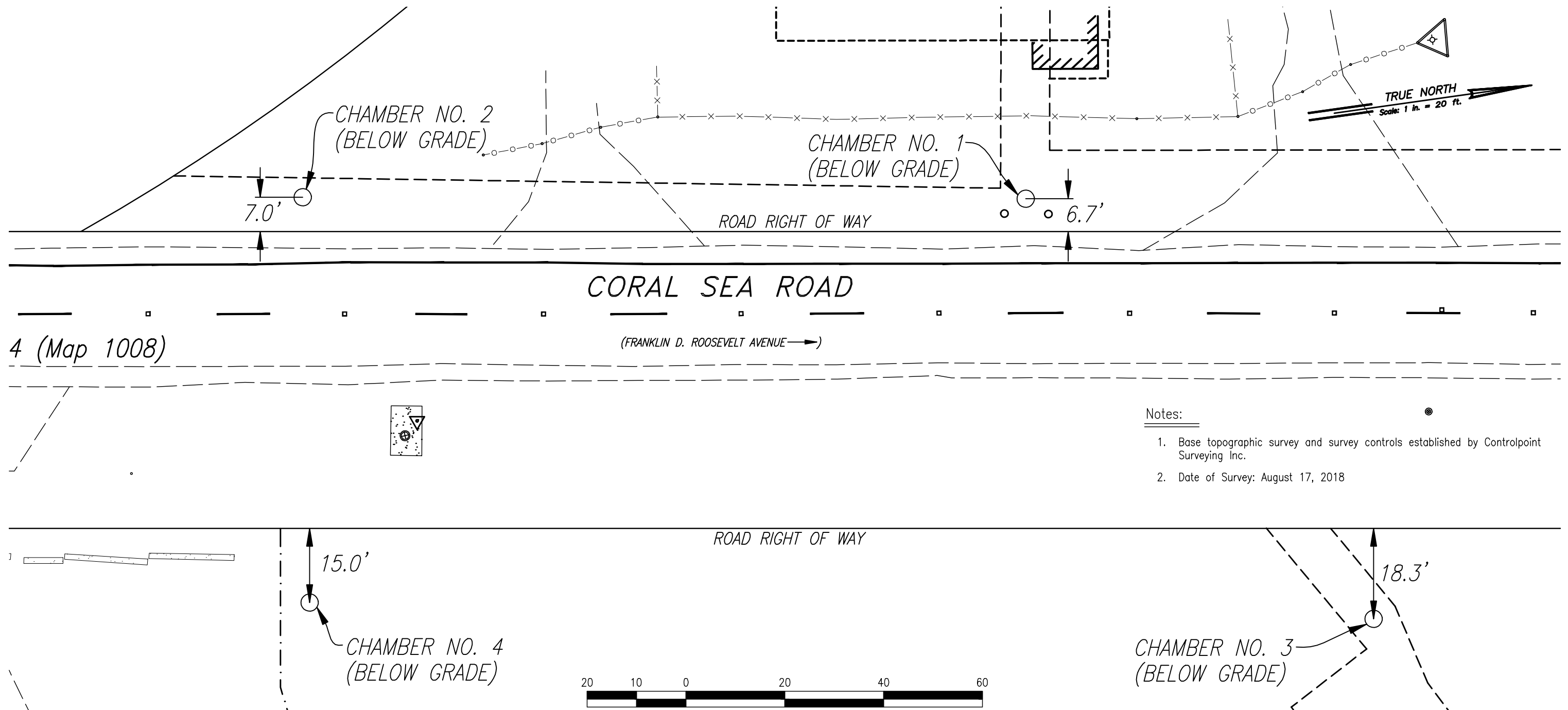
Review of City & County of Honolulu tax records indicated that there are no buildings aside from the housing and warehouses at the north end of Coral Sea road that are recorded in the City's records. This suggests that no structures have been constructed in the area other than the existing military structures.

Appendix D-2:
Topographic Survey, Coral Sea Road

TOPOGRAPHIC SURVEY

CORAL SEA ROAD VARIOUS CHAMBER LOCATIONS

TAX MAP KEY: (1ST DIV.) 9-1-013



11" x 17" = 1.3 Sq. Ft.

Appendix D-3:
Air Station Barbers Point APE and Pre-1970 Structures

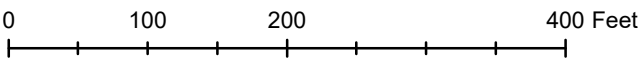
USCG ASBP Historic Properties Area of Potential Effect/Project Area Report

USCG ASBP Pre 1970 properties

Facility	Building #	Construction date/notes/survey rationale	Notes/Effect Determination
Runway	29	Pre-1943	Outside of APE/No Historic Properties Affected
Fueling pump house	(N33)	1968	Outside of APE/No Historic Properties Affected
Dining Facility	(Q01)	1959	Outside of APE/No Historic Properties Affected
Aircraft Operations Building	(R01)	1968	Outside of APE/No Historic Properties Affected
Mission-Support Materials/Parts	(T01)	1962	Outside of APE/No Historic Properties Affected
HAZ Materials Storage Building	(T21)	1960	Outside of APE/No Historic Properties Affected
Paved Vehicle Parking	(PP0)	1962	Not Historic/No Effect
Security Support Facility	(SG1-5)	1940	Outside of APE/No Historic Properties Affected
Storm Drainage – Ditch	(US02)	1940	Outside of APE/No Historic Properties Affected
Water Distribution Line, Potable (underground)	(W01)	1966	Not Historic/No Effect
Electrical Distribution System (underground)	(W13)	1968	Not Historic/No Effect
Sewer and Industrial Waste Line (underground)	(W21)	1966	Not Historic/No Effect
Paved Road	(W51)	1966	Not Historic/No Effect
Sidewalk and Walkway, Surfaced	(W56)	1940	Outside of APE/No Historic Properties Affected
Aircraft Apron/Pad	(W63)	1962	Outside of APE/No Historic Properties Affected



USCG Air Station Barbers Point Proposed Powerline Project,
Kalaeloa, Hawaii

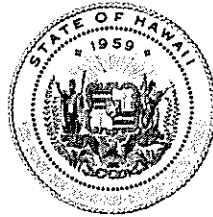
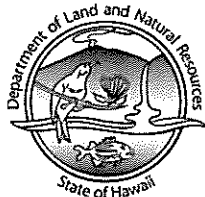


D-3-2



Appendix E:
NHPA Section 106 Consultations

Appendix E-1:
NHPA Section 106 Consultation – Initial Letters



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
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SUZANNE D. CASE
CHAIRPERSON
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COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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
KAIHOLAWA ISLAND RESERVE COMMISSION
LAND
STATE PARKS

April 24, 2018

Captain Patrick J. Dugan, P.E.
U.S. Coast Guard
Facilities Design and Construction Center
915 2nd Avenue, Room 2664
Seattle, Washington 98174
c/o: Mr. Raven Smith, Raven.j.Smith@uscg.mil

IN REPLY REFER TO:
Log No.: 2018.00844
Doc. No.: 1804SH09
Archaeology

Dear Captain Dugan:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review –
Initiation of Consultation for the Proposed Utilities Renovations
for Air Station Barbers Point, Reference No. 11000
Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu
TMK: (1) 9-1-013**

The State Historic Preservation Division (SHPD) received a letter dated April 3, 2018 from the United States Coast Guard (USCG) to initiate Section 106 consultation for a proposed project to replace the electrical distribution infrastructure servicing Air Station Barbers Point (ASBP) on the island of Oahu. The SHPD received this submittal on April 5, 2018. The proposed project is a federal undertaking per 36 CFR 800.16(y) and also requires compliance with the Hawaii State Administrative Rules (HRS) Chapter 6E governing historic preservation due to the need for approval from the Hawai‘i State Department of Transportation (HDOT) for the USCG’s use of HDOT’s right-of-way (ROW) in the form of a Use and Occupancy Agreement.

The proposed project will replace the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP as well as installing new transmission distribution infrastructure to connect ASBP to the HECO island-wide grid/Hawaiian Telecom (HAWTEL) system. Additionally, all the ASBP building transformers will be replaced and HECO meters will be installed and the service feeder cables to each building will be replaced.

According to the USCG, the new buried transmission distribution infrastructure to supply power from the HECO grid to the ASBP is proposed to occur in the HDOT ROW with two options proposed depending on the timing of a project proposed nearby by Aloha Solar. Construction methods could include open trenching to construct concrete-encased ducts or horizontal directional drilling to construct high-density polyethylene pipe casing or a combination of both. Construction would also include installation of pad-mounted transformers.

Pursuant to HRS Chapter 6E and 36 CFR 800, the project area and the area of potential effect (APE) is currently defined as the area in which all operation and construction related activities would be contained to includes areas along Coral Sea Road and on ASBP. **The State Historic Preservation Officer (SHPO) concurs with the APE.**

The SHPD looks forward to continuing the Section 106 process for the proposed project; we anticipate a subsequent letter following the procedures per 36 CFR 800.4, including identification and evaluation of historic properties within the APE and their eligibility for inclusion in the National Register of Historic Places (NHRP), and a project effect determination.

Captain Patrick J. Dugan, P.E
April 24, 2018
Page 2

SHPD also looks forward to HDOT's initiation of the HRS Chapter 6E-8 historic preservation review process, including identification and assessment of the significance of historic properties in the project area and a request for SHPD's concurrence with the HAR §13-275-7 project effect determination.

The USCG is the office of record for this undertaking. Please maintain a copy of this letter with your environmental review record for this undertaking.

Please contact Stephanie Hacker, Oahu Archaeologist, at (808) 692-8046 or at Stephanie.Hacker@hawaii.gov for matters regarding archaeological resources or this letter.

Aloha,
Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: Jade Butay, HDOT, Director of Transportation (jade.butay@hawaii.gov)

**U.S. Department of
Homeland Security**

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000

April 3, 2018

Mr. Alan Downer, Ph.D.
State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Rm. 555
Kapolei, HI 96707

Dear Dr. Downer:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking would also require State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system which has exceeded its life expectancy. The existing electrical feed to ASBP has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to minor maintenance and repair. The Navy continues to provide electrical service to ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system or a replacement in kind beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It would replace the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new buried transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV underground distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts or horizontal directional drilling to construct high-density polyethylene pipe casing or a combination of both. Telecommunication conduit will be installed at the same time as the electrical conduit. Construction would also include installation of pad-mounted transformers.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. Currently, the APE is depicted in Figure 3 and consists of the area in which all operation and construction related activities would be contained and includes the following:

- Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE. See Figures 4 through 10 for detailed depictions of the APE along Coral Sea Road.

- On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.). Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment parking. Project activities will not occur outside the APE. See Figure 11 for a detailed depiction of the APE on ASBP.

Project Area (HRS Chapter 6E)

The project area, pursuant to HRS Chapter 6E and defined under HAR 13-275-2, is the same area described as the APE along Coral Sea Road (see above).

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old. The following cultural inventories/surveys have been identified and reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials.

- Hammatt, Hallett H. and David W. Shideler. 2012. *Archaeological Field Inspection and Literature Review for the Kalaeloa Life Safety Improvements Project, Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu TMK:[1] 9-1-013 (Coral Sea Road Intersections and Roosevelt Avenue at Philippine Sea Road. Intersection)*. Prepared by Cultural Surveys Hawai'i, Kailua, Hawai'i.
- Hazlett, Alex and Robert L. Spear. 2014. *An Archaeological Inventory Survey Report for the Kalaeloa East Energy Corridor Improvements, Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu, Hawai'i (TMK:[1]9-1-013)*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai'i.
- Kingsbury, Nigel T. and Robert L. Spear. 2017. *Archaeological Literature Review and Field Inspection in Support of the Proposed Utility Corridor of the Proposed Kalaeloa Solar Farm Undertaking Through FDR/CRS Terminal Along Coral Sea Avenue and Across Roosevelt Avenue, Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu, Hawai'i (TMK No. [1] 9-1-013:070 (por.) and Coral Sea Road Right-of-Way)*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai'i.
- Medrano, Stephanie, Cathleen A. Dagher, Michael Dega, and Robert L. Spear. 2014. *Archaeological Inventory Survey Report for a Proposed Solar Farm in Kalaeloa, Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu, Hawai'i TMK: (1) 9-1-013:070*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai'i.

- Tuggle, H. David, and M. J. Tomonari-Tuggle. 1997. *A Cultural Resource Inventory of Naval Air Station, Barbers Point, O'ahu, Hawai'i: Part I: Phase I Survey and Inventory Summary. Archaeological Research Services for the Proposed Cleanup, Disposal, and Reuse of Naval Air Station, Barbers Point O'ahu, Hawai'i (Task 2a)*. Prepared for Belt Collins Hawai'i, Honolulu, Hawai'i. Prepared by International Archaeological Research Institute, Inc., Honolulu, Hawai'i.

In coordination with HDOT, the USCG via its contracted archaeologist--International Archaeology, LLC (IA)--conducted a pedestrian survey of the APE, which includes the HRS Chapter 6E project area, on 12 January 2018 and 28 February 2018. Based on the past inventories/surveys and the pedestrian survey, five historic properties were identified in the HDOT ROW. See Table 1 and Figure 8. Because these historic properties are in the vegetated area east of the soft shoulder, the proposed construction activities will not affect this area, therefore historic properties will not be affected. This part of the APE/project area will be staked or fenced prior to construction. An archaeological monitor meeting the Secretary of the Interior's Standards will be present when construction activities are within 100 feet of these properties to ensure these properties are not affected.

Table 1: Historic Properties Identified Within APE in Pedestrian Survey

Feature No.	Feature Type	Dimensions (length x width x height; meters)	Description
15	Possible coral trail	14.7 x 1.0 x 0.1	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
16	Mound	1.6 x 1.3 x 0.6	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
17	Mound	1.6 x 1.2 x 0.6	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
18	Stone alignment, stone platform	5.8 x 1.7 x 0.5	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
19	Stone enclosure	4.0 x 3.0 x 0.8	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period. May have also been used or modified by military activities in this area during the mid-20th Century.

Additionally, reviews were conducted to identify potential historic structures (construction completed in 1968 or earlier). A portion of Coral Sea Road within the APE/project area and specific structures within the APE on ASBP met this criterion. See Table 2, Figures 4 through 7, and Figures 9 through 10.

Using the aforementioned inventories/surveys, the USCG will consult with the SHPO to identify further actions to satisfy Section 106 and HRS Chapter 6E.

Table 2: Properties (structures) Constructed by 1968 or Earlier

Facility	Building #	Construction Date/Notes
Coral Sea Road APE:		
Coral Sea Road itself – to its 1943 termination point at Tripoli St	No fac. #	Existed prior to 1943 in the same overall alignment
ASBP		
Fueling pump house	(fac. #?)	1968
Dining Facility	(fac. #?)	1959
Mission-Support Materials/Parts	(fac. #?)	1962
Operations Storage Shed	(fac. #?)	1940
HAZ Materials Storage Building	(fac. #?)	1960
Paved Vehicle Parking	(fac. #?)	1962
Security Support Facility	(fac. #?)	1940
Miscellaneous Open Materials Storage Shed	(fac. #?)	1940
Storm Drainage – Ditch	(fac. #?)	1940
Water Distribution Line, Potable (N/A if underground)	(fac. #?)	1966
Electrical Distribution System (N/A if underground)	(fac. #?)	1968
Sewer and Industrial Waste Line (N/A if underground)	(fac. #?)	1966
Paved Road	(fac. #?)	1966
Sidewalk and Walkway, Surfaced	(fac. #?)	1940
Aircraft Apron/Pad	(fac. #?)	1962
Aircraft Operations Building	(fac. #?) Likely 1790	1968
Unknown buildings	828, 843	Likely 1940s (If still extant, appears in an aerial as one building. To be confirmed.)
Runway	29	Pre-1943 (boundaries to be determined)
Beach cottages	766	likely 1940s (location to be confirmed– map location not precise)
Beach cottages	810	1941 (location to be confirmed– map location not precise)
Beach cottages	1702	1965 (location to be confirmed – map location not precise)

Facility	Building #	Construction Date/Notes
Warehouses	1141	1944 (if still extant, not visible during windshield survey)
Warehouses	1147	1944 (if still extant, not visible during windshield survey)
Houses	4127, 4129, 4133, 4140, 4141, 4158, 4162, 4245, 4239	Two of these may be the two remaining 1944 buildings in the housing area.
Telephone Exchange (Bombproof)	92	1942
Unknown building	1884	Not known (if still extant, not visible on aerial or during windshield survey)
WWII Fuse and Detonator magazines	170	1940-1945 (not visible during windshield survey – may be hidden in overgrowth)
WWII Fuse and Detonator magazines	171	1940-1945 (not visible during windshield survey – may be hidden in overgrowth)
WWII High explosive magazines	176,	1940-1945 (earthen covered, may not be visible on aerial)
WWII High explosive magazines	179	1940-1945 (earthen covered, may not be visible on aerial)

In accordance with NHPA Section 106, letters will be sent to other consulting parties to request their input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties will include: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation.

Public Involvement

The following public involvement opportunities have been made and are planned:

- On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
- When the draft EA is completed, it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the

aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process, along with the HRS Chapter 343 EA process if the findings from the draft AIS result in HDOT determining that an EA is applicable.

- I am scheduled to brief the local public at a Hawaii Community Development Authority (HCDA) public information meeting on Thursday, May 17th. I also look forward to meeting with you and your staff on Wednesday, May 16th.

The USCG is requesting your concurrence with our APE. We look forward to discussing the next steps of this process at your earliest convenience. We will follow-up with a call to facilitate any comments in writing from your office within 30 days of this letter. In the meantime, should you have any questions, please address them to: Mr. Raven Smith, at (206) 220-7402, by e-mail at raven.j.smith@uscg.mil, or by mail to 915 2nd Ave, Room 2664, Seattle, WA 98174.

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 11

Copy: Ms. Stephanie Hacker, SHPD, O'ahu Archaeologist
Mr. Jade Butay, Hawai'i DOT, Interim Director
Mr. Ken Tatsuguchi, Hawai'i DOT, Head Planning Engineer
Mr. Chris Yamamoto, Hawai'i DOT, Right-of-Way Branch Manager

LEGEND

Proposed Underground Distribution Line

Alternative 1 Option A

ASEF II Utility to USCG ASBP

Alternative 1 Option B

South of Roosevelt Avenue to USCG ASBP

LOCATION MAP

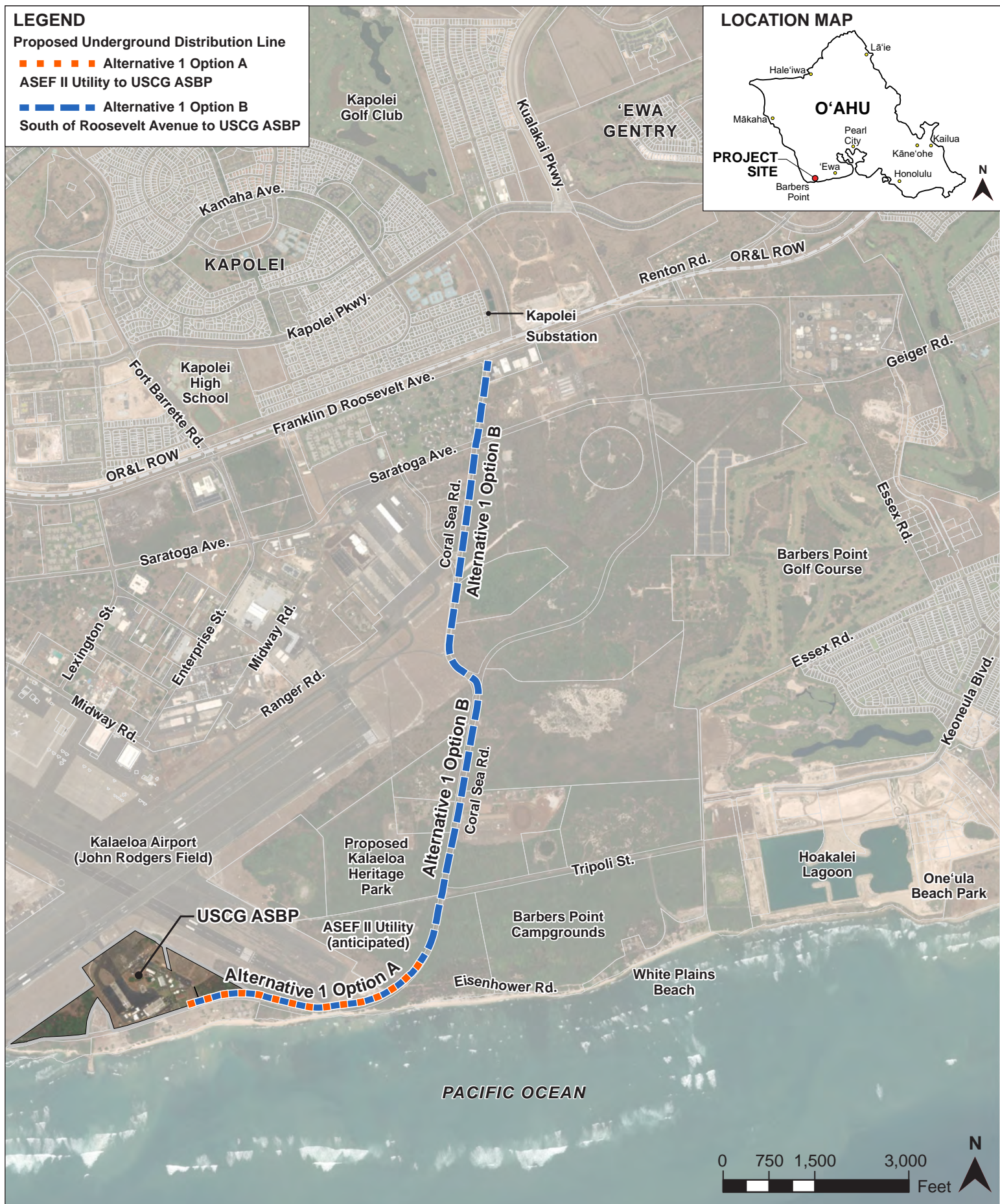
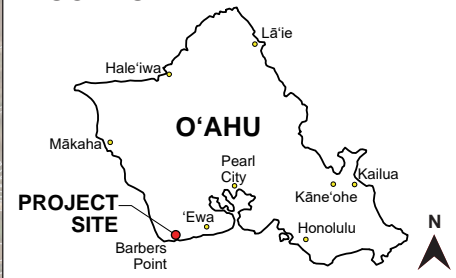


Figure 1: Proposed Infrastructure on Hawai'i DOT ROW

Electrical and Telecommunication Replacements for USCG Air Station Barbers Point

Kalaeloa, O'ahu, Hawai'i

LEGEND

USCG ASBP Approximate Property Boundary

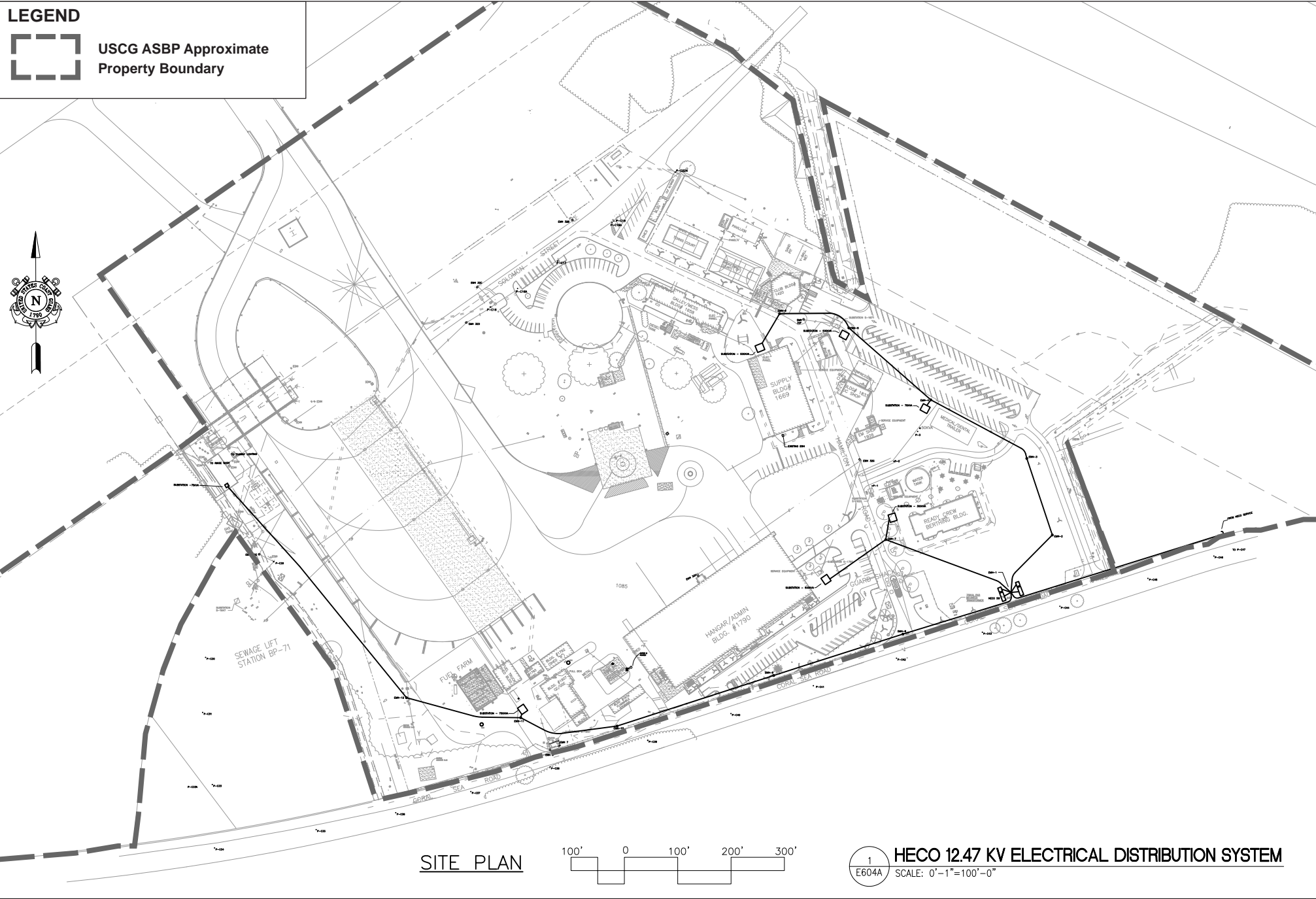
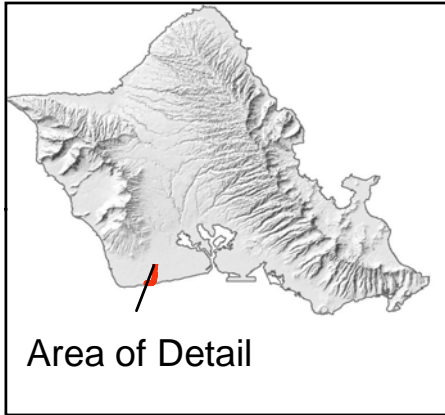
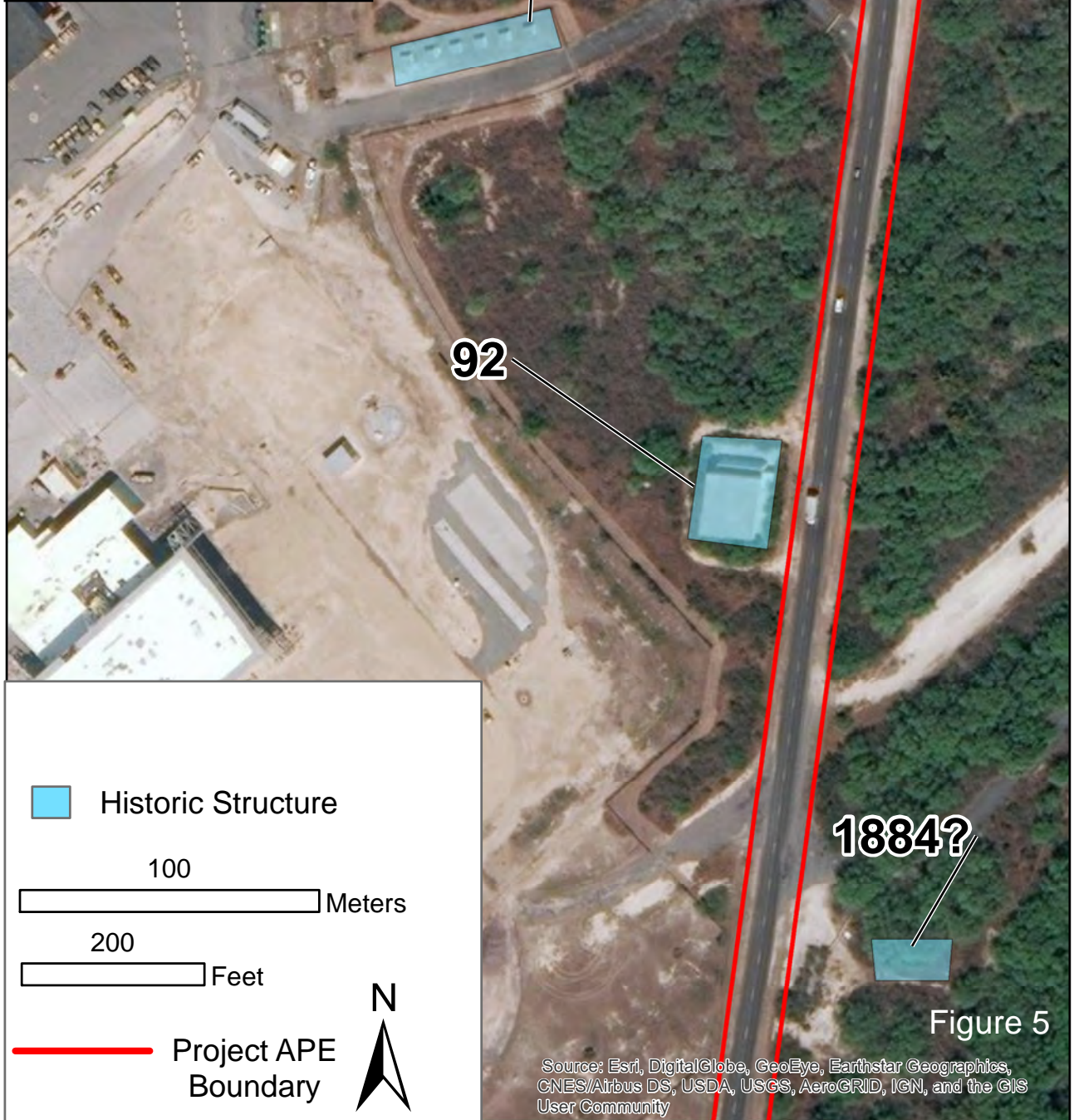
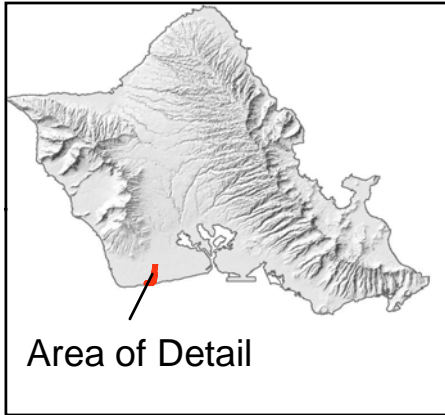


Figure 2: Proposed Infrastructure on ASBP
Electrical and Telecommunication Replacements for USCG Air Station Barbers Point
Kalaeloa, O‘ahu, Hawai‘i

