AUG - 8 2007

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CITY AND COUNTY OF HONOLULU
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DIRECTOR

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220243

August 1, 2007

Mr. Laurence K. Lau, Acting Director
Office of Environmental Quality Control
State Office Tower
235 South Beretania Street, 7th Floor
Honolulu, Hawaii 96813-2437

Dear Mr. Lau:

Subject: Finding of No Significant Impact (FONSI)
Kapolei Corporation Yard, Tax Map Key 9-1-026:004
Honouliuli, Ewa, Oahu, Hawaii

The City and County of Honolulu, Department of Design and Construction, is submitting four copies of the final environmental assessment (EA) and FONSI for the Kapolei Corporation Yard project in compliance with requirements of Chapter 343, Hawaii Revised Statutes and Hawaii Administrative Rules, Title 11, Department of Health, Chapter 200.

Please publish the notice of availability of the final EA in the August 23, 2007 issue of the *Environmental Notice.*

Should there be any questions, please contact Clifford Lau, Chief, Facilities Division, at 768-8478.

Very truly yours,

Eugene C. Lee, P.E.
Director

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Enclosures

KAPOLEI CORPORATION YARD

Honouliuli, Ewa, Oahu, Hawaii

TMK: 9-1-026:004

FINAL ENVIRONMENTAL ASSESSMENT

Prepared for:

City and County of Honolulu
Department of Design and Construction
Facilities Division
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Prepared by:

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC: 7236-01

August 2007

SUMMARY

Proposing Agency:	City and County of Honolulu Department of Design and Construction 650 South King Street Honolulu, Hawaii 96813
Accepting Agency:	City and County of Honolulu Department of Design and Construction 650 South King Street Honolulu, Hawaii 96813
EA Preparer:	Wilson Okamoto Corporation 1907 South Beretania Street, Suite 400 Honolulu, Hawaii 96826 Contact: John L. Sakaguchi, AICP, Senior Planner Tel: 808.946.2277; Fax: 808.946.2253
Project Location:	91-119 Olai Street, Campbell Industrial Park, Ewa District, Oahu, Hawaii
Recorded Fee Owner:	City and County of Honolulu
Tax Map Key:	9-1-026:004
Area:	17.864 acres approximately
State Land Use Classification:	Urban
County Zoning:	Intensive Industrial District (I-2 height limit 60 feet) and P-2 General Preservation (at end of Olai Street turnaround)
Proposed Action:	Construction of a corporation yard consisting of three City facilities, one 5.08-acre area for the relocated Waianae Corporation Yard, one 5.14-acre area reserved for the future relocated Driver and Equipment Training function, and 4.94-acre area reserved for a future Automotive and Equipment Services facility. The remaining area along the shoreline will remain undeveloped.
Anticipated Impacts:	Short-term construction-related impacts will be created by the generation of dust, noise, and increased construction-related traffic. The potential effect on historic resources will be mitigated by preservation of one extant World War II era 155 mm "Panama Mount" gun emplacement, and by

preservation of an area with sinkholes in the future site of the Driver Equipment and Equipment Operator Training (DET) facilities.

In the long-term, personnel vehicle trips will minimally increase traffic into Campbell Industrial Park during peak periods. Additional noise and vehicle emissions will be generated on-site, but will not have a significant impact on adjacent land uses due to distance and type of land use.

Parties Consulted During Draft EA Consultation:

Federal
Department of the Army
US Fish and Wildlife Service
US Geological Survey
US Coast Guard

State of Hawaii
Department of Agriculture
Department of Business, Economic Development & Tourism
DBED&T - State Energy Office
Department of Defense
Department of Hawaiian Home Lands
Department of Health
Department of Health - Environmental Management Division
Department of Health – Solid and Hazardous Waste Branch
Department of Health –Wastewater Branch
Department of Land and Natural Resources
Department of Land and Natural Resources Historic Preservation Division
Department of Land and Natural Resources - Water Resource Management
Department of Transportation
Office of Hawaiian Affairs
Office of Environmental Quality Control
University of Hawaii Water Resources Research Center
University of Hawaii Environmental Center
Kapolei Public Library

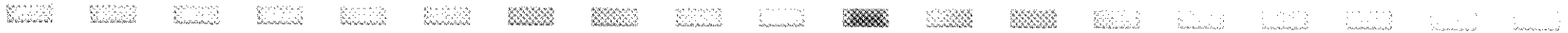
City and County of Honolulu Agencies
Civil Defense
Fire Department
Department of Information Technology

Municipal Reference Center
Department of Planning and Permitting
Police Department
Department of Transportation Services
Board of Water Supply
Makakilo/Kapolei/Honokai Hale Neighborhood Board (NB) No. 34

Officials
Senator Mike Gabbard, 19th District
Representative Sharon E. Har, House District 40
Councilmember Todd K. Apo

Public Utilities
Hawaiian Electric Company

Other
Germaine's Luau



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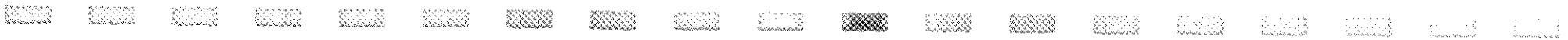
PREFACE

Chapter 343, Hawaii Revised Statues (HRS), as amended, Environmental Impact Statements, requires that a government agency or a private developer proposing to undertake a project consider the potential environmental impacts of the proposed project by preparing an environmental assessment. Use of public funds for a project is among the criteria set forth in Chapter 343, HRS, which requires preparation of an environmental assessment. The Kapolei Corporation Yard will be constructed with funds provided by the City and County of Honolulu Department of Design and Construction, Facilities Division. Divisions of the City and County of Honolulu Department of Facility Maintenance (DFM) will operate from the Kapolei Corporation Yard.

This Environmental Assessment (EA) has been prepared to meet the requirements of Chapter 343, HRS, as amended, and Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules. A Finding of No Significant Impact (FONSI) is determined for construction and operation of the Kapolei Corporation Yard project site.

An approximately 2.7 acre portion of the Kapolei Corporation Yard project site is located in the City and County of Honolulu Special Management Area (SMA). A SMA Use Permit (SMP) will be required for construction of facilities within this area. The SMP will need to be approved by the City Council.



1. INTRODUCTION

1.1 Project Background

The City and County of Honolulu Department of Design and Construction is proposing to construct a Kapolei Corporation Yard to accommodate various City storage, maintenance, and driver and equipment training facilities. Occupants of the new corporation yard, all under the Department of Facility Maintenance (DFM), will include facilities for the Waianae Corporation Yard, Driver and Equipment Training (DET), and Automotive and Equipment Services (AES). The Waianae Corporation Yard will relocate to the project site from their current location on Farrington Highway in Waianae. The DET facility will relocate to the makai portion of the site from their interim location within the central portion of project site. The AES facility will supplement the operation of the existing facility located in Pearl City.

The land for this project is to be dedicated to the City and County of Honolulu by the Estate of James Campbell in accordance with the Unilateral Agreement (UA) for the rezoning of land in the City of Kapolei (Ordinance No. 90-30). The UA specifies that up to 19 acres will be dedicated to the City for public service need and designated public uses. The UA also specifies that up to 4 acres will be dedicated for a Regional Police Station in the City of Kapolei.

Development of the Kapolei Regional Police Station required additional land to accommodate the needs of the Honolulu Police Department. Since the land area that was conveyed for the Kapolei Regional Police Station exceeded the 4 acres required by the UA, the City agreed that the Estate of James Campbell is entitled to a credit of 1.137 acres against the 19 acres of land to be dedicated to the City for use as a corporation yard. Therefore, the Estate of James Campbell is now dedicating approximately 17.864 acres to the City for the proposed Kapolei Corporation Yard.

1.2 Ewa Public Infrastructure Map

The City and County of Honolulu Department of Planning and Permitting (DPP) processed a revision of the Ewa Public Infrastructure Map for the Kapolei Corporation Yard in May of 2003. The purpose of the revision (File No. 2003/PIM/-2) was to add publicly funded "corporation yard" and "government building" symbols to the Ewa Public

Infrastructure Map (PIM). Revision to the PIM was subsequently adopted via Resolution No. 03-130 by the City Council.

In 2003, as part of the Ewa PIM, the Kapolei Corporation Yard project was sent to various Federal, State, and City agencies and others for review and comment, including to the Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34. At its meeting of March 25, 2003, Neighborhood Board No. 34 voted unanimously to support the Kapolei Corporation Yard project.

1.3 Purpose and Need

The Kapolei Corporation Yard will provide facilities for vehicles, equipment and material storage in close proximity to the City of Kapolei. This proximity will help to facilitate maintenance of the infrastructure in the secondary urban center which is expected to grow in the coming years.

The Kapolei Corporation Yard is needed to accommodate a leeward baseyard for maintenance operations to serve the Leeward District and to provide training, storage and maintenance facilities to service the expanding population in the Ewa region. The Department of Facility Maintenance will relocate their operations from their present facilities to this larger area to combine activities into one central yard. Facilities and operations to be located at the Kapolei Corporation Yard project site include:

- Waianae Corporation Yard
- Driver and Equipment Operator Training facilities
- Automotive Equipment Services

The existing City Waianae Corporation Yard is located on 2.78 acres of land on Farrington Highway owned by the State of Hawaii Department of Hawaiian Homelands. The City lease fee is $75,000 annually and is due to expire in 2008. Relocation to the project site will provide the Waianae Maintenance Area about 5 acres of space for vehicle and equipment storage, and other operational space and will eliminate the City lease fee. City funding has been established for construction of facilities for the Waianae Maintenance Area.

The Driver and Equipment Operator Training (DET) facility was formerly located in Bldg 14 at Manana. Since that facility needed to be vacated, DET relocated to the central portion of the project site until permanent facilities can be constructed. No permanent facilities or improvements were constructed as part of the DET interim facility. No City funding has been established for construction of permanent DET facilities.

Automotive Equipment Services (AES) provides maintenance and repair for City-owned vehicles and equipment. The AES includes all types of vehicle service and maintenance including most types of services for engines, brakes, transmissions, air conditioning, and other vehicle systems. The AES facility at Pearl City is overcrowded and lacks sufficient space and modern servicing equipment. Space has been reserved for the AES facilities at the Kapolei Corporation Yard. No City funding has yet been established for construction of the AES facilities.

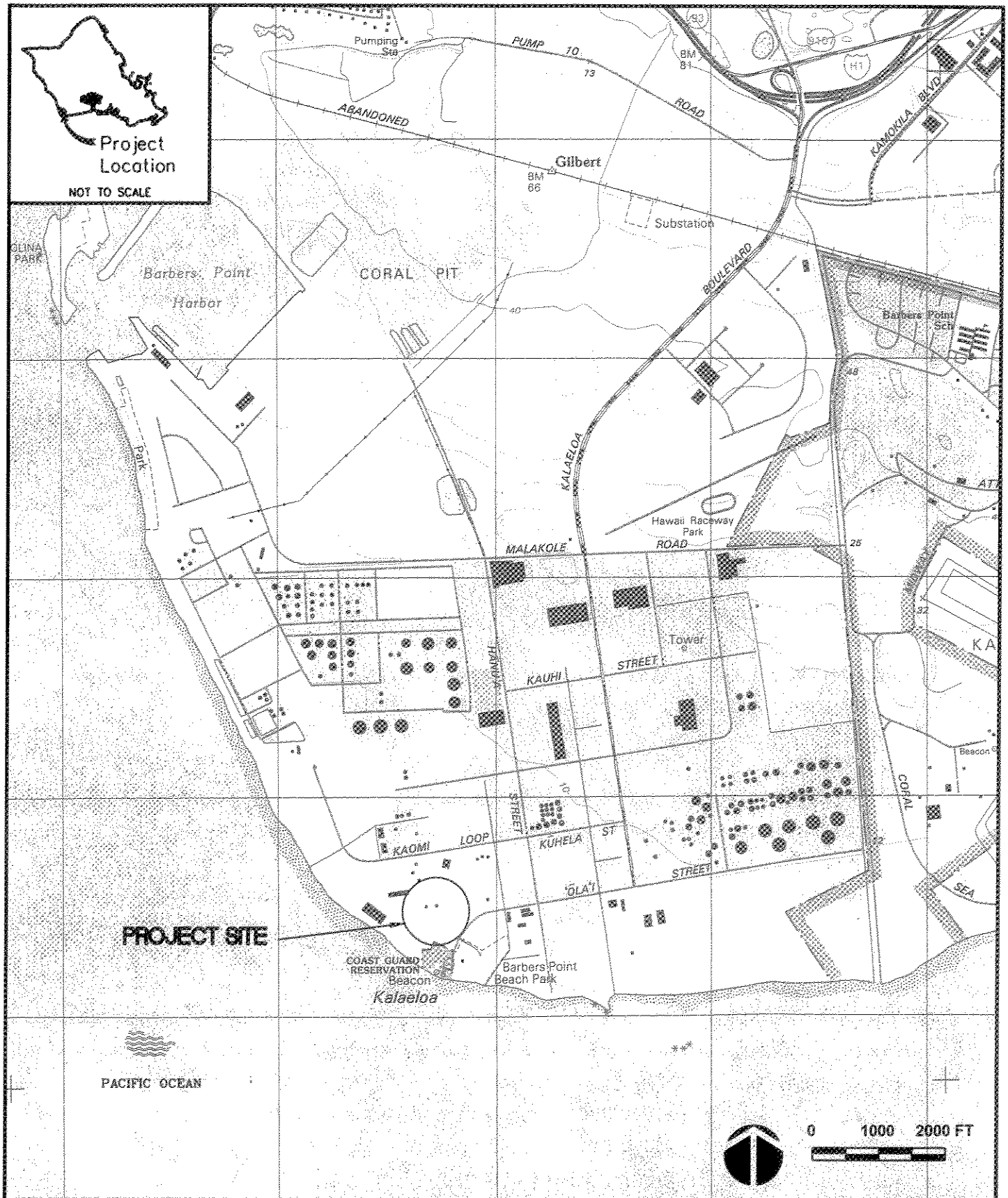
1.4 Project Location and Conditions

1.4.1 Project Location

The project site is located at 91-119 Olai Street in the southwestern section of Campbell Industrial Park, approximately 15 miles west of downtown Honolulu. The site is accessible from Honolulu via the H-1 freeway, then via Exit 1 west which connects to Kalaeloa Boulevard. Olai Street is the last east-west oriented street at the end of Kalaeloa Boulevard. The project site is adjacent to the Coast Guard's Barbers Point Lighthouse and the City's Barbers Point Beach Park. The Corporation Yard project site occupies 17.864 acres of Tax Map Key 9-1-026: 004. Figure 1.1 shows the project location map. Figure 1.2 shows the project site map. Figure 1.3 shows the project site topographic map. Figure 1.4 shows site photographs.

1.4.2 Existing Project Site Conditions

The project site is a relatively flat, featureless, sparsely vegetated parcel that has been cleared and graded for industrial use. The northeast portion of the site has remnants of large concrete foundations scattered throughout that indicate the presence of former structures. Until recently, a portion of the northeast end was used as storage area by the adjacent Hawaii Concrete products on a month-to month lease. Since termination of the lease, new fencing has been installed between the two properties.

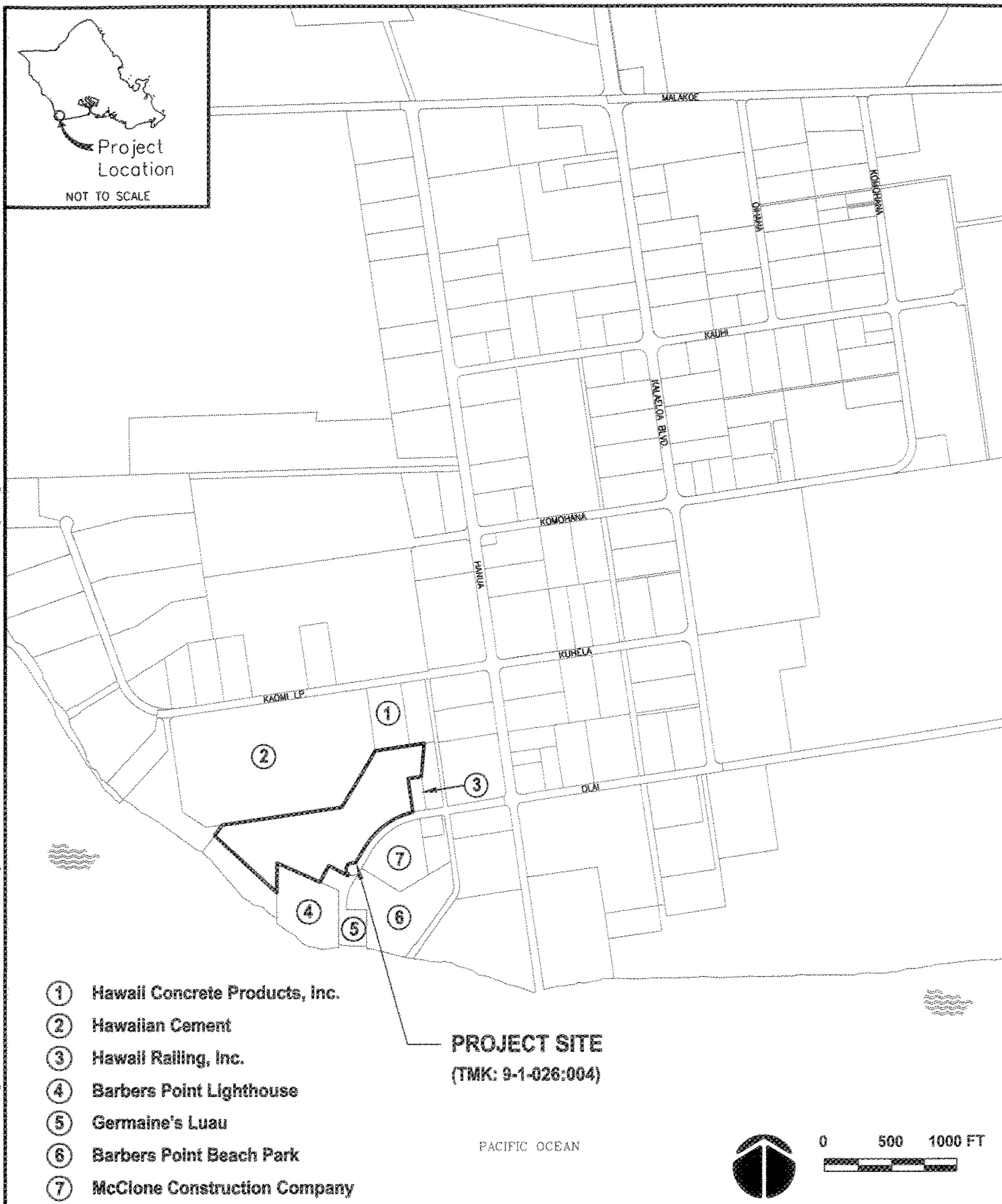


ENGINEERS · PLANNERS
WILSON OKAMOTO CORPORATION

KAPOLEI CORPORATION YARD
HONOULIULI, EWA, OAHU, HAWAII

PROJECT LOCATION MAP

FIGURE
1.1



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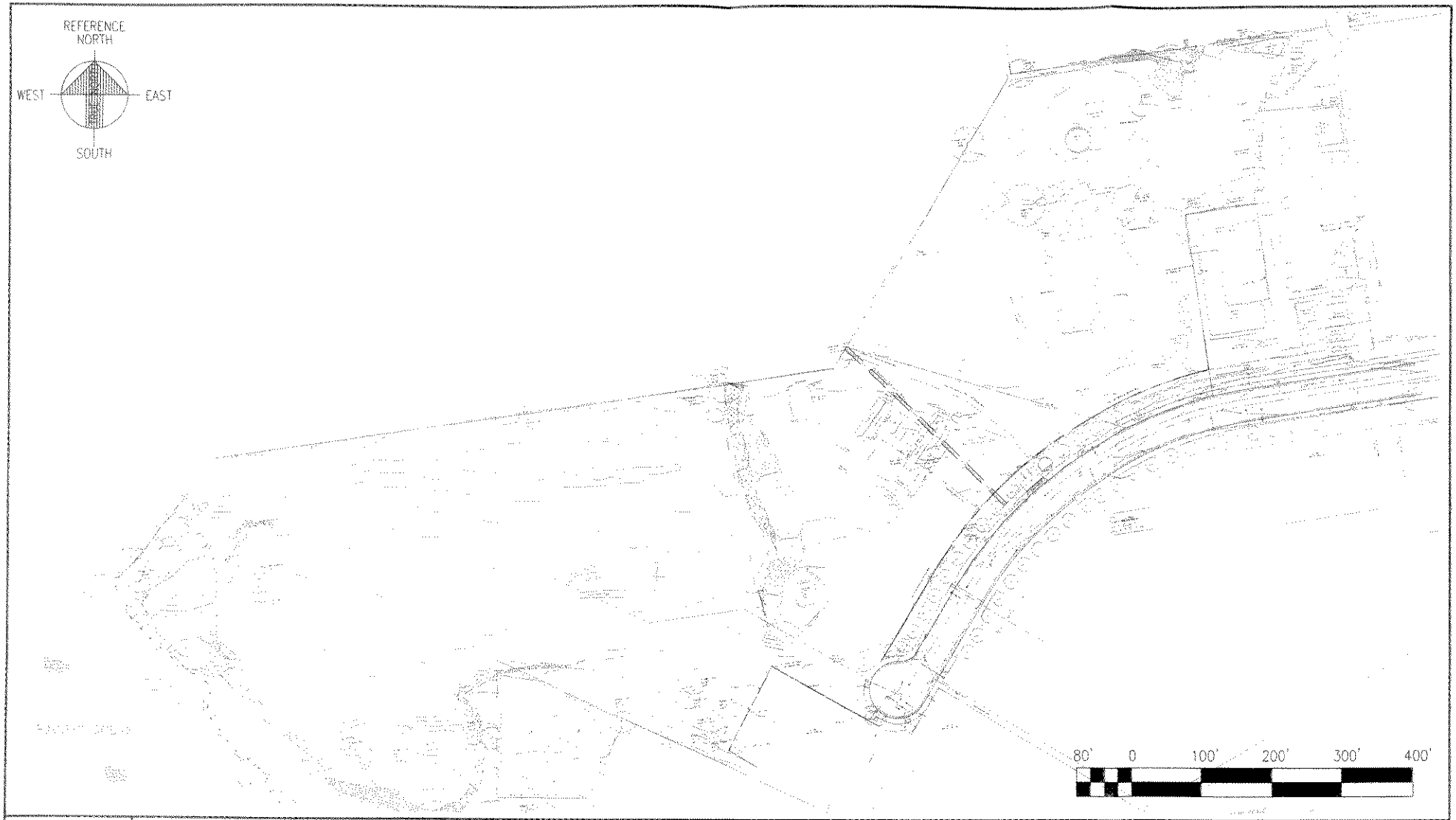
WILSON OKAMOTO CORPORATION

KAPOLEI CORPORATION YARD
HONOULIULI, EWA, OAHU, HAWAII

PROJECT SITE MAP

FIGURE 1.2



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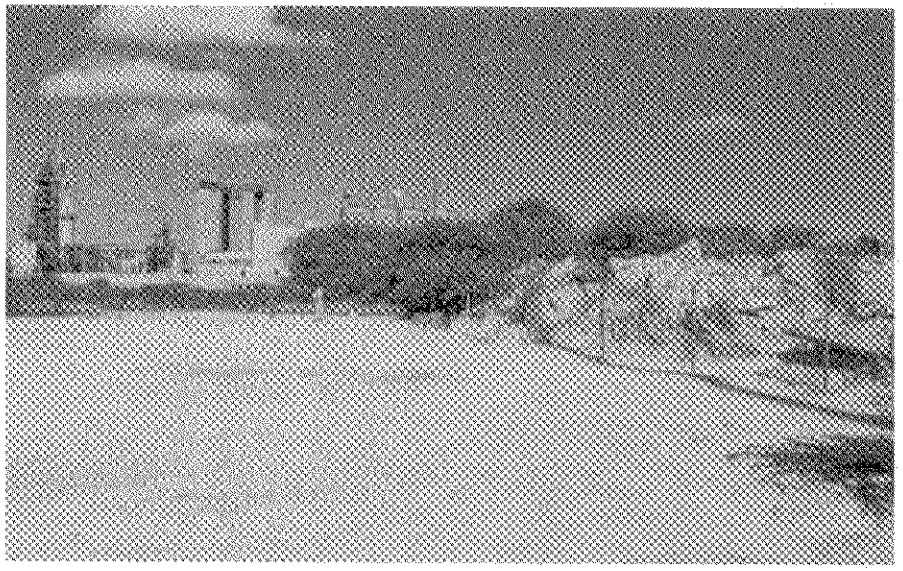
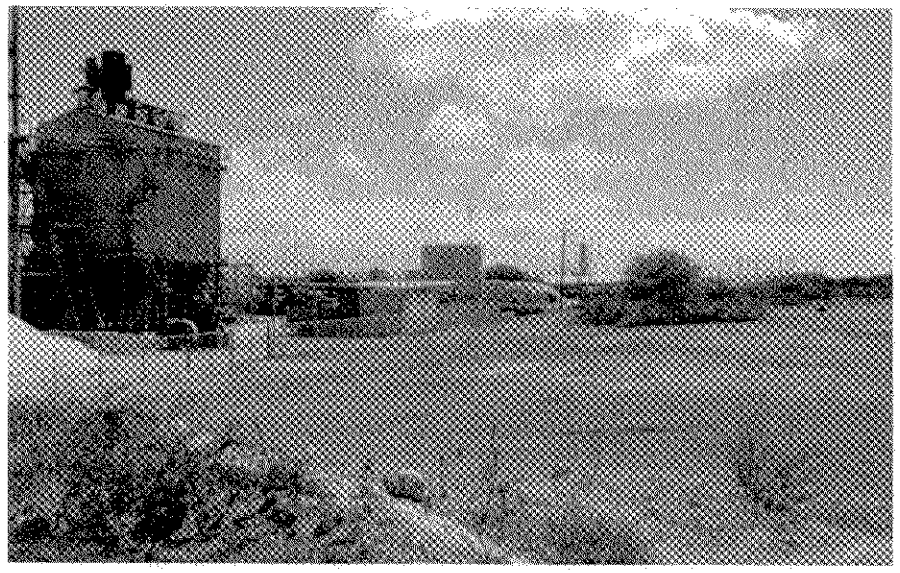
KAPOLEI CORPORATION YARD

PROJECT SITE TOPOGRAPHIC MAP

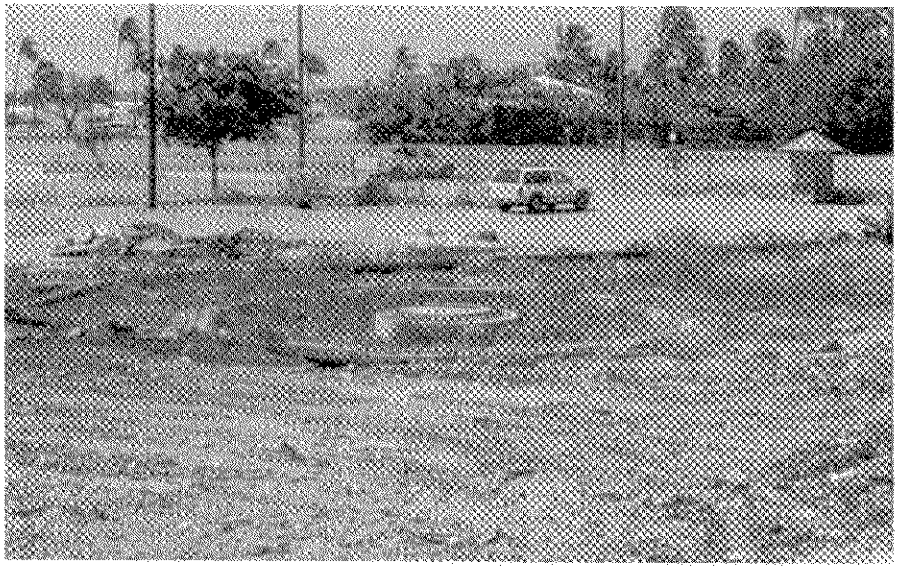
FIGURE
1.3



View from the northeast portion of the site, looking southwest. The abandoned cement plant is visible in the background.



View from the top of man-made berm, looking northwest over the central portion of the site (future AES facility).



View looking southeast at the former gun emplacement ring, to be preserved. Barbers Point Beach Park is visible in the background

View from on top of the man-made berm looking south towards Barbers Point Lighthouse and adjacent communication towers.

Figure 1.4 Site Photographs

The project site includes a landscape setback area along Olai Street planted with grass and a row of autograph and sea grape trees, some of which are 15-20 feet tall. This landscape setback area will be retained and will act as a visual buffer and screen for the improvements within the project site.

The central portion of the project site is currently being used by the Driver and Equipment Operator Training for their interim facility. Temporary modular buildings and open-sided metal structures are located in an asphalt covered training area. A chain link security fence separates the DET facilities from the northern portion of the project site.

West (makai) of the temporary DET facility is a 10-foot high, approximately 200-foot long bull-dozed earthen mound oriented north to south. West of this mound, the project site is very flat and has been cleared of most vegetation. Large, pre-cast concrete remnants have been bull-dozed to the southwestern edge of the project site near stands of kiawe trees and other introduced vegetation. Within this area is a series of sinkholes of varying depths, including some which are about 5 feet (1.5 meters) below the surrounding grade.

An overhead electrical line, under a lease of right-of-way to HECO and Hawaiian Telecom, closely follows the north side of the fence which separates the interim DET facility and the area to be used by the Waianae Corporation Yard. The overhead lines supply power to the parcel that contains the abandoned cement plant north of the project site. Land documents indicate the overhead line is located within a lease which expires on September 1, 2011.

A fuel line easement also runs across the project site, just south of the fence. The fuel line has been filled with concrete and abandoned–in-place.

Potable water is supplied to the project site via a 12-inch Board of Water Supply (BWS) underground line located on the north side of the Olai Street travel lane. The BWS has indicated the existing water system is adequate to accommodate development of the Corporation Yard. However, BWS has advised the City that this finding is based on current data and that the BWS reserves the right to change this position until the final approval of the building permit. The final BWS decision on the availability of water will be confirmed when the building permit is submitted for approval.

When water is made available, the City will be required to pay the BWS Water System Facilities charges for resource development, transmission, and storage.

The project site is not serviced by a City and County of Honolulu wastewater collection system. The City's existing wastewater collection system extends to the intersection of Malakole Street and Kalaeloa Boulevard, which is about 7,500 feet away from the project site.

As part of the design for the Waianae Maintenance Area, sewer lines will be constructed from the facilities to Olai Street for future connection to a collection system. The DET and AES areas will also include sewer lines for connection to a future collection system.

In addition, the project site is in close proximity to Kalaeloa Airport and the flight paths of Honolulu International Airport. Facilities with noise sensitive spaces such as the office buildings will be designed with sound attenuation treatment, as appropriate, to mitigate against aircraft noise.

1.4.3 Surrounding Land Uses

The project site is surrounded by a variety of industrial land uses. At the northern end of the site, Hawaii Concrete Products, Inc. currently runs an operation to turn out concrete forms. West of this, occupying most of the north border of the project site, an abandoned cement plant once operated by Hawaiian Cement is no longer in use. The massive towers of this former facility dominate the viewplanes in this direction. A small half-acre parcel on the east boundary of the project site is occupied by Hawaii Railing Inc. Beyond the eastern boundary of the project site there is an open drainage channel with a box culvert that runs under Olai Street. The open channel drains the surrounding industrial areas and carries storm runoff to the ocean.

To the south, the project site is bordered by the Barbers Point Lighthouse, under the control of the US Coast Guard. Part of the lighthouse property is leased to the Navy for a communication facility that includes two communication antennas. West of the lighthouse, Germaine's Luau operates a nightly commercial luau on the beachfront. Parking for the luau facility is located at the end of Olai Street, bordering the lighthouse property. North and east of Germaine's Luau is the Barbers Point Beach Park, owned and maintained by the City and County of Honolulu. Adjacent uses on the south side of

Olai Street include McClone Construction Company, which uses the site to make concrete forms, and Hawaii Metal Recycling Company.

1.5 Project Description

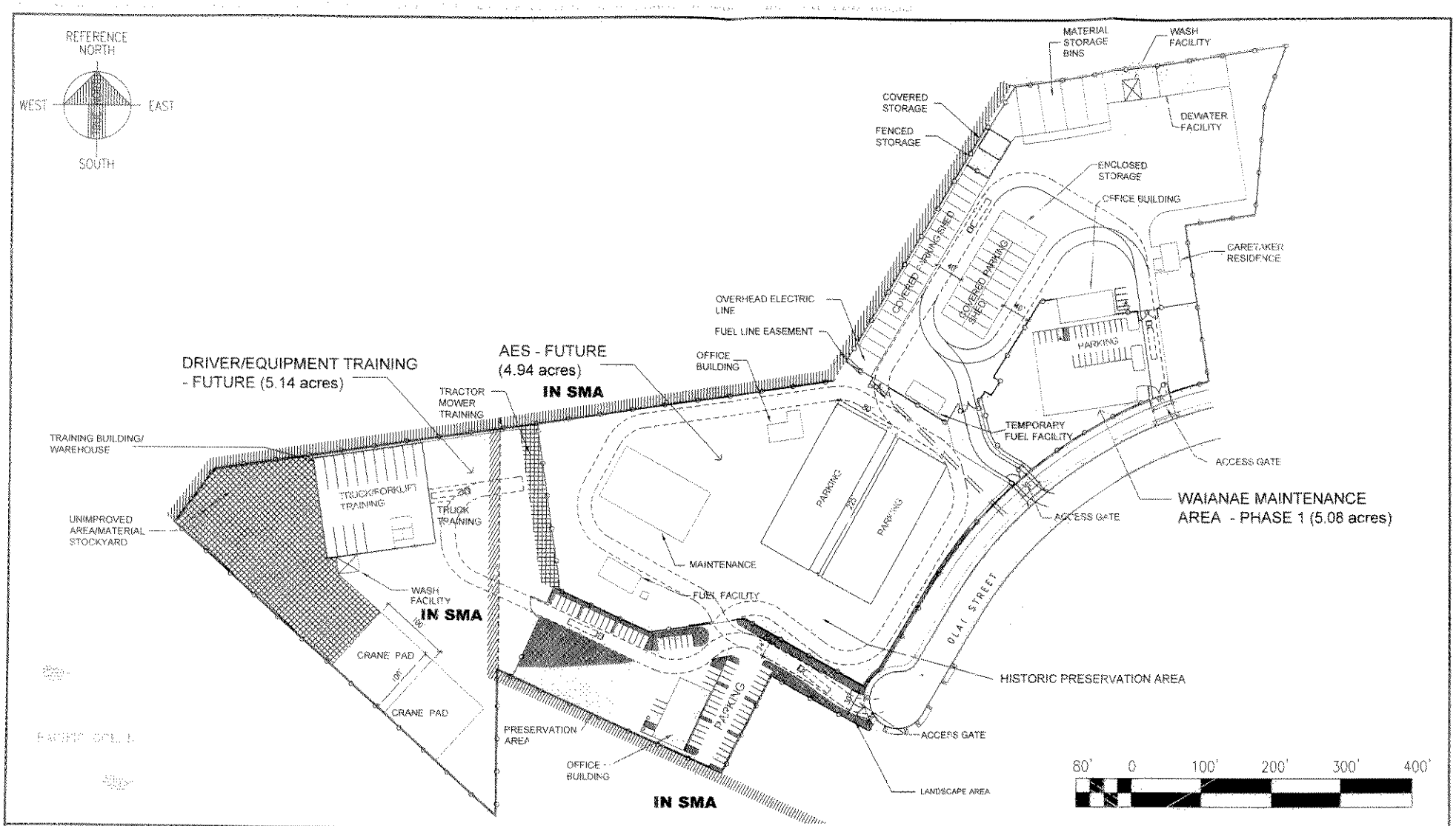
1.5.1 Project Site Plan

As previously discussed, the City will acquire the project site under a Unilateral Agreement (UA) between the City and County of Honolulu and the Estate of James Campbell. Approximately 15.16 acres of the 17.864-acre parcel has been planned for development for the Kapolei Corporation Yard. The remaining approximately 2.7 acres is located on the makai portion of the parcel, nearest the shoreline. This portion of the project site is about 250+ feet wide and will not be developed, although a security fence will be constructed parallel to the shoreline to control access. The shoreline area is located within Flood Zone AE with a base elevation of +9 feet.

