

DRAFT ENVIRONMENTAL ASSESSMENT

EAST KAPOLEI FIRE STATION

Portion Honouliuli, District of 'Ewa, City and County of Honolulu, Hawai'i



Prepared For

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

August 2010

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Prepared In Fulfillment of the Requirements
of Chapter 343, Hawai'i Revised Statutes and
Title 11, Chapter 200, Hawai'i Administrative Rules

Prepared For

Department of Design and Construction

City and County of Honolulu
650 South King Street
Honolulu, Hawai'i 96813

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August 2010

PROJECT PROFILE

Project: East Kapolei Fire Station

Proposing Agency: Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawai'i 96813

Determining Agency: Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawai'i 96813

Location: Portion Honouliuli, 'Ewa District
City and County of Honolulu
State of Hawai'i

Tax Map Key: 9-1-151: 003
Land Area: ± 2.18 acres
Landowner: Department of Hawaiian Home Lands

State Land Use Designation: Urban
General Plan: Urban-Fringe
Development Plan Area: 'Ewa
DP Urban Land Use Map: High Density Residential and Transit Node
Public Infrastructure Map (PIM): Fire Station Symbol on 'Ewa PIM
Zoning: AG-1 Restricted Agricultural
Special Management Area: Outside Special Management Area
Existing Use: Vacant

Need for Environmental Assessment: Section 11-200-5 (C)
Use of state lands and county funds

Anticipated Determination: Finding of No Significant Impact

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SECTION 1 DESCRIPTION OF THE PROPOSED ACTION

The Department of Design and Construction, City and County of Honolulu, proposes to construct a regional fire station in East Kapolei, portion of Honouliuli, District of 'Ewa, O'ahu, Hawai'i. The fire station site is located in the Department of Hawaiian Home Lands East Kapolei I residential development. The site, which is a corner lot, is bounded by Kamokuiki Street on the north, Kapolei Parkway on the south, a 2.186 vacant parcel on the east, and Kinoiki Street on the west. Hale Kalaniana'ole, the home of the Department of Hawaiian Home Lands, is located across the street from the fire station on Kinoiki Street.

The property bears Tax Map Key 9-1-151:003 with an area of approximately 2.18 acres. A Vicinity Map and Tax Map are shown in Figures 1 and 2.

A. Need for the Project

The increasing growth of the Kapolei area, the privatization of Kalaheo (formerly Barber's Point Naval Air Station), and the planned commercial and residential development in the East Kapolei area requires that additional emergency resources be installed to maintain adequate levels of service to the area.

The proposed East Kapolei Fire Station (Station 43) will be developed as a regional fire station. A regional fire station is a multi-company station that is strategically placed to provide training and supply support to a particular region or battalion. Regional stations will incorporate a larger tactical training area to allow companies from nearby stations to participate in multi-company drills and training sessions without sacrificing emergency response coverage to their respective home areas.

The regional station concept also includes a Regional Emergency Depot ("RED"). The RED will house emergency supplies and equipment to be used during emergencies within the region. The stockpiled material can be distributed when developing incidents are occurring quickly or when transportation routes into the region are compromised by natural or man-made disasters. The Honolulu Fire Department ("HFD") will be able to maintain a continued level of service by having supplies and/or equipment delivered to stations within the region without delay.

East Kapolei will be the first of several proposed regional stations. The Honolulu Fire Department ("HFD") is planning other regional stations for the North Shore, Metro Honolulu, Windward Oahu, and East Honolulu.

B. Technical Characteristics

1. Fire Station

The proposed East Kapolei Fire Station (hereafter Fire Station or Station) is designed and sited to fit the rectangular-shaped lot. The one-story, multi-roofed structure is approximately 24'-9" in height (at its highest point) with a gross floor area of approximately 14,430 square feet.

The Station plan configuration will employ a modified H-plan typically used by HFD. This plan comprises a central apparatus room flanked by two building wings. The apparatus room is the largest and most important program element of any fire station. The proposed 4,480 square foot apparatus room comprises 3-bays with doors that open directly on Kapolei Parkway. An engine and ladder will occupy two bays. The third bay is reserved for auxiliary equipment storage or for a relief apparatus.

The west wing is comprised of four unoccupied storage rooms (storage/tool room, PPE and hose drying room, extractor room, and decontamination room). The larger and longer east wing accommodates a lobby, captain's offices, conference rooms, equipment locker rooms, dining/day room, exercise room, bathrooms, and firefighters sleeping quarters. All occupied areas in the east wing will be air conditioned.

The structure will be erected on a reinforced concrete foundation with concrete walls, columns, and structures. It will be wood framed and covered with exterior metal siding and topped with a standing seam metal roof.

An exercise court of approximately 3,400 square feet is set aside at the rear of and adjacent to the Station. In the future, the court may be replaced by an Emergency Medical Service ("EMS") facility. Construction of the EMS facility is not part of the Fire Station project. .

A 6,300 square foot area in the northwest corner of the site is designated for the RED. The programmed area for the RED is approximately 1,500 square feet. Large pieces of equipment, vehicles, and emergency supplies will be stored in the free standing structure. Vehicle access will be taken from Kamokuiki Street. The RED will be managed by the Honolulu Fire Department and will not be manned except during times of disaster response.

2. Training Tower

A 4-story, 700 square foot training tower, approximately 42'-0" in height, will be attached to the rear eastern corner of the Station. The training tower is part of the regional training concept that allows companies from nearby stations to participate in multi-company drills or training sessions without sacrificing emergency response coverage to their home areas. The tower will be equipped with several props to assist in an array of training situations from mock high-rise, forcible entry, fire sprinkler, ventilation, salvage, and rappelling from an aerial platform. There will be no live burns conducted at this facility.

The height of the tower exceeds the building height of the zoning district. A Waiver application for height encroachment will be submitted to the Department of Planning and Permitting, City and County of Honolulu, for their review and approval.

In-house companies are projected to use the tower 3 to 6 times a month to conduct their drills. Regional training involving other fire companies is estimated at 3 to 6 times a month. The tower would thus be used 6 to 12 times a month. Regional training sessions will involve no more than 20 personnel (3 to 4 companies) at any given time with each session lasting several hours but not longer than one day. The tower will be available for use by HFD Rescue and Hazmat companies. Outside agency users could include the Federal Fire Department, Honolulu Police Department Special Services Division, and the Federal Bureau of Investigation.

3. Personnel

HFD operates a three platoon system with personnel working a 24 hour shift. Upon opening, the East Kapolei Fire Station will house two fire companies consisting of an Engine and Ladder Company. Each company consists of a captain and four firefighters thus there will be 5 personnel per company for a total of 10 personnel on duty for a given shift. In total, 30 personnel will be assigned to the Station.

Their primary equipment will be one Engine and one Ladder. Other equipment will be posted to the Station as required.

The number of EMS personnel to be assigned to the Station has not yet been determined. EMS will occupy a separate on-site facility.

4. Access and Parking

The fire and ladder apparatus will access directly onto Kapolei Parkway when responding to fire calls. An opening in the Kapolei Parkway median will allow the fire apparatus to execute left turning movements (eastbound) when responding to calls. The front of the Station will be set back approximately 53-feet from the property line to allow the closing of the apparatus room doors when either apparatus exits without encroaching into the sidewalk or right-of-way.

