

DRAFT ENVIRONMENTAL ASSESSMENT

EWA BEACH FIRE STATION REPLACEMENT

Portion Honouliuli, District of Ewa, City and County of Honolulu, Hawaii

Prepared For

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

November 2008

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

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Prepared By

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November 2008

PROJECT PROFILE

Project: Ewa Beach Fire Station Replacement

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

Accepting Authority: Department of Design and Construction
City and County of Honolulu

Location: Portion Honouliuli, Ewa District
City and County of Honolulu
State of Hawaii

Tax Map Key: 9-1-012: 085
Land Area: 1.011 acres
Landowner: City and County of Honolulu

State Land Use Designation: Urban
General Plan: Urban Fringe
Development Plan Area: Ewa
DP Urban Land Use Map: Park and Golf Course
Public Infrastructure Map: Fire Station Symbol Placed on PIM
Zoning: R-5 Residential
Special Management Area: Outside Special Management Area
Existing Use: Vacant

Need for Environmental Assessment: Section 11-200-6 (b)(1)(A) and (b)(2)(B)
Use of county lands and funds

Anticipated Determination: Finding of No Significant Impact

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The Department of Design and Construction, City and County of Honolulu, proposes to replace the existing Ewa Beach Fire Station with a new station to be constructed in the residential subdivision of Ocean Pointe, Portion of Honouliuli, District of Ewa, Oahu, Hawaii. Located on the northeast corner of Keone'ula Boulevard and Kaileole'a Drive, the fire station site is bounded by Kaimele Place and Keone'ula Elementary School on the north, Keone'ula Boulevard on the south, Seagull School on the east, and Kaileole'a Drive on the west. The property bears Tax Map Key 9-1-012: 085 with an area of 1.011 acres. A Location Map, Vicinity Map, and Tax Map are shown in Figures 1, 2, and 3.

A. Need for the Project

The existing Ewa Beach Fire Station is located on Pohakupuna Road in Ewa Beach about one mile to the south of the proposed station. Constructed in the 1950s, it has and continues to be manned by a single fire company---Engine 24. Urban growth is transforming the 'Ewa Plain into a vast suburban region. Construction of new residential communities such as 'Ewa by Gentry and Ocean Point are infilling the region between Ewa Beach and Iroquois Point on the south and West Loch and Ewa Villages on the north. This trend is also evident further to the north with the planned Ho'opili Subdivision, East Kapolei I and II, and the University of Hawaii West Oahu Campus filling in former agricultural land between Kapolei and Waipahu.

There is need to provide fire protection in developing areas and existing communities. In the case of the Ewa Beach Fire Station, urban growth is taking place to the north of its present location and tactically a new fire station located near the middle of the region would allow response to calls to almost any point in the service area with the shortest amount of time.

B. Technical Characteristics

The proposed Ewa Beach Fire Station will be the prototype for new fire stations to be designed and built in the City and County of Honolulu. The architect of record in collaboration with the Department of Design and Construction and Honolulu Fire Department are designing the station to comply with the latest International Building Code, Land Use Ordinance, Americans with Disabilities Act Accessibility Guidelines ("ADAAG"), Uniform Fire Code, National Fire Protection Association, and the Occupational Safety and Health Administration ("OSHA") standards and regulations. The building also will be designed as a sustainable building to meet Leadership in Energy and Energy Design ("LEED") silver certification standards.

The proposed Ewa Beach Fire Station (hereafter Fire Station or Station) is designed and sited to fit the rectangular-shaped lot without encroaching into required yards. The one-story structure is approximately 30 feet in height (at its highest point) with a gross floor area of approximately 12,000 square feet. The building will exceed the allowable building height for the zoning district and a waiver will be requested.

The Ewa Beach Fire Station like all other fire stations is comprised of several functional areas. The Apparatus Facility houses the fire apparatus and is centrally located to ensure

that personnel can easily reach the apparatus from any point in the Station. This facility includes space for equipment lockers for the apparatus, tools, hose drying, a decontamination room, apparatus wash area, laundry, and emergency generator room.

Other functional areas are arranged around or on either side of the Apparatus Facility. Personnel Facilities include quarters and bathroom/shower for the captains, firefighter dormitory and bathroom/shower. Core Facilities include the kitchen, radio/computer room, electrical/mechanical/heater room, library/conference/study room, and a training/dining/day room. Tactical Training and Physical Training Facilities include an exercise room, rehydration/supply room, toilet room, and training tower. A captain's office, office supply room, crew work station, lobby, and public restroom make up the Administration and Public Service Facility. A Preliminary Floor Plan is shown in Figure 4.

The structure will be erected on a reinforced concrete foundation, framed with cement masonry unit (cmu) walls, steel framing, and topped with a tile roof. Exterior cmu walls will be covered with a "light colored stucco finish". The "light colored stucco" finish and roof are prescribed by the Ocean Pointe Community Facilities Design Guidelines. A preliminary Site Plan is shown in Figure 4.