The 17.864-acre project site will be developed in phases according to the availability of funds in the City's Capital Improvements Projects (CIP) program. At this time, only the Waianae Corporation Yard has been funded for construction. CIP funding has not been approved for the Driver and Equipment Operator Training facilities and the AES facilities. The CIP funding for these facilities is not known.

The site plan shows the Waianae Corporation Maintenance Area will use about 5.08 acres in the mauka portion of the project site and will be developed first. The Driver and Equipment Operator Training area will be set back about 250+feet from the shoreline and use about 5.14 acres for training facilities. The AES will use 4.94 acres in the central portion of the project site for maintenance facilities and vehicle and equipment parking. Note, planning, design, and funding, for the DET and AES areas may result in some adjustments to these land areas.

As planned, each of the three users at the Kapolei Corporation Yard will have their own 30-foot wide gate entry off of Olai Street. Perimeter security fencing will be installed around the entire project site, and each facility will be separated off from the others with yard fencing. Figure 1.5 shows the site plan. A description of each facility's components is given below.



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ENGINEERS + PLANNERS

KAPOLEI CORPORATION YARD

PROJECT SITE PLAN

FIGURE 1.5

1.5.1.1 Waianae Maintenance Area

The 5.08 acre Waianae Corporation Yard site will provide covered parking shed space for 37 pieces of equipment and vehicles including pickups, dump trucks, Vactor trucks, 6-man crew cab trucks, and trailers and street sweepers. Covered enclosed storage will be used for concrete mix, small tools and equipment, and miscellaneous materials. Four exterior storage bins will be used to store topsoil, coral material, base course, and surge rock. An exterior material storage area will be provided for temporary holding of materials to be re-used or transported to a landfill.

Two covered equipment/vehicle parking sheds, one with 20 stalls and one with 18 stalls, will be constructed to provide covered parking for City-owned vehicles and equipment. Trench drains will be constructed at the front of the sheds to collect runoff from the parked equipment. Flows from the trench drains will be routed to an oil/water separator and then to septic tank and leach field for disposal. The oil/water separator and septic tank will act to remove oils and other petroleum based fluids before the effluent is routed to the leach field.

One concrete wash pad will be installed to wash vehicles and some equipment. The concrete pad will slope to a central drain collection system and will direct flow to an underground oil/water separator and then to an associated leach field. When not in use, a switch will direct storm runoff in the pad to the leach field, bypassing the oil/water separator. The oil/water separator will require periodic pumping by a contractor.

One office/administration building will be constructed with space for 5 office personnel, a 10 person meeting room, a crew assignment area, and a large covered meeting area for 41 personnel. Male and female lockers, showers, and restrooms for 36 field personnel will be included. The office/administration building will be approximately 2,880 square feet.

Currently, the Waianae Corporation Yard has a total of 17 authorized positions; 5 office and 12 field positions. DFM expects the number of authorized positions will increase to a total of 41 personnel; 5 office and 36 field positions. During off-hour emergencies, crews are assigned as needed.

An adjacent 1,400 square foot, 3-bedroom caretaker's cottage will be built to oversee the yard area. The caretaker cottage will be similar to the existing one at the Waianae Corporation Yard. The DFM person assigned to the caretaker cottage is responsible for organizing and responding to off-hour emergencies.

Temporary fueling facilities will initially be required in the Waianae Maintenance Area until fueling facilities are constructed within the future AES area. The temporary fueling facilities will replace the existing facility located in the Waianae Corporation Yard which is used to fuel City vehicles and equipment on the Leeward coast.

The temporary fueling facilities will include double-walled, above-ground, tanks with attached dispensers. Fuel requirements should be similar to the existing yard, which provides 2,500 gallons of diesel, 1,000 gallons of unleaded gasoline, and 300 gallons of propane. Bollards will be installed to protect the tanks.

The Waianae Maintenance Area will use two on-site wastewater treatment and disposal systems. One system will collect wastewater from the office/administration building and the caretaker cottage for treatment in a septic tank and for disposal in a leach field located near the access gate. The second system will collect flows from the trench drains and the wash facility for treatment in a septic tank and disposal in a nearby leach field.

The Waianae Maintenance Area is not serviced by the City sewer system. Thus, the Waianae Maintenance, DET, and AES areas will all require the use of septic tanks for treatment of wastewater, including for wash facilities, and leachfields for disposal of effluent. The wastewater systems within the project site will require review and approval by the State of Hawaii Department of Health to ensure the system complies with Title 11 Hawaii Administrative Rules Department of Health Chapter 62, Wastewater Systems.

Surface runoff from the Waianae Maintenance Area will be collected via inlets and underground drain line. An on-site detention basin located near the future AES access gate will be used to collect and treat the surface runoff before it percolates into the subsurface. During storm events, flows from the detention basin will be routed to the existing City storm drain system located in Olai Street. The City storm drain system flows to an outlet to the open drainage channel within Barbers Point Beach Park.

The detention basin volumes will be designed to the requirements contained in the City and County of Honolulu Rules Relating to Storm Drainage Standards. Drain inlets will likely be equipped with replaceable catch basin inserts that can collect silt, debris, oils and greases.

A dewatering facility is shown on the site plan to reserve space for a future facility. The dewatering facility will be used to treat material pumped out of storm drain systems and roadside drywells and sumps. The facility will consist of a covered open-sided structure with space for 2 settling basins and a solids holding/drying area and will be similar to the two existing dewatering facilities used by the City. One of the dewatering facilities is located at the Sand Island Wastewater Treatment Plant and one at the former Ahuimanu Wastewater Treatment Plant.

Debris and liquids pumped out of the storm drain system or injection wells by Vactor trucks are dumped at the dewatering facility to settle the liquid from the solids and debris. The solids and debris are allowed to dry before being trucked to a landfill. The liquid effluent from existing facilities is sent to the City's wastewater treatment system for treatment and disposal.

As previously discussed, the project site is not serviced by the City wastewater collection system. Thus, at the project site, one alternative would be to construct a large holding tank to collect the liquid effluent. The collected effluent would have to pumped out of the holding tank using a Vactor truck and trucked to the Honouliuli Wastewater Treatment Plant for treatment and disposal. Such a system would be labor intensive and time consuming for DFM personnel.

Alternatively, approximately 7,500 feet of sewer force main could be constructed to connect the project site and Honouliuli Wastewater Treatment Plant. Since the Treatment Plant site is located up gradient from the project site, one or two pump stations would also have to be constructed and maintained by the City. The expected high cost of a force main and pump station system was not included in the CIP funding for the Kapolei Corporation Yard.

Based on these two considerations, the dewatering facility is shown as a space reserved for future construction.

1.5.1.2 Driver and Equipment Operator Training - Future

The Driver and Equipment Operator Training (DET) function provides training for new City employees and refresher courses for current City employees. The training is provided on City-owned vehicles and equipment.

The DET will occupy 5.14 acres on the makai portion of the site, accessible from the last access gate at the end of Olai Street. The DET facility will provide indoor and outdoor spaces for training City employees in the operation of trucks, dump trucks, tractor-trailers, tanker trucks, refuse side loaders, street rollers, backhoes, bulldozers, large and small cranes, mowers, forklifts, and various other pieces of equipment used for maintaining City facilities.

The DET function provides classroom and on-site training for use of City-owned vehicles and equipment. The training classes range from half-day long to 8 hours/day for two weeks. Typically, a classroom examination and skills tests are part of the training program, and, in the case of crane operators, a Federal examination and certification.

An outdoor asphalt paved skills course will be permanently laid out so that it is available for training drivers' skills. This course will be used by trucks, trailers and refuse trucks for training to take the driver's exam. An open and unimproved area will be reserved for stockpiling material for bulldozer operators training.

A training building will be constructed on the site to conduct vehicle and equipment training and to secure assigned equipment. DET conducts training such as hooking up equipment and pre- and post-operation check procedures. Equipment and vehicle engines are running during this training, which ideally is conducted under a roof to provide better controlled conditions than outdoors. For this reason, the current building concept is to provide partial walls, 6 to 8 feet high, topped with chain link to the roof eaves. This would eliminate the need for mechanical exhaust and forced outside air, which would be costly to construct and operate.

Preliminary plans show the vehicle and equipment training building would contain about 19,600 square feet of space with an interior roof clearance height of around 30 feet, or high enough to accommodate indoor training for cranes.

Two crane pads will be provided on a level area near the training building. City employees will use the crane pads to train on setting up the cranes properly for use in the field. City employees must be certified under a Federal program to use the cranes in the field.

An area will be used to conduct training on tractor mowers which are used to maintain the landscaping at City facilities. An area near the office building also includes landscape space which can be also be used for tractor mower training and, if necessary, as an on-site detention basin for storm runoff.

Similar to the Waianae Maintenance Area, one concrete wash pad will be installed in order to maintain vehicles. The pad will slope to a central drain collection system and will direct flow to an underground oil/water separator and associated leach field. When not in use, a switch will direct storm runoff in the pad to the leach field, bypassing the oil/water separator. The oil/water separator will require periodic pumping by a contractor.

DET requires an office-classroom building for assigned personnel and rooms to conduct training classes and exams. DET planning shows the need for two exam/class/meeting rooms with a total capacity of 50 persons, one to hold 20 persons and the other to hold 30 persons. DET has indicated both rooms could be in use at one time. Based on preliminary planning, the office-classroom building would occupy about 3,650 square feet.

The exam/class/meeting room is required by NCCCO (crane training/certification group) to accommodate a minimum of twenty (20) people. A written exam is administered approximately four (4) times per year.

The Driver Training function conducts the City's Driver Improvement Program (DIP). Approximately thirty (30) City employees per class attend the half-day DIP session. A handwritten test is part of the DIP. Computers are not required for the administration of the test.

A total of four (4) City personnel are assigned to DET function to conduct the necessary training. DET has a total of 16 assigned vehicles and equipment, including 6 trucks, 4 tractors, 3 trailers, and one each roller, backhoe and tanker truck.

Parking stalls, including required handicap stalls, will be provided for City employees attending the training. In addition, it will be necessary to have on-site treatment of wastewater and disposal of effluent by a leach field.

The DET area will need to provide a fire apparatus access to the facilities and structures. The detail site planning for the DET facilities will need to account for the requirement to provide fire apparatus access. During the detail design process, the plans will be submitted to the Fire Department for review to ensure the facilities meet the requirements of applicable City codes, including the Uniform Fire Code.

An area containing sinkholes was uncovered at the southern boundary of the project site in the DET area during the archaeological survey. Eight (8) of these sinkholes were found to be adjacent to or within the site of the proposed DET office building shown in the Draft EA. After further review, the Project Site Plan layout for the DET facility has been revised to avoid these sinkholes. The area containing these sinkholes is shown on the revised Project Site Plan as a Preservation Area. See Figure 1.5

The Site Plan has also been revised to delete development in the area of the remaining group of shallower sinkholes to the west, along the north-south oriented property boundary fence line. As part of the future detail planning, design, and construction of the DET facilities, City funds will be provided for supplementary testing of this area. A preservation plan for Site 6886 (the WW II-era gun emplacement) will also be prepared at that time.

As previously indicated, planning, design, and funding limitations for the DET area may result in some adjustments to the size of the facilities and the land area.

The preliminary project site plan shows the DET training building/warehouse, two crane pads, wash facility, and unimproved area/material stockyard will be located within the SMA.

1.5.1.3 Automotive Equipment Services - Future

The AES facility is planned to occupy 4.94 acres that will be accessible from the middle gate off of Olai Street. Although this space has been reserved for AES, detailed planning of the facility has not occurred since relocation of the Pearl City Repair Shop to

the project site is a long-term objective. It is anticipated that the new Kapolei facility will be similar in design to the existing Pearl City Repair Shop.

Based on the existing Pearl City Repair Shop, the new facility would be a single-story structure with a high ceiling, drive-through bays, and motorized roll-up doors. The workspace would have lifts for servicing vehicles, a bridge crane to handle large parts and pieces of equipment, and welding outlets. Storage spaces would be provided for parts, batteries, new/used oil, new/used tires, and shop equipment. A vehicle staging area for at least 10 vehicles would be needed near the facility. Preliminary plans show the maintenance building would be about 10,800 square feet. Detailed space requirements for the office would be established during the design phase.

A separate office building or an attachment to the maintenance would be needed within the AES area. The building would contain spaces for personnel, service manuals, records, and meeting/training room. Detailed space requirements for the office would be established during the design phase.

AES provides and operates the City's fueling facilities. Thus, once a permanent fueling facility is provided within the AES yard area, the temporary facility within the Waianae yard would be closed. The Kapolei fueling facility is anticipated to be similar to the City's Halawa service station operated by AES. The station would have a canopy to cover the above-ground storage tanks for diesel, unleaded fuel, and propane.

AES is responsible for storing City-owned vehicles and pieces of equipment which will be auctioned. Since the storage space can vary depending on the number of vehicles and pieces of equipment, frequency of the auction, and other factors, for space planning purposes, a parking/storage area for about 60 units, including 40-foot trailers, would be required.

The AES area will need to provide a fire apparatus access to the facilities and structures. The site planning for the AES facilities will need to account for the requirement to provide fire apparatus access. During the detail design process, the plans will be submitted to the Fire Department for review to ensure the facilities meet the requirements of applicable City codes, including the Uniform Fire Code.

1.6 Project Operation

1.6.1 Personnel

Total positions planned for the Waianae Maintenance Area are 41, with 36 field positions and 5 office positions. The yard caretaker will be part of the staff as the #2 supervisor. The caretaker will live on-site and will be on 24-hour response.

The DET will have a total of 4 assigned staff. Based on the current Pearl City Repair Shop, the AES will have 7 positions.

1.6.2 Hours of Operation

The corporation yard will operate between 7:00 am to 3:30 pm Monday through Friday. Personnel will arrive starting at around 6:30-6:45, spend about 45 minutes to get work assignments and mobilize for the field. They will return to the yard around 2:30 pm to clean up and prepare necessary reports.

2. DESCRIPTION of EXISTING ENVIRONMENT, IMPACTS and MITIGATION MEASURES

2.1 Geology and Soils

2.1.1 Existing Environment

The Ewa plain and much of the rest of the southern edge of Oahu is underlain by a broad elevated coral reef, partly covered by limestone and alluvial deposits carried down from the mountains. The plain is composed of calcareous material that has been modified, consolidated, and cemented by weathering factors to form a hard but extremely permeable surface. Drill holes in the Ewa plain show that lava flows from the Honolulu Series are also interbedded with the reef deposits.

According to the Soil Conservation Service's "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii" dated August 1972, the soil series found at this site includes Coral outcrop (CR) and Beaches (BS). Coral Outcrop consists of coral or cemented calcareous sand with a thin layer of friable red soil material in cracks, crevices, and depressions. BS consists mainly of light-colored sands derived from coral and seashells that have been washed and rewashed by ocean waves.

The surface of the limestone outcrop, where not covered by alluvium, has characteristic dissolution "pit caves" that are commonly referred to as sinkholes. In the previously graded portions of the project site, most of these sinkholes have been filled and are no longer visually evident. However, borings undertaken as part of the Foundations Investigation for the project site found a 13-foot void in one of the borings. In addition, there are a number of sinkholes still remaining in the ungraded portions of the project site near the boundary with the Barbers Point Lighthouse. These sinkholes vary widely in areal extent and depth. Some of the more modest features are comparable in volume to five gallon buckets, while some of the larger features are two or more meters wide and of a similar depth. Several of the sinkholes extend down to and below the water table.

2.1.2 Impacts and Mitigation Measures

Construction of the Kapolei Corporation Yard facilities will require subsurface excavation for placement of the foundations and footings for the various maintenance, warehouse, storage, and office buildings. This will disturb surface and subsurface soils and will displace the soils with asphaltic pavement and on-grade slab foundations that are placed on the surface for the various structures. However, this disturbance will not adversely affect the soils and geology of the project site and surrounding area.

Subsurface excavation would be required to set footings and slab foundations for the buildings and structures. Although the decision on the specific method of construction is made by the contractor, it is expected the subsurface work will be done by grading, in the case of slab foundations, and by using a backhoe or an augur to drill for the deeper footings. Typically, this type of drilling does not create vibrations which might affect surrounding facilities. It should also be noted there are no facilities close to the new structures to be constructed.

With regard to seismicity, the island of Oahu is assigned seismic Zone 2A, one of five seismic zones set forth in the 1997 Uniform Building Code (UBC). Zone 2A is the next lowest seismic zone in the UBC. The State of Hawaii and the counties, including the City and County of Honolulu, have adopted the UBC as the applicable code for constructing buildings, structures, and facilities. The City and County of Honolulu uses the 1997 UBC.

The purpose of the seismic provisions in the UBC is primarily to safeguard against major structural failures and loss of life, not to limit damage or maintain functions. Structures are to be designed and constructed at a minimum to resist the effects of ground motion from seismic events. The site seismic hazard characteristics in the UBC are based on the seismic zone and proximity of the site to active seismic sources.

The Kapolei Corporation Yard facilities and improvements will be designed and constructed to meet the requirements of the 1997 UBC. Compliance with the UBC will ensure that the Corporation Yard can meet the seismic loadings established for Zone 2A. This will ensure that the geological conditions at the project site do not adversely affect the building and facilities.

2.2 Water Resources and Flood Hazard

2.2.1 Existing Environment

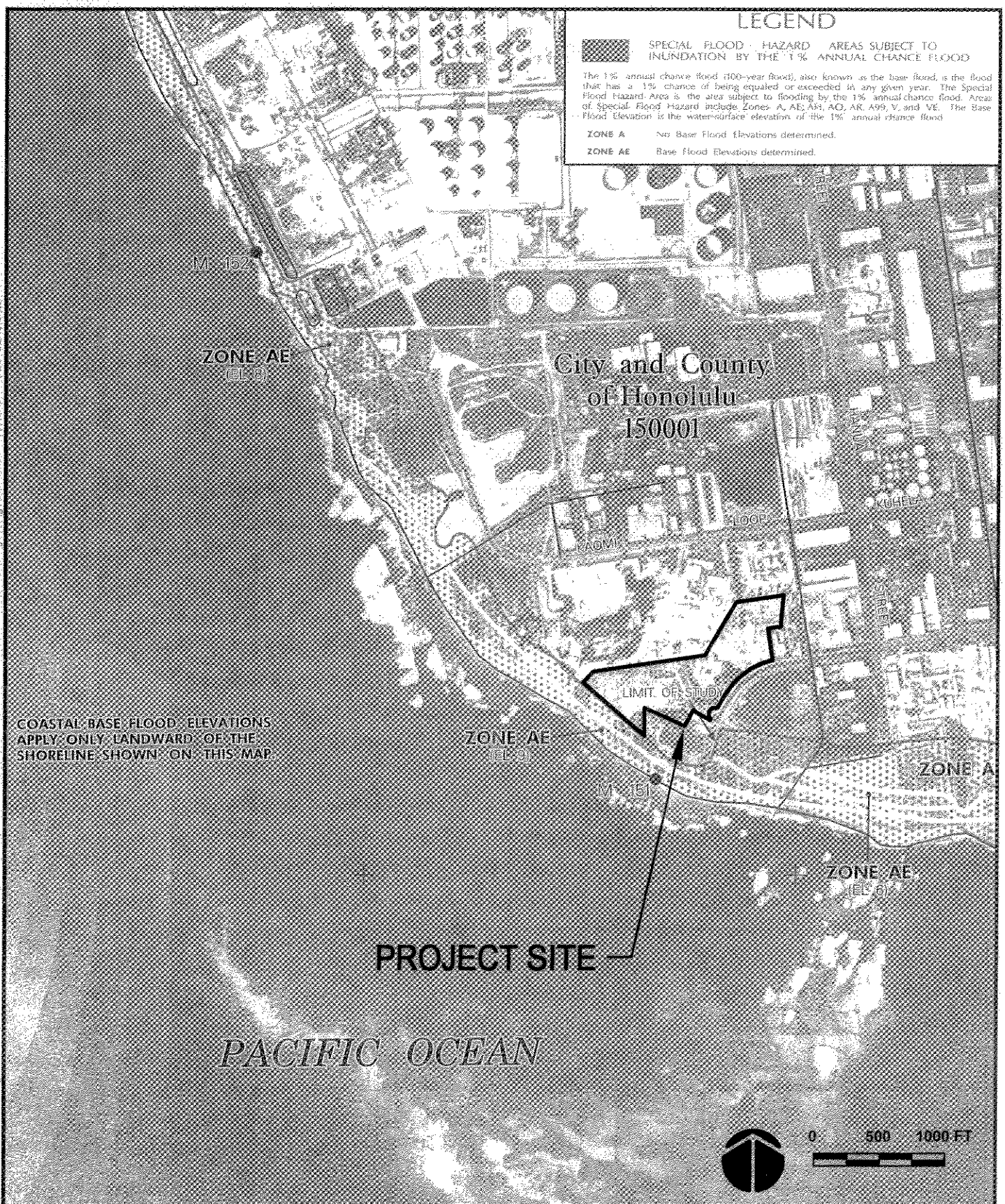
There are no perennial streams, ponds, or other surface water resources on the project site. For the most part, currently, runoff is absorbed on site by the porous coral substrate. However, during high rainfall events, some water may collect on the surface for short periods.

The shoreline at Barbers Point is composed of terrestrial alluvium and coral limestone deposited by the ocean which forms a wedge of sediments and sedimentary rock referred to as "caprock". The caprock layer in the vicinity of the project site is approximately 250 feet thick. The uppermost layer of this caprock contains brackish groundwater which is too salty for most irrigation purposes. The lower layers contain groundwater of approximately seawater salinity.

The marine waters off of the coast from the project site are designated Class A waters, as outlined in Hawaii Administrative Rules 11-54. One of the objectives of Class A waters designation is to protect their use for recreational purposes and enjoyment. The nearshore waters off of the project site are seldom used due to their remoteness and due to the rocky shelf at the water's edge which makes recreational access very difficult.

According to Panel 315 of 395, Map Number 15003C0315 F, Flood Insurance Rate Map dated September 30, 2004, the southwest shoreline portion of the project site is within Zone AE (base flood elevations determined). Base flood elevation is +9 feet. This flood elevation is associated with rising seas during a storm event and not necessarily from surface runoff. The Zone AE flood elevation extends between 60 to 80 feet into the property, but it does not encroach into the portions of the project site which would contain improvements (see Flood Map, Figure 1.6).

The entire project site is within the Tsunami Evacuation zone, as determined by City and State Civil Defense agencies. The Tsunami Evacuation Zone depicts estimated inundation limits for all coastal areas of Oahu using available historical data. The evacuation zone designation is an advisory designation meant to foster tsunami preparedness. It does not impose any building restrictions on proposed development.



ENGINEERS · PLANNERS
WILSON OKAMOTO CORPORATION

KAPOLEI CORPORATION YARD
HONOULIULI, EWA, OAHU, HAWAII

FLOOD MAP

FIGURE
2.1

Path: D:\WOC\7236-01 Kapolei Corp Yard\plng\env assmt\ Filename: 7236-01_Flood Map Plot date: Jul 31, 2007-1149:50am CAD User: jsakaguchi Xref Filename: I_WOC-BOR8.5x11P_1

The Foundations Investigation for the Waianae Maintenance Area of the project site drilled 10 exploratory borings to depths ranging from approximately 5 to 19 feet. Groundwater was encountered in deeper borings at depths ranging from 6.2 to 9.5 feet below existing grade. The Foundations Investigation indicated that groundwater levels can be expected to vary with tidal fluctuations.

2.2.2 Impacts and Mitigation Measures

Temporary erosion control measures will be used during construction to prevent runoff to nearby areas, including to adjacent facilities. These mitigation measures will include the use of temporary BMPs consisting of silt fence and dust screens along the perimeter of the project site, and periodic watering on exposed areas, when necessary. These measures will contain surface flows within the project site during the construction period. In addition, during construction, a crush rock pad will be used at the ingress-egress point to prevent soil and other material from being carried onto nearby streets. Construction of the improvements and associated ground disturbing activities will not result in discharge into the waters of the United States.

In the long-term, construction of the project will cover much of the site with enclosed structures and asphalt parking areas and driveways. Runoff from the floors of the parking sheds in the Waianae Maintenance Area will be contained in a trench drain system which will be routed to an oil/water separator tank. This trench drain system will prevent oils, lubricants, and other petroleum-based fluids in vehicles and equipment from flowing onto the paved areas.

Runoff from the paved areas within the Waianae Maintenance Area will be collected in underground drain systems and then routed into on-site detention basins for percolation and evaporation. During storm events, when the capacity of the detention basins cannot accommodate all the flows, the detention basin would act to settle sediments and other material before the excess runoff entered the adjacent municipal storm drainage system within Olai Street. A below-ground drain easement at the end of Olai Street runs under a field at the Barbers Point Beach Park and into an open channel that discharges runoff to the ocean.

The design of the drainage system within the DET and AES areas would have to consider a similar combination of subsurface drain line and detention basins. The on-

site detention basin will act to contain or settle out suspended sediments or other pollutants which might be in the surface runoff.

The detention basin volumes will be designed to the requirements contained in the City and County of Honolulu Rules Relating to Storm Drainage Standards. Drain inlets will likely be equipped with replaceable catch basin inserts that can collect silt, debris, oils and greases.

A drainage report will need to be submitted the Department of Planning and Permitting (DPP) Civil Engineering Branch for review and approval as part of the facility design process for each portion of the project site, including for the DET and AES areas, when the design plans for these area are prepared.

The project site could contain two concrete wash facilities, one in the Waianae Maintenance Area and one in the DET. The pads will slope to a central drain collection system that will direct flow to an underground oil/water separator, then to a septic tank for treatment and then to a leach field. The oil/water separator will be pumped out periodically by a contractor. There will be no discharge of wash water into the municipal drainage system which leads to the ocean. As previously discussed, the DET facilities have not yet been funded for design and construction.

Plans for the DET area include an unimproved stockpile area which will be used to train City employees in the use of backhoes, bulldozers, and other types of earth moving equipment. The unimproved stockpile area will be enclosed with a wall or berm to ensure that potential surface runoff does not run into the shoreline area or to the City drainage system.

The project site is not serviced by the City sewer system. Thus, the Waianae Maintenance, DET, and AES areas will all require the use of septic tanks for treatment of wastewater, including for wash facilities, and leachfields for disposal of effluent. The wastewater systems within the project site will require review and approval by the State of Hawaii Department of Health to ensure the system complies with Title 11 Hawaii Administrative Rules Department of Health Chapter 62, Wastewater Systems.

The rules set forth guidelines for the design of treatment and disposal systems, including for individual systems such as those which will be needed at the project site.

Chapter 62 seeks to ensure that the use and disposal of wastewater does not contaminate or pollute any drinking water supply, or the waters of any beaches, shores, ponds, lakes, streams, groundwater, or shellfish growing waters.

Adherence to the Chapter 62 guidelines would protect the groundwater and nearshore resources from pollutants which may be present in the treated wastewater, including from toilets, showers, and wash facilities. Further, as previously discussed, the Waianae Maintenance Area will include a trench drain system to collect oil and other petroleum-based fluids from vehicles and equipment in the parking sheds.

2.3 Agricultural Lands

2.3.1 Existing Conditions

In 1975, the US Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) initiated a nationwide inventory of important farmlands. When completed, the inventory included three categories "prime", "unique", and "other farmlands of state-wide and local importance". This classification was later adopted by the State of Hawaii Department of Agriculture under the title "Agricultural Lands of Importance to the State of Hawaii" (ALISH).

The ALISH system defines "prime agricultural land" as lands best suited for food, forage, and timber crops. "Unique agricultural land" is defined as land other than prime, used for the production of high-value food crops. "Other agricultural land" is defined as land used for the production of food, feed, fiber and forage crops, but not classified as "prime" or "unique".

According to the January 1977 ALISH Ewa area map, the project site is not classified as "prime, unique or other agricultural land", indicating that the lands are not in the highest classification for productivity and high yield. No evidence of pre-historical, historical or modern agricultural use of the site has been documented.

2.3.2 Impacts and Mitigation Measures

The project site occupies an area of about 17.864 acres which is currently undeveloped and not used for agricultural production. Removal of this not classified agricultural land will not adversely affect agricultural productivity on Oahu.

2.4 Hazardous Waste

2.4.1 Existing Conditions

The project site shows evidence of past ground clearing and further industrial use. The northeast portion of the project site has remnants of large concrete foundations scattered throughout that indicate the presence of former structures or other improvements. The previous use of these former structures is not known.

In the southeast makai portion project site, remnant pieces of pre-cast concrete have been bull-dozed to the edge of the site, near the boundary with the Barbers Point Lighthouse.

Given the location in an industrial area and the evidence for prior industrial use, an environmental sampling and testing of the project site was conducted to screen for the potential presence of chemical contaminants. Based on known past uses, the potential for migrating from offsite, and the current conditions of the project site, a total of 19 sampling locations were chosen to take soil borings to determine the presence of hazardous waste. Nine of these locations were further drilled to use as temporary groundwater monitoring wells. Appendix B contains a summary of the findings. The complete report, including the results of the laboratory analysis of the samples, is on file with the DDC.

All soil samples were tested for total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons, and Resource Conservation and Recovery Act (RCRA) 8 metals. Select locations were also tested for benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary-butyl ether (MtBE); halogenated volatile organic compounds (HVOCs); and PCBs. All groundwater samples were tested for BTEX, MtBE, PAHs, and RCRA 8 metals. Select groundwater samples were additionally tested for PCBs and HVOCs.

Based on the sampling, no constituent chemical analytes were detected at concentrations in excess of the Hawaii State Department of Health's (DOH) Environmental Action Levels (EALs). Three soil samples were reported with TPH as oil concentrations in excess of the EAL for potential nuisance concern (odors, etc.) but not above the EAL for potential leaching concerns or human health concerns. See Appendix B.

2.4.2 Impacts and Mitigation Measures

The potential nuisance concern associated with the TPH as oil in soil is not a potential concern provided the surface pavements or buildings will cover the shallow soil areas and the stockpile of soil is removed and properly disposed.

Both the Waianae Maintenance Area and the Driver and Equipment Operator Training facilities will provide a concrete wash pad with an underground oil/water separator. The wash pad will be sloped to a center drain collection system. The pad will include a switch to direct wash water or storm water flow to the oil/water separator or to the leach field. The oil/water separator will require periodic pumping by a contractor. Overflow from the oil/water separator will be connected to the leach field. The wash pad and drain collection system will prevent the discharge of oil to the municipal storm drain.

The Yard will also be equipped with fuel storage and dispensing facilities. The fuel station will have a canopy over the tanks which will contain diesel and unleaded gasoline. Temporary fueling facilities will be required until AES fueling facilities are constructed within the future AES area. Fueling facilities will be double-walled above-ground tanks with attached dispensers and a detection system to monitor leaks in between the walls. Use of double-walled, above-ground tanks will mitigate against the risk of contaminated soil and groundwater from leaks in the storage tanks.

The parking sheds will include trench drains at the front of the sheds to collect runoff from the parked equipment. Flows from the trench drains will be routed to an oil/water separator and then to septic tank and leach field for disposal. The oil/water separator and septic tank will act to remove oils and other petroleum-based fluids before the effluent is routed to the leach field. Use of the trench drains and oil water separators will protect groundwater sources from contamination.

Plans for the AES area show a facility for the repair and maintenance of vehicles and equipment. Vehicle maintenance will necessarily require the use and generation of new and used motor oil. The AES area will have new/used oil storage with a dispensing and collection system and a battery storage area. A separate degrease room will also be required, or it may be incorporated with bay floor drains. The new facility will comply with all applicable sections of HAR Chapter 11-261 through 280 which establish the rules governing hazardous waste management in Hawaii.

2.5 Recreation Resources

2.5.1 Existing Environment

The City and County of Honolulu Barbers Point Beach Park is located immediately south of the project site on a 7.390-acre parcel owned by the City. Access to the park is from the end of Olai Street. The park surrounds Germaine's Luau on two sides, north and east. Public amenities at the park include paved parking, restrooms, and showers. Access to the ocean is very difficult because the shoreline is a low limestone shelf bordered by a narrow strip of sand. The park is frequented primarily by picnickers and fishermen.

2.5.2 Impacts and Mitigation Measures

Beach park users will use Olai Street for access along with vehicles entering and exiting the project site. Weekday traffic, when the Corporation Yard will be operational, is very infrequent along this street, and the impact on park users will not be significant. During the weekend periods, when the beach park would be most heavily used, the Corporation Yard would not be operational. Thus, the Corporation Yard operation should not conflict with traffic to the beach park.

None of the new buildings will be closer than 300 feet to the beach park entrance, and will be even further from the shoreline areas that get the most use. In general, corporation yard operations will not be close enough to be visible or audible to park users.

The operators of Germaine's Luau were apprised of the corporation yard plans during the Ewa Public Infrastructure Map review and have no objections to the project provided

that the facility is enclosed and landscaped in an appealing manner. Appropriate landscaping will be used along the fenceline and at the three gate entrances. All new buildings will be set back 100 feet or more from the entrances on Olai Street.

2.6 Biological Resources

2.6.1 Existing Environment

Flora

In March 2005, a botanical survey was conducted to determine the vegetation on the Kapolei Corporation Yard site (see Appendix C). During the survey, three vegetation types were found. The first is a dense stand of pickleweed (*Batis maritima* L.), two to three feet in height, which extends approximately twenty to thirty feet from the base of the seaward dunes toward the sea. *Batis maritima* is an obligate wetland plant that is being watered from the ocean at high tide. Although this plant is outside of the area planned for development facilities, it was catalogued as a species of interest.

The second vegetation type is made up of Kiawe trees 15 to 20 feet in height and Haole koa bushes less than 15 feet in height. This vegetation type occupies a 50 to 60-foot wide strip along the shoreline, just inland of the Batis wetland vegetation. Interspersed with the taller plants are weedy taxa such as Guinea grass, Buffelgrass, tree tobacco, castor bean, feral tomatoes, and others. Again, this vegetation type is located outside the planned for development of facilities.

The remainder of the project site is mostly free of vegetation, except for some Kiawe trees near the end of Olai Street and some scattered pockets classified as disturbed mixed grassland. Buffelgrass is the most common taxon, along with various other grasses, haole koa, castor bean, and tomatoes, among others.

A special effort was made to locate the listed endangered species *Achyranthes splendens var. rotundata* during the survey. A 1979 botanical survey (Char and Balakrishnan, 1979) of the Barber's Point area noted that the site of the proposed project supported a heavy concentration of this species. A search did not reveal these plants on the project site.

The botanical survey showed no listed or candidate threatened or endangered botanical species as set forth by the US Department of the Interior Fish and Wildlife Service (USFWS) were found on the project site.