HFD will make a request to the Department of Transportation Services for installing Opticon sensors at the intersection of Kapolei Parkway and Kinoiki Street when signalization at the intersection is warranted. The sensors will allow the driver of the fire apparatus to override the traffic signal sequence when responding to emergency calls.

The apparatus will return to the Station from Kamokuiki Street on the north. The entry will be wide enough to accommodate two-way traffic. The one-way in and one-way out circulation pattern precludes the apparatus and ladder from having to reverse into the apparatus room from Kapolei Parkway.

Fourteen marked parking stalls for firefighter vehicles are located behind the Station with space with room for 14 additional spaces in front of the marked stalls. Three public parking stalls (two regular and one van accessible (ADA) with side access aisle) are provided along the front driveway and apron.

5. Infrastructure

Utility connections will be made to existing water, sewer, power, and communication systems in Kapolei Parkway or Kinoiki Street.

The site will be graded to drain surface runoff into retention basins located in the side yards. The larger of the retention basin/bioswales is proposed within the yard fronting Kinoiki Street. Surface runoff will be allowed to evaporate or percolate naturally into the ground rather than entering the municipal storm water system. A smaller retention basin is proposed along the west side of the property.

Non-potable R-1 Water will be drawn from an existing 16-inch recycled water main in Kapolei Parkway for irrigation use. The Board of Water Supply has approved a recycled water commitment for 1,500 to 2,000 gallons per day.

6. Landscaping

Front and side yards including the retention basins/bioswales will be landscaped with Native Hawaiian salt tolerant drought resistant grass, groundcover, hedges, and trees. Landscaped areas will be equipped with a permanent underground irrigation system.

7. Other Improvements

A service and wash area for the engine and ladder will be located on the west side of the property between the training tower and parking area. Drains will collect and discharge wash water into an underground oil-water separator placed in a concrete vault. Petroleum based constituents will be collected and stored in an oil storage tank and water discharged into the local sewer system. The oil tank will be inspected regularly and oil and sludge removed for proper disposal.

A separate 590 square foot shed housing an emergency generator and small equipment storage will be placed along the west side next to the service and wash area.

A fueling station will be located next to the emergency depot. The station consists of two separate double-walled above ground storage tanks (AST) ---a 1,000 gallon gasoline tank and dispenser and a 1,000 gallon diesel fuel tank. The AST will be installed, operated, and maintained in accordance with all federal technical and financial responsibility standards and state reporting regulations. Because the AST contains flammable and combustible fluids, it is subject to regulation by the HFD.

The fueling station also includes a 124 gallon LPG tank for cooking meals.

Solar water heating panels and photovoltaic panels for generating electricity will be mounted on all south facing roofs.

The rear and sides of the station will be enclosed with 6'-0" high security wall and the rear by a 6'-0" security fence. Pole mounted exterior light fixtures equipped with shielding and cut-off fixtures will illuminate the outside of the station. The poles will be less than 25-feet in height.

8. Sustainable Features

The building will be designed as a sustainable building to meet Leadership in Energy and Energy Design ("LEED") silver certification standards. The East Kapolei Fire Station and the soon to be constructed Ewa Beach Fire Station in the Ocean Pointe Subdivision will be the first Honolulu fire stations constructed to a minimum LEED silver certification.

The incorporation of LEED design features should result in a net reduction in operating costs due to the inclusion of many energy savings and generating features included in the station construction.

C. Economic Characteristics

The construction cost for the East Kapolei Fire Station and Regional Emergency Depot is estimated at \$5.5 million and will be funded by the City and County of Honolulu.

Construction of the Fire Station and Regional Emergency Depot will commence after all permits are secured. The construction period is estimated at 18 months and will be carried out in one phase. The Station is projected to be operational by June 2012.

Anticipated annual operating costs exclusive of salaries are estimated at \$343,000.

The Department of Hawaiian Home Lands, owners and developers of the East Kapolei I lands, and the City and County of Honolulu recently executed a License Agreement for the 2.18 acre parcel beginning March 2012 and ending February 2052, a term of 40 years.

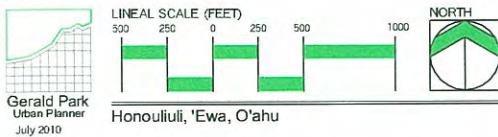
D. Social Characteristics

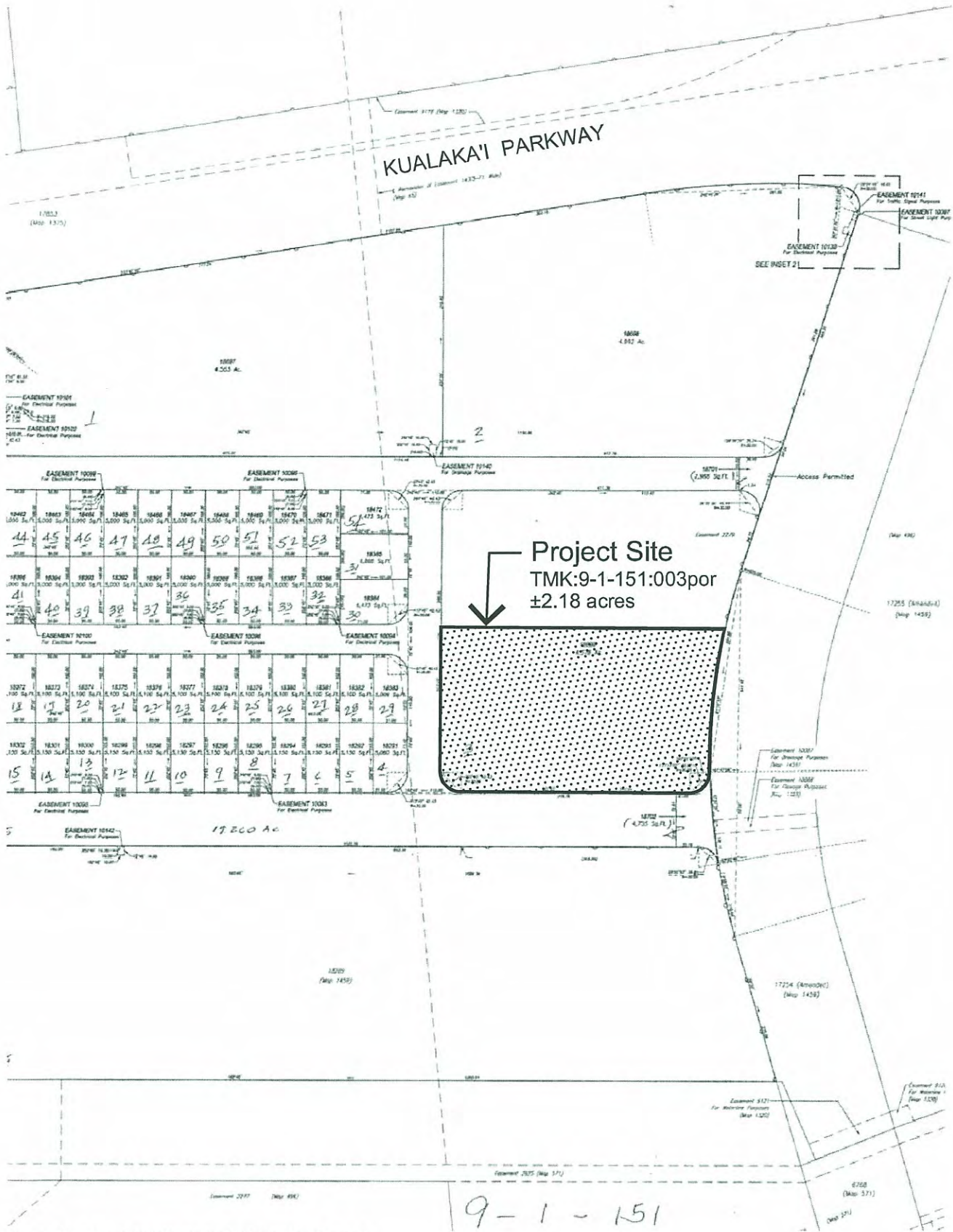
The action is proposed on vacant land and will not displace any residents or business establishments.