Personnel

Three fire captains and twelve firefighters will be posted to the station. One captain and four firefighters will be assigned to each 24-hour watch for a total complement of five men on duty at all times. Their primary equipment will be one fire apparatus. The apparatus room is sized to accommodate a second apparatus or ladder truck if such vehicles are assigned to the Station.

The Site Plan/Floor Plan makes provisions for the addition of a second company in the future which could be a fire company or a ladder company. The principal additions to the Site Plan would be a captain/officers quarters and dormitory for fire fighters. Apparatus, tactical training, administrative, and site facilities will be shared.

There is no current plan to base an Emergency Medical Service (EMS) ambulance at the Station.

Access and Parking

Primary access will be onto Kaileiole'a Drive for the apparatus when responding to fire calls. The front of the Station will be set back approximately 60-feet from the property line to allow the closing of the apparatus room doors while the apparatus exits without encroaching into the sidewalk or right-of-way.

The apparatus will return to the Station via a 300-foot long paved driveway from Kaimele Place. Located within a 25-foot wide easement at the back of the property and over the adjoining lot, the driveway permits the apparatus to enter from the rear of the apparatus room without excessive maneuvering. The driveway will be wide enough to accommodate two-way traffic.

Ten uncovered tandem parking stalls for firefighter vehicles are located behind the Station and an additional ten unmarked tandem parking stalls provided on the exercise court for temporary use during shift changes. Two public parking stalls (one regular and one van

accessible (ADA) with side access aisle) are provided along the front driveway of the Station.

Infrastructure

Utility connections will be made to existing sewer, drainage, power, and communication systems in Kaileole'a Drive.

Permanent drainage structures such as underground piping are not planned. The site will be graded to allow surface runoff to flow in the direction of Kaileole'a Drive for discharge into the municipal system. Runoff also will be directed towards the landscape areas for collection and percolation into the ground.

Non-potable water will be used for irrigation. Non-potable R-1 Water will be drawn from an existing irrigation main in Kaileole'a Drive.

Landscaping

The front, side, and rear of the Station 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.

Other Improvements

The apparatus room will serve as a vehicle wash area. Floor 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 drainage system. The oil tank will be inspected regularly and oil and sludge removed for proper disposal.

A double-walled above ground storage tank (AST) with a 1,000 gallon capacity for diesel fuel will be placed at the rear of the station. 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 Honolulu Fire Department.

An above ground 124-gallon LPG tank will be located on the north side of the Station and screened from public view. LPG will be used for cooking meals.

A traffic beacon and siren will be placed at the intersection of Keone'ula Boulevard and Kaileole'a Drive to alert motorists of an impending response to a fire call. The fire apparatus driver also will be able to control the traffic signals at the intersection and at some intersections on Fort Weaver Road.

A solar water system and tankless water heater(s) will provide hot water.

Tentatively, the rear and sides of the station will be enclosed with 6'-0" white PVC fencing. Pole mounted exterior light fixtures will light the outside of the station. The poles will be less than 25-feet in height.

C. Economic Characteristics

The construction cost for the new station is estimated at \$5.9 million and will be funded by the City and County of Honolulu.

