# Shall the Authority Approve a Finding of No Significant Impact for the Final Environmental Assessment for the Proposed Early Education Center in the Kakaako Waterfront Park Area, Tax Map Key No.: (1) 2-1-060: 008 (Por.), in Accordance with HRS Chapter 343?

# Staff Report June 24, 2015

**Background:** An Environmental Assessment was initiated for the proposed action to develop an early education center in the Kakaako Waterfront Park, as required by §343-5(a), Hawaii Revised Statutes ("HRS"), for any project that proposes use of State lands. The subject parcel is currently owned and maintained by the Hawaii Community Development Authority ("HCDA") for Park use.

**Discussion:** On October 28, 2014, the HCDA transmitted a Draft Environmental Assessment ("DEA") and Anticipated Finding of No Significant Impact ("DEA-AFONSI") for the proposed project to the Office of Environmental Quality Control. The DEA-AFONSI was published in the Environmental Notice on November 8, 2014. Agencies and organizations with possible interest in the project were consulted during the review of the DEA.

Comments were received from a number of agencies, including:

# State of Hawaii

- 1. Department of Accounting and General Services,
- 2. Department of Health Clean Water Branch,
- 3. Department of Health Environmental Planning Office,
- 4. Department of Health Hazard Evaluation and Emergency Response,
- 5. Department of Transportation Airports Division,
- 6. Department of Transportation Highways Division,
- 7. HCDA,
- 8. Office of Hawaiian Affairs,
- 9. Office of Planning,
- 10. Department of Land and Natural Resources Engineering; Land Division,

11. Department of Land and Natural Resources – Commission on Water Resource Management,

# City and County of Honolulu

- 12. Department of Environmental Services,
- 13. Department of Community Services,
- 14. Department of Planning and Permitting,
- 15. Department of Transportation Services,
- 16. Honolulu Fire Department, and
- 17. Honolulu Police Department.

Comments received were responded to in the Final Environmental Assessment ("FEA") (Exhibit A). Potential impacts identified included:

- Potential risk of hazardous material,
- Underlying soil conditions,
- Traffic and parking,
- Recreational park use, and
- Coastal zone management and flooding.

Appropriate assessments and information were provided to support statements that the proposed action of developing an early education center in the Kakaako Waterfront Park will have no significant impact. A Phase I Environmental Site Assessment was completed. A Geotechnical Engineering Study was completed. A Draft Traffic Management Plan and Traffic Assessment was completed. A Cultural Resources Report was referenced. A Special Management Area Minor Permit was approved by the State Office of Planning on December 12, 2014 in accordance with Coastal Zone Management policies HRS, §205A-2 and §15-150-6, Hawaii Administrative Rules ("HAR") (Exhibit B).

The State Historic Preservation Division did not comment on either the DEA, or on an opinion previously offered by the HCDA on December 3, 2014 that the site, which was previously landfill, does not likely pose impact to cultural resources.

As the Approving Agency, the HCDA is responsible for making a determination for the FEA, per §11-200-11.2, HAR. Applying the significance criteria of §11-200-12, HAR, the HCDA shall issue a notice of determination for the FEA either noting that the proposed action may

have a significant effect, or is not likely to have a significant effect. A determination of significant effect would serve as an Environmental Impact Statement preparation notice, in accordance with §11-200-9, HAR. A determination of not likely having a significant effect would serve as a negative declaration in accordance with §11-200-9, HAR.

In considering the significance of potential environmental effects, the Approving Agency shall consider the sum of effects on the quality of the environment, and shall evaluate the overall and cumulative effects of the proposed action, as required by and based on the criteria provided in §11-200-12, HAR.

The FEA adequately responds to each of the required criteria of significance, and it is reasonable for the HCDA to determine that the proposed early education center will not have a significant effect on the environment, warranting a Finding of No Significant Impact.

**Recommendation:** Staff recommends that the Authority approve a Finding of No Significant Impact for the Final Environmental Assessment for the proposed early education center in the Kakaako Waterfront Park area, Tax Map Key No.: (1) 2-1-060: 008 (Por.), in accordance with HRS Chapter 343.

Attachments: Exhibit A – Environmental Assessment

Exhibit B – Special Management Area Minor Approval

# FINAL ENVIRONMENTAL ASSESSMENT KAKAAKO FIRST SCHOOL



TMK 2-1-060: 008 (POR.) 709 Kelikoi Street Honolulu, Oahu, Hawaii

APPLICANT: SEAGULL SCHOOLS

ACCEPTING AUTHORITY:
HAWAII COMMUNITY DEVELOPMENT AUTHORITY

APRIL 2015

# FINAL ENVIRONMENTAL ASSESSMENT KAKAAKO FIRST SCHOOL

TMK 2-1-060: 008 (POR.) 709 Kelikoi Street Honolulu, Oahu, Hawaii

This Environmental Assessment document has been prepared in accordance with the requirements of Chapter 343, Hawaii Revised Statues, as the project requires the use of State lands. It is anticipated that this project, which is considered an Applicant Action, will be eligible for a Finding of No Significant Impact upon completion of the review process and publication of a Final Environmental Assessment.

APPLICANT: SEAGULL SCHOOLS

ACCEPTING AUTHORITY:
HAWAII COMMUNITY DEVELOPMENT AUTHORITY

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### **APPENDICES**

- A Cultural Resources, Kakaako Community Development District Makai Area Plan Amendment Final Environmental Assessment
- B Draft Traffic Management Plan and Traffic Assessment for the Proposed Kakaako First School, Honolulu, Hawaii, Tax Map Key: 2-1-060: 008 (Portion)
- C Phase I Environmental Site Assessment ForProposed Kakaako First School 0.75-Acre Portion of 709 Kelikoi St. TMK (1) 2-1-060:008 Honolulu, HI 96813
- D Geotechnical Engineering Exploration Seagull School, Kakaako First School, Honolulu, Oahu, Hawaii

# SECTION ONE PROJECT SUMMARY

Seagull Schools APPLICANT: 1300 Kailua Road Kailua, Hawaii 96734 **ACCEPTING AUTHORITY:** Hawaii Community Development Authority 461 Cooke Street Honolulu, HI 96813 Environmental Communications, Inc. **AGENT:** P.O. Box 236097 Honolulu, Hawaii 96823 **PROJECT NAME:** Seagull Schools Kakaako **PROJECT LOCATION:** The project is located at northwestern boundary of the Kakaako Waterfront Park in Kakaako, Honolulu, Hawaii. The park address is 709 Kelikoi Street. TAX MAP KEY: 2-1-060: portion of 008 State of Hawaii **OWNERSHIP:** LOT AREA: Approximately 0.75 acres (32,670 square feet) of 21 acres **ZONING:** The project is designated Park on the Hawaii Community Development Authority's Makai Area Plan applicable to this project. **SPECIAL DISTRICT:** Special Management Area STATE LAND USE: Urban **EXISTING LAND USE:** The project site, which is located immediately Ewa (west) of the Kakaako Waterfront Park parking lot, consists of a flat area that is enclosed by a chain

link fence that runs along the perimeter of a vacant

maintenance building and parking lot. The maintenance building is no longer needed and the dedicated parking for the building remains vacant and is not available for public use.

Immediately Ewa of the project site lies the Kakaako Waterfront Park amphitheater. The mauka (north) area contains the John A. Burns School of Medicine parking lot. In the Diamond Head (east) direction, lies the entry and parking lot for the Kakaako Waterfront Park. The hills and shoreline of the park lie in the makai (south) direction.

The Kakaako Waterfront Park serves as a major recreational resource for its access to the waterfront, passive park uses, and occasional amphitheater use. The park is a major activity center during weekends and to a lesser extent during late afternoon hours.

Surrounding uses include Fort Armstrong, a major shipping storage facility to the west, commercial and industrial uses to the north, and vacant lands presently used for parking and storage that are slated for future development in the easterly direction.

#### NATURE OF DEVELOPMENT:

Seagull Schools (applicant) is a major provider of early education centers on the island of Oahu. The applicant's campus located above the Frank F. Fasi Municipal Center will be required to close due to renovation and repairs required for the parking structure upon which the campus is presently located. Because a new campus is required, and due to the significant population increase in the Kakaako Improvement District, the applicant has selected the subject project site as the property having the highest and best potential to serve the community. Discussions for approval are presently under consideration by the Hawaii Community Development Authority.

The proposed improvements will consist of the renovation of the existing maintenance building to

classrooms, a new second classroom building located immediately Ewa of the former maintenance building, and a new two-story administration and classroom building located makai of the former maintenance building. The completed project will serve 270 preschool through 3rd grade aged children and and approximately 30 staff.

**PROJECT COST:** Approximately \$6,000,000

**PROJECT SCHEDULE:** The project is anticipated to be completed in late

2016.

# SECTION TWO PROPOSED PROJECT AND STATEMENT OF OBJECTIVES

#### 2.1 PROJECT LOCATION

The project is located at northeastern boundary of the Kakaako Waterfront Park, near the intersection of Kelikoi and Cooke Streets in Kakaako, Honolulu, Hawaii. The Park and site are identified as Tax Map Key: 2-1-060: 008. The Park is approximately 21 acres in size and the proposed project would occupy approximately 0.75 acres of the overall site. The Kakaako Water Front Park is owned by the State of Hawaii.

The project is located within the Kakaako Makai Area of the Kakaako Community Development District (KCDD). The Hawaii Community Development Authority has the planning and zoning jurisdiction over the KCDD. The project area is zoned as park under the Makai Area Plan and is subject to the HCDA's Makai Area Rules.

The area under consideration for the proposed pre-school is flat and partially paved with a parking lot and a vacant metal maintenance building. The parking area and building are secured from the main park by a chain link fence. Additional lands located further Ewa of the fenced area will also be incorporated into the site. This area, which follows the existing maintenance vehicle pathway, terminates behind the amphitheater stage area. A pedestrian walkway marks the makai boundary of the improvement area..

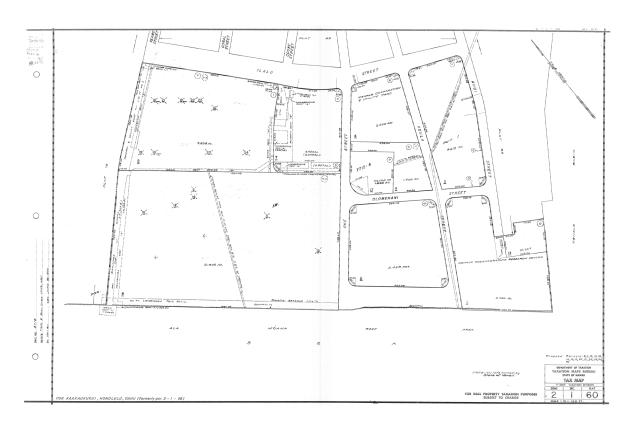
Kelikoi Street, which is used for reserved parking for the University of Hawaii Cancer Center and the John A. Burns School of Medicine is located immediately mauka of the improvement area. In the Diamond Head direction lies the 300 stall Kakaako Waterfront Park parking lot. The areas makai of the improvement area consists of grass hill areas that serve as landscaping and occasional recreational use.

Areas further mauka of the project site beyond the Cancer Center and Medical School are primarily in commercial office, retail and industrial use. In the Diamond Head, notable uses include the Children's Discovery Center and several large vacant parcels that will eventually be developed with uses allowable under the Mauka Area Rules.

This use for the project site was selected for its central urban location, proximity to a high growth residential area, efficient use of non-peak hour parking, and availability. The site is also highly desirable for it cultural, educational and recreational use for active early education. The project site is presently not in park use and maintained as a storage and The project site is presently not in park use and maintained as a storage and maintenance facility. Use of the site for education purposes will not result in the loss of any public park space.



Figure 1: Aerial Photograph



**Source: Google Maps** 

**Source: City and County of Honolulu** Figure 2: Tax Map Plat

#### 2.2 PROJECT DESCRIPTION

### 2.2.1 PROJECT NEED

Seagull Schools (applicant) is a major provider of early education centers on the island of Oahu. The applicant's campus located above the Frank F. Fasi Municipal Center will be required to close due to renovation and repairs required for the parking structure upon which the campus is presently located. Because a new campus is required, and due to the significant population increase in the Kakaako Improvement District, the applicant has selected the subject project site as the property having the highest and best potential to serve the community. Discussions for the ground lease and Development Permit are presently under consideration by the Hawaii Community Development Authority.

Seagull Schools is one of Hawaii's largest early education and intergenerational centers. Seagull Schools presently operates five facilities at the Civic Center (264 students), Kapolei (240 students and kapuna), KoOlina (150 students), Ewa Beach (230 students), and Kailua (76 students).

# 2.2.2 PROJECT PROGRAM

The proposed improvements will consist of three separate structures located on flat areas presently not used for recreational park activities.

As proposed, the project will consist of approximately 15,400 square feet of floor area with the following uses.

Use	Floor Area
Administrative	1561
Classroom	10,737
Multipurpose	405
Kitchen	838
Storage	82
Covered Exterior	1777

The total footprint of the buildings is 12,529 square feet with a lot coverage of 41% and an open space area of 59% on the approximate lot size of .702 acres. The actual acreage of the site will be determined upon final review and approval of the

development agreement request but it is anticipated the the final project acreage will remain approximately 0.75 acres or less.

#### 2.2.3 BUILDINGS AND CONFIGURATION

The project will consist of three separate buildings connected by walkways or a covered central courtyard. This courtyard area will serve as the primary point of entry where student pick-ups and drop-offs will be monitored. A second point of entry to the second floor of one of the new buildings will also provide handicap accessibility to the upper level

The first classroom structure will reuse the existing metal maintenance building. This building will contain four classrooms with individual toilet facilities, and the schools kitchen. A new classroom building will be constructed immediately Ewa of the first classroom building. This addition will include three classrooms with individual toilets.

In the makai direction, a new two-story classroom and administration building will be constructed incorporating an existing lava rock retaining wall. The first floor of the structure will consist of two classrooms similar to those located in the first two buildings, as well as administrative and staff areas. Access to this floor is provided through the central courtyard area. The second floor of this new building will include two classrooms, an administrative office and a dedicated adult training room for use by mentors that are part of the Applicant's educational programs.

The buildings will be uniform in appearance and will use concrete slab on grade with metal stud frame load bearing wall structures. The exterior walls will be finished with a directly applied exterior finish system and cement wall panels. The interior walls will use metal framing and gyp board. The window and doors will be aluminum framed. The roof will consist of a standing seam metal over waterproof membrane, rigid insulation, plywood and wooden beams. The entire campus will be naturally ventilated.

The existing Maintenance Building at Kakaako Waterfront Park has one men's and one women's restroom with a shower in each. There is also a sink located in one of the back offices. All existing plumbing fixtures will be demolished, and new fixtures will be installed in the new Kakaako First School buildings.

New water closets and lavatories will be provided for each classroom in all buildings. There will also be sinks shared between classrooms. A new commercial kitchen will be located in Building 1. The total expected fixture unit count is approximately 77, assuming flush tank water closets (see table below), which does not include future hose bibbs, kitchen appliances other than sinks or any other fixtures that may be typical of a learning facility. The existing incoming

water line is 1-1/2", which will not be adequate for serving all the new additional fixtures. The entire campus would require a minimum 2" domestic water line. The existing 1-1/2" line would be adequate for 2 of 3 buildings.

The existing HECo electrical service (Meter #418694) to the maintenance shop (future Building 1) is currently a single phase 120/240V service from a 25 kVA pole mount transformer. The existing service will be upgraded to accommodate new building loads. The upgraded service will consist of replacing the existing pole-mounted transformer with a new, 3-phase, pad-mounted transformer. A riser will be installed at the existing pole to transition from overhead to underground service.