Fauna

Mammalian species that may be expected to appear at the site include the small Indian Mongoose, rats and feral cats and dogs. The project site is largely devoid of vegetation and surface water resources and does not constitute a desirable habitat for any endangered or threatened bird species. It is possible that transient migratory species, such as the Pacific Golden Plover and Wandering Tattler, may appear at the project site, as the species regularly occur in other open coastal areas of Oahu. Other common bird species found throughout Oahu that may appear at the site include Common Mynas, Red-Whiskered Bulbul, Zebra Doves, and House Sparrows.

None of these species is a listed or candidate threatened or endangered species as set forth by the US Department of the Interior Fish and Wildlife Service (USFWS).

2.6.2 Impacts and Mitigation Measures

Flora

Construction of the Kapolei Corporation Yard will require removal of the surface vegetation from the project site and grading for construction of buildings, driveways, and parking areas. The vegetation within the area of construction consists of weedy taxa that can be found in many lowland places in the islands. Removal of the surface vegetation will not create an adverse impact to the flora of this area of the island of Oahu.

The project site contains no listed or candidate threatened or endangered botanical species as set forth by the USFWS. Thus, construction of the Kapolei Corporation Yard will not have an adverse impact to threatened or endangered plant species.

Fauna

The project site has very little vegetation that could be usable habitat for bird species. The loss of these low growing grasses and weedy herbs would not adversely affect the bird or mammal population in the area. The project site contains no listed or candidate threatened or endangered faunal species as set forth by the USFWS. Thus, construction of the Kapolei Corporation Yard will not have an adverse impact on threatened or endangered faunal species.

2.7 Traffic

2.7.1 Existing Environment

The project site is accessible from the H-1 freeway via Exit 1 West and Exit 1A East which connect to Kalaeloa Boulevard, the major access into Campbell Industrial Park. Kapolei Parkway also provides left-turn access onto Kalaeloa Boulevard from the City of Kapolei. From Kalaeloa Boulevard, the project site is accessible via Olai Street, which is the last east-west oriented street in Campbell Industrial Park. Olai Street dead ends at the project site with a traffic turnaround. Alternatively, the project site can also be reached via Hanua Street, which parallels the west side of Kalaeloa Boulevard. However, Kalaeloa Boulevard is currently the only access into and out of Campbell Industrial Park.

Traffic counts along Kalaeloa Boulevard have recently been conducted by Wilbur Smith Associates as part of the Draft Environmental Assessment for *Interstate H-1 Addition and Modification of Highway Access Palailai Interchange/Makakilo Interchange*, prepared by Engineering Concepts, Inc. May 2006. Counts were conducted between May 19 and 25, 2005. Morning peak hour traffic consisted of 1,175 vehicles inbound to Campbell Industrial Park and 526 vehicles outbound. Afternoon peak hour traffic generated 385 vehicles inbound and 1,317 outbound. Level-of-Service (LOS) conditions for the Kalaeloa Boulevard/ Kapolei Parkway intersection were LOS B (morning) and LOS C (afternoon).

(LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic

operating conditions. The City DTS considers LOS "C" or better acceptable for most traffic operations on Oahu.)

The intersection of Kalaeloa Boulevard/Eastbound off-ramp (eastbound left-turn) rated LOS C in the peak morning and LOS B in the afternoon peak. The intersection of Kalaeloa Boulevard/Farrington Highway (mauka-bound left turn) rated LOS D during the morning peak and LOS F during the afternoon peak. This last intersection is near or at unacceptable levels of operation, and is one of the intersections scheduled to receive a new traffic signal during Phase I of the proposed interchange modifications, as discussed in the Draft EA prepared by Engineering Concepts, Inc.

2.7.2 Impacts and Mitigation Measures

Short-term traffic impacts related to construction activities will occur while equipment and materials are moved to the project site. However, this traffic will be local, short-term, and consistent with the industrial character of the neighboring land uses. In addition, the three areas of the Corporation Yard will be developed at different times, with only the Waianae Maintenance Area funded for construction. Thus, construction of the improvements should not create an adverse impact to traffic.

The Waianae Maintenance Area will have sufficient parking for 53 vehicles (41 personnel plus 10 visitor stalls, and 2 handicap stalls within the yard area). DET will provide 60 parking stalls, including 4 for assigned staff, for 64 stalls total. The parking requirements for the AES will be based on the Pearl City repair shop, which currently has 7 personnel. The large majority of AES parking shown on the site plan will be for vehicle (auction) storage and not for personnel vehicle trips.

Personnel vehicle trips will increase traffic into Campbell Industrial Park. However, based on current vehicle totals and Level of Service conditions on Kalaeloa Boulevard, this level of vehicle activity should not increase the Level of Service conditions along this road. The modifications proposed for the Palailai Interchange and the installation of traffic signals at the Farrington Highway/Kalaeloa Boulevard Intersection will also mitigate the impact of the project on peak hour traffic. Furthermore, personnel will arrive between 6:30-6:45 am and depart from the site at 3:30 pm. This is earlier than the peak hour traffic periods of 7 to 7:30 am and 4:15 to 4:30 pm measured during the recent traffic counts, and will further mitigate the impacts of the project on peak hour traffic.

Based on consultation during the Draft EA phase, the Department of Transportation does not anticipate significant impact from the project on the State's transportation facilities. The Honolulu Police Department also notes that the project should not have a significant impact on their facilities or operations.

The City and State will cooperate to address the cumulative impacts from this and other developments that are planned for the area. In the long-term, a new Palailai Interchange off- and on-ramp is planned to connect to the future extension of Hanua Street. Implementation of this full development scenario is not clearly defined, but is estimated to be done by Year 2030. When completed, the new interchange will further improve traffic circulation into and out of Campbell Industrial Park.

2.8 Air Quality

2.8.1 Existing Environment

The Department of Health, Clean Air Branch, monitors the ambient air in the State of Hawaii for various gaseous and particulate air pollutants. The U. S. Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter (PM10 and PM2.5). Hawaii has also established a state ambient air standard for hydrogen sulfide. The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met.

Due to the prevailing tradewinds, air quality at the project site is generally good. There are industrial sources of air pollution nearby, however, related to petroleum refineries and the H-power generation plant. To measure air quality in the area, the Department of Health maintains an air quality monitoring station in the Kapolei Business Park, near the entrance to Campbell Industrial Park. The Kapolei Corporation Yard project site is located about 9,000 feet southwest of this monitoring station, directly downwind of the normal tradewind pattern.

This station monitors for NO_2 (nitrogen dioxide), PM_{10} (particulate matter 10 microns or less in aerodynamic diameter), $PM_{2.5}$ (particulate matter 2.5 microns or less in aerodynamic diameter), CO (carbon monoxide), and SO_2 (sulfur dioxide). An annual

summary of the most recent (2005) air quality monitoring data from this station showed no exceedances for any of the pollutants monitored, either as monthly means or as peak values.

2.8.2 Impacts and Mitigation Measures

Construction of the Kapolei Corporation Yard will occur near the Barbers Point Beach Park, the Barbers Point Lighthouse, an enclosed Navy communications building, and Germaine's Luau, a commercial establishment open during the evening. Potential short-term adverse air-quality impacts during the construction phase include: 1) generation of fugitive dust from vehicle movements and soil excavation; and 2) exhaust emissions from on-site construction equipment and from construction worker's vehicles traveling to and from the project site. These adverse impacts will be short-term during the period of construction. The direction of the prevailing tradewinds will help to minimize potential impacts from fugitive dust on neighboring land uses.

Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules (DOH), "Air Pollution Control" and, with respect to fugitive dust, Section 11-60.1-33. A dust control management plan will be developed which identifies and addresses all activities that have the potential to generate fugitive dust. It is expected that the contractor will comply with State regulations and provide adequate means to control dust during the various phases of construction. In order to control fugitive dust during construction, mitigation measures may include some or all of the following: 1) phasing of construction, 2) centralizing vehicular traffic routes, 3) frequent spraying of construction vehicles, construction debris, and bare areas, and 4) rapid covering of bare areas.

Once construction has been completed, operation of the Kapolei Corporation Yard will result in exhaust emissions from personnel and visitor vehicles, as well as vehicles and equipment assigned to the corporation yard. These vehicles will be consolidated from other parts of the island into an industrial area, further from sensitive land uses. Therefore, there will be no significant air quality impact on human health from the project. The normal tradewind pattern will further reduce air quality impacts from the project by carrying emissions away from land.

2.9 Noise

2.9.1 Existing Environment

Current background noise levels in the vicinity of the project site are primarily associated with the operation of equipment at Hawaii Metal Recycling Co., Hawaii Railing, Inc., and other neighboring industrial activities. Vehicle noise is also generated by trucks using Olai Street to access the DET interim facility, and from visitors to the beach park and Germaine's Luau.

2.9.2 Impacts and Mitigation Measures

Construction activities such as grading, excavating for footings and foundations, and erecting the buildings will create noise during construction. The equipment used for these activities typically include pick-up trucks, excavators, graders, rollers, backhoes, concrete delivery trucks, water tank trucks, hydraulic cranes, and forklifts. Noise generated by these vehicles will be short-term during the period of construction. Once construction has been completed, the construction noise impact will no longer occur.

Impacts from construction noise on the neighboring Barbers Point Beach Park and Germaine's Luau are not anticipated to be significant. The shoreline areas at the park are 500 feet or more from the nearest point of construction. The flat terrain, open air environment, and lack of surrounding structures will limit the distance that noise will travel. Construction will take place during day-time hours, so Germaine's Luau, which operates in the evening, will not be affected.

Once construction has been completed, noise will be generated by City vehicles entering and leaving the project site and others visiting the Kapolei Corporation Yard. The types of noise generated at the project site will be mostly vehicular noise associated with large trucks of various types in the corporation yard, and the use of backhoes, tractors, trailers, and dozers on the DET facility during training exercises. Work activity at the project site will only occur during daylight hours and will not impact the operation of Germaine's Luau, which is only open during the evening.

The City and County of Honolulu zoning designation is I-2, Intensive Industrial, for the Kapolei Corporation Yard project site. Title 11 Hawaii Administrative Rules State of

Hawaii Department of Health Chapter 46, Community Noise Control (September 23, 1996) identifies maximum permissible sound levels for classes of zoning districts using the zoning established by the counties. According to Chapter 46, the maximum permissible sound level at any point at or beyond the property line is 70 dBA for zoning district Class C, areas equivalent to lands zoned industrial, agricultural, or similar type. The maximum permissible sound level shall apply in a manner deemed appropriate by the Director of the Department of Health.

In addition to noise generated on-site during regular operating hours, the project site is in close proximity to Kalaeloa Airport and the flight paths of Honolulu International Airport. Facilities with noise sensitive spaces will be designed with sound attenuation treatment, as appropriate, to mitigate against aircraft noise.

2.10 Archaeological and Cultural Resources

2.10.1 Existing Environment

The project site has been altered by historic and modern land use including grading and grubbing of perhaps 85 percent of the site. Based on ethnographic accounts and past archaeological investigations in the vicinity, prior to extensive historic and modern land alteration, the project site would have possibly yielded the remnants of traditional Hawaiian temporary habitations used during forays for marine resources. Evidence of opportunistic seasonal agriculture and possibly burials would also have been likely. With the spread of Western land use in the 19th century, the project area may have been used for ranching, then for intensive military use as part of the Barbers Point Military Reservation that was established at the site in 1921.

In August 2006, an archaeological inventory survey investigation was carried out at the project site to determine the possible presence of archaeological resources or the likelihood of encountering such resources during construction (see Appendix D). One historic property was identified during the survey (SIHP 50-80-12-6866) consisting of two "Panama Mount" 155mm gun emplacements and an associated cement slab. Located in the northeastern and central portions of the project site, these two former gun mounts appear identical except for the earth material and vegetation cover that has filled in the northeastern gun emplacement's "moat", or trench. This circular trench separates a central columnar support for the gun and the gun's perimeter ring that was

used to control firing direction. These gun emplacements are 40 feet in diameter, with a 10-foot diameter, circular, columnar artillery base in the center. An adjacent cement slab south of the northeastern emplacement measures 220 feet by 56 feet. Given the proximity, it is thought likely to have had a support function for the Barbers Point Military Reservation established in 1921. The gun emplacements are believed to date between 1937 and 1942.

Also encountered during the survey were at least 26 sinkholes, the majority located in two slivers of relatively undisturbed land adjacent to the north and northwest sides of the Barbers Point lighthouse property. Only three of the sinkholes were found in the northeast, mostly graded portion of the project site, but these were of less interest owing to their small size, shallowness, and previous disturbance. Of the remaining sinkholes, the deepest was 2.3 meters, and several of them extended down to and below the water table. The largest sinkhole floor area was 4.0 by 2.5 square meters.

One object, a tibiotarsus (bone) from a large bird, was recovered from one of these water-filled sinkholes during the course of archaeological inventory survey fieldwork. The large leg bone measures 126 mm long and appears to possibly be from some kind of hawk or eagle, according to a researcher at the B.P. Bishop Museum in Honolulu. This tentative identification is not conclusive as there are very few individuals qualified to make a positive identification of extinct Hawaiian avifauna on the basis of a single bone fragment. Experts at the Smithsonian Institute have been consulted to determine a firmer conclusion.

The finding of a bird bone from a sinkhole in this region is not unexpected. Archeological testing at Barber's Point since the mid-1970s has yielded a storehouse of data on more than 30 previously unknown, extinct bird species. Paleontological studies of the Barbers Point area have shown that limestone solution sinks and surrounding terrain were a major habitat of many fossil birds.

2.10.2 Impacts and Mitigation Measures

Based on the results of the archaeological inventory survey, the project will affect historic properties. Accordingly, a project-specific effect recommendation of "effect, with agreed upon mitigation commitments" is warranted under HAR Chapter 13-284-7.

The following mitigation recommendations are proposed to alleviate the project's effect to historic properties:

- SIHP #50-80-12-6866, the 155 mm "Panama Mount" gun emplacement in the central portion of the project site will be preserved, with no further work or preservation at the northeastern gun emplacement or the support facility cement slab. Preservation will likely involve installation of concrete barriers around the gun emplacement.
- Revision to the Site Plan to designate preservation of the group of sinkholes located at the southern boundary of the site, including 8 sinkholes which extend 5 feet or more below the existing grade. No development will occur in this location. See Figure 1.5
- Revision to the Site Plan to delete development in the area of the remaining group of shallower sinkholes to the west, along the north-south oriented property boundary fence line. During the planning, design, and construction of the DET facilities, a monitoring program will be prepared with a combination of on-site and on-call monitoring to address the potential for discovery of cultural resources within sinkholes.

The design documents for the DET and AES areas of the project site would include notes that state, should Native Hawaiian cultural deposits be found during construction, work will cease and the appropriate agencies will be contacted. A discovery of burials will require the notification of the Oahu Island Burial Council to determine appropriate treatment.

The implementation of these mitigation measures will allow development activities to move forward on the project site.

2.11 Cultural Impact Assessment

2.11.1 Existing Environment

House Bill No. 2895 H.D.1 was approved by the Governor on April 26, 2000 as Act 50 which amended Chapter 343, Hawaii Revised Statutes, to require that a cultural impact assessment be included in the preparation of an Environmental Assessment.

A Cultural Impact Assessment/Study (CIA) was undertaken to gather information about traditional cultural practices, ethnic cultural practices, and pre-historic and historic cultural remains that might be affected by construction of the Kapolei Corporation Yard. Appendix E contains the summary and recommendations page from the Cultural Impact Assessment. The complete CIA report will be filed with the SHPD and the Office of Environmental Quality Control (OEQC).

Based on Honouliuli settlement patterns and archaeological investigations of the ahupua'a, the area of coastline containing the project site was probably never permanently inhabited. However, it may have provided temporary habitation for gatherers and fishermen, and small scale, seasonal agriculture.

None of the interviewees or contacts queried for the CIA identified any cultural sites in the area or recalled use of the site for any cultural practice. Fishing and gathering of marine resources just seaward of the project site is probably the only continuing cultural practice in the area.

Three major areas of concern were expressed by informants:

- Sinkholes that may contain burials were a concern expressed by three informants. The Hawaiian community is aware that burials have been found within sinkholes in the vicinity and is concerned for possible disturbance to ancestral remains. No specific knowledge of burials within the project site was expressed.
- Five community members did express concerns regarding possible adverse impact to native plant communities. While this concern does not appear to be based on a resource for Hawaiian use per se, their concern for possible endangered plant communities is in large measure a cultural concern.
- Three community members expressed concern for potential adverse impact from the development to marine resources. One member is specifically concerned regarding the effects of light pollution upon the *kupe'e (Nerita polita),* a shellfish found fronting the project area, as well as protecting sinkholes if shrimp are found within them.

2.11.2 Impacts and Mitigation Measures

As determined in the archaeological inventory survey report, further investigations of the sinkholes within the project site will address cultural concerns that these sinkholes may contain cultural remains or uniquely valuable biological resources. A monitoring program will also serve to address the possibility of uncovering unmarked burials during the course of construction.

A botanical survey of the project site was conducted in March 2005, but no native plant communities were identified and no impacts are anticipated. A special effort was made to locate the listed endangered species *Achyranthes splendens var. rotundata* during the survey. A 1979 botanical survey (Char and Balakrishnan, 1979) of the Barber's Point area noted that the site of the proposed project supported a heavy concentration of this species. Despite a thorough search, none of these plants were found.

The proposed developments will be constructed at a minimum of 180 feet from the shoreline and will not infringe on shoreline access or marine resources. The DET facility closest to the shoreline will not operate during evening hours, and security lighting will be directed at facility grounds. There will be no light pollution impacts at the shoreline.

2.12 Infrastructure

2.12.1 Water

Existing Conditions

The project site is served by the City and County of Honolulu Board of Water Supply (BWS) potable water system. There is an existing 12-inch water line beneath Olai Street which currently provides potable water to the area.

Impacts and Mitigation Measures

Based on initial consultation with the Board of Water Supply (letter dated August 16, 2006), the existing water system is adequate to accommodate the proposed project. The availability of water will be confirmed when the building permit is submitted for

review and approval. The project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to issuance of the building permit.

The project site is seaward of the Underground Injection Control (UIC) Line. The Board of Water Supply Rules and Regulations require the use of nonpotable water if a suitable supply is available. The existing nonpotable R-1 water main along Kaomi Loop will be evaluated as a nonpotable source for irrigation at the project site.

Fire protection for the buildings will include a fire suppression system and hand-held fire extinguishers. Design plans will account for the fire flow and fire hydrant requirements related to the specific facilities and structures in each area. As part of the building permit process, plans will be submitted to the Fire Department for review to ensure the facilities meet the requirements of the applicable City codes, including the Uniform Fire Code.

2.12.2 Sewer

Existing Conditions

The project site is not served by the City and County of Honolulu wastewater collection system. The City's wastewater collection system currently extends to the intersection of Malakole Street and Kalaeloa Boulevard, which is about 7,500 feet away from the project site. (Malakole Street to Olai Street along Kalaeloa Boulevard is about 5,000 feet. Kalaeloa Boulevard to the project site via Olai Street is about 2,500 feet).

The project site is within the Critical Wastewater Disposal Area (CWDA) and the Pass Zone. An approved septic tank and seepage pit system currently serves an adjacent commercial building.

Impacts and Mitigation Measures

On-site treatment and disposal of effluent will be required for the facilities in the project site. Wastewater disposal will be by septic tank and leach field, similar to other occupants within Campbell Industrial Park. The wastewater system will conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." The City's Department of Planning and Permitting, Site

Development Division (Wastewater Branch) has been apprised of the project and has no objections.

Design plans for the Waianae Maintenance Area show sewer lines will be constructed from the wash pad, office building, and caretaker cottage to Olai Street for future connection to a City wastewater collection system. Plans for future connection to the City system will be included in the design phase for the DET and AES facilities.

2.12.3 Drainage

Existing Conditions

There is a municipal drainage system within Olai Street. Four (4) catch basins direct stormwater to a drain line located in an easement at the end of Olai Street. The easement runs underground beneath an open field in Barbers Point Beach Park and empties into an open drainage channel for discharge to the ocean. The open drainage channel is used by the adjacent tenants within Campbell Industrial Park.

Impacts and Mitigation Measures

Preliminary assessment indicates the drainage system is adequate to serve the project. Runoff from impervious surfaces will be directed to on-site detention basins for gradual release to the municipal system. Drainage reports for each area of the project site will be submitted to the DPP Civil Engineering Branch, Site Development Division for review and approval. Detention basin volumes for the DET and AES facilities will be designed to the requirements contained in the City and County of Honolulu Rules Relating to Storm Drainage Standards. Drain inlets will likely be equipped with replaceable catch basin inserts that can collect silt, debris, oils and greases.

2.12.4 Electrical

Existing Conditions

The project site and adjacent businesses are served by overhead utility poles located on Olai Street. HECO has existing overhead electric poles within the project site and will require continued access to the poles and line for maintenance purposes. This

electrical line and easement formerly served the adjacent cement plant as back-up power and will remain in place until the lease expires in 2011.

Impacts and Mitigation Measures

HECO has been apprised of the project and has asked to be kept informed during the planning process. They will evaluate the project's impact on their system as it develops. No significant impact from the project on electrical service is anticipated.

2.13 Visual Considerations

2.13.1 Existing Conditions

The project site is relatively flat and featureless, except for an earthen berm that runs north/ south through the middle of the parcel. There are a few Kiawe trees on the project site and low grasses, but apart from the vegetation it does not have any significant aesthetic value. The shoreline fronting the site is used rarely, if at all, by shoreline visitors. Surrounding land uses are more visible, as they include industrial structures related to the neighboring abandoned cement plant to the north, and the Barbers Point lighthouse and adjacent communication antennas to the southwest.

2.13.2 Impacts and Mitigation Measures

The primary visual impact concerns the general public who visit the nearby beach park or attend Germaine's Luau in the evening. Although the beach park shares the same access road with the corporation yard, the nearest building on the project site will be set back a minimum of 100 feet from Olai Street and will be screened with appropriate landscaping at the fence line. Buildings will not be close enough to be visible to park users.

As previously discussed, the project site includes a landscaped setback area along Olai Street planted with grass and a row of autograph and sea grape trees, some of which are 15-20 feet tall. This landscape setback area will be retained and will act as a visual buffer and screen for the buildings within the project site. Since the proposed buildings on the project site will be set back 100 feet or more from Olai Street, the existing trees

will provide a visual barrier for travelers along Olai Street, including visitors to Germaine's Luau and the City beach park.

3. RELATIONSHIP to PLANS, POLICIES and CONTROLS

3.1 Hawaii State Plan

The Hawaii State Plan, adopted in 1978 and revised in 1988, establishes the overall theme, goals, objectives, and priority guidelines to guide the future long-range development of the State. The Kapolei Corporation Yard project site supports and is consistent with the following State Plan objectives and policies:

Section 226-14 Objectives and policies for facility systems – general.

> *(b) (1) Accommodate the needs of Hawaii's people through the coordination of facility systems and capital improvement priorities in consonance with the state and county plans.*

Since the concept of the second city in Kapolei, it has long been understood that City facilities would be required to support City operations and the repair and maintenance of City-owned infrastructure in the growing Ewa region. As the second urban center continues to grow, a maintenance facility such as the proposed project will become increasingly important. The Kapolei Corporation Yard project site has been selected by the City to provide essential support services for City operations and maintenance.

3.2 Land Use Plans and Policies

3.2.1 State Land Use District

The Hawaii Land Use Law of Chapter 205, Hawaii Revised Statutes, classifies all land in the State into four land use districts: Urban, Agriculture, Conservation, and Rural. The Kapolei Corporation Yard project site is located in the Urban District and will be consistent with the Urban classification.

3.2.2 City and County of Honolulu General Plan

The City and County of Honolulu General Plan is "a comprehensive statement of objectives and policies which sets forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them. It is a focal point of a comprehensive

planning process that addresses physical, social, economic, and environmental concerns affecting the City and County of Honolulu." The revised 1992 edition of the General Plan is the current document used by the City.

The General Plan is a guide for all levels of government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens in 11 areas of concern. The General Plan objectives and polices applicable to the Kapolei Corporation Yard facility are set forth below.

Area of Concern: Transportation and Utilities

Objective C
To maintain a high level of services for all utilities

Policy 3
Plan for the timely and orderly expansion of utility systems

The Kapolei Corporation Yard will consolidate maintenance facilities, equipment, materials, and personnel from Waianae and Manana into one larger area to better serve the Leeward and Ewa Districts. Proximity to the growing City of Kapolei will also help to facilitate the maintenance of City-owned infrastructure in the secondary urban center. The new corporation yard will provide the necessary space, facilities, and expanded training facilities to increase the efficiency and effectiveness of City maintenance operations

Area of Concern: Physical Development and Urban Design

Objective C
To develop a secondary urban center in Ewa with its nucleus in the Kapolei area.

Policy 1
Allocate funds from the City and County's capital-improvement program for public projects that are needed to facilitate development of the secondary urban center at Kapolei.

The City and County of Honolulu's Department of Design and Construction is undertaking the construction of the Kapolei Corporation Yard at this time to meet the maintenance requirements of a growing secondary urban center. Funds for construction of the project will be allocated from the City's CIP budget. Thus, the Kapolei Corporation Yard project will be consistent with the Physical Development and Urban Design objectives and polices of the City's General Plan.

Area of Concern: Government Operations and Fiscal Management

Objective A
To promote increased efficiency, effectiveness, and responsiveness in the provision of government services by the City and County of Honolulu.

Policy 1
Maintain City and County government services at the level necessary to be effective.

Consolidation of maintenance functions into a new and expanded Kapolei Corporation Yard will increase the efficiency and responsiveness of the City's services to areas where they are needed most. This will become especially apparent as the Ewa region becomes increasingly urbanized. Thus, the project will be consistent with the Government Operations and Fiscal Management objectives and polices of the City's General Plan.

3.2.3 Ewa Development Plan

The Ewa Development Plan, dated August 1997, serves as the policy guide for Ewa's future development. The Ewa Development Plan (DP) Public Facilities Map shows a future corporation yard symbol in the Campbell Industrial Park area. The proposed Kapolei Corporation Yard would implement this element of the Ewa DP. The Ewa Public Infrastructure Map was revised by City Council Resolution No. 03-130 to show the publicly funded "Corporation Yard" and "Government Building" symbols for the proposed Kapolei Corporation Yard at the subject site.

3.2.4 City and County of Honolulu Zoning

The City and County of Honolulu zoning designation for the project site is I-2, Intensive Industrial District. The Kapolei Corporation Yard site will be a public facility to be used by public agencies for public purposes and is allowed within the I-2 zoning designation.

3.2.5 City and County of Honolulu Special Management Area

The Coastal Zone Management Act contains the general objectives and policies upon which all counties within the State have structured specific legislation which created Special Management Areas (SMA). The Coastal Zone Management Law (CZM), set forth on Chapter 205A, Hawaii Revised Statutes, as amended, establishes that the counties shall designate and administers the SMA within the State's coastal area. Any development, as defined by Chapter 205A, within the Special Management Area boundary requires a SMA Use (SMP) permit.

Approximately 2.8 acres of the proposed DET facility is located within the City's SMA and will require a SMP, which is administered by the City and County of Honolulu Department of Planning and Permitting. The DET warehouse, crane pads, open stockyard training, and lawn mower training are within the SMA. The planned DET office and vehicle parking are outside the SMA boundary, as are the Waianae Maintenance Area and AES portions of the site.

The City Council renders the decision on issuance of a SMP. Issuance of the SMP is based on the consistency of the development with the objectives, policies, and review guidelines set forth in Chapter 205A. Further, Section 205A-4 states that in implementing the objectives of the coastal zone management program, full consideration should be given to the ecological, cultural, historic, aesthetic, recreational, scenic, and open space values, and coastal hazards, as well as the needs of economic development.

The Kapolei Corporation Yard project site is consistent with the following objectives, policies, and guidelines for issuance of the SMP.

Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

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

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources.

The developed portion of the Driver Education and Training facility will be set back a minimum of 150 feet from the shoreline and the site will be secured with fencing. Pedestrian access along the shoreline will not be affected. There will be no changes to the existing public access to the shoreline, in accordance with Policy B (v).

Historic Resources

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

Policy A: Identify and analyze significant archaeological resources;

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

An archaeological inventory survey of the project site was conducted in August 2006 and identified sinkholes within the SMA. Most of these sinkholes are shallow with one exception where damp soil was evident. Based on these findings, the City will provide funds for supplementary testing of this area as part of the future planning, design, and construction of the DET facilities. Implementation of these mitigation measures will protect, display and interpret historic resources on the site, in accordance with Policy C.

Scenic and Open Space Resources

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

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

The Kapolei Corporation Yard project site has been set back from the shoreline to avoid flood Zone AE. This setback also provides a visual buffer from the shoreline. In addition, buildings on the site are set back from Olai Street a minimum of 100 feet, which reduces the visual impact on the nearby Barber's Point Beach Park and Germaine's Luau. Landscaping along Olai Street will further screen the facility from view, in accordance with Policy B.

Coastal Ecosystems

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

Policy C: Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources.

In order to mitigate against contaminated runoff from the site, the new Kapolei Corporation Yard will be equipped with at least two open-air concrete wash pads, one for the Waianae yard and one for the Driver Training facility. The pads will slope to a central drain collection system and will direct flow to an underground oil/water separator and associated leach field. When not in use, a switch will direct storm runoff in the pad to the leach field, bypassing the oil/water separator. No runoff will be allowed to discharge into the municipal drainage system.

Wastewater disposal will be by septic tank and leach field. The wastewater system will conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."

Economic Uses

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

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

(iii) The development is important to the State's economy.

The Kapolei Corporation Yard will be located within Campbell Industrial Park and is compatible and consistent with the I-2 Intensive Industrial zoning designation. Surrounding parcels are already developed with industrial uses. Thus, Kapolei Corporation Yard project site will be consistent with Policy C (iii).

Coastal Hazards

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

Policy B: Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards.

Policy C: Ensure that developments comply with requirements of the Federal Flood Insurance Program.

According to Panel 315 of 395, Map Number 15003C0315 F, Flood Insurance Rate Map (effective date September 30, 2004), the project site is bordered on the southwest by flood Zone AE. The base flood elevation is approximately 9 feet above mean sea level. The proposed project has been purposely sited outside of this zone for compliance with the FIRM program. Thus, the Kapolei Corporation project site will be consistent with Policy C.

Although the project site is located outside of flood Zone AE, the entire site is within the Tsunami Evacuation zone, as determined by City and State Civil Defense agencies. The Tsunami Evacuation Zone depicts estimated inundation limits for all coastal areas of Oahu using available historical data. The evacuation zone designation is an advisory designation meant to foster tsunami preparedness. It does not impose any building restrictions on proposed development. The line encroaches on all developed areas of Oahu, including the most heavily developed areas such as Waikiki. To address the potential for damage from natural hazards, including tsunamis, the project will be designed and constructed to meet the requirements of the 1997 UBC, in accordance with Policy B.

Managing Development

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

Policy B: Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements.

To comply with the City and County of Honolulu Special Management Area Rules and Regulations, required SMA documentation will be filed with the City's Department of Planning and Permitting. The SMP is subject to a public hearing and decision by the City and County of Honolulu City Council.

Public Participation

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

Policy A: Promote public involvement in coastal zone management processes.

Policy B: Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities.

The Makakilo/Kapolei/Honokai Hale Neighborhood Board (NB) No. 34 was sent a notification of the project during the process to revise the Ewa Public Infrastructure Map. At its meeting of March 25, 2003, NB No. 34 voted unanimously to support the Kapolei Corporation Yard project.

The project will also be reviewed during the Special Management Area permitting process. The required SMA documentation will be filed with the City's Department of Planning and Permitting, and the application will be subject to a public hearing and decision by the City and County of Honolulu City Council.

Beach Protection

Objective: Protect beaches for public use and recreation.

Policy A: locate new structures inland from shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion.

Preliminary site plans for the Kapolei Corporation Yard project place the nearest structure (crane pad) at approximately 180 feet from the shoreline, which is the southwestern edge of the corporation yard. Runoff from the site will be directed into existing storm drainage inlets along Olai Street. There will be no interference from the project to natural shoreline processes. Thus, the Kapolei Corporation Yard will be consistent with Policy A.

Marine Resources

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

Policy A: Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial.

The Kapolei Corporation Yard will be a public facility used by public agencies for public purposes. The facility will be designed to City standards for storm drainage and State of

Hawaii standards for wastewater disposal. The Kapolei Corporation Yard project will conform to all applicable Federal, State, and County environmental regulations as necessary to protect coastal resources, in accordance with Policy A.

4. ALTERNATIVES TO THE PROPOSED ACTION

4.1 No Action Alternative

The No Action alternative would retain the existing Waianae Corporation Yard on Farrington Highway, the DET temporary facilities, and the AES facility in Pearl City. There would be no consolidation of activities into one central yard. Under the No Action alternative, the City would not be able to benefit from this centralization, or from the proximity of the new facility to the City of Kapolei and the ongoing development of the secondary urban center.

The DET program is already using the project site as an interim location until permanent facilities can be constructed. The DET facility was formerly housed in a warehouse at Manana that was in very poor condition and had to be vacated. Under the No Action alternative, the DET facility would have to find a permanent location elsewhere.

The No Action alternative would also prevent the City from expanding corporation yard operations to accommodate growth in demand for maintenance services in the region. The Waianae Yard's existing space of 2.78 acres has become inadequate to meet this demand. In addition, the current Waianae Yard lease expires in 2008 and will need to be renegotiated if the DFM cannot find an alternate location. The DFM would prefer to occupy a City-owned site to avoid paying the lease rent.

Based on these considerations, the No Action alternative is not considered a feasible alternative.

4.2 Other Sites

Use of a different site is possible on other industrial zoned parcels within Campbell Industrial Park. However, the Kapolei Corporation Yard project site has been identified in the Unilateral Agreement between Campbell Estate and the City. Furthermore, regardless of location, there would be the same level of resource commitment if a different site were to be selected. Based on these considerations, use of an alternate site is not considered a feasible alternative.

5. DETERMINATION

Based on analysis of the anticipated impacts, a Finding of No Significant Impact (FONSI) is determined for the Kapolei Corporation Yard project. The significance criteria to make this determination are set forth below and in Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules.

1) *Involve an irrevocable commitment to loss or destruction of any natural or cultural resources*;

The Kapolei Corporation Yard project site does not provide habitat for Federal or State of Hawaii listed or candidate threatened or endangered species of flora or fauna. The project site has been altered by historic and modern land uses, including grading and grubbing of approximately 85 percent of the surface, and there are no distinctive or unique natural features. Thus, the Kapolei Corporation Yard project will not result in the irrevocable loss or destruction of natural resources.

Based on findings from the August 2006 archaeological inventory survey, a project-specific effect recommendation of "effect, with agreed upon mitigation commitments" is warranted under HAR Chapter 13-284-7. Mitigation recommendations have been proposed to alleviate the project's effect to historic properties, including preservation of one 155 mm "Panama Mount" gun emplacement in the central portion of the project site, revision to the Site Plan to avoid the area containing sinkholes and designation of the area as a Preservation Area. Implementation of these mitigation measures will protect cultural resources and allow development activities to move forward on the project site.

2) *Curtail the range of beneficial uses of the environment*;

The Kapolei Corporation Yard project site is located in an area zoned I-2, Intensive Industrial, and surrounded by industrial land uses. The agricultural lands classification for the site is "unclassified", indicating that the lands are not suited to high yield agriculture. The project site shows evidence of former industrial use. Development of the project site will be compatible with current zoning, adjacent land uses, and the overall industrial character of Campbell Industrial Park. Thus, the Kapolei Corporation Yard project will not curtail the range of beneficial uses of the environment.

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

The Kapolei Corporation Yard project will not involve actions or activities that would adversely affect natural resources on or near the project site. The project will benefit Hawaii's quality of life by supporting the maintenance of roads, storm drain systems, and other public facilities in Ewa and Leeward Oahu. As such, the Kapolei Corporation Yard project will not conflict with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS.