Source: USGS National Map Viewer & C&C of Honolulu Website

Figure 1
Vicinity Map
East Kapolei Fire Station





Source: City & County Web Site, <ftp://gisftp.hicentral.com/Taxmaps/>

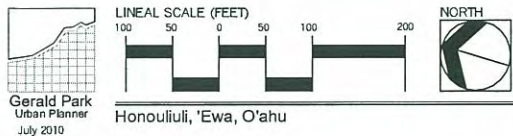
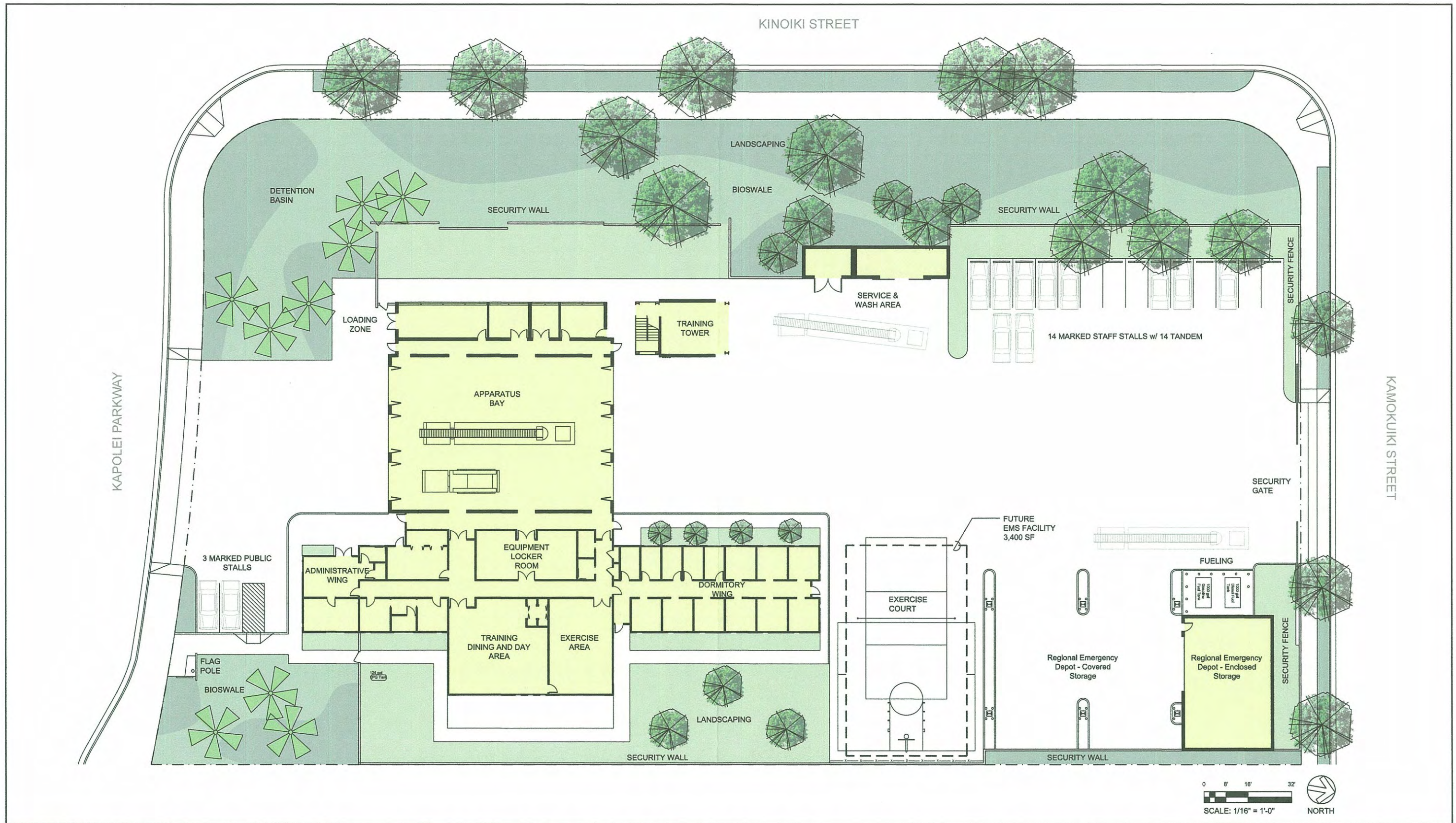