There is an existing electrical pad mount enclosure located west of the maintenance shop in the vicinity where future Building 3 will be located. The enclosure contains distribution equipment for Kaka'ako Park, metered by HECo (Meter #427189). This enclosure and associated infrastructure will be relocated. Location of the equipment TBD.

Provisions will be installed for Photovoltaic (PV) arrays on buildings consisting of raceways systems and space allocated for inverters. While not planned for initial installation, electrical distribution equipment will be sized to accommodate the future PV.

The existing Telephone and Cable TV services are fed overhead from a utility pole. Existing infrastructure will be replaced with a riser at the existing pole to transition from overhead to underground service to a demark point (location TBD). A raceway system for Data/Telecommunications/CATV will be provided.

The foundation system for the new buildings may consist of a shallow spread footing with or without over-excavation of the existing soil and installation of fill under the footings and slab on grade. The foundation system may also be a deep foundation system with driven precast concrete piles or grouted steel micro-piles with or without over-excavation of the existing soil and installation of fill material under the slab on grade. The foundation system will be selected after the geotechnical investigation is completed. The existing butler building may require enlargement of the existing footing which are assumed to be shallow spread footings. This will include demolition of the existing slab on grade and excavation of the soil to install the addition to the existing footing.



#### 2.2.4 SCHOOL OPERATIONS

The proposed school has been designed to meet a program target of 270 students and approximately 30 staff. This enrollment is slightly smaller than the current operation located at the City's Frank F. Fasi Municipal Building but is well suited in size for optimal student education and care. Primary education up to the third grade is presently under consideration based upon demand created by the significant increase in housing demand in the area.

School hours are from 6:30 am to 5:30 pm on weekdays. The campus will not offer class on weekends. The school hours and and days of operation effectively use the Kakaako Waterfront Park and parking during the hours of lowest demand by the general public.

The campus will be secured by a fence for student safety but it is anticipated that the school will fully utilize the park areas for recreational and education purposes, and will effectively promote cultural activities within the park.

### 2.3 PROJECT OBJECTIVE

The Applicant is proposing the development of an early through primary education facility which will provide critical child care for Honolulu's high growth Kakaako District.

Use of the Kakaako Waterfront Park as an educational, recreational and cultural resource will be promoted with the inclusion of the Kakaako First School campus.

#### 2.4 FUNDING AND SCHEDULE

The proposed campus plan is anticipated to cost approximately \$6,000,000 that will be conventionally financed and through fund raising programs. The Applicant has developed several schools throughout Oahu and is understood to be one of the largest childcare provider in the State.

The anticipated construction start date is early 2016. The project is anticipated to be constructed in phases as finances and regulatory conditions are met but the project will commence reconstruction of the existing butler building as a first phase immediately upon meeting all entitlement requirements.

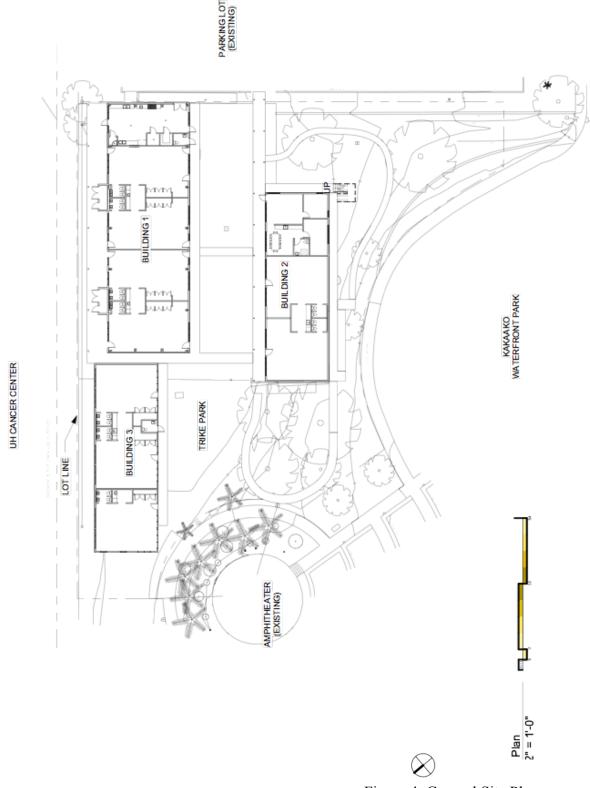


Figure 4: General Site Plan

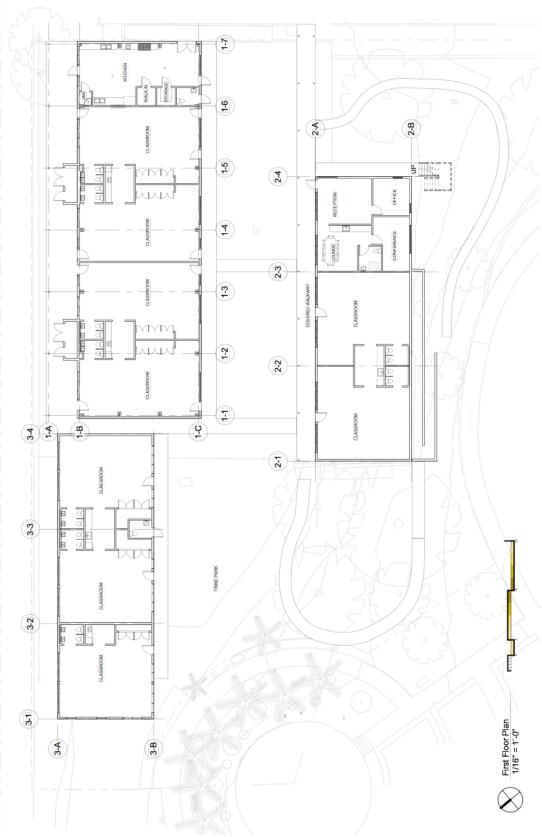


Figure 5: First Floor Plan

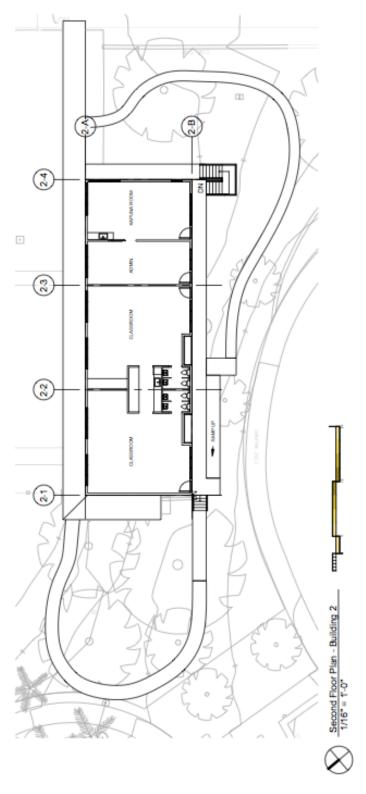
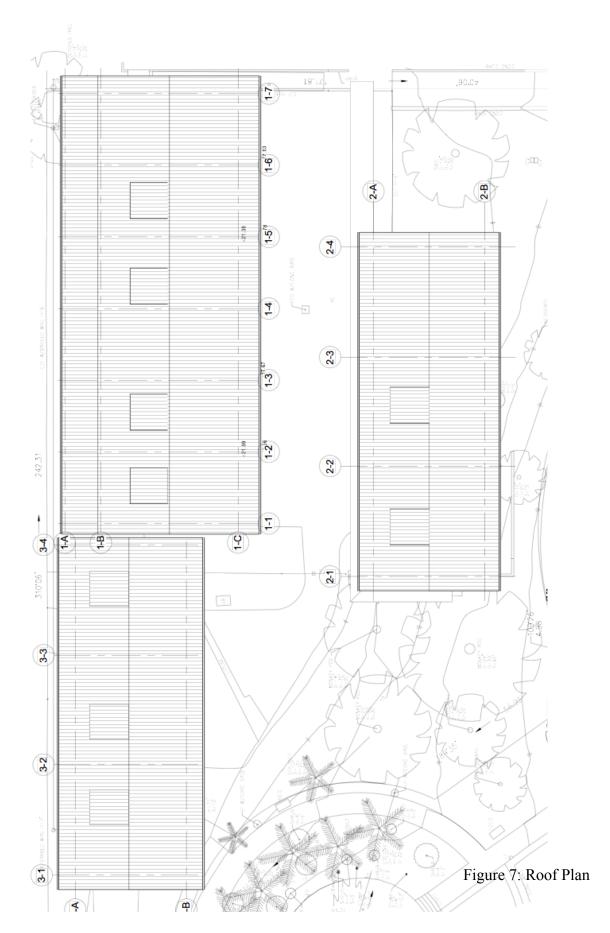


Figure 6: Second Floor Plan



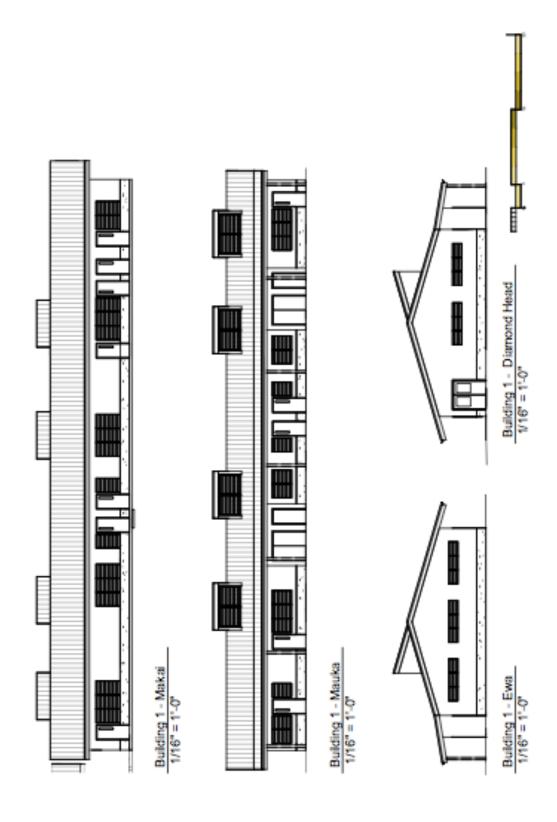


Figure 8: Building 1 Elevation

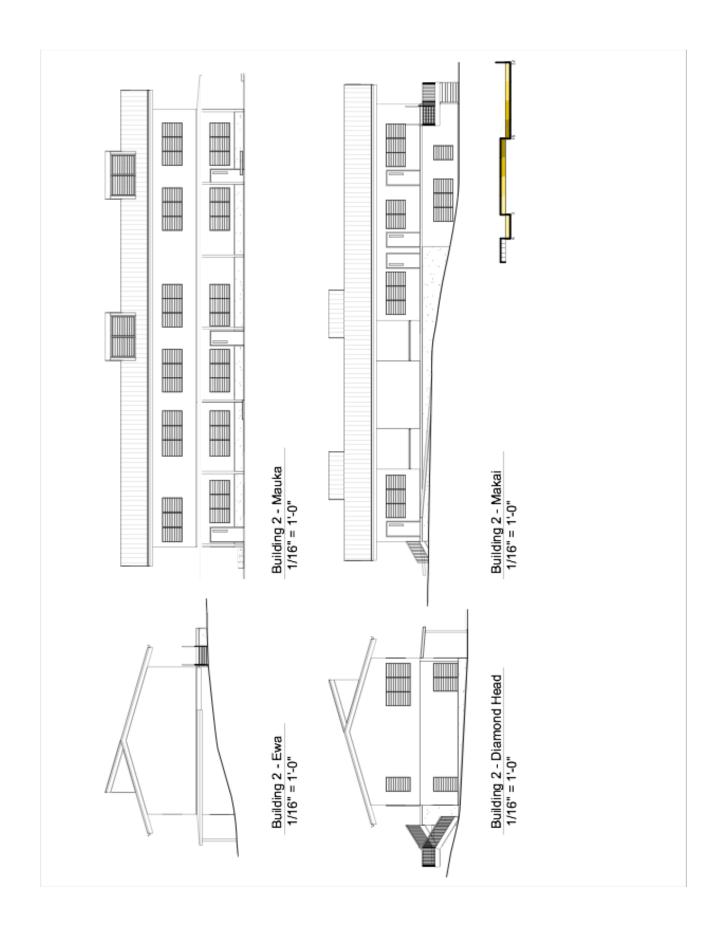


Figure 9: Building 2 Elevation

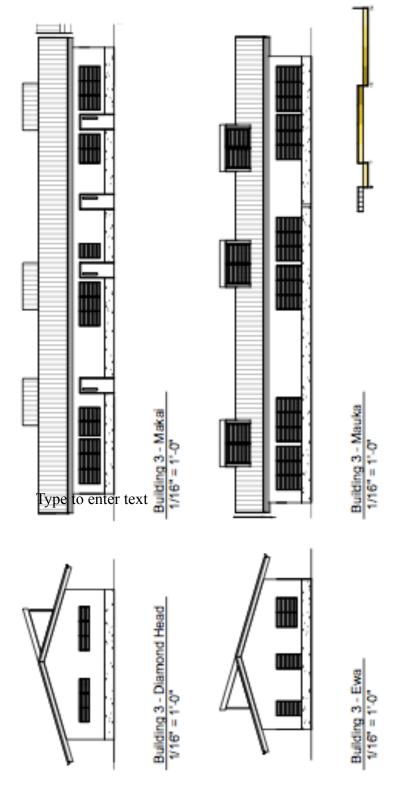


Figure 10: Building 3 Elevation

# SECTION THREE DESCRIPTION OF ENVIRONMENT, ANTICIPATED IMPACTS AND MITIGATION MEASURES

### 3.1 Environmental Setting

The project site is primarily located in an area of the Kakaako Waterfront Park that is restricted to maintenance staff and other official uses. It is also located adjacent to the Kelikoi Street parking lot for the University of Hawaii Cancer Center and the John A. Burns School of Medicine. The site is also adjacent to the Park parking lot which makes it well suited for pick-up and drop-off activities.

The park itself is a center piece of the Kakaako Makai District and well used during the weekends and later afternoon hours. The park features rolling hills, circuitous pedestrian pathways throughout the site, and an oceanfront promenade that the center of activity within the park. The park parking lot is lightly to moderately used throughout the day by as a break area for those using commercial vehicles and occasional recreational activities such as remote control cars. Higher levels of activity tend to occur along the Diamond Head portion of the park as opposed to the area under consideration.

Immediately adjacent to the project site is the outdoor amphitheater. This facility is infrequently used, and in general is in use during evening hours. The amphitheater is likely to be well used by proposed preschool use as is the near by Children's Discovery Center.

The park site is generally characterized as a large open space with varying topography unlike traditional parks. While the park does not have any fields for organized sports, the park offers activities greater than traditional passive parks. The grassy hills are frequently used for cardboard sledding, the pathways are frequently used by walkers and joggers, and the oceanfront promenade is used by swimmers, fishermen, and those simply enjoying the vast oceanscape views.

# 3.2 SURROUNDING USES

Adjacent uses reflect the dynamically changing environment of the Kakaako District. The Makai Area is largely undeveloped in the Diamond Head direction but new uses such as the University of Hawaii Cancer Center, John A. Burns School of Medicine and new commercial uses along the Kewalo Basin Waterfront signal new and dynamic uses within this emerging area. The Kakaako Waterfront Park is also the terminus of a mauka to makai access that will serve as the central core of Kakaako. The site has excellent access into the residential areas of Kakaako.

# 3.3 Environmental Considerations

#### 3.3.1 GEOLOGICAL CHARACTERISTICS

# **Topography**

The project area proposed for development is essentially flat and has been graded and paved to serve the former maintenance warehouse uses that occupies the site. Vegetation is limited to weedy species in fenced and paved areas.