4) *Substantially affect the economic or social welfare of the community or state*;

The Kapolei Corporation Yard will be a public facility to be used by public agencies for public purposes in support of the economic and social welfare of the region. It is identified on the Ewa Public Infrastructure Map as an integral part of the region's public infrastructure. The Kapolei Corporation Yard project will have not have an adverse effect on the economic or social welfare of the community.

5) *Substantially affect public health*;

The Kapolei Corporation Yard will consolidate maintenance and training activities currently located in Waianae, Pearl City, and Manana. These activities will be located in an industrial area away from residential communities. The design of the facilities will comply with Federal, State, and City rules and regulations which will ensure there are no adverse effects on public health.

6) *Involve substantial secondary impacts, such as population changes or effects on public facilities*;

The Kapolei Corporation Yard project is a planned infrastructure improvement that responds to population growth and maintenance requirements in the Leeward and Ewa regions of Oahu. City personnel assigned to the Kapolei Corporation Yard project site are expected to be from existing City facilities. As such, the Kapolei Corporation Yard will not contribute to population growth or to an increased demand for utility services.

The Kapolei Corporation Yard project will not create substantial secondary impacts, such as population changes or affect the need for public facilities.

7) *Involve a substantial degradation of environmental quality;*

The Kapolei Corporation Yard is anticipated to result in short-term impacts to noise and air quality in the immediate vicinity of the project site during the period of construction. However, adjacent land uses are either industrial uses, are sufficiently distant from the site, or involve activities occurring during the evening hours, so that they will be largely unaffected by construction. In the long-term, additional noise and vehicle emissions will be generated on-site but will not have a significant impact on adjacent land uses, for similar reasons due to distance and type of land use.

The Kapolei Corporation Yard project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. The project site has been altered by historic and modern land uses, including grading and grubbing of about 85 percent of the surface, and there are no distinctive or unique natural features.

The Cultural Impact Assessment did not identify any cultural sites within the project site or identify any persons entering the site for any traditional cultural practice. The project site has been altered by historic and modern land uses so that any cultural sites were either destroyed or buried by these activities. There doesn't appear to be any traditional Hawaiian sites that would be impacted by construction at the Kapolei Corporation Yard project site.

Based on findings from the August 2006 archaeological inventory survey, a project-specific effect recommendation of "effect, with agreed upon mitigation commitments" is warranted under HAR Chapter 13-284-7. Mitigation recommendations have been proposed to alleviate the project's effect to historic properties, including preservation of one 155 mm "Panama Mount" gun emplacement in the central portion of the project site, revision to the Site Plan to avoid the area containing sinkholes and designation of the area as a Preservation Area. Implementation of these mitigation measures will protect resources and allow development activities to move forward on the project site.

Construction of buildings, parking areas and driveways will increase storm water runoff. An on-site detention basin located near the future AES access gate will be used to

collect and treat the surface runoff before it percolates into the subsurface. During storm events, flows will first go to the detention basin for settlement, and then will be routed to the existing City storm drain system located in Olai Street. The City storm drain system flows to an outlet to the open drainage channel within Barbers Point Beach Park.

Based on the above findings, the Kapolei Corporation Yard project will not result in a substantial degradation of environmental quality.

8) *Have a cumulative effect upon the environment or involves a commitment for larger actions*;

The Kapolei Corporation Yard project site will be used as a facility for the equipment and materials needed to maintain roads, vehicles, storm drains, and to conduct driver training. The project will not involve a commitment to any other development activity. As a result, the Kapolei Corporation Yard project will not have a cumulative effect upon the environment or involve a commitment by the City to larger actions on Oahu.

9) *Affect a rare, threatened or endangered species;*

The Kapolei Corporation Yard project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. Thus, the Kapolei Corporation Yard project site will not affect threatened or endangered species.

10) *Detrimentally affect air or water quality or ambient noise levels*;

Operation of construction equipment will increase noise and exhaust emission levels in the immediate vicinity of the Kapolei Corporation Yard project site. Since the project site is surrounded by industrial zoned land on three sides and the area does not contain noise and emissions-sensitive land uses, there will be no adverse effects to these resources.

Some short-term construction related impacts on air quality will be unavoidable but not detrimental. Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules (DOH), "Air Pollution Control," and, with respect to fugitive dust, Section 11-60.1-33. Once operational, the Kapolei Corporation Yard project will

contribute a slight increase in noise and air emissions to the local area. Due to the distance from adjacent land uses, this increase will not have a significant impact.

Storm water runoff from the paved surfaces will be collected in on-site detention basins which will be used to collect and treat the surface runoff before it percolates into the subsurface. During storm events, flows will first go to the detention basin for settlement, and then will be routed to the existing City storm drain system located in Olai Street. The City storm drain system flows to an outlet to the open drainage channel within Barbers Point Beach Park.

Wastewater will be routed into a septic tank and leach field systems for treatment and disposal. Wash facilities for vehicles will be equipped with oil-water separators which will be connected to a septic and leach field. This method of handling wastewater will ensure that the Kapolei Corporation Yard will not detrimentally affect either groundwater or marine water quality.

11) *Affects or likely to suffer damage by being located in an environmentally sensitive area such as a floodplain, tsunami zone, beach, erosion-prone area, geographically hazardous land, estuary, fresh water or coastal water*;

Although a portion of the project site is located on the coastline, most of the project site is not located in the flood zone. According to Panel 315 of 395, Map Number 15003C0315 F, Flood Insurance Rate Map dated September 30, 2004, the Kapolei Corporation Yard project site is bordered by, but is not located in, Zone AE (base flood elevation determined approximately 9 feet above msl). This flood elevation is associated with rising seas during storm events rather than storm water runoff. No improvements will be constructed in the identified flood hazard zone.

The entire project site is within the Tsunami Evacuation Zone, as determined by City and State Civil Defense agencies. The Tsunami Evacuation Zone depicts estimated inundation limits for all coastal areas using available historical data. The line encroaches on most of the Oahu shoreline, including the most heavily developed areas such as Waikiki. The tsunami evacuation zone is an advisory designation meant to foster tsunami preparedness. It does not mandate any specific building restrictions on proposed development. The project will be designed and constructed to meet the

requirements of the 1997 UBC which will reduce the risk of damage from natural hazards.

Construction of the Kapolei Corporation Yard project will not cause damage to any environmentally sensitive area, as listed above.

12) *Substantially affect scenic vistas and viewplanes identified in county or state plans or studies*;

The Kapolei Corporation Yard project site is located on flat terrain visible only from Olai Street and adjacent properties. There are no scenic vistas or viewplanes that would be affected by development of the project site. The adjacent abandoned cement plant, Barbers Point Lighthouse, and antenna structures will be more prominent than the structures within the Kapolei Corporation Yard project site.

The project site includes a landscape setback area along Olai Street planted with grass and a row of autograph and sea grape trees, some of which are 15-20 feet tall. This landscape setback area will be retained and will act as a visual buffer and screen for the improvements within the project site. Since the proposed buildings will be set back 100 feet or more from Olai Street, the existing trees will provide a visual barrier for travelers along Olai Street, including visitors to Germaine's Luau and the City beach park.

13) *Require substantial energy consumption*.

The Kapolei Corporation Yard project will require additional energy inputs in this location at Campbell Industrial Park. However, the new facility will consolidate operations from three separate facilities in Waianae, Pearl City, and Manana, which will help to offset the new electrical demand. Thus, the Kapolei Corporation Yard project will not create a substantial increase in energy consumption.

Based on these findings and the assessment of potential impacts from the Kapolei Corporation Yard project, a Finding of No Significant Impact (FONSI) is determined.

6. PERMITS AND APPROVALS

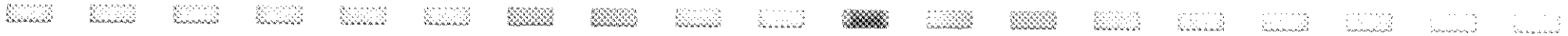
Permits and approvals that will be required include the following:

State of Hawaii

- State of Hawaii Department of Health National Pollutant Discharge Elimination System (NPDES) permit
- State of Hawaii Department of Health Individual Wastewater System
- State of Hawaii Department of Land and Natural Resources Historic Preservation Division Section 106 clearance/determination

City and County of Honolulu

- Special Management Area Permit for development within the SMA
- Grading Permit
- Trenching Permit
- Building Permit
- Drainage connection license



7. CONSULTED PARTIES

7.1 Pre-Assessment Consultation

The following agencies were consulted during the pre-assessment phase of the Draft Environmental Assessment. Each agency was sent a copy of a project summary and a request for their written comments on the project. All written comments and responses are reproduced in Appendix A.

US Department of the Army Honolulu District Engineer
US Coast Guard
US Fish and Wildlife Service
State of Hawaii Department of Land and Natural Resources (DLNR)
State of Hawaii DLNR Historic Preservation Division
State of Hawaii Department of Hawaiian Home Lands
State of Hawaii Department of Health
State of Hawaii Department of Transportation
Office of Hawaiian Affairs
City and County of Honolulu Board of Water Supply
City and County of Honolulu Department of Parks and Recreation
City and County of Honolulu Department of Planning and Permitting
City and County of Honolulu Department of Transportation Services
Hawaiian Electric Company

7.2 Agencies and Organizations Consulted on the Draft EA

The following is a list of agencies and organizations that were consulted during the Draft Environmental Assessment 30-day comment period. Those who formally replied are indicated with a ✓. All written comments and responses are reproduced in Appendix F.

Federal

✓Department of the Army, US Army Engineer District, Honolulu
US Department of the Interior of the Fish and Wildlife Service
US Department of the Interior Geological Survey
US Coast Guard

State Agencies

Department of Agriculture
Department of Business, Economic Development and Tourism
DBED&T - State Energy Office
Department of Defense
✓Department of Hawaiian Home Lands
Department of Health
✓Department of Health - Environmental Planning Office
Department of Health – Solid and Hazardous Waste Branch
✓Department of Health –Wastewater Branch
✓Department of Land and Natural Resources
✓Department of Land and Natural Resources Historic Preservation Division
Department of Land and Natural Resources - Water Resource Management
✓Department of Transportation
✓Office of Hawaiian Affairs
✓Office of Environmental Quality Control
University of Hawaii Water Resources Research Center
University of Hawaii Environmental Center
Kapolei Public Library

City and County of Honolulu Agencies

✓Board of Water Supply
Civil Defense
✓Fire Department
Department of Information Technology
Municipal Reference Center
✓Department of Planning and Permitting
✓Police Department
✓Department of Transportation Services
Makakilo/Kapolei/Honokai Hale Neighborhood Board (NB) No. 34

Officials

Senator Mike Gabbard, 19th District
Representative Sharon E. Har, House District 40
Councilmember Todd K. Apo

Public Utilities

✓Hawaiian Electric Company

Other

Germaine's Luau

8. REFERENCES

City and County of Honolulu Department of Planning and Permitting. *City and County of Honolulu General Plan*. 2002.

City and County of Honolulu Department of Planning and Permitting. *Review and Recommendation Pertaining to a Revision to the Ewa Public Infrastructure Map for the Kapolei Corporation Yard. May 2, 2003.*

Cultural Surveys Hawaii. *Cultural Impact Assessment for the Proposed Kapolei Corporation Yard, Kalaeloa, Honouliuli Ahupua'a, 'Ewa District, O'ahu Island TMK (1)9-1-026:004.* Prepared for Wilson Okamoto Corporation. October 2006.

Cultural Surveys Hawaii. *Archaeological Inventory Survey for the Proposed Kapolei Corporation Yard, Kalaeloa, Honouliuli Ahupua'a, 'Ewa District, O'ahu Island TMK (1)9-1-026:004*. Prepared for Wilson Okamoto Corporation. October 2006.

Engineering Concepts, Inc. *Draft Environmental Assessment, Interstate H-1 Addition and Modification of Highway Access Palailai Interchange/Makakilo Interchange (Kapolei Interchange Complex), Ewa, Oahu, Hawaii, Federal Aid Interstate Project No. IM-H1-1(257)*. May 2006

Federal Emergency Management Agency. *Flood Insurance Rate Map Community Panel Number 15003C0315F*. September 30, 2004.

Funk, Evangeline J., Ph.D. *Botanical Survey Report for the Proposed Kapolei Consolidated Yard, Kapolei, Oahu, Hawaii*. March 2005.

Hirata & Associates, Inc. *Foundation Investigation, Kapolei Corporation Yard, Olai Street, Kapolei, Hawaii.* Prepared for Anbe Aruga Ishizu Architects, Inc. August 30, 2006.

Masa Fujioka & Associates. *Results – Phase II Environmental Testing, Kapolei Corporation Yard, Oahu, Hawaii – TMK(1) 9-1-026, Parcel 4*. August 25, 2006.

State of Hawaii Land Evaluation and Site Assessment Commission. *A Report of the State of Hawaii Land Evaluation and Site Assessment System.* February 1986.

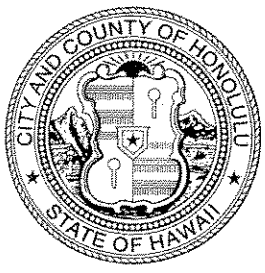
The Hawaii State Plan Chapter 226, Hawaii Revised Statutes. Office of the Governor Office of State Planning. 1988.

State of Hawaii Department of Health, Clean Air Branch. *2005 Annual Summary Hawaii Air Quality Data.*

Title 11 Hawaii Administrative Rules State of Hawaii Department of Health Chapter 46 Community Noise Control. September 23, 1996.

US Department of Agriculture Soil Conservation Service. *Soil Survey of Island of Oahu, State of Hawaii.* 1972.

Wilson Okamoto Corporation and Richard Matsunaga & Associates Architects, Inc. *Kapolei Corporation Yard Development Plan Report.* February 2006.



APPENDIX A

Pre-Assessment Consultation

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

Regulatory Branch

September 5, 2006

7236-01
9/8/06

File Number POH-2006-318

CC: DDC
JS

Mr. John L. Sakaguchi
Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, HI 96826

RECEIVED
SEP 07 2006
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

This responds to your request for written comments for a draft Environmental Assessment (dEA) which will address activities and impacts of the proposed Kapolei Corporation Yard Project, Ewa District, Oahu Island (TMK (1) 9-1-026: 4).

The dEA should indicate whether waters of the United States, as represented by the Pacific Ocean, perennial or intermittent streams, and wetlands are in, or adjacent to, or absent from, the proposed project area. The dEA should state in appropriate sections that there is, or no potential for waters of the U.S., including wetlands, anchialine ponds, and other special aquatic sites, to be directly and/or indirectly impacted by construction of project structures and associated ground disturbing activities within the proposed improvement area.

The Corps requests a copy of the dEA for evaluation and comments. At that time it may then be determined whether a Department of Army (DA) permit for activities under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899 may, or may not be, required for the proposed project.

Thank you for your consideration of potential impacts to the aquatic environment of the Ewa District watershed. Please contact Mr. Farley Watanabe of my staff at 438-7701, or facsimile 438-4060, if you have any questions or need additional information. Please refer to the file number above in any future related correspondence with us.

Sincerely,

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

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

7236-01
November 9, 2006

Mr. George P. Young, Chief
Regulatory Branch
Engineer District Honolulu
U.S. Department of the Army
Building 230
Fort Shafter, Hawaii 96858-5440

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Young:

Thank you for your September 5, 2006 comments concerning the Kapolei Corporation Yard project (File No. POH-2006-318). The Draft EA will indicate that the project is adjacent to waters of the U.S. and will assess the potential for these waters to be impacted by project construction. Your office will be issued a copy of the Draft EA for review and comment.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

Bruce Roost for

John L. Sakaguchi, AICP, Senior Planner
cc: G. Doi, DDC

U.S. Department of Homeland Security

United States Coast Guard

Commander
Sector Honolulu

400 Sand Island Parkway
Honolulu, Hawaii 96819
Phone: (808) 842-2600
FAX: (808) 842-2624

7236-01

16475/Kapolei Corp. Yard

8/28/06

CC: DOC

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, HI 96826

Dear Sir:

I have received your consultation request for the Kapolei Corporation Yard facility. Further detail on which areas are part of the Phase I development, the Phase II development or the "underdeveloped" areas of the site would aid in our evaluation. The Coast Guard is concerned that there is some potential for wind erosion at this site.

I would like to schedule a site visit with your staff and my staff. My main concerns are to avoid negative environmental impact and to ensure access to the Coast Guard Lighthouse adjacent to this planned facility.

To schedule a site visit please contact LTJG Quincey Adams at 522-8264 x 359 or via email quincey.n.adams@uscg.mil.

Sincerely,

K. MOORE
Commander, U.S. Coast Guard
Chief, Prevention Department
By direction

Enclosures:

Aug 28 06 09:47a MSO Honolulu (808) 522-8271 p.2

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS

1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

7236-01
October 18, 2006

Commander K. Moore, US Coast Guard Chief, Prevention Department
Commander Sector Honolulu
US Coast Guard
400 Sand Island Parkway
Honolulu, HI 96819

Attention: LTJG Quincey Adams

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Commander Moore:

Thank you for your August 28, 2006 comments (16475/Kapolei Corp Yard) concerning the Kapolei Corporation Yard project. As requested in your letter, on September 9, 2006, a site visit was conducted to the Kapolei Corporation Yard and the Coast Guard Barbers Point Lighthouse with BMC Garrett, BM1 Steen, and LTJG Adams from the Coast Guard. A copy of the Site Development Plan for the Corporation Yard was given to the Coast Guard team for reference. The Site Development Plan shows the various areas to be developed for City facilities.

Based on our discussion at the site, we understand the main concern was dust from activities during construction of the City facilities. Please note, the construction specifications will state that construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules (DOH), "Air Pollution Control" with respect to fugitive dust, Section 11-60.1-33. A dust control management plan will be developed which identifies and addresses all activities that have the potential to generate fugitive dust. The contractor is expected to comply with the State regulations and will provide adequate means to control dust during the various phases of construction. In order to control fugitive dust during construction, mitigation measures may include some or all of the following: 1) phasing of construction, 2) centralizing vehicular traffic routes, 3) frequent spraying of construction vehicles, construction debris, and bare areas, and 4) rapid covering of bare areas.

These mitigation measures will be included in the Draft Environmental Assessment (EA) which will be submitted to your office for review and comment. It is expected that the Kapolei Corporation Yard project will not have an adverse impact with respect to dust.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

Q:\WOC\7236-01 Kapolei Corp Yard\plng\env assmt\pre assmt\pre assmt respons\wscg LT-1.doc; 10/18/2006

LINDA LINGLE
GOVERNOR
STATE OF HAWAII

7236.01
9/23/06

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

cc: DDC 9/23/06

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

August 14, 2006

RECEIVED
AUG 2 2 2006
WILSON OKAMOTO CORPORATION

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attn: John L. Sakaguchi, AICP, Senior Planner

Gentlemen:

Subject: Draft Environmental Assessment, Pre-Assessment Consultation; Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, TMK No. 9-1-26:04

Reference is made to your letter dated August 7, 2006, requesting our comments on the proposed Kapolei Corporation Baseyard.

The information provided on your Project Summary indicates that the Department of Hawaiian Home Lands (DHHL) has requested the return of the lands currently rented to the City and County of Honolulu under License No. 591 for their Waianae Corporation Yard.

DHHL did not make such demands to the County for this site. It was the County who decided to relocate their facilities to Kapolei.

We have no comments at this time to the County's relocation to the proposed Kapolei Corporation yard.

Aloha and mahalo,

Micah A. Kane, Chairman
Hawaiian Homes Commission

7236-01
September 5, 2006

WILSON
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ENGINEERS
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1907 S. BERETANIA ST.
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HONOLULU, HI 96826
PH. (808)946-2277
FAX: (808)946-2253

Mr. Micah A. Kane, Chairman
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, HI 96805

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Kane:

Thank you for your August 14 2006 comments concerning the Kapolei Corporation Yard project. The Draft EA will revise the discussion related to the City's decision to relocate from the Waianae Corporation Yard to indicate the City made the decision to relocate and the Department of Hawaiian Home Lands did not request the land be returned for their use. We apologize for any confusion related to this matter.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

7236-01

PHONE (808) 594-1888 FAX (808) 594-1865

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

10/18/06

CC: DOC, VIA E-MAIL

HRD06/2655

October 3, 2006

John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96813

RE: Draft Environmental Assessment, Pre-Assessment Consultation, Kapolei Corporation Yard, Hono'uli'uli, 'Ewa, O'ahu, TMK: 9-1-026:004.

Dear Mr. Sakaguchi,

The Office of Hawaiian Affairs (OHA) is in receipt of your request for review. We apologize for the delayed response and offer the following comments.

We believe that sinkholes may be present in the project area. These unique features have been known to contain burials, culturally-significant deposits, and other important natural resources such as avi-faunal remains. We recommend that the Draft Environmental Assessment (DEA) include an archaeological inventory survey, and we request the opportunity to review the document upon completion.

OHA further requests your assurances that if this project goes forward, should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment, and we look forward to review of the forthcoming DEA. If you have further questions, please contact Kai Markell, Lead Advocate – Culture, at (808) 594-1945 or kaim@oha.org.

Aloha,

Clyde W. Nāmu'o
Administrator

WILSON
OKAMOTO
CORPORATION

ENGINEERS
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1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

7236-01
October 18, 2006

Mr. Clyde W. Namu'o, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Namu'o:

Thank you for your October 3, 2006 comments concerning the Kapolei Corporation Yard project. As you recommend in your letter, the Draft EA will include an archaeological inventory survey to investigate the project area for culturally significant deposits. Your office will have the opportunity to review the document during the consultation and review period.

Design plans and specifications for this project will state that, should historic sites or remains such as burials or artifacts be encountered during construction, work will cease in the immediate vicinity of the find and the State Historic Preservation Division will be contacted.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

LINDA LINGLE
GOVERNOR

7236-01
9/6/06

RODNEY K. HARAGA
DIRECTOR

Deputy Directors
FRANCIS PAUL KEENO
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2254

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

August 29, 2006

cc: DDC

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
SEP 0 6 2006
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Pre-Assessment Consultation, Draft Environmental Assessment (DEA)
Kapolei Corporation Yard, City & County of Honolulu
TMK: 9-1-026: 004

In reply to your early consultation on the Draft EA for the subject county facility, this is to advise you that the proposed facility will not have a significant impact on our State transportation facilities. We would, however, want the City & County of Honolulu to continue its assistance and cooperation with us to continue monitoring the build out of the lands in Campbell Industrial Park and the amount of traffic resulting from occupancy of the lands. The collective traffic to and from the industrial park is one component of the regional Kapolei-Ewa traffic that impacts our transportation facilities.

We appreciate the opportunity to provide our comments.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

c: Gary Doi, Department of Design and Construction, C&C Honolulu

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH. (808)946-2277
FAX: (808)946-2253

7236-01
October 18, 2006

Mr. Rodney K. Haraga, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Haraga:

Thank you for your August 29, 2006 comments (STP 8.2254) concerning the Kapolei Corporation Yard project. The Draft Environmental Assessment (EA) will state that the Kapolei Corporation Yard project will not have a significant impact to State transportation facilities.

We will notify the City and County of the need to keep your office informed of the build out of the lands in Campbell Industrial Park.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
KAPOLEI HALE • 1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 692-5561 • FAX: (808) 692-5131 • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR

LESTER K.C. CHANG
DIRECTOR

DANA TAKAHARA-DIAS
DEPUTY DIRECTOR

7236-01

cc: DDC

August 21, 2006

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
AUG 23 2006
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment, Pre-Assessment Consultation
Kapolei Corporation Yard
Honolulu, Ewa, Oahu, TMK 9-1-016:004

Thank you for the opportunity to comment at this Pre-Assessment Consultation phase of the environmental review relating to Kapolei Corporation Yard.

The Department of Parks and Recreation has no comment and as this project will not impact any facility or program of the department, you are invited to remove us as a consulted party to the balance of the environmental impact review process.

Should you have any questions, please contact Mr. John Reid, Planner at 692-5454.

Sincerely,

LESTER K. C. CHANG
Director

LKCC:mk
(368196)

7236-01
September 5, 2006

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

Mr. Lester K.C. Chang, Director
Department of Parks and Recreation
City and County of Honolulu
1000 Uluohia Street, Suite 309
Kapolei, HI 96707

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Chang:

Thank you for your August 21, 2006 letter concerning the Kapolei Corporation Yard project. As requested, we will remove your department from our list of consulted agencies.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743
DEPT. INTERNET: www.honoluludpp.org • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

~~7236-01~~ 7236-01

cc: DDC

2006/ELOG-1965(as)

August 22, 2006

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
AUG 2 3 2006
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Re: Draft Environmental Assessment
Pre-Assessment Consultation
91-140 Olai Street - Kapolei Corporation Yard
Tax Map Key 9-1-26: 4

This is in response to your letter dated August 7, 2006 requesting for comments on the proposed Kapolei Corporation Yard on the above site.

Based on your location map, it appears that the project site may not be within the shoreline setback area. However, that information should be verified in the Draft Environmental Assessment. In addition, we expect the project will require a major Special Management Area Use Permit.

We have no other comments to offer at this time. Thank you for the opportunity to comment.

If you have any questions, please contact Adrian Siu-Li of our staff at 527-5072.

Very truly yours,

For Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:pl

Doc 473662

7236-01
September 5, 2006

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH. (808)946-2277
FAX: (808)946-2253

Mr. Henry Eng, FAICP, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th floor
Honolulu, HI 96813

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Eng:

Thank you for your August 22, 2006 (2006/ELOG-1965(as)) letter concerning the Kapolei Corporation Yard project. A discussion of the project in relation to the shoreline setback area and the Special Management Area (SMA) will be included in the Draft EA. The need for a major SMA Use Permit for the Driver and Equipment Training facilities will be discussed in the Draft EA. In addition, since a SMA Use Permit will be required, the Draft EA will be prepared to address the requirements Chapter 25, Revised Ordinances of Honolulu.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR

MELVIN N. KAKU
DIRECTOR

7236-01
8/31/06
cc: DDC

TP8/06-167928R

August 28, 2006

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
AUG 30 2006
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Kapolei Corporation Yard

Thank you for your August 7, 2006 letter, requesting our pre-assessment comments on the subject project. We have the following comments for your consideration as you prepare the draft environmental assessment (EA):

1. The draft EA should discuss transportation impacts, including short-term impacts during construction, and proposed mitigation measures.

2. The area neighborhood board, as well as community residents, businesses, emergency personnel, bus personnel, etc., should be kept apprised of the details of the proposed project and the impacts the project may have on the adjoining local street network area.

We look forward to reviewing the draft EA. Should you have any questions regarding these comments, please contact Ms. Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

MELVIN N. KAKU
Director

7236-01
October 18, 2006

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

Mr. Melvin N. Kaku, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd floor
Honolulu, HI 96813

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Kaku:

Thank you for your August 28, 2006 comments (TP8/06-167928R) concerning the Kapolei Corporation Yard project. The project site is located at the western end of Olai Street. The major access route to the Kapolei Corporation Yard will be via Kalaeloa Boulevard and Olai Street. Kalaeloa Boulevard carries four travel lanes of traffic, two in each direction to its intersection with Olai Street. The Draft EA will discuss short-term transportation impacts to these streets and mitigation measures during construction, as well as long-term impacts the project may have on the adjoining street network.

The Makakilo/Kapolei/Honokai Hale Neighborhood Board (NB) No. 34 was sent a notification of the project during the process to revise the Ewa Public Infrastructure Map. The neighborhood board and relevant agencies and individuals will be sent a copy of the Draft EA for review.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner
cc: G. Doi, DDC

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

August 16, 2006

7236-01 JS 8/19/06 BG LO

MUFI HANNEMANN, Mayor
RANDALL Y. S. CHUNG, Chairman
HERBERT S. K. KAOPUA, SR.
SAMUEL T. HATA
ALLY J. PARK
RODNEY K. HARAGA, Ex-Officio
LAVERNE T. HIGA, Ex-Officio
CLIFFORD P. LUM
Manager and Chief Engineer

cc: DDC, VIA E-MAIL

RECEIVED
AUG 18 2006
WILSON OKAMOTO CORPORATION

Mr. John Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment, Pre-Assessment Consultation for the
Kapolei Corporation Yard, TMK: 9-1-026:004

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

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

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

The project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the building permit.

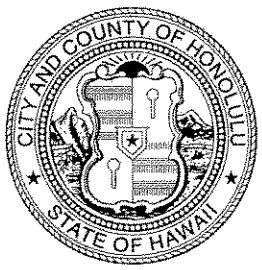
The on-site fire protection requirement should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun at 748-5440.

Very truly yours,

K. Shida

KEITH S. SHIDA
Principal Executive
Customer Care Division



APPENDIX B

Hazardous Waste Survey

M F A MASA FUJIOKA & ASSOCIATES
A PROFESSIONAL PARTNERSHIP
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS
98-021 Kamehameha Hwy., #337 • Aiea, Hawaii 96701-4914
Phone 808 484-5366 • Fax 808 484-0007

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

August 25, 2006

Attn: Mr. John Sakaguchi

"The complete Hazardous Waste Survey is on file with the City and County of Honolulu Department of Design and Construction"

Subject: **Results**
Phase II Environmental Testing
Kapolei Corporation Yard, Oahu, Hawaii
TMK (1) 9-1-026, Parcel 4
91-119 Olai Street
Kapolei, Oahu, Hawaii

Dear John:

Masa Fujioka & Associates (MFA) conducted limited environmental sampling and testing to screen for the potential presence of chemical contaminants relating to items of potential environmental concern identified in the Phase I Environmental Site Assessment (ESA) report for the above-listed site. The location of the site is depicted on Figure 1, attached. The sampling and testing activities and results are described below.

SOIL SAMPLING AND TESTING

A total of 19 sampling locations were chosen based on known past uses, the potential of migrating contamination from offsite, and the current condition of the property. The locations sampled are depicted approximately on the Site Plan (Figure 2), attached. Within these 19 locations, 15 soil borings were made and a total of 24 soil samples were taken.

Drilling and soil sampling was conducted from July 24 to July 28, 2006 by MFA. Each boring was drilled with a 4-inch-diameter solid stem auger. Soil samples were collected by driving a steel split-spoon sampler with a 140 lb. slide hammer into the soil. The sampler was lined with a brass sleeve, used to contain each soil sample. All soil samples were collected in this fashion except sample numbers B3 and B5-B7, which consisted of soil stockpile samples. The stockpile sample locations were dug by hand to the depth of one foot and then the sample was placed into collection sleeves.

Each soil sample was taken at a predetermined depth associated with the potential for contamination. The shallowest sample was collected at 0.5 feet bgs and the deepest at 8.5 feet bgs. Groundwater was encountered in 10 borings at depths ranging from 3.5 feet below ground surface (bgs) to 9 feet bgs. A log of subsurface conditions encountered at each boring location is attached.

Soil samples were stored in zip-loc bags in a cooler containing frozen blue-ice packs. The samples were delivered to Advanced Analytical Laboratory, Inc. in Honolulu for analysis. Soil samples were tested for constituents related to their location on the property as the potential for contamination warranted. All soil samples were tested for total petroleum hydrocarbons (TPH) as a fuel scan (gasoline, diesel and oil ranges), polynuclear aromatic hydrocarbons: naphthalene, acenaphthene, fluoranthene, benzo(a)pyrene (PAHs), and RCRA 8 metals. Additionally, select locations were tested for benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary-butyl ether (MtBE); halogenated volatile organic compounds (HVOCs); and PCBs.

During the course of our soil sampling activities we noted no unusual odors, staining, or other indications of contamination.

GROUNDWATER SAMPLING AND TESTING

Borings B8, B9, B12 and B14-19 were completed as temporary groundwater monitoring wells MW8, MW9, MW12, and MW14-19. The wells were constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) slotted screen (0.020-inch slot width) and 2-inch diameter schedule 40 PVC casing. Pre-slotted, threaded casing was used and a plastic end cap was attached to the bottom of the well screen. The wells were installed to various depths ranging from 7 feet bgs to 12.5 feet bgs. The lower 5 feet of each well consisted of a screened interval with sufficient screen above the groundwater surface to accommodate groundwater level fluctuations and to allow detection of potential light non-aqueous phase liquids, if present.

The annular space between the borehole and the well casing was filled with clean silica sand to at least 1 foot above the screen. A hydrated bentonite seal of at least 1 foot in thickness was placed above the sand filling in the remaining space. Each of the wells installed by MFA was fitted with water-tight top and bottom caps. Schematics detailing well construction are shown on the attached boring/monitoring well logs.

Prior to obtaining the groundwater samples, the wells were developed by bailing a minimum of four well volumes. A new pre-cleaned bailer and clean (new) nylon rope to lower and raise the bailer was used to remove the well volumes (approximately 2.5 to 3 gallons) from each well.

Following development, the wells were purged. In a similar process, new, pre-cleaned, and disposable supplies were used to evacuate the wells. Well development

and purge details and groundwater parameter measurements are shown on the attached groundwater data sheets.

MFA collected groundwater samples from the nine wells on July 28, 2006. Sample containers for groundwater samples were supplied and prepared by the laboratory. The sample containers were carefully filled from the bailer using a new, pre-cleaned and disposable polyethylene bottom-emptying device to minimize volatilization of organic compounds and were filled completely to eliminate trapped air.

Groundwater sample containers were labeled, wrapped with bubble pack, placed in a cooler containing blue-ice, and were submitted for laboratory testing to Advanced Analytical Laboratory, Inc. in Honolulu. Chain-of-custody procedures were followed during the transfer of the samples. All samples were tested for BTEX, MtBE, PAHs, and RCRA 8 metals. Select samples were additionally tested for PCBs and HVOCs. Chain-of-custody records and laboratory test reports are attached.

TEST RESULTS

Constituent chemical analytes in soil samples and groundwater samples were not reported as detected at concentrations in excess of the Hawaii State Department of Health's (DOH) Environmental Action Levels (EALs). Three soil samples (B7-1.0', B11-1.5', and B19-0.5') were reported with TPH as oil concentrations in excess of the EAL for potential nuisance concern (odors, etc.) but not above the EAL for potential leaching concerns or human health concerns. All test findings are listed on Tables 1-4, attached.

SUMMARY AND DISCUSSION

MFA conducted soil and groundwater sampling and testing to further investigate possible contamination associated with items of potential concern identified in the Phase I ESA for the subject site. Our investigation found no chemical constituents of potential concern to be present at the locations tested, in the media tested, at concentrations above DOH EALs. TPH as oil was reported at three locations in soil at concentrations above potential nuisance levels (one soil stockpile location B7, and two shallow soil locations-B11 and B19).

The potential nuisance concern associated with the TPH as oil in soil would not be a potential concern provided surface pavements or buildings will cover the shallow soil areas and the stockpile of soil is removed and properly disposed.

M F A MASA FUJIOKA & ASSOCIATES
A PROFESSIONAL PARTNERSHIP
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS

LIMITATIONS

We conducted the soil and groundwater in order to investigate potential contaminant sources identified in our November 4, 2005 Phase I ESA for the site. The findings of the ESA were based on information that we obtained on given dates, through records review, site reconnaissance, and related activities. It is possible that other information exists or subsequently has become known, just as it is possible for conditions we observed to have changed after our observation. For these and associated reasons, MFA cannot warrant or guarantee that not finding indicators of hazardous materials means that hazardous materials do not exist on the site.