Figure 2
Tax Map
East Kapolei Fire Station

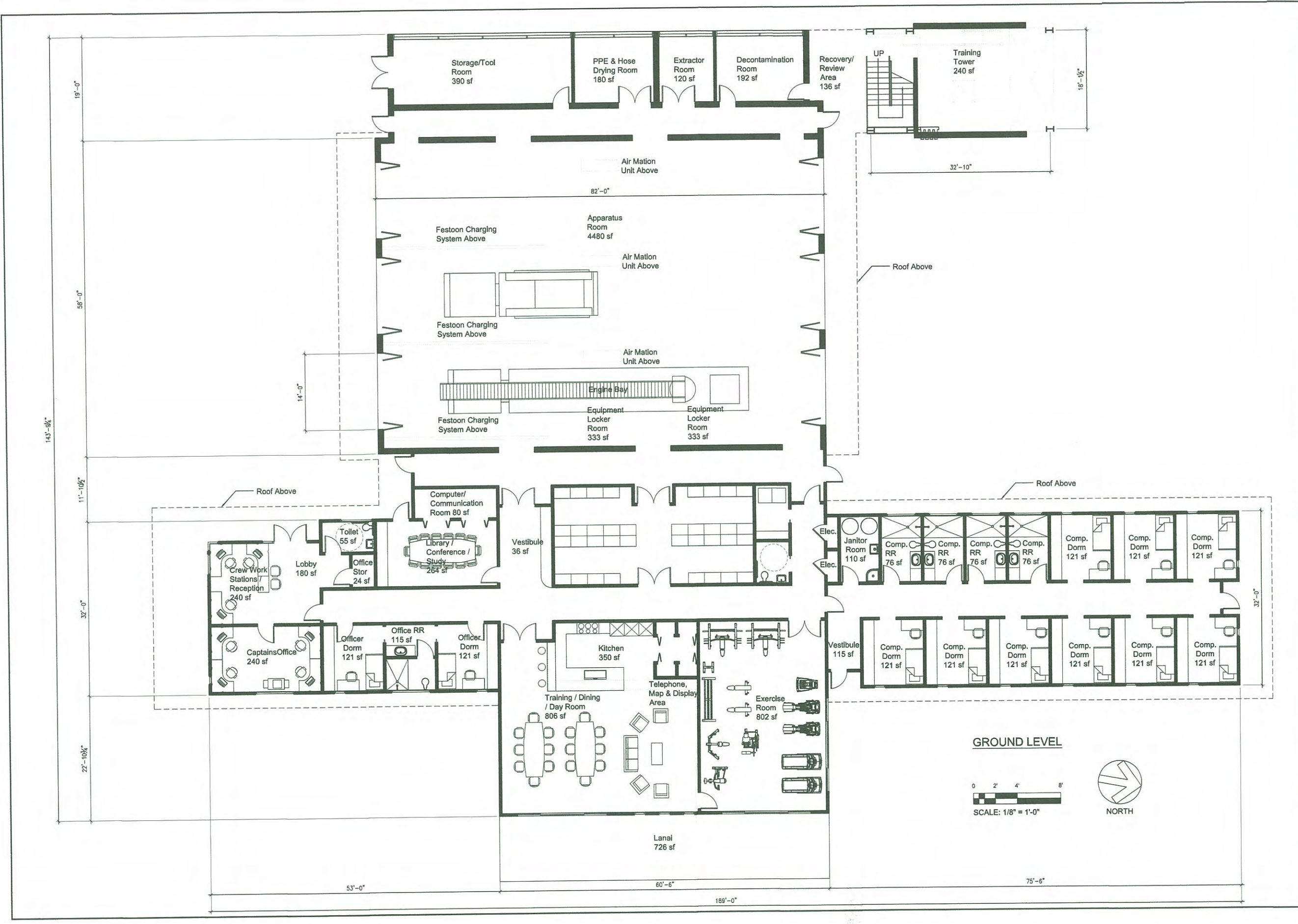


EAST KAPOLEI FIRE STATION No. 43 for THE HONOLULU FIRE DEPARTMENT

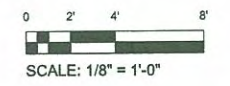


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DATE	REVISION



GROUND LEVEL



Project Title
EAST KAPOLEI FIRE STATION

Sheet Title
GROUND FLOOR PLAN

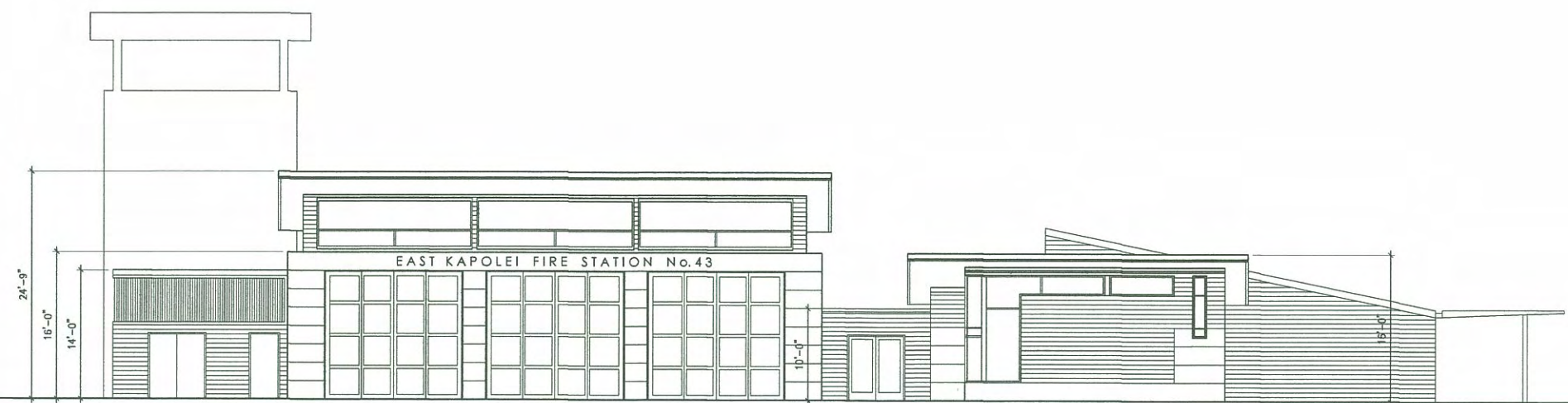
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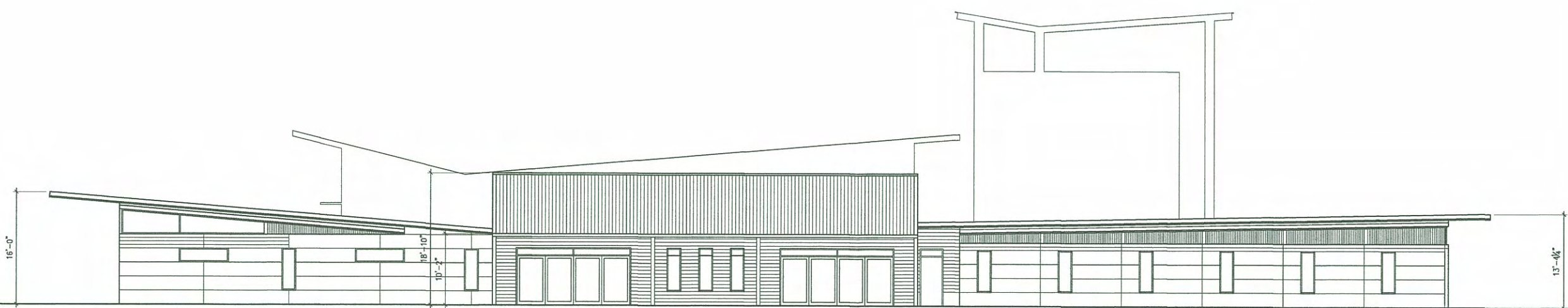
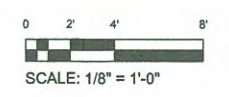
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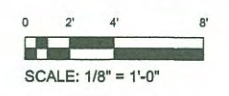
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SOUTH ELEVATION



EAST ELEVATION



DATE	REVISION

JOHN J. IGA
 LICENSED PROFESSIONAL ARCHITECT
 No. 5001
 HAWAII, U.S.A.
 EXPIRATION DATE: 04.30.10

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Project Title
EAST KAPOLEI FIRE STATION