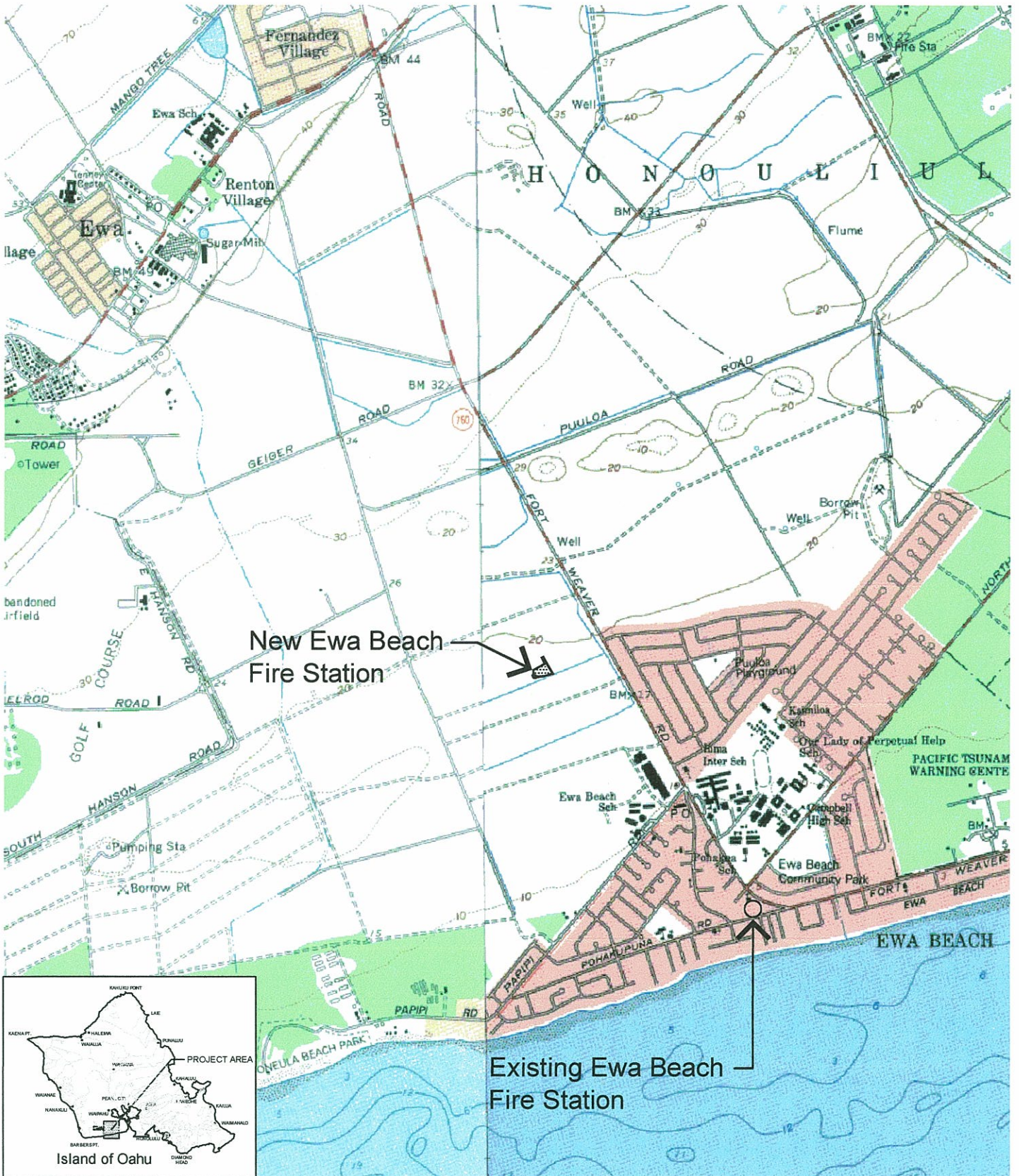
Construction will commence after a Building Permit is secured. The construction period is estimated at 18 months and will be carried out in one phase.

HASEKO, developers of Ocean Pointe, donated the 1.011 acre site to the City and County of Honolulu for the proposed use. The donation of land was a condition of a Unilateral Agreement with the City and County of Honolulu pursuant to a change of zone (Ordinance No. 93-94).

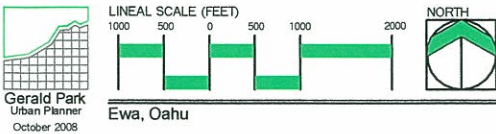
The non-exclusive perpetual easement (Easement 9288) is 25-feet wide, approximately 7,500 square feet in area, and for vehicle and pedestrian access. The easement was granted by HASEKO, owners of the adjoining lot.

D. Social Characteristics

The proposed action will not displace any resident or business establishment.