- oOo -

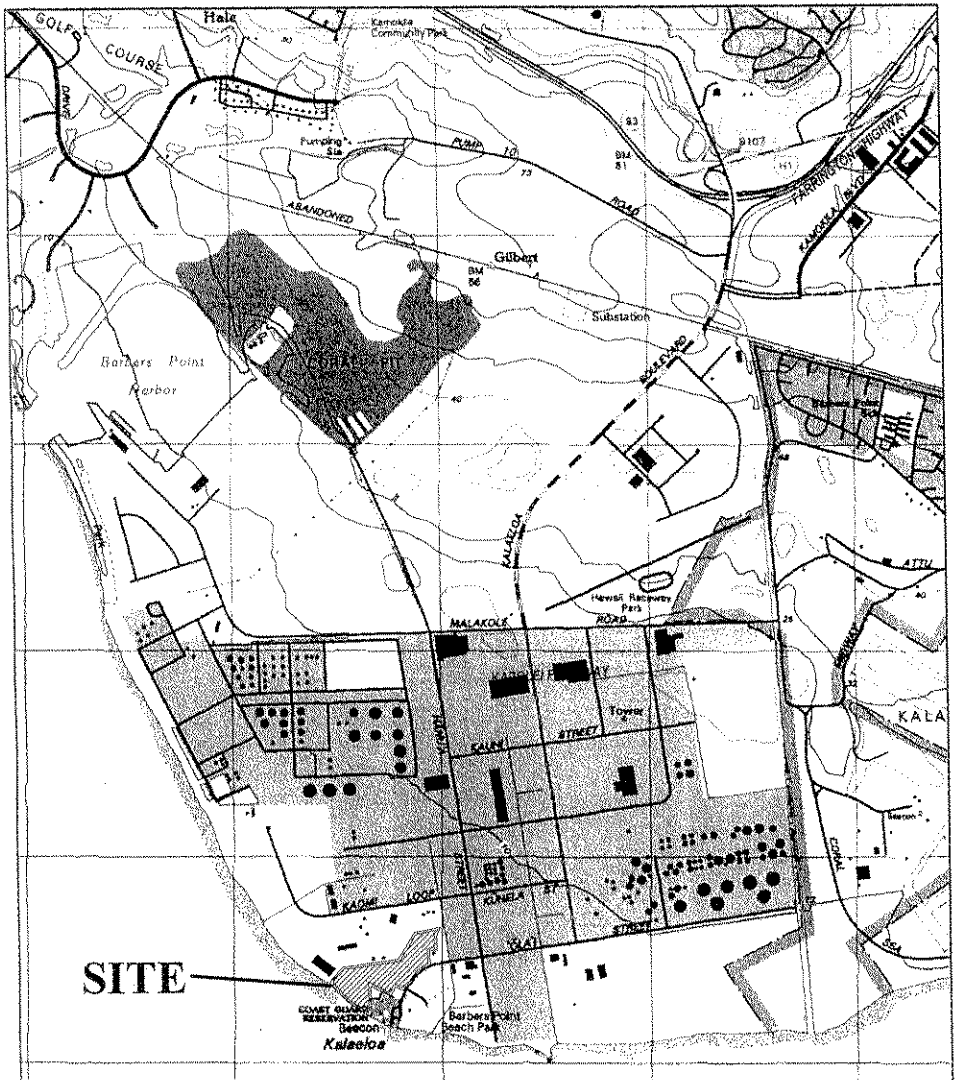
Thank you, and please contact us at (808) 484-5366, if you have any questions.

Sincerely,

MASA FUJIOKA & ASSOCIATES
A Professional Partnership

David R. Daugherty
Principal

Attachments: Figure 1 Area Map
Figure 2 Site Plan
Table 1 Soil Analytical Data (Organics)
Table 2 Soil Analytical Data (Metals)
Table 3 Groundwater Analytical Data (Organics)
Table 4 Groundwater Analytical Data (Metals)
Boring/Well Logs
Laboratory Test Reports
Chain-of-Custody Records
Well Development/Purge Groundwater Data Sheets



LEGEND

Subject Property (Approximate Boundary)

0 2000 3000 4000
Scale in Feet

Source: USGS Topographic Map, Ewa Quadrangle (1998)

SITE HONOLULU

Project: 06096-079

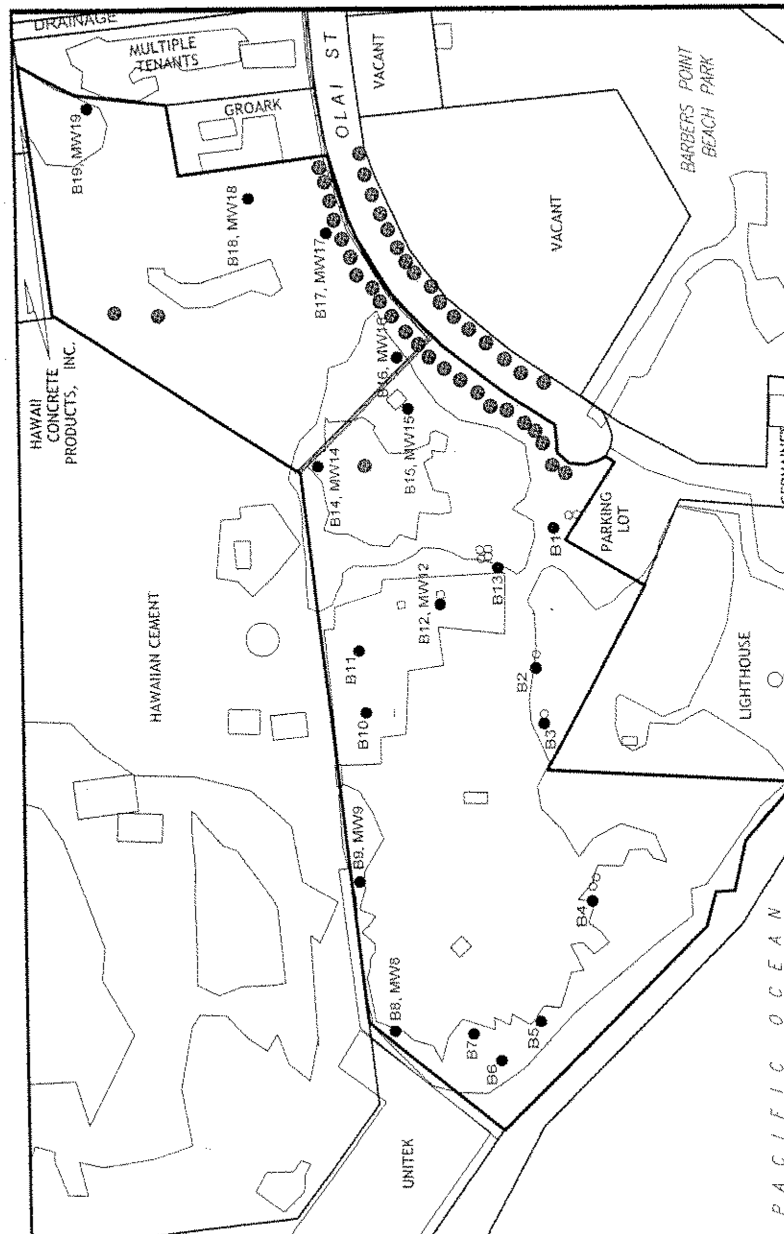
Approved by: DRD
Drawn by: DJM

Date: August 2006

Scale: 1"=2,000' (APPROXIMATE)

Figure 1 - Area Map
Kapolei Corporation Yard
TMK (1) 9-1-026, Parcel 4
91-119 Olai Street
Kapolei, Oahu, Hawaii

MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS



LEGEND
- Test Location
- Subject Property Boundary
- Structures
- Tree
- Fuel Easement

Source: C&C Honolulu Online GIS Infrared Parcels Map

N

0 200 400
Scale in Feet (Approximate)
Structures and Features Approximately Scaled

Project: 06096-079

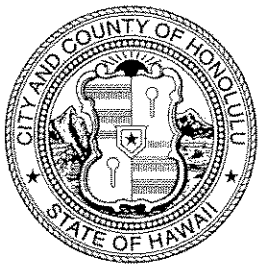
Approved by: DRD
Drawn by: DJM

Date: August 2006

Scale: 1"= 300' (APPROXIMATE)

Figure 2 - Site Plan
Kapolei Corporation Yard
TMK (1) 9-1-026, Parcel 4
91-119 Olai Street
Kapolei, Oahu, Hawaii

MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS



APPENDIX C

Botanical Survey

INTRODUCTION

The proposed Kapolei Consolidated Corporation Yard site consists of 17.8 acres of nearly flat land located at 91-119 Olai Street, Kapolei, Hawaii adjacent to the U.S. Coast Guard Light House and across Olai Street from the Barber's Point Beach Park. On the southwestern or makai part of the study site are found a working sand and gravel operation and part of the area is taken up by equipment that relates to the adjoining cement plant. The inland or mauka part of the study site is fairly flat and the two parts are separated by a high earthen berm.

A botanical survey of the entire site was undertaken in March 2005. The results of that survey are presented below.

METHODS

A two person team surveyed the entire site using the walk through method to collect data about the vegetation. In a 1979 botanical survey of the area Char and Balakrishnan reported that a heavy concentration of the endangered species Achyranthes splendens var. rotundata was located on this site (Char and Balakrishnan 1979). Therefore particular effort was given to finding any Achyranthes plants as well as any other threatened or listed endangered species or species of concern.

In addition data were collected to prepare a species list of the plants on the site and to describe the vegetation types present.

RESULTS

Three vegetation types were found. The smallest is a Batis Depressional Wetland (Figure 1). This wetland extends approximately twenty to thirty feet from the base of the seaward dunes toward the sea. It covers nearly the entire seaward edge of the study site

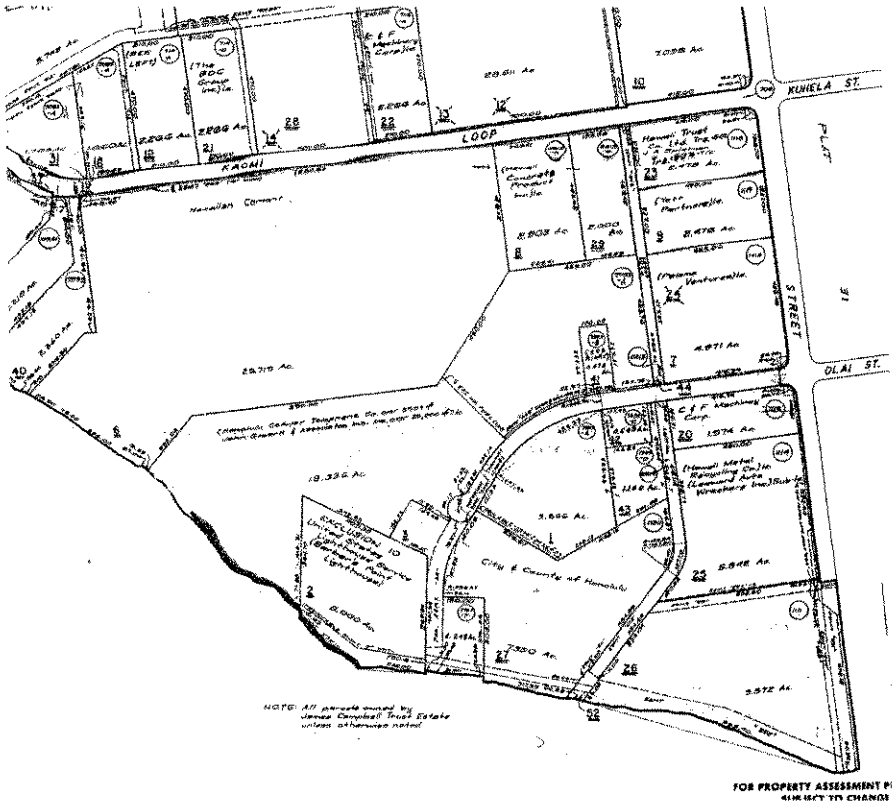


Figure 1 - Green indicates Batis Wetland

from the U.S. Coast Guard Light House fence to the cement plant fence. The wetland is heavily vegetated by a dense stand of *Batis maritima* L. two to three feet in height. Batis maritima or pickleweed is an obligate wetland plant which means it is only found under wetland conditions. The water source to perpetuate this wetland comes from the ocean during high tides.

A fence should be installed either at the base or atop the inland dunes of the wetland to protect it from accidental dumping or excess foot traffic.

Kiawe/Haole Koa Fringe is a second vegetation type. It is occupies the same area as the boundary fences of the seaward or makai portion of the study site. It varies from twenty to thirty feet in width and is made up on Kiawe trees (Prosopis pallida) fifteen to twenty feet in height and Haole koa (Leucaena leucocephala) bushes that are less than fifteen feet in height. The Kiawe/Haole koa Fringe is interspersed with such weedy taxa such as Guinea grass (Panicum maximum), Buffelgrass (Cenchrus ciliaris), tree tobacco (Nicotiana glauca, castor bean (Ricinus communis), feral tomatoes (Lycopersicon esculentum, two species of fleabane (Pluchea spp.) and others.

Within the Kiawe/Haole Koa fringe vegetation along the beach front there are several individuals of a thornless variety of Kiawe, Prosopis juliflora, a taxon formerly know only from Sand Island.

The third vegetation type, Disturbed Mixed Grassland. It is found on the inland or mauka portion of the study site. Here Buffelgrass is the most commonly found taxon. There is also Guinea grass, swollen finger grass (Chloris barbata), Stargrass (Chloris divaricata), Castor bean, tomatoes, golden crown beard (Verbesina enceliodes), haole koa and many, many others.

Large parts of the mauka portion of the study are free of all vegetation. In addition lots of household rubbish has been dumped in this area.

DISCUSSION

A 1979 BOTANICAL SURVEY OF THE ENTIRE Barber's Point area noted that the site of the proposed Kapolei Consolidated Corporation Yard site supported a heavy concentration of the listed endangered species Achyranthes splendens var. rotundata (Char and Balakrishnan, 1979). During this survey a special effort was made to located these plants. None were found.

The vegetation of this study site, except for the Batis Wetland, is made up of weedy taxa that can be found in many lowland places in the Hawaiian Islands. It will quickly regenerate if disturbed.

ENDANGERED SPECIES

A listed threatened or endangered species as set forth in The Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) was known from this site, however, none was found during this survey.

SPECIES LIST OF PLANTS FOUND ON THE PROPOSED KAPOLEI CONSOLIDATED CORPORATION YARD SITE

The plant families in the following species list have been alphabetically arranged within two groups, Monocotyledons, and Dicotyledons. The genera and species are arranged alphabetically within families. The taxonomy and nomenclature follow that of Wagner, Herbst, and Sohmer (1990). For each taxon the following information is provided:

1. An asterisk before the plant name indicates a plant introduced to the Hawaiian Islands since Cook or by the aborigines.
2. The scientific name of the plant.
3. The Hawaiian name or the most widely used common name of the Plant.
4. Abundance ratings are for this site only and they have the following meanings:
   Uncommon = a plant that was found less than fine times.
   Occasional = a plant that was found between five and ten times.
   Common = a plant considered an important part of the vegetation.
   Locally abundant = plants found in large numbers over a limited area. For example the plants found in grassy patches.

This species list is the result of an extensive survey of this site during rainy, cool winter weather (February 2005) and it reflects the vegetative composition of the flora during a single growing season. Minor changes in the vegetation will occur due to introductions and losses and a slightly different species list would result from a survey conducted during a different growing season.

Scientific Name	Common Name	Abundance
MONOCOTYLEDONS		
POACEAE - Grass Family		
**Chloris barbata* (L.) Sw.	Swollen fingergrass	Locally abundant
**Chloris divaricata* R. Br.	Stargrass	Locally abundant
**Cenchrus ciliaris* L.	Buffelgrass	Common
**Cynodon dactylon* (L.) Pers.	Bermuda grass	Locally abundant
**Eleusine indica* (L.) Gaertn.	Wiregrass	Common
**Eragrostis cilianensis* (All.) Link	Stinkgrass	Locally abundant
**Panicum maximum* Jacq.	Guinea grass	Common
**Rhynchelytrum repens* (Willd.) Hubb.	Natal redtop	Locally abundant
**Setaria verticillata* (L.) P.Beauv.	Bristly foxtail	Common
Sporobolus virginicus (L.) Kunth	Seashore rush	Locally abundant
DICOTYLEDONES		
ACANTHACEAE – Acanthus Family		
**Asystasia gangetic* (L.) T. Anderson	Chinese violet	Common
AIZOACEAE – Fig-marigold Family		
**Trianthema portulacastrum* L.		Occasional
AMARANTHACEAE – Amaranth Family		
**Amaranthus spinosus* L.	Spiny amaranth	Occasional
**Amaranthus viridis* L.	Slender amaranth	Occasional
ASTERACEAE – Sunflower Family		
**Flaveria trinervia* (Spreng.) C. Mohr.		Common
**Lactuca serriola* L.	Prickly lettuce	Common
**Pluchea indica* (L.) Less.	Indian fleabane	Common
**Pluchea symphytifolia* (Mill.) Gillis	Sourbush	Common
**Sonchus oleraceus* L.	Pualele	Common
**Tridax procumbens* L.	Coat buttons	Occasional
**Verbesina enceliodes* (Cav.) Benth. & Hook	Crown beard	Common
BATACEAE – Saltwort Family		
Batis maritima L.	Pickleweed	Locally abundant

Scientific Name	Common Name	Abundance
BORAGINACEAE – Borage Family		
Heliotropium curassavicum L.	Seaside heliotrope	Common
CAPPARACEAE – Caper Family		
**Cleome gynandra* L.	Wild spider flower	Uncommon
CHENOPODIACEAE – Goosefoot Family		
**Atriplex semibaccata* R. Br.	Australian saltbush	Occasional
COMBRETACEAE – Indian almond Family		
**Conocarpus erectus* L.	Buttonwood	Occasional
CONVOLVULACEAE – Morning glory Family		
**Ipomoea littoralis* Blume		Uncommon
**Merremia aegyptia* (L.) Urb.	Hairy Merremia	Uncommon
CUCURBITACEAE – Gourd Family		
**Coccinia grandis* (L.) Voigt	Ivy gourd	Uncommon
EUPHORBIACEAE – Spurge Family		
**Chamaesyce hirta* (L.) Millsp.	Hairy spurge	Occasional
**Chamaesyce hypericifolia* (L.) Millsp.	Graceful spurge	Occasional
**Ricinus communis* L.	Castor bean	Common
FABACEAE – Bean Family		
**Desmodium incanum* DC	Spanish clover	Occasional
**Leucaena leucocephala* (Lam.) de Wit	Koa haole	Common
**Prosopis juliflora* (Sw.) DC	Algaroba	Occasional
**Prosopis pallida* Kunth	Kiawe	Common
GOODENIACEAE – Goodenia Family		
Scaevola procera Hillebr.	Naupaka	Occasional

Scientific Name	Common Name	Abundance
MALVACEAE – Mallow Family		
**Malvastrum coromandelianum* (L.) Garcke	False mallow	Occasional
**Sida spinosa* L.	Prickly sida	Occasional
**Thespesia populnea* (L.) ex Correa	Milo	Uncommon
MELASTOMATACEAE – Melastoma Family		
**Clidemia hirta* (L.) D. Don	Koster's curse	Uncommon
POLYGONACEAE – Buckwheat Family		
**Antigonon leptopus* Hook & Arnott	Mexican creeper	Uncommon
SOLANACEAE – Nightshade Family		
**Lycopersicon esculentum* Mill.	Tomato	Common
**Nicotiana glauca* R. C. Graham	Tree tobacco	Common
**Solanum americanum* Mill.	Popolo	Occasional
STERCULIACEAE – Cacao Family		
Waltheria indica L.	'Uhaloa	Uncommon

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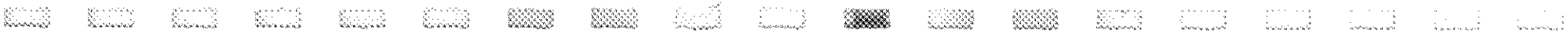

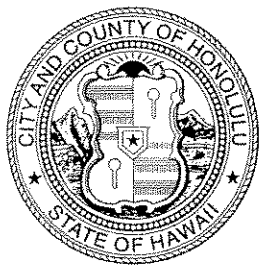

APPENDIX D

Archaeological Inventory Survey

Archaeological Inventory Survey
For the Proposed Kapolei Corporation Yard, Kalaeloa
Honouliuli Ahupua'a, 'Ewa District, O'ahu Island
TMK: [1] 9-1-026:004

Prepared for
Wilson Okamoto Corporation

Prepared by
Hallett H. Hammatt, Ph.D.
and
David W. Shideler, M.A

Cultural Surveys Hawai'i, Inc.
Kailua, Hawai'i
(CSH Job Code: HONOU 8)
October 2006

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Management Summary

Reference	Archaeological Inventory Survey For the Proposed Kapolei Corporation Yard, Kalaeloa, Honouliuli Ahupua'a, 'Ewa District, O'ahu Island TMK: [1] 9-1-026:004
Date	October 2006
Project Number	Cultural Surveys Hawai'i Inc. (CSH) Job Code: HONOU 8
Permit Number	The fieldwork for this investigation was carried out under archaeological permit number 0605, issued by the Hawai'i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR), per Hawai'i Administrative Rules (HAR) Chapter 13-282.
Project Agencies	State Historic Preservation Division; City & County of Honolulu
Project Funding and Land Jurisdiction	City and County of Honolulu funding. The land is understood to still be owned by the Estate of James Campbell
Project Location	TMK: [1] 9-1-026:004 in Kalaeloa (Barber's Point), Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu. This area is depicted on the 1998 'Ewa USGS 7.5-minute topographic quadrangle. Generally, the project area lies adjacent to the north of the Barber's Point Light House and north and west of the west end of Ōla'i Street
Project Acreage	Approximately 17.864 acres
Project Description and Related Ground Disturbance	The project area is proposed for a Wai'anae roads maintenance base yard and a City and County heavy equipment training facility
Area of Potential Effect (APE) and Survey Area Acreage	For this inventory survey investigation, the project's APE is defined as the entire approximately 17.864-acre project area.
Document Purpose	This investigation was designed to fulfill Hawai'i state requirements for an archaeological inventory survey per HAR Chapter 13-276 and Chapter 13-284. A companion cultural impact assessment (CIA) study (Souza et al. 2006 in prep.), prepared to support the project's Hawai'i state environmental review, per the guidelines of the Hawai'i State Department of Health's Office of Environmental Quality Control "Guidelines for Assessing Cultural Impacts", further evaluates the project's potential impacts to cultural resources. Both documents will support the project's historic preservation consultation effort.
Fieldwork Effort	David W. Shideler, M.A., and Jennifer Olson B.A. conducted the field work of the project area on August 22 and August 29, 2006 under the overall guidance of Hallett H. Hammatt, Ph.D. Fieldwork for the archaeological inventory survey required a total of three person-days to complete.

Number of Historic Properties Identified	One historic property was identified within the project's APE. SIHP # 50-80-12-6866 identifies remnants of the Barbers Point Military Reservation established in 1921 and dating perhaps particularly during the period between 1937 and 1942 consisting of three designated features including two 155 mm "Panama Mount" artillery bases and an associated cement slab
Historic Properties Recommended Eligible to the Hawai'i Register of Historic Places (Hawai'i Register)	1) SIHP # 50-80-12-6866
Historic Properties Recommended Ineligible to the Hawai'i Register	None
Project Effect and Mitigation Recommendations	Based on the results of this investigation, the project will affect historic properties. Accordingly, a project-specific effect recommendation of "effect, with agreed upon mitigation commitments" is warranted under HAR Chapter 13-284-7. The following mitigation recommendations are proposed to alleviate the project's affect to significant historic properties: 1) SIHP # 50-80-12-6866 central 155 mm "Panama Mount" artillery base feature to be preserved, 2) Supplementary subsurface testing of sinkholes to assess potential for cultural resources, burials, and/or paleo-avifaunal remains with a scope of work to be developed in consultation with the State Historic Preservation Division, and 3) preparation of a monitoring program with a combination of on-site and on-call monitoring to address the potential for discovery of cultural resources within sinkholes

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Section 1 Introduction

1.1 Project Background

At the request of Wilson Okamoto Corporation, Cultural Surveys Hawai'i, Inc. (CSH) completed this archaeological inventory survey investigation for the proposed 17.864-acre Kapolei Corporation Yard. The archaeological inventory survey investigation was designed to fulfill State requirements for an archaeological inventory survey per HAR Chapter 13-276 and Chapter 13-284. CSH completed the fieldwork component of the archaeological inventory survey under SHPD permit No. 0605, per Hawai'i Administrative Rules (HAR) Chapter 13-13-282. For this inventory survey investigation, the project's area of potential effect (APE) is defined as the entire approximately 17.864-acre project area.

The irregularly-shaped project area is located in the Kalaeloa (Barber's Point) area of Honouliuli Ahupua'a, 'Ewa District, in the southwest corner of the Island of O'ahu. Generally the project area is located north of the Barber's Point Lighthouse, and west and north of Ōla'i Street (TMK: [1] 9-1-026:004). This City & County owned land extends southwest to the coast but no development is planned within approximately 50 m of the coast. This area is depicted on the 1998 'Ewa USGS 7.5-minute topographic quadrangle and additional location maps (Figures 1-4).

Development plans (Figure 4) for the City & County of Honolulu Kapolei Corporation Yard are still somewhat conceptual at this time. Development at the 5.08 northeastern (Wai'anae Roads Maintenance) portion of the project area is to support Wai'anae roads maintenance efforts and is anticipated to involve creation of covered equipment parking, large concrete storage bins, a covered meeting area, a dewatering facility, an office building, a caretaker residence over a carport and a temporary fueling location along with paved drive ways and ADA compliant parking. Development at the southwestern 10.08-acre City and County heavy equipment training facility area is primarily to provide better instruction in heavy machinery operation and is anticipated to involve development of an office, a maintenance facility, a fuel storage facility, a training warehouse, a material stockyard area, a wash area, a truck/forklift training course, a tractor mowing training area, two crane pads, parking, paved driveways and landscaping. A coastal strip of the parcel is to remain undeveloped.

Under Hawai'i state historic preservation legislation, archaeological inventory surveys are designed to identify, document, and provide significance and mitigation recommendations for historic properties. Under this legislation, historic properties are defined as any "building, structure, object, district, area, or site, including *heiau* and underwater site, which is over fifty years old." A project's effect and potential mitigation measures are evaluated based on the project's potential impact to "significant" historic properties (those historic properties determined eligible, based on established significance criteria, for inclusion in the Hawai'i Register of Historic Places [Hawai'i Register]). Determinations of eligibility to the Hawai'i Register result when a state agency official's historic property "significance assessment" is

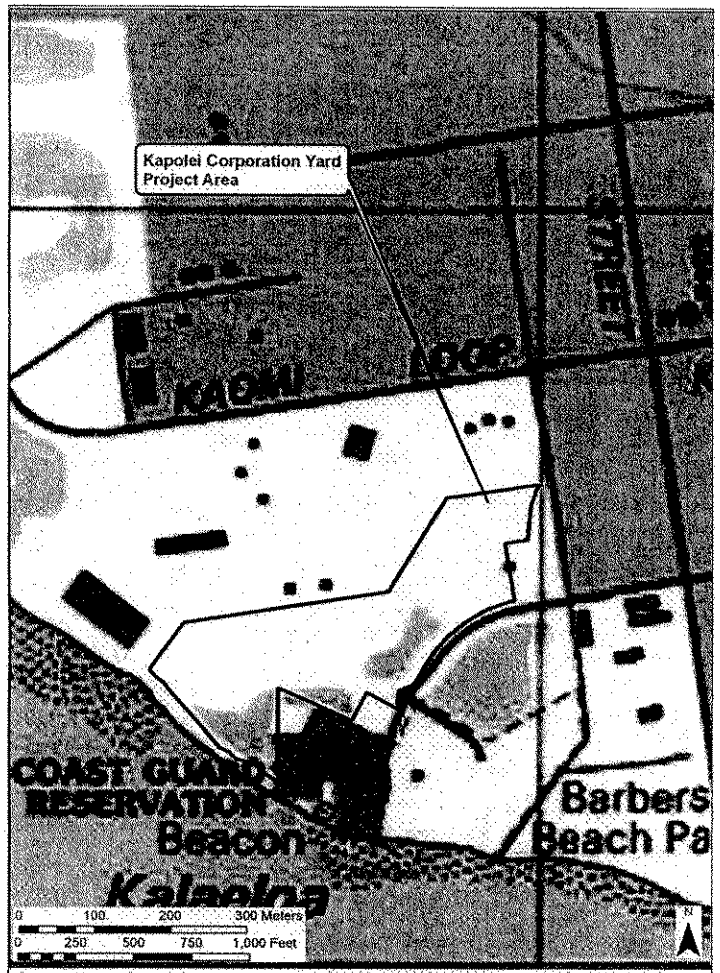


Figure 1. USGS 7.5-minute series topographic map, 'Ewa quadrangle (1998), showing the location of the project area.

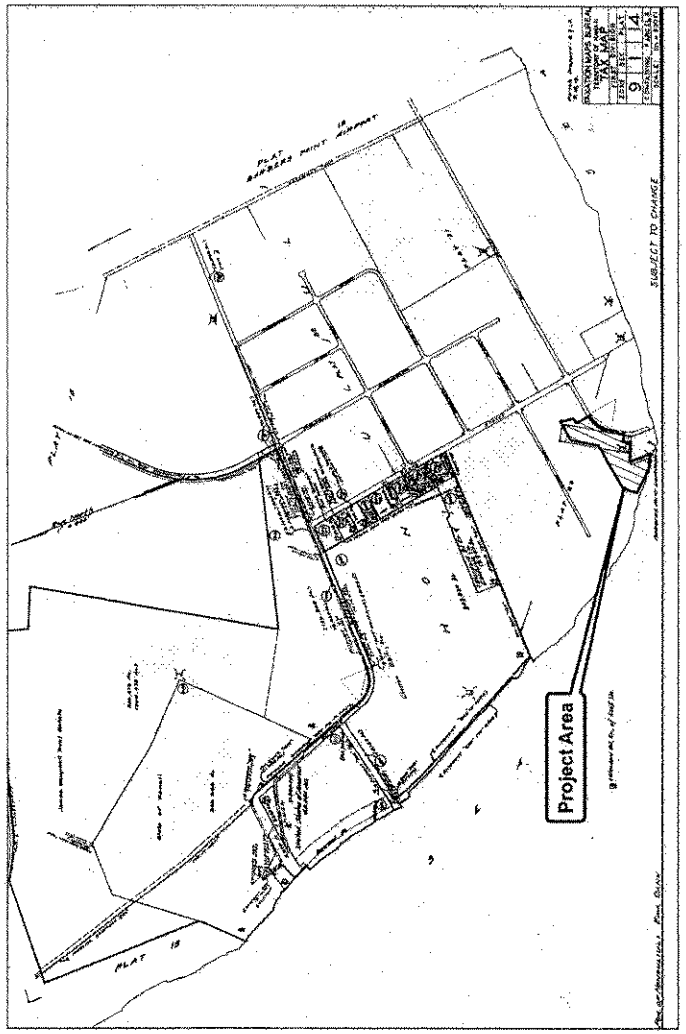


Figure 2. TMK: 9-1-14 showing the location of the project area

guidance provided in National Register Bulletin # 15, "How to Apply the National Register Criteria for Evaluation."

2.2 Community Consultation

Individuals knowledgeable about the project area's history were consulted in conjunction with the companion Cultural Impact Assessment for the project area (Souza and Hammatt in prep.)

Section 3 Background Research

3.1 Traditional and Historical Background

3.1.1 Mythological and Traditional Accounts and Early Historic Period

Various legends and early historical accounts indicate that the *ahupua'a* of Honouliuli (Figure 6) was once heavily populated by pre-contact Hawaiians. This substantial settlement is attributable for the most part to the plentiful marine and estuarine resources available at the coast, as well as lowlands fronting the west loch of Pearl Harbor (Kaihuopala'ai) suitable for wetland taro cultivation. In addition, forest resources along the slopes of the Wai'anae Range, as suggested by E.S. and E.G. Handy, probably acted as a viable subsistence alternative during times of famine and/or low rainfall.

> The length or depth of the valleys and the gradual slope of the ridges made the inhabited lowlands much more distant from the wao, or upland jungle, than was the case on the windward coast. Yet the wao here was more extensive, giving greater opportunity to forage for wild foods during famine time [Handy and Handy 1972:469-470].

John Papa 'Ī'ī describes a network of Leeward O'ahu trails that in later historic times encircled and crossed the Wai'anae Range, allowing passage from West Loch to the Honouliuli lowlands, past Pu'u Kapolei and Waimānalo Gulch to the Wai'anae coast and onward, circumscribing the shoreline of O'ahu ('Ī'ī 1959:96-98). Following 'Ī'ī's description, a portion of this trail network would have passed close to the present Farrington Highway alignment.

The Hawaiian *ali'i* were also attracted to this region. One historical account of particular interest refers to an *ali'i* residing in Ko'olina, a kilometer and a half to the northwest of the project area:

> Ko'olina is in Waimānalo near the boundary of 'Ewa and Wai'anae. This was a vacationing place for chief Kākuhihewa and the priest Napuaikamao was the caretaker of the place. Remember reader, this Ko'olina is not situated in the Waimānalo on the Ko'olau side of the island but the Waimānalo in 'Ewa. It is a lovely and delightful place and the chief, Kākuhihewa loved this home of his [*Ke Au Hou* July 13, 1910 in Sterling and Summers 1978:41].

Other early historical accounts of the general region typically refer to the more populated eastern portion of the 'Ewa district, where missions and schools were established and subsistence resources were perceived to be greater. However, the presence of archaeological sites along the barren coral plains and coast of southwest Honouliuli Ahupua'a indicate that pre-contact and early post-contact populations also adapted to less inviting areas, despite the environmental hardships.

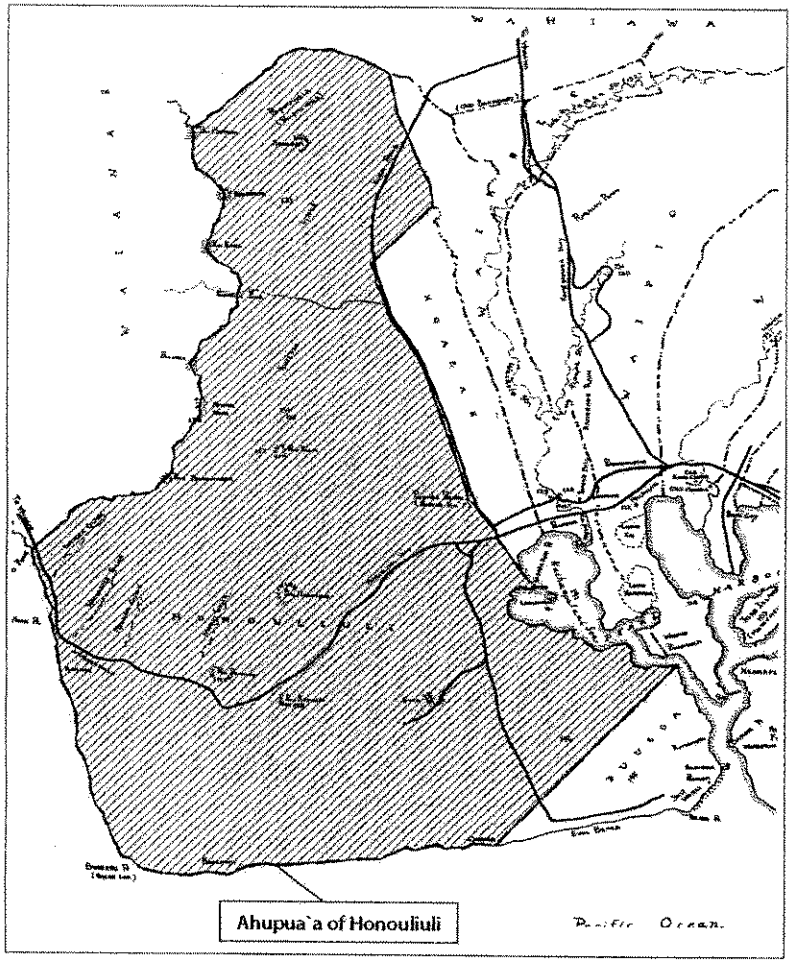


Figure 6. Map showing location of Honouliuli Ahupua'a in west O'ahu (adapted from Sterling and Summers 1978)

Barber's Point is named after Captain Henry Barber, whose ship ran aground on October 31, 1796. Subsequent to western contact in the area, the landscape of the 'Ewa plains and Wai'anae slopes was adversely affected by the over-harvesting of the sandalwood forest, and particularly by the introduction of domesticated animals and exotic plant species. Domesticated animals including goats, sheep and cattle were brought to the Hawaiian Islands by Captain George Vancouver in the early 1790s, and were allowed to graze freely about the land for some time after. L.A. Henke reports the existence of a longhorn cattle ranch in Wai'anae by circa 1840 (in Frierson 1972:10).