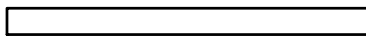






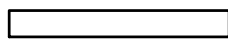
Historic Structure

100



Meters

200



Feet



Project APE
Boundary





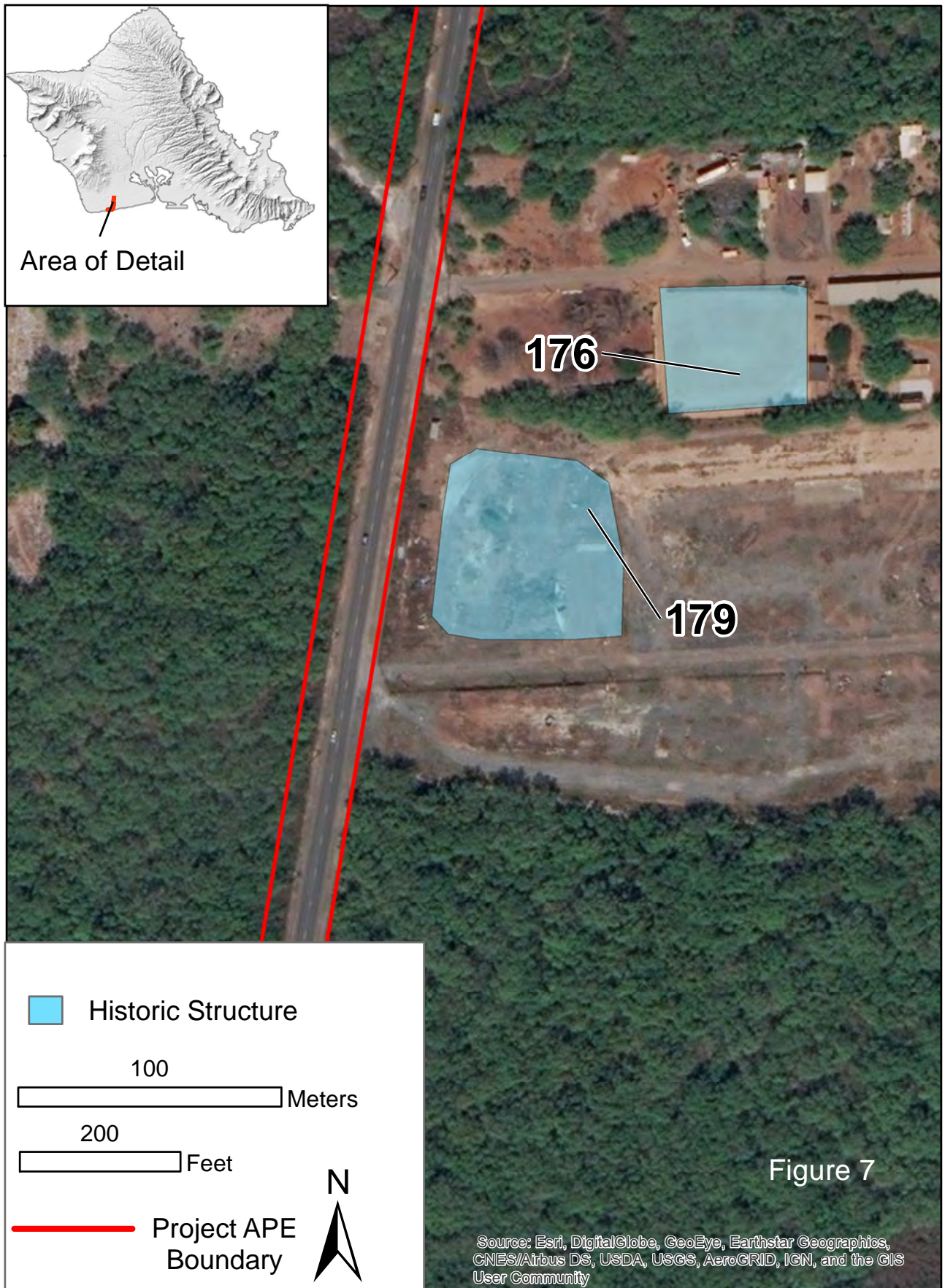
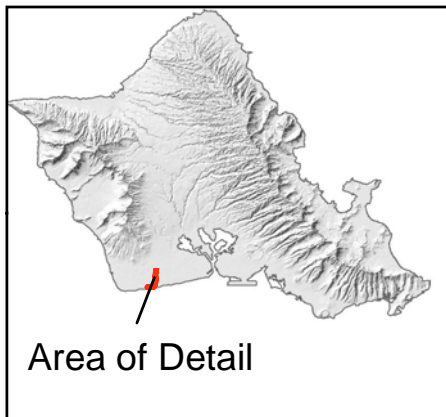
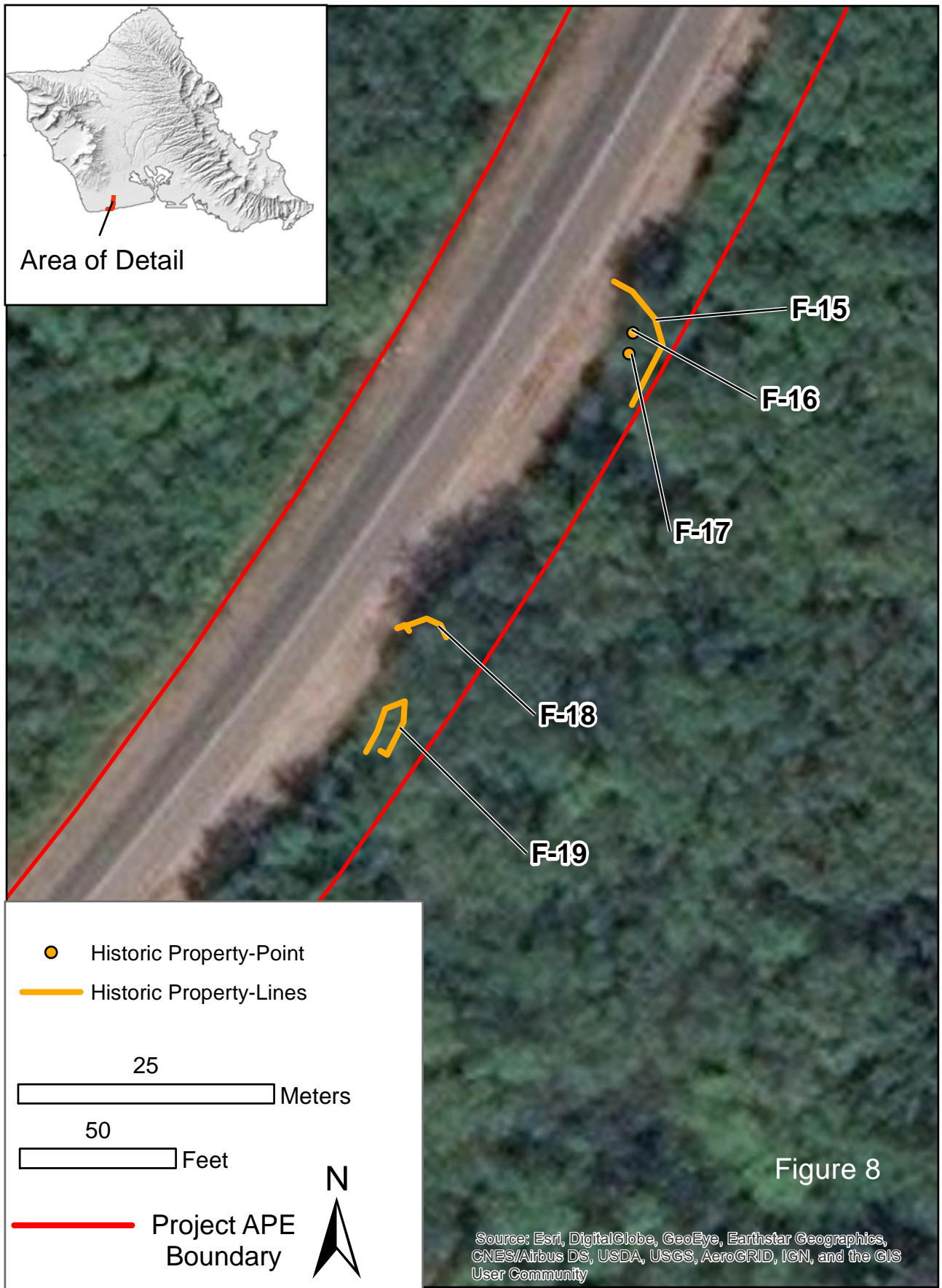
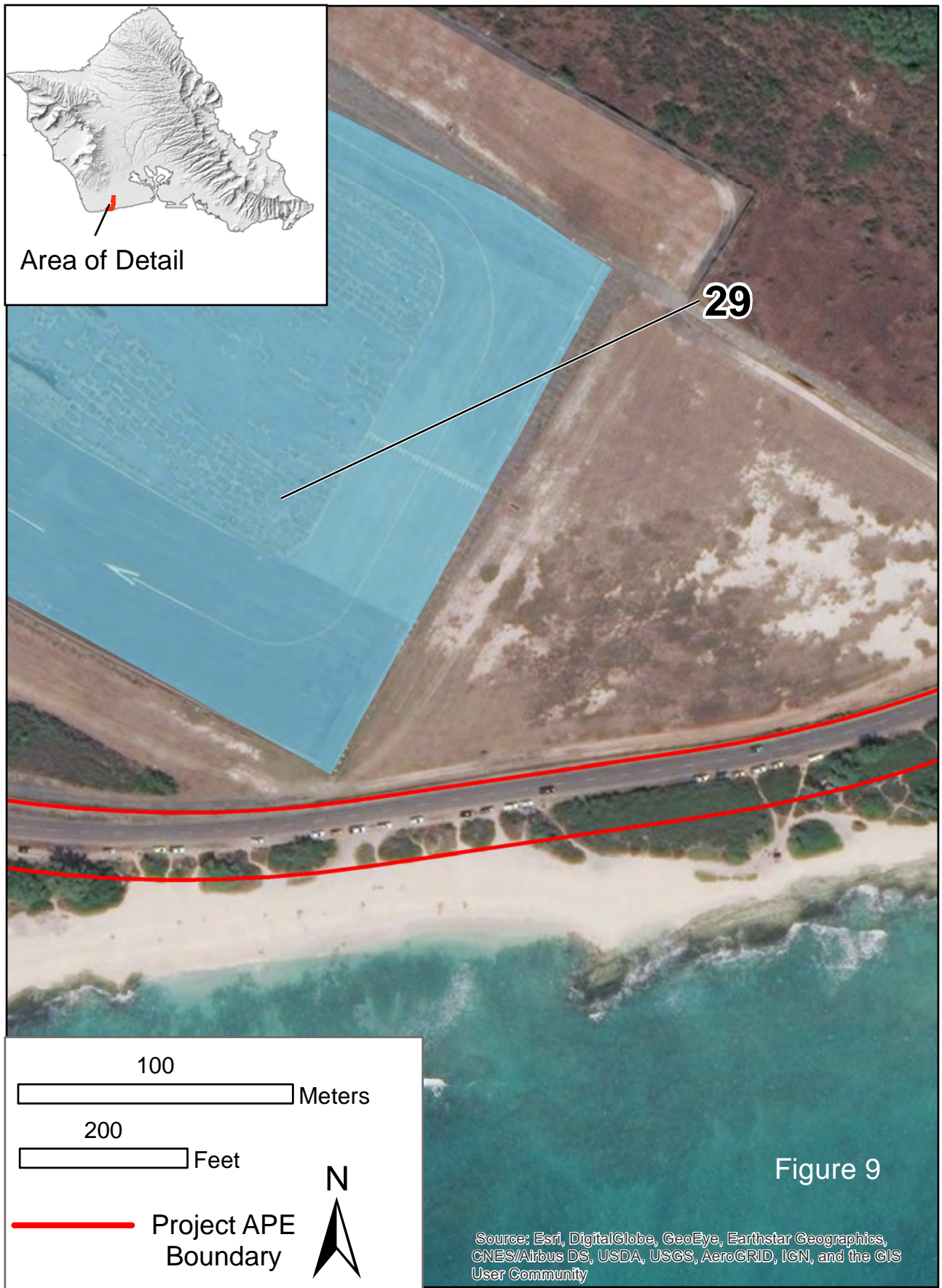


Figure 7

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





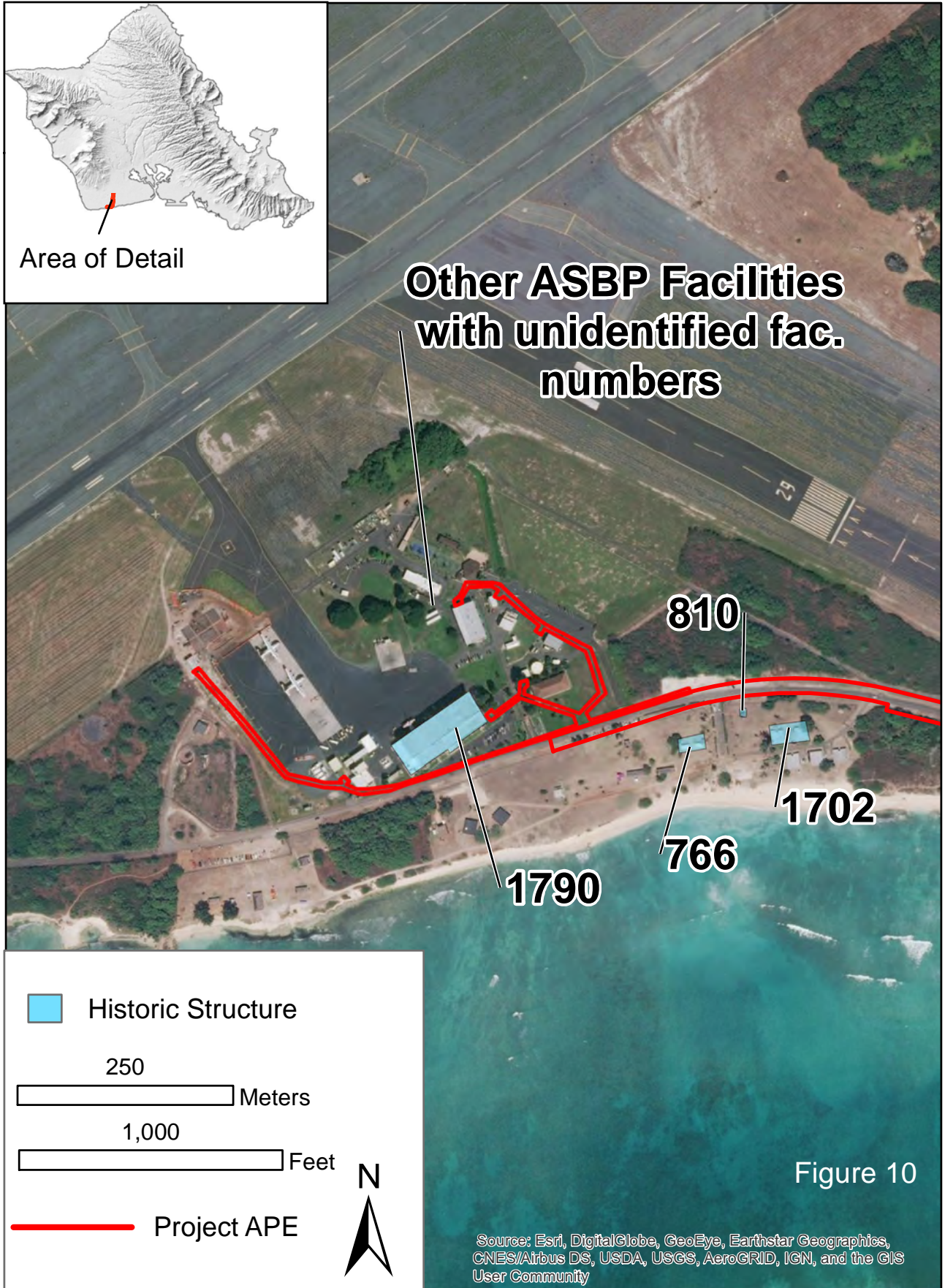
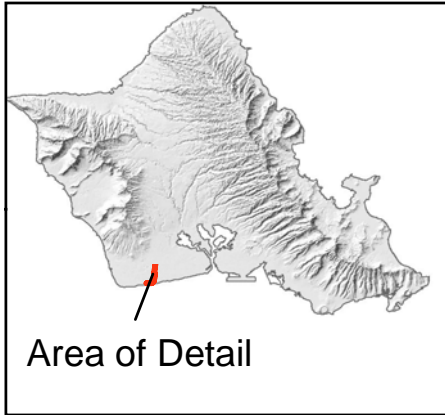


Figure 10

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

USCG ASBP Approximate Property Boundary

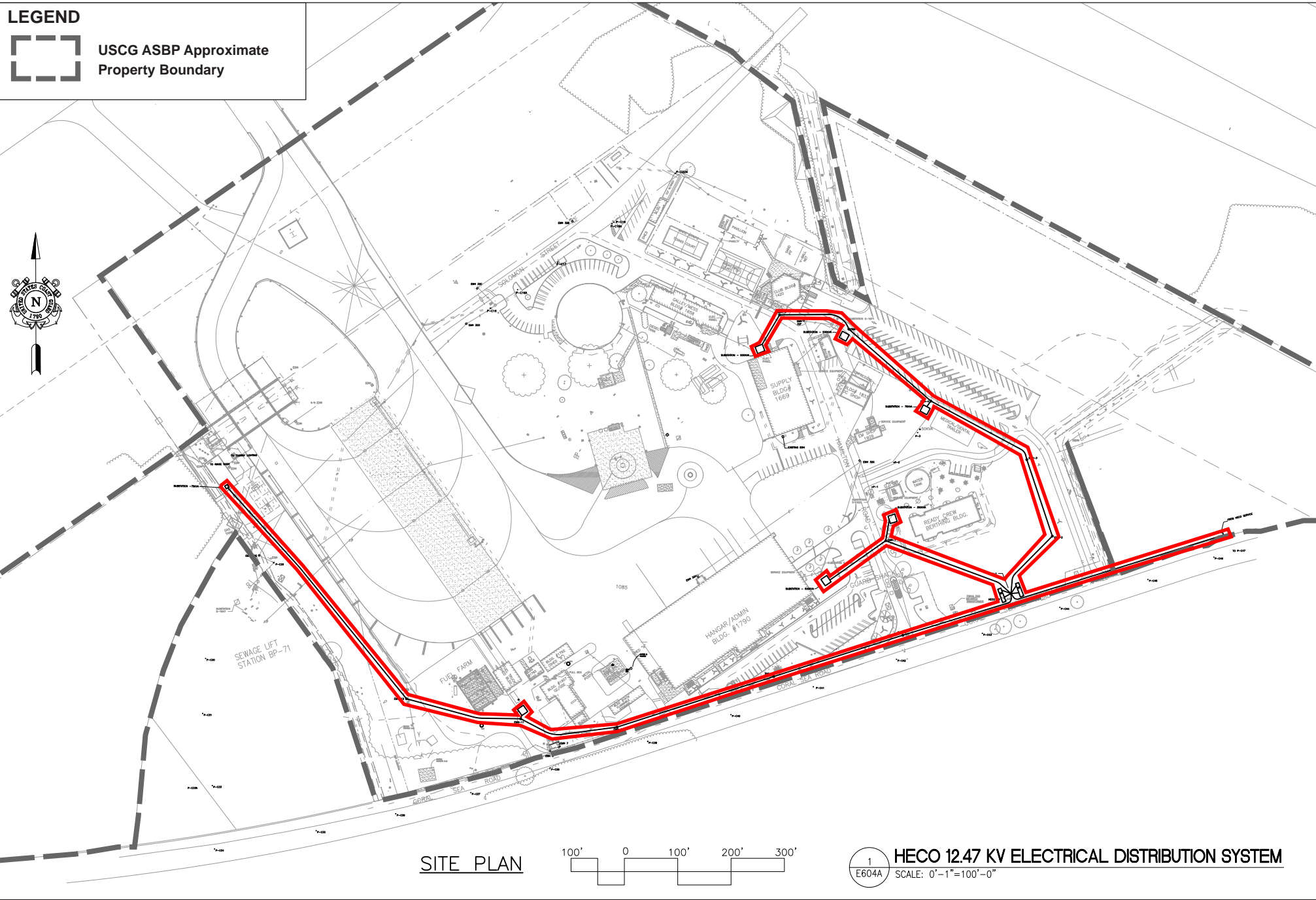


Figure 11: APE on ASBP
 Electrical and Telecommunication Replacements for USCG Air Station Barbers Point
 Kalaeloa, O‘ahu, Hawai‘i

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Ms. Jobie Masagatani
Director
State of Hawaii, Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, HI 96805

Dear Ms. Masagatani:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of 'Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is depicted in Figure 3 and consists of the area in which all operation and construction related activities would be contained and includes the following:

- Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE. See Figure 3.

- On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.). Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment parking. Project activities will not occur outside the APE. See Figure 2 for a detailed depiction of the APE on ASBP. Because the design is in process, the alignments and, therefore, APE on ASBP may be revised slightly.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is also defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old. The following cultural inventories/surveys have been identified and reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials.

- Hammatt, Hallett H. and David W. Shideler. 2012. *Archaeological Field Inspection and Literature Review for the Kalaeloa Life Safety Improvements Project, Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu TMK:[1] 9-1-013 (Coral Sea Road Intersections and Roosevelt Avenue at Philippine Sea Road. Intersection)*. Prepared by Cultural Surveys Hawai‘i, Kailua, Hawai‘i.
- Hazlett, Alex and Robert L. Spear. 2014. *An Archaeological Inventory Survey Report for the Kalaeloa East Energy Corridor Improvements, Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu, Hawai‘i (TMK:[1]9-1-013)*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai‘i.
- Kingsbury, Nigel T. and Robert L. Spear. 2017. *Archaeological Literature Review and Field Inspection in Support of the Proposed Utility Corridor of the Proposed Kalaeloa Solar Farm Undertaking Through FDR/CRS Terminal Along Coral Sea Avenue and Across Roosevelt Avenue, Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu, Hawai‘i (TMK No. [1] 9-1-013:070 (por.) and Coral Sea Road Right-of-Way)*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai‘i.
- Medrano, Stephanie, Cathleen A. Dagher, Michael Dega, and Robert L. Spear. 2014. *Archaeological Inventory Survey Report for a Proposed Solar Farm in Kalaeloa, Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu, Hawai‘i TMK: (1) 9-1-013:070*. Prepared by Scientific Consultant Services, Inc., Honolulu, Hawai‘i.
- Tuggle, H. David, and M. J. Tomonari-Tuggle. 1997. *A Cultural Resource Inventory of Naval Air Station, Barbers Point, O‘ahu, Hawai‘i: Part I: Phase I Survey and Inventory Summary. Archaeological Research Services for the Proposed Cleanup, Disposal, and Reuse of Naval Air Station, Barbers Point O‘ahu, Hawai‘i (Task 2a)*. Prepared for Belt

In coordination with the HDOT, the USCG’s contracted archaeologist conducted a pedestrian survey on January 12, 2018 and February 28, 2018, of the Coral Sea Road portion of the APE, which includes the HRS Chapter 6E project area. Based on the past inventories/surveys and the pedestrian survey, five features were identified in the HDOT ROW. See Table 1, Figure 4, and photos 1 through 6. Because these features are in the vegetated area east of the soft shoulder, the proposed construction activities will not affect this area and the features will not be affected. This part of the APE will be staked or fenced prior to construction. If these features are determined to be eligible for listing on the NRHP, the USCG will require an archaeological monitor meeting the Secretary of the Interior’s Standards to be present when construction activities are within 100 feet of these properties to ensure these properties are not affected.

Table 1: Features Identified Within APE During Pedestrian Survey

Feature No.	Feature Type	Dimensions (length x width x height; meters)	Description
15	Possible coral trail	14.7 x 1.0 x 0.1	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
16	Mound	1.6 x 1.3 x 0.6	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
17	Mound	1.6 x 1.2 x 0.6	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
18	Stone alignment, stone platform	5.8 x 1.7 x 0.5	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
19	Stone enclosure	4.0 x 3.0 x 0.8	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period. May have also been used or modified by military activities in this area during the mid-20th Century.

On May 25, 2018 and May 30, 2018, International Archaeology, LLC (IA), under contract to the USCG, conducted subsurface shovel tests on ASBP. No historic properties were encountered.

Additionally, reviews were conducted to identify potential historic structures (construction completed in 1968 or earlier). A portion of Coral Sea Road within the APE and specific structures within the APE on ASBP met this criterion. See Table 2.

Table 2: Properties (structures) Constructed by 1968 or Earlier

Facility	Construction Date/Notes
Coral Sea Road APE:	
Coral Sea Road itself – to its 1943 termination point at Tripoli St	Existed prior to 1943 in the same overall alignment
ASBP APE	
Fueling pump house	1968
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Paved Road	1966
Sidewalk and Walkway, Surfaced	1940
Aircraft Apron/Pad	1962

This letter is being sent to NHPA Section 106 consulting parties to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties identified to date include: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation.

Public Involvement

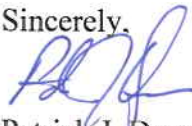
The following public involvement opportunities have been made and are planned.

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- On 17 May 2018, I shared information about the project at the Hawai'i Community Development Authority public information meeting.
- When the draft EA is completed, it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process, along with the HRS Chapter 343 EA process if the findings from the draft AIS result in HDOT determining that an EA is applicable.

We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

**U.S. Department of
Homeland Security**

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Ms. Regina Hilo
Burial Sites Specialist (Oahu)
State of Hawaii, Department of Land and Natural Resources, O'ahu Island Burial Council
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Ms. Hilo:

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Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

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Additionally, reviews were conducted to identify potential historic structures (construction completed in 1968 or earlier). A portion of Coral Sea Road within the APE and specific structures within the APE on ASBP met this criterion. See Table 2.

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Electrical Distribution System (N/A if underground)	1968
Sewer and Industrial Waste Line (N/A if underground)	1966
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Public Involvement

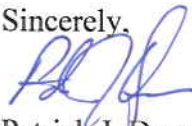
The following public involvement opportunities have been made and are planned.

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- On 17 May 2018, I shared information about the project at the Hawai'i Community Development Authority public information meeting.
- When the draft EA is completed, it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process, along with the HRS Chapter 343 EA process if the findings from the draft AIS result in HDOT determining that an EA is applicable.

We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Dr. Kamana‘opono Crabbe, Ph.D.
Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, HI 96817

Dear Dr. Crabbe:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua‘a of Honouliuli in the moku of ‘Ewa on the island of ‘Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is depicted in Figure 3 and consists of the area in which all operation and construction related activities would be contained and includes the following:

- Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE. See Figure 3.

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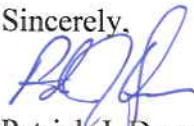
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Sincerely,



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Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

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United States
Coast Guard



Commanding Officer
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Facilities Design & Construction Center

915 2nd Ave
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11000
June 27, 2018

Ms. Melissa Lyman
Ahahui Siwila Hawai'i O Kapolei
P.O. Box 700007
Kapolei, HI 96707

Dear Ms. Lyman:

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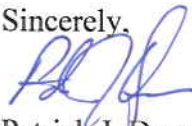
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We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
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Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Mr. Steve Vendt
Office Administrator
Hawaiian Railway Society
P.O. Box 60369
Ewa Beach, HI 96706

Dear Mr. Vendt:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of 'Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is depicted in Figure 3 and consists of the area in which all operation and construction related activities would be contained and includes the following:

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Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is also defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old. The following cultural inventories/surveys have been identified and reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials.

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In coordination with the HDOT, the USCG’s contracted archaeologist conducted a pedestrian survey on January 12, 2018 and February 28, 2018, of the Coral Sea Road portion of the APE, which includes the HRS Chapter 6E project area. Based on the past inventories/surveys and the pedestrian survey, five features were identified in the HDOT ROW. See Table 1, Figure 4, and photos 1 through 6. Because these features are in the vegetated area east of the soft shoulder, the proposed construction activities will not affect this area and the features will not be affected. This part of the APE will be staked or fenced prior to construction. If these features are determined to be eligible for listing on the NRHP, the USCG will require an archaeological monitor meeting the Secretary of the Interior’s Standards to be present when construction activities are within 100 feet of these properties to ensure these properties are not affected.

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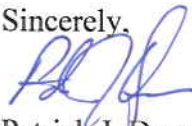
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Sincerely,



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Captain, U. S. Coast Guard
Commanding Officer

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11000
June 27, 2018

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P.O. Box 2627
Ewa Beach, HI 96706

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Public Involvement

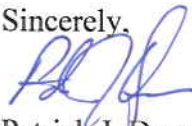
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Mr. Raven Smith
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Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
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Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

**U.S. Department of
Homeland Security**

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
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Seattle, WA 98174
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11000
June 27, 2018

c/o Ms. Tesha Malama
HCDA Kalaeloa Director of Planning & Development
HCDA Kalaeloa Stakeholders -- Advisory Team, Community Network, Public Safety Group,
and Cultural Hui
547 Queen St.
Honolulu, HI 96813

Dear Tesha:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

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The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of 'Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

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In coordination with the HDOT, the USCG’s contracted archaeologist conducted a pedestrian survey on January 12, 2018 and February 28, 2018, of the Coral Sea Road portion of the APE, which includes the HRS Chapter 6E project area. Based on the past inventories/surveys and the pedestrian survey, five features were identified in the HDOT ROW. See Table 1, Figure 4, and photos 1 through 6. Because these features are in the vegetated area east of the soft shoulder, the proposed construction activities will not affect this area and the features will not be affected. This part of the APE will be staked or fenced prior to construction. If these features are determined to be eligible for listing on the NRHP, the USCG will require an archaeological monitor meeting the Secretary of the Interior’s Standards to be present when construction activities are within 100 feet of these properties to ensure these properties are not affected.

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Feature No.	Feature Type	Dimensions (length x width x height; meters)	Description
15	Possible coral trail	14.7 x 1.0 x 0.1	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
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19	Stone enclosure	4.0 x 3.0 x 0.8	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period. May have also been used or modified by military activities in this area during the mid-20th Century.

On May 25, 2018 and May 30, 2018, International Archaeology, LLC (IA), under contract to the USCG, conducted subsurface shovel tests on ASBP. No historic properties were encountered.

Additionally, reviews were conducted to identify potential historic structures (construction completed in 1968 or earlier). A portion of Coral Sea Road within the APE and specific structures within the APE on ASBP met this criterion. See Table 2.

Table 2: Properties (structures) Constructed by 1968 or Earlier

Facility	Construction Date/Notes
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Operations Storage Shed	1940
HAZ Materials Storage Building	1960
Paved Vehicle Parking	1962
Security Support Facility	1940
Miscellaneous Open Materials Storage Shed	1940
Storm Drainage – Ditch	1940
Water Distribution Line, Potable (N/A if underground)	1966
Electrical Distribution System (N/A if underground)	1968
Sewer and Industrial Waste Line (N/A if underground)	1966
Paved Road	1966
Sidewalk and Walkway, Surfaced	1940
Aircraft Apron/Pad	1962

This letter is being sent to NHPA Section 106 consulting parties to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties identified to date include: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation.

Public Involvement

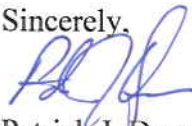
The following public involvement opportunities have been made and are planned.

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- On 17 May 2018, I shared information about the project at the Hawai'i Community Development Authority public information meeting.
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We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Shad Kane
Board Member
Kalaeloa Heritage and Legacy Foundation
P.O. Box 75447
Kapolei, HI 96707

Dear Mr. Kane:

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The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

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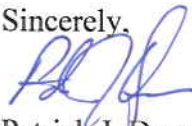
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raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Ms. Jo Ann Sivils
Management Executive
Kanehili Homestead Association, c/o Hawaiiana
711 Kapiolani Blvd, Suite 700
Honolulu, HI 96813

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Table 1: Features Identified Within APE During Pedestrian Survey

Feature No.	Feature Type	Dimensions (length x width x height; meters)	Description
15	Possible coral trail	14.7 x 1.0 x 0.1	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
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17	Mound	1.6 x 1.2 x 0.6	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
18	Stone alignment, stone platform	5.8 x 1.7 x 0.5	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period.
19	Stone enclosure	4.0 x 3.0 x 0.8	Associated with agricultural or possibly habitation activities and likely date to the pre-Contact period. May have also been used or modified by military activities in this area during the mid-20th Century.

On May 25, 2018 and May 30, 2018, International Archaeology, LLC (IA), under contract to the USCG, conducted subsurface shovel tests on ASBP. No historic properties were encountered.

Additionally, reviews were conducted to identify potential historic structures (construction completed in 1968 or earlier). A portion of Coral Sea Road within the APE and specific structures within the APE on ASBP met this criterion. See Table 2.

Table 2: Properties (structures) Constructed by 1968 or Earlier

Facility	Construction Date/Notes
Coral Sea Road APE:	
Coral Sea Road itself – to its 1943 termination point at Tripoli St	Existed prior to 1943 in the same overall alignment
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Security Support Facility	1940
Miscellaneous Open Materials Storage Shed	1940
Storm Drainage – Ditch	1940
Water Distribution Line, Potable (N/A if underground)	1966
Electrical Distribution System (N/A if underground)	1968
Sewer and Industrial Waste Line (N/A if underground)	1966
Paved Road	1966
Sidewalk and Walkway, Surfaced	1940
Aircraft Apron/Pad	1962

This letter is being sent to NHPA Section 106 consulting parties to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties identified to date include: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawaii Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation.

Public Involvement

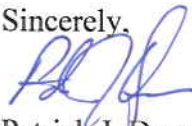
The following public involvement opportunities have been made and are planned.

- On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
- On 17 May 2018, I shared information about the project at the Hawai'i Community Development Authority public information meeting.
- When the draft EA is completed, it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process, along with the HRS Chapter 343 EA process if the findings from the draft AIS result in HDOT determining that an EA is applicable.

We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Michelle Kauhane
President
Kaupe'a Homestead Association
91-1036 Kahanalei Street
Kapolei, HI 96707

Dear Ms. Kauhane:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of 'Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

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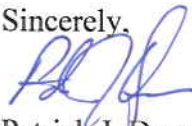
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Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Ms. Homelani Schaedel
President
Malu'ohai Residents Association
P.O. Box 700911
Kapolei, HI 96709

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Public Involvement

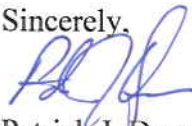
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We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Ave
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
June 27, 2018

Ms. Kiersten Faulkner
Executive Director
Historic Hawaii Foundation
680 Iwilei Road Dole Office Building Tower, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) is initiating consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawaii. This USCG action uses federal funds and occurs on federal land, and is therefore an undertaking as defined under 36 CFR 800.16(y). The undertaking also requires State of Hawaii Department of Transportation (HDOT) approval for the USCG's use of HDOT's right-of-way (ROW) in the form of a Use and Occupancy Agreement. Because a portion of the undertaking will occur within the HDOT's ROW, compliance with Hawaii Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

The USCG's proposed project is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former NAS Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of 'Oahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide grid/Hawaiian Telcom (HAWTEL) system. The location of the undertaking is shown in Figure 1.

Activities on ASBP are schematically shown on Figure 2 and would include:

- replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- replacement of the service feeder cables to each building main service panel.

The new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the HDOT's existing ROW whose alignment is illustrated in Figure 1. Two options are included for this alignment. The first option, Alternative 1 Option A, presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the HECO overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A). However, should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement the second option, Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing HECO electrical manhole and ASBP (Alternative 1 Option B).

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, or the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is depicted in Figure 3 and consists of the area in which all operation and construction related activities would be contained and includes the following:

- Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE. See Figure 3.

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Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is also defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old. The following cultural inventories/surveys have been identified and reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials.

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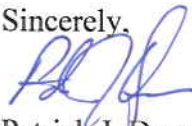
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United States
Coast Guard



Commanding Officer
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11000
June 27, 2018

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Director
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Via email at colin@hiavps.org

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Public Involvement

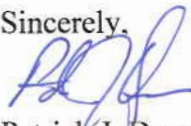
The following public involvement opportunities have been made and are planned.

- On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
- On 17 May 2018, I shared information about the project at the Hawai'i Community Development Authority public information meeting.
- When the draft EA is completed, it will be published in the State of Hawaii's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process, along with the HRS Chapter 343 EA process if the findings from the draft AIS result in HDOT determining that an EA is applicable.

We appreciate any comments that you have on this proposed undertaking. Should you have any questions or wish to provide comments, please provide them within 30 days of the date of this letter to:

Mr. Raven Smith
915 2nd Ave, Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil.

Sincerely,



Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: (1) Figures 1 through 4 and photos 1 through 6.