Sheet Title
 EXTERIOR ELEVATIONS 1

File Name

Date 06.08.2010

Project Number 0904

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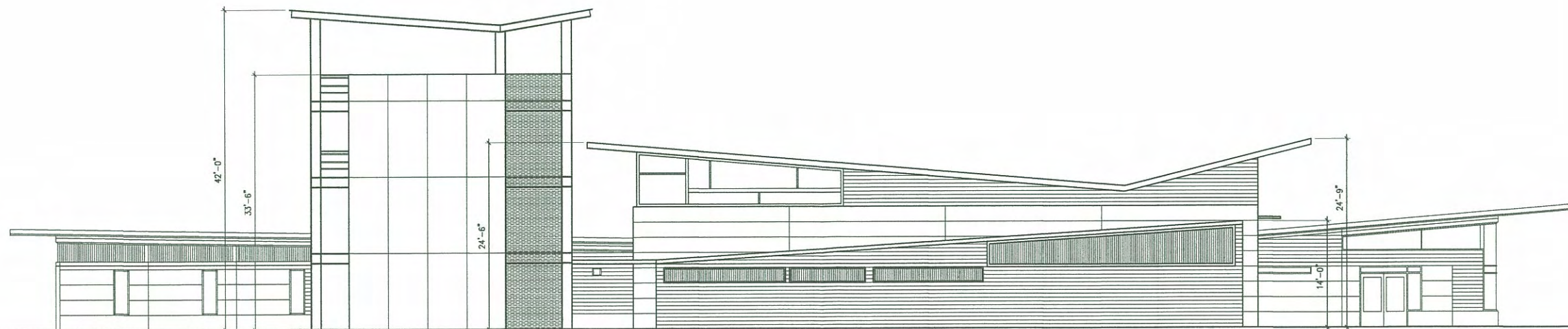
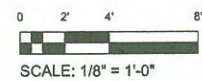
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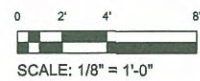
Consultant:



NORTH ELEVATION



WEST ELEVATION



DATE	REVISION



EXPIRATION DATE: 04.30.10

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Project Title

**EAST KAPOLEI
 FIRE STATION**

Sheet Title
 EXTERIOR
 ELEVATIONS 2

File Name

Date 06.08.2010

Project Number 0904

Drawn MH Checked JI

Sheet Number

Sheet ___ of # Sheets

SECTION 2 DESCRIPTION OF THE AFFECTED ENVIRONMENT

Two previous environmental documents described proposed actions in East Kapolei. The Final Environmental Impact Statement East Kapolei Master Plan (PBR Hawaii, 1998) prepared for the former Housing and Community Development Corporation of Hawaii discussed environmental conditions and potential impacts for the development of a 1,300 acre area to the east of the city of Kapolei. A second environmental document, DHHL East Kapolei Development Parcel B Final Environmental Assessment (PBR Hawaii, 2005) prepared for the Department of Hawaiian Home Lands disclosed existing environmental conditions and potential impacts resulting from the development of a 92.1 acre parcel identified as Parcel B. Parcel B is located in the Department of Hawaiian Home Lands residential development known as East Kapolei I. Although the initial plan for Parcel B proposed a park rather a fire station on the subject site, the Department of Hawaiian Home Lands determined through its planning process that the East Kapolei development would be better served if a fire station was constructed on the park site.

Some information from the 2005 final environmental assessment is still valid for this environmental assessment because it documented pre-development site conditions. Materials excerpted from the final environmental assessment is referenced in this document and supplemented with information on current conditions.

The East Kapolei Fire Station is proposed at the intersection of Kapolei Parkway and Kinoiki Street. The property shares a common boundary with a vacant lot on the east which is proposed for commercial use. At the rear of the lot, Kamokuiki Street separates it from residential lots to the north. Kinoiki Street separates the site from Hale Kalaniana'ole the home of the Department of Hawaiian Home Lands on the west.

Views of the site and surrounding areas are shown in the Site Photographs.

The rectangular shaped lot fronts approximately 210 lineal feet on Kapolei Parkway, 300 lineal feet on Kinoiki Street, and 210 lineal feet on Kamokuiki Street. The common boundary with the vacant lot is approximately 300 lineal feet.

The lot has been filled and graded with an east to west gradient. The lot falls from a high elevation of 60 feet mean sea level near the northeast corner to 57 feet near the southwest corner (Community Planning, 2006). Ground slope over this gradient is estimated at 1%. No unusual topographical features are present.

The Soil Conservation Service (1972) identifies a single soil type (Mamala stony silty clay loam) for the site. Because the lot has been grubbed, graded, and probably filled, this soil is probably present in scattered areas on the lot.

There are no streams, ponds, or wetlands on the premises.

The Flood Insurance Rate Map for the area shown in Figure 7 designates the site Flood Zone X which is defined as "areas in which flood hazards are undetermined but possible" (Federal Emergency Management Agency, 2004).



Photograph 1.



Photograph 2.



Photograph 3.



Photograph 4.



Photograph 5.



Photograph 6.