During this same time, perhaps as early as 1790, exotic plant species were introduced to and flourished in the area. The following dates of specific vegetation introduced to Hawai'i are given by R. Smith and outlined by Frierson (1972:10-11):

> "early", c. 1790: Prickly pear cactus (*Opuntia tuna*); *Haole koa* (*Leucaena glauca*); Guava (*Psidium guajava*)
>
> 1835-1840: Burmuda [sic] grass (*Cynodon dactylon);* Wire grass (*Eleusine indica)*
>
> 1858: Lantana (*Lantana camara)*
>
> The *kiawe* tree was also introduced during this period, either in 1828 or 1837 [Frierson 1972:11].

3.1.2 Mid- to late-1800s

Following the Māhele of 1848, 99 individual land claims in the *ahupua'a* of Honouliuli were registered and awarded by King Kamehameha III. The present study area appears to have been included in the largest award (Royal Patent 6071; LCA 11216, *'Āpana* 8) granted in Honouliuli Ahupua'a to Miriam Ke'ahi-Kuni Kekau'ōnohi on January 1848 (Native Register). Kekau'ōnohi acquired a deed to all unclaimed land within the *ahupua'a*, totaling 43,250 acres.

Kekau'ōnohi was one of Liholiho's (Kamehameha II's) wives, and after his death, she lived with her half-brother, Luanu'u Kahala'i'a, who was governor of Kaua'i. Subsequently, Kekau'ōnohi ran away with Queen Ka'ahumanu's stepson, Keli'i-ahonui, and then became the wife of Chief Levi Ha'alelea. Upon her death on June 2, 1851, all her property was passed on to her husband and his heirs. When Levi Ha'alelea died, the property went to his surviving wife, who in turn leased it to James Dowsett and John Meek in 1871 for stock running and grazing.

In 1877, James Campbell purchased most of Honouliuli Ahupua'a -including the current project area- for a total of $95,000. He then drove off 32,347 head of cattle belonging to Dowsett, Meek and James Robinson and constructed a fence around the outer boundary of his property (Bordner and Silva 1983:C-12). By 1881, the Campbell property of Honouliuli prospered as a cattle ranch with "abundant pasturage of various kinds" (Briggs in Haun and Kelly 1984:45).

In 1889, Campbell leased his property to Benjamin Dillingham, who subsequently formed the Oahu Railway and Land Company (O.R. & L.) as the result of a franchise granted by King Kalākaua in 1886. In 1889, Dillingham opened the first nine miles of narrow gauge track on the King's birthday. To attract business to his new railroad system, Dillingham subleased all land below 200 feet to William Castle who in turn sublet the area to the Ewa Plantation Company for sugar cane cultivation (Frierson 1972:15).

Ewa Plantation Co. grew quickly and continued in full operation up into modern times. As a means to generate soil deposition on the coral plain and increase arable land in the lowlands, the Ewa Plantation Co. installed ditches running from the lower slopes of the mountain range to the lowlands and then plowed the slopes vertically just before the rainy season to induce erosion (Frierson 1972:17).

3.1.3 History of Shipwrecks and the Barbers Point Light House

The first western ship recorded as wrecking in the Hawaiian Islands was the brig *Arthur* under the command of Captain Henry Barber that ran aground at Kalaeloa Point on the southwest corner of O'ahu at 8:00 PM on October 31, 1796. Captain Barber was en route from Honolulu to Canton with a cargo of sea otter hides. Breakers broke up the ship on the rocks and six of the twenty-two-man crew drowned. The point became known as Barber's Point and in 1968 the apostrophe was officially deleted from the name by the U.S. Board of Geographic Names (Dean 1991:17) One of the most interesting shipwrecks at the point was a dismasted Japanese vessel that drifted ashore at Waialua O'ahu in 1804 and was being towed to Honolulu when it was lost at the point. In 1855 the French whaler *Marquis de Turenne* ran aground reportedly about a mile off the point and was a total loss.

In 1880 the surveyor general of the Hawaiian Kingdom, William Dewitt Alexander, selected a location at Barbers Point for an aid to navigation and money was appropriated that same year. There were delays in obtaining the Fresnel lens, lamps and lantern from New York and by the time they arrived funds had been expended. In 1888 a lighthouse was constructed of stone and cement mortar "42 feet above mean tide" seemingly on a 6-foot high coral shelf along with a small frame house and a water cistern (Dean 1991:19). It appears that the light station site was originally 2 acres but was expanded to 5 acres with lands acquired by condemnation in 1910 (Dean 1991:207). Improvements were made to the residence, a storehouse, and a separate oil house in 1905 and 1915 and 3 ½-miles of water pipe was laid to the facility c. 1915. A U.S. army transport ship, the *Sheridan,* arriving from Manila ran aground in 1906 but was successfully recovered. A 60-foot Japanese sampan smashed apart at Kalaeloa in 1919. In 1920 the *West Eldura* also en route from Manila ran aground but was also hauled off the reef.

To address continuing navigation concerns a new 72-foot high tower (still extant) was built in 1933 adjacent to the old 40-foot tower and the old tower was toppled. The tower was automated in 1964 ending 76 years of lighthouse keeping.

3.1.4 1900s

Twentieth century land use in the vicinity of the project area included transportation along the former O.R. & L. alignment that ran roughly parallel to the coast 500 m inland. Passenger totals

on the O.R. & L. line increased throughout the first half of the twentieth century. In 1908, a total of 446,318 people rode on the line. This total rose to approximately 1,200,000 by 1922 and 1943 saw an all time high of 2,642,516 passengers. Throughout WWII, the railway served a critical function in moving both personnel and equipment.

The development of a better road system and more cars on the island began to cut into passenger totals on the O.R. & L. According to the National Register of Historic Places Inventory forms on file at SHPD/DLNR, on December 12, 1947, all operations outside of Honolulu ceased. In 1950, the U.S. Navy purchased the track and right-of-way from Pearl Harbor to the Naval Ammunition Depot (NAD) access road in Nānākuli for $1.00 in the name of "National Defense". The NAD maintained this 25.5-mile stretch of track until the early 1950s when a 6.5-mile stretch from Pearl Harbor to Waipahu was ceded to the state of Hawai'i. A further 6 miles was reverted to the state in 1954 after a heavy flood. The final 13-mile stretch was in use until 1968 and was ceded to the state in 1980.

The 1919 Fire Control Map (Figure 7) shows a road and architectural features in the area of the Gilbert Station 3 km northeast of the present project area understood as the site of a very small Gilbert Camp associated with the railway and 'Ewa Plantation. An unimproved loop access road extends from Gilbert Station down to Barbers Point passing through the present project area and looping back to the OR&L alignment. These features also appear in the 1928 U.S. Geological Survey map (Figure 8). The 1928 map also shows the relatively new tank and pipeline to provide water to the lighthouse compound. A 1943 war department map (Figure 9) shows the same features as well as a number of new unimproved roads in the vicinity one of which passes through the central portion of the present project area. An improved road corresponding to modern Ōla'i Street services the Barbers Point lighthouse (and the Barbers Point Military Reservation, which is not shown) from the west. The 1943 War Department map does not show the new Barbers Point Military Reservation infrastructure but it is perhaps not surprising that during time of war new military bases would not be shown on maps for widespread distribution.

3.1.5 Coastal Defenses at Battery Barbers Point (1937 to 1942)

It appears that the Barbers Point Military Reservation was established in 1921. Between 1937 and 1942 there were two sets of two "Panama Mount" 155 mm guns. The Panama mount was a unique circular rail that allowed the 155 mm gun to be traversed through a full 360 degrees (Figure 10). A concrete pedestal at the center of a circular, semi-circular, or three-quarters circular rail supported the gun and its carriage. The gun carriage trail ends rode on the rail, which is also embedded in concrete. The model M1917A1 gun used in many Coast Artillery Panama mount installations was about 19 feet long, weighed about 8,700 pounds and could fire a projectile up to about 19,000 yards (10.9 miles). Batteries of up to four guns on Panama mounts (as at Barbers Point Military Reservation) often served as temporary defenses while nearby permanent batteries awaited construction. (http://ca/ckwinfo.net/info/guns/index.html) The two sets of 155 mm guns at the Barbers Point Military Reservation were separated by the Barbers Point lighthouse. "This site was an early training firing point for 155 mm guns."

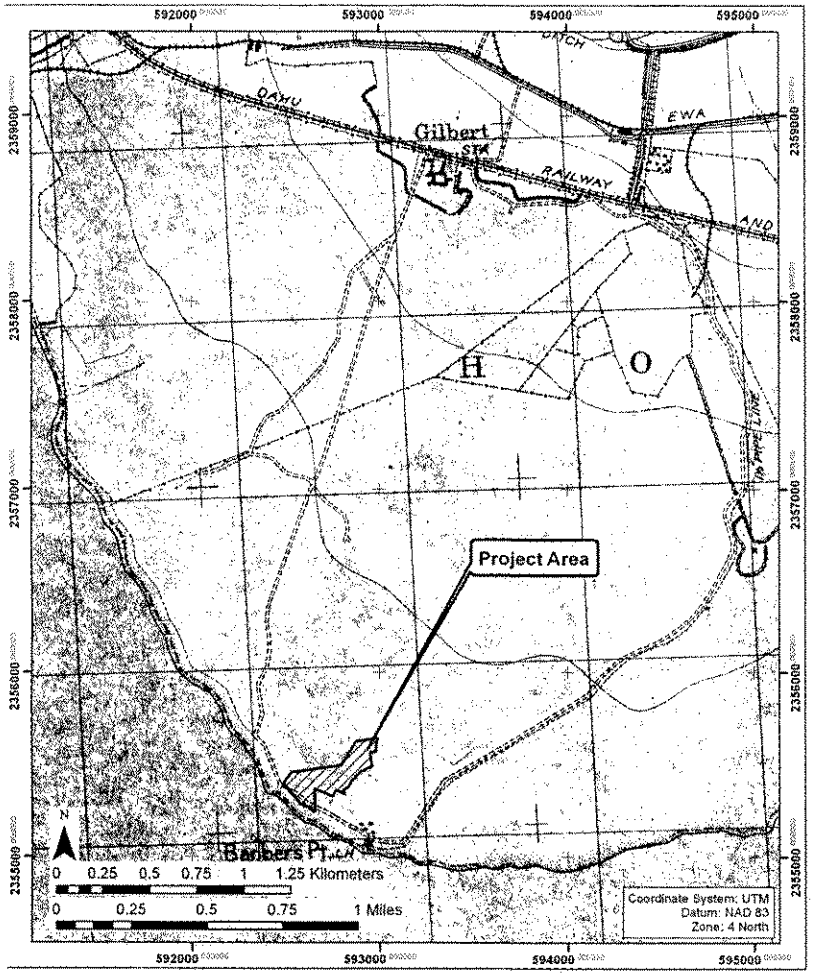


Figure 7. 1919 fire control map showing the location of the project area

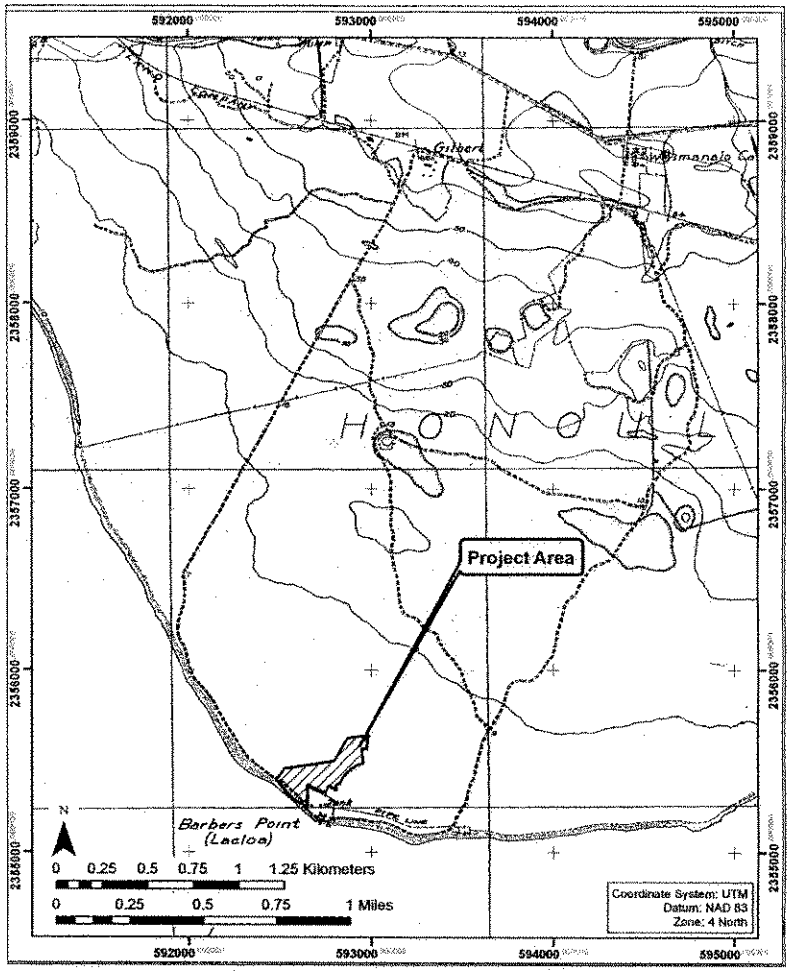


Figure 8. 1928 USGS Topographic Map, 'Ewa Quadrangle, showing the location of the project area.

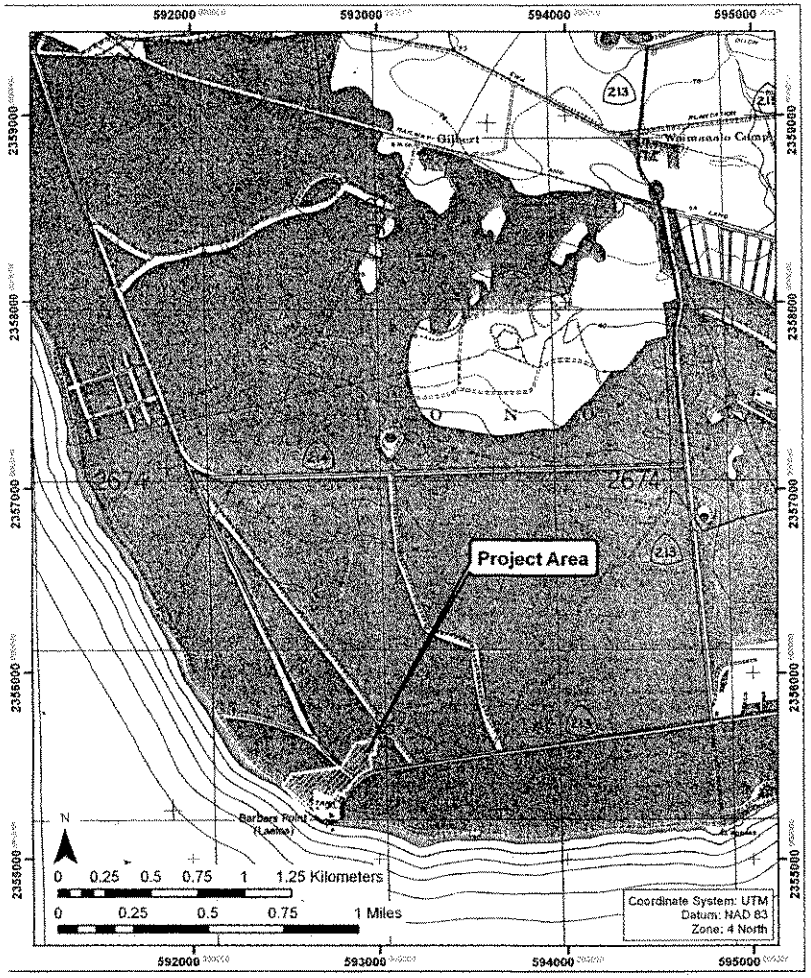


Figure 9. 1943 War Department map showing the location of the project area

Figure 10. Photo of 55th Coast Artillery firing a 155 mm gun on a Panama Mount similar to 2 Panama Mounts in project area (adapted from Williford & McGovern 2003:40)

(www.geocities.com/naforts/hi.html.) The northwestern pair were located in the present project lands. Although the guns were probably removed during WWII the mounts remain.

The 1953 USGS map (Figure 11) shows very little post-war development in the vicinity other than the re-location of a US Coast and Geodetic Survey Observatory 500 m to the east on the north side of what is now Ōla'i Street.

The 1962 map (Figure 12) however reflects the boom that accompanied statehood with the establishment of a major cement plant on the north edge of the present study area and the major oil refinery installation further up the coast to the north.

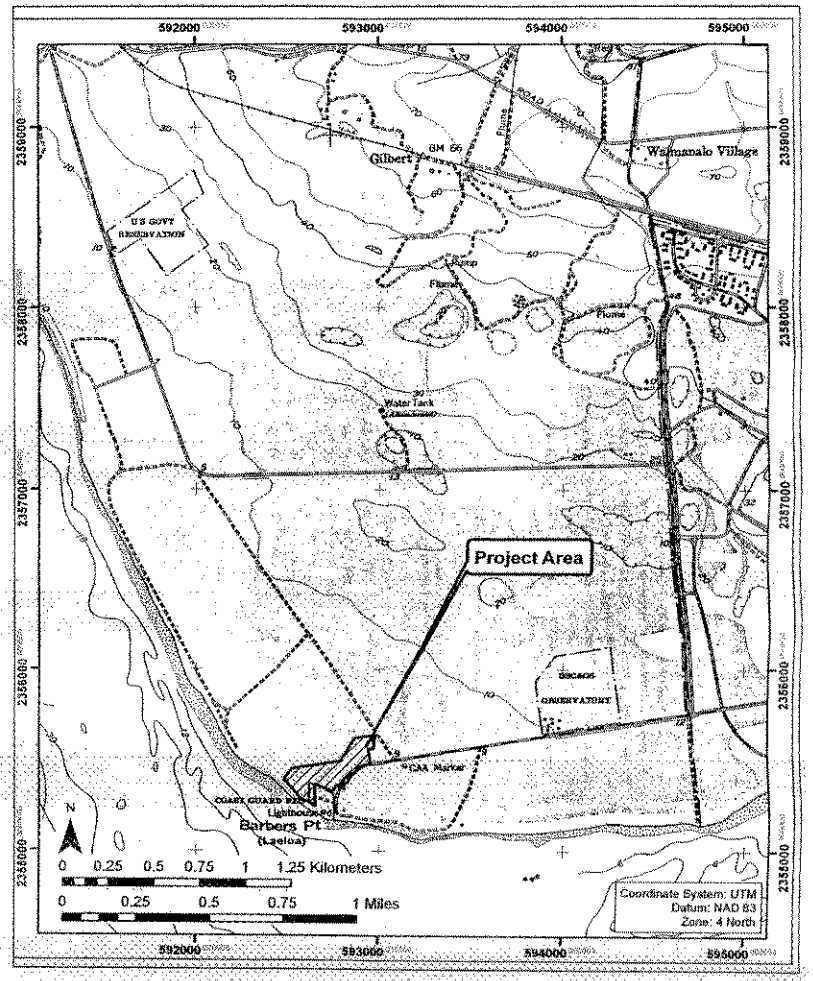


Figure 11. U. S. Geological survey 1953 'Ewa quad map showing the location of the project area

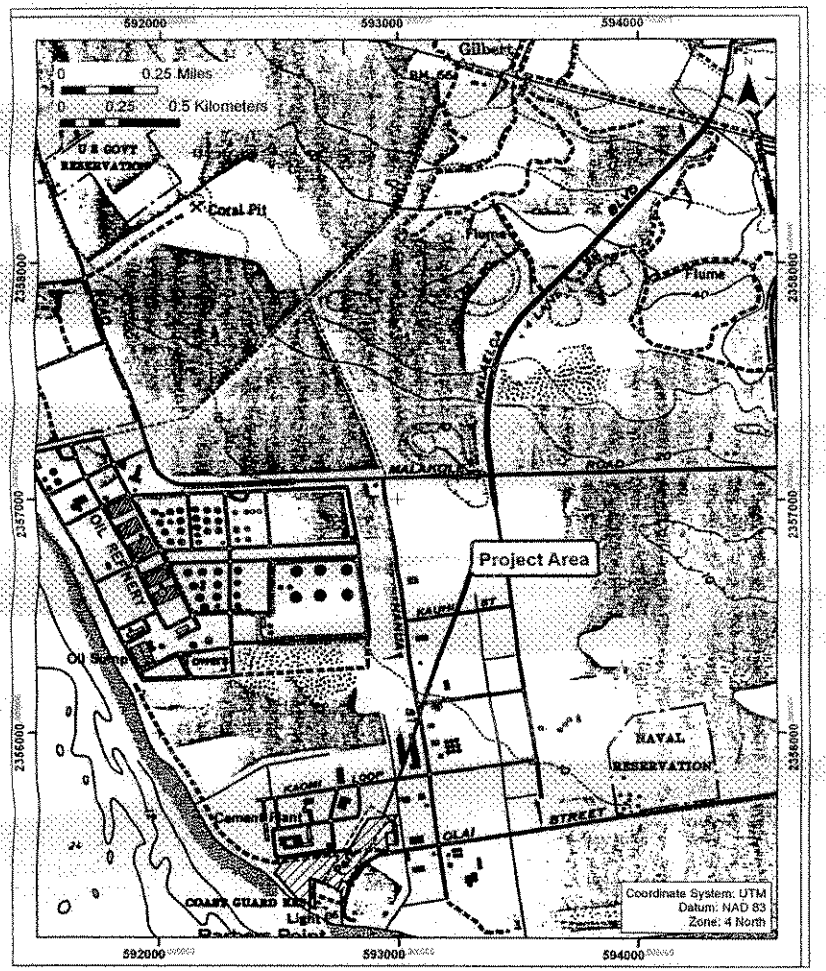


Figure 12. U.S. Geological Survey 1962 map showing the location of the project area

3.2 Review of Past Archaeological / Paleontological Studies

3.2.1 Overview of Archaeological Studies in Western Honouliuli

An overview of archaeological studies in the west half of Honouliuli Ahupua'a is presented in Table 1 and Figure 13. A discussion of archaeological findings germane to the present project area follows.

Table 1. Archaeological and Related Studies in Western Honouliuli Ahupua'a

Reference	Nature of Study	General Location of Study
Thrum 1907	*Heiau* study	Hawaiian Islands
McAllister 1933	All island survey	O'ahu Island
Kikuchi 1959	Site letter report	Barbers Point
Lewis 1970	Reconnaissance survey	Barbers Point (harbor area)
Frierson 1972	Study of land use & vegetation change	Honouliuli
Barrera 1975	Reconnaissance survey	Barbers Point (harbor area)
Clark and Connolly 1975	Reconnaissance survey	Barbers Point (harbor area)
Oshima 1975	Reconnaissance survey	Barbers Point
Sinoto 1976	Cultural resources survey	Barbers Point (harbor area)
Bordner 1977	Reconnaissance survey	Kalo'i Gulch
Davis 1978	Scholarly paper	Barbers Point (harbor area)
Davis and Griffin 1978	Archaeological Survey	Barbers Point (harbor area)
Hawai'i Marine Research Inc. 1978	Geoarchaeological reconnaissance	Barbers Point (harbor area)
Kirch 1978	Land snail study	Barbers Point (harbor area)
Sinoto 1978	Archaeological & Paleontological salvage	Barbers Point (harbor area)
Barrera 1979	Archaeological Survey	West Beach
Clark 1979	Reconnaissance survey	Barbers Point (harbor area)
Cleghorn 1979	Reconnaissance survey	Barbers Point
Davis 1979a	Emergency excavations	Barbers Point (harbor area)
Davis 1979b	Emergency excavations	Barbers Point (harbor area)
Davis 1979c	Emergency excavations	Barbers Point (harbor area)
Komori and Dye 1979	Archaeological testing	West Beach
Sinoto 1979	Cultural resources survey	Barbers Point (harbor area)
Davis 1980	Research design	Barbers Point
Kirch and Christensen 1980	Land snail study	Barbers Point (harbor area)
Christensen and Kirch 1981	Land snail study	Barbers Point (harbor area)
Hammatt and Folk 1981	Archaeological and Paleontological Investigation	Barbers Point (harbor area)

Reference	Nature of Study	General Location of Study
Davis 1982	Academic paper	Barbers Point
McCoy et al. 1982	Proposal for investigations	Barbers Point (harbor area)
Neller 1982	Scholarly study	Barbers Point
Olson 1982	Fossil avifauna study	Barbers Point
Ahlo and Homon 1983	Reconnaissance survey	Barbers Point
Bordner and Silva 1983	Reconnaissance survey	Waimānalo Gulch
Ahlo and Homon 1984	Test excavations	Barbers Point
Barrera 1984	Archaeological Status Report	West Beach
Hammatt 1984	Reconnaissance survey	Kahe Point
Haun and Kelly 1984	Research resign	Naval Air Station
Tuggle 1984	Survey report	Naval Air Station
Neller 1985	Review and evaluation	West Beach
Barrera 1986	Archaeological Investigations	West Beach
Davis and Haun 1986	Intensive survey and test excavations	West Beach
Davis et al. 1986 a and b	Research design	West Beach
Haun 1986a	Reconnaissance survey	Kapolei Town
Haun 1986b	Reconnaissance survey	Kapolei Town
Davis and Haun 1987 a and b	Intensive survey & test excavations	West Beach
Rosendahl 1987a	Reconnaissance survey	Kapolei Town
Rosendahl 1987b	Survey report	Kapolei Town
Welch 1987	Reconnaissance survey	Naval Air Station
Davis 1988	Reconnaissance survey	HECO Station Barbers Point
Bath 1989a	Petroglyph study	Waimānalo Gulch
Bath 1989b	Burial documentation	Kahe
Burgett and Rosendahl 1989	Subsurface archaeological testing	North of O.R.&L.
Davis 1989	Archaeological investigations	HECO Station Barbers Point
Hammatt and Shideler 1989a	Archaeological assessment	Barbers Point (harbor area)
Hammatt and Shideler 1989b	Reconnaissance survey	Kahe
Sinoto 1989	Letter report	Barbers Point
Carlson and Rosendahl 1990	Inventory survey	Kaomi Loop Subdivision
Cleghorn and Davis 1990	Archaeological and paleontological investigation	Barbers Point (harbor area)
Davis 1990b	Archaeological and paleontological investigation	Barbers Point (HECO area)
Davis 1990a	Archaeological and paleontological study (Ph.D. dissertation)	Barbers Point (harbor area)

Reference	Nature of Study	General Location of Study
Kawachi 1990	SHPD Burial Recordation	Canal at east end of Ōla'i Street
Rosendahl 1990	Letter report	Kapolei Town
Kennedy 1991	Subsurface testing	Pu'u o Kapolei
Folk 1991	Reconnaissance survey	Drainage channel
Hammatt et al. 1991	Inventory survey	Makaīwa Hills
Hammatt and Shideler 1991	Archaeological assessment	Barbers Point (harbor area)
Haun et al. 1991	Survey report	Naval Air Station
Burgett and Rosendahl 1992	Inventory survey	Barbers Point (harbor area)
Hammatt and Folk 1992	Subsurface testing	Barbers Point (drainage beach berm)
Glidden et al. 1993	Data recovery excavations	Paradise Cove
Jones 1993	Fossil coral reefs study (Ph.D. dissertation)	Hawaiian Islands
Landrum 1993	Reconnaissance and subsurface testing	Naval Air Station
Miller 1993	Data recovery	Barbers Point (harbor area)
Hammatt and Shideler 1994	Archaeological assessment	Barbers Point (harbor area)
Hammatt et al. 1994	Inventory survey	Barbers Point (harbor area)
Davis 1993	Archaeological and paleontological investigation	Barbers Point (harbor area)
Erkelens 1992	Archaeological survey	Naval Air Station
Hammatt and Shideler 1995	Data recovery plan	Barbers Point (harbor area)
Jourdane 1995	Burial documentation	Paradise Cove
O'Hare et al. 1996	Intensive survey and testing	Naval Air Station
Athens et al. 1997	Cultural resource inventory, paleoenvironmental investigation	'Ewa Plain:Naval Air Station
Tuggle 1997a	Cultural resource inventory	Naval Air Station
Tuggle 1997b	Synthesis	'Ewa Plain
Tuggle and Tomonari-Tuggle 1997	Cultural resource inventory survey	Naval Air Station
Wickler and Tuggle 1997	Cultural resource inventory, Inventory Survey	Naval Air Station
Wulzen and Rosendahl 1997	Subsurface testing & data recovery	Naval Air Station
McIntosh and Cleghorn 1999	Archaeological Archival Research	12 mile Water Reclamation Transmission Line
McDermott et al. 2000	Data recovery	Barbers Point (harbor area)
Sinoto and Titchenal 2002	Archaeological Inventory Survey	Desalination facility S of E end of Ōla'i Street

Reference	Nature of Study	General Location of Study
Cordy and Hammatt 2003	Archaeological assessment	Barbers Point, North of O.R.&L.
O'Hare et al. 2004	Documentation of Plantation Infrastructure	North of O.R.&L.
Terry et al. 2004	Archaeological Inventory Survey of Two Sinkholes	North of O.R.&L.
Hoffman et al. 2005	Archaeological Inventory Survey	South of O.R.&L.
McDermott, O'Leary and Tulchin, 2006	Archaeological Inventory Survey	Proposed 345-Acre Kapolei Harborside Center

The first effort to record archaeological sites in Honouliuli was by Thrum (1907:46), who references "a *heiau* on Kapolei hill, 'Ewa • size and class unknown. Its walls thrown down for fencing." The former *heiau* was on Pu'u Kapolei, 5 kilometers northeast of the present study area.

In his 1930 surface survey of the island of O'ahu, archaeologist J. Gilbert McAllister recorded the specific locations of important archaeological and cultural sites, and the general locations of some sites of lesser importance. McAllister (1933:107-108) recorded seven specific sites at Honouliuli (numbered 133-139) and these became the first seven sites in the Bishop Museum's Site Numbering System (OA-B6-1 through OA-B6-7). The nearest of these specific sites to the present project area is McAllister Site 138, including the Pu'u Kapolei *heiau* and an adjacent rock shelter. McAllister (1933:109), however designated his Site 146 to include archaeological features covering a large but poorly defined area along the coast. His impressions of Site 146 are recorded as follows:

> 'Ewa coral plains, throughout which are remains of many sites. The great extent of old stone walls, particularly near the Pu'uloa Salt Works belongs to the ranching period of about 75 years ago [c. 1850s]. It is probable that the Hawaiians formerly used the holes and pits in the coral. Frequently the soil on the floor of larger pits was used for cultivation, and even today one comes upon bananas and Hawaiian sugar cane still growing in them. They afford shelter and protection, but I doubt if previous to the time of Cook there was ever a large population here

These archaeological sites of the 'Ewa coral plains would be the subject of some 40 or so archaeological reports in the 1970s and 1980s with approximately a hundred studies to date.

From the period between McAllister's 1930 study and the flurry of work that began in 1969, there are only a few sporadic pieces of poorly documented research. "In 1933, Dr. Kenneth P. Emory examined a well-preserved house site and a possible *heiau* in the western part of the coral plain; these sites were later destroyed by sugar-cane planting" (Sinoto 1976:1). In 1959, William Kikuchi removed a number of burials from a burial cave site (Bishop Museum Site OA-B6-10) at the Standard Oil Refinery, which was subsequently destroyed (Barrera 1975:1). Kikuchi recovered 12-16 incomplete primary and/or secondary burials cached in a sinkhole or crevice

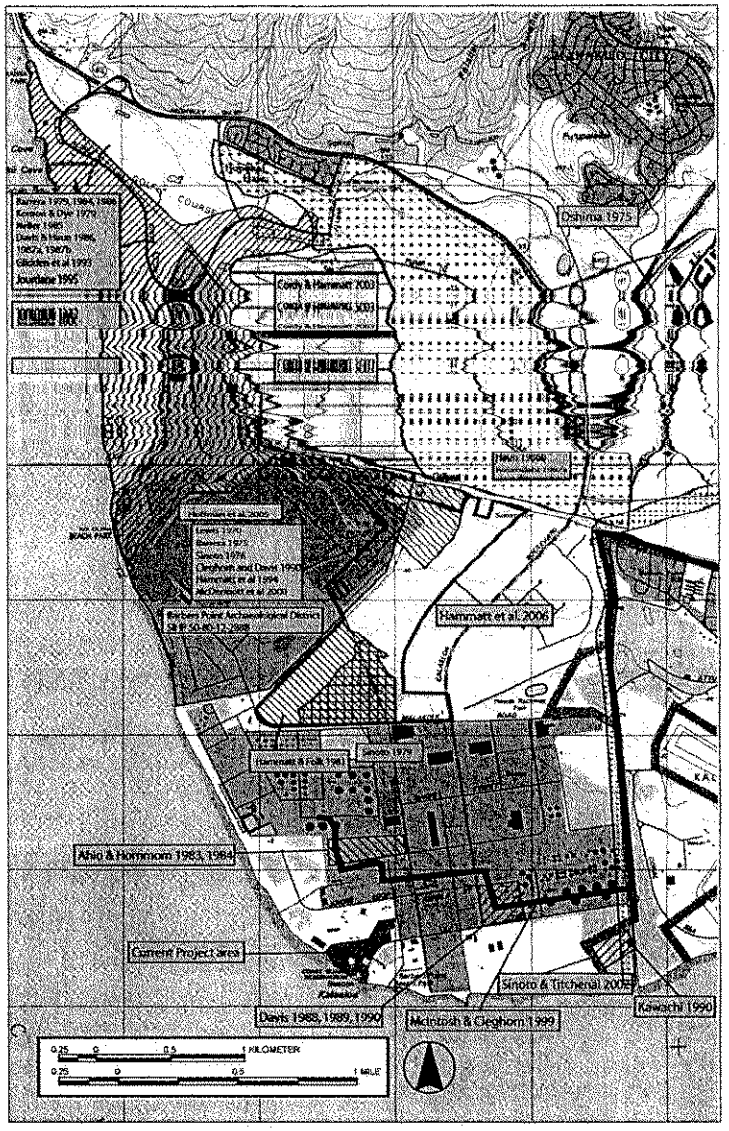


Figure 13. USGS 7.5-minute series topographic map, 'Ewa quadrangle (1998), showing areas of archaeological study in the vicinity of the project area

exposed during construction activities near the big bend in Malakole Road 1.5 km northwest of the present project area (Kikuchi 1959; Davis 1990:146, 147).