LEGEND

Proposed Underground Distribution Line

Alternative 1 Option A

ASEF II Utility to USCG ASBP

Alternative 1 Option B

South of Roosevelt Avenue to USCG ASBP

LOCATION MAP

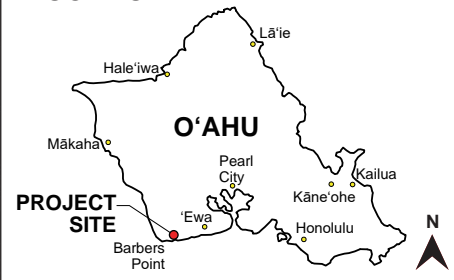


Figure 1: Proposed Infrastructure on Hawai'i DOT ROW

Electrical and Telecommunication Replacements for USCG Air Station Barbers Point

Kalaeloa, O'ahu, Hawai'i

LEGEND

USCG ASBP Approximate Property Boundary

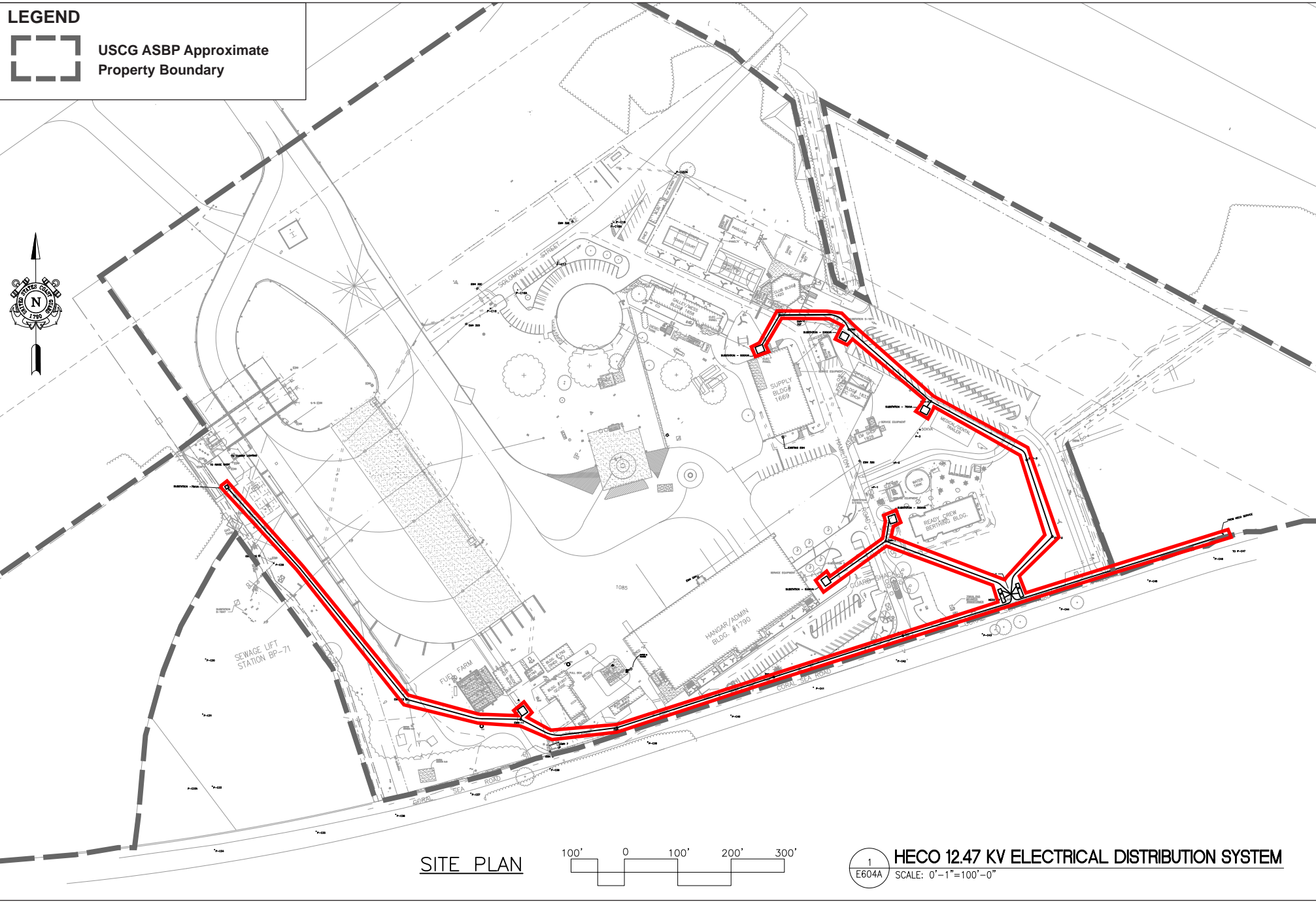


Figure 2: Proposed Infrastructure and APE on ASBP
 Electrical and Telecommunication Replacements for USCG Air Station Barbers Point
 Kalaeloa, O’ahu, Hawai’i



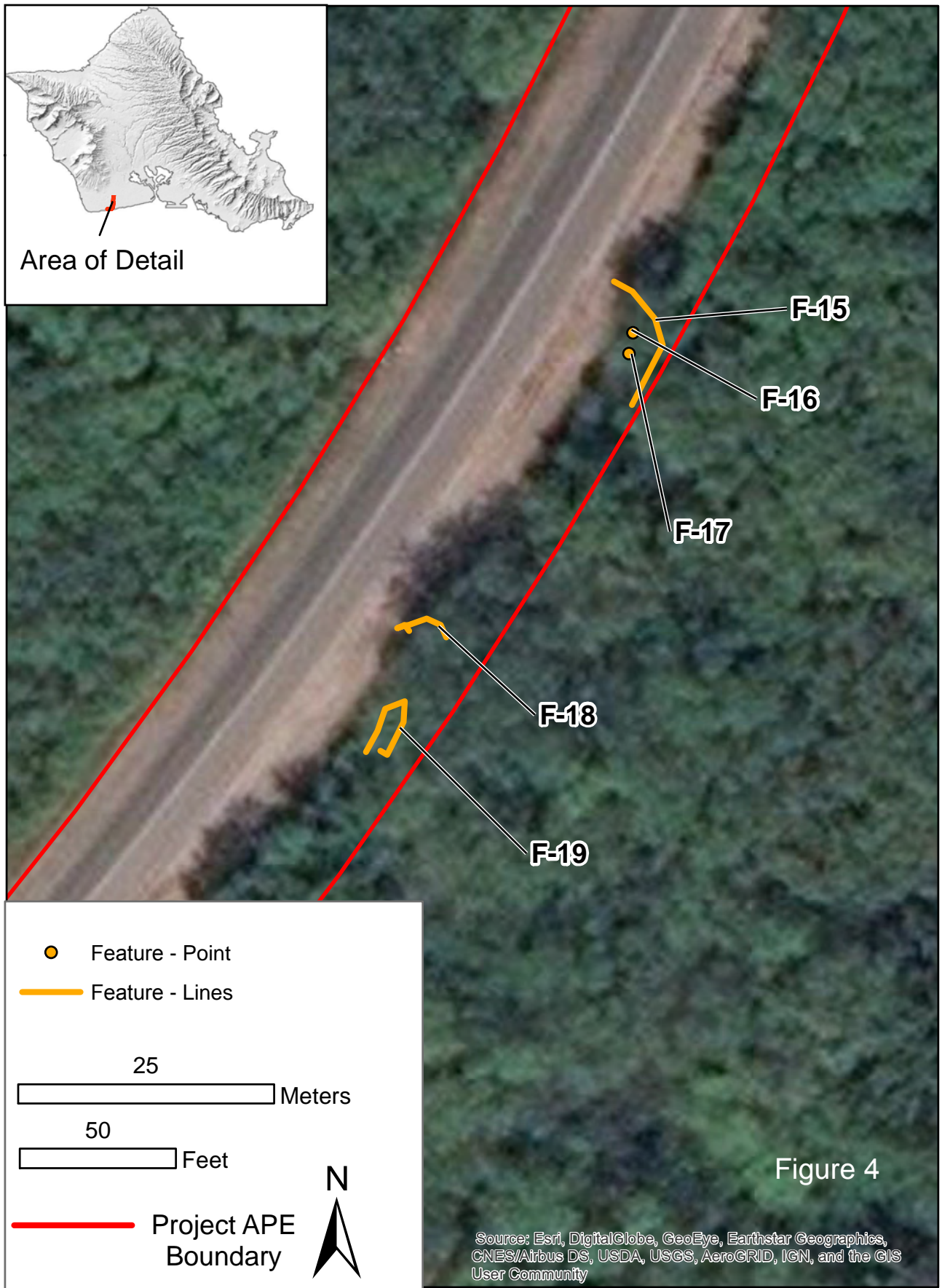




Photo 1. Feature 15, a coral trail, identified during pedestrian survey; view to the south.



Photo 2. Feature 16 mound, view to the north. Feature 15 coral trail is visible in the background.



Photo 3. Feature 17 mound, view to the north. Feature 16 lies approximately 1 m to the north.



Photo 4. Feature 18 stone alignment, view to the north. Note: large kiawe tree growing through the feature.



Photo 5. Feature 19 stone enclosure, view to the east.



Photo 6. Feature 19 stone enclosure with double barbed wire strands atop north wall.

Appendix E-2:
NHPA Section 106 Consultation – Determination Letters

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000

December 12, 2018

Dr. Alan Downer, Ph.D.
State Historic Preservation Officer
State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Rm. 555
Kapolei, HI 96707

Dear Dr. Downer:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated April 3, 2018, Log Number: 2018.00844, Document Number: 1804SH09, Archaeology. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, the USCG requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, you replied that the SHPD did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), required revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5 and is concurrently submitting requested review aids, Enclosure 5a - a separate AIS highlighting the SHPD requested changes and Enclosure 5b - a spreadsheet documenting responses to each of SHPD's comments. Using data from the revised AIS, USCG NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the

Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related

construction activities, e.g., worker parking. Project activities will not occur outside the APE.

- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites. These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were

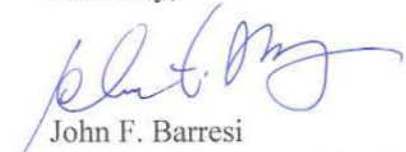
included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map
(3) APE on ASBP
(3a) Aloha to ASBP Project Design Drawings
(3b) Aloha Solar Project Design Drawings
(4) APE

- (5) Archaeological Inventory Survey
- (5a) Archaeological Inventory Survey (Comparison)
- (5b) SHPD Comment Spreadsheet
- (6) Architectural Reconnaissance Level Survey
- (7) ASBP Historic Structures Evaluation & Determination of Effect
- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

Copy: Dr. Susan A. Lebo, Ph.D., SHPD, O'ahu Archaeology Branch Chief
Ms. Stephanie Hacker, SHPD, O'ahu Archaeologist
Ms. Tanya Gumapac-McGuire, SHPD, O'ahu Architecture Branch
Mr. Jade Butay, Hawai'i DOT, Director
Mr. Chris Yamamoto, Hawai'i DOT, Right-of-Way Branch Manager
Mr. Wayne Iwamasa, HDOT Property Management

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Dr. Kamana‘opono Crabbe, Ph.D.
Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, HI 96817

Dear Dr. Crabbe:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai‘i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai‘i Department of Transportation’s (HDOT’s) right-of-way (ROW), compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division’s (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG’s determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG’s NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua‘a of Honouliuli in the moku of ‘Ewa on the island of O‘ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

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- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
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Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

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These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

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ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

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No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.


- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI JOHN.F.JR. 1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map
(3) APE on ASBP

(continued on next page)

- (3a) Aloha to ASBP Project Design Drawings
- (3b) Aloha Solar Project Design Drawings
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- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment



11000
January, 15 2019

Hoakalei Cultural Foundation
P.O. Box 2627
Ewa Beach, HI 96706

Dear Ladies and Gentlemen:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);

- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites. These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and


comments.

- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

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raven.j.smith@uscg.mil

Sincerely,

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John F. Barresi
Captain, U. S. Coast Guard

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U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Mr. Colin Perry
Director
Hawaii Aviation Preservation Society
Via email at colin@hiavps.org

Dear Mr. Perry:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

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The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

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Evaluation

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A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
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- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

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Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
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Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
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John F. Barresi
Captain, U. S. Coast Guard

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Copy: Mr. Scott Gier (sgier69@gmail.com)

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Mr. Mike Hartley
Management Executive
Kanehili Homestead Association, c/o Hawaiiana
711 Kapiolani Blvd, Suite 700
Honolulu, HI 96813

Dear Mr. Hartley:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment

parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.


- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Digitally signed by
BARRESIJOHN.F.JRIL.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

- (3) APE on ASBP
- (3a) Aloha to ASBP Project Design Drawings
- (3b) Aloha Solar Project Design Drawings
- (4) APE
- (5) Archaeological Inventory Survey
- (6) Architectural Reconnaissance Level Survey
- (7) ASBP Historic Structures Evaluation & Determination of Effect
- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Mr. Shad Kane
Board Member
Kalaeloa Heritage and Legacy Foundation
P.O. Box 75447
Kapolei, HI 96707

Dear Mr. Kane:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

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Archaeological Survey

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The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

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ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

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A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.


- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

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- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI.JOHN.F.JRIL.11870166
29
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

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U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Mr. Steve Vendt
Office Administrator
Hawaiian Railway Society
P.O. Box 60369
Ewa Beach, HI 96706

Dear Mr. Vendt:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

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Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

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- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment

parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

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- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Digitally signed by
BARRESI.JOHN.F.JRIL.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

- (3) APE on ASBP
- (3a) Aloha to ASBP Project Design Drawings
- (3b) Aloha Solar Project Design Drawings
- (4) APE
- (5) Archaeological Inventory Survey
- (6) Architectural Reconnaissance Level Survey
- (7) ASBP Historic Structures Evaluation & Determination of Effect
- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Homelani Schaedel
President
Malu'ohai Residents Association
P.O. Box 700911
Kapolei, HI 96709

Dear Ms. Schaedel:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

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Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

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Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Digitally signed by
BARRESI.JOHN.F.JR.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

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U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Jobie Masagatani
Director
State of Hawaii, Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, HI 96805

Dear Ms. Masagatani:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
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Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

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The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

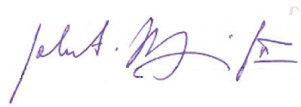
- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Digitally signed by
BARRESI.JOHN.F.JR.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

- (3) APE on ASBP
- (3a) Aloha to ASBP Project Design Drawings
- (3b) Aloha Solar Project Design Drawings
- (4) APE
- (5) Archaeological Inventory Survey
- (6) Architectural Reconnaissance Level Survey
- (7) ASBP Historic Structures Evaluation & Determination of Effect
- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Kiersten Faulkner
Executive Director
Historic Hawaii Foundation
680 Iwilei Road Dole Office Building Tower, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment

parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

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ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

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A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,



Digitally signed by
BARRESIJOHN.F.JR11.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

- (3) APE on ASBP
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- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Melissa Lyman
Ahahui Siwila Hawai'i O Kapolei
P.O. Box 700007
Kapolei, HI 96707

Dear Ms. Lyman:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);

- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

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Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

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Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites. These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.
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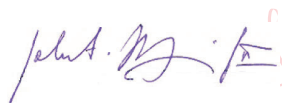
comments.

- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI.JOHN.F.JR.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map
(3) APE on ASBP
(3a) Aloha to ASBP Project Design Drawings
(3b) Aloha Solar Project Design Drawings

(continued on next page)

- (4) APE
- (5) Archaeological Inventory Survey
- (6) Architectural Reconnaissance Level Survey
- (7) ASBP Historic Structures Evaluation & Determination of Effect
- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
- (10) Cultural Impact Assessment

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Michelle Kauhane
President
Kaupe'a Homestead Association
91-1036 Kahanalei Street
Kapolei, HI 96707

Dear Ms. Kauhane:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment

parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.


- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

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- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI.JOHN.F.JRIL.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

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- (3b) Aloha Solar Project Design Drawings
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U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

Ms. Regina Hilo
Burial Sites Specialist (Oahu)
State of Hawaii, Department of Land and Natural Resources, O'ahu Island Burial Council
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Ms. Hilo:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

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Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

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Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
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The following public involvement opportunities have been made and are planned.


- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

- b. On 17 May 2018, the USCG presented the proposed project at a Hawai'i Community Development Authority (HCDA) community meeting. The purpose of the presentation was to provide project information and to provide an open forum for public questions and comments.
- c. When the draft EA is completed, it will be published in the State of Hawai'i's Office of Environmental Quality's web site (<http://oeqc.doh.hawaii.gov>) with the findings of the aforementioned studies including any draft AIS that may be determined to be needed by SHPD, in accordance with HRS Chapter 6E. The 30-day public comment period that ensues with the publication of the draft EA will be used to invite input for both the National Environmental Policy Act (NEPA) EA process and NHPA Section 106 consultation process.

Based on the USCG's proposed mitigation following the identification and evaluation of historic properties in accordance with 36 CFR part 800.4, the USCG has made a determination of "no historic properties affected" and is requesting that SHPD review and concur within 30 days. The USCG will develop an Archaeological Monitoring Plan and will receive SHPD concurrence prior to any construction activities occurring in areas to be monitored. Should you have any questions, please address them to:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI.JOHN.F.JRIL.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

Enclosures: (1) Location of Undertaking
(2) TMK Map

(continued on next page)

- (3) APE on ASBP
 - (3a) Aloha to ASBP Project Design Drawings
 - (3b) Aloha Solar Project Design Drawings
- (4) APE
- (5) Archaeological Inventory Survey
- (6) Architectural Reconnaissance Level Survey
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- (8) Historic Chambers along Coral Sea Road
- (9) Historic Chambers and Protective Fencing
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U.S. Department of
Homeland Security

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

915 2nd Avenue
Room 2664
Seattle, WA 98174
Phone: 206-220-7402

11000
January, 15 2019

c/o Ms. Tesha Malama
HCDA Kalaeloa Director of Planning & Development
HCDA Kalaeloa Stakeholders -- Advisory Team, Community Network, Public Safety Group,
and Cultural Hui
547 Queen St.
Honolulu, HI 96813

Dear Ms. Malama:

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the U.S. Coast Guard (USCG) initiated consultation with you regarding its proposed utilities renovations for Air Station Barbers Point (ASBP) in Kalaeloa, Hawai'i, in a letter dated June 27, 2018. This USCG action uses federal funds and occurs on federal land and is therefore an undertaking as defined under 36 CFR 800.16(y). Because a portion of the undertaking will occur within the State of Hawai'i Department of Transportation's (HDOT's) right-of-way (ROW), compliance with Hawai'i Revised Statutes (HRS) Chapter 6E Historic Preservation is required.

In a letter dated August 23, 2018, we requested the State Historic Preservation Division's (SHPD) concurrence with our effect determination (*no historic properties affected*). On October 16, 2018, SHPD replied that it did not concur with the USCG's determination of no historic properties affected because the supporting data, i.e., archaeological inventory survey (AIS), requires revisions prior to acceptance, Log Number: 2018.02019, Document Number: 1810SH01, Archaeology. Accordingly, the USCG has revised the AIS as Enclosure 5. Using data from the revised AIS, the USCG's NHPA Section 106 determination follows.

Description of the Undertaking

The undertaking is proposed in the ahupua'a of Honouliuli in the moku of 'Ewa on the island of O'ahu. It includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the Hawaiian Electric island-wide grid system. The location of the undertaking is shown in Enclosure 1. The Tax Map Key (TMK) of the vicinity is included in Enclosure 2.

Activities on ASBP would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of Hawaiian Electric meters (Hawaiian Electric would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet Hawaiian Electric standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Since we wrote to you in April 2018, the following changes to the undertaking have occurred:

- a. Electrical distribution system routes on ASBP are shown (with a 20-foot buffer on all sides) in Enclosure 3.
- b. The 12kV distribution system between the Aloha Solar Facility and ASBP (Alternative 1 Option A) would be underground, not underground and overhead. Design drawings from Aloha to ASBP are included as Enclosure 3a.
- c. In the event that Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs, the USCG would implement Alternative 1 Option B, which includes the installation of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP within the HDOT Coral Sea Road ROW. The construction of the system from Roosevelt to Aloha Solar will be the same as the already approved Aloha Solar project. From Aloha Solar to ASBP, the project will be installed completely underground. Design drawings for the Aloha Solar project along Coral Sea Road are included as Enclosure 3b.

Area of Potential Effects (APE)

The APE is the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE depicted in Enclosure 4 consists of the area in which all operation and construction related activities would be contained and includes the following:

- a. Along Coral Sea Road, the APE encompasses all proposed activities and is the HDOT's ROW. From the manhole just south of Roosevelt Avenue to just south of Tripoli Street, the ROW/APE is approximately 60 feet wide in the north and 80 feet wide to the south. Approximately 1,400 feet east of the ASBP gate, the ROW/APE narrows to approximately 56 feet wide. The APE includes construction laydown areas or related construction activities, e.g., worker parking. Project activities will not occur outside the APE.
- b. On ASBP, the APE bounds all proposed activities (circuit, vault/manhole, transformer, substation, etc.) by 20 feet on all sides. Existing paved areas will be used as construction laydown areas or for related construction activities, e.g., worker parking, equipment

parking. Project activities will not occur outside the APE.

Identification of Historic Properties

Historic properties are defined under NHPA Section 106 as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. Historic property is defined under HRS Chapter 6E-2 and means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old.

Approaches and information used to identify historic properties in the APE are documented in the following reconnaissance level archaeological and historical inventory and survey reports, Enclosures 5, 6, and 7.

- a. International Archaeology, LLC. November 2018. *Archaeological Inventory Survey in Support of Proposed Utilities Renovations at the United States Coast Guard Facility, Air Station Barbers Point, 'Ewa, O'ahu Island, Hawai'i.*
- b. Mason Architects. August 2018. *Coral Sea Road Right of Way RLS Report.*
- c. USCG ASBP Section 106 Property Evaluation (pre 1970 construction dates) evaluation and determination of project effects.

These documents identify information reviewed to identify the presence of and to anticipate the likelihood of identification and inadvertent discovery of historic properties, including burials. Further, the USCG consulted with other parties to identify historic properties (see Consultation and Public Involvement in this letter, below).

Archaeological Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted archaeologist, International Archaeology, LLC (IA), a pedestrian survey was conducted of the APE on January 12, 2018 and February 28, 2018. Four features (temporary sites) were identified. However, a subsequent inspection of one of the sites (coral path) by Alex E. Morrison, Ph.D., and J.S. Athens, Ph.D., on July 18, 2018, determined the path to be a modern foot path lacking the characteristics of traditional or historic transportation features.

The three archaeological sites identified are eligible for listing on the NRHP. See Enclosure 5, archaeological inventory survey (AIS), for site locations and recommendations. Based on the power line alignment in Enclosure 3a, construction activities within the APE would not impact these sites.

Previous subsurface excavations along the Coral Sea Road portion of the project APE indicate that soil development is generally poor and that the subsurface is shallow. Therefore, the probability of encountering buried cultural deposits is low.

ASBP. Subsurface testing was conducted on May 25 and 28 of 2018 on ASBP. Eight 50 centimeters (cm) by 50 cm shovel tests were excavated to the underlying coralline substrate. None revealed archaeological deposits. The results of the subsurface testing demonstrate that this portion of the APE is composed of poorly developed, relatively shallow soils on top of a coral limestone substrate. Limestone substrate was generally encountered at a depth of approximately 35 cm below surface. Similar evidence is provided in USCG (1991), Hirata (1989), and Dames and Moore (1999) during borehole excavations and subsurface testing to investigate possible substrate voids. As a result of the shallow nature of the deposits at ASBP, the possibility of encountering intact buried cultural deposits is low due to previous disturbances during facility construction and a lack of deposition to protect deposits that may have once existed.

Architectural Survey

HDOT Coral Sea ROW. In coordination with the HDOT, USCG via its contracted architectural historians, Mason Architects, Inc. a reconnaissance level survey (RLS) was conducted of the APE to identify potential historic structures (construction completed in 1970 or earlier). See Enclosure 6. Four underground octagonal chambers constructed during WWII were discovered. These chambers are eligible for listing in the NRHP as contributing features associated with the Bombproof Telephone Exchange Building (Building 92), which was previously determined eligible for listing on the NRHP. Building 92 is located on the west side of Coral Sea Road and more than 100 feet from the proposed project power line alignment. The alignment is proposed within the eastern part of the Coral Sea Road ROW. A topographic survey determined that none of the chambers are located within the APE. See Enclosure 8. Chambers 1 and 4 are located near the APE and although none of the chambers are located within the APE, the USCG will install temporary fencing around Chamber 4 to ensure this significant structure is not affected by construction related activities. See Enclosure 9. An existing barrier fence will continue to protect Chamber 1 (Enclosure 6, Appendix A-4, top photo).

ASBP. Structures and infrastructure completed in 1970 or earlier were identified by the USCG, Enclosure 7. No structures built during 1970 or earlier are located within the APE, therefore, none would be affected by the undertaking. Infrastructure (such as roads, parking lots and underground utilities) in the APE are not eligible for listing on the NRHP because they have been maintained and upgraded periodically (repaved and repainted) and do not exhibit historic significance. Moreover, if it is necessary to remove a portion of road, parking lot, or underground utility, they will be replaced in the same location.

Evaluation

Three archaeological sites are located within the APE and are eligible for listing on the NRHP. Based on design drawings (Enclosure 3a), none of these sites would be impacted; however, to ensure no impacts occur, temporary fencing will be installed prior to construction and an archaeological monitor will be present when construction occurs within 20 feet of the sites.

These precautionary measures will be made part of the construction drawings required for HDOT approval.

No historic architectural properties were identified within the APE. The NRHP-eligible historic architectural properties located during the survey are a set of four below-grade octagonal concrete chambers that are directly associated with the NRHP-eligible Building 92. Although none of the chambers are within the APE, Chambers 1 and 4 are located close enough to the APE that the USCG will undertake precautionary measures. The USCG will install barrier fencing around Chamber 4 prior to construction to ensure this significant structure is not affected. An existing barrier fence already protects Chamber 1 (Enclosure 6, Appendix A-4, top photo). Enclosure 9 shows the locations of Building 92, the four underground chambers, the proposed power line, and the barrier fencing.

Consultation

In accordance with NHPA Section 106, letters were sent to other consulting parties on June 27, 2018, to request input regarding historic properties within the APE that may be affected by the USCG's undertaking. Consulting parties included: Office of Hawaiian Affairs, Department of Hawaiian Home Lands, Historic Hawai'i Foundation, O'ahu Island Burial Council, Kalaeloa Stakeholders c/o Kalaeloa Planning & Development Director, Kalaeloa Heritage and Legacy Foundation, Kanehili Homestead Association, Malu'ohai Residents Association, Kaupe'a Homestead Association, Hawaiian Railway Society, Hawai'i Aviation Preservation Society, Ahahui Siwila Hawai'i O Kapolei, and Hoakalei Cultural Foundation. Comments were requested within 30 days of June 27, 2018, but none have been received.

A cultural impact assessment (CIA), with intent of satisfying Hawai'i State Act 50, SLH 2000, was prepared in case the HDOT decides a HRS Chapter 343 EA is needed (Enclosure 10). Based on the CIA findings, no known or potential cultural impacts are foreseen for the proposed project APE. The majority of the land on which the project area is situated follows an existing road corridor which has been significantly altered during construction. A few cultural and lineal descendants requested cultural monitoring; however, no standards exist for such monitoring. The USCG will provide on-site archaeological monitoring in the southern area of Coral Sea Road where underground trenching to ASBP will occur. See Enclosure 1, Alternative 1 Option A.

Public Involvement

The following public involvement opportunities have been made and are planned.

- a. On 18 October 2017, the USCG distributed a letter to approximately 45 agencies and community members to request input in the development of its environmental assessment (EA) for the proposed utility project. A project information sheet and site map were included that disclosed the regulatory requirements for the EA; USCG's purpose and need for the proposed action; proposed action and alternatives; environmental resources, issues, and key approvals/permits; and next steps.

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raven.j.smith@uscg.mil

Sincerely,

 Digitally signed by
BARRESI.JOHN.F.JR11.1187016629
Adobe Acrobat version:
2019.008.20071

John F. Barresi
Captain, U. S. Coast Guard

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(2) TMK Map

(continued on next page)

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LEGEND

Proposed Underground Distribution Line

Alternative 1 Option A

ASEF II Utility to USCG ASBP

Alternative 1 Option B

South of Roosevelt Avenue to USCG ASBP

LOCATION MAP



Location of Undertaking

Electrical Replacements for USCG Air Station Barbers Point Kalaeloa, O'ahu, Hawai'i

E-2-113

ENCLOSURE 1

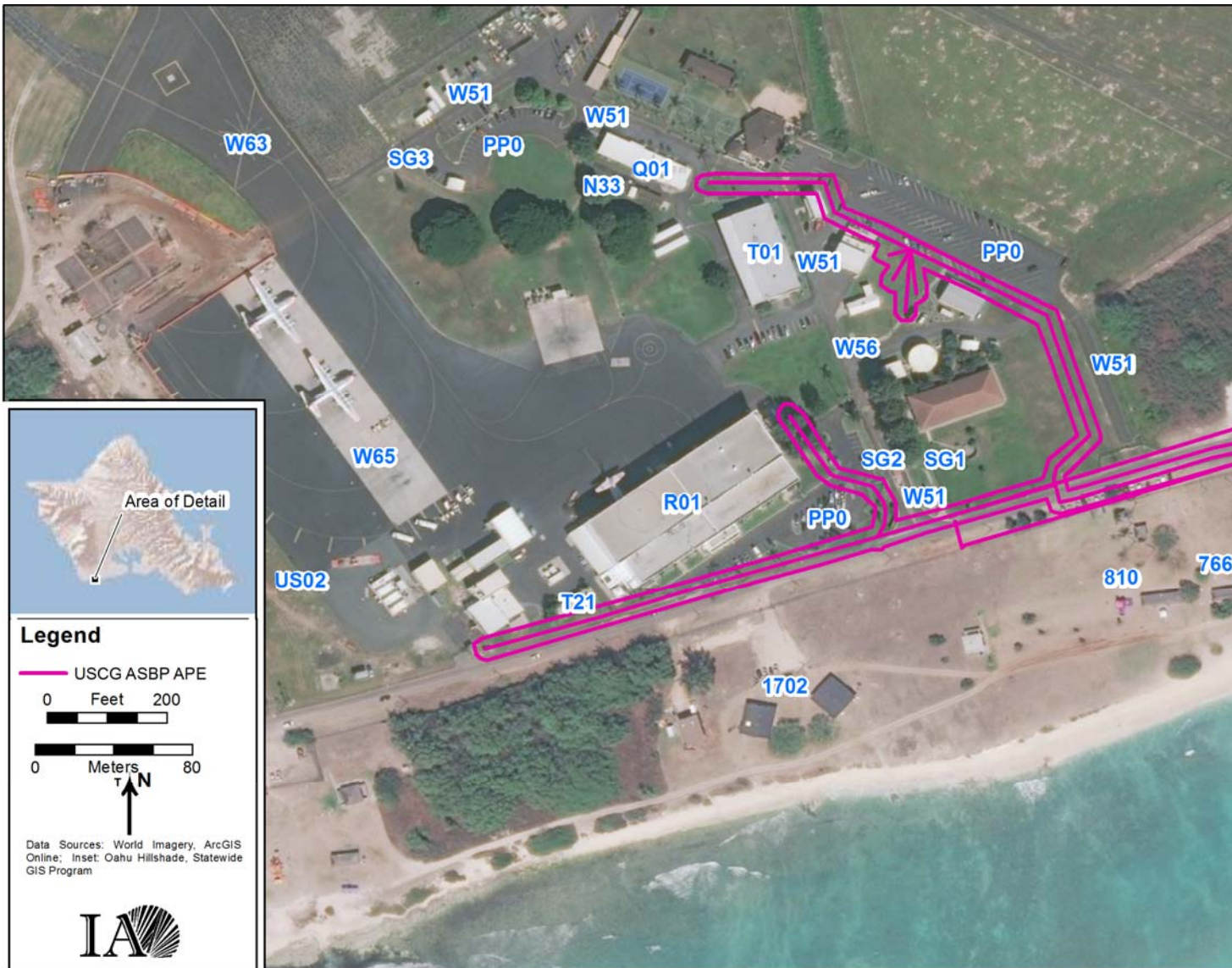


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SEE LAND COURT MAPS FOR
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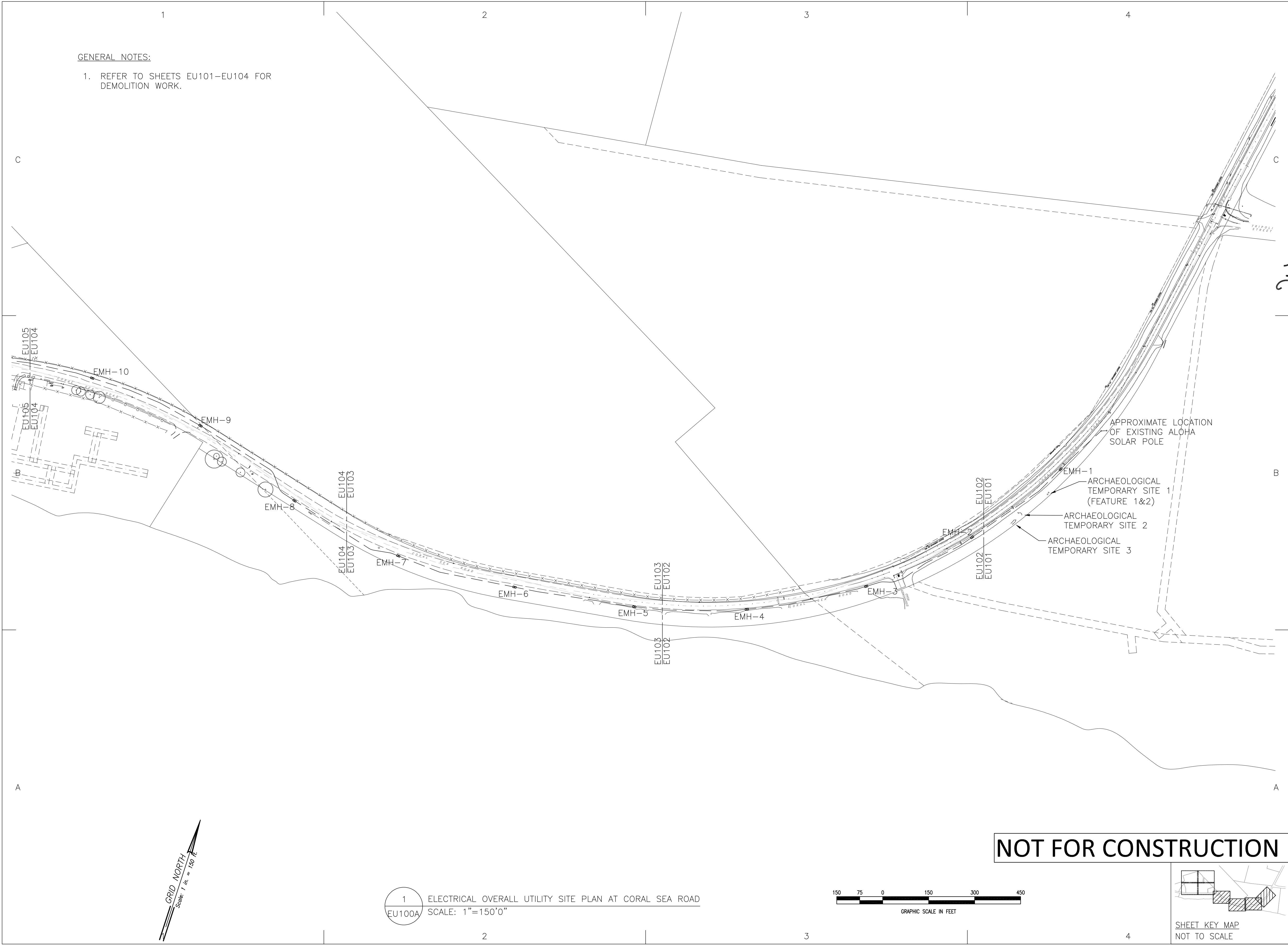
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DEPARTMENT OF BUDGET & FISCAL SERVICES REAL PROPERTY ASSESSMENT DIVISION TAX MAPS BRANCH CITY & COUNTY OF HONOLULU TAX MAP		
FIRST TAXATION DIVISION		
ZONE	SECTION	PLAT
9	1	013
SCALE: 1 INCH = 800 FEET		