Source: USGS, Ewa & Honolulu Quadrangles



Gerald Park
Urban Planner
October 2008

Ewa, Oahu

Figure 1
Location Map
Ewa Beach Fire Station Replacement



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

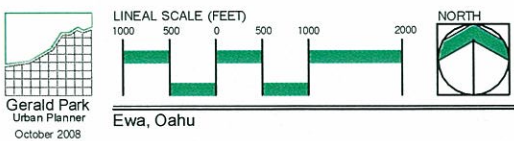
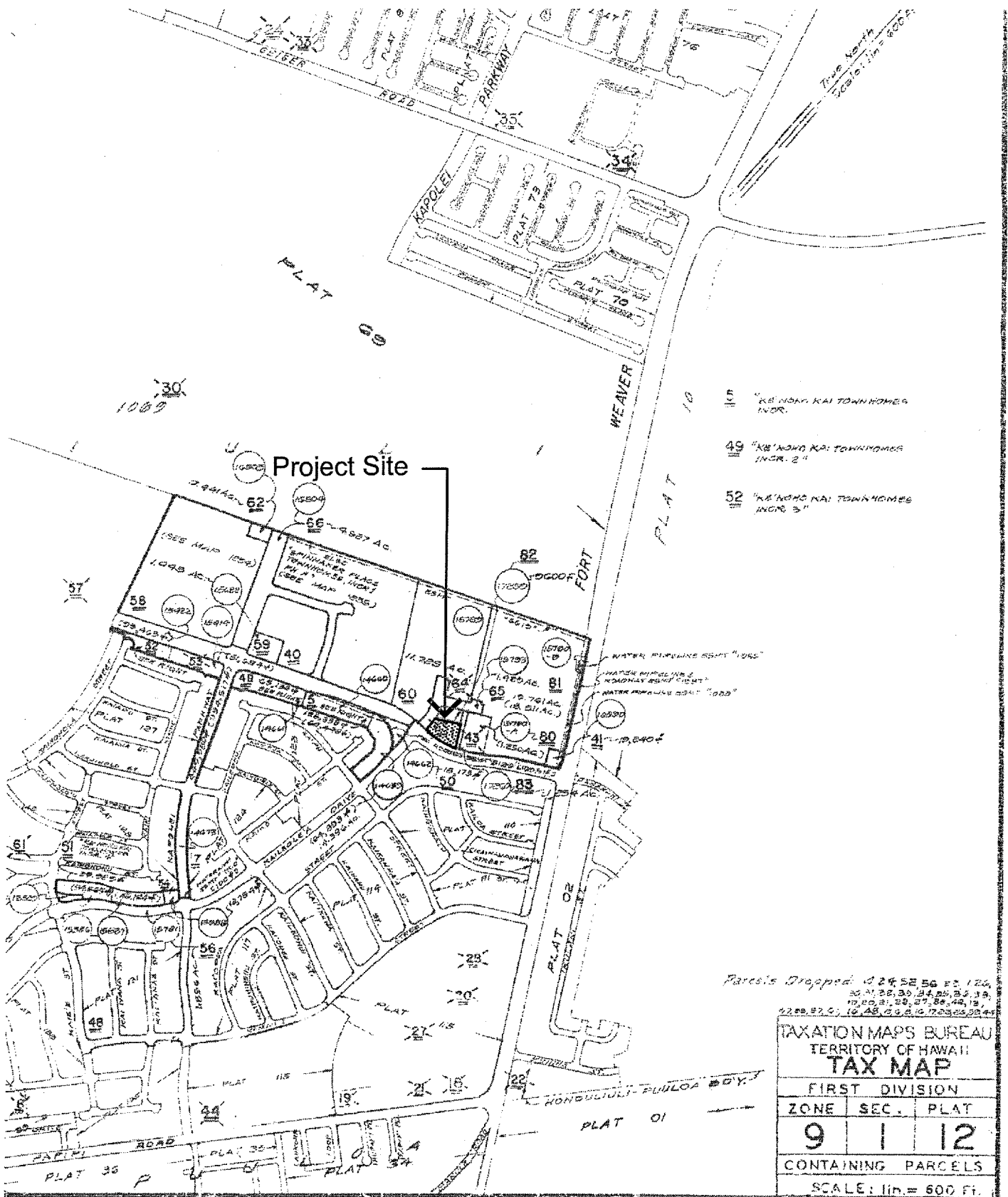


Figure 2
Vicinity Map
Ewa Beach Fire Station Replacement



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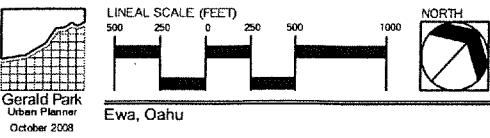
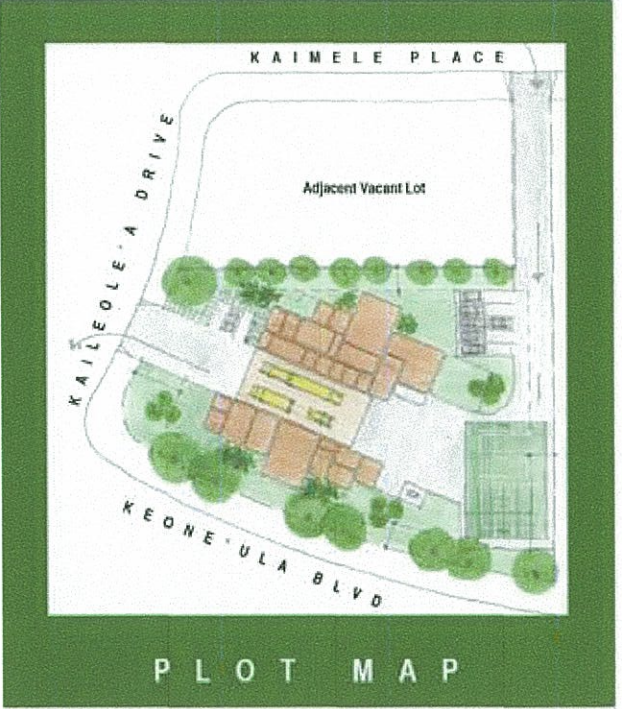
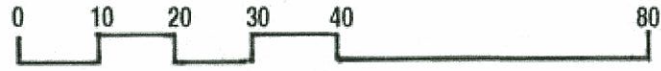


Figure 3
 Tax Map
 Ewa Beach Fire Station Replacement
 City & County of Honolulu



CONCEPTUAL SITE PLAN
EWA BEACH FIRE STATION REPLACEMENT

SECTION 2 DESCRIPTION OF THE AFFECTED ENVIRONMENT

The proposed Ewa Beach Fire Station is located on the *mauka* Diamond Head corner at the intersection of Keone'ula Boulevard and Kaileole'a Drive. The property shares a common boundary with a vacant lot on the north and with Seagull School on the east. Keone'ula Boulevard separates the lot from residential uses to the south and Kaileole'a Drive and Kaimela Place separate it from Keone'ula Elementary School on the west and north, respectively. Views of the site and surrounding areas are shown in the Site Photographs.