In 1960, Yoshi Sinoto and Elspeth Sterling made note of a house site (Bishop Museum Site OA-B6-8). "In 1962, Lloyd Soehren recorded another secondary human burial in a sinkhole at the Barber's Point Naval Air Station" (Davis 1990a:147). In 1966 (per Sinoto 1960), Lloyd Soehren "carried out salvage excavations at BPBM Site # 50-OA-B6-13 (a possible fishing shrine.)" The site was reported as destroyed by construction (Barrera 1975:1) but Davis (1990a:148) relocated the shrine and performed additional excavations in 1982. In 1969, artifacts were recovered by Roger Green from a beach midden site (B6-14), south of the barge harbor.

These reports of a number of sites resulted in a number of visits by Dr. Sinoto and student volunteers in late 1969 and early 1970. A University of Hawaii graduate student, Ernest Lewis conducted a surface survey that located some 22 archaeological sites of the types that are typical for the Kalaeloa region, including various types of enclosures and mounds, as well as walls, made of the locally available stacked limestone cobbles and boulders.

In 1975 Neal Oshima carried out an archaeological reconnaissance survey of the then proposed drainage channel (at the east end of Ōla'i Street) identifying walls, a platform, an enclosure near the east end of Malakole Road.

In 1975, William Barrera of the Bishop Museum, under contract with the U.S. Army Corps of Engineers (USACE), conducted an archaeological reconnaissance survey for the proposed Barber's Point Harbor. The USACE continued the archaeological research in 1976 by requesting another survey (Sinoto 1976) of the cultural remains in the area previously surveyed in 1970 (Lewis) and 1975 (Barrera). Sinoto's work included mapping of 68 new archaeological sites and more complete mapping of 30 previously recorded sites. In the course of this research, two excavations were conducted in the large, presently fenced, sinkhole Site 9545, located north of the barge harbor. This large sinkhole yielded archaeological remains and a radiocarbon date from a hearth feature, as well as bones of extinct bird species.

An important aspect of this first research (1976) by Sinoto was the identification of the presence of numerous avifaunal skeletal remains within limestone sinkholes, which led to the contacting of Storrs Olson, Associate Curator of Birds at the Smithsonian Institution. After a field inspection and a brief review of the recovered material he knew that many extinct endemic species, new species, and even new genera were present. Olson stated that:

> The various limestone sinks...contain probably the most extensive fossil avifauna in Hawaii with many new species endemic to the island. Such fossils have not and probably cannot be found anywhere else on the island. Furthermore, the nature of preservation is such as to insure that virtually complete skeletons can probably be assembled for most species. Thus, there is much highly significant and totally new biological and paleontological information that can be obtained at the Barbers Point site.
>
> Destruction of any of the potential fossil sinks would result in the loss of many specimens, some possibly unique, since one sinkhole might contain species absent

> in another. Also, the fauna of one sinkhole might not be coetaneous with that of another, the age of a deposit being determined by when a sinkhole first formed. Therefore, an investigation of the fauna of different sinks might show changes in species composition and changes in morphology within a species through time. Finally, it would also be desirable to retain some sinks intact as fossil "banks" should some new technique or different information be desired in the future. The fossil deposits at Barbers Point are a unique and irreplaceable resource. (Olson in Sinoto, 1976:74)

In 1980, Storrs Olson extended the test pit of Aki Sinoto in the large sinkhole site # 9545 and conducted extensive excavation of this area in 1981 (Olson, 1982:27).

In 1977, Aki Sinoto (1978) undertook salvage archaeological and paleontological excavations in the proposed barge harbor area. Sinoto's work for the Corps of Engineers (1978) included preliminary sampling and analytical studies of avifaunal remains and terrestrial gastropods (land snails) and a geological study of the emerged coral reef based on the excavation of one sinkhole.

In late 1977 and early 1978, archaeological survey was conducted by the Archaeological Research Center of Hawaii in the deep draft port facility area. (Davis and Griffin, 1978)

In 1977, Barber's Point Archaeological District was assigned Site # 50-80-12-2888 and listed on the National Register of Historic Places (based on the SHPD's Hawai'i/National Register web site, http://www.hawaii.gov/dlnr/hpd/hpgreeting.htm). This district does not extend as far south as the present project area (see Figure 13).

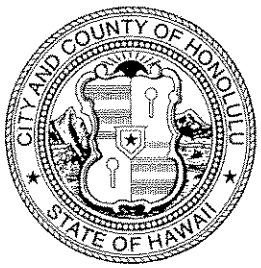
To complete the archaeological survey of the entire area to be affected by the harbor and support facilities, the USACE contracted for survey of the areas designated as Optional Area 1 and Study Area 1a (Davis, 1978) and Area 1b (Sinoto 1978). Those surveys by Davis and Sinoto located numerous archaeological sites, as well as sinks of late Pleistocene to early Holocene age that are of considerable paleontological interest.

Sinoto's (1979) work shows that, although sinks containing remains of extinct species are dispersed throughout his study area, only 3 out of 19 sinks tested (or 16%) contained extinct species. However, this amounts to a considerable number of sinks as Sinoto estimated the total number of testable sinks in the 1979 study area as between 1,100 and 2,500 (Sinoto, 1979:34). The majority of Sinoto's New Disposal Site Area has been utilized for chemical dumps and coral stockpiling. That portion which remains is the site of the proposed Sinkhole Reserve and Park, comprising approximately 7 acres located 1.5 km north of the current project area.

In 1979, Bertell Davis carried out "emergency excavations" (Davis, 1979; a, b, c,) within the area he had previously designated as Area II, located east of the easternmost corner (the *mauka*, Diamond Head corner) of the present harbor open water. These excavations were carried out in advance of the quarry expansion operation (which preceded the harbor expansion) and it is believed that all sites in this area were salvaged or lost. This work was conducted 2 kilometers to the north of the current project area.

Also in 1979, an archaeological reconnaissance survey was conducted of a proposed waterline route down the east side of Kalaeloa Blvd. and then east along the north side of Malakole Road.

o "Panama Mount" 155 mm gun emplacement and associated cement slab feature just
lount artillery base



APPENDIX E

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> My initial feeling on testing the sink holes is that all should be subject to at least initial testing, probably at least one 50 by 50 cm unit in each. Again, this is just initial thoughts, and may very well likely change.

Based on field discussions with Mr. Johnson it is our understanding that following a program of sinkhole testing sufficient information will be collected to determine the possible need and extent of further data recovery and/or preservation. The possible need for further consideration following sinkhole testing would be contingent upon the nature of the finds.

9.2.3 Monitoring Program with On-Site and On-Call Monitoring

We are recommending that development of these lands be attended by an archaeological monitoring program consisting of an archaeological monitoring plan, a combination of on-site and on-call archaeological monitoring and production of an archaeological monitoring report. On-site monitoring would attend initial disturbance of areas of known sinkholes.

9.2.4 Allowing of Development to move Forward with Interim Protection of Sinkhole Areas and the Central Panama Mount 155 mm Gun Emplacement

Based on field discussions with Mr. Johnson it is our understanding that this archaeological inventory survey may be submitted for review prior to this supplementary sinkhole testing fieldwork and that it is reasonable to request that development activities within the project area be allowed to move forward allowing only for the interim protection of the sinkhole areas adjacent to the Barbers Point lighthouse parcel and the protection of the central Panama Mount 155 mm gun emplacement.

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Section 8 Significance Assessments

The one historic property identified within the project area was evaluated for significance according to the broad criteria established for the Hawai'i State Register of Historic Places. The five criteria are:

A Associated with events that have made an important contribution to the broad patterns of our history;

B Associated with the lives of persons important in our past;

C Embodies the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;

D Have yielded, or is likely to yield information important for research on prehistory or history;

E Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property, or due to associations with traditional beliefs, events or oral history accounts – these associations being important to the group's history and cultural identity.

The three identified features of Site consisting of two "Panama Mount" 155 mm gun emplacements and a support facility cement slab understood as remnants of the Barbers Point Military Reservation established in 1921 and dating perhaps particularly during the period between 1937 and 1942 are evaluated as significant under criteria A and D.

Section 9 Project Effect and Mitigation Recommendations

9.1 Project Effect Recommendations

The following project effect discussion and cultural resource management recommendations are intended to facilitate project planning and support the project's required historic preservation consultation. This discussion is based on the results of this archaeological inventory survey investigation, the results of the companion CIA investigation (Souza et al. *in prep.*), and CSH's communication with agents for the project proponents regarding the project's potential impacts to the historic properties described in the Results of Fieldwork section, above.

9.2 Mitigation Recommendations

The extensive past cultural resource management investigations of the project vicinity have documented the area's rich historic properties; however, historic and modern intensive agriculture, modern quarrying and materials stockpiling, and grading and grubbing activities have greatly disturbed the vast majority of the project area and vicinity. These activities have largely removed the historic properties that were once extant.

9.2.1 Preservation of SIHP 50-80-12-6866 Central Panama Mount 155 mm gun emplacement

Upon consultation with the SHPD and representatives of the City & County interests it is recommended that the central Panama Mount 155 mm gun emplacement be preserved with no such requirement and no further work at the northeastern 155 mm Panama Mount artillery base feature or the associated cement slab. We present this as a somewhat conservative recommendation. We have no knowledge of the existence or preservation status of other Panama Mount artillery base features as may be extant on O'ahu. For all we know these are the only two left. If there should be other such features that may be preserved the import of preserving the central Panama Mount 155 mm gun emplacement would, in our opinion, be significantly less. The State Historic Preservation Division may be in a better place to address the significance of these coastal defense remnants.

9.2.2 Program of Sinkhole Testing

As discussed in Section 1.2.1 of this study (Prior State Historic Preservation Division Chapter 6E-8 Historic Preservation Review letters) there was specific direction from the SHPD to carry out no subsurface studies based on the understanding of the SHPD at the time the two SHPD Chapter 6E-8 Historic Preservation Review letters dated March 14, 2003 (Log No 2003.0014, Doc No 0303EJ10) and April 4, 2006 (Log No 2006.0951, Doc No 0604CM03) were written.

When shown some of the sinkholes Mr. Adam Johnson was clear that further work would be indicated at the sinkholes. Where we stand on October 18, 2006 is with Mr. Johnson's informal e-mail comment to the effect that,

Table 3 Community Consultation (as of 10/18/06)

NAME	AFFILIATION	COMMENTS
Eaton, Arline	*Kupuna* at Iroquois Elementary School	No response to date
Fevella, Kurt	'Ewa Neighborhood Board	No response to date
Guth, Heidi	Office Of Hawaiian Affairs	No response to date
Ka'eliwai, George	Hawaiian Civic Club of 'Ewa	Mr. Ka'eliwai stated all the people that are knowledgeable about that area are all gone. He mentioned that the people whom worked for the Ewa Plantation fished in that area. He is not aware of any burials in the area.
Kane, Shad	'Ahahui Siwila Hawaii O Kapolei Hawaiian Civic Club	He is concerned about the native plants is the area-he indicated his intention to send a letter
Lenchanko, Tom	Wahiawā Hawaiian Civic Club	Mr. Lenchanko is concerned about burials within the sinkholes and the native plants in the area. He is also concerned about the project area being used as a dump area there could be sinkholes under the ruble mound.
Malama, Tesha	'Ewa Villages Association	She is going to e-mail her response by Monday
McKeague, Kawika	'Ewa Representative, O'ahu Island Burial Council	No response to date
Tiffany, Nettie	Kahu at Lanikūhonua at Ko'Olina	Mrs. Tiffany mentioned there are a number of sinkholes in the area and has been told by her mother that there were burials removed from the area in the past. She is also aware and concerned about the native plants in the area.

Section 7 Summary and Interpretation

This study finds that approximately 85% of the project lands are free of any cultural resources as merit further consideration. What cultural resources as may have been present have been lost to decades of grading and grubbing probably going back to the 1920s. One site (SIHP 50-80-12-6866) consisting of two Panama Mount 155 mm gun emplacements and a support facility cement slab understood as remnants of the Barbers Point Military Reservation established in 1921 and dating perhaps particularly during the period between 1937 and 1942 were identified. Preservation of the Panama Mount 155 mm gun emplacement in the central portion of the project area is recommended with no further work or preservation at the northeastern Panama Mount 155 mm gun emplacement or at the support facility cement slab.

Fieldwork indicated the presence of a large number of sinkholes that may possibly contain cultural resources and/or burials and/or paleo-avifaunal remains as may be significant to our understanding of Hawai'i's past. Preliminary laboratory work indicates extinct birds are present. Further research to document the nature of these sinkhole deposits appear warranted.

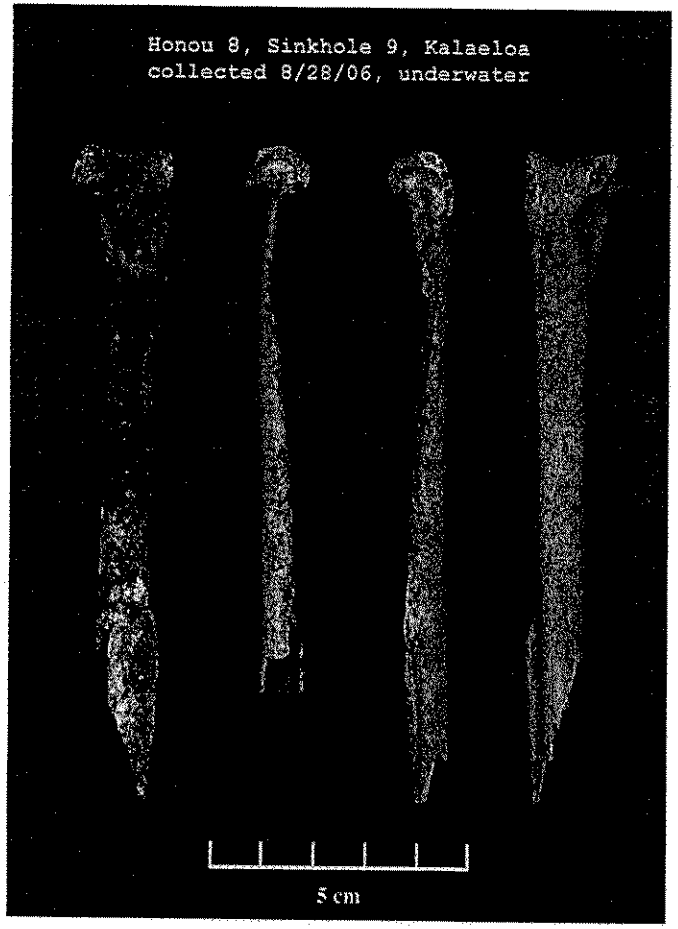


Figure 36. Scanned images of four views of a single recovered bird bone from Sinkhole # 9 (the seemingly cut-off end of the image second from left is an artifact of the scanning process)

Section 6 Community Consultation

6.1 Introduction

A companion Cultural Impact Assessment (Souza et al. 2006) is presently under way that will be formulated as a separate free-standing document. The approach of Cultural Surveys to Cultural Impact Studies affords interviewees an opportunity to review transcriptions and to make any corrections, deletions or additions to the substance of their testimony. Our interview selection process tends to target knowledgeable older individuals (*kūpuna*) who are often in ill health or of a mind not to be rushed. It is often the case that the driving coercive demands of time that drive the contemporary development process do not fit well with those who have memories of an earlier time.

The present draft Cultural Impact Study documents our good faith effort to contact *kūpuna*, other knowledgeable parties, and cultural practitioners as part of the process of documenting and evaluating traditional cultural practices as they may relate to proposed development of the subject lands and the results to date. We believe that our preliminary findings as reported herein are unlikely to change in any substantive way.

Three major areas of concern have been indicated:

- Sinkholes that may contain burials were a concern expressed by three informants (Mr. Shad Kane, Mr. Tom Lenchenko and Ms. Nettie Tiffany). The Hawaiian community is aware in a general sense that burials have been found within sinkholes in the vicinity and is concerned for possible disturbance to ancestral remains. No specific knowledge of burials within the specific project area were expressed.
- Two informants (Mr. Shad Kane and Ms. Nettie Tiffany) did express concerns regarding possible adverse impact to native plant communities. While this concern does not appear to be based on a resource for Hawaiian use per se, they perceive their concern for possible endangered plant communities is in large measure a cultural concern.
- Concerns for potential adverse impact of development to the project area to marine resources was expressed by one informant (Mr. George Ka'eliwai).

Section 5 Results of Laboratory Work

5.1 Summary of Laboratory Analysis to Date

One and only one object was recovered from the field during the course of the archaeological inventory survey fieldwork, During the initial fieldwork it was noted that 20 to 40 cm of clear water was present at the base of a few of the sinkholes. It was known that a previously discovered water-filled sinkhole at Barber's Point near the barge harbor had yielded a wealth of extinct bird bones.

On a subsequent visit, mask and snorkel were brought and archaeologist David Shideler went "snorkeling" in approximately 40 cm of water within sinkhole #9 for the purpose of further evaluating the prospect for archaeological and/or paleoavifaunal remains. Initially visibility was good but then quickly dropped to no visibility from the stirring up of the rotting plant material and fine limestone silt. One bone was observed and recovered (Figure 36). The bone measures 126 mm and appeared to be a tibiotarsus from a quite large bird – so large that it was considered to possibly be a turkey bone discarded by workers in the area. It was also thought to possibly be from a seabird such as a shearwater as account for the majority of bird remains recovered from Barber's Point.

With the recent untimely death of Dr. Alan Ziegler, Hawai'i's foremost authority on extinct birds, there is no expert of his experience in the state. The bone was submitted to Ms. Kelley Esh who has been doing extensive graduate research on Hawaiian use of birds with the understanding that she would use the comparative collection at the B. P. Bishop Museum in Honolulu for analysis. Ms. Esh gave the following analysis:

> About your bird bone - it is probably some kind of hawk or eagle (Accipitridae). I didn't get a chance to look through very many of the possible birds, but I would bet that not a lot of them share leg morphology with hawks and eagles (only other thing I could think of would be an owl, and I wasn't able to check the owl comparative - but the bone seems rather large for an owl). The specimen that was similar to your bird was *Buteo jamaicensis*, the red-tailed hawk - but your bird has a larger tibiotarsus. I looked at the Hawaiian hawk, but it is too small (and slightly different morphology). That leaves us with either some kind of introduced bird (?) or the extinct Hawaiian eagle or harrier. I don't think Bishop has any of those specimens for comparison - you'll have to email Helen James [Smithsonian Institute] and ask her to ID it (see related attached paper).
>
> I have also attached a scanned image of the bone. Scanning artifacts is something I've been working on lately, as it works rather well and gets much higher quality than photos. I just started scanning the Bishop bird comparatives, so I was practicing on your bone. One of the images is cut off at the bottom of the bone - that's just where I had to prop it up on the scanner and I cut out the prop, so part of the bone is "missing". Anyway, feel free to use the image in your report or to send to Helen James. The attached is the lowest quality jpeg for emailing purposes; I can give the higher quality image…

5.2 Comments on Preliminary Laboratory Results

Ms. Esh supplied a copy of a study entitled: "Identification of the Extinct Hawaiian Eagle (*Haliaeetus*) by mtDNA Sequence Analysis" from *Auk* Volume 117, October 200). This study documents the identification of a nearly complete Hawaiian Eagle recovered in 1988 in a cave on Maui. The eagle remains were dated to 3,300 +/- 60 years before present and thus the eagle died prior to Polynesian arrival. The article concludes that the eagle was closely related to a White-tailed Eagle (*Haliaeetus albicilla)* of the Old World Palearctic. This article summarizes what is historically known about eagles in Hawai'i including the identification of a Golden Eagle on Kaua'i for 17 years and the identification of Asian Steller's Sea-Eagle (*H. pelagicus*) on Midway and Kure (Fleischer et al. 2000).

In Ornithological Monographs No 45 "*Descriptions of Thirty-two New Species of Birds from the Hawaiian Islands Part I. Non-Passeriformes*" Olson and James (1991:64) concludes regarding the Hawaiian eagle: "This species was surely resident in the Hawaiian Islands, given the discovery of several different individuals on three different islands and at elevations ranging from sea level to 1,463 m." The only other identified member of the Falconiformes (Hawks and eagles) from the Hawaiian Islands are the Hawaiian Hawk or *'Io* (*Buteo solitius*) known historically only from Hawai'i Island and an extinct small Hawaiian hawk *Circus dossenus*.

Thus the tentative identification stands that the tibiotarsus fragment recovered from sinkhole # 9 may be from an extinct (at least extinct in the Hawaiian Islands) native Hawaiian eagle closely related to, or possibly the same species as the White-tailed Eagle (*Haliaeetus albicilla).* This should be understood as a tentative identification for Ms. Esh's comments noted above leave open the possibility of affinities to owls (Strigiformes). Comparison (by Cultural Surveys) with published photos (Olson and James 1991:77) of the tibiotarsus of the "long-legged O'ahu owl" (*Grallistrix orion*), an extinct species previously identified at Barber's Point O'ahu, led us to conclude they appear similar but different. There are very few individuals qualified to make a positive identification of extinct Hawaiian avifauna affinities on the basis of a single bone fragment. Cultural Surveys has worked closely with two of these, Dr. Storrs Olson and Dr. Helen James of the Smithsonian Institute and is pursuing identification with them but response may take a while.

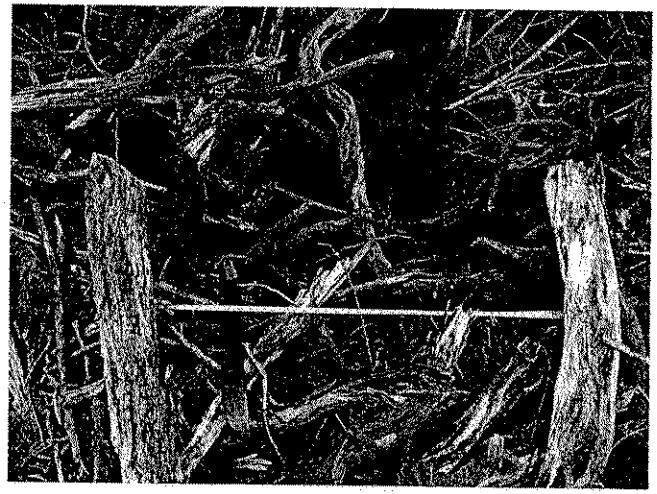


Figure 32. Sinkhole 3; 1 m in diameter, 1.7 m deep, shattered *kiawe* push on surface but largely open; view to south

Figure 33. Sinkhole 4; 0.9 x 1.0 m by 1.6 m deep; open; view to south

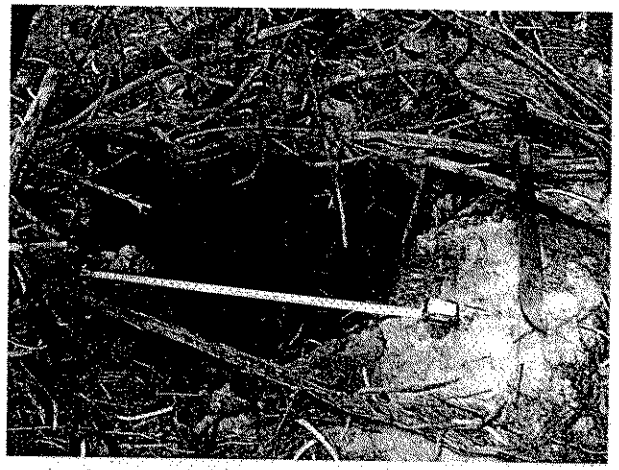


Figure 34. Sinkhole 5. 1.1 m x 1.3 m by 1.5 m deep, open; view to south

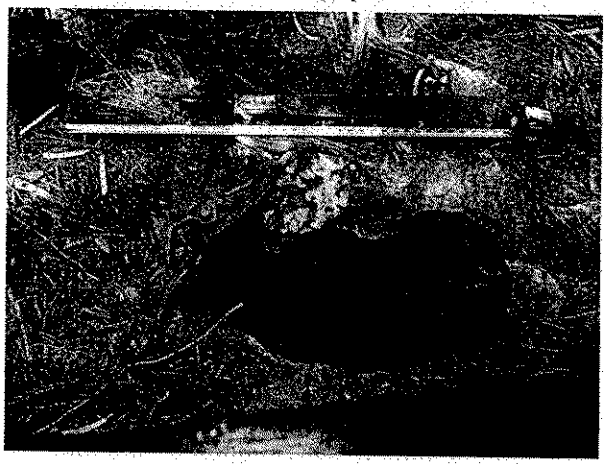


Figure 35. Sinkhole 6. 0.8 m x 0.4 m by 1.5 m deep, open; view to west

13 a	1.24 m x 0. 82 m	1.73 m	damp earth floor	-
13 b	1.17 m x 0.36 m	2.30 m	water table at 1.95 m	tried to get in, need pole ladder, depth of water attractive
14	1.34 m x 0.82 m	1.8 m	soil, base at water table	-
15	0. 88 m x 0.70 m	1.76	open, damp soil and slab boulders	-
16	deaccessioned	-	-	-
17	2.60 m x 1.95 m	1.0 m	*kiawe* twigs, rubbish, boulders & cobbles	large, sloping floor, push on N side
18*	0.85 m x 0.80 m	0.90 m		bells out considerably
19	1.25 m x 1.05 m	0.90 m	slab boulders & *kiawe* twigs	-
20	deaccessioned	-	-	-
21	2.40 m x 1.80 m	1.16 m	sloping soil kiawe twigs & slab boulders	dressed basalt block square on NW side
22	3.0 m x 1.8 m	1.0 m	approx 12 55-gallon drums pushed into sink	dimensions indeterminate, contents of 55-gallon drums unknown
23	1.50 x 1.20 m	0.70 m	soil, boulder slabs	bulldozed push on west side
24	1.4 m x 1.0 m		damp soil at water table, concrete pillar in sinkhole	2.5 m from federal property
25	1.60 x 1.50	0.60	cobbles, boulders & kiawe twigs	bulldozing on west side

* suggested to be good to test

Figure 30. Sinkhole 1; 1.0 m by 0.9 m by 0.8 m deep, floor filled with cobbles, boulders & pebbles, adjacent 0.9 m diameter sinkhole 30 cm to east (at right); view to north

Figure 31. Sinkhole 2; 1.7 m x 1.0 m by 0.9 m deep) collapsed *kiawe* tree, fence wire & bottle trash fill in sink; view to north

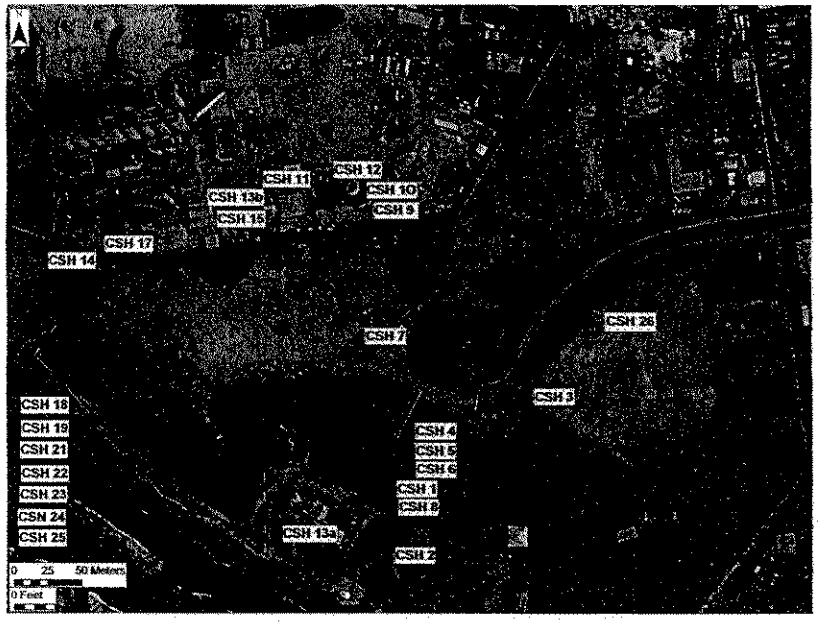


Figure 29. Sinkhole distribution map on aerial photo base

Table 2. Summary Table of Sinkholes

CSH #	Dimensions	Depth	Interior/ Floor	Comments
1	1.0 m x 0.9 m	0.8 m	floor filled with cobbles, boulders & pebbles	adjacent 0.9 m diameter sinkhole 30 cm to east
2	1.7 m x 1.0 m	0.9 m	collapsed *kiawe* tree, fence wire & bottle trash fill in sink	-
3*	1 m in diameter	1.7 m	shattered *kiawe* push on surface but largely open	probable adjacent sinks to east, south & NW
4*	0.9 x 1.0 m	1.6 m	open	-
5*	1.1 m x 1.3 m	1.5 m	open, level soil	-
6	0.8 m x 0.4 m	2.1 m	water table at 1.5 m	0.6 m to west is 2.8 x 1.2 m x 0.8 m deep sinkhole 0.8 m deep filled with cobbles & boulders
7*	4 m x 2.5 m	1.7 m deep	damp earth floor	2 sinkholes that bell out and unite – easy to crawl from one to the other
8	0.9 m x 0.8 m	1.55 m	open, soil & boulder bottom	-
9*	1.4 m x 1.0 m	2.1 m	water table at 1.75 m	bells out, long bird bone (tibio-tarsus) recovered
10	1.1 m x 1.35 m	0.7m	filled with *kiawe* and boulders	-
11	1.4 m x 1.5 m	0.93 m	filled with *kiawe* twigs	-
12	1.3 m x 1.65 m	1.16 m	filled with slab boulders	-

Figure 26. Depression in NE/Central project area suggesting a sinkhole, view to west

Figure 27. Filled sinkhole in NE/Central project area, view to north

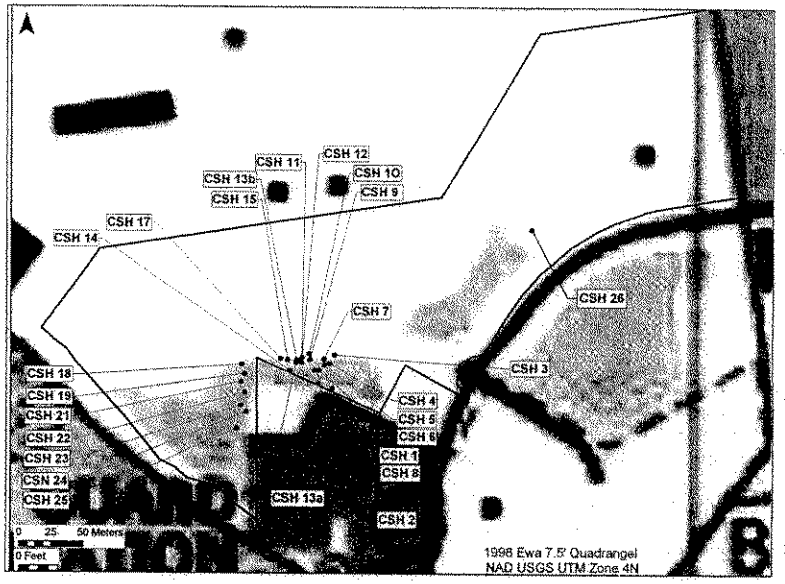


Figure 28. Sinkhole distribution map on U.S. Geological Survey base

Figure 24. View of cement slab (approximately 220-feet N/S by 56 feet E/W) in east central portion of Kapolei Corporation Yard project area, view to north

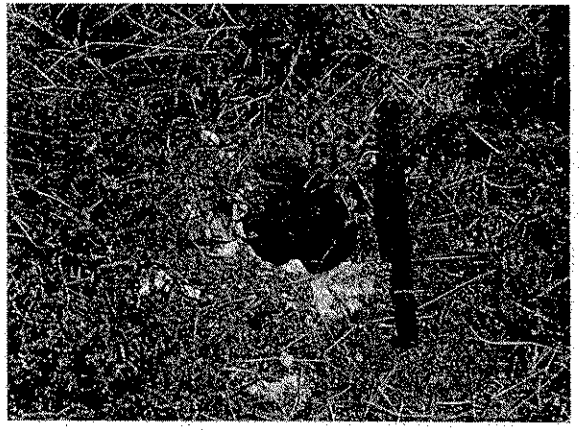


Figure 25. Small sink hole (30 cm dia., 1.2 m deep) in northeast portion of project area with basalt boulder (view to north)

4.2 Sinkholes

The Barbers Point limestone carst plain is well known for pit caves popularly called sinkholes. We need to be clear that no cultural material and no deliberate modification (such as a wall segments or cairn) were positively identified at any sinkhole. Thus they are not treated as historic properties in this study. Only three of these sinkholes were observed in the northeast portion of the project area studied first. One was particularly notable for an associated (non-local) basalt boulder (Figure 25) but was regarded as too small to be of archaeological interest. Two other sinkholes (Figures 26 & 27) were located quite close together and were collectively designated "CSH 26" (see Figures 28 and 29 for location). As with the occasional depression or area of collapse in the graded hard pan (see Figures 16 & 17) these three sinkholes are suggested to be of less archaeological interest owing to the appearance of small size, shallowness, and previous disturbance. We cannot rule out, however, that these sinkholes and others that may not be visible at this time could contain cultural resources, human remains, and/or significant paleontological deposits.

The majority of sinkholes observed lie in two slivers of relatively undisturbed *kiawe* forest land on the north and northwest sides of the Barbers Point lighthouse property (see Figures 28 and 29 for location). These sinkholes are summarized in Table 2 with representative sinkhole photos presented in Figures 30 to 35. The deepest sinkhole in the project area near the Barbers Point lighthouse property was 2.3 m deep. Several of the sinkholes extended down to and below the water table. The biggest sinkhole floor area observed was 4.0 m by 2.5 m and was formed by the coalescing of two sinkholes with an intervening bridge that could be crawled under. Most of the sinkholes were considerably smaller and shallower but deeper and larger sinkholes could also be present. It was felt that these sinkholes had significantly greater potential for cultural resources, human remains, and/or significant paleontological deposits than the remnant sinkholes in graded portions of the project area.

The scope of work for this project was developed in consideration of written directives from the SHPD discussed in Section 1.2.1 of this study. Because of concern for possible cultural resources, human remains, and/or significant paleontological deposits within these sinkholes Mr. Adam Johnson of the SHPD was invited on to the project area, was shown the sinkholes of concern, and appropriate mitigation was discussed.