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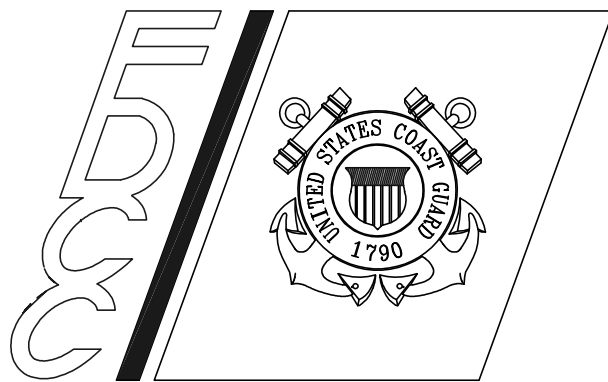
Enclosure 3 (Note: Portion of APE within HDOT Coral Sea Road ROW is also shown)



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CHECKED BY:

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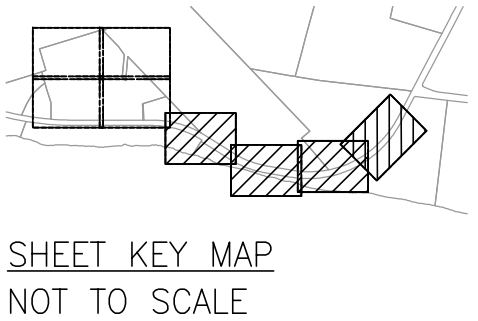
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RENOVATE ELECTRICAL UTILITIES
CG AIR STATION BARBERS POINT
KAPOLEI HI
HECO 12.47KV DIST SYS
ELECTRICAL
OVERALL SITE PLAN

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EIC	TEAM LEADER	

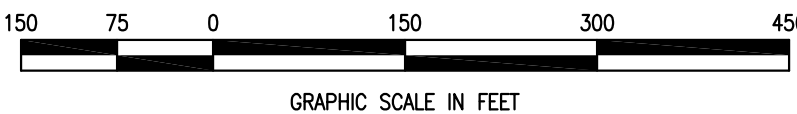
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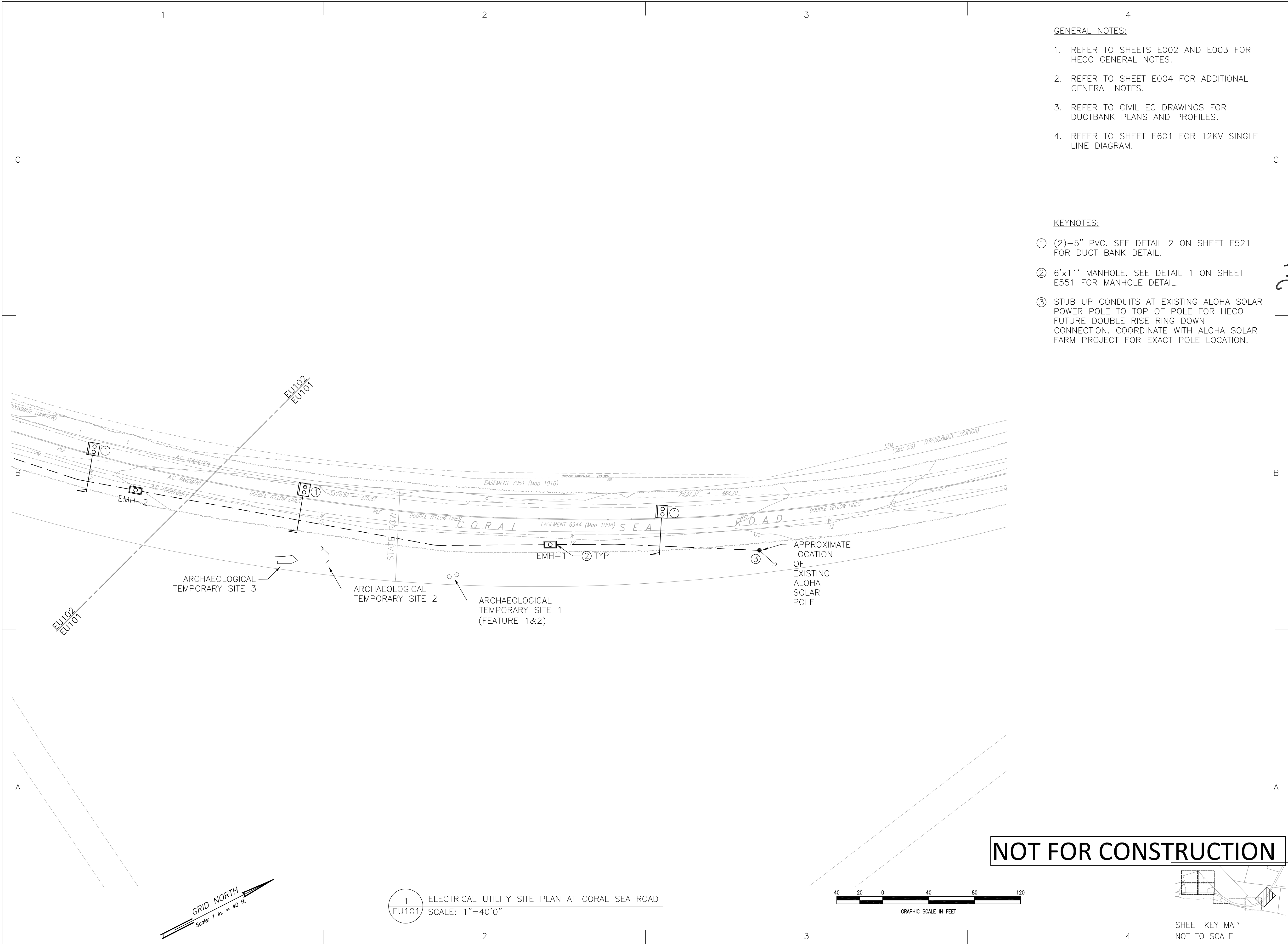


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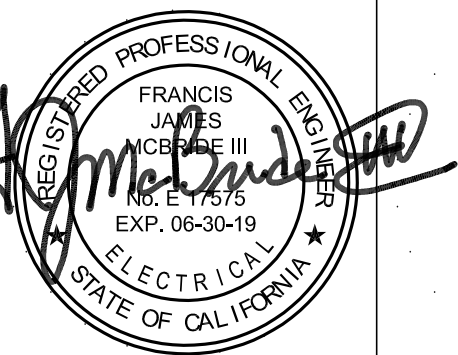
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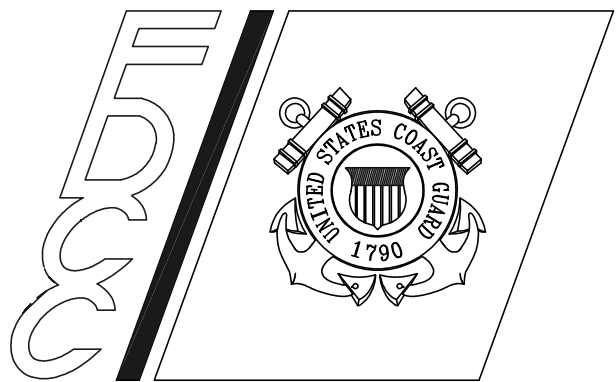
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 - 2. REFER TO SHEET E004 FOR ADDITIONAL GENERAL NOTES.
 - 3. REFER TO CIVIL EC DRAWINGS FOR DUCTBANK PLANS AND PROFILES.
 - 4. REFER TO SHEET E601 FOR 12KV SINGLE LINE DIAGRAM.

- KEYNOTES:
- ① (2)–5” PVC. SEE DETAIL 2 ON SHEET E521 FOR DUCT BANK DETAIL.
 - ② 6’x11’ MANHOLE. SEE DETAIL 1 ON SHEET E551 FOR MANHOLE DETAIL.
 - ③ STUB UP CONDUITS AT EXISTING ALOHA SOLAR POWER POLE TO TOP OF POLE FOR HECO FUTURE DOUBLE RISE RING DOWN CONNECTION. COORDINATE WITH ALOHA SOLAR FARM PROJECT FOR EXACT POLE LOCATION.

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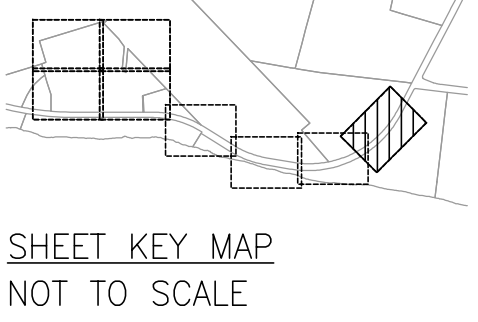
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ELECTRICAL
PARTIAL SITE PLAN

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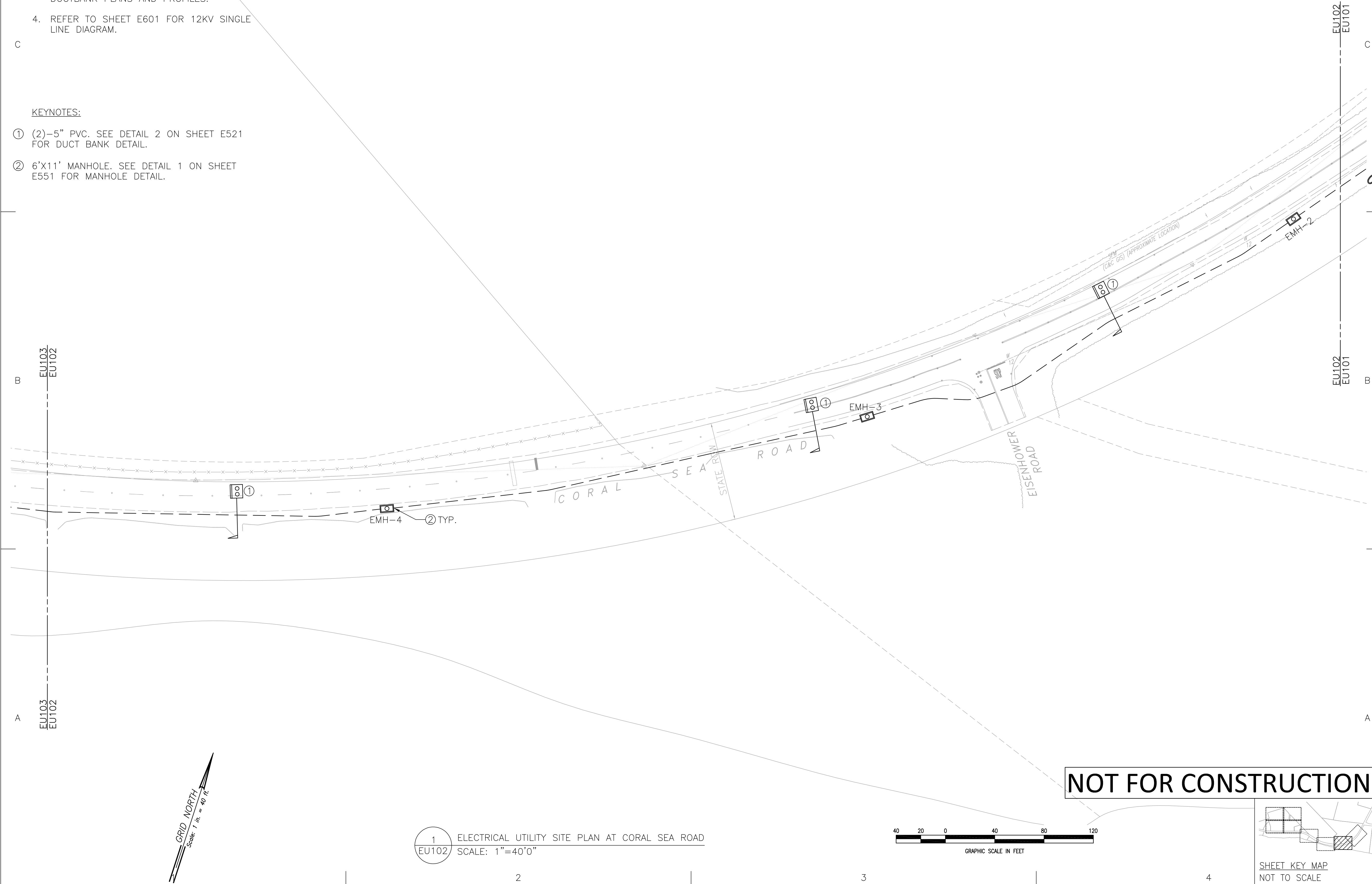


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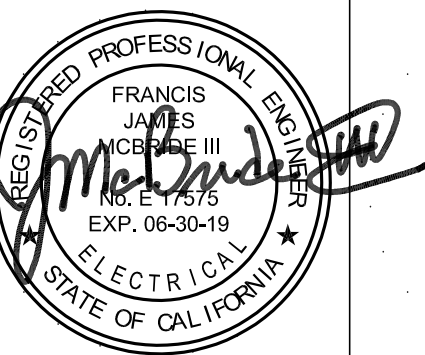
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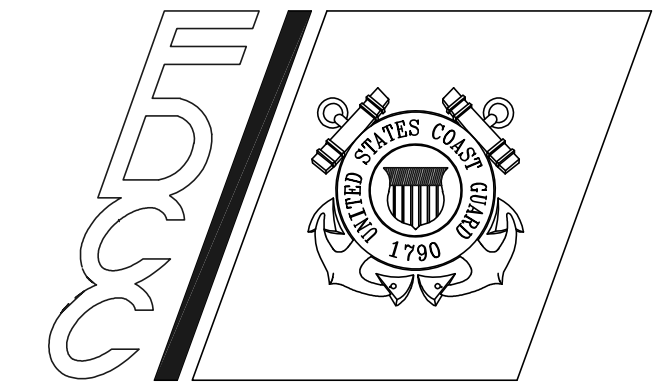
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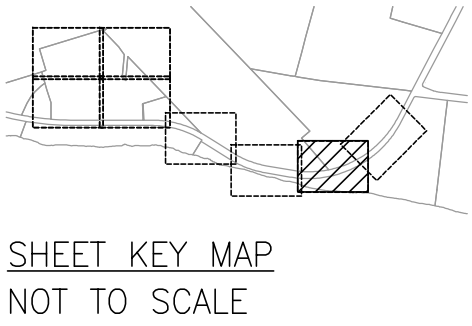
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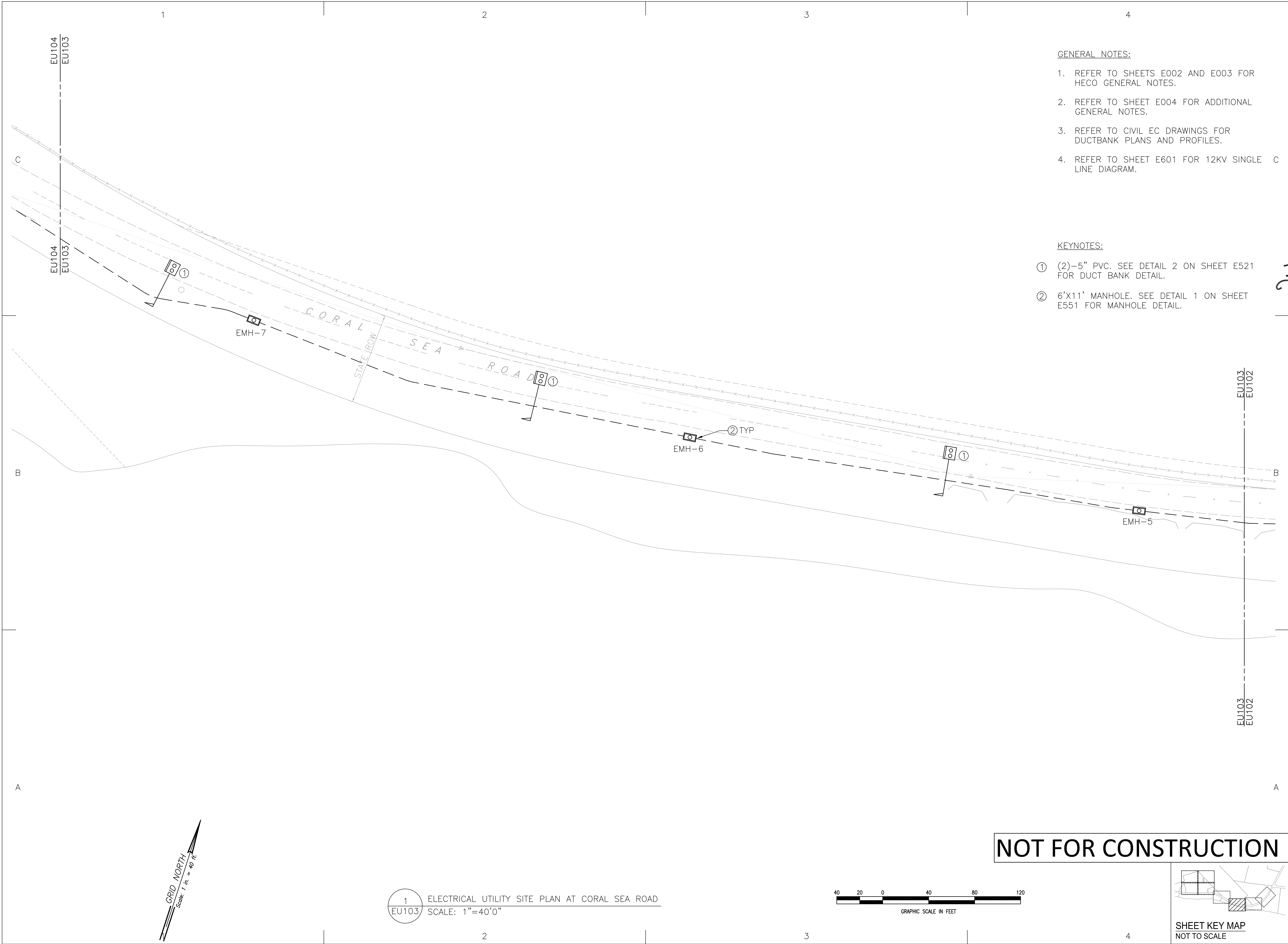
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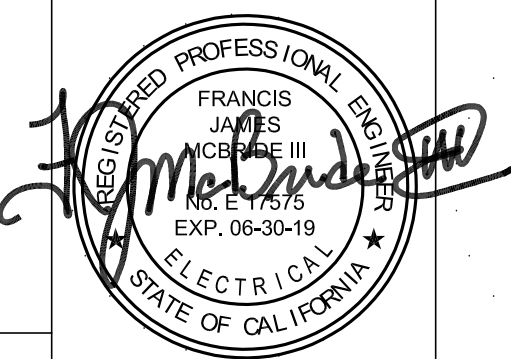
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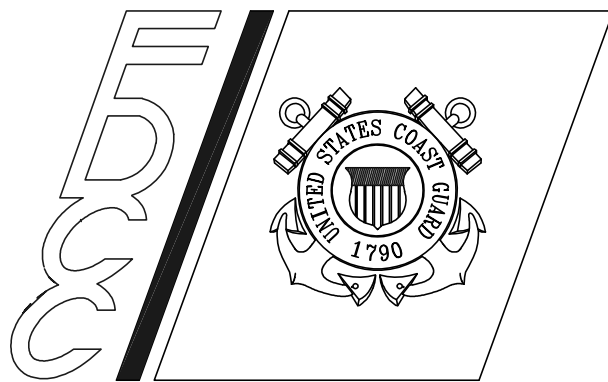
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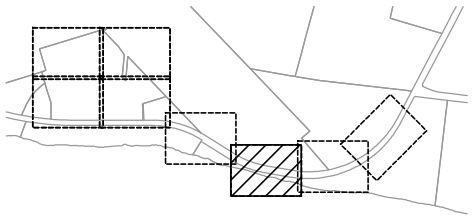
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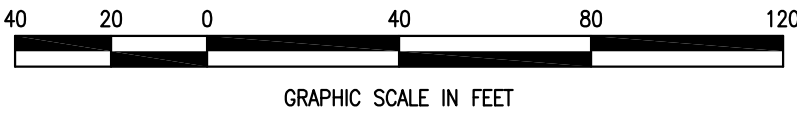
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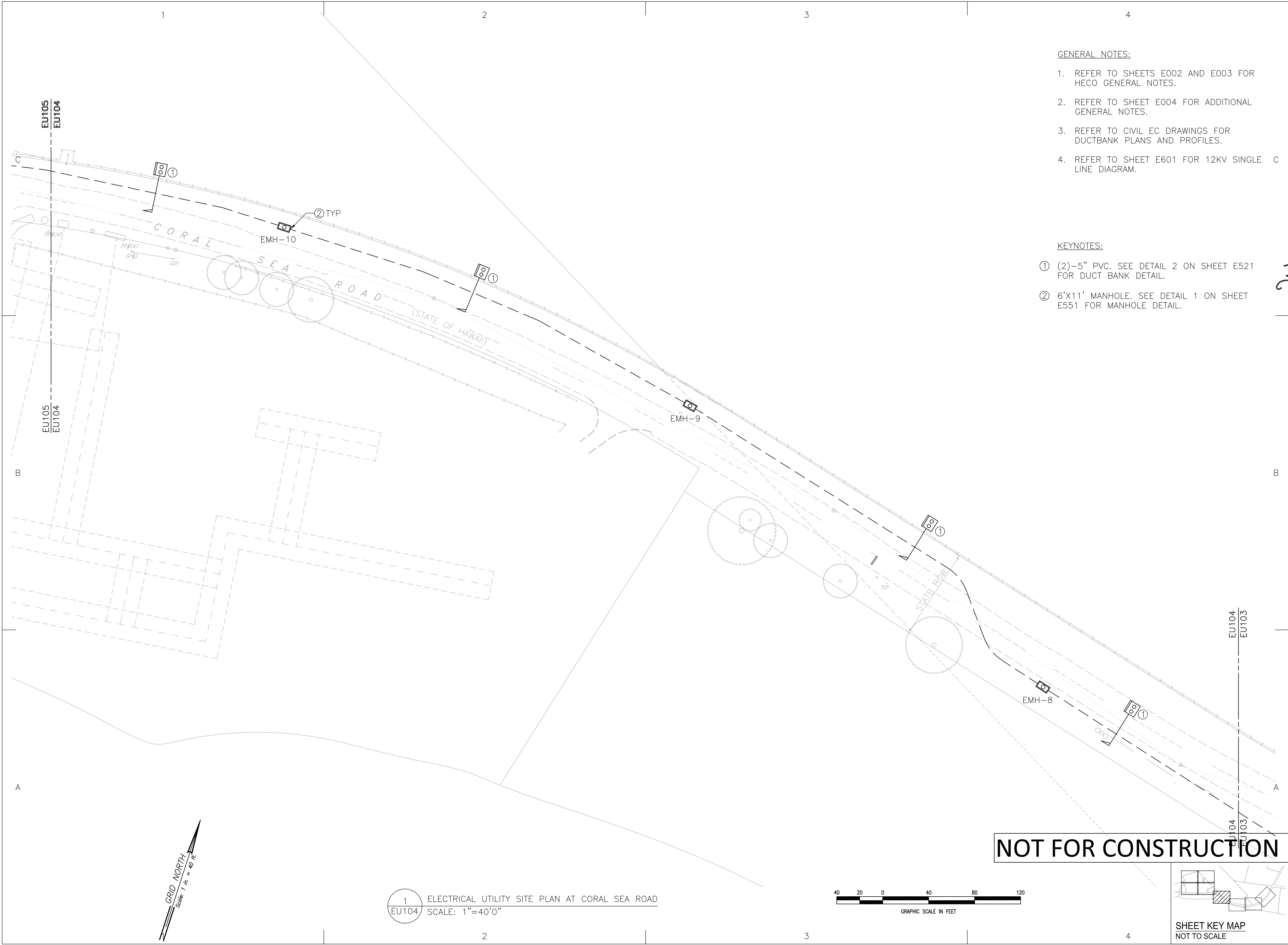
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SHEET KEY MAP
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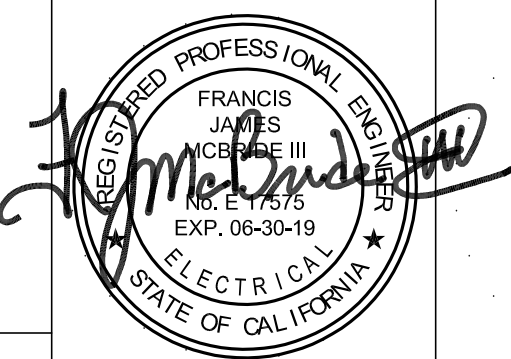




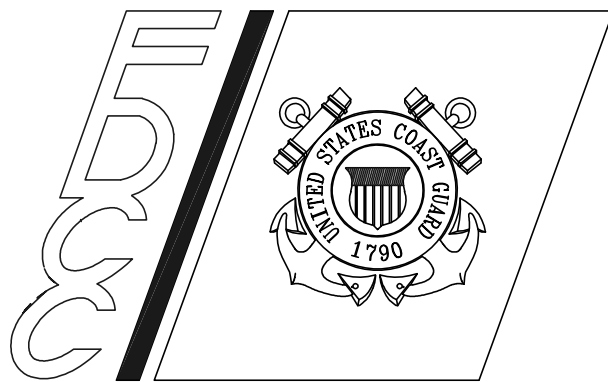
- GENERAL NOTES:
1. REFER TO SHEETS E002 AND E003 FOR HECO GENERAL NOTES.
 2. REFER TO SHEET E004 FOR ADDITIONAL GENERAL NOTES.
 3. REFER TO CIVIL EC DRAWINGS FOR DUCTBANK PLANS AND PROFILES.
 4. REFER TO SHEET E601 FOR 12KV SINGLE C LINE DIAGRAM.

- KEYNOTES:
- ① (2)–5" PVC. SEE DETAIL 2 ON SHEET E521 FOR DUCT BANK DETAIL.
 - ② 6'X11' MANHOLE. SEE DETAIL 1 ON SHEET E551 FOR MANHOLE DETAIL.

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US COAST GUARD
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USCG, FDCC SEATTLE DETACHMENT
915 SECOND AVE, ROOM 2664
SEATTLE, WASHINGTON 98174–1011

ISSUE		
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2	06/27/18	65% CD
1	05/08/18	35% CD
MARK	DATE	DESCRIPTION

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CAD FILE NAME: 2719127EU104.DWG
DESIGNED BY: FRANK MCBRIDE
DRAWN BY: ROGELIO I. PLASCENCIA
EDITED BY:
CHECKED BY:

SCALE: AS NOTED PLOT SCALE: 1:1

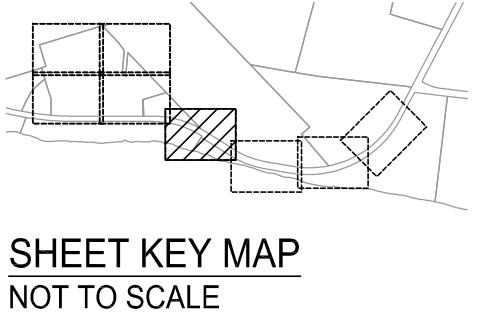
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**RENOVATE ELECTRICAL UTILITIES
CG AIR STATION BARBERS POINT
KAPOLEI HI
HECO 12.47KV DIST SYS – CSR
ELECTRICAL
PARTIAL SITE PLAN**

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
EIC	TEAM LEADER	

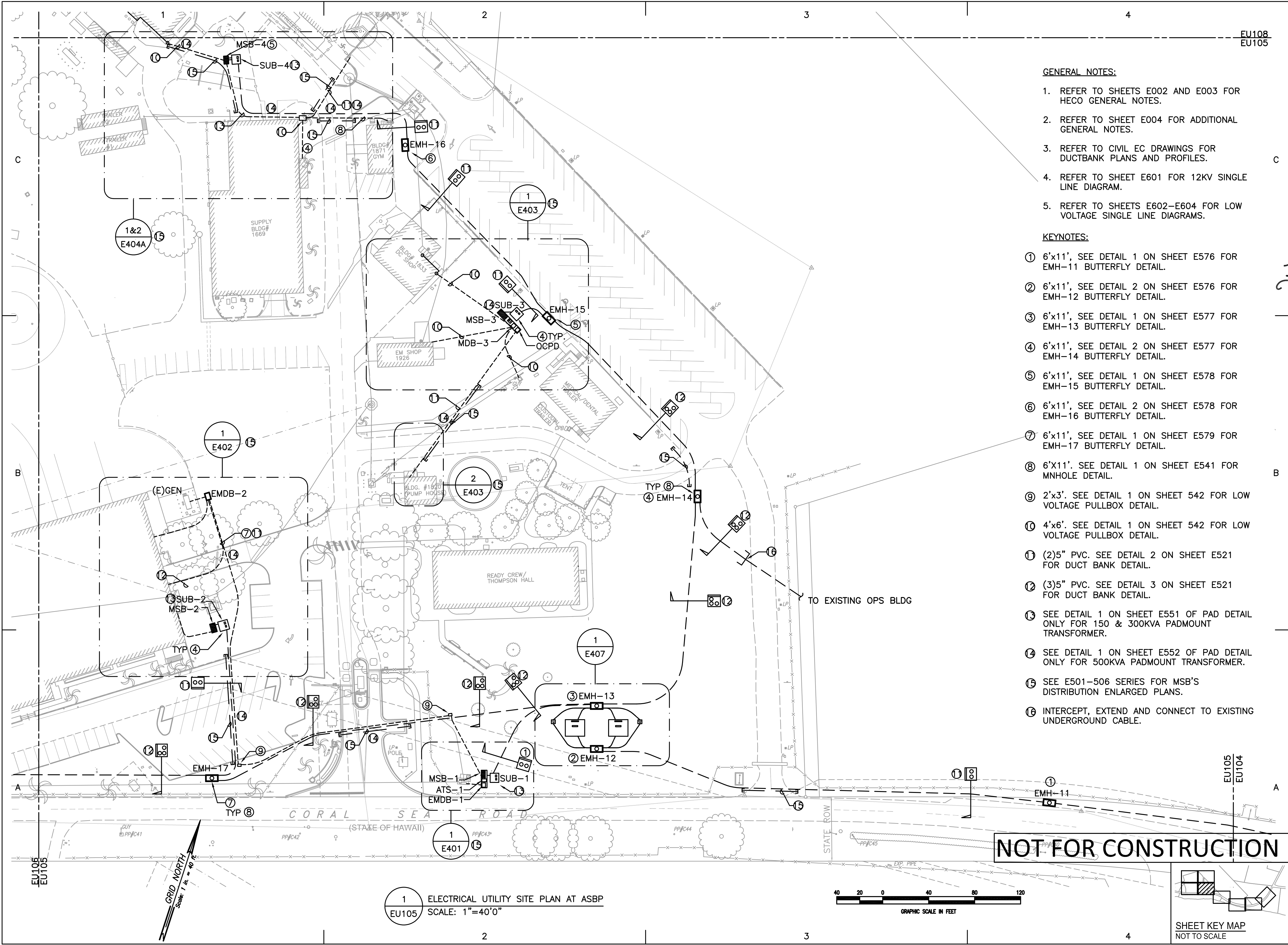
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PROJECT NUMBER	DRAWING NUMBER
2719127	EU104
DISCIPLINE/SHT NO	SHEET 13 OF 77
E	

NOT FOR CONSTRUCTION



SHEET KEY MAP
NOT TO SCALE



EU108
EU105

- GENERAL NOTES:**
1. REFER TO SHEETS E002 AND E003 FOR HECO GENERAL NOTES.
 2. REFER TO SHEET E004 FOR ADDITIONAL GENERAL NOTES.
 3. REFER TO CIVIL EC DRAWINGS FOR DUCTBANK PLANS AND PROFILES.
 4. REFER TO SHEET E601 FOR 12KV SINGLE LINE DIAGRAM.
 5. REFER TO SHEETS E602-E604 FOR LOW VOLTAGE SINGLE LINE DIAGRAMS.