# **Climate**

The geography of the Honolulu District is typically warm and dry in climate. Prevailing tradewinds arrive from the northeast. According to the National Weather Service Honolulu Office, over a period of 30 years, normal monthly high temperatures range from 80 degrees in January to a high of 89 degrees in August for an average of 84 degrees. Normal month low temperatures range from a low of 65 degrees in February and a high of 74 degrees in August for a monthly average of 70 degrees. Precipitation typically ranges from 0.44 inches in August to a high of 3.8 inches in December. The annual average rainfall in Honolulu is 70 inches per year.



Figure 11: Soil Type Map Source: City and County of Honolul

# Soils

The project site is located on soils classified FL fill land according to the Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii by the U.S. Department of Agriculture Soil Conservation Service. Fill land is typically found near Pearl Harbor and in Honolulu, adjacent to the ocean. It consists of areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources. This land type is used for urban development including airports, housing areas, and industrial facilities.

According to the City and County of Honolulu GIS system, the project site is located on Fill Land, Mixed as would be expected from the site's former use as a sanitary landfill.

#### 3.3.2 WATER RESOURCES

# **Hydrologic Hazards and Resources**

According to Panel 150003C0362G of the Federal Emergency Management Agency Flood Insurance Rate Map, the ewa makai corner and shoreline of park are located in Zone AE (EL10)an area determined to be subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. The school site is located in Zone X, an area determined to be outside of the 0.2 percent annual chance floodplain.

# Tsunami Inundation

The NOAA Pacific Tsunami Warning Center tsunami inundation map shows that the project site is located in a tsunami hazard area. The nearest area of refuge for this site is the Makiki District Park.



Figure 12: FIRM Map



Figure 13: Tsunami Hazard Map

Source: NOAA

# Special Management Area

The project site is located within the boundaries of the Special Management Area (SMA). The project will be required to obtain a Special Management Permit from the State Office of Planning.

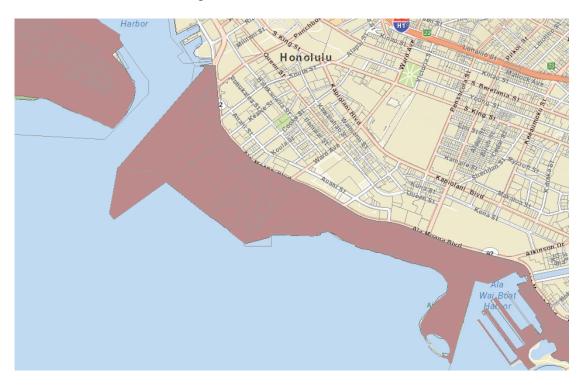


Figure 14: Special Management Area Source: Office of Planning

#### 3.3.3 CULTURAL AND ARCHAEOLOGICAL ASSESSMENT

A study titled *Cultural Resources* was prepared for the *Kakaako Community Development District Makai Area Plan Amendment Final Environmental Assessment* in July 2005. The study, which covered the project area, is summarized in this section and included in its entirety as Appendix.

Significant historic resources in the Makai Area include the Department of Health Building, the U.S. Immigration Station, and the former Ala Moana Wastewater Pump Station. These structures were constructed prior to 1941, and have been associated with a historic period or architectural style. The later two are currently listed on the National Register of Historic Places, although all of these buildings are considered to have "high" preservation potential, historic significance, and can be feasibly maintained and sustain in their present condition.

The project site is located on fill land that is identified as the near-shore waters and coral reef of Kaakauikukui on early historical maps. Kaakauikukui is an 'ili awarded to Victoria Kamamalu in the Great Mahele of 1848 that is situated between the areas traditionally referred to as Kewalo and Kakaako. Historical maps of the area from the 1800's indicate a "Beach Road" that follows along the shoreline and makai boundary of the 'ili. This road approximately coincides with the present day alignment of Ala Moana Boulevard.

The lands of Kaakauikukui, Kakaako and Kewalo were in close proximity to Kou, a favorite sheltered harbor of Oahu's chiefly class. In 1809 under the reign of King Kamehameha I, the seat of government was moved from Hawaii Island to Kou which quickly developed into Honolulu Harbor and Downtown Honolulu. The surrounding area, which included Kaakauikukui, grew from a coastal fishing village to support the new maritime industry and increased activities.

In the 1840's during the reign of Kauikeaouli Kamehameha II, son of Kamehameha I, land tenure in Hawai'i entered a transitional period terminating in the "Great Mahele" of 1848. King Kamehameha III who inherited from his brother control of all the lands within the kingdom chose to provide the opportunity for fee simple ownership of land to his chiefs and people. The makaainana, the native tenants, were able to make claims for and receive title to their kuleana, the areas of land which they personally used. Kauikeaouli Kamehameha III after reserving certain lands for himself as his own private property, surrendered the majority of the lands to his chiefs and people. The project site is located in what were the nearshore waters of the 'ili of Kaakauikukui, of which the majority of the lands, or 125 acres, was awarded to Victoria Kamamalu through Land Commission Award 7713. Similar kuleana lands were also awarded to seven other native tenants.

Claims by native tenants are recorded in the Native and Foreign Registers which typically includes information regarding the location of the claim, and sometimes information regarding the type of use. Additional information regarding the claims use of the land can also be found in Native and Foreign Testimony records. A review of Native and Foreign Register and Testimony records revealed that claimants registered for house lots, fishponds, salt beds and cultivation areas including mauka kalo patches.

In 1919 the Territory of Hawaii acquired the land from Bishop Estate which included lands inherited by Princess Bernice Pauahi Bishop from

Victoria Kamamalu. By this time a retaining wall had been constructed along the approximate alignment of the present Olomehani Street and the area makai of Ala Moana Boulevard was filled.

During this period of development a large settlement of squatters became established and by 1924 the Territorial government was evicting people from "Squattersville." The following history of this period of change for the area can be found in The Beaches of O 'ahu by John R.K. Clark.

"The shoreline land that Squattersvitle occupied was known as Kaakaukukui, commonly shortened to Akaukukui. The majority of the homes were comfortable and sturdily built. The dwellings that lined' the seashore, where the present Olomehani Street now runs, were protected from the ocean by a low sea wail about three feet high. Relatives and friends of the residents often went there to spend: weekends and summers. By the mid-19289, the community numbered about 700 Hawaiians' and part-Hawaiians, but because of the illegality of their settlement all of the families were evicted by May 1926 and all of the dwellings were razed.

During the 1930s and 1940's, the Kaakaukukui area continued to be heavily utilized as a fishing and swimming area, especially by children from the nearby community Kakaako. The children surfed on redwood planks in the break they called 'Stonewall.' Many varieties of fish were abundant. Younger divers were warned by old-time residents to stay away from the large shark hole on the Waikiki side of Kewalo Channel. Many people came to this area to pick limu and wana, and also to catch squid on the shallow reef.

in August 1948 a severe change took place. The City and County began work on a project to provide a dump for the noncombustible material from the nearby incinerator. A huge Seawall was constructed, 10 feet high, 10 feet wide on top, and 30 feet wide at the base, and it extended 500 feet seaward from the old shoreline. From its outer extremity, along the edge of Kewalo Channel, the wall was continued parallel to the coast all the way to Fort Armstrong. With the completion of the Seawall in 1949, filling operations began and in the mid-1950s the shallow reef of Kaakaukukui was completely covered over. Twenty-nine acres of new land had been added to the old shoreline.

Since the area makai of Ala Moana Boulevard is comprised of fill land, the project site is located on previously submerged lands. Nevertheless, in the

early 1900s these leads supported an unauthorlzed fishing village until the Territorial government eventually evicted the squatters in 1926.

Although the existing shoreline is the result of land-filling activities that took place is the early 1900s and mid-1950s, the coastline continues to be used for fishing, shoreline gathering and recreational activities including swimming and surfing.

In the vicinity of the project site, these ocean-related activities primarily occur at Kaka'ako Waterfront Park which is located immediately makai of the project site.

The proposed project will have no impact on cultural. resources or activities. In their letter dated February 18, 1998 the State Historic Preservation Division determined that "because the area makai of Ala Moana Boulevard is comprised of fill lands, we believe that the development of the area will have 'no effect' on subsurface cultural deposits because it is unlikely any are present".

#### 3.4 TRAFFIC CONDITIONS

The project site is not subject to direct street traffic as access to the site is provided by the Kakaako Waterfront Park parking lot. While the park access is located on Kelikoi Street, access to the site is also available through Ohe and Olomehani Streets with the Olomehani Street access being the most frequently used. Traffic in the project area is light due to the vacant land located Diamond Head of the site. Through traffic is generally circuitous with only a short drop-off period required for students and parents. The low use of the parking lot during the drop-off and pick-up times also facilitate traffic movement through the parking lot.

A study entitled *Traffic Management Plan and Traffic Assessment Report for the Proposed Kakaako First School, Honolulu, Hawaii Tax Map Key 2-1-060: 008 (portion)* was conducted by The Traffic Management Consultant for the subject project. This report is included in its entirety as Appendix B and its conclusion is summarized below.

During the AM and PM peak hours of traffic with the proposed project, the intersection of Ala Moana Boulevard and Cooke Street is expected to operate at the same Levels of Services as the scenarios without the proposed project. The Cooke Street intersections at Ilalo Street and Kelikoi Street are expected to operate at satisfactory Levels of Service.

The following mitigation measures are recommended in the Traffic Management Plan for the proposed Kakaako First School:

- 1. A minimum of 33 parking spaces should be reserved for parents/guardians unloading their children, during the AM peak hour of traffic.
- 2. A minimum of 26 parking spaces should be reserved for parents/guardians picking up their children, during the PM peak hour of traffic.
- 3. The restricted parking should be situated so as to minimize the walking distances to/from the school entrance.
- 4. The reserved parking area(s) should be restricted to school drop-off and pick-up traffic only, during the peak periods of school traffic.
- 5. The Kakaako Waterfront Park Driveway should be extended to makai aisle of the parking lot. The proposed driveway aisle should be a minimum of 24-feet wide, which would eliminate about 24 parking stalls

The Kakaako Waterfront Park parking lot is expected to more than accommodate the parking demands of the proposed Kakaako First School and the Kakaako Waterfront Park. The proposed extension of the access driveway will improve traffic circulation in the parking lot, and to reduce the volume of circulating traffic along the proposed project frontage. The proposed project is not expected to significantly impact traffic within the study area.

### 3.5 Noise Environment

Typical of school environments, the school will be a minor source of noise during transition times and play periods but during classroom time or structured activities, noise levels are low and overall use is not expected to adversely affect park users or adjacent uses. It is possible that park activities may prove somewhat disturbing to the school activities but these noises are typical of any open area subject to maintenance activities such as grass cutting, leaf blowing and tree trimming.

Impacts on the adjacent medical school are anticipated to be minimal as the classroom building shields the primary play areas from the Cancer Center and Medical school. The large hill areas will also minimize any play activity noise from other park users that are generally found along the makai prommenade. Vehicular traffic is expected to be minimal as traffic will flow through the Kakaako Waterfront Park parking lot and travel with the lot will be at low speeds.

# 3.6 BIOLOGICAL CHARACTERISTICS

#### Flora

The project lot is presently covered with asphalt paving while smaller areas outside of the security fence are grassed. The project site is well shaded along the makai perimeter with several shade trees including monkey pod, sausage tree, koi and autograph trees. Shrubs found throughout the area include naupaka and hibiscus. The site will incorporate the trees in the plan both for their thermal characteristics as well as for site beautification.

### Fauna

The site does not serve as a wildlife habitat although avifauna, feral cats, dogs and rodents may be found on-site. During site visits avifauna observed on site include egret, cardinal, mynah and it is expected that common pigeon, dove and sparrows will also be found onsite.

#### 3.7 Environmental Site Assessment Findings

Verdant Pacific Environmental conducted a Phase I Environmental Site Assessment entitled *Phase I Environmental Site Assessment ForProposed Kakaako First School 0.75-Acre Portion of 709 Kelikoi St. TMK (1) 2-1-060:008 Honolulu, HI 96813.* This study, which is included in its entirety as Appendix C, determined that the project site is considered a Recognized Environmental Condition (REC). The following isa summary of the key findings of the report.

# Subject Property, REC

No records of registered UST or LUST were identified at the *subject property* from the HDOH UST databases (Hawaii Department of Health, 2014). EDR identified no records of NPL sites, RCRA CORRACTS TDS or non-CORRACTS facilities, State Sites of Interest, delisted NPL sites, CERCLIS or CERCLIS NFRAP sites, State Brownfield sites, landfill or solid waste disposal sites, RCRA generator sites, State Voluntary Cleanup sites, or Federal ERNS list sites. However, the *subject property* is a portion of the parcel listed under the Institutional and Engineering Controls registries due to the former landfill activities.

Additionally, there was an evidence of landfill content (ash layer, glasses, and ceramic pieces) at the Cancer Center's southern boundary which is

immediately north of the *subject property*. Soil samples collected at the former Produce Center site were found to contain lead, PCB, fluoranthene, and dieldrin levels exceeding the HDOH Tier 1 Soil Action Levels. Based on the proximity of the *subject property* to the parcel 9, this is considered a REC

# Surrounding Properties, Non-REC

During the site reconnaissance conducted on December 23, 2014, VPE observed the adjoining properties and found no active release, signs of previous release, or material threat of release to the subject property. The HDOH SHWB did not identify any records or concerns related to the adjoining properties.

Three USTs were removed from the former Produce Center directly north of the *subject property*. The UST closure and release response procedures were completed to address the petroleum release from the former USTs. In a letter dated June 1, 2001, HDOH Solid and Hazardous Waste Branch concurred with Masa Fujioka and Associates' recommendation for "no further action." This is not considered a REC.

# Surrounding Properties, REC

The DOH HEER Records indicated that the entire parcel including the *subject property* is a former landfill. Kewalo Landfill, in operation from 1927 to 1977, was used to dispose of ash from the Kewalo Incinerator and a host of municipal and industrial solid wastes, including unburned municipal refuse, construction and household debris, drums of unknown liquids, automobile batteries, and cans of paint thinner (Section 4.2.1). It has since been developed into a public park; however, the potential still remains that the soil is adversely impacted. This is considered a REC.

#### Conclusion

VPE conducted a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E 1527-13 at the subject property located at a 0.75-acre portion of 709 Kelikoi Street, Honolulu, HI 96813. This assessment has revealed evidence of recognized environmental conditions in connection with the subject property.

# 3.8 Infrastructure and Utilities

The proposed improvements are readily serviced by existing utilities located in the immediate vicinity.

#### Water

There is an existing 1-1/2 inch water lateral servicing the existing building. The lateral is connected to an existing 8-inch water main running along Keikoi Street, mauka of the project site. The lateral is connected to a 1-inch meter and 1-1/2 inch backflow preventer located at the Keikoi Street property line. The 1-1/2 inch water lateral was installed in the 1990s part of the Kakaako Waterfront Park improvements.

A new 2-1/2 inch water lateral is anticipated to replace the existing 1-1/2" water lateral and will be installed in approximately the same location. The increase of water lateral size is due to the increase demands from the new facility. A new 2-inch water meter and 2-1/2 inch backflow prevent will replace the existing system. The water system shall comply with the "Water System Standards", Board of Water Supply, City and County of Honolulu, 2002. Approvals for the proposed water system shall obtained from the Board of Water Supply.

#### Fire Protection

An existing fire hydrant is located mauka of the existing building within the University of Hawaii, Cancer Center. The fire hydrant does not meet the requirements for fire protection to the proposed Seagull School.