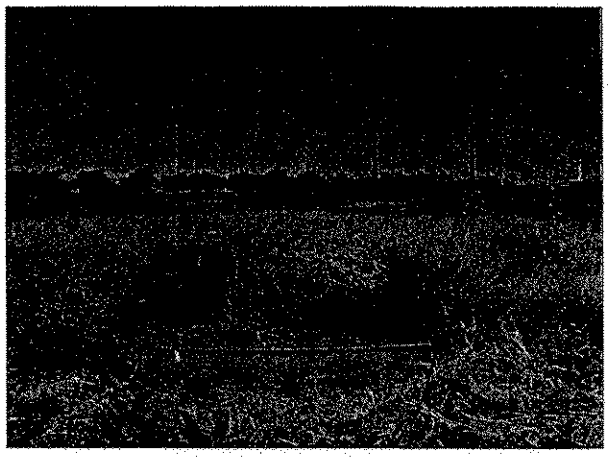


Figure 20 Northeastern 155 mm Panama Mount artillery base, general view, portion of perimeter concrete ring and track exposed, view to south

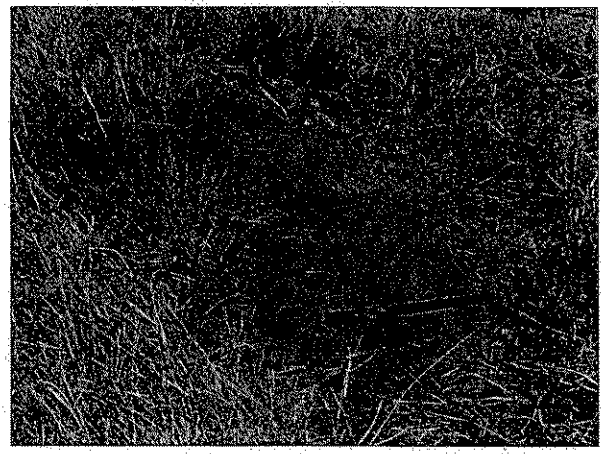


Figure 21. Northeastern 155 mm Panama Mount artillery base, close up of perimeter concrete ring and track exposed, view to west

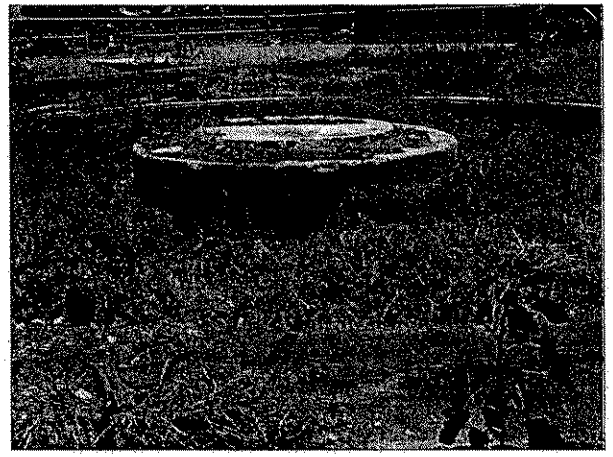
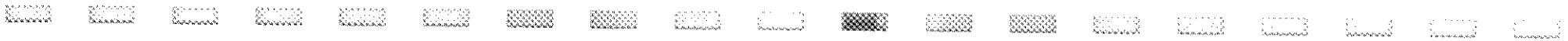


Figure 22. Central 155 mm Panama Mount artillery base, general view, view to SSW

Figure 23. Central 155 mm Panama Mount artillery base, view of perimeter ring from interior, view to north



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

7236-01

2/22/07 EIS
cc: DOC

February 6, 2007

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street - Suite 400
Honolulu, HI 96826

RECEIVED
FEB 08 2007
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Re: Kapolei Corporation Yard
Honouliuli, Ewa, Oahu
(TMK: 9-1-026:004)

Thank you for the opportunity to comment again on the above-referenced project, and for incorporating our previous comments in the DEA. Hawaiian Electric Company, Inc. (HECO) has no further comments on the project at this time.

Please continue to keep HECO informed through Isaac Lee, Transmission & Distribution Division, Engineering Department (543-7539).

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

cc: I. Lee

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone 808 946 2277
Fax 808 946 2253
www.wilsonokamoto.com

7236-01
July 25, 2007

Mr. Kirk S. Tomita, Senior Environmental Scientist
Hawaiian Electric Company. Inc.
PO Box 2750
Honolulu, Hawaii 96840-0001

Attention: Mr. Isaac Lee, Transmission & Distribution

Subject: Draft Environmental Assessment, Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear: Mr. Tomita:

Thank you for your February 6, 2007 comments on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Final EA will note state that Hawaiian Electric Company. Inc. had not further comments.

We appreciate your participation in the Draft EA review process.

If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

WILSON OKAMOTO CORPORATION

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Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone 808 946 2277
Fax 808 946 2253
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7236-01
July 27, 2007

Mr. Melvin N. Kaku, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd floor
Honolulu, HI 96813

Subject: Draft Environmental Assessment, Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, TMK: 9-1-026:004
Response to Comments

Dear Mr. Kaku:

Thank you for your February 6, 2007 comments (TP12/06-187623R) on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. Our responses are as follows:

1. Section 2.7 Traffic in the Final EA will state that Olai Street dead ends with a traffic turnaround.

2. The Makakilo/Kapolei/Honokai Hale Neighborhood Board (NB) No. 34, appropriate government officials, the City and County of Honolulu Police Department and Fire Department, and the adjacent commercial luau business were sent a copy of the Draft EA. They will also be mailed a copy of Final EA.

We appreciate your participation in the Draft EA review process.

If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

7236-01
January 17, 2007

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

Chief Boisse P. Correa
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Chief Correa:

Thank you for your December 22, 2006 letter (BS-DK) on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Draft EA will note, this project should not have significant impact on the facilities or operation of the Honolulu Police Department.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

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

MUFI HANNEMANN
MAYOR

MELVIN N. KAKU
DIRECTOR

RICHARD F. TORRES
DEPUTY DIRECTOR

7236-01
2/20/07
cc: DDC

TP12/06-187623R

February 6, 2007

Mr. John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Kapolei Corporation Yard

Thank you for your December 20, 2006 letter, requesting our review of and comments on the draft environmental assessment for the subject project. We have the following comments on the document:

1. The first paragraph in Section 2.7 Traffic, Subsection 2.7.1 Existing Environment (Page 2-13), states that Olai Street dead ends at the project site with a "traffic roundabout". This should be revised to "traffic turnaround".

2. We reiterate that appropriate notification should be given to the area neighborhood board, as well as community residents, businesses, emergency personnel, bus personnel, etc. They should be kept apprised of the details of the proposed project and the impacts the project may have on the adjoining local street network area.

Should you have any questions regarding these comments, please contact Ms. Faith Miyamoto of the Transportation Planning Division at 768-8350.

Sincerely,

MELVIN N. KAKU
Director

3. Final EA will revised to state that drainage reports will be required for the Driver and Equipment Training and Automotive Equipment Services areas, when the design plans for these area are prepared.

4. The Final EA will be revised to emphasize that detention basin volumes will be designed to the requirements contained in the City and County of Honolulu Rules Relating to Storm Drainage Standards. Drain inlets will likely be equipped with replaceable catch basin inserts that can collect silt, debris, oils and greases.

5. The Final EA will be revised to list grading, trenching, and building permits and a drainage connection license.

Site Development Division (Wastewater Branch)
The Final EA will note that the Site Development Division (Wastewater Branch) had no objection to the project. Further, the Final EA will note the need for a State of Hawaii Department of Health Individual Wastewater System application and approval.

Land Use Permits Division (Land Use Approval Branch)
The Final EA will revise Section 2.2.1, Section 3.2.4, and Section 5.11 to show the correct map identification and reference date.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

Q:\WOC\7236-01 Kapolei Corp Yard\plng\env assmt\dea\dea rsp's\dpp LT-1.doc; 7/27/2007

7236-01

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

BOISSE P. CORREA
CHIEF

GLEN R. SAKAMOTO
PAUL D. PUTZULU
DEPUTY CHIEFS

OUR REFERENCE BS-DK

December 22, 2006

RECEIVED
DEC 28 2006
WILSON OKAMOTO CORPORATION
12/31/06

cc: ~~DAT~~ DDC
VIA EMAIL

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

This is in response to your letter of December 20, 2006, regarding the Draft Environmental Assessment for the Kapolei Corporation Yard.

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

If there are any questions, please call Major Michael Moses of District 8 at 692-4253 or Mr. Brandon Stone of the Executive Office at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

By A/ASSISTANT CHIEF, FOR
JOHN P. KERR
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha

Site Development Division (Civil Engineering Branch)

1. Section 2.1.2: Under the third paragraph, replace "1977" with "1997".

2. The plans and drainage report for Phase 1 (Waianae Maintenance Area) was submitted to the Site Development Division on December 21, 2006 for review and approval (Ref. 2006/CP-315). CEB will be providing comments to the consultants after we complete our review.

3. Drainage reports for the DET and AEA areas will be required at a later date.

4. Section 2.12.3 (Drainage): In this section, explain how the proposed project will comply with Section II (Storm Water Quality) of the "Rules Relating to Storm Drainage Standards."

5. Section 6 (Permits and Approvals): The project will require grading, trenching and building permits as well as a drain connection license.

Site Development Division (Wastewater Branch

We have no objection to the proposed Kapolei Corporation Yard. The subject property is currently not serviced by the municipal sewer system. The State Department of Health will administer any wastewater requirements.

Land Use Permits Division (Land Use Approval Branch)

Under Section 2.2.1 (Existing Environment): The map number should be 15003C0315 F. Under Section 3.2.4 (Coastal Hazards), the map number should be 15003C0315 F and the effective date should be September 30, 2004. Under Section 5.11, the map number is also wrong.

If you have any questions, please contact Adrian Siu-Li of our staff at 527-5072.

Very truly yours,

Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:os
Doc 508898

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone 808 946.2277
Fax 808 946 2253
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7236-01
July 27, 2007

Mr. Henry Eng, FAICP, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attention: Ms. Adrian Siu-Li

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Eng:

Thank you for your January 17, 2007 letter (2006/ELOG-3349(as)) on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. Our responses follow:

Planning Division (Policy Planning Branch)

1. Section 1.2 Ewa Public Infrastructure Map (PIM). The Final EA will state "Revision to the PIM was subsequently adopted via Resolution No. 03-130 by the City Council."

2. Section 3.2.3 Ewa Development Plan of the Final EA will state: The Ewa Development Plan Public Facilities Map shows a future corporation yard symbol in the Campbell Industrial Park area. The proposed Kapolei Corporation Yard would implement this element of the Ewa DP.

   The Ewa Public Facilities Infrastructure Map was revised by city Council Resolution No, 03-130 to show the publicly funded "Corporation Yard" and "Government Building" symbols for the proposed Kapolei Corporation Yard site.

Site Development Division (Civil Engineering Branch)

1. Section 2.1.2 of the Final EA will be revised to show the UBC is 1997, not 1977.

2. The Final EA will include information regarding the need for a drainage report to be submitted the Civil Engineering Branch for review and approval as part of the facility design process for each portion of the project site.

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If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

Q:\WOC\7236-01 Kapolei Corp Yard\plng\env assmt\dea\dea rsp's\hfd LT-1.doc; 7/27/2007

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
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DEPT. INTERNET: www.honoluludpp.org • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

7236-01

4/19/07

cc: DDC, VIA email

January 17, 2007

2006/ELOG-3349(as)

RECEIVED
JAN 19 2007
WILSON OKAMOTO CORPORATION

Mr. John K. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Subject Draft Environmental Assessment
Kapolei Corporation Yard
91-119 Olai Street
Tax Map Key 9-2-19: 22

Thank you for the opportunity to review and comment on the draft environmental assessment (EA) on the above site.

The following are the comments from our Planning Division, Civil Engineering Branch, Wastewater Branch and Land Use Approval Branch:

Planning Division (Policy Planning Branch)

1. Regarding Section 1.2 Ewa Public Infrastructure Map, page 1-2, the Final Environmental Assessment should state that the "Revision to the PIM was subsequently adopted via Resolution No. 03-130 by the City Council."

2. Section 3.2.3 Ewa Development Plan, page 3-3, second and third sentences, should be deleted. Please include the following replacement sentences:

   "The Ewa Development Plan (DP) Public Facilities Map shows a future corporation yard symbol in the Campbell Industrial Park area. The proposed Kapolei Corporation Yard would implement this element of the Ewa DP."

   "The Ewa Public Infrastructure Map was revised by City Council Resolution No. 03-130 to show the publicly funded "Corporation Yard" and "Government Building" symbols for the proposed Kapolei Corporation Yard at the subject site."

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

Should you have any questions, please call Acting Assistant Chief Lloyd Rogers of our Support Services at 723-7151.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/SK:jl

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii 96826 USA
Phone: 808 946 2277
Fax: 808 946 2253
www.wilsonokamoto.com

7236-01
July 27, 2007

Chief Kenneth G. Silva
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Chief Silva:

Thank you for your January 12, 2007 letter on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. Please note, the 5.08-acre portion of the Corporation Yard identified in the Draft EA as the Waianae Maintenance Area has under gone design. The other two portions identified as the Driver and Equipment Training (DET) and Automotive Equipment Services (AES) have not yet been budgeted for detail planning and design.

Our responses follow:

1. The Final EA will state the DET and AES areas will need to provide a fire apparatus access to the facilities and structures in each area. The site planning for each site will need to account for the requirement to provide fire apparatus access. During the detail design process, the plans will be submitted to the Fire Department for review to ensure the facilities meet the requirements of applicable City codes, including the Uniform Fire Code.

2. The Final EA will state potable and fire protection water for the Kapolei Corporation Yard is provided by the City and County of Honolulu Board of Water Supply system. The design plans for the DET and AES areas will account for the fire flow and fire hydrant requirements related to the specific facilities and structures within each area.

3. The design plans for the DET and AES facilities will be submitted to the Honolulu Fire Department for review, as part of the City building permit process.

7236-01
January 17, 2007

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

Mr. Keith S. Shida, Principal Executive
Customer Care Division
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

Attention: Mr. Robert Chun

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Shida

Thank you for your December 29, 2006 letter on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Draft EA will include both your December 29, 2006 and August 16, 2006 letters and appropriate comments.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
636 SOUTH STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 723-7139 • FAX: (808) 723-7111 • INTERNET: www.honolulufire.org

MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

7236-01
1/19/07
cc: DPC
VIA E-MAIL

January 12, 2007

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
JAN 18 2007
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment
Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, Hawaii
Tax Map Key: 9-1-026: 004

In response to your letter dated December 20, 2006, regarding the above-mentioned project, the Honolulu Fire Department (HFD) reviewed the material you provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from a fire apparatus access road as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

   On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

7236-01
January 6, 2007

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

Ms. Genevieve Salmonson, Director
State of Hawaii
Office of Environmental Quality Control
State Office Tower
235 South Beretania Street, 7th Floor
Honolulu, Hawaii 96813-2437

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Ms. Salmonson:

Thank you for your December 22, 2006 letter on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. Our response follows:

Section 2.1.2 noted that subsurface excavation would be required to set footings and slab foundations for the buildings and structures. Although the decision on the specific method of construction is made by the contractor, it is expected the subsurface work will be done by grading, in the case of slab foundations, and by using a backhoe or an augur to drill for the deeper footings. Typically, this type of drilling does not create vibrations which might affect surrounding facilities. It should also be there are no facilities close to the new structures to be constructed. No mitigations should be necessary.

The Draft EA will be revised to incorporate this response.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

BOARD OF WATER SUPPLY

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

7236-01

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
HERBERT S. K. KAOPUA, SR.
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF

RODNEY K. HARAGA, Ex-Officio
LAVERNE T. HIGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

December 29, 2006

RECEIVED
JAN 04 2007
WILSON OKAMOTO CORPORATION

JS
cc: DDC

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attention: Mr. John L. Sakaguchi, Senior Planner

Dear Mr. Sakaguchi:

Subject: Your Letter Dated December 20, 2006 Regarding the Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004

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

Our comments dated August 16, 2006, which are included in the assessment, are still applicable.

If you have any questions, please contact Robert Chun at 748-5440.

Very truly yours,

KEITH S. SHIDA
Principal Executive
Customer Care Division

The sentence on Page 2-20 of the Draft EA will be revised so the Final EA will delete the words "they perceive" in order to clarify the actual and not merely perceived bond between natural and cultural resources in the Hawaiian community.

We appreciate your participation in the Draft EA review process. If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

Q:\WOC\7236-01 Kapolei Corp Yard\plng\env assmt\dea\dea rsp's\oha-LT-1.doc; 7/28/2007

7236-01

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

12/31/06

cc: DDC
VIA email

January 2, 2007

Eugene Lee
Department of Design & Construction
650 South King Street, 11th floor
Honolulu, Hawaii 96813

Attn: Gary Doi

Dear Mr. Lee:

Subject: Draft Environmental Assessment (EA), **Kapolei Corporation Yard**

Construction impacts: Section 2.1.2 notes that subsurface excavation will be required. Do you plan to drill? If so, what are the impacts from vibration on surrounding facilities, and how will you mitigate them?

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: John Sakaguchi, Wilson Okamoto

a cultural concern." This is not a "perception." Natural resources are integral components of cultural resources. Without the indigenous natural resources, an indigenous culture will die. The two are interconnected and genealogically linked.

Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth, at (808) 594-1962 or heidig@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7236-01
July 30, 2007

Mr. Clyde W. Nāmu'o, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comments

Dear Mr. Nāmu'o:

Thank you for your comment letter of January 19, 2007 on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project (HRD06/2655 C).

At the time of publication, the Draft EA proposed the archaeological monitoring and supplementary testing of sinkholes at the southern boundary of the project site. Eight (8) of these sinkholes were found to be adjacent to or within the site of the proposed DET Facility office building shown on Figure 1.5, Project Site Plan. After further review, the Project Site Plan layout for the DET facility has been revised to avoid these sinkholes. The revised Site Plan of the DET facilities will be included in the Final EA. The area containing these sinkholes will be shown on the Project Site Plan as a Preservation Area.

The Site Plan has also been revised to delete development in the area of the remaining group of shallower sinkholes to the west, along the north-south oriented fence line. As part of the future detail planning, design, and construction of the DET facilities, City funds will be provided for supplementary testing of this area.

As for the work on the remaining areas of the site, the Final EA will be revised to state that, should Native Hawaiian cultural deposits be found during construction, work will cease and the appropriate agencies will be contacted. It will also be stated that a discovery of burials will require the notification of the Oahu Island Burial Council to determine appropriate treatment.

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Honolulu, Hawaii, 96826 USA
Phone 808 946 2277
Fax 808 946 2253
www.wilsonokamoto.com

7236-01
July 27, 2007

Mr. Barry Fukunaga, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Fukunaga:

Thank you for your comment letter of January 23, 2007 on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. We have the following responses to your comments, in their respective order:

1. The Final EA will note that the Department of Transportation (DOT) does not anticipate significant impact from the project on the State's transportation facilities.

2. The Draft EA cited the DOT's plans to modify Interstate H-1 interchanges to improve traffic circulation into and out of Campbell Industrial Park. The Final EA will state that the City and State will cooperate to address the cumulative impacts from this and other developments that are planned for the area.

3. The Final EA will note, since the project site is in close proximity to Kalaeloa Airport and the flights paths of Honolulu International Airport, facilities with noise sensitive spaces will need to be designed with sound attenuation treatment, as appropriate, to mitigate against aircraft noise.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC;

7236-01

PHONE (808) 594-1888 FAX (808) 594-1865

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

1/29/07

cc: DPL

HRD06/2655 C

January 19, 2007

RECEIVED
JAN 25 2007
WILSON OKAMOTO CORPORATION

John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96813

RE: Draft Environmental Assessment, Kapolei Corporation Yard, Hono'uli'uli, 'Ewa, O'ahu, TMK: 9-1-026:004

Dear John Sakaguchi,

The Office of Hawaiian Affairs (OHA) is in receipt of your December 20, 2006, request for comments on the above-referenced project, which would include construction of a corporation yard that would contain three City facilities, with the shoreline remaining undeveloped. OHA offers the following comments.

As noted in the Draft EA, several sinkholes are present in the project area, which, according to the Draft EA, the applicant seeks to fill after any possible cultural resources that are found are recovered during archaeological monitoring. These unique features have been known to contain burials, culturally-significant deposits, and other important natural resources such as avi-faunal remains. We cannot agree with a plan to immediately fill such sites after cultural resources may be recovered. Please note that if these sites are found to contain burials, the burials cannot simply be recovered and their sites filled in. This fact should be reflected in the Final EA, along with recognition of the required consultation of the O'ahu Island Burial Council and the requisite notifications.

OHA therefore requests your assurances that if this project goes forward, should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

On page 2-20 of the Draft EA, one of three major concerns listed by Hawaiians included that of possible impacts on native plants. The following sentence shows a distinct lack of cultural understanding: "While this concern does not appear to be based on a resource for Hawaiian use per se, they perceive their concern for possible endangered plant communities is in large measure

WILSON OKAMOTO CORPORATION
ENGINEERS PLANNERS

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www.wilsonokamoto.com

7236-01
July 30, 2007

Ms. Melanie Chinen, Administrator
State Historic Preservation Division
State of Hawaii
Department of Land and Natural Resources
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comments

Dear Ms. Chinen:

Thank you for your comment letter of February 13, 2007 on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project (LOG NO. 2007.0199). At the time of publication, the Draft EA proposed the archaeological monitoring and supplementary testing of sinkholes at the southern boundary of the project site. Eight (8) of these sinkholes were found to be adjacent to or within the site of the proposed Driver Equipment Training (DET) office building shown on Figure 1.5, Project Site Plan, in the Draft EA. After further review, the Project Site Plan layout for the DET facility has been revised to avoid these sinkholes. The area containing these sinkholes will be shown on the revised Project Site Plan as a Preservation Area. The revised Site Plan of the DET facilities will be included in the Final EA.

The Site Plan has also been revised to delete development in the area of the remaining group of shallower sinkholes to the west, along the north-south oriented fence line. As part of the future detail planning, design, and construction of the DET facilities, City funds will be provided for supplementary testing of this area. A preservation plan for Site 6886 (the WW II-era gun emplacement) will also be prepared at that time.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: G. Doi, DDC

LINDA LINGLE
GOVERNOR

7236.01
2/2/07

BARRY FUKUNAGA
INTERIM DIRECTOR

Deputy Directors
FRANCIS PAUL KEENO
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2393

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

cc: DOC JS

January 23, 2007

RECEIVED
JAN 30 2007
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment (DEA)
Kapolei Corporation Yard, City and County of Honolulu
TMK: 9-1-026: 004

We have the following comments on the subject report for the proposed City and County baseyard facility project:

1. We do not anticipate the facility project itself to create a significant impact to our transportation facilities.

2. The project, however, is one of several new developments or changes to existing sites in the area that will contribute additional traffic to the collective impact from Campbell Industrial Park. We look forward to working with the various City departments on monitoring the new additions and changes in this area to address the cumulative traffic and industrial heavy-vehicle impacts from the area.

3. Because the project site is in close proximity to Kalaeloa Airport and the flight paths associated with Honolulu International Airport, the baseyard facility will be subject to aircraft noise from overflights. Noise sensititve spaces in the baseyard, e.g. office, rest area, etc., including any comparable residential-type use, e.g. caretaker house, should be appropriately designed and constructed.

We appreciate the opportunity to provide our comments.

Very truly yours,

BARRY FUKUNAGA
Interim Director of Transportation

c: G. Doi, Department of Design and Construction

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7236-01
July 27, 2007

Mr. Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Lemmo:

Thank you for your comment letter of December 28, 2006 on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Final EA note the Office of Conservation and Coastal Lands did not have any comments.

We appreciate your participation in the Draft EA review process.

If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

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

7236-01
2/20/07
cc: DDC

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

February 13, 2007

Mr. John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street, Ste. 400
Honolulu, Hawai'i 96826

LOG NO: 2007.0199
DOC NO: 0702amj07
Archaeology

Dear Mr. Sakaguchi:

SUBJECT: Chapter 6E-42 Historic Preservation Review –
Draft Environmental Assessment (DEA) for Kapolei Corporation Yard
Hono'uli'uli Ahupua'a, 'Ewa District, Island of O'ahu
TMK: (1) 9-1-026:004

Thank you for the opportunity to review the aforementioned document, which we received on January 12, 2006. The proposed undertaking consists of the construction of a corporation yard consisting of three City facilities. The current landowner is Campbell Hawaii Investor LLC (Campbell Estate affiliate).

According to your document, the archaeological inventory survey by Cultural Surveys of Hawai'i, Inc., documented Site 6866, a WW II-era gun emplacement, and an area containing up to twenty-six (26) sinkholes that has not been assigned a site number. You have proposed the following mitigation recommendations to alleviate the project's effect on historic properties: (1) preservation of Site 6886, (2) supplementary testing of the sinkholes, and (3) archaeological monitoring in the vicinity of the sinkholes.

We request that the SHPD-accepted preservation plan be included in the Final Environmental Assessment (EA). We also request that the results of the supplementary testing of the sinkholes be included in the Final EA. We do not believe the planned development activities should be allowed to proceed in the vicinity of Site 6886 or near the sinkhole area until these two requests have been met.

We look forward to the receipt of an archaeological monitoring plan, preservation plan for site -6886, and a report about the supplemental testing of the sinkholes for our review.

Please contact Mr. Adam Johnson at (808) 692-8015 if you have any questions regarding this letter.

Aloha,

Melanie Chinen, Administrator
State Historic Preservation Division

amj:

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

7236-01

2/2/07

January 29, 2007

RECEIVED
JAN 30 2007
WILSON OKAMOTO CORPORATION

cc: DDC

Wilson Okamoto Corporation
1907 S. Beretania Street Suite 400
Honolulu, Hawaii 96826

Attention: John L. Sakaguchi, AICP

Gentlemen:

Subject: Kapolei Corporation Yard Project, Honouliuli, Oahu, Tax Map Key: (1) 9-1-26:4

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

Other than the comments from the Office of Conservation & Coastal Lands, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

Cc: Central Files

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
2007 JAN -8 P 3:21
DEPT OF LAND & NATURAL RESOURCES
STATE OF HAWAII

7236-01

2/2/07

cc: DDC

December 26, 2006

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
___Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
___Div. of Water Resource Management
_x_ Office of Conservation & Coastal Lands
_X_ Land Division – Keith/~~Morris~~

2006 DEC 28 A 7:53
DEPT OF LAND & NATURAL RESOURCES
STATE OF HAWAII
RECEIVED
CONSERVATION
COASTAL LANDS

FROM: Russell Y. Tsuji
SUBJECT: Draft Environmental Assessment for Kapolei Corporation Yard
LOCATION: Honouliuli, Oahu, TMK: (1) 9-1-26:4
APPLICANT: Wilson Okamoto Corporation on behalf of City & County of Honolulu

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 21, 2007.

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

Attachments

( ) We have no objections.
(X) We have no comments.
( ) Comments are attached.

Signed:
Date: 12.28.06

(7236.01)
2/2/07

09 1 028 004

January 30, 2007

To: Mr. Jiacai Liu, Staff, Environmental Planning Office
Reference Number **EPO 06-218**
Refer to EPO – 09 1 0226 004 – kapolei corp yard.doc

From: Mr. Harold Yee, Branch Chief, Wastewater Branch

Subject: Draft Environmental Assessment
Kapolei Corporation Yard
91-119 Olai Street, Campbell Industrial Park
Honouliuli, Ewa, Oahu, Hawaii
TMK: (1) 9-1-026: 004 17.864 acres

We have reviewed the subject document which proposes the construction of a corporation yard consisting of three City facilities; a 5.08 acre area for the relocated Waianae Corporation Year; a 5.0 acre area reserved for the future relocated Driver and Equipment Training Function; and a 5.08 acre area reserved for a future Automotive and Equipment Services facility. The remaining area along the shoreline will remain undeveloped.

We have the following comments to offer. The subject project is located in the Critical Wastewater Disposal Area (CWDA) as determined by the Oahu Wastewater Advisory Committee where no new cesspools will be allowed. It is also located in the Pass Zone.

We recommend connection to the City sewer system, but as that is not available at this time, onsite wastewater systems are acceptable. Our records show that we have an approved septic tank and seepage pit system (File # 1029) serving a commercial building on this site.

We further encourage the developer to utilize recycled wastewater for irrigation and other non-potable water purposes in open space and landscaping areas.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at telephone 586-4294.

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Honolulu, Hawaii, 96826 USA
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Fax: 808 946.2253
www.wilsonokamoto.com

7236-01
July 27, 2007

Mr. Harold Yee, Branch Chief
Wastewater Branch
State of Hawaii Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Yee:

Thank you for your January 30, 2007 letter on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project (EPO-09-1-0226-004 kapolei corp yard.doc). Our responses follow:

1. The Final EA will state the project site is within the Critical Wastewater Disposal Area (CWDA) and the Pass Zone. It will also cite that an approved septic tank and seepage pit system currently serves the adjacent commercial building.

2. For your information, as part of the design for the Waianae Maintenance Area, sewer lines will be constructed from the facilities to Olai Street for future connection to a City collection system. This will also be done for the other two areas of development.

3. The Draft EA noted there is an existing R-1 water main along Kaomi Loop that will be evaluated as a nonpotable source for irrigation at the project site.

4. The Final EA will note the design of wastewater systems for facilities at the project site will need to conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner
cc: G. Doi, DDC

LINDA LINGLE
GOVERNOR OF HAWAII

7236-01 JS

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

2/2/07

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

In reply, please refer to:
EPO-06-218

January 22, 2007

RECEIVED
JAN 26 2007
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment for Kapolei Corporation Yard
Honouliuli, Ewa, Oahu, Hawaii
TMK: (1) 9-1-026: 004

Thank you for allowing us to review and comment on the subject document. The document was routed to the various branches of the Environmental Health Administration. We have no comments at this time. We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CWB
SHWB-SW
SHWB-HW
HEER

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www.wilsonokamoto.com

7236-01
July 27, 2007

Mr. Kelvin H. Sunada, Manager
Environmental Planning Office
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Subject: Draft Environmental Assessment, Kapolei Corporation Yard,
Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Sunada:

Thank you for your January 22, 2007 letter on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Final EA will note that the Department of Health Environmental Planning Office did not have any comments.

We appreciate your participation in the Draft EA review process.

If you have any questions, please call me at 946.2277.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC

LINDA LINGLE
GOVERNOR
STATE OF HAWAII

7236-01

12/27/06

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

December 26, 2006

cc: DDC, VIA eMAIL

RECEIVED
DEC 27 2006
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Thank you for the opportunity to comment on the draft Environmental Assessment report for the City and County of Honolulu's Kapolei Corporation Yard project in Honouliuli, Ewa, Oahu. The Department of Hawaiian Home Lands has no comments.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

Micah A. Kane, Chairman
Hawaiian Homes Commission

WILSON OKAMOTO CORPORATION
ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

7236-01
January 17, 2007

Mr. Micah Kane, Chairperson
State of Hawaii
Department of Hawaiian Home Lands
1099 Alakea Street, 12th Floor
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comment

Dear Mr. Kane:

Thank you for your comment letter of December 26, 2006 on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. The Draft EA will note the Department of Hawaiian Home Lands had no comments.

If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC;

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-6440

REPLY TO ATTENTION OF

January 18, 2007

7236-01
1/23/07

Regulatory Branch

File No. POH-2006-318-3

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
JAN 2 3 2007
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

This provides comments to the draft Environmental Assessment (dEA) prepared for the Department of Design and Construction, City and County of Honolulu which addresses activities and impacts of their proposed Kapolei Corporation Yard project at TMK (1) 9-1-026: 004, Honouliuli, Oahu Island.

The dEA indicates that special aquatic sites, as represented by anchialine ponds (aka sinkholes which extend down to and below the water table) are in and adjacent to the proposed project area. The dEA also states in relevant sections that these anchialine ponds/sinkholes will be filled in following archaeological monitoring for the recovery of potential cultural resources. Further, the dEA does not provide any biological assessment that indicates that these sinkholes are not special aquatic resources which may contain anchialine shrimp or habitat and does not address measures to avoid, minimize or mitigate their potential loss.

The omission of information regarding the chemical and biological characterization of the known and potential waters found in the sinkholes should be provided in order to determine whether a Department of Army (DA) permit for Section 404 activities of the Clean Water Act may, or may not be, required for the proposed Kapolei Corporation Yard project.

Thank you for your consideration of potential impacts to the aquatic environment of the Kapolei watershed. Please contact Mr. Farley Watanabe of my staff at 438-7701, or facsimile 438-4060, if you have any questions or need additional information. Please refer to file number stated above in any future correspondence with us regarding this project.

Sincerely,

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

Copy Furnished:
Mr. G. Doi, Project Manager, Dept. Design & Construction, City & County of Honolulu, HI

WILSON OKAMOTO CORPORATION
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Honolulu, Hawaii, 96826 USA
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7236-01
July 30, 2007

Mr. George P. Young, Chief
Regulatory Branch
Engineer District Honolulu
U.S. Department of the Army
Building 230
Fort Shafter, Hawaii 96858-5440

Subject: Draft Environmental Assessment, Kapolei Corporation Yard, Honouliuli, Ewa, Oahu, Hawaii, TMK: 9-1-026:004
Response to Comments

Dear Mr. Young:

Thank you for your comment letter of January 18, 2007 (File No. POH-2006-318-3) on the Draft Environmental Assessment (EA) for the Kapolei Corporation Yard project. Your comments concerned the anchialine ponds/sinkholes which were identified and mapped at the southern boundary of the project site. Surveys showed eight (8) of these sinkholes with a depth greater than 1.5 meters (depth of the water table) were found to be adjacent to or within the proposed Driver Equipment Training (DET) office building shown on Figure 1.5, Project Site Plan, in the Draft EA. After further review, the Project Site Plan for the DET facility has been revised to avoid these sinkholes. The area containing these sinkholes will be shown on the revised Project Site Plan as a Preservation Area. The revised Site Plan of the DET facilities will be included in the Final EA.

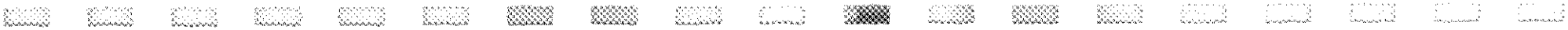
The Site Plan has also been revised to delete development in the area of the remaining group of shallower sinkholes to the west, along the north-south oriented fence line.

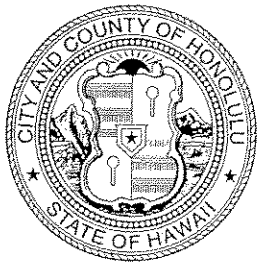
If you have any questions, please call me at 946.2277. We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP
Senior Planner

cc: G. Doi, DDC





APPENDIX F

Draft EA Consultation

The March 2005 (Funk 2005) botanical survey conducted for the project area showed no native plant communities within the area planned for improvements. The only vegetation of interest is the pickleweed (*Batis* Depressional Wetland) found along the shoreline, which lies outside the area planned for improvements.

The area near the shoreline will not be improved. This will protect marine resources located near the shoreline from adverse impacts. Development of the Kapolei Corporation Yard will not affect access to marine resources.

Section 7 SUMMARY AND RECOMMENDATIONS

7.1 Summary of Findings

The project area on the coast, on the extensive 'Ewa limestone plain, which was, based on Honouliuli settlement patterns and archaeological investigations of the *ahupua'a*, probably never permanently inhabited. It could have, however, provided temporary habitation for gatherers and fisherman. The extended limestone plain would have been used for bird catching, and would include the temporary habitations that would support such forays. Planters could have also used the natural limestone sinks for agriculture, though it would have been seasonal and on a small scale. In general, the project area lies in a region that would have been less than bountiful, and therefore sparsely utilized, even in pre-contact times.

It appears that at present, no contemporary or continuing cultural practices occur within the project area although fishing and gathering of marine resources just seaward of the project area has probably been continuous for over a thousand years.

Three major areas of concern have been indicated:

- Sinkholes that may contain burials were a concern expressed by four community members (Mr. Shad Kane, Mr. Tom Lenchenko, Mrs. Kim Kalama and Mrs. Nettie Tiffany). The Hawaiian community is aware in a general sense that burials have been found within sinkholes in the vicinity and is concerned for possible disturbance to ancestral remains. No specific knowledge of burials within the specific project area were expressed.
- Five community members (Mr. Shad Kane, Mrs. Nettie Tiffany, Mr. Tom Lenchanko, Mrs. Tesha Malama, and Mr. Carroll Cox) did express concerns regarding possible adverse impact to native plant communities. While this concern does not appear to be based on a resource for Hawaiian use per se, they perceive their concern for possible endangered plant communities is in large measure a cultural concern.
- Concerns for potential adverse impact of development to the project area to marine resources was expressed by three community members (Mr. George Ka'eliwai, Mrs. Kim Kalama and Mr. William Ailā). Mr. Ailā is specifically concerned regarding the effect of light pollution upon the *kupe'e (Nerita polita)* a shellfish found fronting the project area, as well as protecting sinkholes if shrimp are found within them.

7.2 Mitigation Recommendations

Further investigations of the sinkholes within the project area will address cultural concerns that these sinkholes may contain ancestral remains and shrimp. A monitoring program will also serve to address the possibility of uncovering unmarked burials during the course of construction activities.