- KEYNOTES:**
- ① 6'x11', SEE DETAIL 1 ON SHEET E576 FOR EMH-11 BUTTERFLY DETAIL.
 - ② 6'x11', SEE DETAIL 2 ON SHEET E576 FOR EMH-12 BUTTERFLY DETAIL.
 - ③ 6'x11', SEE DETAIL 1 ON SHEET E577 FOR EMH-13 BUTTERFLY DETAIL.
 - ④ 6'x11', SEE DETAIL 2 ON SHEET E577 FOR EMH-14 BUTTERFLY DETAIL.
 - ⑤ 6'x11', SEE DETAIL 1 ON SHEET E578 FOR EMH-15 BUTTERFLY DETAIL.
 - ⑥ 6'x11', SEE DETAIL 2 ON SHEET E578 FOR EMH-16 BUTTERFLY DETAIL.
 - ⑦ 6'x11', SEE DETAIL 1 ON SHEET E579 FOR EMH-17 BUTTERFLY DETAIL.
 - ⑧ 6'x11'. SEE DETAIL 1 ON SHEET E541 FOR MNHOLE DETAIL.
 - ⑨ 2'x3'. SEE DETAIL 1 ON SHEET 542 FOR LOW VOLTAGE PULLBOX DETAIL.
 - ⑩ 4'x6'. SEE DETAIL 1 ON SHEET 542 FOR LOW VOLTAGE PULLBOX DETAIL.
 - ⑪ (2)5" PVC. SEE DETAIL 2 ON SHEET E521 FOR DUCT BANK DETAIL.
 - ⑫ (3)5" PVC. SEE DETAIL 3 ON SHEET E521 FOR DUCT BANK DETAIL.
 - ⑬ SEE DETAIL 1 ON SHEET E551 OF PAD DETAIL ONLY FOR 150 & 300KVA PADMOUNT TRANSFORMER.
 - ⑭ SEE DETAIL 1 ON SHEET E552 OF PAD DETAIL ONLY FOR 500KVA PADMOUNT TRANSFORMER.
 - ⑮ SEE E501-506 SERIES FOR MSB'S DISTRIBUTION ENLARGED PLANS.
 - ⑯ INTERCEPT, EXTEND AND CONNECT TO EXISTING UNDERGROUND CABLE.

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ISSUE		
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CAD FILE NAME: 2719127EU105.DWG
DESIGNED BY: FRANK MCBRIDE
DRAWN BY: ROGELIO I. PLASCENCIA
EDITED BY:
CHECKED BY:

SCALE: AS NOTED PLOT SCALE: 1:1

RENOVATE ELECTRICAL UTILITIES
CG AIR STATION BARBERS POINT
KAPOLEI HI
HECO 12.47KV DIST SYS
ELECTRICAL
PARTIAL SITE PLAN

REVIEWED BY: REVIEWED BY: REVIEWED BY:

EIC TEAM LEADER

COMMANDING OFFICER DATE

PROJECT NUMBER DRAWING NUMBER

2719127 EU105

DISCIPLINE/SHT NO SHEET 14 OF 77

E

ENCLOSURE 3a

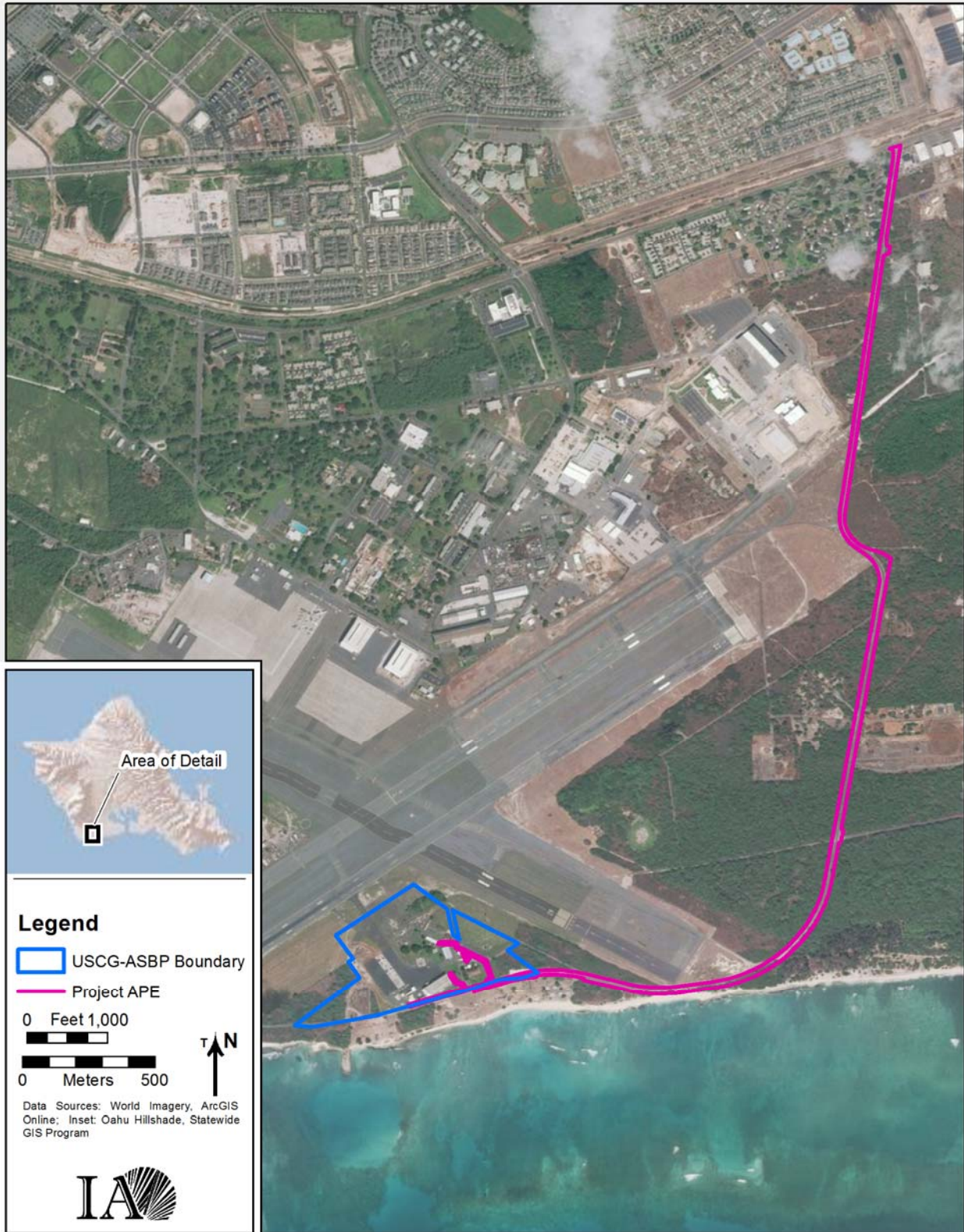
Enclosure 3b

Aloha Solar Plan

Appendix B of: G70. 2017. *Final Environmental Assessment for the Aloha Solar Energy Fund II – Kalaeloa*. October.

Download available at:

http://oeqc2.doh.hawaii.gov/EA_EIS_Library/2017-10-23-OA-FEA-Aloha-Solar-Energy-Fund-II-Kalaeloa.pdf



Enclosure 5

Archaeological Inventory Survey

(See Appendix B of this EA)

Enclosure 6

Architectural Reconnaissance Level Survey

(See Appendix D of this EA)

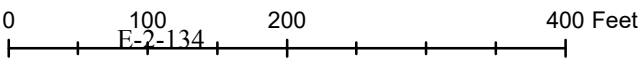
USCG ASBP Historic Properties Area of Potential Effect/Project Area Report

USCG ASBP Pre 1970 properties

Facility	Building #	Construction date/notes/survey rationale	Notes/Effect Determination
Runway	29	Pre-1943	Outside of APE/No Historic Properties Affected
Fueling pump house	(N33)	1968	Outside of APE/No Historic Properties Affected
Dining Facility	(Q01)	1959	Outside of APE/No Historic Properties Affected
Aircraft Operations Building	(R01)	1968	Outside of APE/No Historic Properties Affected
Mission-Support Materials/Parts	(T01)	1962	Outside of APE/No Historic Properties Affected
HAZ Materials Storage Building	(T21)	1960	Outside of APE/No Historic Properties Affected
Paved Vehicle Parking	(PP0)	1962	Not Historic/No Effect
Security Support Facility	(SG1-5)	1940	Outside of APE/No Historic Properties Affected
Storm Drainage – Ditch	(US02)	1940	Outside of APE/No Historic Properties Affected
Water Distribution Line, Potable (underground)	(W01)	1966	Not Historic/No Effect
Electrical Distribution System (underground)	(W13)	1968	Not Historic/No Effect
Sewer and Industrial Waste Line (underground)	(W21)	1966	Not Historic/No Effect
Paved Road	(W51)	1966	Not Historic/No Effect
Sidewalk and Walkway, Surfaced	(W56)	1940	Outside of APE/No Historic Properties Affected
Aircraft Apron/Pad	(W63)	1962	Outside of APE/No Historic Properties Affected



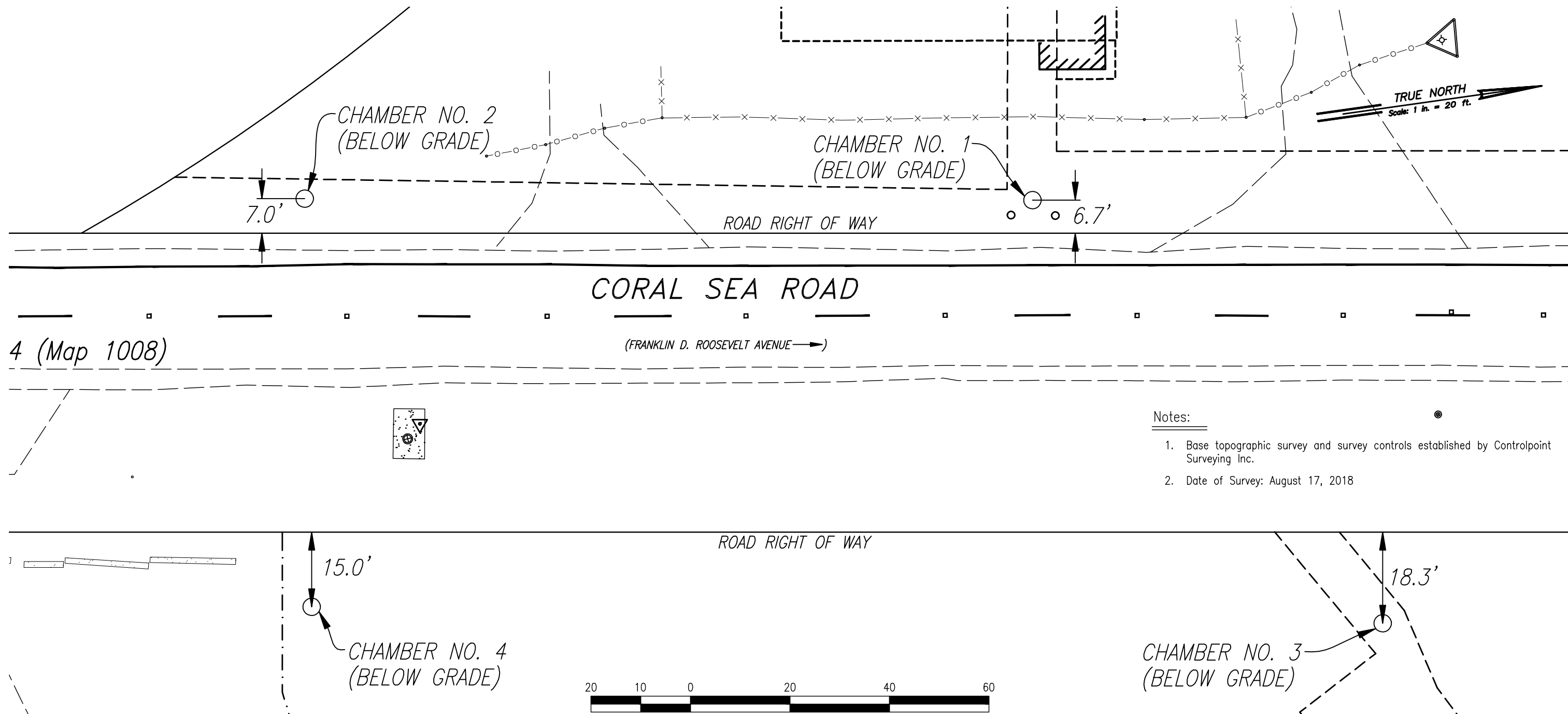
USCG Air Station Barbers Point Proposed Powerline Project,
Kalaeloa, Hawaii



TOPOGRAPHIC SURVEY

CORAL SEA ROAD VARIOUS CHAMBER LOCATIONS

TAX MAP KEY: (1ST DIV.) 9-1-013





Enclosure 10

Cultural Impact Assessment

(See Appendix C of this EA)

Appendix F:

Biological Survey

TECHNICAL MEMORANDUM

To: Lesley A. Matsumoto
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

From: Amanda Ehrenkrantz, Project Manager

Date: August 31, 2018

Re: **Barber's Point Utilities Renovation Biological Resources Survey / SWCA
Environmental Consultants Project No. 43212**

INTRODUCTION

SWCA Environmental Consultants (SWCA) completed a biological resources survey on O'ahu in support of the United States Coast Guard's (USCG) Barber's Point Utilities Renovation Project (project). The Proposed Action would have two options: A) use of Aloha Solar's underground-overhead 12-kilovolt (kV) transmission line along Coral Sea Road (from Roosevelt Avenue to the Aloha Solar Photovoltaic facility) and USCG development of a 0.9-mile tie-in to the Aloha Solar transmission line with a fully underground line into the Air Station Barber's Point (ASBP), or B) USCG development of a 2.7-mile fully underground transmission line along Coral Sea Road from Roosevelt Avenue into the ASBP.

Methods

Proposed Action

The Proposed Action survey area (survey area; Figure 1) was inspected in the field on November 9, 2017 (general flora/fauna surveys) and on May 9, 2018 ('akoko surveys), to inform the impact analysis required under the National Environmental Policy Act (NEPA) and Hawaii Revised Statutes (HRS) Chapter 343. The survey area consists of 60 feet on both sides of the Coral Sea Road centerline, with the northern terminus at Roosevelt Avenue and the southern terminus 40 feet west of Hamilton Road. The field crew did not stray from the Hawaii Department of Transportation (HDOT) Coral Sea Road right-of-way (ROW), and any observations made beyond the ROW were made visually and/or with the use of binoculars.

Because the proposed Aloha Solar Energy Fund II—Kalaehoa (ASEF II) project has recently completed a final environmental assessment (FEA) on a similar ROW (G70 2017), SWCA's field methods consisted of verifying that the flora and fauna of the survey area remains the same as that described by AECOM's ASEF II field surveys (G70 2017:Appendix C). SWCA also conducted a field check on the extreme southern end of the Barber's Point survey area that was not surveyed for ASEF II. This area is referred to as the "previously undescribed area" (see Figure 1).

Surveys consisted of documenting existing vegetation types and evaluating the potential for Migratory Bird Treaty Act (MBTA) birds and special-status species (plant and wildlife species listed under the Endangered Species Act [ESA] and Section HRS 195-D). One particular plant species of note is a variety of 'akoko—specifically, *Euphorbia skottsbergii* var. *skottsbergii*—which is present in reserves in the nearby Kalaehoa Heritage Park, where its population size is reportedly expanding. Live plants of this rare

species were examined in the Kalaeloa Heritage Park to get a thorough sample of its preferred habitat and morphological variability. Suitable habitat for this endangered Hawaiian taxon was then examined on foot in the portion of the survey area between San Juacinto Street and Tripoli Road.

SWCA conducted the terrestrial fauna survey from 08:45 a.m. to 11:00 a.m., when wildlife is most likely to be active. The survey consisted of documenting visual and auditory observations; visual surveys were conducted with the use of binoculars. All observed birds, mammals, reptiles, amphibians, and invertebrate species were noted during the survey. Acoustic surveys for the federally and state-listed endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) were not conducted, although areas of suitable habitat for roosting and foraging were noted during the survey.

SWCA contacted the U.S. Fish and Wildlife Service (USFWS) to prepare a list of special-status species that could occur in the area. A phone conversation was held with a USFWS representative to clarify the contents of the letter (personal communication, Aaron Nadig, USFWS, January 26, 2018). The State of Hawaii Division of Forestry and Wildlife (DOFAW) was also contacted. The letters sent by both agencies in response are included in this report as Appendix A.

RELATIONSHIP TO LAWS, REGULATIONS, PLANS, AND POLICIES

Key relevant laws, regulations, and policies that affect the development and implementation of the project are summarized below.

National Environmental Policy Act

The Proposed Action is a federal action that may affect the human environment and that therefore is subject to review under NEPA (42 USC 4321 et seq.). NEPA requires that federal agency decision-makers, in carrying out their duties, use all practicable means to create and maintain conditions under which people and nature can exist in productive harmony and fulfill the social, economic, and other needs of present and future generations of Americans. NEPA provides a mandate and a framework for federal agencies to consider all reasonably foreseeable environmental effects of their proposed actions and to involve and inform the public in the decision-making process. The act also established the Council on Environmental Quality (CEQ) in the Executive Office of the President of the United States to formulate and recommend national policies that ensure that the programs of the federal government promote improving the quality of the environment. The CEQ set forth regulations (40 CFR 1500–1508) to assist federal agencies in implementing NEPA during the planning phases of any federal action. These regulations, together with specific federal agency NEPA implementation procedures, help ensure that the environmental impacts of any proposed decisions are fully considered and that appropriate steps are taken to mitigate potential environmental impacts.

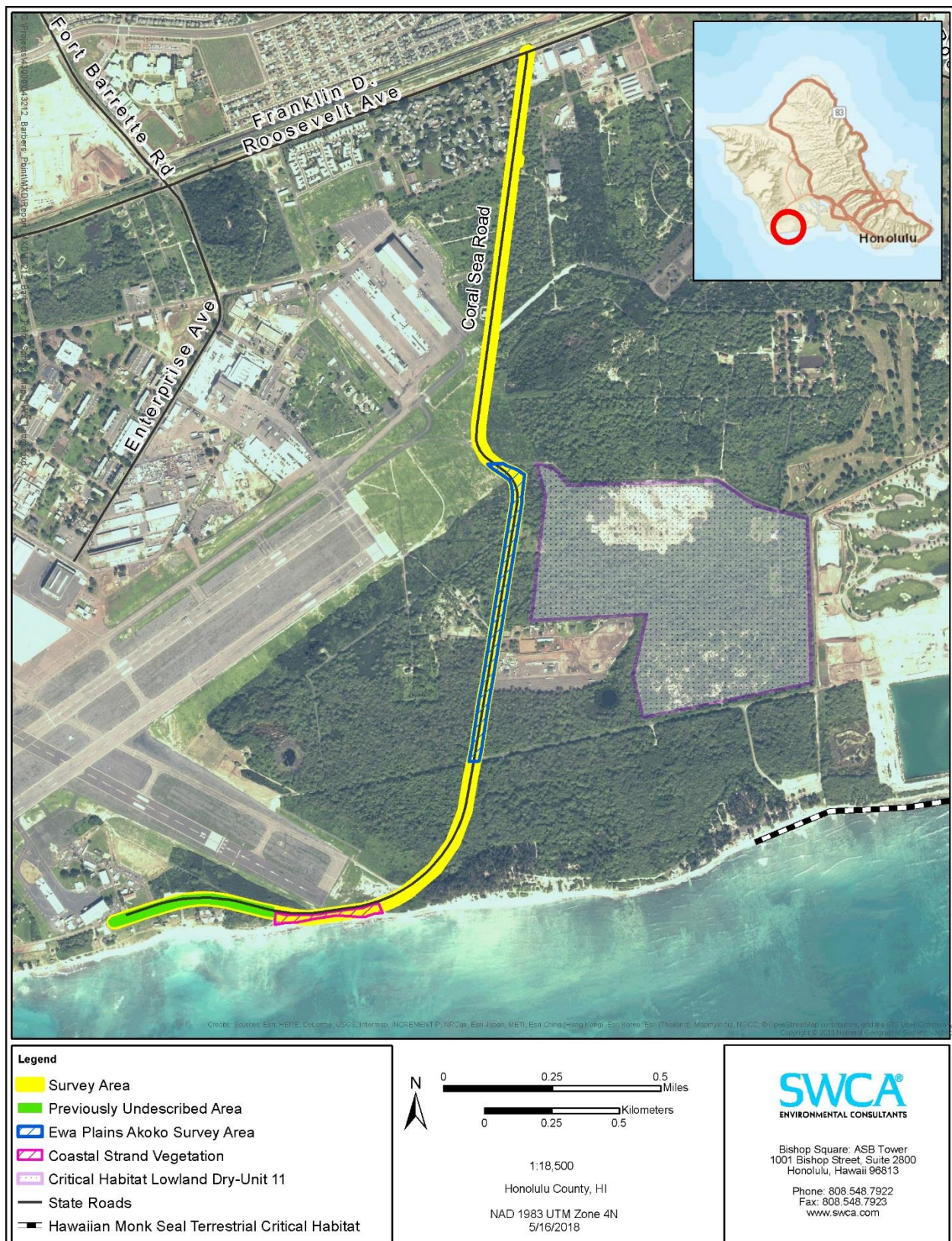


Figure 1. Barber's Point Proposed Action survey area.

Endangered Species Act

The ESA provides broad protection for plants, fish, and wildlife that have been listed as threatened or endangered in the United States or elsewhere and conserves ecosystems on which these species depend (16 USC 1531–1544). Section 9 of the ESA prohibits the unauthorized take of any endangered species of fish or wildlife listed under the ESA. *Take* means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect species listed as endangered or threatened or to attempt to engage in any such conduct (50 CFR 17.3). *Harm* has been defined by the USFWS to mean an act that actually kills or injures wildlife and may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). *Harass* has been defined to mean an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns that include but are not limited to breeding, feeding, or sheltering (50 CFR 17.3). Sections 7 and 10 of the ESA contain exceptions and exemptions to Section 9, if such taking is incidental to the carrying out of an otherwise lawful activity.

Migratory Bird Treaty Act

Nearly all native migratory birds of the United States are protected under the MBTA of 1918, as amended (16 USC 703–712 et seq.). This act states that it is unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; and possess, offer to sell or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product. *Take* is defined as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” No process for authorizing incidental take of MBTA-protected birds or for providing permits is described in the MBTA. As a result, birds that are not covered under the ESA that may be adversely affected by the proposed transmission line cannot be covered by take authorizations. Furthermore, a recent memorandum from the Department of the Interior (M-37050, December 22, 2017) concludes that the MBTA does not prohibit the incidental taking of migratory birds.

State Endangered Species Act

The purpose of Hawaii Revised Statutes (HRS) Chapter 195D (Conservation of Aquatic Life, Wildlife, and Land Plants) is “to insure the continued perpetuation of indigenous aquatic life, wildlife, and land plants, and their habitats for human enjoyment, for scientific purposes, and as members of ecosystems” (HRS 195D-1). Section 195D-4 states that any species of fish or wildlife recognized by the ESA as endangered or threatened shall be so deemed by state statute, and, like the ESA, it prohibits the unauthorized take of such endangered or threatened species (195D-4[e]). Under Section 195D-4(g), the Board of Land and Natural Resources, after consultation with the state’s Endangered Species Recovery Committee, may issue an Incidental Take License to allow a take otherwise prohibited if the take is incidental to the carrying out of an otherwise lawful activity.

AFFECTED ENVIRONMENT

Proposed Action

Results of the flora and fauna survey for the Proposed Action are described in this section. In general, SWCA’s flora survey confirmed previous findings from the ASEF II FEA. The results of SWCA’s fauna survey are consistent with the ASEF II FEA except for the finding on the Hawaiian hoary bat, which is described in more detail below.

Flora

Almost 90% of the plant species recorded in the ASEF II FEA were found again during SWCA's survey. Many of the plants not noted on this survey but noted during the ASEF II FEA field surveys are ephemeral species, meaning they have a very short, seasonal lifespan that tends to correspond with the rainy season. Species recorded during this survey are indicative of the drier conditions and other environmental factors at the time of the survey. It is possible that additional surveys conducted at a different time of the year may result in minor variations in the number of species and the abundance of plants observed.

Twenty-nine plant species were recorded for the complete species inventory of the previously undescribed area, and none of these species are native to the Hawaiian Islands (Wagner et al. 1999). Appendix B provides a list of all plant species observed by SWCA in the previously undescribed area. Special-status plant species (federally or state-listed threatened, endangered, proposed, or candidate plant species or rare native Hawaiian plant species) with the potential to occur in the study area are discussed in the Special-Status Species Section of this memorandum.

Six main vegetation types were identified in the survey area: roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, ironwood grove, coastal strand, and landscaped.

ROADSIDE

This vegetation type occurs as a narrow band along Coral Sea Road. The portions immediately adjacent to Coral Sea Road are frequently mowed and, in some places, such as at the base of power poles, may be treated with herbicide. This mowed portion of the roadside vegetation is composed of a mixture of grasses and weedy, mostly herbaceous, species.

The grasses that are common or abundant in these areas are pitted beardgrass (*Bothriochloa pertusa*), carpetgrass (*Axonopus compressus*), and buffelgrass (*Cenchrus ciliaris*). Among the more frequently observed herbaceous species are creeping indigo (*Indigofera spicata*), *Calyptocarpus vialis*, *Boerhavia coccinea*, and khaki weed (*Alternanthera pungens*).

NON-NATIVE GRASSLAND/OPEN KIAWE SHRUBLAND

This vegetation type is characterized by large, monotypic areas of non-native grasses punctuated by non-native shrub and tree species. Buffelgrass is the most abundant species in the survey area, and it forms mostly solid stands over more than 80% of this vegetation type. Trees found scattered sparsely throughout the grasslands include kiawe (*Prosopis pallida*), which makes up the majority of the overstory layer; African tulip tree (*Spathodea campanulata*); and moringa (*Moringa oleifera*). Indian fleabane (*Pluchea indica*) dominates the midstory, and the vine species hairy merremia (*Merremia aegyptia*) can occasionally be seen twining through the thick grass understory. 'Ilima (*Sida fallax*), a native species, is seen in some open grassland portions of the survey area, growing among the buffelgrass (Figure C-1).

CLOSED CANOPY KOA HAOLE/KIAWE SCRUB

This vegetation type dominates much of the survey area along Coral Sea Road. Koa haole (*Leucaena leucocephala*), 'opiuma (*Pithecellobium dulce*), and kiawe dominate the thick overstory, and buffelgrass makes up most of the understory (Figure C-2). Hairy merremia vines can be seen occasionally twining through the underbrush, and kauna'oa pehu (*Cassytha filiformis*), an indigenous parasitic species, is locally common in the canopy in some areas, where it can be found smothering all underlying vegetation. 'Ilima, kauna'oa pehu and 'uhaloa (*Waltheria indica*) were the only natives seen in this vegetation type.

IRONWOOD GROVE

An ironwood (*Casuarina equisetifolia*) grove was observed at Kalaeloa Beach Park, which is located at the southeast portion of the survey area. The understory in the ironwood grove is largely devoid of vegetation and covered with a layer of needle litter, but clumps of pickleweed (*Batis maritima*) and Indian fleabane can be found on the ocean side of this vegetation type (Figure C-3).

COASTAL STRAND

Coastal strand vegetation occurs as a narrow strip along shorelines and is influenced by salt spray, constant wind, high light intensity, high temperature, and shifting sands (see Figure 1). As a result, the plants found here are adapted to these environmental stresses. At Barber's Point, this vegetation type is unusually depauperate of native species relative to many coastal sites in Hawai'i and consists mainly of Indian fleabane, buffelgrass, and occasional kiawe trees. The native strand species 'aki'aki grass (*Sporobolus virginicus*) and pōhuehue (*Ipomoea pes-caprae* subsp. *brasiliensis*) can occasionally be seen (Figure C-4). An effort was made to map the extent of this vegetation type due to its potential sensitivity (see Figure 1). Coastal strand vegetation occurs on approximately 2.54 acres of the survey area.

LANDSCAPED

Landscaped areas at Barber's Point are located around the cabins and the entrance to the USCG Air Station and consist of mostly manicured lawns with occasional ornamental trees and shrubs. Carpetgrass is the most abundant grass in these areas. Various woody ornamentals are present adjacent to facilities, such as oleander (*Nerium oleander*), golden Eldorado (*Pseuderanthemum carruthersii* var. *carruthersii*), and sea grape (*Coccoloba uvifera*). Weedy herbaceous species are scattered throughout the lawns, including creeping indigo, *Calypocarpus vialis*, *Boerhavia coccinea*, and khaki weed (Figure C-5).

Fauna

BIRDS

Most of the bird species observed in the survey area are species commonly found in disturbed, low- to mid-elevation areas on O'ahu. In all, 16 bird species were documented, of which 14 are not native to the Hawaiian Islands and two are migrant shorebirds (Table 1). Five species are protected by the MBTA (USFWS 2017). Of these, the Pacific golden-plover (*Pluvialis fulva*) and ruddy turnstone (*Arenaria interpres*) are migrants and do not nest in Hawai'i (Johnson et al. 2010; Nettleship 2000).

Table 1. Birds Observed by SWCA in and near the Survey Area

Common Name	Scientific Name	Status	MBTA
Common myna	<i>Acridotheres tristis</i>	NN	–
Common waxbill	<i>Estrilda astrild</i>	NN	–
Gray francolin	<i>Francolinus pondicerianus</i>	NN	–
Eurasian skylark	<i>Alauda arvensis</i>	NN	X
Japanese white-eye	<i>Zosterops japonicus</i>	NN	–
House finch	<i>Haemorhous mexicanus</i>	NN	X
Northern mockingbird	<i>Mimus polyglottos</i>	NN	X
House sparrow	<i>Passer domesticus</i>	NN	–
Pacific golden-plover	<i>Pluvialis fulva</i>	M	X

Red-vented bulbul	<i>Pycnonotus cafer</i>	NN	–
Red-whiskered bulbul	<i>Pycnonotus jocosus</i>	NN	–
Red-crested cardinal	<i>Paroaria coronata</i>	NN	–
Ruddy turnstone	<i>Arenaria interpres</i>	M	X
Saffron finch	<i>Sicalis flaveola</i>	NN	–
Spotted dove	<i>Streptopelia chinensis</i>	NN	–
Zebra dove	<i>Geopelia striata</i>	NN	–
Total		16	5

Notes: M = migrant; MBTA = protected under the MBTA; NN = non-native permanent resident.

Although no nests were observed, nesting habitat for three MBTA-listed birds (Eurasian skylark, house finch, and northern mockingbird) occurs in the survey area. The Eurasian skylark typically selects bare ground in open country among grasses and forbs (Campbell et al. 1997). The house finch can use a variety of nest sites and has been documented using pine, spruce, palm, and olive trees; cacti; rock ledges; vents; ledges; ivy on buildings; street lamps; hanging planters; windowsills on high-rise buildings; abandoned nests of other birds; and cavities (Badyaev et al. 2012). The northern mockingbird nests in shrubs and trees with nest heights typically 3 to 10 feet (1 to 3 meters [m]) above the ground (Farnsworth et al. 2011).

MAMMALS

The survey area is bordered by residential areas, where it is common to find people walking their dogs (*Canis familiaris*). Other mammals observed during the pedestrian survey include goat (*Capra hircus*), cow (*Bos taurus*), feral cat (*Felis catus*), and small Indian mongoose (*Herpestes javanicus*). Although house mouse (*Mus musculus*) and rat (*Rattus* spp.) were not detected, they are likely to occur in the survey area.

REPTILES AND AMPHIBIANS

No reptiles or amphibians were detected. No terrestrial reptiles and amphibians are native to Hawai'i.

INSECTS AND OTHER INVERTEBRATES

No native insects or other invertebrates were observed during the survey. Non-native invertebrates observed include the large orange sulphur butterfly (*Phoebis agarithe*), wandering glider dragonfly (*Pantala flavescens*), and honeybee (*Apis mellifera*).

Special-Status Species

In this context, *special-status species* refers to federally or state-listed threatened, endangered, proposed, or candidate plant species or rare native Hawaiian plant species. No special-status species individuals were observed in the survey area, although no species-specific surveys were conducted.

No anchialine pools were observed during the SWCA survey. A pedestrian archaeological survey was conducted by International Archaeology on January 12 and February 28, 2018. No anchialine pools were encountered during this survey (personal communication between Lesley Matsumoto and Alex Morrison, March 14, 2018).

PLANTS

Two endangered plant species, 'ihi ihi (*Marsilea villosa*) and Ewa Plains 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*) have occurred historically in this area or are currently found nearby. 'Ihi ihi is currently only known from a few locations on the island of O'ahu (Makapu'u, 'Ihi'ihilauākea Crater, Koko Head, and Lualualei Valley) and has not been spotted in the Ewa area since the 1930s (Bernice Pauahi Bishop Museum Herbarium Pacificum 2015). Because this species requires low-lying ephemeral pools in order to grow, it is unlikely to be found in the survey area, which is largely dominated by monotypic stands of buffelgrass, koa haole, and other invasive species.

The Ewa Plains 'akoko was not detected by the ASEF II, nor was it detected during the SWCA field surveys. However, it is known to occur in the nearby Critical Habitat Lowland Dry-Unit 11 (see Figure 1) and has recently been out-planted in the Kalaeloa Heritage Park, just west of the project (personal communication, Aaron Nadig, USFWS, January 26, 2018). For these reasons, there is a slight potential for it to occur in the study area on the uplifted karst geology, especially in the area between San Juacinto Street and Tripoli Road. This specific region of the survey area was examined on May 9, 2018, with a particular emphasis on locating any individuals of the Ewa Plains 'akoko. Although it was reportedly actively spreading in the Kalaeloa Heritage Park, including into areas dominated by buffelgrass, it was not located in the survey area. The growing requirements of this species are not demanding, and it is frequently mistaken for more common, weedy *Euphorbia* species (Eickhoff 2009).