A new 6-inch fire line will be installed from Keiko Street to the proposed Seagull school site. Two new fire hydrants will be installed to meet the fire protection requirements for the school. One will be located along the eastern side of the school site within the existing parking area. The second fire hydrant will be located along the west side of the school site. A detector check meter will be installed at the Keikoi Street property line. The fire line shall comply with the "Water System Standards", Board of Water Supply, City and County of Honolulu, 2002. Approvals for the proposed water system shall be with Board of Water Supply.

### Wastewater

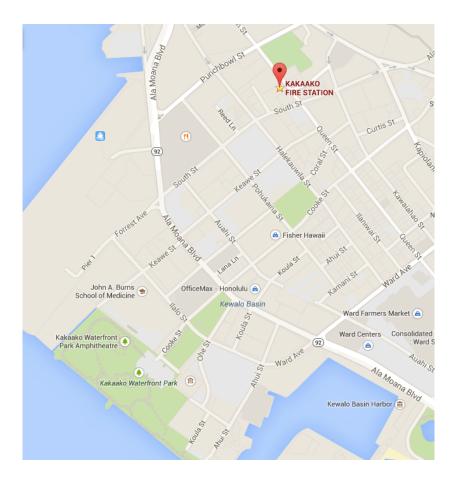
There is an existing 6-inch sewer lateral servicing the existing building. The sewer lateral was installed in the 1990s part of the Kakaako Waterfront Park improvements. The system connects to the sewer main running along Kelikoi Street, mauka of the project site.

The existing 6-inch sewer lateral will be utilized to support the proposed Seagull school. The existing 6-inch sewer lateral will be extended west to support the two new structures. The sewer system shall comply to the "Design Standards of the Department of Wastewater Management", Department of Wastewater Management, City and County of Honolulu, July 1993. Approvals for the proposed sewer system shall be with Department of Environmental Services.

# Stormwater Drainage

Drainage in the vicinity of the proposed Seagull school is serviced by two existing grate inlets connected to a 36-inch drain line. This system was installed in the 1990s part of the Kakaako Waterfront Park improvements. Generally drainage sheet flows into these two grate inlets. Drainage runoff from the grassed mound makai of the proposed school sheet flows mauka to an existing grass swale where portions of the runoff discharge into one of the grate inlet west of the school. The second grate inlet is located makai of the existing building and receives runoff from the pavement area. Runoff from the existing parking east of the proposed school flows into a series of grate inlets within the parking area. Drainage mauka of the school is contained within the UH Cancer campus.

The existing drainage system around the vicinity of the school will be realigned to accommodate the new school structures. The existing impervious asphaltic concrete pavement will be demolished and removed, replaced with a pervious surface to reduce flows. The proposed drainage system shall comply to the "Rules Relating to Storm Drainage Standards", Department of Planning and Permitting, City and County of Honolulu, January 2000. The intent is to establish controls on the timing and rate of discharge of storm water runoff to reduce storm water runoff pollutions and quantity to the maximum extent practicable through the



implementation of best management practices and engineering control facilities.

# Solid Waste

It is expected that private refuse collection service will be used to service the project location. The applicant may implement recycling programs upon project completion. The Department of Health has indicated that recycled paving material should be used if available at acceptable prices and that solid waste generated during the project's construction should be directed to a permitted solid waste disposal, processing or recycling facility.

# Telephone and Electrical Services

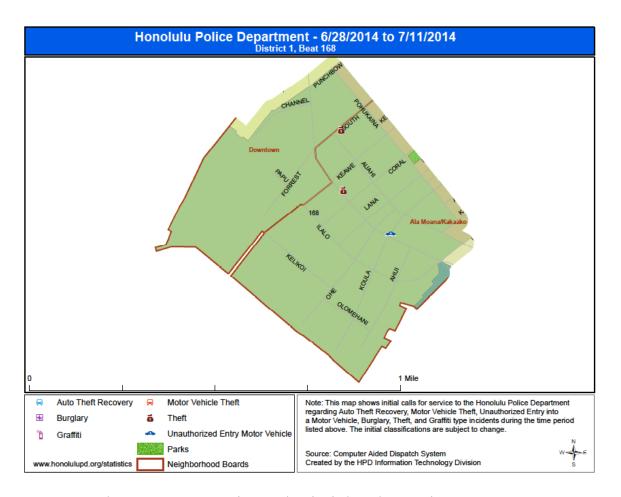
Telephone and electrical services are available to the site. Coordination with the local electric and telephone service providers will be expected during the design and construction phases.

### 3.9 PUBLIC FACILITIES

The proposed project is not expected to have any impact on any existing public facilities including schools, parks, police, and fire or emergency medical services.

Kakaako Fire Station Number 9 provides fire protection service to the project area as well as emergency medical service. The station is located at 555 Queen Street less than one mile from the project site. Response time to the park is less than 5 minutes.

Police service is provided by the Honolulu Police Department (HPD)



BeatNumber 168. Response time to the site is less than 5 minutes.

Public transportation by TheBus is available along Queen Street, approximately 500-feet from the project site along either Keawe Street or Coral Street. Bus stops are located both mauka and makai of Queen Street near the Queen Street/Emily Street intersection. Bus service is also readily available on Ala Moana Boulevard.

By year 2020, it is anticipated that the Honolulu Area Rapid Transit rail system will be in operation serving the project area. The Civic Center rail station located at the intersection of Halekauwila and South Street will be the closest to project site, approximately 0.6 miles away.

Public schools serving the area include Royal Elementary School and McKinley High School. While the proposed pre-school is located within the district served by these schools, students matriculating from the schools will be bound to schools located within and outside of the area.

### 3.10 Relationship to Plans, Codes and Ordinances

The project site is located within the Hawaii Community Development Authority (HCDA) Makai Area. The Makai Area Plan is part of the Hawaii Administrative Rule Title 15, Department of Business, Economic Development & Tourism: Subtitle 4, Hawaii Community Development Authority, Chapter 23, Makai Area Rules

A programmatic Final Environmental Impact Statement for the Makai Area Plan was published in 1990 and was subsequently updated with a Supplemental document for a 1993-2002 plan, and most recently a 2005 plan. As in the original plan, each updated plan and area rules continue to recognize the Kakaako Waterfront Park site as a landmark park. The EIS and Supplemental EA published by the HCDA for the Makai Area Plan provide the disclosure for full build out of the Makai Area as envisioned in the Makai Area Plan. The subject EA for the Seagull First School is not a supplement to the Makai Area EIS but is required for the use of State Lands under Chapter 343. In a Declaratory Ruling by the Environmental Commission in 1980, it was determined that the entire Kakaako Development District should be viewed as a "group of proposed or possible actions" taken as a comprehensive whole.

Under the most current 2005 plan, the park site is envisioned as a site for active plan and interactive children's play. The plan also states that within the park zone cultural and educational uses are allowed and encourage. With respect to these vision statements, the proposed preschool use is consistent and fulfilling to the plan.

The State Land Use Commission Boundary Maps identify the project site as being within the Urban area. This is consistent with the surrounding uses that include commercial uses and high-density residential development.

The project site is located within the Special Management Area and will consequently require a Special Management Permit from the State Office of Planning. Additionally, the project must be reviewed for Coastal Zone Management (CZM) consistency. In this regard, the project generally complies with policies of the CZM. The project will not decrease or impact any recreational resources as the project site is not currently publicly accessible nor is it used for recreational purposes. The project will not affect any historic resources. The project will not affect any scenic or open space resources and will in fact, improve the appearance of the former institutional maintenance compound. The project will not impact any coastal ecosystems as the site is located over 600 feet from the hardened shoreline. The project will enhance the State's economy by providing employment opportunities and more significantly will allow the parents of the school to seek employment opportunities that home care would not allow. The site is not located within a flood district nor will the project increase coastal hazards. And lastly, the entire Kakaako Makai Area Plan area is subject to a programmatic Environmental Impact Statement which manages the overall development of the district. The proposed use is encouraged under the provisions of educational opportunity.

The City and County of Honolulu General Plan provides the overall vision for the island of Oahu and broadly outlines the objectives and policies shaping future growth. While the proposed action is consistent with the Plan overall, it is particularly pertinent to the section on health and eduction. It is here where proposed action supports Objective B, to provide a wide range of educational opportunities to the people of Oahu.

The City's Primary Urban Center development plan also is related to the project area. The plan does not specifically address early education but in concept and intent, the Plan promotes educational opportunities. Most specifically, the Plan states in Section 4.7.2 that the PUC Policies "support the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work."

Required permits will include an HCDA Development Permit, the aforementioned Special Management Permit, and grading and construction related permits from the City and County of Honolulu.

# 3.11 Probable Impact on the Environment

The proposed project represents a significant change from its current and former uses. The project is consistent with surrounding land uses and the intent of the prevailing Makai Area Plan. Impacts associated with the proposed project have generally been determined to be negligible. Views will be minimally impacted as

a result of the new facility but should be considered an attractive addition with a minimal loss of open space. Parking during the hours of operation are readily available

Construction of the school will result in the long-term loss of the area for other uses but this is largely off-set by the education and services provided by the preschool operation. In this context, the use is an essential component of the urban fabric of the Kakaako District. The use of a portion of the park site that was never available for visitor and resident use means that no loss of recreation space will result

Positive environmental impacts are expected as a result of the increased activity in the relatively quiet corner of the park site. Increased use will decrease loitering in the area and will also increase the sense of activity and well being throughout the site.

Based on the information available at the time of this study, the collective implementation of all site components will result in significantly positive overall impacts that offset negative environmental impacts.

# 3.12 Adverse Impacts Which Cannot be Avoided

Adverse impacts that cannot be avoided are generally related to short-term construction impacts. These impacts can be minimized by sound construction practices, Best Management Practices (BMPs) adherence to applicable construction regulations as prescribed by the Department of Health, and coordination with applicable County agencies.

Minor increases in traffic and air and noise pollution from vehicular traffic will occur as is expected of any development of this nature. This is particularly true for a facility specializing in young children as walking distances must be shorter necessitating the need for automobile transportation.

# 3.13 Alternatives to the Proposed Action

No other use alternatives beyond the non-action alternative were considered for this project. Non-action was considered and rejected since no benefit to the community would be provided and the loss of childcare in the district would be significant and detrimental.

Within the scope of proposed improvements, alternative densities and configurations were considered. As presented in this report, the final program for

this facility is slightly smaller than the Applicant's current campus at the Civic Center but this small decrease in student capacity allows the proposed campus to better fit the available site.

Alternative locations were not considered because no other suitable public owned lands (such as the existing campus) in the vicinity are available. Privately owned lands in the project area could accommodate the proposed project however acquisition costs would be prohibitive.

Open space, while also beneficial to the community, does not represent a highest and best use of the project lot.

# 3.14 Mitigation Measures

Long-term impacts resulting from the proposed improvements are expected to be minimal or non-existent based upon the subject environmental assessment. Long-term traffic, air and noise impacts are not expected to change significantly after improvements are completed. Short-term construction related noise and air quality impact mitigation measures include general good housekeeping practices and scheduled maintenance to avoid a prolonged construction period. The contractor will be directed to use best management practices (BMP) wherever applicable.

### 3.15 Irreversible and Irretrievable Commitment of Resources

Implementation of the proposed project will result in the irreversible and irretrievable commitment of resources in the use of non-recyclable energy expenditure and labor. Materials used for new construction may have salvage value; however, it is unlikely that such efforts will be cost-effective. The expenditure of these resources is offset by gains in construction-related wages, increased tax base and tertiary spending.

### 4.0 NECESSARY PERMITS AND APPROVALS

Use of the project site for the proposed preschool requires a discretionary approval from the Hawaii Community Development Authority (HCDA). All other permits and approvals are generally ministerial in nature.

# **State Agencies**

Permit or Approval Approving Agency

Kakaako Community Development

District Permit HCDA

Special Management (Area) Permit Office of Planning

# **County Agencies**

Permit or Approval Approving Agency

Building Permits

Grading and Stockpiling Permits

Dept. of Planning and Permitting

Dept. of Planning and Permitting

Dept. of Planning and Permitting

Dept. of Environmental Services

# 5.0 FINDINGS AND REASONS SUPPORTING DETERMINATION OF FINDING OF NO SIGNIFICANT IMPACT

As stated in Section 11-200-12, EIS Rules, Significance Criteria: in determining whether an action may have a significant effort on the environment, every phase of a proposed action shall be considered. The expected consequences of an action, both primary and secondary, and the cumulative as well as the short-term and long-term effects must be assessed in determining if an action shall have significant effect on the environment. Each of the significance criteria is listed below and is followed by the means of compliance or conflict (if extant).

• Involves an irrevocable commitment to the loss or destruction of any natural or cultural resource.

The proposed action will occur on an existing developed site and will not impact any topographical resources. The area has been heavily disturbed and the proposed use will not involve the loss or destruction of any cultural resources.

• Curtails the range of beneficial uses of the environment.

The proposed use will result in a significant change from its existing use but represents an appropriate use that will benefit the public and will be environmentally consistent with the surrounding urban area. Beneficial uses of the environment will be expanded by the proposed project by providing needed early education opportunities in a convenient urban location in central Honolulu. Recreational uses on the surrounding Kakaako Waterfront Park will not be affected. The existing parking lot only be minimally impact by the proposed school operations.

• Conflicts with the State's long-term goals or guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The proposed action is consistent with the goals and guidelines expressed in Chapter 343, Hawaii Revised Statutes. The proposed action is triggered by the use of State lands and funds. The subject Environmental Assessment has been developed in compliance with the Chapter 343.

• Substantially affects the economic or social welfare of the community or state.

The proposed action will make a positive contribution to the welfare and economy of the State and City by providing desirable and needed early education opportunities to the State of Hawaii. The proposed use adaptively reuse the existing vacant maintenance building. The facility will also contribute positively to the community through the use of goods and services in the area, through construction related employment, and through secondary and tertiary spending and taxes

• Substantially affects public health.

The proposed improvements are not expected to have any direct impact on public health. No recreational resources will be impacted by the project, nor will the project increase any undesirable environmental impacts.

• Involves substantial or adverse secondary impacts, such as population changes or effects on public facilities.

The proposed action will not increase the population within the community nor will it increase the demand for public facilities. The proposed use is, in fact, a highly desirable service to the growing Kakaako community.

• Involves a substantial degradation of environmental quality.

The proposed action will not degrade environmental quality. Impacts associated with the project, such as traffic impact and air and noise quality have been assessed to be minimal. The project is located in a highly urban environment that is expected to be heavily developed in the future. In that respect, the project is consistent with the overall land use of the district.

• Is individually limited but cumulatively has a considerable effect upon the environment or involves a commitment for larger actions.

The proposed action is not a first phase of, or related to, any larger action. The cumulative effect of the project is disclosed in this document (and associated figures and charts) and does not involve any planned future actions that will cumulatively impact the environment.

• Substantially affects rare, threatened or endangered species, or their habitats.

The proposed action will not affect any rare, threatened or endangered species of flora or fauna, nor is it known to be near or adjacent to any know wildlife sanctuaries.

• Detrimentally affect air or water quality or ambient noise levels.

The proposed action will not impact air or water quality. Noise levels will change from those of a heavy equipment maintenance facility to noise associated with children at play.

Minimal impacts on air quality and noise are anticipated during construction, and these impacts will be mitigated by normal construction practices and strict adherence to Department of Health construction mitigation standards.

• Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach erosion prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The project will not have any impact on an environmentally sensitive area.

• Substantially affects scenic vistas and viewplanes identified in County or State plans or studies.

The proposed action will not affect any scenic vistas or viewplanes. The project is located in the lowest elevation area of the park site and is also located in a relatively quiet corner of the park.

• Require substantial energy consumption.

The project will increase electrical energy consumption over the existing use. The school will be naturally ventilated as is it is the policy of the applicant. General conservation goals include: meeting State energy conservation goals, using energy saving design practices and technologies, and recycling and using recycled-content products.