The rectangular shaped lot fronts approximately 300 lineal feet on Keone'ula Boulevard, 80 lineal feet on Kaileole'a Drive, and 207 lineal feet with the vacant lot to the north. The common boundary with Seagull School is approximately 300 lineal feet and bounded by a 4'-0" high decorative metal fence.

The lot has been filled and graded with an east to west gradient. The lot falls from a high elevation of 28 feet mean sea level at the eastern corner to 25 feet in the western corner. Ground slope over this gradient is estimated at 1%. There are no unusual topographical features present except that the lot is 2 to 3 feet higher than the adjoining sidewalk along Keone'ula Boulevard and Kaileole'a Drive.

It is not likely that the soil type (Mamala stony silty clay loam) depicted on the Soil Conservation Soil Map for the area is found on the surface of the site. The lot has been modified and filled. Crushed coral makes up about 50% of the surface soil, red cinders about 45%, and gravel about 5%.

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

The Flood Insurance Rate Map for the area shown in Figure 5 designates the site Flood Zone D which is defined as "areas in which flood hazards are undetermined but possible" (Federal Emergency Management Agency, 2004).

The vacant lot is sparsely vegetated by wayside weeds. Pink tecoma trees grow in the planting strip along Kaileole'a Drive; there is no planting strip fronting the site along Keone'ula Boulevard.

No archaeological features were observed on the premises. In the absence of archaeological features and given its previous use for sugarcane cultivation, it is unlikely that the site was used for traditional and on-going cultural practices. Native Hawaiian traditional and customary access and gathering rights have been identified and are known to be associated with the area planned for the Ocean Pointe marina located approximately about 1.75 miles to the south of the Fire Station (Oshima Chun Fong & Chung LLP, 2001).

Land Use Controls for the property are summarized below:

Sate Land Use	Urban
General Plan	Urban Fringe
Ewa Development Plan	Park and Golf Course
Public Infrastructure Map (PIM)	Fire Station Symbol Placed on PIM



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. View of Kaileole'a Drive from Keone'ula Boulevard. Curb cut is for the Fire Station.
- Photograph 2. Fire Station Site from Keone'ula Boulevard and Kaileole'a Drive.
- Photograph 3. Site Looking West.
- Photograph 4. Site Interface with Vacant Lot (Covered with Red Cinders).
- Photograph 5. View of Site with Fire Station Site in Background and Vacant Lot in Foreground.
- Photograph 6. Approximate Location of Driveway Easement on Boundary with Seagull School.

Zoning	R-5 Residential (See Figure 6)
Special Management Area	Outside Special Management Area
Special District	None

Keone'ula Boulevard is the main thoroughfare connecting Ocean Pointe with Fort Weaver Road to the west. The road is fully improved with two traffic lanes in each direction, a landscaped center median, curbs, gutters, sidewalks, and planting strips within its 80 foot right-of-way. The posted speed limit is 30 miles per hour. A four-way traffic signal controls traffic movement at its intersection with Kaileole'a Drive. On-street parking is not permitted.

The paved concrete sidewalk on the Kapolei side of Keoneula Boulevard appears to be a multi-use path for pedestrians and bikers. A dashed line in the center of the sidewalk probably marks one side for pedestrians and the other for bikers.

Kaileole'a Drive, a two-lane, two-way street within a 56-foot right-of-way, connects Keone'ula Boulevard with Keone'ula Elementary School. 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.

Kaimele Place ends in a cul-de-sac at Seagull School. The two-lane, two-way street is fully improved with curbs, gutters, sidewalks, and planting strips. The posted speed limit is 25 miles per hour. On-street parking in unmarked stalls is permitted on the Waianae side of the cul-de-sac.

Water (8" main), wastewater (8" main), and drainage systems are located within the Kaileole'a Drive right-of-way. Electrical, CATV, and communication systems are placed underground on all adjoining streets.





Keone'ula Elementary School, which opened in January 2007, is the newest public school in the region. The classroom building (Building C) nearest to the Station is across Kaileole'a Drive and approximately 200 feet away. In school year 2007-2008, the school had an enrollment of 746 students (Department of Education).

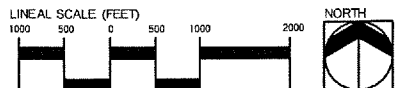
Seagull School also opened in 2007 offering instruction for pre-school children 2 to 5 years old. Two of the four school buildings are located less than 15 feet from the common property line with the Fire Station. The school is licensed for 234 students.