WILDLIFE

Table 2 lists special-status fauna with the potential to occur in and/or transit the survey area. Although avoidance and recommendation measures are provided for all species, only those with the potential to breed or forage in the study area are discussed in further detail in this section.

Table 2. Special-Status Fauna with the Potential to Occur in the Study Area

Species	Status*	Habitat	Potential to Occur
Hawaiian waterbirds: Hawaiian stilt (<i>Himantopus mexicanus knudseni</i>), Hawaiian gallinule (<i>Gallinula galeata sandvicensis</i>), Hawaiian coot (<i>Fulica alai</i>), and Hawaiian duck (<i>Anas wyvilliana</i>)	FE; SE; MBTA	These waterbirds are found in fresh and brackish-water marshes and natural or manmade ponds. Hawaiian stilts may also be found wherever ephemeral or persistent standing water may occur.	During the field survey, SWCA noted a lack of appropriate habitat for these species in the study area and has concluded that the only impacts to these species would occur should they be transiting through the study area.
Hawaiian goose (<i>Branta sandvicensis</i>)	FE; SE; MBTA	Hawaiian geese occupy various habitat types ranging from beach strand, shrubland, and grassland to lava rock at elevations ranging from coastal lowlands to alpine areas (Banko 1988; Banko et al. 1999).	Although due to a very small island-wide population, it is unlikely the Hawaiian goose would occur in the study area; suitable habitat for nesting and foraging was noted during the survey.
Hawaiian short-eared owl (<i>Asio flammeus sandwichensis</i>)	SE on Oahu; MBTA	The Hawaiian short-eared owl occurs in a variety of habitats, including wet and dry forests, grasslands, and shrublands (Mitchell et al. 2005).	The Hawaiian short-eared owl was not observed during the field survey; however, suitable habitat for nesting and foraging was noted during the survey.
White tern (<i>Gygis alba</i>)	ST; MBTA	On O'ahu, white terns most commonly nest in trees, such as banyan (<i>Ficus</i> spp.), monkeypod (<i>Samanea saman</i>), mahogany (<i>Swietenia mahagoni</i>), and kukui (<i>Aleurites moluccana</i>) (Vanderwerf 2003).	The white tern was not observed during the surveys; however, the ASEF II FEA documented it in the area (G70 2017).

Seabirds:			These seabirds nest in high-elevation habitat and forage daily in the ocean.
Newell's shearwater (<i>Puffinus auricularis</i>)	FT; ST; MBTA		
Hawaiian petrel (<i>Pterodroma sandwichensis</i>)	FE; SE; MBTA		
Band-rumped storm-petrel (<i>Oceanodroma castro</i>)	FE; SE; MBTA		
Wedge-tailed shearwater (<i>Ardenna pacifica</i>)	MBTA		
Hawaiian hoary bat	FE; SE	Hawaiian hoary bats are known to occur on O'ahu in native, non-native, agricultural, and developed landscapes (USDA 2009; USFWS 1998). Hawaiian hoary bats forage in open, wooded, and linear habitats with a wide range of vegetation types.	This species could roost in study area trees and forage in all study area vegetation types.
Hawaiian monk seal and sea turtles	FE; SE	These primarily marine species haul out on beaches to rest.	Because approximately 2.54 acres of the survey area is coastal strand vegetation, there is a slight potential for sea turtles and Hawaiian monk seals to haul up on the nearby beach.

Notes: FE = federally endangered; FT = federally threatened; MBTA = protected under the MBTA; SE = state endangered; ST = state threatened.

Hawaiian Goose

The Hawaiian goose is adapted to a terrestrial and largely non-migratory lifestyle in the Hawaiian Islands, with negligible dependence on freshwater habitat. The Hawaiian goose is capable of both inter-island and high-altitude flight (Banko et al. 1999; Miller 1937). Hawaiian goose were first observed on O'ahu in 2014 where they nested and produced offspring in 2014 at James Campbell NWR. They are known to travel between Mililani (Agriculture Park and local golf course) and James Campbell NWR and Turtle Bay Resort on the North shore of O'ahu and have rarely been seen in southern O'ahu.

Hawaiian goose occupy various habitat types ranging from beach strand, shrubland, and grassland to lava rock at elevations ranging from coastal lowlands to alpine areas (Banko 1988; Banko et al. 1999). The geese eat plant material, and the composition of their diet depends largely on the vegetative composition of their surrounding habitats. Most Hawaiian goose food items are leaves and seeds of grasses and sedges, leaves and flowers of various herbaceous composites, and various fruits of several species of shrubs (Black et al. 1994; Banko et al. 1999). They appear to be opportunistic in their choice of food plants as long as the plants meet their nutritional demands (Banko et al. 1999; Woog and Black 2001).

Although it is unlikely the Hawaiian goose would occur in the study area, suitable habitat for nesting and foraging was noted during the survey. The roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, ironwood grove, coastal strand, and landscaped vegetation types are suitable for Hawaiian goose foraging. The Hawaiian goose has been observed nesting under ironwood, and Christmas berry, and could nest in the roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, ironwood grove, coastal strand, and landscaped vegetation types in the survey area.

Hawaiian Short-Eared Owl

The Hawaiian short-eared owl is found throughout the main Hawaiian Islands from sea level to 8,000 feet. This species is listed by the state as endangered on O'ahu. The Hawaiian short-eared owl is active

during the day and occurs in a variety of habitats, including wet and dry forests, grasslands, and shrublands (Mitchell et al. 2005). Its diet consists of small mammals and birds (Holt and Leasure 2006).

Little is known about the breeding biology of the Hawaiian short-eared owl, but nesting occurs throughout the year (USFWS 2013). Nests are made on the ground and are lined with grasses and feathers. Females perform all incubating and brooding while the males feed the females and defend the nests. Chicks hatch asynchronously and are fed by the female with food delivered by the male. Young may fledge from the nest before they are able to fly and are dependent on their parents for approximately 2 months (Mitchell et al. 2005; USFWS 2013).

Threats to the Hawaiian short-eared owl include predation by introduced mammalian predators, loss of habitat, disease, toxins, and collisions with motor vehicles (Mitchell et al. 2005). Short-eared owls are also known to become entangled in barbed wire (Holt and Leasure 2006).

The Hawaiian short-eared owl was not observed during the field survey; however, suitable habitat for nesting and foraging was noted during the survey. The roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, coastal strand, and landscaped vegetation types are suitable for Hawaiian short-eared owl foraging, and the non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub vegetation types provide suitable nesting habitat.

White Tern

The white tern was not observed during the surveys; however, the ASEF II FEA documented it in the area (G70 2017). This species is indigenous, state-listed as threatened, and protected under the MBTA. On O'ahu, white terns most commonly nest in trees, such as banyan (*Ficus* spp.), monkeypod, mahogany, and kukui, although other species have also been used for nesting and roosting (Vanderwerf 2003). White terns were not specifically observed nesting in the survey area, but suitable nest trees, such as ironwood, are present.

The white tern lays eggs directly on branches; therefore, eggs and flightless chicks may be vulnerable to displacement and fatality due to tree trimming and removal activities (Vanderwerf 2003). The white tern nests year-round but decreases its egg production in the fall and early winter months.

Hawaiian Hoary Bat

The endangered Hawaiian hoary bat is the only native terrestrial mammal species that is still extant within the Hawaiian Islands (USFWS 1998). Hawaiian hoary bats are known to occur on O'ahu in native, non-native, agricultural, and developed landscapes (USDA 2009; USFWS 1998). Hawaiian hoary bats forage in open, wooded, and linear habitats with a wide range of vegetation types. These animals are insectivores and are regularly observed foraging over streams, reservoirs, and wetlands up to 300 feet (100 m) offshore (USDA 2009). Hawaiian hoary bats typically roost in trees greater than 16 feet (5 m) with dense canopy foliage (or in the subcanopy when canopy is sparse), with open access for launching into flight (Gorresen et al. 2013; USDA 2009).

The potential for the presence of Hawaiian hoary bat was assessed based on the presence of suitable habitat and vegetation types. Hawaiian hoary bats typically roost in dense canopy foliage (or in the subcanopy when canopy is sparse) with open access for launching into flight (USDA 2009).

SWCA does not fully agree with statements made in the ASEF II FEA regarding the potential for the presence of Hawaiian hoary bat. The ASEF II FEA (G70 2017, page 18) states, "Given the paucity of documented records of this species from the 'Ewa Plain, the chance that this species utilizes resources on the subject property is extremely low (David 2017; USFWS 1998). Additionally, the only tall trees on the

site are kiawe, a species not usually identified as a bat roosting tree due to its scant leaf cover and arched branching pattern. Very few trees occur close to the road along the transmission line route.” Hawaiian hoary bats have been documented roosting in kiawe and ironwood trees (First Wind Energy 2014; Mitchell et al. 2005) and could roost in these trees in the non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, coastal strand, and ironwood grove vegetation types within the survey area. Other trees in the survey area also possess characteristics of roosting trees, and although not yet documented as Hawaiian hoary bat roost trees, they could be used as a day or night roost when bats are present. This statement is corroborated by the DOFAW in Appendix A.

Critical Habitat

No critical habitat would be impacted by the proposed action. The critical habitat units nearest to the project are described in this section.

The Critical Habitat Lowland Dry-Unit 11 is located approximately 100 yards to the east of the survey area and would be avoided by the Proposed Action (see Figure 1). This unit encompasses 166 acres and provides habitat for the Ewa Plains ‘akoko (described above). It is designated unoccupied habitat for *Achyranthes splendens* var. *rotundata*, ko‘oko‘olau (*Bidens amplexans*), *Bonamia menziesii*, ‘akoko (*Euphorbia celastroides* var. *kaenana*), *Euphorbia haelealeana*, *Gouania meyenii*, *Gouania vitifolia*, ma‘o hau hele (*Hibiscus brackenridgei*), wahine noho kula (*Isodendrion pyriformis*), nehe (*Melanthera tenuifolia*), *Neraudia angulata*, kulu‘i (*Nototrichium humile*), *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

Hawaiian monk seal (*Neomonachus schauinslandi*) critical habitat is parsed into marine and terrestrial habitat, both of which would be avoided by the Proposed Action. The closest marine Hawaiian monk seal critical habitat occurs approximately 1,706 feet (520 m) to the south of the southwestern border of the survey area. The closest terrestrial Hawaiian monk seal critical habitat occurs approximately 4,610 feet (1,405 m) east of the southeastern border of the survey area. Hawaiian monk seal critical habitat would be avoided by the Proposed Action.

AVOIDANCE AND MINIMIZATION MEASURES

The following avoidance and mitigation measures to reduce or eliminate project-related impacts and to avoid adverse effects to listed species will be implemented as part of the project.

‘Akoko

- Recommended standard best management practices listed by the USFWS (Appendix A) will be followed to avoid the transportation of sediment into the Critical Habitat Lowland Dry-Unit 11.
- USCG will conduct a preconstruction survey on the determined route between San Jacinto Street and Tripoli Road to ensure no ‘akoko have dispersed into the ROW since the May 2018 survey. This survey will be done during the wet season (November–April) immediately prior to beginning construction. The USFWS will be contacted if ‘akoko individuals are found.

Migratory Birds

- Three days prior to tree removal, a qualified biologist will conduct a nest search for the MBTA-protected species in any trees slated for removal. If active nests are found they will be protected in place until the chicks fledge.

Hawaiian Waterbirds

- In areas where waterbirds are known to be present (i.e., near fresh and brackish water marshes and natural or manmade ponds), reduced speed limits will be posted and implemented and project personnel and contractors will be educated about the potential for birds on-site.

Hawaiian Goose

- Hawaiian geese will not be approached, fed, or disturbed.
- If loafing or foraging Hawaiian geese are observed by on-site personnel within the project area during the breeding season (September through April), a biologist familiar with the nesting behavior of the species will survey for nests in and around the project area prior to the resumption of any work. Surveys would be repeated after any subsequent delay of work of three or more days (during which the birds may attempt to nest).
- All work will cease immediately and the USFWS contacted for further guidance if a nest is discovered within a radius of 150 feet of proposed work or a previously undiscovered nest is found within said radius after work begins.
- In areas where Hawaiian geese are known to be present, reduced speed limits would be posted and implemented and project personnel and contractors informed about the presence of an endangered species on site.

Hawaiian Short-Eared Owl

- Barbed wire fencing will not be used.
- Preconstruction twilight surveys for Hawaiian short-eared owl will take place in the following vegetation cover types prior to clearing vegetation: non-native grassland/open kiawe shrubland and closed canopy koa haole/kiawe scrub.
- If nests are present, DOFAW staff will be notified and a buffer zone will be established in which no clearing would occur until nesting ceases and chicks have fledged.

White Tern

- Tree removal and trimming will be conducted in the fall and early winter months, when white tern breeding is at its lowest (Vanderwerf 2003).
- All trees slated for removal will be inspected for white tern eggs or chicks before trees are removed. If a white tern nest or chick is found, the tree will not be trimmed or removed until the chick has fledged.

Seabirds

- Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

Hawaiian Hoary Bat

- Barbed wire fencing will not be used.
- No trees taller than 15 feet (4.6 m) will be trimmed or removed as a result of this project between June 1 and September 15, when juvenile bats that are not yet capable of flying may be roosting in the trees.

Hawaiian Monk Seal and Sea Turtles

- All regular on-site staff working in coastal strand vegetation will be trained to identify the Hawaiian monk seal and sea turtles and will be trained on appropriate steps to take if these species are present on-site.
- Construction activities will not take place if a Hawaiian monk seal or sea turtle is in the construction area or within 150 feet (46 m) of the construction area. Construction will only restart after the animal voluntarily leaves the area. If a monk seal/pup pair is present, a minimum 300-foot (91-m) buffer will be observed. If a Hawaiian monk seal or sea turtle is noticed after work has already begun, that work may continue only if, in the best judgment of the project's qualified biological monitor, there is no way for the activity to adversely affect the animal(s).
- When working in the coastal strand vegetation type, any construction-related debris that may pose an entanglement threat to Hawaiian monk seals and sea turtles will be removed from the construction area at the end of each day and at the conclusion of the construction project.
- Workers will not attempt to feed, touch, ride, or otherwise intentionally interact with any listed species.

Anchialine Pools

- Anchialine pools will be avoided if any are encountered during the survey and implementation of the project. No anchialine pools were identified during field surveys.

ENVIRONMENTAL CONSEQUENCES

The following section describes environmental consequences that are likely to occur due to implementation of the Proposed Action (Options A and B). The avoidance and minimization measures listed above would be implemented with the project, and so the environmental consequences are analyzed post-implementation of these measures.

Proposed Action

No listed, proposed, or candidate endangered or threatened plant species were found within the survey area. Critical Habitat Lowland Dry-Unit 11 borders the project corridor. By limiting construction activities to the planned area and following the applicable avoidance and minimization measures, any impacts to the Ewa Plains 'akoko plants and their protected habitat areas would be minimized.

Construction

OPTION A

Option A consists of a 0.9-mile fully underground line between the ASBP and the proposed new solar power facility.

The plant and wildlife habitats in the study area have been highly modified by humans and are now largely occupied by alien flora and fauna. During construction of the underground transmission line, a portion of the flora in the ROW would be removed and an additional portion would be crushed when staging equipment on the road verge. However, because a majority of the vegetation consists of alien species, this impact would be discountable. There is no potential for impacts to the Ewa Plains 'akoko under this option because potential habitat for the species does not occur south of Tripoli Road.

Removal of kiawe trees, if necessary, would take place outside of the bat breeding season (as described in the Avoidance and Minimization Measures Section), so no bat mortality would occur; however, tree removal would reduce the bat roosting habitat available in the area and displace individual bats. Because bats use multiple roosts within their territories, the potential for long-term disturbance from vegetation removal is likely to be minimal. In the short term, the human noise and disturbance associated with construction activities could temporarily displace bats from roosting and/or foraging habitats. This displacement could alter an individual's typical foraging and roosting patterns, forcing it to expend energy to search for new foraging and roosting locations. Displacement from roosting habitat could lead to increased predation on individual bats—especially if a bat is forced to leave its roost during daylight hours, making it more visible to potential predators. The potential for these impacts is low, considering that the project would occur on and immediately adjacent to a highly traveled roadway, and therefore the bats present would already be accustomed to high levels of background noise. Furthermore, high-quality roosting and foraging areas occur in the vicinity of the study area, into which bats could be displaced.

Tree and shrub removal would also reduce the amount of nesting habitat available for birds, including MBTA-protected species and the white tern. However, by following the avoidance and minimization measure to survey for active nests and protect them in place until chicks have fledged, no adult, chick, or egg fatalities would occur as a result of this project.

Hawaiian waterbirds, seabirds, and the Hawaiian short-eared owl could transit through the study area. Also, the Hawaiian monk seal and sea turtles could haul out in the Coastal Strand habitat. Adherence to applicable avoidance and minimization measures would ensure that no short- or long-term impacts to these species.

OPTION B

Construction impacts resulting from Option B would be identical to those described for Option A except they would take place along 2.7 miles of the ROW instead of 0.9 mile underground. Implementation of this option would be unlikely to affect 'akoko because no individuals were found within the HDOT ROW during the May 2018 survey and through implementation of the associated avoidance and minimization measures.

Operations

OPTIONS A AND B

There would be minimal operational impacts under either option of the Proposed Action. The flora would be allowed to regrow and, as such, the wildlife habitat would also be restored. Maintenance actions may occasionally disturb some vegetation and produce human noise and activity, but these disturbances would be minor and temporary.

No Action

Under the No Action Alternative, resources would remain as they currently are, and no impacts would occur.

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APPENDIX A

Letters from U.S. Fish and Wildlife Service and Division of Forestry and Wildlife

Mr. James Breeden

3



United States Department of the Interior



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

In Reply Refer To:
2018-SL-0056

DEC 11 2017

James Breeden
SWCA Environmental Consultants
Bishop Square ASB Tower
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Honolulu, HI 96813

Subject: Species List for the Proposed Barbers Point Utilities Renovation Project, O'ahu, Hawai'i

Dear Mr. Breeden:

The U. S Fish and Wildlife Service (Service) received your letter on behalf of AECOM and the U.S. Coast Guard (USCG) on November 15, 2017, requesting a list of federally threatened and endangered species, candidate species, proposed species, plant and animals of concern, and critical habitat in the vicinity of the proposed Barbers Point Utilities Renovation Project (Project), O'ahu, Hawai'i. The USCG also requested guidance for measures to reduce impacts to these species and habitats.

The Project is located at Barbers Point, on Coral Sea Road on the Island of O'ahu, Hawai'i. The proposed action will have two options: 1) use of Aloha Solar's underground-overhead 12 kV transmission line along the Coral Sea Road (from Roosevelt Avenue to Aloha Solar PV facility) and USCG development of a tie-in to the Aloha Solar transmission line with a fully underground line into Air Station Barbers Point (ASBP), and 2) USCG development of a fully underground transmission line along Coral Sea Road from Roosevelt Avenue into ASBP.

We have reviewed the information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program as it pertains to listed species and designated critical habitat in accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*) and Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. 703-712). We offer the following list of species and recommendations to reduce impacts to these species and habitats.

Our data indicate that the federally threatened Newell's shearwater (*Puffinus auricularis newellii*), endangered Hawaiian petrel (*Pterodroma sandwichensis*), endangered band-rumped storm-petrel (*Oceanodroma castro*), and wedge-tailed shearwater (*Ardenna pacificus*), a species

protected under the MBTA (hereafter collectively referred to as Hawaiian seabirds); the endangered Hawaiian stilt (*Himantopus mexicanus knudseni*), endangered Hawaiian gallinule (*Gallinula galeata sandvicensis*), endangered Hawaiian coot (*Fulica alai*), and endangered Hawaiian duck (*Anas wyvilliana*) (collectively referred to as Hawaiian waterbirds); and the endangered Hawaiian goose (*Branta sandvicensis*), could occur and/or transit the area and be impacted by components of your project. The federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) may forage and roost in the project area. The project area also has a high concentration of unique limestone anchialine pools, supporting anchialine shrimp - the 'at risk' 'opae ula (*Halocaridina rubra*).

Oahu-Lowland Dry-Unit 11 critical habitat is approximately 100 yards to the east of the proposed Coral Sea Road project, between San Juacinto Street and 50 yards north of Long Island Street. Critical habitat is the scientifically calculated land area within the range of one or more species that is essential to the conservation of the species by providing the physical and biological features necessary for the expansion of the existing wild population. Unit 11 is last remaining site of the Ewa Plains 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*) and is designated unoccupied critical habitat for another 16 endangered plants (*Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Euphorbia celastroides* var. *kaenana*, *Euphorbia haeleeleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendrion pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*). Avoidance of all construction and ground disturbance is required to avoid an adverse modification of this critical habitat unit.

Hawaiian seabirds

Hawaiian seabirds may traverse the project area at night during the breeding season (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable.

To avoid and minimize potential project impacts to seabirds we recommend you consider incorporating the following applicable measures into your project description:

- Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

Hawaiian waterbirds

Listed Hawaiian waterbirds are found in fresh and brackish-water marshes and natural or man-made ponds. Hawaiian stilts may also be found wherever ephemeral or persistent standing water may occur. Threats to these species include non-native predators, habitat loss, and habitat degradation. Hawaiian ducks are also subject to threats from hybridization with introduced mallards. To avoid and minimize potential impacts to Hawaiian waterbirds we recommend you consider incorporating the following applicable measures into your project description:

- In areas where waterbirds are known to be present, post and implement reduced speed limits and educate project personnel and contractors about the potential for birds on-site.
- Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within three days of project initiation and after any subsequent delay of work of three or more days (during which the birds may attempt to nest). If a nest or active brood is found:
 - Contact the Service within 48 hours for further guidance.
 - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.
 - Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.

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Hawaiian geese are found on the islands of Hawai'i, Maui, Moloka'i, and Kaua'i predominately, with a small population on O'ahu. They are observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands, shrublands, and lava flows. Threats to the species include introduced mammalian and avian predators, wind facilities, and vehicle strikes.

To avoid and minimize potential project impacts to Hawaiian geese we recommend you consider incorporating the following applicable measures into your project description:

- Do not approach, feed, or disturb Hawaiian geese.
- If Hawaiian geese are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with the nesting behavior of the Hawaiian goose survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of three or more days (during which the birds may attempt to nest).
- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed work, or a previously undiscovered nest is found within said radius after work begins.
- In areas where Hawaiian geese are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

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The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away. Additionally, Hawaiian hoary bats forage for insects from as low as three feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To avoid and minimize impacts to the endangered Hawaiian hoary bat we recommend you consider incorporating the following applicable measures into your project description:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
- Do not use barbed wire for fencing.

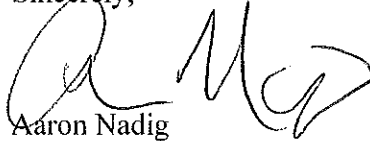
Anchialine Pools

There are numerous anchialine pools surrounding the proposed project area. The Service recommends having an anchialine pool biologist assist with planning the proposed project to ensure that the integrity of any existing pools and species within them are not compromised (e.g., filled in, crushed, etc.) by the proposed activities.

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

We hope this information assists you in consultations for the proposed Barbers Point Utilities Renovation Project. If you determine the project may affect federally listed species or Critical Habitat Unit 11, we recommend you contact our office early in the planning process so that we may assist you with ESA compliance. If you have any questions regarding this letter, please contact Vickie Caraway, Fish and Wildlife Botanist (phone: 808-792-9400; email: vickie_caraway@fws.gov). When referring to this project, please include this reference number: 01EPIF00-2018-SL-0056.

Sincerely,



Aaron Nadig

Island Team Manager

O'ahu, Kaua'i, Northwestern Hawaiian Islands, and
American Samoa

Enclosure: Service BMPs for erosion and sediment control

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

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

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

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

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

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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

U.S. Coast Guard Facilities Design & Construction Center
Attn. Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215

November 9, 2017

Dear Mr. Hylton,

The Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the development of an Environmental Assessment for the proposed electrical and telecommunication improvements for the U.S. Coast Guard Air Station Barbers Point located in Kalaeloa, O'ahu, Hawai'i. The Division has prepared the following comments. The proposed action would include replacement of the aging Navy 4.160kV underground electrical distribution system to include a new 12kV underground distribution system along Coral Sea Road.

DOFAW strongly recommends surveying for rare and endangered plants that historically occur in the area such as 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*), and 'ihi ihi (*Marsilea villosa*).

The State and Federally listed Hawaiian hoary bat or 'Ōpe'ape'a (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the proposed project. Hawaiian hoary bats roost in both exotic and native trees. DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. Hawaiian hoary bats roost in both exotic and native trees. If any trees are planned for removal during the bat breeding season there is a risk of injury or mortality to juvenile bats. To minimize the potential for impacts to this species, site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats; woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).

The state endangered Hawaiian short-eared owl or Pueo (*Asio flammeus sandwichensis*) has the potential to occur in the project vicinity site. Pueo are a crepuscular species, most active during dawn and dusk twilights. DOFAW recommends twilight pre-construction surveys prior to clearing vegetation. If Pueo nests are present, a buffer zone should be established in which no clearing occurs until nesting ceases and notify DOFAW staff.

Finally, we note that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting or construction is required, DOFAW recommends that any lights used be fully shielded to minimize impacts.

We appreciate your efforts to work with our office for the conservation of native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Katherine Cullison, Conservation Initiatives Coordinator at (808)587-4148 or Katherine.cullison@hawaii.gov.

Sincerely,



James Cogswell
Wildlife Program Manager

APPENDIX B

Plant List

Table B-1. Plants Observed in the Previously Undescribed Southern Terminus of the Survey Site

Family	Scientific Name and Authorship	Common Name	Status
Dicots			
Acanthaceae	<i>Asystasia gangetica</i> (L.) T. Anderson	Chinese violet, coromandel	X
Acanthaceae	<i>Barleria repens</i> Nees		X
Acanthaceae	<i>Pseuderanthemum carruthersii</i> (Seeman) Guillaumin		X*
Amaranthaceae	<i>Alternanthera pungens</i> Kunth	khaki weed	X
Amaranthaceae	<i>Amaranthus viridis</i> L.	slender amaranth, pakai, 'āheahea, pākaikai, pakapakai (Ni'ihau)	X
Anacardiaceae	<i>Schinus terebinthifolius</i> Raddi	Christmas berry, wilelaiki, nani o Hilo (Moloka'i)	X
Apocynaceae	<i>Nerium oleander</i> L.		X
Asteraceae	<i>Calyptracarpus vialis</i> Less.		X
Asteraceae	<i>Tridax procumbens</i> L.	coat buttons	X
Boraginaceae	<i>Heliotropium procumbens</i> var. <i>depressum</i> (Cham.) Fosberg		X
Convolvulaceae	<i>Ipomoea obscura</i> (L.) Ker Gawl.	morning glory	X
Euphorbiaceae	<i>Euphorbia hirta</i> L.	hairy spurge, garden spurge, koko kahiki	X
Euphorbiaceae	<i>Euphorbia prostrata</i> Aiton	prostrate spurge	X
Fabaceae	<i>Indigofera spicata</i> Forssk.	creeping indigo	X
Fabaceae	<i>Leucaena leucocephala</i> (Lam.) de Wit	koa haole	X
Malvaceae	<i>Malva parviflora</i> L.	cheese weed	X
Malvaceae	<i>Malvastrum coromandelianum</i> subsp. <i>coromandelianum</i>	false mallow	X
Malvaceae	<i>Sida ciliaris</i> L.		X
Nyctaginaceae	<i>Boerhavia coccinea</i> Mill.		X
Nyctaginaceae	<i>Bougainvillea spectabilis</i> Willd.	bougainvillea	X*
Polygonaceae	<i>Coccoloba uvifera</i> (L.) L.	sea grape	X
Portulacaceae	<i>Portulaca oleracea</i> L.	pigweed, 'ākulikuli kula, 'ākulikuli lau li'i, 'ihi	X
Monocots			
Poaceae	<i>Axonopus compressus</i> (Sw.) P. Beauv.		X
Poaceae	<i>Bothriochloa pertusa</i> (L.) A. Camus	pitted beardgrass	X
Poaceae	<i>Cenchrus ciliaris</i> L.	buffelgrass	X
Poaceae	<i>Chloris barbata</i> Sw.	swollen fingergrass, mau'u lei	X
Poaceae	<i>Eleusine indica</i> (L.) Gaertn.	wiregrass, mānienie ali'i	X
Poaceae	<i>Paspalum vaginatum</i> Sw.	seashore paspalum	X
Poaceae	<i>Setaria verticillata</i> (L.) P. Beauv.	bristly foxtail, mau'u pilipili	X

Source: The taxonomy and nomenclature used in this table are in accordance with Wagner et al. (1999), Wagner and Herbst (2003), and Staples and Herbst (2005). Recent name changes are those recorded in Wagner et al. (2012).

Notes: X = non-native, X* = non-native cultivated.

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APPENDIX C

Photographs of Vegetation Types



Figure C-1. Non-native grassland/open kiawe shrubland.



Figure C-2. Closed canopy koa haole/kiawe scrub.



Figure C-3. Ironwood grove.



Figure C-4. Coastal strand.



Figure C-5. Landscaped.

Appendix G:
ESA Section 7 Consultations

Appendix G-1:
ESA Section 7 – Initial Letters

Mr. James Breeden

3



United States Department of the Interior



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

In Reply Refer To:
2018-SL-0056

DEC 11 2017

James Breeden
SWCA Environmental Consultants
Bishop Square ASB Tower
1001 Bishop Street, Suite 2800
Honolulu, HI 96813

Subject: Species List for the Proposed Barbers Point Utilities Renovation Project, O'ahu,
Hawai'i

Dear Mr. Breeden:

The U. S Fish and Wildlife Service (Service) received your letter on behalf of AECOM and the U.S. Coast Guard (USCG) on November 15, 2017, requesting a list of federally threatened and endangered species, candidate species, proposed species, plant and animals of concern, and critical habitat in the vicinity of the proposed Barbers Point Utilities Renovation Project (Project), O'ahu, Hawai'i. The USCG also requested guidance for measures to reduce impacts to these species and habitats.

The Project is located at Barbers Point, on Coral Sea Road on the Island of O'ahu, Hawai'i. The proposed action will have two options: 1) use of Aloha Solar's underground-overhead 12 kV transmission line along the Coral Sea Road (from Roosevelt Avenue to Aloha Solar PV facility) and USCG development of a tie-in to the Aloha Solar transmission line with a fully underground line into Air Station Barbers Point (ASBP), and 2) USCG development of a fully underground transmission line along Coral Sea Road from Roosevelt Avenue into ASBP.

We have reviewed the information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program as it pertains to listed species and designated critical habitat in accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*) and Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. 703-712). We offer the following list of species and recommendations to reduce impacts to these species and habitats.

Our data indicate that the federally threatened Newell's shearwater (*Puffinus auricularis newellii*), endangered Hawaiian petrel (*Pterodroma sandwichensis*), endangered band-rumped storm-petrel (*Oceanodroma castro*), and wedge-tailed shearwater (*Ardenna pacificus*), a species

protected under the MBTA (hereafter collectively referred to as Hawaiian seabirds); the endangered Hawaiian stilt (*Himantopus mexicanus knudseni*), endangered Hawaiian gallinule (*Gallinula galeata sandvicensis*), endangered Hawaiian coot (*Fulica alai*), and endangered Hawaiian duck (*Anas wyvilliana*) (collectively referred to as Hawaiian waterbirds); and the endangered Hawaiian goose (*Branta sandvicensis*), could occur and/or transit the area and be impacted by components of your project. The federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) may forage and roost in the project area. The project area also has a high concentration of unique limestone anchialine pools, supporting anchialine shrimp - the 'at risk' 'opae ula (*Halocaridina rubra*).

Oahu-Lowland Dry-Unit 11 critical habitat is approximately 100 yards to the east of the proposed Coral Sea Road project, between San Juacinto Street and 50 yards north of Long Island Street. Critical habitat is the scientifically calculated land area within the range of one or more species that is essential to the conservation of the species by providing the physical and biological features necessary for the expansion of the existing wild population. Unit 11 is last remaining site of the Ewa Plains 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*) and is designated unoccupied critical habitat for another 16 endangered plants (*Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Euphorbia celastroides* var. *kaenana*, *Euphorbia haeleeleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendrion pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*). Avoidance of all construction and ground disturbance is required to avoid an adverse modification of this critical habitat unit.

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To avoid and minimize potential project impacts to seabirds we recommend you consider incorporating the following applicable measures into your project description:

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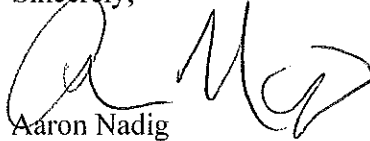
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We hope this information assists you in consultations for the proposed Barbers Point Utilities Renovation Project. If you determine the project may affect federally listed species or Critical Habitat Unit 11, we recommend you contact our office early in the planning process so that we may assist you with ESA compliance. If you have any questions regarding this letter, please contact Vickie Caraway, Fish and Wildlife Botanist (phone: 808-792-9400; email: vickie_caraway@fws.gov). When referring to this project, please include this reference number: 01EPIF00-2018-SL-0056.

Sincerely,



Aaron Nadig

Island Team Manager

O'ahu, Kaua'i, Northwestern Hawaiian Islands, and
American Samoa

Enclosure: Service BMPs for erosion and sediment control

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

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

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4. All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see <http://www.haccp-nrm.org/Wizard/default.asp>) can help to prevent attraction and introduction of non-native species.
5. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (*e.g.*, with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
6. Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.
7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

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

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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

U.S. Coast Guard Facilities Design & Construction Center
Attn. Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215

November 9, 2017

Dear Mr. Hylton,

The Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the development of an Environmental Assessment for the proposed electrical and telecommunication improvements for the U.S. Coast Guard Air Station Barbers Point located in Kalaeloa, O'ahu, Hawai'i. The Division has prepared the following comments. The proposed action would include replacement of the aging Navy 4.160kV underground electrical distribution system to include a new 12kV underground distribution system along Coral Sea Road.