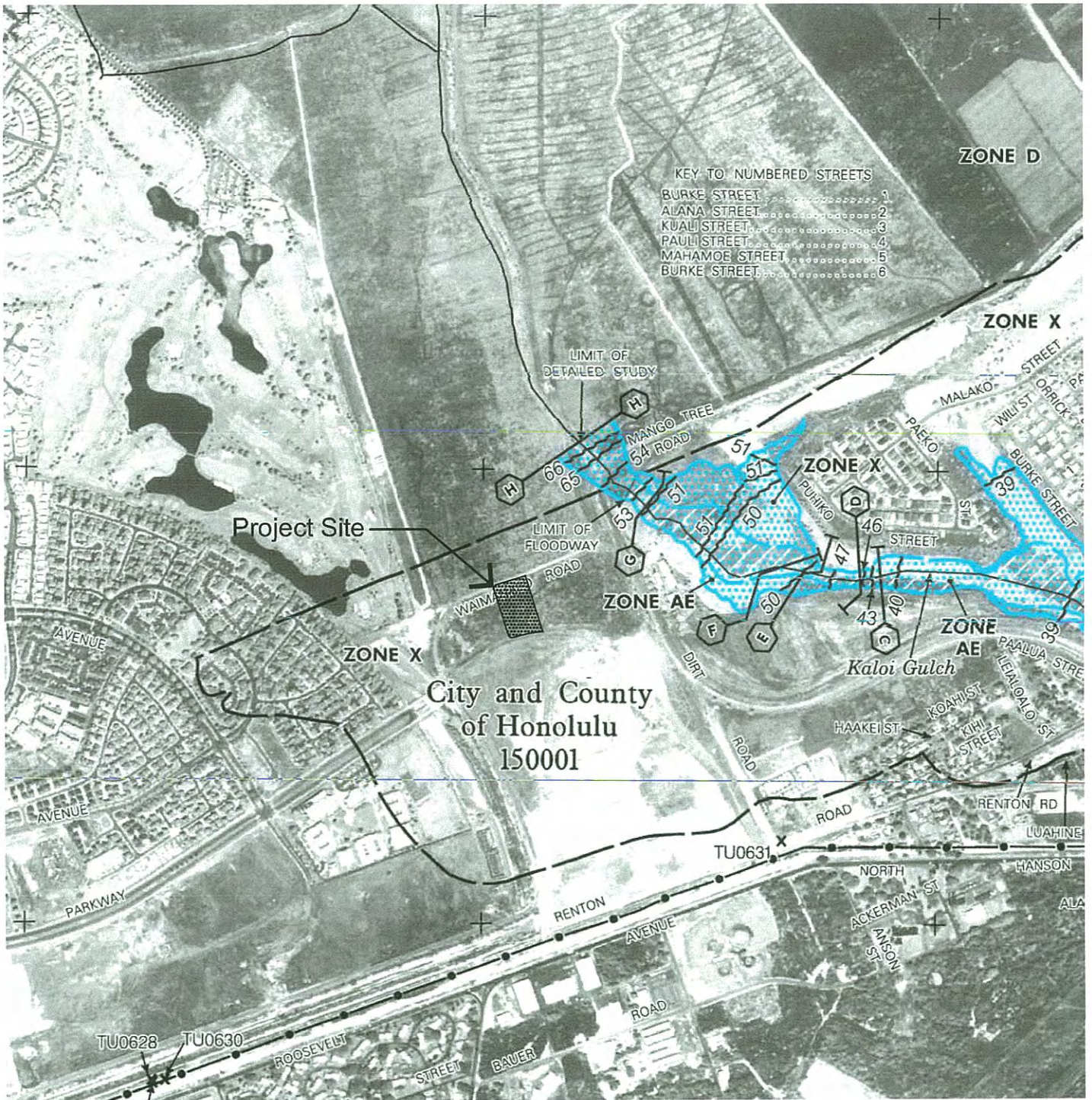
Photographs: Gerald Park



Aerial: USGS National Map Viewer








Photo Key Map

- Photograph 1. East Kapolei Fire Station Site Looking North from Kapolei Parkway.
- Photograph 2. East Kapolei Fire Station Site Looking East from Kinoiki Street.
- Photograph 3. Kapolei Parkway Looking West.
- Photograph 4. Break in Kapolei Parkway Median for Left Turn Movements.
- Photograph 5. Driveway at Rear of Site on Kamokuiki Street.
- Photograph 6. Department of Hawaiian Home Lands Office Building on Kinoiki Street.



KEY TO NUMBERED STREETS
 BURKE STREET 1
 ALANA STREET 2
 KUALI STREET 3
 PAULI STREET 4
 MAHAMOE STREET 5
 BURKE STREET 6

Legend

-  Special Flood Hazard Zone Subject to Inundated by the 1% Annual Chance Flood
-  Zone A No Base Flood Elevation Determined.
-  Zone AE Base Flood Elevation Determined.
-  Zone VE Coastal Flood Zone with Velocity Hazard (Wave Action); Base Flood Elevations Determined.
-  Zone X Areas of 0.2% Annual Chance Flood with Average Depths of Less than 1 foot or with Drainage Areas less than 1 Square Mile.
-  Zone X Areas Determined to be Outside the 0.2% Annual Chance Floodplain.
-  Zone D Areas in which flood hazards are undetermined.

Source: City & County of Honolulu Website



Gerald Park
 Urban Planner
 July 2010

Honouliuli, Ewa, O'ahu

Figure 7
 Flood Insurance Rate Map
 East Kapolei Fire Station

The vacant lot is sparsely vegetated. Grass is planted for erosion control and wayside weeds are prevalent. Tulipwood trees and Bermuda grass grow in the planting strip along Kinoiki Street. Trees and groundcover have not been installed in the planting strip along Kamokuiki Street.

It should be noted that although *ko'oloa'ula*, a federally listed endangered plant species, was found at several locations in East Kapolei and on Parcel B, it does not grow on the site of the proposed East Kapolei Fire Station.

Surface archaeological features were not observed on the property. Given its previous use for sugarcane cultivation, land altering activities in conjunction with development of East Kapolei I, and in the absence of archaeological features and vegetation, it is unlikely that there are on-going cultural practices associated with the property.

A Phase I Environmental Site Assessment of East Kapolei Parcel B was conducted as part of the environmental assessment for Parcel B (Environet, 2004) to identify "recognized environmental conditions" that may exist on the property. The assessment revealed no evidence of environmental concerns on the property or adjacent properties that are anticipated to adversely affect Parcel B. As such, no potential impacts from hazardous industrial operations are anticipated and no mitigation measures are proposed (PBR, 2005).

Land Use Controls for the property are summarized below:

State Land Use	Urban
General Plan	Urban Fringe
Ewa Development Plan	High Density Residential and Transit Node
Zoning:	AG-1 Restricted Agricultural
Special Management Area	Outside Special Management Area
Special District	None

The Ewa Public Infrastructure Map ("PIM") does not include a fire station symbol on the site. A request was made by HFD to the Department of Planning and Permitting ("DPP") on the need for a PIM symbol for the East Kapolei Fire Station. The DPP determined that the existing PIM symbol for the Tenny Village Fire Station was close enough to the East Kapolei site and would suffice as the required PIM symbol for the Fire Station.

At the time of the field survey, land to the north, east, and south were vacant. To the north, subdivision streets and infrastructure are in place and graded house pads ready for residential construction as part of the East Kapolei I development. The lot to the east is vacant and proposed for commercial use. Across Kapolei Parkway, Debartolo Hawai'i LLC will be constructing a regional shopping center called "Ka Makana Ali'i."

Kapolei Parkway is the main thoroughfare connecting the city of Kapolei on the west and 'Ewa Villages on the east. The road is fully improved with two traffic lanes in each direction, a landscaped center median, curbs, gutters, sidewalks, and planting strips within its 120-foot right-of-way. An angled curb cut in the center median allows the fire apparatus to make left turn movements (eastbound direction) directly from the Station's driveway when responding to calls. The posted speed limit is 30 miles per hour. On-street parking on both sides of the road in the vicinity of the proposed Station is not permitted.

Kinoiki Street, a four-lane, two-way street within an 80-foot right-of-way, connects residential development in East Kapolei I with Kapolei Parkway. The street is fully improved with curbs, gutters, sidewalks, and planting strips. The posted speed limit is 25 miles per hour. On-street parking is not permitted.

Kamokuiki Street, a two-lane, two-way street borders the fire station on the north. The 40-foot right-of-way is fully improved with curbs, gutters, sidewalks, and planting strips.

Kualaka'i Parkway, formerly called North South Road, is located approximately 0.5 miles to the east of the Station. The 2.2 mile long roadway opened for public use in February 2010. The 4 lane, divided highway connects the H-1 Freeway on the north with Kapolei Parkway on the south. Farrington Highway crosses Kualaka'i Parkway in an east-west direction about mid-way between the H-1 Freeway and Kapolei Parkway.

Water (12" main), recycled water (16" main), wastewater (12" main), and drainage systems are located within the Kapolei Parkway right-of-way. In addition, a 12" water line and 10" sewer line are within Kinoiki Street.

Electrical, CATV, and communication systems are placed underground on all adjoining streets.

There are no schools, parks, and other public facilities in the immediate vicinity of the site. The University of Hawai'i West O'ahu Campus is proposed about 1.2 miles due north and a middle school is proposed about 1.0 miles to the northeast on East-West Road in the East Kapolei II development.

SECTION 3 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

A. Assessment Process

The scope of the project was discussed with staff of the Department of Design and Construction, Honolulu Fire Department administrators, and the architect. State and County agencies were contacted for information relative to their areas of expertise. Time was spent in the field noting site conditions and conditions in the vicinity of the subject property. The discussions and field investigations helped to identify existing conditions and features that could affect or be affected by the proposed action. These conditions are:

- The East Kapolei Fire Station will be constructed on a 2.2 acre site;
- The site has been graded relatively flat and is without significant topographical features;
- There are no rare or endangered flora and fauna on the premises;
- There are no archaeological features on the premises;
- There are no known traditional cultural practices associated with the site;
- There are no lakes, streams, or wetlands on or in the vicinity of the property;
- There are no hazardous materials associated with the site;
- The site is not located in a flood hazard area; and
- Public utilities are available and adequate to service the proposed use.