Source: City & County of Honolulu Website

Legend

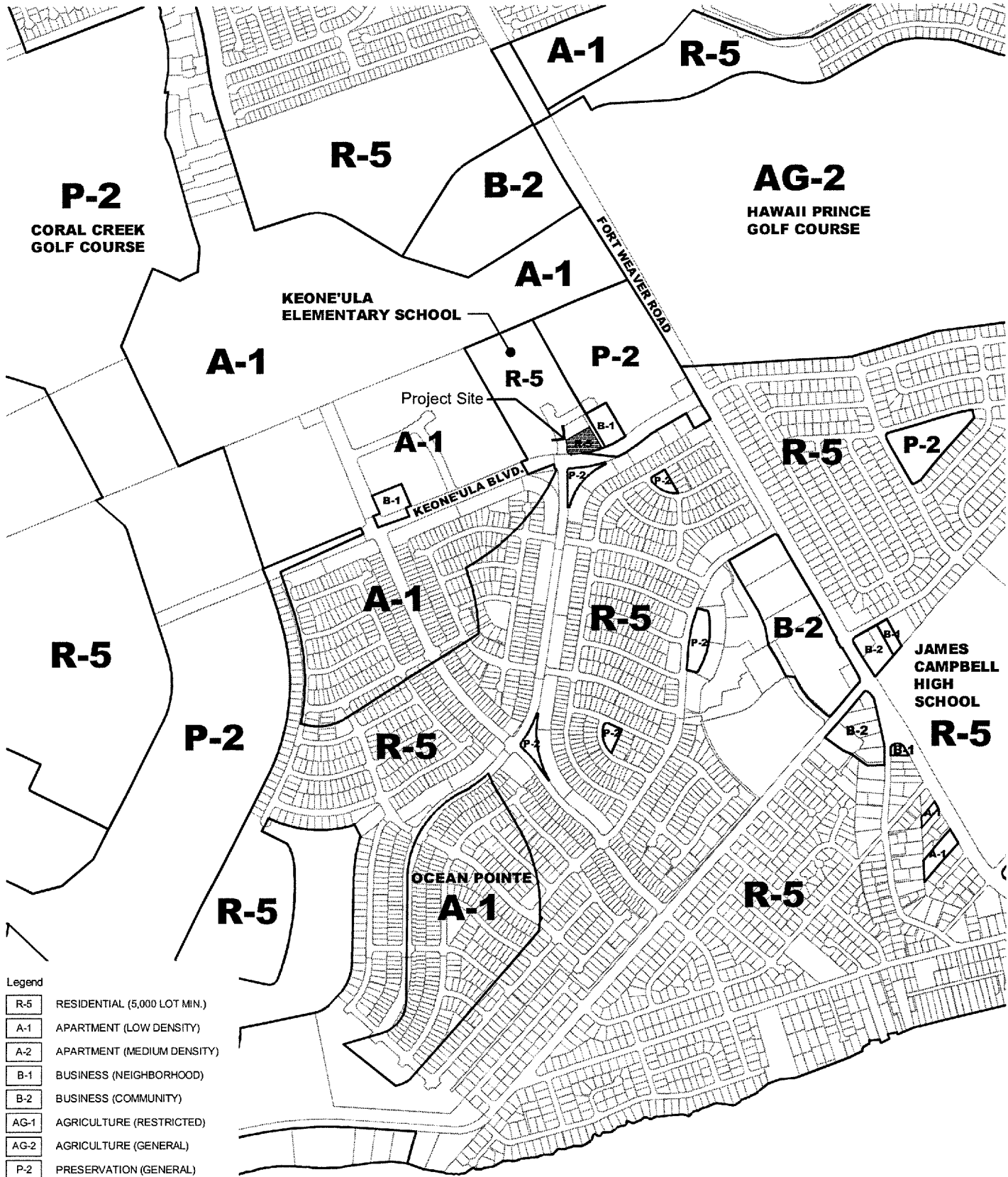
- | | |
|--|---|
| <p> Special Flood Hazard Zone Subject to Inundated by the 1% Annual Chance Flood</p> <p>Zone A No Base Flood Elevation Determined.</p> <p>Zone AE Base Flood Elevation Determined.</p> <p>Zone VE Coastal Flood Zone with Velocity Hazard (Wave Action); Base Flood Elevations Determined.</p> | <p> 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.</p> <p> Zone X Areas Determined to be Outside the 0.2% Annual Chance Floodplain.</p> <p> Zone D Areas in which flood hazards are undetermined.</p> |
|--|---|



Ewa, Oahu

Figure 5
Flood Insurance Rate Map
Ewa Beach Fire Station Replacement

City & County of Honolulu



Legend

R-5	RESIDENTIAL (5,000 LOT MIN.)
A-1	APARTMENT (LOW DENSITY)
A-2	APARTMENT (MEDIUM DENSITY)
B-1	BUSINESS (NEIGHBORHOOD)
B-2	BUSINESS (COMMUNITY)
AG-1	AGRICULTURE (RESTRICTED)
AG-2	AGRICULTURE (GENERAL)
P-2	PRESERVATION (GENERAL)