DOFAW strongly recommends surveying for rare and endangered plants that historically occur in the area such as 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*), and 'ihi ihi (*Marsilea villosa*).

The State and Federally listed Hawaiian hoary bat or 'Ōpe'ape'a (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the proposed project. Hawaiian hoary bats roost in both exotic and native trees. DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. Hawaiian hoary bats roost in both exotic and native trees. If any trees are planned for removal during the bat breeding season there is a risk of injury or mortality to juvenile bats. To minimize the potential for impacts to this species, site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats; woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).

The state endangered Hawaiian short-eared owl or Pueo (*Asio flammeus sandwichensis*) has the potential to occur in the project vicinity site. Pueo are a crepuscular species, most active during dawn and dusk twilights. DOFAW recommends twilight pre-construction surveys prior to clearing vegetation. If Pueo nests are present, a buffer zone should be established in which no clearing occurs until nesting ceases and notify DOFAW staff.

Finally, we note that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting or construction is required, DOFAW recommends that any lights used be fully shielded to minimize impacts.

We appreciate your efforts to work with our office for the conservation of native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Katherine Cullison, Conservation Initiatives Coordinator at (808)587-4148 or Katherine.cullison@hawaii.gov.

Sincerely,



James Cogswell
Wildlife Program Manager

Appendix G-2:
ESA Section 7 – Determination Letters

**U.S. Department of
Homeland Security**

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road
Suite K
Norfolk, VA 23513
Phone: 757-852-3400

11000

September 18, 2018

Ms. Mary Abrams
Field Supervisor
Department of the Interior
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Box 50088
Honolulu, Hawaii 96850-5000

Dear Ms. Abrams:

The United States Coast Guard (USCG) requests informal consultation and concurrence from the U.S. Fish and Wildlife Service that the proposed Utilities Renovations for USCG Air Station Barbers Point (ASBP) in Kalaeloa, O'ahu, Hawaii, may affect but is not likely to adversely affect endangered Hawaiian goose, endangered Hawaiian hoary bat, threatened Newell's shearwater, endangered Hawaiian petrel, endangered band-rumped storm-petrel, endangered Hawaiian stilt, endangered Hawaiian moorhen, endangered Hawaiian coot, endangered Hawaiian duck, or endangered Ewa Plains 'akoko. The USCG, as a Federal agency, is requesting the USFWS's assistance and concurrence of its determination as required under Section 7(a) (2) of the Endangered Species Act (ESA).

The USCG's proposed action is needed to respond to the Navy's planned disposition of the existing aging electrical distribution system that has passed its life expectancy and has not been fully supported since the former Naval Air Station (NAS) Barbers Point was closed in 1999. Because the Navy's objective has been to divest its interest at NAS Barbers Point, the Navy has not improved the electrical distribution system and its agreement with the USCG is limited to maintenance and repair. The Navy continues to provide electrical service to the ASBP via two electrical service lines, one of which has already failed and one that runs beneath the Kalaeloa Airport. Because of access issues, the continued use of the system beneath the Airport is not possible.

Project Description

The proposed project includes replacement of the electrical distribution infrastructure servicing ASBP and includes replacing the existing substandard distribution voltage from 4.160 kV to 12.47 kV on ASBP and installing a new transmission distribution infrastructure to connect the ASBP to the HECO island-wide system. Two alternatives for the new transmission distribution infrastructure are being considered and are shown on Figure 1.

The locations of infrastructure renovations on ASBP are schematically shown on Figure 2 and would include:

- a. Replacement of all ASBP building transformers to step down 12.47 kV to (480/277V and 208/120V) and installation of HECO meters (HECO would own and maintain the electrical service up to the meters, inclusive of transformers);
- b. Replacement of the existing 4.16 kV distribution system with a 12.47 kV distribution system to meet HECO standards; and
- c. Replacement of the service feeder cables to each building main service panel.

Alternative 1

Under Alternative 1 the new transmission distribution infrastructure to supply power from the HECO grid to the ASBP would occur in the State of Hawaii Department of Transportation's (HDOT's) existing right-of-way (ROW) whose alignment is illustrated on Figure 1. Two options are included:

- a. Alternative 1 Option A presumes use of a private developer's (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility) and the Hawaiian Electric overhead grid near Roosevelt Avenue. Should Aloha Solar's proposed 12kV distribution system be developed in time to meet the USCG's schedule, the USCG (contracted to Hawaiian Electric) would install approximately 4,840 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP (Alternative 1 Option A).
- b. Alternative 1 Option B includes the use of Aloha Solar's route to install a total of approximately 14,500 feet (2.7 miles) of a 12kV combined underground and overhead distribution system between the existing Hawaiian Electric electrical manhole, just south of Roosevelt Avenue, and ASBP. This option would be used by the USCG (contracted to Hawaiian Electric) should Aloha Solar's proposed 12kV distribution system not be developed in time to meet the USCG's needs.

Vaults, manholes, equipment pads, underground pathways, transformers, and utility meters would be designed and installed to meet HECO requirements. Construction methods could include open trenching to construct concrete-encased ducts, horizontal directional drilling (HDD) to construct high-density polyethylene (HDPE) pipe casing, a combination of both, as well as the installation of poles with overhead lines where allowed by the Federal Aviation Administration. Construction would also include installation of pad-mounted transformers and electrical conduit.

Consultation History

A letter from SWCA, on behalf of the USCG and AECOM, was sent to the USFWS on November 15, 2017, requesting a list of federally threatened and endangered species, candidate species, proposed species, plant and animals of concern, and critical habitat in the vicinity of the proposed project. The letter also requested guidance for measures to reduce impacts to these species and habitats. The USFWS sent a letter responding to this request on December 11, 2017 (Letter Reference: 01EPIF00-2018-SL-0056). The letter identified the following federally

threatened and endangered species as potentially occurring in and/or transiting through the vicinity of the project area:

- a. Endangered Hawaiian goose (*Branta sandvicensis*)
- b. Endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*)

Hawaiian seabirds

- a. Threatened Newell's shearwater (*Puffinus auricularis newellii*),
- b. Endangered Hawaiian petrel (*Pterodroma sandwichensis*),
- c. Endangered band-rumped storm-petrel (*Oceanodroma castro*),

Hawaiian waterbirds

- a. Endangered Hawaiian stilt (*Himantopus mexicanus knudseni*),
- b. Endangered Hawaiian moorhen (*Gallinula galeata sandvicensis*),
- c. Endangered Hawaiian coot (*Fulica alai*),
- d. Endangered Hawaiian duck (*Anas wyvilliana*).

The letter also identifies Oahu-Lowland Dry –Unit 11 designated critical habitat as near the project sites. Unit 11 is last remaining site of the endangered Ewa Plains ‘akoko (*Euphorbia skottsbergii* var. *skottsbergii*) and is designated unoccupied critical habitat for another 16 endangered plants (*Achyranthes splendens* var. *rotunda/a*, *Bidens amplexans*, *Bonamia menziesii*, *Euphorbia celastroides* var. *kaenana*, *Euphorbia haeleeleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomeleforbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*).

USFWS recommended measures to reduce impact to these species and habitats have been incorporated into the project design and are discussed below.

Federally Threatened and Endangered Species

The following section provides information on threatened and endangered species with the potential to occur in or transit through the project site and the potential effects to those species from the proposed project.

Hawaiian Hoary Bat

The Hawaiian hoary bat, or ‘ope‘ape‘a, is only land mammal native to and endemic to the Hawaiian Islands of Hawai‘i, Maui, O‘ahu, Kaua‘i, and Moloka‘i. Population numbers are not known, but the bats are only regularly observed on the islands of Hawai‘i, Kaua‘i, and Maui (USFWS 1998). This species has been detected during acoustic surveys and captured in mist-netting surveys on O‘ahu (First Wind Energy 2014). The bat is nocturnal and insectivorous, feeding primarily on moths (Lepidoptera) and beetles (Coleoptera) (USFWS 2011a).

The Hawaiian hoary bat is a solitary bat that roosts in both native and non-native trees with no strong preference for any single species (USFWS 2011a). They typically roost in trees greater than 15 feet with dense canopy foliage, and open access for launching into flight. Bats are most often observed foraging in open areas, near the edges of native forests and over open water (USFWS 2011a). The bats forage for insects at heights ranging from as low as three feet to higher than 500 feet above the ground (USFWS 2017). When barbed wire is used for fencing, Hawaiian hoary bats can become entangled (USFWS 2017). They may fly more than 12 miles one-way in the course of a night, usually returning to their original roost site by sunrise (USFWS 2011a). While foraging young are left unattended in “nursery” trees and shrubs (USFWS 2017). The Hawaiian hoary bat breeding season is from June 1 to September 15 (USFWS 2017).

Potential Effects to Hawaiian Hoary Bat

The potential for the presence of Hawaiian hoary bat was assessed based on the presence of suitable habitat and vegetation types. Hawaiian hoary bats typically roost in dense canopy foliage (or in the subcanopy when canopy is sparse) with open access for launching into flight (USFWS 2011a). Few trees occur close to the road along the transmission line route; however, a few kiawe and ironwood trees are present along the route and in the project vicinity. While not identified as a preferred roosting tree for this species, hoary bats have been documented roosting in kiawa and ironwood trees (First Wind Energy 2014; Mitchell et al. 2005). The removal and trimming of trees could result in mortality to young hoary bats left in roost trees that cannot yet fly.

Hawaiian Goose

There are Hawaiian goose populations on the islands of Hawai‘i, Maui, Moloka‘i, and Kaua‘i (USFWS 2004). These populations have been slowly rebuilt through captive-breeding programs. In recent years a small population has established on Oah‘u (USFWS 2017).

Nene typically nest on the ground, in a shallow scrape, in the shade of dense shrubs or other vegetation. Most nesting occurs during the rainy season from October to March, with most goslings hatching during December and January; however eggs have been observed during all months of the year except May, June and July (USFWS 2004).

Nene occupy a variety of habitats and vegetation communities including, coastal dunes, non-native grasslands (such as golf courses and pastures), sparsely vegetated lava flows, native and non-native shrublands, cinder deserts, native alpine grasslands and shrublands, and open and non-native alpine shrubland-woodland community interfaces (USFWS 2004). The geese are browsing grazers feeding on berries, grass and other vegetation.

The Hawaiian goose is capable of both inter-island and high-altitude flight (Banko et al. 1999). Hawaiian geese were first observed on O‘ahu in 2014 where they nested and produced offspring at James Campbell National Wildlife Refuge (NWR). They are known to travel between Mililani (Agriculture Park and local golf course) and James Campbell NWR and Turtle Bay Resort on the North shore of O‘ahu and have rarely been seen in southern O‘ahu.

Potential Effects to Hawaiian Goose

Although it is unlikely the Hawaiian goose would occur at the project site, suitable habitat for nesting and foraging is present. The roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, ironwood grove, coastal strand, and landscaped vegetation types are suitable for Hawaiian goose foraging. The Hawaiian goose has been observed nesting under ironwood, and Christmas berry, and could nest in the roadside, non-native grassland/open kiawe shrubland, closed canopy koa haole/kiawe scrub, ironwood grove, coastal strand, and landscaped vegetation types in the project area.

Hawaiian Seabirds

Hawaiian petrels, banded-rump storm-petrels, and Newell's shearwaters nest in colonies in the mountains and cliff faces of Kaua'i, Maui, Lāna'i and Island of Hawai'i (USFWS 1983 and USFWS 2005). However, these birds have been observed flying over and may nest in the mountains of O'ahu (personal communication, Johnathon Kraska, USFWS, August 28, 2018). Therefore, these birds may fly over the project area at night during the breeding season (March 1 to December 15) (USFWS 2017).

Potential Effects to Hawaiian Seabirds

These birds fly overland between their nesting site (generally in the mountains) and their feeding grounds at sea, after dark, guided by the light of the stars and moon reflecting off the ocean. The effect of lighting, from night construction activities, on seabirds is a major concern for construction activities taking place in Hawai'i. These seabirds can be attracted to and disoriented by lights. When attracted to man-made lights, the birds, in particularly fledglings may become confused, fly into obstructions or circle the artificial light until exhausted, resulting in fallout. Once grounded these birds are vulnerable to predators and are often struck by vehicles. Fledglings flying over the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable.

Hawaiian Waterbirds

Hawaiian moorhens, Hawaiian coots, Hawaiian ducks and Hawaiian stilts use a variety of natural and manmade wetland habitats for nesting and feeding. Moorhens and coots are generally found in freshwater marshes, taro patches, lotus fields, reedy margins of waterways, reservoirs, wet pastures, and occasionally saline and brackish water areas. Ducks and stilts will use a wider range of habitats, wherever ephemeral or persistent standing water is found.

The estimated statewide population of pure Hawaiian ducks is 2,200 birds, with 2,000 on Kaua'i and 200 on Hawai'i. Hawaiian ducks and Hawaiian duck mallard hybrids occur on the islands of O'ahu (approximately 300) and Maui (approximately 50); however the majority of these birds are believed to be hybrids (2011b).

Potential Effects to Hawaiian Waterbirds

There is no suitable habitat for Hawaiian waterbirds at ASBP or along the Alternative 1 transmission line route.

Ewa Plains 'Akoko

Ewa Plains 'akoko occurred historically in this area and is currently found nearby. This species occurs in the nearby Critical Habitat Lowland Dry-Unit 11. This species has also recently been out-planted in the Kalaeloa Heritage Park, just west of the Alternative 1 alignment. Two pairs of surveys for this species were recently completed along portions of Alternative 1 alignment, along Coral Sea Road, where this species would be most likely to be encountered, given proximity to known populations. The first pair was completed on June 6, 2013, and February 17, 2017, for the Aloha Solar Energy Fund II (ASEF II) Project. The second pair was performed by SWCA for the subject project on November 9, 2017, and May 9, 2018. The Ewa Plains 'akoko was not detected in any of these surveys (the May 9, 2018, survey was conducted specifically for 'akoko in the Coral Sea Road ROW between San Jacinto and Tripoli Street).

Potential Effects to Ewa Plains 'Akoko

Because of the proximity to known population of 'akoko and because the growing requirements for this species are not demanding, there is a potential for this species to distribute into the Alternative 1 project area along Coral Sea Road ROW, between San Jacinto Street and Tripoli Street. If present along the selected alignment this species could be impacted during construction.

Proposed Avoidance and Minimization Measures

To avoid and minimize potential effect to protected species the following avoidance and minimization measure will be implemented:

Hawaiian Hoary Bat

- a. Barbed wire fencing will not be used.
- b. No trees or woody vegetation taller than 15 feet will be trimmed or removed between June 1 and September 15, when juvenile bats that are not yet able to fly may be present.

Hawaiian Goose

- a. Hawaiian geese will not be approached, fed, or disturbed.
- b. If loafing or foraging Hawaiian geese are observed by on-site personnel within the project area during the breeding season (September through April), a biologist familiar with the nesting behavior of the species will survey for nests in and around the project area prior to the resumption of any work. Surveys would be repeated after any subsequent delay of work of three or more days (during which the birds may attempt to nest).
- c. If a nest is discovered within a radius of 150 feet of proposed work or a previously undiscovered nest is found within said radius after work begins, all work will cease immediately and the USFWS will be contracted for further guidance.
- d. In areas where Hawaiian geese are known to be present, reduced speed limits would be posted and implemented and project personnel and contractors informed about the presence of an endangered species on site.

Hawaiian Seabirds

- a. No night construction is proposed.

- b. Should night construction activities be required all lights will be downward facing and fully shielded so the bulb can only be seen from below.
- c. Should night construction activities be required, they will be scheduled to avoid the seabird fledging period, September 15 to December 15.

Hawaiian Waterbirds

- a. In areas where waterbirds are known to be present (i.e., near fresh and brackish water marshes and natural or manmade ponds), reduced speed limits will be posted and implemented and project personnel and contractors will be educated about the potential for endangered waterbirds on-site.

‘Akoko

- a. If Alternative 1 Option B is implemented by USCG, a preconstruction survey for ‘akoko will be conducted along the Coral Sea Road, between San Jacinto Street and Tripoli Street, to ensure no ‘akoko have dispersed into the ROW since the May 2018 survey.

Best Management Practices

To avoid and minimize impacts to fish and wildlife resources the following applicable standard best management practices (BMPs) have been incorporated in the project:

- a. Site-specific sediment and erosion control plans and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared as required per Section 402 of the Clean Water Act (CWA). These plans will include the following BMPs:
 - 1. Soil stabilization measures, with an emphasis on minimizing and phasing ground disturbing activities, preservation of existing vegetation, implementing permanent re-stabilization of disturbed areas as soon as practical, and the uses of temporary soil stabilization measures, such as, geotextiles, plastic covers, and erosion control blankets and mats, as needed.
 - 2. Temporary sediment and perimeter control measures such as silt fences, fiber rolls, gravel and sandbag berms and storm drain inlet protections
 - 3. Tracking controls with stabilized construction ingress/egress
 - 4. Stockpile and waste management
 - 5. Spill prevention and control
 - 6. Severe storm contingency and response plan, including measures to be taken before, during and after storm events, to avoid and minimize discharges.
- b. No anchialine pools were identified during field surveys. If anchialine pools are encountered during surveys or implementation of the project, they will be designated and demarcated as an environmentally sensitive area where not work will be conducted. BMPs will be implemented to prevent construction stormwater runoff from discharging to anchialine pools.

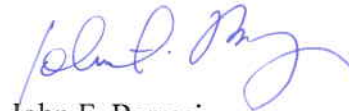
Effect Determination

With the potential effects evaluations and the implementation of avoidance and minimization measures described above, the USCG has determined that the proposed project “*may affect, but is not likely to adversely affect*” endangered Hawaiian goose, endangered Hawaiian hoary bat, threatened Newell's shearwater, endangered Hawaiian petrel, endangered band-rumped storm-petrel, endangered Hawaiian stilt, endangered Hawaiian moorhen, endangered Hawaiian coot, endangered Hawaiian duck, or endangered Ewa Plains ‘akoko.

We trust that we have provided you with the necessary information to evaluate the proposed project and respectfully request your concurrence with our determination of effect. Should you have any questions or require additional information, please contact:

Mr. Raven Smith
U.S. Coast Guard
Facilities Design and Construction Center
(Seattle Detachment)
915 2nd Ave. Room 2664
Seattle, WA 98174
Office: (206) 220-7402
Raven.j.smith@uscg.mil

Sincerely,



John F. Barresi
Captain, U.S. Coast Guard

Enclosures: (1) Literature Cited
(2) Alternative 1 Alignments
(3) ASBP Infrastructure

Copy: Aaron Nadig, Island Team Manager, USFWS

Literature Cited

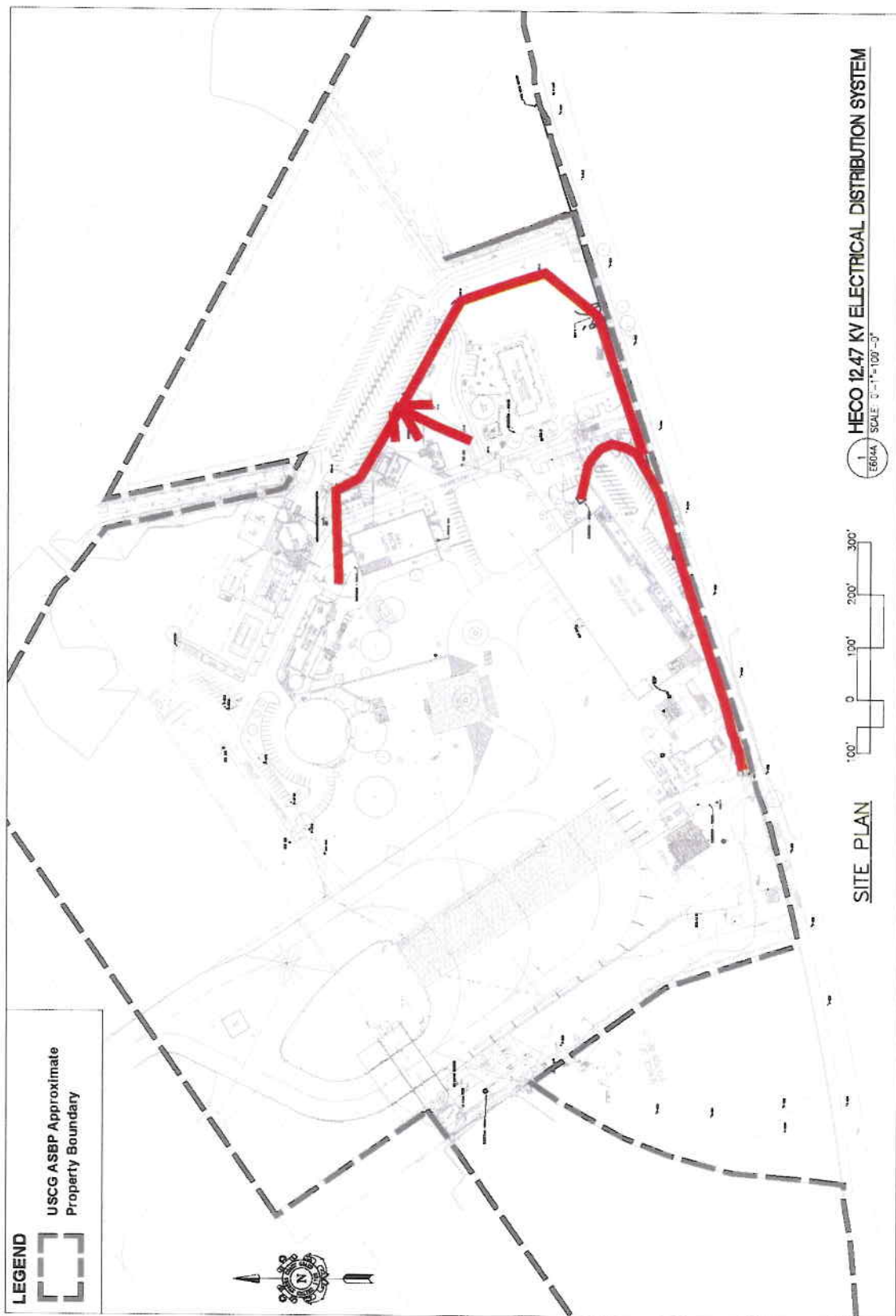
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- . 2005 Regional Seabird Conservation Plan, Pacific Region. U.S. Fish and Wildlife Service, Migratory Birds and Habitat Programs, Pacific Region, Portland, Oregon.
- . 2011a. Ope'apa'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) 5-Year Review Summary and Evaluation. Pacific Island Fish and Wildlife Office. Honolulu, HI.
- . 2011b. Recovery Plan for Hawaiian Waterbirds, Second Revision. U.S. Fish and Wildlife Service, Portland, OR.
- . 2017. Species List for the Proposed Barbers Point Utilities Renovation Project, O'ahu, Hawai'i. Dated December 11, 2017. Reference No. 01EPIF00-2018-SL-0056.

ENCLOSURE 1



Location of Undertaking
Electrical Replacements for USCG Air Station Barbers Point Kalaeloa, O'ahu, Hawai'i

ENCLOSURE 2



ENCLOSURE 3

Appendix H: Public Involvement

Appendix H-1:
Early Consultation Letters (October 2017)

**U.S. Department of
Homeland Security**
**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

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OCT 19 2017

State of Hawai'i
Department of Business, Economic Development and Tourism
State Energy Office
Ms. Carilyn Shon
Administrator
235 S. Beretania Street, 5th Floor
Honolulu, HI 96813

Dear Ms. Shon:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

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Phone: 757-852-3404
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OCT 19 2017

State of Hawai'i
Department of Business, Economic Development and Tourism
Office of Planning
Mr. Leon Asuncion
Director
235 S. Beretania St., 6th Floor
Honolulu, HI 96813

Dear Mr. Asuncion:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, . This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431

rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "PJ Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000

OCT 19 2017

State of Hawai'i, DOD
Army National Guard
Brigadier General Kenneth S. Hara
Commander
91-1227 Enterprise Avenue
Kapolei, HI 96707

Dear General Hara:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431

rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick J. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

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OCT 19 2017

State of Hawai'i, DoD
Air National Guard
Brigadier General Ryan T. Okahara
Chief of Staff and Commander
3949 Diamond Head Road
Honolulu, HI 96816

Dear General Okahara:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Captain, U. S. Coast Guard
Commanding Officer

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U.S. Department of
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OCT 19 2017

State of Hawai'i
Department of Hawaiian Home Lands
Ms. Jobie Masagatani
Director
P.O. Box 1879
Honolulu, HI 96805

Dear Ms. Masagatani:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Captain, U. S. Coast Guard
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OCT 19 2017

State of Hawai'i
Department of Health, Environmental Planning Office
Manager
919 Ala Moana Blvd., Room 312
Honolulu, HI 96814

Dear Sir or Madam:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
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Captain, U. S. Coast Guard
Commanding Officer

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OCT 19 2017

State of Hawai'i
Department of Land and Natural Resources
Division of Forestry and Wildlife
Mr. David Smith
Administrator
1151 Punchbowl St., Room 325
Honolulu, HI 96813

Dear Mr. Smith:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
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rick.d.hylton@uscg.mil

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Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
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OCT 19 2017

State of Hawai'i
Department of Land and Natural Resources
O'ahu Island Burial Council
Hinaleimoana Wong-Kalu
Chair
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Hinaleimoana Wong-Kalu:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
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Captain, U. S. Coast Guard
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Homeland Security

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OCT 19 2017

State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
Mr. Alan Downer, Ph.D.
Administrator
601 Kamokila Blvd., Rm. 555
Kapolei, HI 96707

Dear Dr. Downer:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

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Captain, U. S. Coast Guard
Commanding Officer

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OCT 19 2017

State of Hawai'i
Department of Transportation
Mr. Jade Butay
Interim Director
869 Punchbowl Street
Honolulu, HI 96813
ATTN: Statewide Transportation Planning Office (STPO)

Dear Mr. Butay:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431

rick.d.hylton@uscg.mil

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Captain, U. S. Coast Guard
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OCT 19 2017

State of Hawai'i
Department of Transportation
Highways Division, Right-of-Way Branch
Mr. Chris Yamamoto
Manager
601 Kamokila Blvd., Rm. 691
Honolulu, HI 96707

Dear Mr. Yamamoto:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
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rick.d.hylton@uscg.mil

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Captain, U. S. Coast Guard
Commanding Officer

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U.S. Department of
Homeland Security

United States
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OCT 19 2017

State of Hawai'i
Hawai'i Community Development Authority
Mr. Jesse Souki
Executive Director
547 Queen St.
Honolulu, HI 96813

Dear Mr. Souki:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
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OCT 19 2017

State of Hawai'i
Hawai'i Community Development Authority - Field Office
Ms. Tesha Malama
Kalaeloa Planning & Development Director
547 Queen St.
Honolulu, HI 96813

Dear Ms. Malama:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
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Captain, U. S. Coast Guard
Commanding Officer

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Homeland Security

United States
Coast Guard



Commanding Officer
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Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
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OCT 19 2017

Office of Hawaiian Affairs
Mr. Kamana'o pono Crabbe, Ph.D.
Chief Executive Officer
711 Kapiolani Blvd., Suite 500
Honolulu, HI 96813

Dear Dr. Crabbe:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

City and County of Honolulu
Board of Water Supply
Mr. Ernest Lau
Manager and Chief Engineer
630 S. Beretania Street
Honolulu, HI 96813

Dear Mr. Lau:

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OCT 19 2017

City and County of Honolulu
Department of Emergency Management
Mr. Melvin Kaku
Director
650 South King Street, Basement
Honolulu, HI 96813

Dear Mr. Kaku:

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OCT 19 2017

City and County of Honolulu
Department of Environmental Services
Ms. Lori Kahikina
Director
1000 Uluohia St., Ste. 308
Kapolei, HI 96707

Dear Ms. Kahikina:

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Captain, U. S. Coast Guard
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U.S. Department of
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United States
Coast Guard



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OCT 19 2017

City and County of Honolulu
Department of Planning and Permitting
Ms. Kathy Sokugawa
Acting Director
650 S. King St., 7th Floor
Honolulu, HI 96813

Dear Ms. Sokugawa:

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OCT 19 2017

Department of the Interior
Fish and Wildlife Service Pacific Islands
Ms. Mary Abrams
Field Supervisor
300 Ala Moana Boulevard, Room 3-122
Honolulu, HI 96850

Dear Ms. Abrams:

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OCT 19 2017

Department of the Navy
Naval Facilities Engineering Command, Hawaii
Captain Richard D. Hayes III
Commander
400 Marshall Road
JBPHH, HI 96860

Dear Captain Hayes:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Attn Mr. Richard D. Hylton
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Captain, U. S. Coast Guard
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OCT 19 2017

Department of the Navy
Navy Region Hawaii
Rear Admiral Brian P. Fort
Commander
850 Ticonderoga St.
JBPHH, HI 96860

Dear Admiral Fort:

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U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

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Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick J. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

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OCT 19 2017

Department of Transportation
Federal Aviation Administration
Honolulu Airports District Office
Mr. Gordon Wong
Acting Manager
300 Ala Moana Boulevard, Room 7-128
Honolulu, HI 96850

Dear Mr. Wong:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

County Council Representative
Kymberly Marcos Pine
Councilmember, District 1
530 South King Street, Room 202
Honolulu, HI 96813

Dear Councilwoman Marcos Pine:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Neighborhood Board Representative
Ewa NB #23
Mr. Mitchell Tynanes
Chair
91-3074 Makalea Loop
Ewa Beach, HI 96706

Dear Mr. Tynanes:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

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OCT 19 2017

Neighborhood Board Representative
Makakilo/Kapolei/Honokai Hale NB #34
Ms. Evelyn Souza
Chair
925 Dillingham Boulevard, Suite 160
Honolulu, HI 96817

Dear Ms. Souza:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Hawaiian Electric Company
Mr. Alan Oshima
President and CEO
900 Richards Street
Honolulu, HI 96813

Dear Mr. Oshima:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Hawai'i Gas
Ms. Alicia Moy
President and CEO
515 Kamakee Street
Honolulu, HI 96814

Dear Ms. Moy:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Hawaiian Telcom
Mr. Scott Barber
President and CEO
1177 Bishop Street
Honolulu, HI 96813

Dear Mr. Barber:

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11000
OCT 19 2017

Ahahui Siwila Hawai'i O Kapolei
Ms. Melissa Lyman
P.O. Box 700007
Kapolei, HI 96707

Dear Ms. Lyman:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Ewa by Gentry Community Association
Mr. Jim Dodson
Executive Director
91-1795 Keaunui Drive
Ewa Beach, HI 96706

Dear Mr. Dodson:

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OCT 19 2017

Hawaiian Railway Society
Mr. Steve Vendt
Office Administrator
P.O. Box 60369
Ewa Beach, HI 96706

Dear Mr. Vendt:

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OCT 19 2017

Hoakalei Cultural Foundation
P.O. Box 2627
Ewa Beach, HI 96706

Dear Sir or Madam:

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OCT 19 2017

HCDA Kalaeloa Stakeholders
Advisory Team, Community Network, Public Safety Group, and Cultural Hui
c/o Ms. Tesha Malama
HCDA Kalaeloa Director of Planning & Development
547 Queen St.
Honolulu, HI 96813

Dear Ms. Malama: *Tesha*

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

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OCT 19 2017

Kalaeloa Heritage and Legacy Foundation
P.O. Box 75447
Kapolei, HI 96707

Dear Sir or Madam:

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OCT 19 2017

Kalaeloa Rental Homes
Manager
4285 Independence Ave
Kapolei, HI 96707

Dear Sir or Madam:

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OCT 19 2017

Kanehili Homestead Association
c/o Hawaiiana
Ms. Jo Ann Sivils
Management Executive
711 Kapiolani Blvd, Suite 700
Honolulu, HI 96813

Dear Ms. Sivils:

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OCT 19 2017

Kapolei Community Development Corporation
Mr. Joe Kuhio Lewis
President
91-1270 Kinoiki Street
Kapolei, HI 96707

Dear Mr. Lewis:

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OCT 19 2017

Kaupe'a Homestead Association
Ms. Michelle Kauhane
President
91-1036 Kahanalei Street
Kapolei, HI 96707

Dear Ms. Kauhane:

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OCT 19 2017

Malu'ohai Residents Association
Ms. Homelani Schaedel
President
P.O. Box 700911
Kapolei, HI 96709

Dear Ms. Schaedel:

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U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
OCT 19 2017

Wakea Garden Apartments
Manager
91-1245 Franklin D Roosevelt Ave
Kapolei, HI 96707

Dear Sir or Madam:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431

rick.d.hylton@uscg.mil

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Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
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U.S. Department of
Homeland Security

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United States Coast Guard
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Norfolk, VA 23513-2431
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Fax: 757-852-3495

11000

OCT 19 2017

Hawai'i Historic Foundation
Ms. Kiersten Faulkner
Executive Director
680 Iwilei Road Dole Office Building Tower, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431

rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

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Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000

OCT 19 2017

Greystar
Ms. Dana Beckstead, CAPS
Regional Property Manager
5555 Cormorant Ave.
Ewa Beach, HI 96706

Dear Ms. Beckstead:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
OCT 19 2017

Haseko Development, Inc.
Ms. Sharene Saito Tam
Vice President
91-1001 Kaimalie Street, Suite 205
Ewa Beach, HI 96706

Dear Ms. Tam:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick J. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
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Fax: 757-852-3495

11000

OCT 19 2017

Hawai'i Aviation Preservation Society
Mr. Colin Perry
91-215 Ewa Beach Rd
Ewa Beach, HI 96706

Dear Mr. Perry:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan



Proposed Electrical and Telecommunication Improvements for U.S. Coast Guard Air Station Barbers Point Kalaeloa, O'ahu, Hawai'i

Purpose of Project Information Sheet

This Project Information (PI) Sheet describes the preliminary elements of the U.S. Coast Guard's (USCG's) proposed electrical and telecommunication utility improvements for Air Station Barbers Point (ASBP). The ASBP is owned by USCG and in the southwest area of Kalaeloa, O'ahu, Hawai'i. Kalaeloa is the former Naval Air Station Barbers Point (NASBP) and is a redevelopment area managed by the Hawai'i Community Development Authority (HCDA).