B. Short-term Impacts

The vacant site is fairly level and minimal site work will be required to achieve design elevations. Site work should take about one month and will raise fugitive dust, create noise, and increase traffic on adjoining streets as grubbed and graded material are hauled away for disposal. Similar impacts are already being experienced in the East Kapolei area as land is prepared for residential and commercial development. Estimates of grading quantities are not available at this time.

Fugitive dust can and will be controlled by sprinkling water over exposed areas or by the application of other dust suppression measures stipulated in Chapter 60 (Air Pollution Control) of Title 11, Administrative Rules of the State Department of Health. Wood fencing or dust screens may be erected along the property boundaries to aid in dust control. The Contractor also will be responsible for implementing best management practices to minimize runoff and erosion during construction.

Construction noise will persist over the projected 18-month construction period. Noise will be most pronounced during site work, the early stages of building construction (foundation and concrete work), and erection of the structure. Noise will diminish when the building shell is completed and interior work commences. Interior noise will be confined to the inside of the building shell.

The Department of Hawaiian Home Lands office building is located across Kinoaiki Street from the site. The building is air conditioned and windows are usually closed. The closed windows will help to attenuate construction noise and keep fugitive dust from entering the building.

Allowable daytime noise levels for residential zoning districts set by the State Department of Health is 55 dBA measured at the property line. Construction noise will temporarily exceed this standard and, per Administrative Rules (Chapter 43) of the Department of Health, the contractor may obtain a noise permit prior to construction. Construction will be limited to between the hours of 7:00 a.m. to 3:30 p.m., Mondays through Fridays.

Should subsurface archaeological deposits be unearthed, work in the immediate area will cease and the appropriate historic authorities and the Honolulu Police Department notified for proper disposition of the finds.

The movement of workers and material to and from the building site will contribute to traffic on adjoining streets. Material deliveries will be scheduled during non-peak traffic hours.

Traffic movement on Kapolei Parkway may be temporarily rerouted when connections to the potable water, sanitary sewer, storm drainage, non-potable water, and utility systems are being made. Warning signs will be posted to alert motorists of road work and flagmen stationed to marshal traffic around work sites. Work in the right-of-way will be scheduled for non-peak traffic hours and one or more travel lane will be kept open at all times. The excavated area will be covered with traffic plates at the end of each working day and will be restored to preconstruction conditions when work in the right-of-way is completed. This phase of the work is estimated at less than one month. If required, a traffic control plan will be submitted to the Department of Planning and Permitting for review and approval.

C. Long-term Impacts

The proposed action is part of a long-range City and County of Honolulu and Fire Department program to construct new and upgrade existing fire facilities throughout the City and County of Honolulu. The program is consistent with the general plan public safety objective "to protect the people of Oahu and their property against natural disaster and other emergencies, traffic and fire hazards, and unsafe conditions".

Upon completion, fire protection service will be provided to residential and commercial developments proposed in East Kapolei I and II. The service area will also extend west to Fort Barrette Road in Downtown Kapolei, east to the western half of Ewa Villages, south to the central portion of Kalaeloa, and north to Makakilo Quarry.

The Fire Station is not located in a flood hazard zone. It is an HFD policy to not site fire stations in flood hazard zones.

The Station is easily accessible to Kapolei Parkway and the apparatus can enter onto Kapolei Parkway in the eastbound direction through a break in the traffic median.

Typical, on-going daily activities at a fire station are not noise generators. Firefighters will maintain the landscaping around the station and engage in physical fitness activities on the premises. Noises from these activities are no different from similar sounds heard in any suburban residential neighborhood. Acoustical buffers in the form of streets, walls, and

open space physically separate the station from adjoining residential and proposed commercial uses and will help to attenuate noise. The exception to this of course is when firefighters respond to a fire alarm.

The emergency generator will be tested once a week to ensure it is in proper operating condition. The generator will be started up and allowed to run for approximately one hour to reach operating temperature. Standard Fire Department procedure is to test the emergency generator between the hours of 8:00 to 9:00 AM. The generator room is located on the west side of the station facing Kinoiki Street. Stationary generators powered by an internal combustion engine used during construction emit noise in the range of 70 to 80 dBA. The emergency generator is expected to generate noise in a lower range. The generator room will be acoustically treated to help contain noise to the inside of the room but ventilation grates built into the exterior wall will allow noise to escape. Generator noise may be audible in the Department of Hawaiian Home Lands office building across Kinoiki Street. The distance between the generator room and the office building coupled with landscape plantings fronting both structures will aid in noise attenuation.

The Fire Station site is located in a State land use urban district. The site is designated High Density Residential and Transit Node on the 'Ewa Development Plan. The Department of Planning and Permitting has informed the Honolulu Fire Department that a fire station symbol on the Ewa Development Plan PIM for Ewa Villages is applicable for the East Kapolei Fire Station. Placement on the PIM also means construction funds can be requested for the improvement.

Public uses and structures such as a fire station are a principal permitted use in the AG-1 zoning district. Although the proposed use is permitted by zoning, a waiver to the building height requirement for the agriculture zoning district will be sought. A 30-foot high building is needed to provide interior clear height for the apparatus. In addition, a 42-foot high training tower will allow on-site training for the firefighters. The tower is an accessory but important use associated with the principal use and HFD fire suppression training activities. A Waiver application for height encroachments will be submitted to the Department of Planning and Permitting, City and County of Honolulu, for their review and approval.

Located near the center of the East Kapolei I and II planned residential community, the location of the Station provides ready access in east and west directions on Kapolei Parkway, the East Kapolei I subdivision on Kinoiki Street, and West O'ahu Campus and East Kapolei II via Kaulakai Parkway.

Landscaping on the sides facing public rights-of-way will add greenery to a highly visible corner lot. A conceptual rendering of the completed station is shown in Figure 7.

Water consumption and wastewater discharge is estimated at 800 gallons per day (10 men X 80/gallons/day). Water consumption and discharge will increase at certain times (or days) when other fire companies are on-site for training.

Non-potable water is available and landscaped areas will be irrigated using recycled water. Non-potable water sources include an existing R-1 recycled water main in Kapolei Parkway. R-1 Water is water reclaimed from wastewater. The State Department of Health has determined that R-1 Water is suitable for, from a public health standpoint, any form of irrigation served by fixed irrigation system supplied from buried piping for turf and landscape

irrigation. Many public parks in the Ewa region use R-1 Water for irrigation. R-1 Water is also applied to landscaping in the Fort Weaver Road median and shoulders.

Per DOH Guidelines (2002) for all uses of recycled water, the following precautions shall be followed:

- Signs shall be posted where recycled water is used.
- Conditions conducive to the proliferation of mosquitoes and other vectors shall be avoided.
- Best Management Practices shall be taken to prevent ponding of recycled water.
- Best Management Practices shall be used to mitigate discharge, runoff, or overspray beyond the approved use area boundaries.
- Spray of recycled water shall not be allowed to contact an external drinking water fountain.]

Measures will be implemented to minimize introducing any hazardous substances or fluids into the environment. The AST will be equipped with leak detection devices and periodically checked for signs of spillage. Wash water will be filtered through an oil water separator to remove harmful fluids and substances prior to discharge into the sewer system. Oil and other petrochemicals will be hauled away to a landfill for appropriate disposal.