Source: C&C of Honolulu Website, Zoning Ewa District

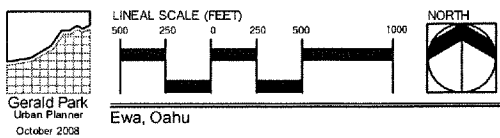


Figure 6
Zoning
Ewa Beach Fire Station Replacement

A. Assessment Process

The scope of the project was discussed with staff of the Department of Design and Construction, 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 new Ewa Beach Fire Station will be constructed on a 1.011 acre site donated by the developers of the Ocean Pointe community;
- The site has been extensively modified by filling and grading, the construction of nearby roads, public infrastructure, a public elementary school, and a pre-school;
- There are no rare or endangered flora and fauna on the premises;
- There are no archaeological features on the premises;
- There are no lakes, streams, or wetlands on or in the vicinity of the property;
- The site is not located in a flood hazard area;
- The fire station is located next to a public elementary school and a pre-school; and
- Public utilities are available and adequate to service the new facility.

B. Short-term Impacts

The vacant site will be graded to design elevation. Grading should take about one month and will raise fugitive dust, create noise, and increase traffic on streets adjoining the site as green waste and soil are hauled away for disposal. Similar short-term impacts are already being experienced in Ocean Pointe as land is developed into residential lots. 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. Plywood fencing or dust screens may be erected along the boundary with Seagull School 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 for the projected 18-month construction period. Noise will be most pronounced during the early stages of construction (site work) through erection of the structure. Noise will diminish as interior work commences and is confined to the inside of the building. Keone'ula Elementary School and Seagull School are considered noise sensitive areas. Buildings at Keone'ula Elementary School are air conditioned and the windows of those buildings nearest the site are generally closed. Thus construction noise should not significantly interrupt instruction classroom instruction and activities.

Two buildings at Seagull School are located less than 15 feet from where construction will take place. The buildings feature glass windows, sliding doors, and open air patios. Glass is not a sound attenuating material and will not block out construction noise completely. Plywood sheeting erected for dust control can help to attenuate some noise as will the physical distance from the nearest school building to the Fire Station *per se* which is about 75 feet. The contractor can also coordinate with and notify school administrators when construction noise would be the most audible.

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 will 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 historical authorities consulted for disposition of the finds.

The movement of workers and material to and from the building site will contribute to traffic on Fort Weaver Road and streets adjoining the site.

Traffic movement on Kaileole'a Drive may be temporarily rerouted when connections to the potable water, sanitary sewer, storm drainage, and non-potable water 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 school traffic hours and one travel lane will be 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. A Traffic Control Plan will be submitted to the Department of Planning and Permitting for review and approval.

C. Long-term Impacts

Residences and businesses in the service or first response area should not notice any change in fire protection services with the relocation of the Ewa Beach Fire Station. The Station will be located on a site central to the modest expansion in its first response area. As indicated in the Description of the Project, a second apparatus or ladder company can be posted to the new Station as the need arises. The addition of a second company will add expanded coverage to the first response area and provide back up if one apparatus responds to a fire call outside the service area. The Honolulu Fire Department will not compromise fire coverage in the service area at any time.

The proposed action is part of a long-range City and County of Honolulu and Fire Department program to construct and upgrade 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 ... fire hazards, and unsafe conditions".

The Fire Station is located in an area that is not prone to flooding. In addition, the Station is easily accessible to Fort Weaver Road and the apparatus would enter onto Fort Weaver Road through a signalized rather than unsignalized intersection. The apparatus driver will

be able to control the traffic signals at the intersection when responding to an emergency call.

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 noise heard in any suburban residential neighborhood or school yard. Acoustical buffers in the form of streets, existing walls and fences, and open space physically separate the station from adjoining residential and school facilities and should 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 south side of the station facing Keone'ula Boulevard. 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 residential areas about 125+ feet away across Keone'ula Boulevard but may be masked by noise from passing vehicles on Keone'ula Boulevard. The distance between the generator room and the residential areas coupled with landscape plantings outside the station and along Keone'ula Boulevard will aid in noise attenuation. Noise will not be directed towards Seagull School but sound of the running generator may be audible in classrooms closest to the station. If noise interrupts instructional sessions or creates a nuisance for residents, testing will be scheduled for later in the day.

The Fire Station site is located in a State land use urban district and a boundary amendment is not required. The site is designated for Park and Golf Course use on the Ewa Development Plan but a plan amendment is not required. The Fire Station is symbolized on the Ewa Public Infrastructure Map (PIM) and an amendment to place a Fire Station symbol on the PIM is not required. 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 R-5 zoning district. Although the proposed use is permitted by zoning, a waiver to the building height requirement for the residential zoning district will be sought. A 30-foot high building is needed to provide interior clear height for the apparatus (minimum of 17-feet) and to comply with the 5:12 roof slope of the Ocean Pointe Community Facilities Design Guidelines. A 5-foot encroachment for this type of use and structure is not a significant impact and does not call into question the other development standards for the district. A Waiver Application will be submitted to the Department of Planning and Permitting, City and County of Honolulu, for their review and approval.