This PI is intended for use in soliciting stakeholder comments that will help focus the evaluation of potential environmental impacts in the USCG's Environmental Assessment (EA).

Regulatory Requirements for the EA

The EA will comply with the National Environmental Policy Act (NEPA), because it is a Federal action that is not covered under a USCG NEPA categorical exclusion. No activity associated with this proposed action has been identified that would require a Hawai'i Revised Statutes (HRS) Chapter 343 EA. With the use of the Hawai'i Department of Transportation's (DOT's) right-of-way along Coral Sea Road to support utility improvements on ASBP, it is anticipated that the activity on State land would be exempt from HRS Chapter 343 in accordance with HRS Chapter 343-5.5. The underground utilities are not subject to Special Management Area (SMA) requirements and no discretionary approval has been identified by the HCDA in the Kalaeloa Community Development District (the former NASBP).

The findings of the EA will be used by the USCG to determine one of the following: issue a finding of no significant impact, prepare an environmental impact statement, or take no action.

Purpose and Need

The purpose of the USCG's proposed electrical and telecommunication improvements is to provide reliable and up-to-date electrical power and telecommunications to USCG ASBP. These improvements are needed to respond to the Navy's planned disposition of the existing aging electrical distribution system, which has not been fully supported since the former NASBP was closed in 1999. The telecommunications system is being proposed at this time as it makes economical and logistical sense with the electrical distribution system being proposed.

With the closure of NASBP, the Navy continued to provide electrical service to the ASBP via two electrical service lines, one of which has already failed, that run beneath the Kalaeloa Airport. Because the Navy's objective has been to divest its interest at NASBP, the Navy has not improved the lines and its agreement with the USCG is limited to maintenance and repair. In 2011, the Navy informed the USCG that it was seeking to divest the former NASBP electrical system and that the USCG should work with HCDA and HECO to pursue development of a new future electrical distribution system to ASBP. The Navy is currently in the process of disposing of its electrical system (and other utilities) through the General Services Administration.

Reliable electrical power is needed so that the USCG can continue to carry out its mission of ensuring our Nation's maritime safety, security, and stewardship. The ASBP enhances readiness with long-range patrol (e.g., HC-130 aircraft) and logistical support capabilities, as well as quick and versatile search and rescue response. The ASBP is part of the USCG's Fourteenth District, which is commissioned to protect 12.2 million square miles of open ocean, atolls, and island nations. It is also the USCG's only search and rescue Air Station in Hawai'i.

Proposed Electrical and Telecommunication Improvements for U.S. Coast Guard Air Station Barbers Point Kalaeloa, O‘ahu, Hawai‘i (continued)

Proposed Action & Alternatives

The USCG proposes to replace the aging Navy 4.16kV underground electrical distribution system servicing ASBP, which would include a new 12kV underground distribution system along Coral Sea Road that connects to an existing HECO service manhole just south of Roosevelt Avenue. See Figure 1.

Since 2011, the USCG has been evaluating distribution line alternatives to meet its purpose and need. One alternative was based on the HCDA’s proposed Kalaeloa East Energy Corridor, which is no longer being considered by HCDA. Now, an alternative based on a private developer’s (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility on Figure 1) and the HECO overhead grid near Roosevelt Avenue, is being considered for use. However, to avoid further delays should the Aloha Solar proposal not be constructed, the USCG is evaluating multiple options in its EA to meet its purpose and need.

The preferred alignment is identified in Figure 1 as Alternative 1. Should Aloha Solar’s proposed 12kV distribution system be developed in time to meet the USCG’s schedule, the USCG would implement Option A, which involves the installation of approximately 4,740 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP within the Coral Sea Road right-of-way (see Alternative 1, Option A on Figure 1). Should Aloha Solar’s proposed 12kV distribution system not be developed in time to meet the USCG’s needs, the USCG would implement Option B, which includes the installation of approximately 10,236 feet (1.9 miles) of a 12kV underground distribution system between the existing HECO electrical manhole and ASBP within the Coral Sea Road right-of-way (see Alternative 1, Option B on Figure 1). A combination of horizontal directional drilling and open trenching would be used to install the underground infrastructure.

An alternative alignment, Alternative 2, includes the use of other land owners and is a substantially longer

alignment. This alternative includes the installation of approximately 17,160 feet (3.3 miles) of a 12kV distribution system between existing overhead lines south of Renton Road and ASBP, via Essex Road, Tripoli Street, and Coral Sea Road (see Alternative 2 on Figure 1).

The use of the existing aged 4.16kV Navy electrical lines which run beneath the Kalaeloa airport is not a viable alternative. The 4.16kV distribution system will not meet HECO standards.

Environmental Resources, Issues, & Key Approvals/Permits

Environmental resources and issues to be emphasized in the EA evaluation include: archaeological and cultural resources, biological resources, and airport operational safety. To maximize use of existing studies and to understand issues to date, the Final EA for the Kalaeloa East Energy Corridor (October 2014) and the Draft EA for the Aloha Solar Energy Fund II – Kalaeloa (June 2017) will be reviewed.

Key approvals/permits include: Federal Aviation Administration Notice of Proposed Construction or Alteration, Coastal Zone Management Federal consistency review, HRS Chapter 6E Historic Preservation Review, Clean Water Act Section 402 National Pollutant Discharge Elimination System Construction Stormwater General Permit, Hawai‘i DOT Lane Use/Occupancy Permit, and others associated with the use of the Hawai‘i DOT’s right-of-way in Coral Sea Road.

Next Steps

The USCG plans to conduct studies and prepare a Draft EA for publication in early 2018. Following receipt of government review and public comments, a Final EA is anticipated to be published mid-2018.

LEGEND

Proposed Underground Distribution Line

ASEF II Utility to USCG ASBP

Alternative 1 Option A

Alternative 1 Option B

South of Roosevelt Avenue to USCG ASBP

Alternative 2

South of Renton Road to USCG ASBP

LOCATION MAP

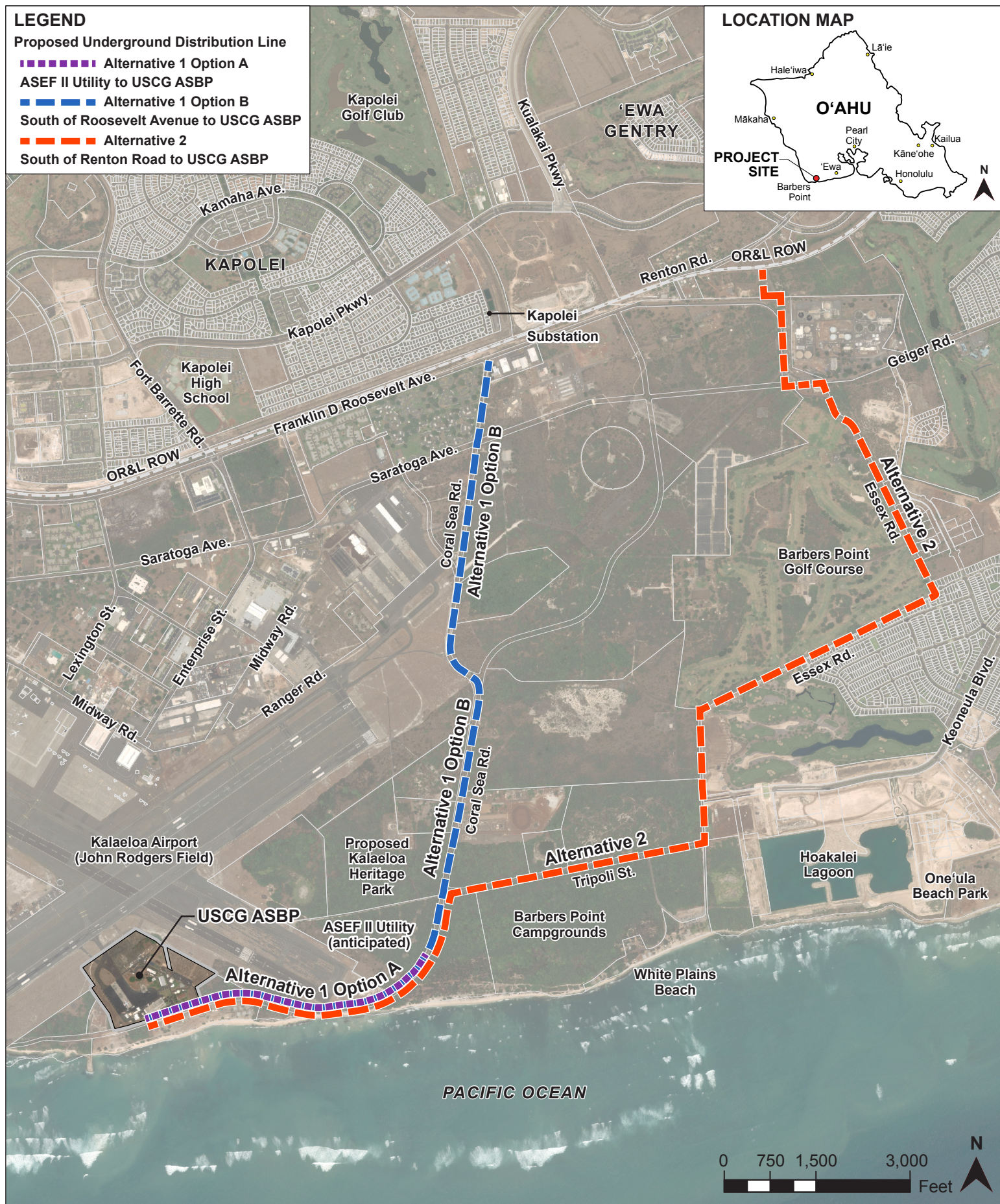
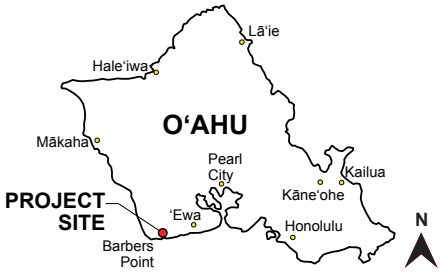


FIGURE 1 - Project Location and Alternatives

EA for Electrical and Telecommunication Improvements for USCG Air Station Barbers Point

Kalaeloa, O'ahu, Hawai'i

H-1-47

October 2017

Appendix H-2:
Public Input to Request for Early Consultation



OFFICE OF PLANNING STATE OF HAWAII

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

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

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

DTS201711010905

November 1, 2017

Mr. Richard D. Hylton
Project Manager
U.S. Coast Guard Facilities Design & Construction Center
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23215-2431

Dear Mr. Hylton:

Subject: Proposed Electrical and Telecommunication Improvements for the U.S.
Coast Guard Air Station Barbers Point, Kalaeloa, Oahu, Hawaii

Thank you for the opportunity to provide comments on the electrical and telecommunication improvements proposed for the U.S. Coast Guard (USCG) Air Station Barbers Point at Kalaeloa, Oahu. The project information review material was transmitted to our office via letter dated October 19, 2017.

It is our understanding that the USCG is developing a National Environmental Policy Act (NEPA) Environmental Assessment (EA) to assess the proposed action to upgrade the electrical and telecommunication distribution system servicing at Barbers Point Air Station.

The current systems at the air station are aging and upgrades have been neglected since the closure of Naval Air Station Barbers Point in 1999. The electrical and telecommunication upgrades are intended to address reliability issues of the current systems and bring them to modern standards.

The Office of Planning (OP) has reviewed the transmitted material and has the following comments to offer:

1. Pursuant to Hawaii Revised Statutes (HRS) § 206E-8.5, all requests for developments within a special management area (SMA) and shoreline setback variances for developments within a community development district, for which a community development plan has been developed and approved in accordance with HRS § 206E-5, shall be submitted to and reviewed by the OP. According to the information you provided, the section of "regulatory requirements for the subject EA" states that the underground utilities are not subject to SMA requirements. The EA should provide justification for the statement that no SMA permit is required for the proposed underground utilities.

Mr. Richard D. Hylton
November 1, 2017
Page 2

2. We suggest that the EA include an analysis of the possible impact of sea-level rise on the proposed action, such as increased risk of flooding and coastal erosion. The EA should discuss how the design of the project and proposed operations at the project site will mitigate for the potential risk, and provide resilience and recovery from flooding and coastal erosion concerns.
3. According to the project information sheet, a Coastal Zone Management (CZM) Federal Consistency review is listed as a needed approval/permit.

Independent of the NEPA process, the proposal needs to be evaluated on the effects on any uses and/or resources of the State of Hawaii CZM area, pursuant to 15 CFR 930. OP is the lead state agency with the authority to conduct federal consistency reviews. Please contact our office on the policies and procedures for this matter.

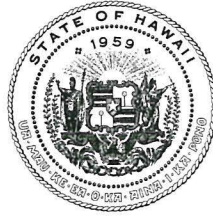
If you have any questions regarding this comment letter, please contact Joshua Hekekie of our office at (808) 587-2845.

Sincerely,

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

Leo R. Asuncion
Director

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

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

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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

U.S. Coast Guard Facilities Design & Construction Center
Attn. Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215

November 9, 2017

Dear Mr. Hylton,

The Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the development of an Environmental Assessment for the proposed electrical and telecommunication improvements for the U.S. Coast Guard Air Station Barbers Point located in Kalaeloa, O'ahu, Hawai'i. The Division has prepared the following comments. The proposed action would include replacement of the aging Navy 4.160kV underground electrical distribution system to include a new 12kV underground distribution system along Coral Sea Road.

DOFAW strongly recommends surveying for rare and endangered plants that historically occur in the area such as 'akoko (*Euphorbia skottsbergii* var. *skottsbergii*), and 'ihi ihi (*Marsilea villosa*).

The State and Federally listed Hawaiian hoary bat or 'Ōpe'ape'a (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the proposed project. Hawaiian hoary bats roost in both exotic and native trees. DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. Hawaiian hoary bats roost in both exotic and native trees. If any trees are planned for removal during the bat breeding season there is a risk of injury or mortality to juvenile bats. To minimize the potential for impacts to this species, site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats; woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).

The state endangered Hawaiian short-eared owl or Pueo (*Asio flammeus sandwichensis*) has the potential to occur in the project vicinity site. Pueo are a crepuscular species, most active during dawn and dusk twilights. DOFAW recommends twilight pre-construction surveys prior to clearing vegetation. If Pueo nests are present, a buffer zone should be established in which no clearing occurs until nesting ceases and notify DOFAW staff.

Finally, we note that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting or construction is required, DOFAW recommends that any lights used be fully shielded to minimize impacts.

We appreciate your efforts to work with our office for the conservation of native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Katherine Cullison, Conservation Initiatives Coordinator at (808)587-4148 or Katherine.cullison@hawaii.gov.

Sincerely,



James Cogswell
Wildlife Program Manager



**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

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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AQUATIC RESOURCES
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

November 30, 2017

Richard D. Hylton
U.S. Coast Guard Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
Email: Rick.D.Hylton@uscg.mil

IN REPLY REFER TO:
Log No.: 2017.02581
Doc. No.: 1711SH15
Archaeology

Dear Mr. Hylton:

**SUBJECT: Chapter 6E-8 and National Historic Preservation Act (NHPA) Review –
Request for Input: Upgrade to Electrical and Telecommunications Distribution Systems at
USGS Air Station Barbers Point Environmental Assessment Development
Honouliuli Ahupua‘a, ‘Ewa District, Island of O‘ahu
TMK: (1) 9-1-various**

On October 24, 2017, the State Historic Preservation Division (SHPD) received a letter dated October 19, 2017 from the United States Coast Guard (USCG) requesting input for the development of an Environmental Assessment (EA) for proposed utility improvements at the USCG Air Station Barbers Point, Kalaeloa. The proposed work is to upgrade electrical and telecommunications distribution systems in order to address reliability issues and bring both distribution systems up to modern standards.

This submittal will require the State Historic Preservation division (SHPD) to review the proposed project under Chapter §6E-8, Hawaii Revised Statutes (HRS) and under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800. The involvement of a federal agency or federal funding triggers the NHPA Section 106 review.

Pursuant to Hawaii Administrative Rules, Chapter 13-284, SHPD has insufficient information to make a determination for the proposed project and its effect to potential historic properties.

The National Historic Preservation Act (NHPA) states that it is the responsibility of the State Historic Preservation Officer (SHPO) to administer the State Historic Preservation program; advise and assist, as appropriate, Federal and State agencies and local governments in carrying out their historic preservation responsibilities; and, to cooperate with the Secretary, the Advisory Council on Historic Preservation, and other Federal and State agencies, local governments, and organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development [NHPA §101.b(3)(E) and (F)]. The governing statute to NHPA, Section 106 is 36 CFR 800. Attached are steps that need to be addressed under Section 106:

- Name of the federal and state funding or licensing agency/agencies involved with this project. The State Historic Preservation Officer (SHPO) is required to respond to the USCG (Lead Federal Agency) or to the USCG's designated authority. Consultants contracted to prepare information, analyses, or recommendations are not recognized as a federally-delegated authority. Every federal undertaking has a

federal funding, licensing, or permitting agency. Please include the name, address, and telephone number of the contact person/s at the federally delegated authority 36 CFR §800.2(a);

- A delegation letter from the USCG that identifies the particular activities and responsibilities they have delegated on their behalf;
- Information documenting that the USCG has evaluated and determined the project constitutes an undertaking as defined 36 CFR §800.16(y);
- Information indicating that a reasonable and good faith effort has been conducted by the USCG to identify historic properties (architectural, archaeological, or traditional cultural properties [TCPs], traditional cultural landscapes [TCLs] within the area of potential effect (APE) 36 CFR §800.4(a) and 4b);
- The identification effort should include consultation efforts with Native Hawaiian Organizations (NHOs) 36 CFR §800.4(a)4, and consultation efforts with individuals, organizations and the public with a demonstrated interest in the undertaking 36 CFR §800.2(c), and should include documentation of the nature of the consultation, the names of the consulted parties and their comments/concerns; and
- A determination of eligibility and significance for any properties or potential historic districts within the APE; assessment of project effect (to historic properties) 36 CFR §800.4(d), and if necessary resolution of adverse effects 36 CFR §800.6 for any sites located within the APE.

The SHPD looks forward to receiving the federal agency's and/or delegated authority's request to initiate the NHPA Section 106 consultation on this proposed undertaking.

SHPD requests that you visit our website at: <http://dlnr.hawaii.gov/shpd/review-compliance/forms/>. The website will direct the landowner, developer, agencies and/or project proponents on required information that is needed to facilitate SHPD's determination on the affect that the proposed project may have on historic properties.

The United States Coast Guard is the office of record for this undertaking. Please maintain a copy of this letter with your environmental review record for this undertaking.

Please contact Stephanie Hacker, Oahu Archaeologist, at (808) 692-8046 or at Stephanie.Hacker@hawaii.gov for matters regarding archaeological resources or this letter.

Aloha,



Alan S. Downer, PhD
Deputy State Historic Preservation Officer
Administrator, State Historic Preservation Division

cc: Raven Smith, USCG (Raven.J.Smith@uscg.mil)

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



November 6, 2017

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
DAVID C. HULIHEE
KAY C. MATSUI
RAY C. SOON

ROSS S. SASAMURA, Ex-Officio
JADE T. BUTAY, Ex-Officio

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

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

Mr. Richard D. Hylton
U.S. Coast Guard Facilities Design & Construction Center
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23215-2431

Dear Mr. Hylton:

Subject: Your Letter Dated October 19, 2017 Requesting Comments on the Draft
Environmental Assessment for the Proposed U.S. Coast Guard Electrical
and Telecommunications Improvements in Kalaeloa

Thank you for your letter regarding the proposed electrical and telecommunications improvements.

The Board of Water Supply does not have any comments regarding the electrical and telecommunications improvements project at this time.

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

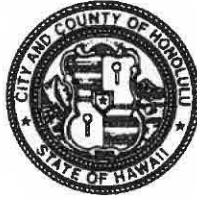
Very truly yours,

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

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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KIRK CALDWELL
MAYOR



KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

2017/ELOG-2239 (FK)

November 7, 2017

U. S. Coast Guard Facilities
Design & Construction Center
Attn: Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23215-2431

Dear Mr. Hylton:

SUBJECT: Input on Development of an Environmental Assessment (EA) for Proposed
Electrical and Telecommunication Improvements at the U. S. Coast Guard
(USCG) Air Station at Barbers Point, Kalaeloa

Thank you for the early opportunity to comment on the above referenced proposal. The Department of Planning and Permitting (DPP) understands the USCG is evaluating multiple options in order to upgrade the electrical and telecommunications distribution systems. In the evaluation of these options, the DPP would like you to consider the following in the upcoming draft EA:

1. An analysis of the impact of sea level rise due to climate change on the proposed underground distribution system, particularly in light of US ACE projections of sea level rise (SLR) for Honolulu (high probability intermediate scenario of 1.4 feet of SLR by 2100; low probability high scenario of 4.5 feet of SLR by 2100). See U.S. Army Corps of Engineers, Incorporating Sea Level Change in Civil Works Programs (ER-1100-2-8162) Dec. 31, 2013; and US ACE Sea Level Change Curve Calculator (<http://corpsclimate.us/ccaceslcurves.cfm> for SLR scenarios). See also Shellie Habel, et. al. "Development of a model to simulate groundwater inundation induced by sea-level rise and high tides in Honolulu, Hawaii," Water Research, 2017.
2. Add a discussion of whether the proposed alternatives could be used to provide electrical power to other users along either of the routes. Land, along both Alternative 1 and 2 routes, is proposed for conveyance to the City for future park development.
3. Include a list of required approvals and permits.
4. Include a discussion on the consistency of the project with the Oahu General Plan, the Ewa Development Plan and the Kalaeloa Community Development District's Kalaeloa Master Plan.

Mr. Richard D. Hylton
November 7, 2017
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Once again, thank you for the opportunity to comment at this stage of the EA process. We look forward to reviewing the draft EA when it is completed.

Should you have any questions, please contact Franz Krintz of our staff, at 768-8046.

Very truly yours,



Eugene H. Takahashi
Acting Division Chief
Planning Division

EHT:ah

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

11000
OCT 19 2017

Hawaiian Electric Company
Mr. Alan Oshima
President and CEO
900 Richards Street
Honolulu, HI 96813

Dear Mr. Oshima:

The U.S. Coast Guard (USCG) has identified a critical requirement to upgrade electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa, O'ahu, Hawai'i. This proposed work will address reliability issues, and bring both distribution systems up to modern standards.

We request your input in the development of our Environmental Assessment (EA) for these proposed utility improvements. The enclosed Project Information Sheet and conceptual site map describe the scope of this proposed action, including the alternative utility alignments under consideration.

Provide any comments, questions, or concerns you may have by November 6, 2017 (mail or email) to:

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431
rick.d.hylton@uscg.mil

Finally, please note that the draft EA public comment period is anticipated to take place in early 2018, which will provide a second opportunity for input. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. Dugan".

Patrick J. Dugan, P.E.
Captain, U. S. Coast Guard
Commanding Officer

Enclosures: Project Information Sheet and Conceptual Site Plan



Proposed Electrical and Telecommunication Improvements for U.S. Coast Guard Air Station Barbers Point Kalaeloa, O'ahu, Hawai'i

Purpose of Project Information Sheet

This Project Information (PI) Sheet describes the preliminary elements of the U.S. Coast Guard's (USCG's) proposed electrical and telecommunication utility improvements for Air Station Barbers Point (ASBP). The ASBP is owned by USCG and in the southwest area of Kalaeloa, O'ahu, Hawai'i. Kalaeloa is the former Naval Air Station Barbers Point (NASBP) and is a redevelopment area managed by the Hawai'i Community Development Authority (HCDA).

This PI is intended for use in soliciting stakeholder comments that will help focus the evaluation of potential environmental impacts in the USCG's Environmental Assessment (EA).

Regulatory Requirements for the EA

The EA will comply with the National Environmental Policy Act (NEPA), because it is a Federal action that is not covered under a USCG NEPA categorical exclusion. No activity associated with this proposed action has been identified that would require a Hawai'i Revised Statutes (HRS) Chapter 343 EA. With the use of the Hawai'i Department of Transportation's (DOT's) right-of-way along Coral Sea Road to support utility improvements on ASBP, it is anticipated that the activity on State land would be exempt from HRS Chapter 343 in accordance with HRS Chapter 343-5.5. The underground utilities are not subject to Special Management Area (SMA) requirements and no discretionary approval has been identified by the HCDA in the Kalaeloa Community Development District (the former NASBP).

The findings of the EA will be used by the USCG to determine one of the following: issue a finding of no significant impact, prepare an environmental impact statement, or take no action.

Purpose and Need

The purpose of the USCG's proposed electrical and telecommunication improvements is to provide reliable and up-to-date electrical power and telecommunications to USCG ASBP. These improvements are needed to respond to the Navy's planned disposition of the existing aging electrical distribution system, which has not been fully supported since the former NASBP was closed in 1999. The telecommunications system is being proposed at this time as it makes economical and logistical sense with the electrical distribution system being proposed.

With the closure of NASBP, the Navy continued to provide electrical service to the ASBP via two electrical service lines, one of which has already failed, that run beneath the Kalaeloa Airport. Because the Navy's objective has been to divest its interest at NASBP, the Navy has not improved the lines and its agreement with the USCG is limited to maintenance and repair. In 2011, the Navy informed the USCG that it was seeking to divest the former NASBP electrical system and that the USCG should work with HCDA and HECO to pursue development of a new future electrical distribution system to ASBP. The Navy is currently in the process of disposing of its electrical system (and other utilities) through the General Services Administration.

Reliable electrical power is needed so that the USCG can continue to carry out its mission of ensuring our Nation's maritime safety, security, and stewardship. The ASBP enhances readiness with long-range patrol (e.g., HC-130 aircraft) and logistical support capabilities, as well as quick and versatile search and rescue response. The ASBP is part of the USCG's Fourteenth District, which is commissioned to protect 12.2 million square miles of open ocean, atolls, and island nations. It is also the USCG's only search and rescue Air Station in Hawai'i.

(over)

**Proposed Electrical and Telecommunication Improvements for
U.S. Coast Guard Air Station Barbers Point
Kalaeloa, O‘ahu, Hawai‘i
(continued)**

Proposed Action & Alternatives

The USCG proposes to replace the aging Navy 4.16kV underground electrical distribution system servicing ASBP, which would include a new 12kV underground distribution system along Coral Sea Road that connects to an existing HECO service manhole just south of Roosevelt Avenue. See Figure 1.

Since 2011, the USCG has been evaluating distribution line alternatives to meet its purpose and need. One alternative was based on the HCDA’s proposed Kalaeloa East Energy Corridor, which is no longer being considered by HCDA. Now, an alternative based on a private developer’s (Aloha Solar Energy Fund II, LLC) proposed 12kV distribution line between its proposed solar power facility (ASEF II Utility on Figure 1) and the HECO overhead grid near Roosevelt Avenue, is being considered for use. However, to avoid further delays should the Aloha Solar proposal not be constructed, the USCG is evaluating multiple options in its EA to meet its purpose and need.

The preferred alignment is identified in Figure 1 as Alternative 1. Should Aloha Solar’s proposed 12kV distribution system be developed in time to meet the USCG’s schedule, the USCG would implement Option A, which involves the installation of approximately 4,740 feet (0.9 miles) of a 12kV underground distribution system between the ASEF II Utility and ASBP within the Coral Sea Road right-of-way (see Alternative 1, Option A on Figure 1). Should Aloha Solar’s proposed 12kV distribution system not be developed in time to meet the USCG’s needs, the USCG would implement Option B, which includes the installation of approximately 10,236 feet (1.9 miles) of a 12kV underground distribution system between the existing HECO electrical manhole and ASBP within the Coral Sea Road right-of-way (see Alternative 1, Option B on Figure 1). A combination of horizontal directional drilling and open trenching would be used to install the underground infrastructure.

An alternative alignment, Alternative 2, includes the use of other land owners and is a substantially longer

alignment. This alternative includes the installation of approximately 17,160 feet (3.3 miles) of a 12kV distribution system between existing overhead lines south of Renton Road and ASBP, via Essex Road, Tripoli Street, and Coral Sea Road (see Alternative 2 on Figure 1).

The use of the existing aged 4.16kV Navy electrical lines which run beneath the Kalaeloa airport is not a viable alternative. The 4.16kV distribution system will not meet HECO standards.

**Environmental Resources, Issues,
& Key Approvals/Permits**

Environmental resources and issues to be emphasized in the EA evaluation include: archaeological and cultural resources, biological resources, and airport operational safety. To maximize use of existing studies and to understand issues to date, the Final EA for the Kalaeloa East Energy Corridor (October 2014) and the Draft EA for the Aloha Solar Energy Fund II – Kalaeloa (June 2017) will be reviewed.

Key approvals/permits include: Federal Aviation Administration Notice of Proposed Construction or Alteration, Coastal Zone Management Federal consistency review, HRS Chapter 6E Historic Preservation Review, Clean Water Act Section 402 National Pollutant Discharge Elimination System Construction Stormwater General Permit, Hawai‘i DOT Lane Use/Occupancy Permit, and others associated with the use of the Hawai‘i DOT’s right-of-way in Coral Sea Road.

Next Steps

The USCG plans to conduct studies and prepare a Draft EA for publication in early 2018. Following receipt of government review and public comments, a Final EA is anticipated to be published mid-2018.





November 9, 2017

Mr. Richard D. Hylton
U.S. Coast Guard Facilities
Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23215-2431

Dear Mr. Hylton:

Subject: Draft Environmental Assessment
Electrical and Telecommunication Improvements
Kalaeloa, Hawai'i

In response to your letter dated October 19, 2017, it has been determined that the area is currently clear of utility gas facilities.

Should there be any questions, or if additional information is desired, please feel free to call Jeremy Santiago at 594-5552.

Sincerely,

Hawaii Gas

Keith K. Yamamoto
Manager, Engineering

KKY:krs

-----Original Message-----

From: Hylton, Rick D CIV [<mailto:Rick.D.Hylton@uscg.mil>]

Sent: Monday, November 13, 2017 9:14 AM

To: Smith, Raven J CIV <Raven.J.Smith@uscg.mil>; Matsumoto, Lesley <Lesley.Matsumoto@aecom.com>; Chinn, Debra M CIV <Debra.M.Chinn@uscg.mil>

Subject: Comments from the Hawaiian Raliway Society

Good Afternoon (East Coast Time);

I received a phone call from Mr. Robert Yatchtronaugh (spelling???) who represents the Hawaiian Railway Society. HE has the following comments/concerns:

1. There is a railway that runs parallel to Franklin D. Roosevelt Ave. that is listed on the National Historical Register. He is concerned that any crossing or working in close proximity would require appropriate Section 106 consultation.
2. For alternative 2, there is a Battlefield they may be located along this route named the Ewa Battlefield that has recently been placed on the National Historical Register. Again, if this route is selected/discussed (as part of our NEPA document) this action may require appropriate Section 106 consultation.

His phone contact information is (808) 381 - 7666. He was a little surprised to be talking to someone in Norfolk, Va (given our proximity to Hawaii), and said if we had someone more familiar with the project (i.e. - closer to Hawaii) they could certainly contact him for more information. I told him I would be passing his information along to our project team! I do not think he plans to send anything to us in writing, and told me that I should pass along these two concerns.

-----Original Message-----

From: Hylton, Rick D CIV [<mailto:Rick.D.Hylton@uscg.mil>]

Sent: Tuesday, November 07, 2017 3:30 AM

To: Chinn, Debra M CIV <Debra.M.Chinn@uscg.mil>; Matsumoto, Lesley <Lesley.Matsumoto@aecom.com>; Smith, Raven J CIV <Raven.J.Smith@uscg.mil>

Subject: FW: [Non-DoD Source] Proposed Electrical and Telecommunication Improvements for USCG Air Station Barbers Point, Kalaeloa

More comments for the Barber's Point project (from Kalaeloa Heritage and Legacy Foundation). See email below.

rdh

-----Original Message-----

From: Shad Kane [<mailto:shadskane@gmail.com>]

Sent: Sunday, November 05, 2017 10:44 AM

To: Hylton, Rick D CIV

Subject: [Non-DoD Source] Proposed Electrical and Telecommunication Improvements for USCG Air Station Barbers Point, Kalaeloa

Aloha Mr. Richard Hylton,

Received your communication dated October 19, 2017 on Wednesday November 1, 2017. The Kalaeloa Heritage and Legacy Foundation is a 501c3 non-profit organization and we manage the Kalaeloa Heritage Park situated along the alternative 1 route. We fully support your efforts to upgrade the existing electrical and telecommunications distribution systems at the USCG Air Station Barbers Point, Kalaeloa. Alternative 1 and 2 pass through a landscape with a probability of buried cultural resources. However I suspect work will be performed in the area of previous disturbance which would reduce the likelihood of any significant impacts. The Kalaeloa Heritage and Legacy Foundation understand the need to upgrade the existing electrical infrastructure in Kalaeloa. If we can be of any assistance feel free to contact us.

Mahalo,

Shad Kane/Board Member

Kalaeloa Heritage and Legacy Foundation



November 6, 2017

U.S. Coast Guard Facilities Design & Construction Center
Attn Mr. Richard D. Hylton
5505 Robin Hood Road, Suite K
Norfolk, VA 23215-2431


RE: U.S. Coast Guard EA for Utility Improvements, Kalaeloa, O'ahu, Hawai'i

Dear Mr. Hylton,

Thank you for informing us about the U.S. Coast Guard's planned Environmental Assessment for the proposed utility improvements. We look forward to reviewing the more detailed document, which we hope will address how the addition of utility lines to the U.S. Navy's existing utility poles may be affected and the accompanying risks involved with utilizing these poles. It is our understanding that a prior energy project had intended to replace and remove these poles.

We also suggest USCG notify all homeowners and property owners adjacent to the proposed Alternative 2 corridor, as many are less than 100 feet away from the Alternative 2 route.

Sincerely,


Sharene Saito Tam
Vice President