Based on the above stated criteria, the proposed preschool facility will not have a significant effect on the environment. As such, a Finding of No Significant Impact (FONSI) is warranted for the project.

# 6.0 LIST OF PARTIES CONSULTED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD

Agencies with ministerial or specific interests regarding the proposed project were contacted for their early comments regarding the proposed project. Parties contacted are listed below.

# **Federal Agencies**

**Response Date** 

US Environmental Protection Agency Region IX Administrator

# **State Agencies**

Department of Accounting and General Services	11/14/2014			
Department of Business Economic Development & Tourism				
Energy, Resources & Technology Division				
Department of Defense				
Department of Education				
Department of Health, Clean Water Branch	11/25/2014			
Department of Health, Environmental Planning Branch	11/14/2014			
Department of Health, Hazard Evaluation and Emergency Response				
Department of Land and Natural Resources				
Department of Land and Natural Resources				
State Historic Preservation Officer				
Department of Transportation, Airports	12/5/2014			
Department of Transportation, Highways	11/26/2014			
Hawaii Community Development Authority	12/3/2014			
Hawaii State Library Main Branch				
Office of Hawaiian Affairs				
Office of Planning 11/26/2				
University of Hawaii at Manoa				
Environmental Center				

# **County Agencies**

Board of Water Supply
Department of Community and Social Services
Department of Environmental Services
Department of Parks and Recreation
Department of Planning and Permitting
12/8/2014

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Department of Transportation Services	12/3/2014
Fire Department	12/2/2014
Police Department	12/4/2014

# Officials and Organizations

Children's Discovery Center
Friends of Kewalo
Hawaiian Electric Company
Howard Hughes Corporation
John A. Burns School of Medicine
Kakaako Improvement Association
Kakaako Makai Community Planning Advisory Committee (CPAC)
Kamehameha Schools
Neighborhood Board No. 11
UH Cancer Center

# APPENDIX A

**Cultural Resources** 

# University of Hawai'i Health and Wellness Center

### **CULTURAL RESOURCES**

The project site is located on fill land that is identified as the near-shore waters and coral reef of Ka'ākaukukui on early historical maps. Ka'ākaukukui is an 'ili awarded to Victoria Kamāmalu in the Great Mahele of 1848 that is situated between the areas traditionally referred to as Kewalo and Kaka'ako. Historical maps of the area from the 1800s indicate a "Beach Road" that follows along the shoreline and makai boundary of the 'ili (see Figure 1). This road approximately coincides with the present day alignment of Ala Moana Boulevard.

The lands of Ka'ākaukukui, Kaka'ako and Kewalo were in close proximity to Kou, a favorite sheltered harbor of O'ahu's chiefly class. In 1809 under the reign of King Kamehameha I, the seat of government was moved from Hawai'i Island to Kou which quickly developed into Honolulu Harbor and Downtown Honolulu. The surrounding area, which included Ka'ākaukukui, grew from a coastal fishing village to support the new maritime industry and increased activities.

In the 1840s during the reign of Kauikeaouli Kamehameha III, son of Kamehameha I, land tenure in Hawai'i entered a transitional period terminating in the "Great Mahele" of 1848. King Kamehameha III who inherited from his brother control of all the lands with the kingdom chose to provide the opportunity for fee simple ownership of land to his chiefs and people. The maka'āinana, the native tenants, were able to make claims for and receive title to their kuleana, the areas of land which they personally used. Kauikeaouli Kamehameha III after reserving certain lands for himself as his own private property, surrendered the majority of the lands to his chiefs and people. The project site is located in what were the nearshore waters of the 'ili of Ka'ākaukukui, of which the majority of the lands, or 125 acres, was awarded to Victoria Kamāmalu through Land Commission Award 7713. Smaller kuleana lands were also awarded to seven other native tenants.

Claims by native tenants are recorded in the *Native and Foreign Registers* which typically includes information regarding the location of the claim, and sometimes information regarding the type of use. Additional information regarding the claims and use of the land can also be found in *Native and Foreign Testimony* records. A review of Native and Foreign Register and Testimony records revealed that claimants registered for house lots, fishponds, salt beds and cultivation areas including mauka kalo patches.

In 1919 the Territory of Hawai'i acquired the land from Bishop Estate which included the lands inherited by Princess Bernice Pauahi Bishop from Victoria Kamāmalu. By this time a retaining wall had been constructed along the approximate alignment of the present Olomehani Street and the area makai of Ala Moana Boulevard was filled (see

Figure 2). During this period of development a large settlement of squatters became established and by 1924 the Territorial government was evicting people from "Squattersville." The following history of this period of change for the area can be found in *The Beaches of O'ahu* by John R.K. Clark.

"The shoreline land that Squattersville occupied was known as Ka'ākaukukui, commonly shortened to 'Ākaukukui. The majority of the homes were comfortable and sturdily built. The dwellings that lined the seashore, where the present Olomehani Street now runs, were protected from the ocean by a low sea wall about three feet high. Relatives and friends of the residents often went there to spend weekends and summers. By the mid-1920s, the community numbered about 700 Hawaiians and part-Hawaiians, but because of the illegality of their settlement all of the families were evicted by May 1926 and all of the dwellings were razed.

During the 1930s and 1940s, the Kaʻākaukukui area continued to be heavily utilized as a fishing and swimming area, especially by children from the nearby community of Kakaʻako. The children surfed on redwood planks in the break they called 'Stonewall.' Many varieties of fish were abundant. Younger divers were warned by old-time residents to stay away from the large shark hole on the Waikīkī side of Kewalo Channel. Many people came to this area to pick *limu* and *wana*, and also to catch squid on the shallow reef.

In August 1948 a severe change took place. The City and County began work on a project to provide a dump for the noncombustible material from the nearby incinerator. A huge seawall was constructed, 10 feet high, 10 feet wide on top, and 30 feet wide at the base, and it extended 500 feet seaward from the old shoreline. From its outer extremity, along the edge of Kewalo Channel, the wall was continued parallel to the coast all the way to Fort Armstrong... With the completion of the seawall in 1949, filling operations began and in the mid-1950s the shallow reef of Kaʻākaukukui was completely covered over. Twenty-nine acres of new land had been added to the old shoreline. (Clark, p. 64)

Since the area makai of Ala Moana Boulevard is comprised of fill land, the project site is located on previously submerged lands. Nevertheless, in the early 1900s these lands supported an unauthorized fishing village until the Territorial government eventually evicted the squatters in 1926.

Although the existing shoreline is the result of land-filling activities that took place in the early 1900s and mid-1950s, the coastline continues to be used for fishing, shoreline gathering and recreational activities including swimming and surfing.

In the vicinity of the project site, these ocean-related activities primarily occur at Kaka'ako Waterfront Park which is located immediately makai of the project site.

Access to the Park and shoreline is via surface streets terminating at the Park's parking lot which is typically where ocean goers leave their cars.

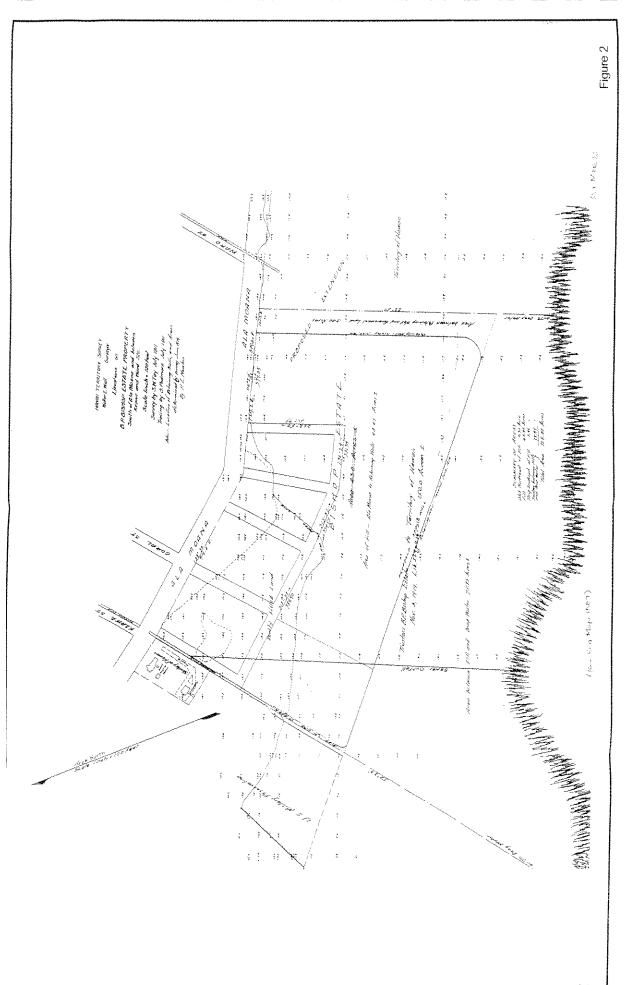
# **Impacts and Mitigation Measures**

The proposed project will have no impact on cultural resources or activities. In their letter dated February 18, 1998 the State Historic Preservation Division determined that "because the area makai of Ala Moana Boulevard is comprised of fill lands, we believe that the development of the area will have 'no effect' on subsurface cultural deposits because it is unlikely any are present."

The proposed project will not affect access to Kaka'ako Waterfront Park or the shoreline. In addition, approximately 850 on-site and off-site parking stalls will be provided for faculty, staff, and students to help ensure that public parking at the Park is not affected.

# **Bibliography**

Clark, John R.K. The Beaches of O'ahu. 1977



# APPENDIX C

State Historic Preservation Letter and Determination of No Effect from 1998 Makai Area Plan Supplemental Environmental Impact Statement





WILSON OKAMOTO & ASSOC., INC.

### STATE OF HAWAII

### DEPARTMENT OF LAND AND NATURAL RESOURCES

February 18, 1998

STATE HISTORIC PRESERVATION DIVISION 33 SOUTH KING STREET, 6TH FLOOR HONOLULU, HAWAII 96813

Susan Tamura Hawaii Community Development Authority 677 Ala Moana Boulevard, Suite 1001 Honolulu, Hawaii 96813

Dear Ms. Tamura:

WATER AND LAND DEVELOPMENT

LOG NO: 21043 💆 DOC NO: 9802EJ06

MICIUEL D. WILSON, CHAIRFERSON BOARD OF LAND AND NATURAL RESOURCES DEPUTIES GILBERT COLOMA AGARAN

> AQUACULTURE DEVELOPMENT PROGRAM

> > RESOURCES ENFORCEMENT

AQUATIC RESOURCES CONSERVATION AND

FORESTRY AND WILDLIFE

HISTORIC PRESERVATION

DIVISION LAND DIVISION

CONVEYANCES

STATE PARKS

Chapter 6E-8 Historic Preservation Review of a Supplemental Environmental Impact SUBJECT:

Statement Preparation Notice: Kakaako Makai Area Plan

Kakaako, Kona, O'ahu TMK: 2-1-15, 58-60

Thank you for the opportunity to review the Supplemental Environmental Impact Statement Preparation Notice for the revisions to the Kakaako Makai Area Plan, December 1997.

In November 1989 our office commented on the Draft Supplemental EIS for Kakaako Makai Area Plan (Log. 1696b/1939). We noted that since the historic buildings within the Kakaako Makai Area, the Department of Health Building, the U.S. Immigration Station, and the former Ala Moana Wastewater Pump Station, were scheduled for preservation, we believed that the plan would result in "no adverse effect" to these historic sites.

In December 1994, we provided comment on the expansion of the Draft Makai Area Plan mauka of Ala Moana Boulevard and commented that this area "includes an area of former sandy beaches where traditional Hawaiian dwelling were located in the past. It is likely that unmarked human burials are also present in the area of the proposed expansion." We also stated that "Our review of projects in this proposed expansion area will take into account the likelihood that the remains of dwelling sites and human burials are extant below the surface here." (Log. no. 13180)

The current Kakaako Makai Area Plan no longer includes the area mauka of Ala Moana boulevard. Because the area makai of Ala Moana Boulevard is comprised of fill lands, we believe that the development of the area will have "no effect" on subsurface cultural deposits because it is unlikely any are present. Also, the plan in section 3.2.5 states that the historic buildings will be preserved; therefore, we believe that the plan would have "no adverse effect" on these historic sites.

If you have any questions please call Elaine Jourdane at 587-0014.

Aloha<sub>2</sub>

Don Hibbard, Administrator Historic Preservation Division

EJ:ik

Rodney Funakoshi, Wilson Okamoto & Associates, Inc., 1907 S. Beretania St., Hon. 96826

# APPENDIX B

**Traffic Management Plan and Traffic Assessment** 

# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL

HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 

PREPARED FOR

**SEAGULL SCHOOLS** 

**APRIL 24, 2015** 



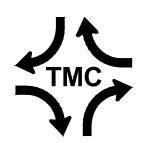
# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL

HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 





THE TRAFFIC MANAGEMENT CONSULTANT RANDALL S. OKANEKU, P.E., PRINCIPAL \* 1188 BISHOP STREET, SUITE 1907 \* HONOLULU, HI 96813

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# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT

FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 

### I. Introduction

# A. Purpose and Scope of the Study

Seagull Schools is planning to develop the Kakaako First School within the Kakaako Waterfront Park in Honolulu, Hawaii. The purpose of this study is to prepare a traffic management plan and assess the traffic impacts resulting from the proposed Kakaako First School. This Traffic Management Plan (TMP) and Traffic Assessment Report (TAR) present the findings and recommendations of the study, the scope of which includes:

- 1. Description of the proposed project.
- 2. Evaluation of existing traffic conditions.
- 3. Development of the trip generation characteristics of the proposed project.
- 4. Development of the parking generation characteristics of the proposed project.
- 5. Analysis of future traffic conditions without the proposed project.
- 6. Identification and analysis of the traffic impacts resulting from the full build-out of the proposed project.
- 7. Identification and analysis of the parking impacts resulting from the full build-out of the proposed project.
- 8. Recommendations of improvements, as necessary, that would mitigate the traffic and parking impacts identified in this study.



# **B.** Project Description

The Kakaako First School is proposed on the Ewa side of the Kakaako Waterfront Park between the amphitheater and the parking lot. The 0.7± acre project site is identified as Tax Map Key: 2-1-006: 008 (portion). Figure 1 depicts the project location and its environs.

Primary access will be provided by Cooke Street, at the existing access driveway to the Kakaako Waterfront Park parking lot. The parking stalls are oriented in the Koko Head/Ewa directions with a circulation roadway around the perimeter of the parking lot. Entering vehicles must turn left or right to park on the makai side of the parking lot. Exiting vehicles must drive along the perimeter roadway to the access driveway.

An existing maintenance building will be renovated and two new buildings will be constructed for a total gross floor area of about 15,400 square feet. The proposed site plan is depicted on Figure 2.

The proposed school is expected to have a total enrollment of 270 students: 250 preschool children and 20 kindergarten to third grade (K-3) students. Kakaako First School is expected to have a staff of about 30 employees. Children may be dropped off after 6:30 AM, and should be picked up before 5:30 PM, Monday through Friday. In the morning, parents/guardians will be required to walk their children to class and sign them in. In the afternoon, parents/guardians will be required to sign out their children.

The proposed school will <u>not</u> offer weekend classes. Kakaako First School is expected to be open by early 2016. For the purpose of this traffic assessment, the 270-student enrollment is assumed to be reached by the Year 2018.

# C. Methodologies

### 1. Capacity Analysis Methodology

The highway capacity analysis, performed for this study, is based upon procedures presented in the <u>Highway Capacity Manual</u> (HCM), published by the Transportation Research Board, 2010.