Fire protection is not free. The annual cost to operate the East Kapolei Beach Fire Station is estimated at \$343,000.00 exclusive of the initial investment in equipment, building costs, and salaries. Annual operating costs are unavoidable and are expected to increase in the future. Sustainable design features are anticipated to help reduce energy costs in the long-term.

Firefighters are not assigned a police function or responsible for neighborhood security. Nonetheless their presence around the clock may deter potential criminal acts against persons and property in the neighborhood.

Joint training exercises involving several fire companies will introduce an ancillary fire department use to the area. Tactical training is beneficial for all firefighters and for coordinating fire suppression activities between fire companies responding to real situations. Because this activity is new to East Kapolei, it is imperative that residents living nearby, passing motorists, and workers at the Department of Hawaiian Home Lands office building be made aware of joint training activities. It is recommended that the HFD commence an outreach program informing residents of the joint training exercises. This should be supplemented with the posting of signs in the immediate area notifying passersby of the dates and times of the training exercises, distributing flyers, or posting training notices on the HFD website. It is anticipated having some 20+ firefighters and several fire apparatus on the site or parked on the street will attract people curious to view training. Off-duty police officers should be hired for traffic and pedestrian control if needed.

The proposed 4-story training tower will be the most visible structure on the lot. It is slightly taller than hose-drying towers found at other fire stations in Honolulu. The tower will just slightly taller than the two-story Hale Kalaniana'ole office building across Kinoiki Street because of grade differences (the Fire Station is at a lower grade than the office building). In the absence of definitive plans, it cannot be determined if planned commercial developments adjoining the Fire Station and across Kapolei Parkway would be of similar

height. Because of the relatively flat Ewa coastal plain, the tower will be visible from distant areas functioning as a local landmark and helping to identify the site of the fire station.

Exterior wall and roof colors of all structures will blend with the colors of commercial buildings and residential dwellings nearby.



EAST KAPOLEI FIRE STATION No. 43 for THE HONOLULU FIRE DEPARTMENT



SECTION 4 ALTERNATIVES TO THE PROPOSED ACTION

A. No Action

A no action alternative would maintain the status quo of the site and preclude the occurrence of all impacts, short and long-term, beneficial and adverse described in this Assessment. A No Action alternative would not achieve the public purpose objectives for the project.

B. Alternative Design

Design alternatives developed by the consulting architect were evaluated and revised to arrive at the station design and floor plan as depicted. In the consideration of the standards and guidelines influencing the layout and architectural design of the Station, an alternative design would not have resulted in environmental impacts significantly different from the short and long-term impacts disclosed in this Assessment.

C. Alternative Location

A site on or near the Ewa Villages Golf Course and Kualaka'i Parkway to the west of the project site was identified as an alternate location for a new fire station and a fire station symbol was placed on the Ewa Public Infrastructure Map denoting its general location. This site was subsequently dropped from consideration with the opportunity for having a site closer to the center of East Kapolei at a location with infrastructure installed and direct access to major roadways in the area.

The relocation of the 'Ewa Beach Fire Station from its current location further north to the Ocean Pointe Subdivision allowed HFD to adjust the response areas for stations without compromising fire protection. Fire protection for Ewa Villages will be provided from the East Kapolei Fire Station and the 'Ewa Beach Fire Station.

SECTION 5
AGENCIES AND ORGANIZATIONS
TO BE CONSULTED

County

- Board of Water Supply
- Department of Environmental Services
- Department of Planning and Permitting
- Department of Transportation Services
- Honolulu Police Department

State

- Department of Hawaiian Home Lands
- Department of Health
 - Environmental Planning Office
- Department of Land and Natural Resources
 - State Historic Preservation Division
- Department of Transportation
 - Highway Division
- Office of Hawaiian Affairs
- West Oahu College

Other

- Hawaiian Electric Company
- Hawaiian Telcom
- Ewa Neighborhood Board
- Makakilo/Kapolei/Honokai Hale Neighborhood Board
- Kapolei Community Development Corporation
- Ewa Beach Public Library
- Kapolei Public Library (Placement)

SECTION 6 PERMITS AND APPROVALS

City and County of Honolulu

Department of Planning and Permitting

Waiver (Height Requirement Standard)
Grubbing, Grading, and Stockpiling
Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work
Sewer Connection

Board of Water Supply

Water and Water System Requirements for Developments

State of Hawaii

Department of Health

Variance from Pollution Controls (Noise Permit)
NPDES General Permits
Approval to Construct/Approval to Operate Water Reuse Project

SECTION 7 DETERMINATION OF SIGNIFICANCE

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (11-200-12). The relationship of the proposed project to these criteria is discussed below.

1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

There are no known natural and cultural resources found on or associated with the property.

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

The project does not curtail the beneficial uses of the environment. The subject property is vacant, undeveloped, and was set aside for a fire station by the Department of Hawaiian Home Lands in consultation with the Honolulu Fire Department.

3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State

The project will not substantially affect the economic or social welfare of the community or State. The proposed action will provide and expand fire protection services to existing and planned residential communities and commercial activities on the 'Ewa coastal plain. With existing fire stations at Kapolei, Makakilo, a replacement station in the Ocean Pointe Subdivision for the Ewa Beach Fire Station, and the East Kapolei Fire Station, residents and businesses in the region can be assured that emergency response resources will maintain adequate levels of service to the area.

The absence of archaeological resources and historic features in conjunction with the improved condition of the site indicates that there are no cultural practices associated with the property.

5) Substantially affects public health;

Public health will not be adversely affected by the proposed project. Short term impacts such as fugitive dust and construction noise are anticipated but can be mitigated by measures described in this assessment.

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

Substantial adverse secondary impacts are not anticipated.

7) Involves a substantial degradation of environmental quality;

Environmental quality will not be degraded as the area around the Fire Station is already improved with roads, sidewalks, utilities, the Department of Hawaiian Home Lands office building, and subdivided residential lots. Major on and off-site work activities have been completed and site work for and construction of the Fire Station will improve rather than degrade site conditions.

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

The project is not the precursor for a larger action. It is, however, part of an on-going capital improvement program to build new fire stations where needed and to upgrade or reconstruct older fire stations throughout the City and County of Honolulu.

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

Rare, threatened or endangered flora and fauna are not found on the premises.

10) Detrimentially affects air or water quality or ambient noise levels; or

Ambient air quality will be affected by fugitive dust and combustion emissions but can be controlled by measures stipulated in this Assessment. Construction noise will be audible during site preparation work but should diminish once the building is erected. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health.

The emergency generator will be tested once a week between the hours of 8:00 to 9:00 AM. Generator noise may be audible in areas around Kinoiki Street. Acoustical treatment of the generator room and the distance from the source of the noise to receptor locations will help to attenuate noise.

11) Affects an environmentally sensitive area such as a flood plain, tsunami zone, erosion prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The proposed East Kapolei Fire Station is not located in an environmentally sensitive area.

12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or

Scenic vistas and view planes will not be affected by the low-rise building and associated improvements.

13) Requires substantial energy consumption.

The new Fire Station will be designed as a sustainable building to attain LEED silver certification. Some sustainable features to reduce energy consumption include the use of solar water heating, photo voltaic panels for generating electricity,

REFERENCES

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