The scale and form of the Station are compatible with nearby community facility buildings. The roof ridge may be slightly higher than adjoining buildings but the 30-foot height is allowed by and consistent with the approved Ocean Pointe Community Facility Design Guidelines. It is anticipated that building height will not be a major building design concern to the community since the structure will blend with the design, exterior finish, and colors of the two adjoining schools. Landscaping on the sides facing public rights-of-way will add

greenery to a highly visible corner lot. A conceptual project character rendering of the completed station is shown in Figure 7. The rendering depicts the station viewed from about the same location shown in Site Photograph 2.

Water consumption and wastewater discharge is estimated at 400 gallons per day (5 men X 80/gallons/day). Water consumption and discharge will increase at certain times (or days).

Landscaped areas will be irrigated using non-potable water. Non-potable water sources include existing R-1 recycled water mains in Keone'ula Boulevard and Kaileole'a Drive. 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 waster 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 recycle 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 Ewa Beach Fire Station is estimated at \$94,980.00 exclusive of the initial investment in equipment, building costs, and salaries. Annual operating costs are unavoidable and are expected to increase in the future.

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.



CONCEPTUAL PROJECT CHARACTER
EWA BEACH FIRE STATION REPLACEMENT

KODAMA/YOKAMOTO
ARCHITECTS, INC.
ABOUT THE HEALTHY BUILDING

A. No Action

A no action alternative would maintain the status quo of the site and fire protection coverage from the Ewa Beach Fire Station for the Ewa Beach and Ocean Pointe communities. This alternative precludes the occurrence of all impacts, short and long-term, beneficial and adverse described in this Assessment. This 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

The existing Ewa Beach Fire Station could have been demolished and reconstructed at its present location. The Department of Design and Construction and Honolulu Fire Department did not consider this to be a desirable alternative considering that urban and regional growth on the Ewa Plain is to the north of Ewa Beach. A fire station should be tactically located near to growth areas to provide coverage. In the future, development of Department of Hawaiian Home Lands at East Kapolei II, the University of Hawaii West Oahu Campus, and the Ho'opili subdivision will require the construction of additional fire stations in the region.

SECTION 5

AGENCIES AND ORGANIZATIONS TO BE CONSULTED DURING THE ASSESSMENT PROCESS

County

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

State

- Department of Education
- Department of Health
 - Environmental Planning Office
 - Office of Environmental Quality Control
- Department of Land and Natural Resources
 - State Historic Preservation Division

Other

- HASEKO
- Hawaiian Electric Company
- Hawaiian Telcom
- Seagull School
- Ewa Neighborhood Board No. 23
- Councilmember Todd Apo, Council District 1
- Representative Kymberly Pine, State House of Representatives, District 43
- Senator Will Espero, State Senatorial District 20
- Ewa Beach Public Library (Placement)

SECTION 6

LIST OF 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

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

Private

Ocean Pointe Design Review Committee

Design Review Approval

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 or cultural resources found on the premises 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 developer of Ocean Pointe 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 or social welfare of the community or State;

The project does not substantially affect the economic or social welfare of the State. Residents in the service area should not notice changes in fire protection service.

5) Substantially affects public health;

Public health will not be adversely affected by the proposed project.

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 of the site, surrounding neighborhood, and Ocean Pointe in general will not be degraded.

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) Detrimently 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 residential areas across Keone'ula Boulevard and at Seagull School. Acoustical treatment of the generator room and the distance from the source of the noise to receptor locations (the school and residences) will help to attenuate noise. If noise disrupts classroom instruction and creates a nuisance for residents, then the generator will be tested at an alternative time or day when school is not in session.

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 Ewa Beach 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.

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, tankless water heaters, and energy efficient windows,

REFERENCES

- Department of General Planning. 1992. *General Plan Objectives and Policies*.
- Department of Health, State of Hawaii. May 2002. *Guidelines for the Treatment and Use of Recycled Water*. Wastewater Branch, Hawaii State Department of Health.
- Department of Planning and Permitting, City and County of Honolulu. 1993. *Land Use Ordinance*.
- Department of Planning and Permitting. August 1977. *Ewa Development Plan*.
- Department of Planning and Permitting. April 2000. *Public Infrastructure Map Ewa*. Resolution No. 2000-37.
- Federal Emergency Management Agency. September 2004. *Flood Insurance Rate Map*. City and County of Honolulu. Community Panel 15003C0330F.
- Kodama/Okamoto Architects, Inc. February 2008. Design Guidelines for Physical Facilities Planning of the Ewa Beach Fire Station Replacement. Prepared for City and County of Honolulu, Department of Design and Construction and Community of Ocean Pointe, Ewa Beach, Hawaii.
- Ocean Pointe. September 2006. *Community Facility Design Guidelines*. Version 1.07.
- Oshima Chun Fong & Chung LLP. June 2001. *Final Supplemental Environmental Assessment. Ocean Pointe Master Plan (Revised)*. Prepared for HASEKO (Ewa) Inc.
- Park, Gerald Urban Planner. 2008. *Field Observation*.