HCM defines Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream". Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. LOS's "A", "B", and "C" are considered satisfactory Levels of Service. LOS "D" is generally considered a "desirable minimum" operating Level of Service. LOS's "E" and "F" are considered to be undesirable Levels of Service. Intersection LOS is primarily based upon delay. Table 1 summarizes the LOS criteria.



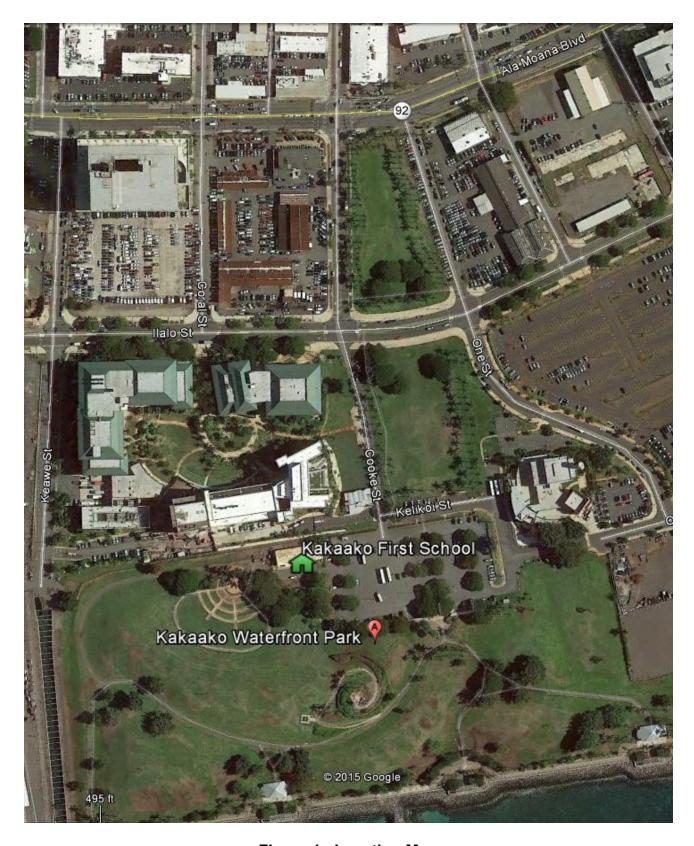


Figure 1. Location Map

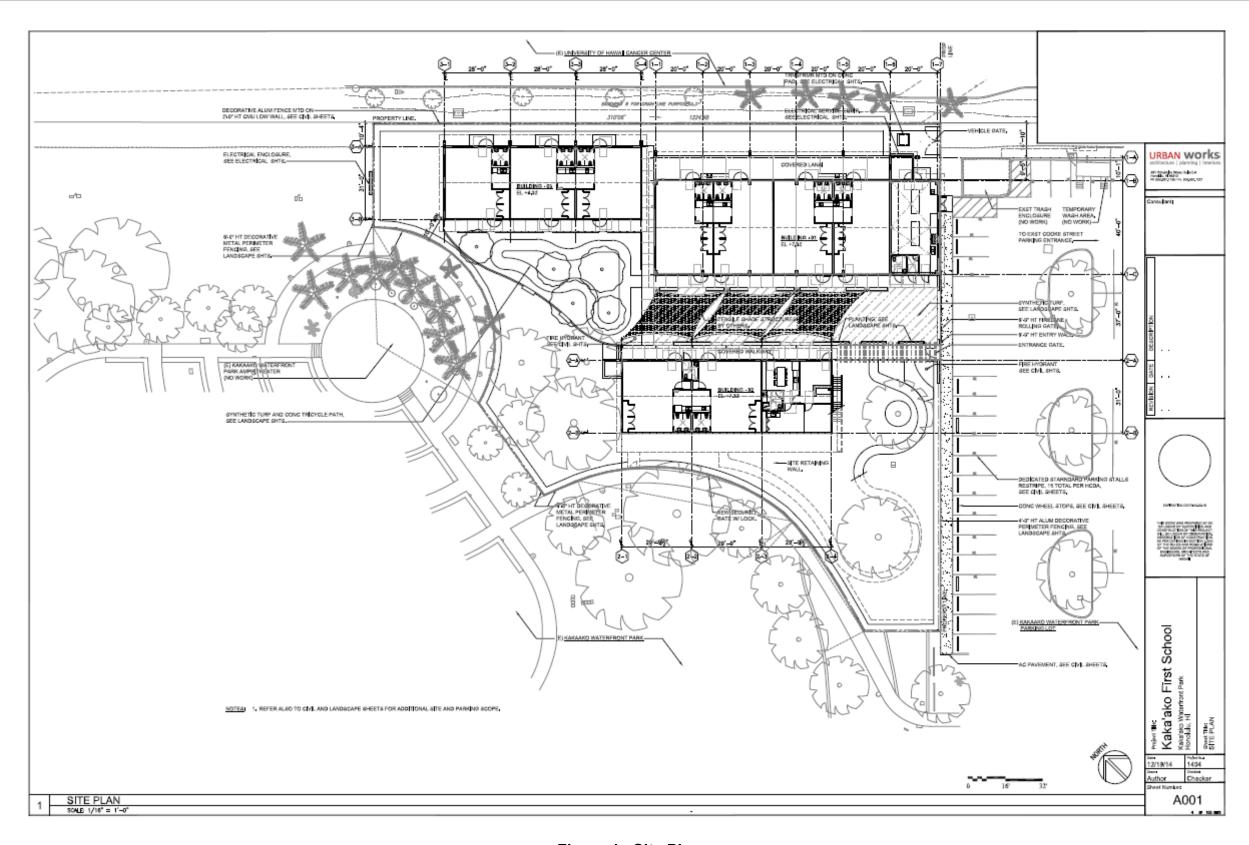


Figure 1. Site Plan

Table 1. Intersection Level of Service Criteria (HCM)					
LOS	Signalized Intersections		Unsignalized Intersections		
	Delay d (sec/veh)	Description	Delay d (sec/veh)	Description	
A	<i>d</i> ≤10	Few stops, little or no delay	<i>d</i> ≤10	Little or no delays	
В	10 <d td="" ≤20<=""><td>Good progression, short cycle lengths</td><td>10&lt;<i>d</i>≤15</td><td>Short delays</td></d>	Good progression, short cycle lengths	10< <i>d</i> ≤15	Short delays	
С	20 <d≤35< td=""><td>Cycle failures begin to occur, i.e., vehicles stop at more than one red phase</td><td>15<d≤25< td=""><td>Average delays</td></d≤25<></td></d≤35<>	Cycle failures begin to occur, i.e., vehicles stop at more than one red phase	15 <d≤25< td=""><td>Average delays</td></d≤25<>	Average delays	
D	35 <d≤55< td=""><td>Noticeable number of cycle failures, unfavorable progression</td><td>25<d≤35< td=""><td>Long delays</td></d≤35<></td></d≤55<>	Noticeable number of cycle failures, unfavorable progression	25 <d≤35< td=""><td>Long delays</td></d≤35<>	Long delays	
Е	55 <d≤80< td=""><td>Frequent cycle failures, poor progression, long delays</td><td>35&lt;<i>d</i>≤50</td><td>Very long delays</td></d≤80<>	Frequent cycle failures, poor progression, long delays	35< <i>d</i> ≤50	Very long delays	
F	<i>d</i> >80	Over saturation, many cycle failures, high delays	<i>d</i> >50	Extreme delays	

Worksheets for the capacity analysis, performed throughout this report, are compiled in the Appendix.

# 2. Trip Generation Methodology

The trip generation methodology is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in <u>Trip Generation</u>. The ITE trip rates for a daycare/preschool and an elementary school are developed by correlating the total vehicle trip generation data with various activity/land use characteristics, such as the vehicle trips per hour (vph) per student.

# 3. Queuing Analysis

The queuing analysis in the parking lot was based upon the following equation, presented in <u>Transportation and Land Development</u> (Stover and Koepke).

$$M = \frac{Ln P_{x > m} - Ln (Q_{M})}{Ln (r)}$$

M = number of vehicles waiting for an open parking stall

 $P_{x>m}$  = probability that the queue will exceed M

$$s = dwell time (minutes)$$

$$Q = 60/s = service rate per parking stall$$

$$q = parking demand (vph)$$

$$N = number of parking stalls$$

$$r = q/(NQ)$$

Q<sub>M</sub> = Table 8-11 (Transportation and Land Development)

The dwell time is the time a parking stall is occupied. Solving for  $P_{x>m}$ , where M is greater than one vehicle waiting for parking, the parking lot is expected to reach capacity about  $P_{x>m}$  percent of the time.

# **II.** Existing Conditions

### A. Roadways

Ala Moana Boulevard is a two-way, six-lane, undivided arterial highway between Downtown Honolulu and Waikiki. Ala Moana Boulevard is signalized at its intersection with Cooke Street.

Cooke Street is a two-way, two-lane collector street between South King Street and Kakaako Waterfront Park. Cooke Street intersects Ilalo Street at a four-way stop intersection.

Ilalo Street is a two-way, four-lane, divided roadway between Keawe Street and Ahui Street. Ilalo Street is a continuation of Ward Avenue. Ilalo Street is a distribution roadway, which intersects a network of mauka-makai streets in the Kakaako Makai area with access to Ala Moana Boulevard and Ward Avenue. On-street parking is permitted on both sides of Ilalo Street, reducing the traffic operations to a two-lane roadway.

Kelikoi Street is a two-way, two-lane local roadway, which provides access to the Hawaii Children's Discovery Center. Kelikoi Street is stop-controlled at Cooke Street/Kakaako Waterfront Park Driveway, opposite the University of Hawaii Cancer Center (UH) Driveway.

# **B.** Existing Peak Hour Traffic Volumes and Operating Conditions

# 1. Field Investigation and Data Collection

Turning movement count traffic surveys were conducted at the Cooke Street intersections at Ala Moana Boulevard and at Ilalo Street on February 19, 2015, during the AM peak period of traffic from 6:30 AM to 9:00 AM, and during the PM peak period of traffic from 3:00 PM to 5:30 PM. A turning movement count traffic survey also was conducted at the intersection of Cooke Street/Kakaako Waterfront Park Driveway and Kelikoi Street/UH Driveway during the peak hours of traffic, from

7:15 AM to 8:15 AM, and from 3:30 PM to 4:30 PM. A traffic survey was conducted at the Kakaako Waterfront Park Driveway at the makai end of Cooke Street on February 19, 2015 from 6:00 AM to 6:00 PM. The traffic data are presented in the Appendix.

# 2. Existing AM Peak Hour Traffic

The existing AM peak hour of traffic occurred from 7:15 AM to 8:15 AM. Ala Moana Boulevard carried about 3,500 vehicles per hour (vph), total for both directions. Between Ala Moana Boulevard and Ilalo Street, Cooke Street carried about 120 vph, total for both directions. Makai of Ilalo Street, Cooke Street carried less than 60 vph, total for both directions. The Kakaako Waterfront Park Driveway carried about 40 vph, total for both directions. The AM peak hour of traffic at the Kakaako Waterfront Park Driveway occurred from 11:15 AM to 12:15 PM, with a total of 106 vph.

The intersection of Ala Moana Boulevard and Cooke Street operated at LOS "C", during the existing AM peak hour of traffic. The left-turn movements in both directions on Ala Moana Boulevard at Cooke Street operated at LOS "F". The shared left-turn/through movements in both directions on Cooke Street at Ala Moana Boulevard operated at LOS "D". The other traffic movements at the intersection operated at satisfactory Levels of Service, i.e., LOS "C" or better.

During the existing AM peak hour of traffic, the Cooke Street intersections at Ilalo Street and Kelikoi Street operated at LOS "A". The existing AM peak hour traffic volumes are depicted on Figure 3.

# 3. Existing PM Peak Hour Traffic

The existing PM peak hour of traffic occurred from 3:30 PM to 4:30 PM. Ala Moana Boulevard carried about 3,700 vph, total for both directions. Cooke Street carried about 170 vph, total for both directions, between Ala Moana Boulevard and Ilalo Street. Makai of Ilalo Street, Cooke Street carried about 110 vph, total for both directions. The Kakaako Waterfront Park Driveway carried about 90 vph, total for both directions.

During the existing PM peak hour of traffic, the intersection of Ala Moana Boulevard and Cooke Street continued to operate at LOS "C". The left-turn movements in both directions on Ala Moana Boulevard operated at LOS "F" at Cooke Street. The shared left-turn/through movement in both directions on Cooke Street operated at LOS "E" at Ala Moana Boulevard.

The Cooke Street intersections at Ilalo Street and Kelikoi Street operated at LOS "A", during the existing PM peak hour of traffic. The existing PM peak hour traffic volumes are depicted on Figure 4.

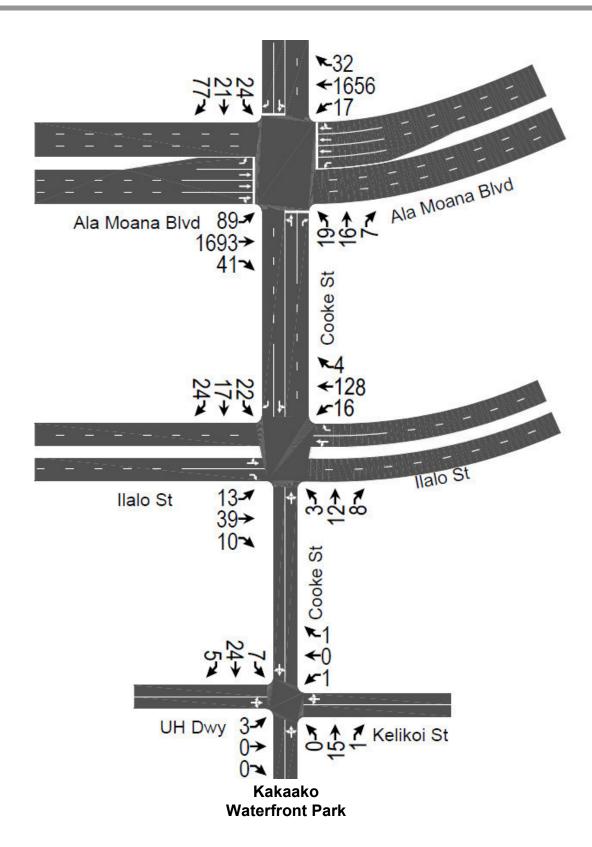


Figure 3. Existing AM Peak Hour Traffic

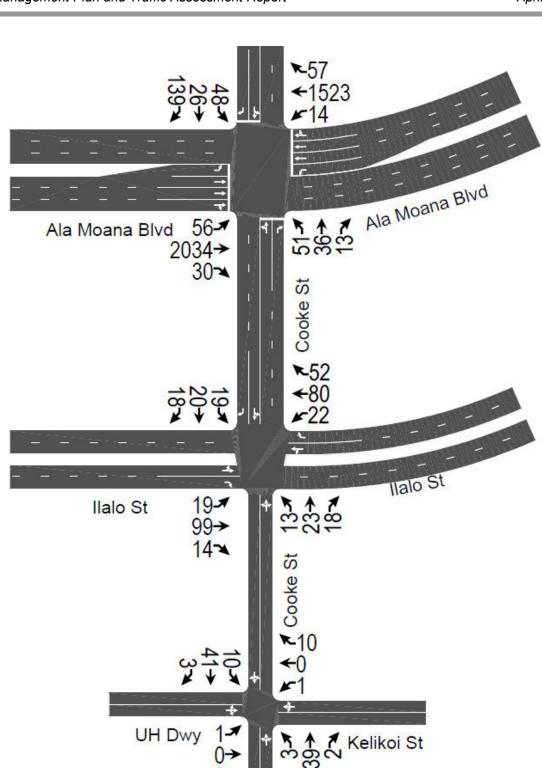


Figure 4. Existing PM Peak Hour Traffic

Kakaako Waterfront Park

# 4. Trip Generation Study

A trip generation study was conducted at the KCAA Mother Rice Preschool at 2707 South King Street in Honolulu, Hawaii, in order to adjust the ITE daycare trip rates for local conditions. The trip generation study was documented in the <u>Traffic Impact Analysis Report for the Proposed KCAA Mother Rice Preschool Expansion</u>, (KCAA TIAR), dated June 25, 2009, which was prepared by The Traffic Management Consultant.

The KCAA trip rates were about 40 percent and 25 percent higher than the ITE daycare/preschool AM and PM peak hour trip rates, respectively. The KCAA trip rates were used in this traffic assessment.

# 5. Parking Analysis

Kakaako Waterfront Park provides about 300 parking spaces. The peak parking demand during the field investigation was less 100 vehicles. The AM and PM peak hour parking operations were analyzed at the KCAA Mother Rice Preschool and documented in the KCAA TIAR. The dwell times, i.e., the time taken by a parent to park the car, remove the child from the car seat, walk the child to class, sign in, return to the car, and drive out of the parking stall, averaged 9.0 minutes and 8.5 minutes during the AM and PM peak hours of traffic, respectively. The KCAA dwell times were used for this parking assessment.

# **III.** Future Traffic Conditions

# A. Background Growth in Traffic

The future peak hour traffic is based upon the Year 2030 projected traffic demands across the Ward Avenue screenline, presented in the <u>Transportation Technical Report for the Honolulu High-Capacity Transit Corridor Project</u>, dated August 15, 2008. A screenline is a mauka-makai boundary that crosses all the Koko Head-Ewa roadways in the region. The Year 2018 traffic forecast is based upon an interpolation of a straight-line growth pattern between the Years 2005 and 2030. The purpose of estimating the future peak hour traffic without the proposed project is to establish the baseline conditions from which to measure the project's traffic impacts. Table 2 summarizes the peak hour traffic volumes (vph) at the Ward Avenue screenline.

		Ve	ear	
Peak Hour	Direction	2005	2030	Annual Increase
	Ewa Bound	13,800	15,000	0.35%
AM	Koko Head Bound	11,390	13,460	0.73%
	Totals	25,190	28,460	0.52%
	Ewa Bound	12,370	13,600	0.40%
PM	Koko Head Bound	15,350	17,330	0.52%
	Totals	27,720	30,930	0.46%

For the purpose of this analysis, a background growth in traffic of 1.0 percent per year was assumed. A growth factor of 1.03 was uniformly applied to the existing peak hour traffic demands to estimate the Year 2018 peak hour traffic demands without the proposed project.

# **B.** Other Proposed Projects

### 1. Napule Restaurant

Bellavita, Inc. proposes to redevelop the existing charter boat building at Kewalo Basin Harbor into the Napule Restaurant. The existing building will be redeveloped into an Italian restaurant with a building floor area of 6,000 square feet of gross floor area (SFGFA) and outdoor seating, for a total seating capacity of about 260 patrons. The proposed restaurant is expected to be open for business during the first quarter of the Year 2016. The traffic access impacts were documented in the <a href="Traffic Assessment Report for the Proposed Napule Restaurant">Traffic Assessment Report for the Proposed Napule Restaurant</a>, dated November 6, 2014, which was prepared by The Traffic Management Consultant. The peak hour traffic assignment for the proposed Napule Restaurant was included in the background growth in traffic for this Traffic Assessment Report.

# 2. Kewalo Basin Retail and Restaurant Project

The proposed Kewalo Basin Restaurant and Retail Project will include a total of about 35,000 SFGFA of retail and restaurant space and a 250-stall parking structure. The project site is located on the existing 109-stall surface parking lot along the Koko Head boundary of the Kewalo Basin Harbor. The transportation impact analysis for the Kewalo project was presented in the <u>Draft Kewalo Basin Restaurant and Retail Project Transportation Impact Analysis Report</u>, prepared by Fehr+Peers, dated October, 2014. The planning horizon for the Kewalo project is the Year 2017. The peak hour trip generation and site traffic assignment, which were developed in the

Kewalo project traffic study, were added to the background growth in traffic for this Traffic Assessment Report.

# 3. Victoria Ward Development Phase 1A

Victoria Ward, Ltd. is proposing to redevelop three parcels as part of Phase 1A of the Victoria Ward Master Plan. "Block C" is the former surface parking lot across the Ward Theaters, bounded by Auahi Street, Kamakee Street, Ala Moana Boulevard and Ward Warehouse. "Block K" is the former Pier 1 Imports, which was located on the mauka-Koko Head corner of the intersection of Kamakee Street and Auahi Street. "Block O" is located on the mauka-Ewa corner of the intersection of Ward Avenue and Halekauwila Street. The three parcels are proposed to be redeveloped into at total of 810 multi-family dwelling units, and 110,000 SFGFA of commercial/retail space.

The traffic impact analysis for the first phase of the Victoria Ward Master Plan was presented in the <u>Traffic Impact Report for the Victoria Ward Development Phase 1A</u> (VW Phase 1A), prepared by Wilson Okamoto Corporation, dated October, 2012. The planning horizon for the VW Phase 1A is the Year 2016. The peak hour trip generation site traffic assignment on Ala Moana Boulevard, which were developed in the VW Phase 1A traffic study, were added to the background growth in traffic for this Traffic Assessment Report.

### 4. Vida at 888 Ala Moana

Vida at 888 Ala Moana is a proposed 265-unit multi-family residential project, which is planned to include about 20,000 SFGFA of commercial space. The project site is located on the mauka side of Ala Moana Boulevard, and is bounded by Ala Moana Boulevard, Koula Street, and Auahi Street.

The traffic impact analysis for the Vida project was presented in the <u>Traffic Impact Report for Vida at 888 Ala Moana</u>, prepared by Wilson Okamoto Corporation, dated June, 2014. The planning horizon for the Vida project is the Year 2017. The peak hour trip generation and site traffic assignment, which were developed in the Vida traffic study, were added to the background growth in traffic for this Traffic Assessment Report.

### 5. The Collection

The Collection (also known as 600 Ala Moana and Block E) is located at 604 Ala Moana Boulevard, which is currently under construction. The project site is bounded by Ala Moana Boulevard, South Street, Auahi Street, and Keawe Street. The <u>Draft Traffic Evaluation - 600 Ala Moana</u> was prepared for The Collection, LLC, by Parsons Brinkerhoff, Inc., dated June, 2013. The Collection traffic study analyzed the traffic impacts of 467 residential dwelling units and 13,000 SFGFA of commercial space. The trip generation and traffic assignment from the Collection traffic study were included in this Traffic Assessment Report.



During the AM peak hour of traffic without the proposed project, the intersection of Ala Moana Boulevard and Cooke Street is expected to continue to operate at LOS "C". The left-turn movements in both directions on Ala Moana Boulevard at Cooke Street are expected to operate at LOS "F". The shared left-turn/through movements in both directions on Cooke Street at Ala Moana Boulevard are expected to operate at LOS "D". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The Cooke Street intersections at Ilalo Street and Kelikoi Street operated at satisfactory Levels of Service, during the AM peak hour of traffic without the proposed project. The AM peak hour traffic volumes without the proposed project are depicted on Figure 5.

# D. Year 2018 PM Peak Hour Traffic Analysis Without Project

The study intersections are expected to operate at the same Levels of Service as during the existing PM peak hour of traffic. Figure 6 depicts the AM peak hour traffic volumes without the proposed project.

### IV. Traffic Analysis

### A. Site-Generated Traffic

## 1. Trip Generation Characteristics

Based upon the expected 250 preschool students and 20 K-3 students, the Kakaako First School is expected to generate 284 vph - 151 vph entering the site and 133 vph exiting the site, during the AM peak hour of traffic. During the PM peak hour of the traffic, the proposed project is expected to generate 253 vph - 122 vph entering the site and 131 vph exiting the site. The trip generation characteristics are summarized in Table 3.

Table 3. Tri	p Generation	Charact	teristics ·	– Kakaa	ıko First	School	
Land Use	Units	AM	Peak H	our	PM	Peak H	our
Land Use	Units	Enter	Exit	Total	Enter	Exit	Total
Preschool	vph/student	0.58	0.51	1.09	0.45	0.48	0.93
(KCAA TIAR)	vph	146	129	275	113	121	234
Elementary School	vph/student	0.25	0.20	0.45	0.44	0.49	0.93
(ITE Code 520)	vph	5	4	9	9	10	19
	Totals (vph)	151	133	284	122	131	253

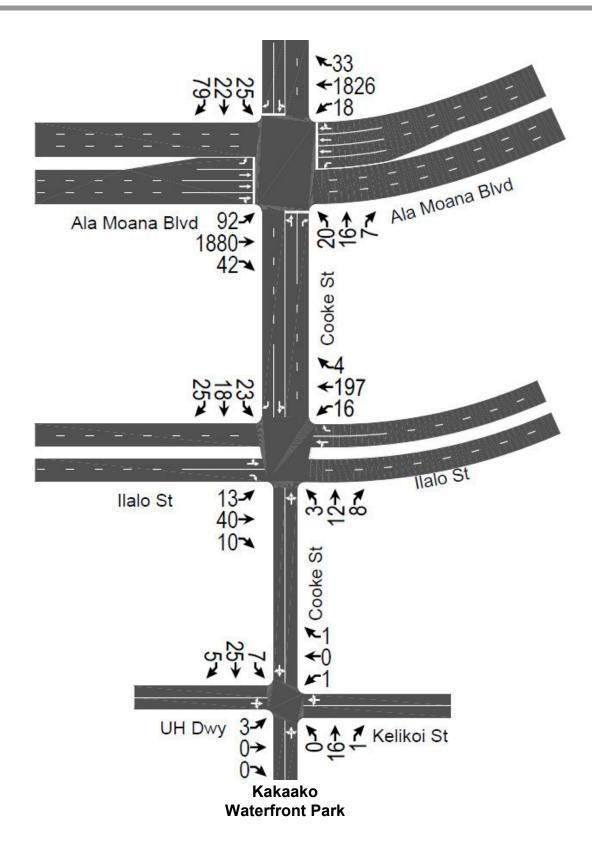


Figure 5. AM Peak Hour Traffic Without Project

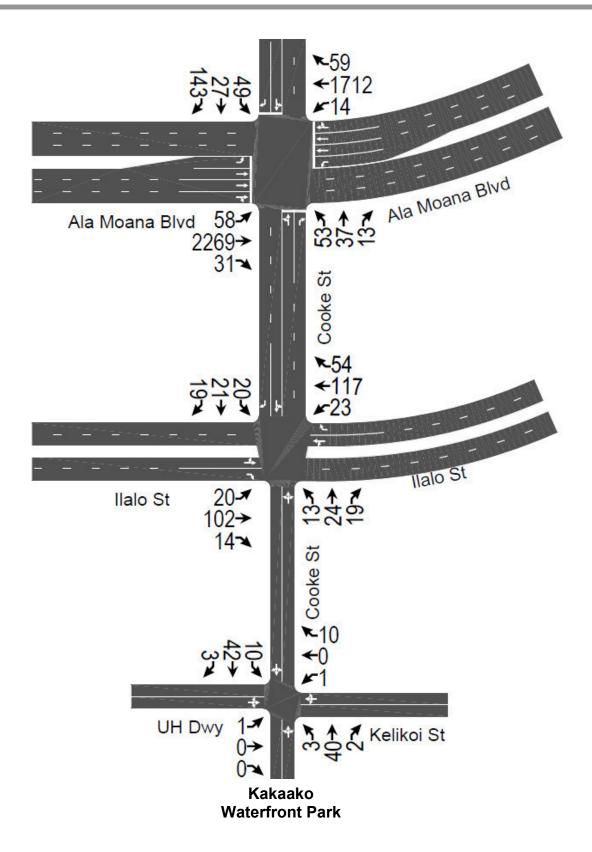


Figure 6. PM Peak Hour Traffic Without Project

# 2. Trip Distribution

The trip distribution was based upon the existing traffic patterns in the study area. Figures 7 and 8 depict the AM and PM peak hour site-generated traffic assignments for the proposed project, respectively.

# 3. Parking Analysis

The proposed project is expected to generate 151 vph entering the site during the AM peak hour of traffic. Thirty-three (33) parking spaces (N) should be reserved for the parents dropping off their children in the morning.

During the PM peak hour of traffic, the proposed project is expected to generate 122 vph entering the site. Twenty-six (26) parking spaces (N) should be reserved for parents picking up their children in the afternoon.

The 17± parking stalls, fronting the proposed school, should be reserved for drop-off and pick-up parking operations. The remaining stalls for drop-off and pick-up operations should be located along the first and second mauka-most aisles of the parking lot, closest to the school (mauka-Ewa corner). Up to 30 staff parking stalls for the employees also should located in the mauka-Ewa corner of the parking lot.

The reserved stalls are expected to meet the 90-percentile  $(1 - P_{x>m})$  queue of less than one vehicle waiting for a parking space, i.e., a vehicle will be waiting for a parking space less than 10 percent of the time. Table 4 summarizes the parking analysis.

,	Table 4. Parking Analy	ysis
Variable	AM Peak Hour	PM Peak Hour
$P_{x>m}$	0.10	0.10
N	33	26
S	9.0	8.5
Q	6.67	7.06
q	151	122
M	0.91	0.43

 $P_{x>m}$  = probability that the queue will exceed M

N = number of stalls

s = dwell time (minutes)

Q = 60/s = service rate per parking stall

q = parking demand (vph)

M = number of vehicles waiting for an open stall

### B. Peak Hour Traffic Impact Analysis With Project

During the AM and PM peak hours of traffic with the proposed project, the intersection of Ala Moana Boulevard and Cooke Street is expected to operate at the same Levels of Services as the scenarios without the proposed project. The Cooke Street intersections at Ilalo Street and Kelikoi Street are expected to operate at satisfactory Levels of Service. The AM and PM peak hour traffic volumes with the proposed project are depicted on Figures 9 and 10, respectively.

### V. Recommendations and Conclusions

### A. Recommendations

The following mitigation measures are recommended in this Traffic Management Plan for the proposed Kakaako First School:

- 1. A minimum of 33 parking spaces should be reserved for parents/guardians dropping off their children, during the AM peak hour of traffic.
- 2. A minimum of 26 parking spaces should be reserved for parents/guardians picking up their children, during the PM peak hour of traffic.
- 3. The reserved parking should be situated so as to minimize the walking distances to/from the school entrance.
- 4. The reserved parking area(s) should be restricted to school drop-off and pick-up traffic operations only, during the peak periods of school traffic.
- 5. Up to 30 parking stalls should be allocated for employees.
- 6. The Kakaako Waterfront Park should be restriped to extend the access driveway to the makai-most aisle of the parking lot. The proposed driveway aisle should be a minimum of 24-feet wide, which would eliminate about 24 parking stalls

### **B.** Conclusions

The Kakaako Waterfront Park parking lot is expected to accommodate the parking demands of the proposed Kakaako First School and the Kakaako Waterfront Park. The existing Koko Head-Ewa orientation of the parking lot is best suited for parents/guardians and children having to walk to and from the school along the parking aisles. The proposed extension of the Kakaako Waterfront Park access driveway will improve traffic circulation in the parking lot, and also reduce the volume of circulating traffic along the proposed project frontage.

The site traffic is expected to be distributed by the Kakaako Makai road network to Ala Moana Boulevard via Ilalo Street. The proposed project is <u>not</u> expected to significantly impact the peak hour traffic operations in the study area. Table 5 summarizes the capacity analysis prepared for this Traffic Management Plan and Traffic Assessment Report.

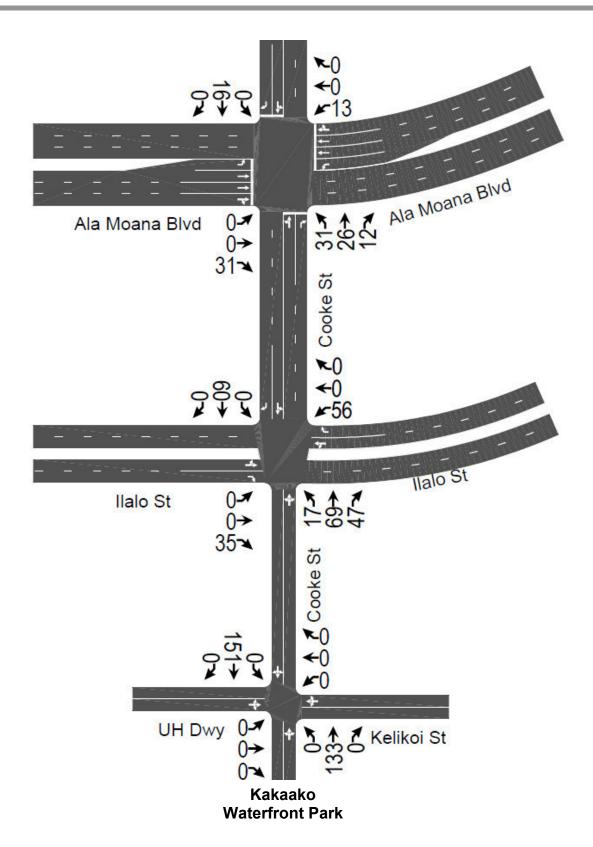


Figure 7. AM Peak Hour Traffic Assignment

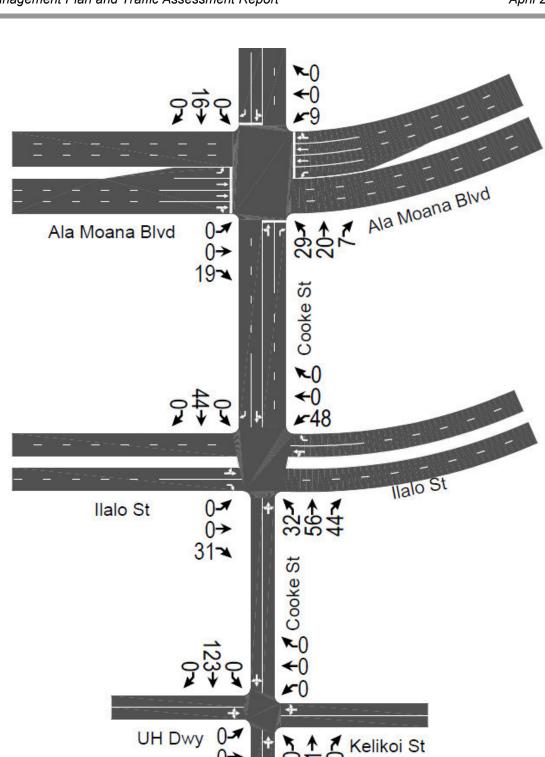


Figure 8. PM Peak Hour Traffic Assignment

Kakaako Waterfront Park

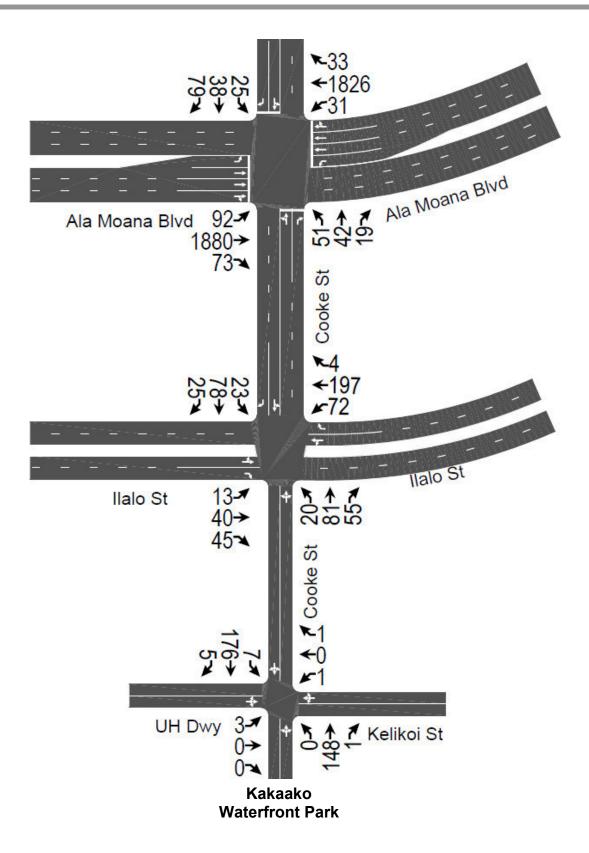


Figure 9. AM Peak Hour Traffic With Project

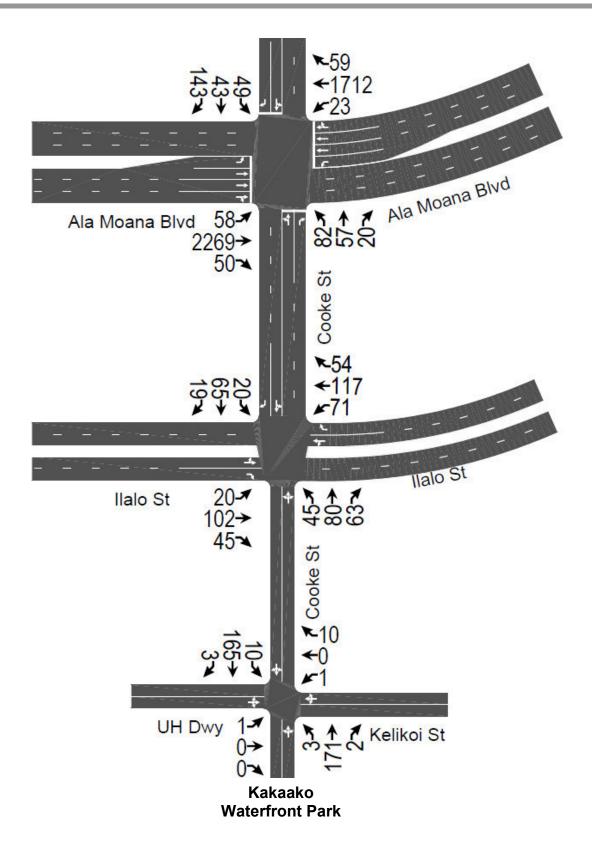


Figure 10. PM Peak Hour Traffic With Project



				Tal	ble 5. Sur	nmary of	Capacity	Analysis							
Scenario	Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
		LOS	F	I	В	F	(	C	I	)	A	I	)	A	С
	Cooke St & Ala Moana Blvd	Delay	84.0	19	9.0	87.4	20	5.6	48	3.3	0.1	49	9.1	9.9	25.4
		v/c	0.68	0.	65	0.43	0.	68	0.	17	0.03	0.	21	0.22	Max v/c: 0.68
Existing AM		LOS	A	4	A	A	4	A		A		I	4	A	A
Peak Hour	Cooke St & Ilalo St	Delay	8	.6	8.7	9.	.6	7.0		8.6		8	.8	7.5	8.9
Traffic		v/c	0.	11	0.02	0	27	0.01		0.07		0.	09	0.04	N/A
	Valvaalva Dauly/Caalva St. P.	LOS		A			A		A	N/A	N/A	A	N/A	N/A	A
	Kakaako Park/Cooke St & UH Dwy/Kelikoi St	Delay		9.3			8.9		0.0	N/A	N/A	7.3	N/A	N/A	2.5
	OH Dwy/Kenkoi St	v/c		0.01			0.01		N/A	N/A	N/A	0.01	N/A	N/A	N/A
		LOS	F	(	C	F	(	С	I	Е	A	]	Е	В	C
	Cooke St & Ala Moana Blvd	Delay	89.3	20	).5	93.2	23	3.1	56	5.2	0.3	56	5.0	10.5	24.3
		v/c	0.59	0.	71	0.39	0.	62	0	36	0.06	0.	34	0.34	Max v/c: 0.71
<b>Existing PM</b>		LOS	A	4	A	A	4	A		A		I	4	A	A
Peak Hour	Cooke St & Ilalo St	Delay	9	.1	9.4	9.	.1	7.5		9.1		9	.1	7.7	8.8
Traffic		v/c	0	21	0.03	0.	18	0.08		0.12		0.	10	0.04	N/A
	Valvaalva Dauly/Caalva S4 0	LOS		A	<u> </u>		A		A	N/A	N/A	A	N/A	N/A	A
	Kakaako Park/Cooke St & UH Dwy/Kelikoi St	Delay		9.9			8.9		7.4	N/A	N/A	7.4	N/A	N/A	2.2
	OH DWy/Relikul St	v/c		0.01			0.02		N/A	N/A	N/A	0.01	N/A	N/A	N/A

Legend

MOE - Measure of Effectiveness

LOS - Level of Service

EBL - Koko Head (East) Bound Left-Turn Movement

EBT - Koko Head (East) Bound Through Movement

EBR - Koko Head (East) Bound Right-Turn Movement

WBL - Ewa (West) Bound Left-Turn Movement

WBT - Ewa (West) Bound Left-Turn Movement

WBR - Ewa (West) Bound Right-turn Movement

Delay - average delay (seconds/vehicle)

v/c - Volume to Capacity ratio

NBL - Mauka (North) Bound Left-Turn Movement

NBT - Mauka (North) Bound Through Movement

NBR - Mauka (North) Bound Right-turn Movement

SBL - Makai (South) Bound Left-Turn Movement

SBT - Makai (South) Bound Through Movement

SBR - Makai (South) Bound Right-Turn Movement

N/A - not applicable

				Table 5. Summar	ry of Cap	acity Ana	lysis (Con	t'd.)						
Scenario	Intersection	MOE	EBL	EBT EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
		LOS	F	С	F	(	С	I	)	A	Ι	)	A	С
	Cooke St & Ala Moana Blvd	Delay	86.9	22.5	89.1	28	3.5	48	3.3	0.1	49	0.3	9.8	27.8
		v/c	0.70	0.74	0.45	0.	75	0.	17	0.03	0.3	21	0.23	Max v/c: 0.75
2018 AM Peak		LOS	A	A A	]	В	A		A		A	4	A	A
Hour Traffic Without	Cooke St & Ilalo St	Delay	8	.9 8.9	11	1.1	7.0		8.9		9.	.2	7.8	10
Project		v/c	0.	12 0.02	0.	40	0.01		0.07		0.	10	0.05	N/A
	Kakaako Park/Cooke St &	LOS		A		A		A	N/A	N/A	A	N/A	N/A	A
	UH Dwy/Kelikoi St	Delay		9.3		8.9		0.0	N/A	N/A	7.3	N/A	N/A	2.5
	OH D Wy/Homeon St	v/c		0.01		0.01		N/A	N/A	N/A	0.01	N/A	N/A	N/A
		LOS	F	С	F	(	C	I	3	A	H	3	В	С
	Cooke St & Ala Moana Blvd	Delay	93.5	21.8	93.2		3.3	58		0.3	58	3.9	18.3	25.3
2010 DM D		v/c	0.63	0.78	0.39	0.	68	0.	39	0.06	0	38	0.38	Max v/c: 0.78
2018 PM Peak Hour Traffic		LOS	A	A A	1	4	A		A		A	4	A	A
Without	Cooke St & Ilalo St	Delay		.3 9.6	9	.6	7.6		9.3		9.	.4	7.8	9.1
Project		v/c	0	22 0.03	0.	24	0.08		0.13	1	0.		0.04	N/A
	Kakaako Park/Cooke St &	LOS		A		A		A	N/A	N/A	A	N/A	N/A	A
	UH Dwy/Kelikoi St	Delay		9.9		9.0		7.4	N/A	N/A	7.4	N/A	N/A	2.1
		v/c		0.01		0.02		N/A	N/A	N/A	0.01	N/A	N/A	N/A
		LOS	F	С	F		<u>C</u>		)	A	I	)	A	С
	Cooke St & Ala Moana Blvd	Delay	86.9	26.6	86.7		9.4		1.7	0.4	49		9.6	30.8
		v/c	0.70	0.79	0.55		76	0.		0.08	0.3		0.22	Max v/c: 0.79
2018 AM Peak		LOS		3 A		<u> </u>	A		С			3	A	С
Hour Traffic	Cooke St & Ilalo St	Delay		7.8 11.3		2.0	8.5		17.8		12		9.3	17.2
With Project		v/c	0.	16 0.12	0.	68	0.01		0.58	1	0		0.06	N/A
	Kakaako Park/Cooke St &	LOS		В		В		A	N/A	N/A	A	N/A	N/A	A
	UH Dwy/Kelikoi St	Delay		13.1		11.3		0.0	N/A	N/A	7.8	N/A	N/A	0.6
		v/c		0.02		0.01		N/A	N/A	N/A	0.01	N/A	N/A	N/A
		LOS	F	С	F		<u>C</u>		Ξ	A		Ξ	В	С
	Cooke St & Ala Moana Blvd	Delay	93.5	26.8	91.9		4.1		3.2	0.5	64		17.7	29.2
		v/c	0.63	0.83	0.48		69	0.	63	0.09	0		0.37	Max v/c: 0.83
<b>2018 PM Peak</b>		LOS		3 A		В	A		В			3	A	В
Hour Traffic	Cooke St & Ilalo St	Delay		1.8		3.6	9.0		14.8		11		8.9	12.6
With Project		v/c	0	28 0.13	0.	40	0.11		0.48	1 :		25	0.05	N/A
	Kakaako Park/Cooke St &	LOS		В		В		A	N/A	N/A	A	N/A	N/A	A
	UH Dwy/Kelikoi St	Delay		13.8		10.6		7.8	N/A	N/A	7.8	N/A	N/A	0.8
	<b>v</b>	v/c		0.01		0.03		N/A	N/A	N/A	0.01	N/A	N/A	N/A

# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL

HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 

# APPENDIX A TRAFFIC COUNT DATA

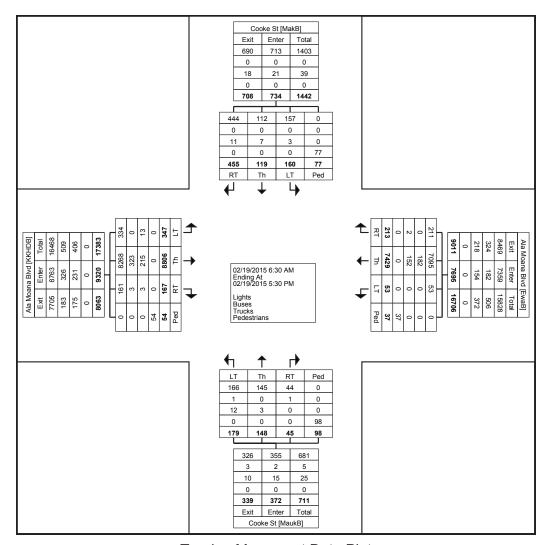
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 1

**Turning Movement Data** 

							- 1	urnii	ng iv	ovei	nen	Dai	la								
		Ala	Moana I	Blvd			Ala	Moana I	Blvd				Cooke S	t				Cooke S	t		
		Koko	Head B	ound			Е	wa Bour	nd			Ma	auka Bou	ınd			M	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
6:30 AM	19	321	10	. 1	350	0	283	5	. 1	288	5	1	1	. 1	7	4	7	11	2	22	667
6:45 AM	17	371	8	4	396	4	306	10	. 1	320	7	4	3	. 7	14	0	2	11	2	13	743
Hourly Total	36	692	18	5	746	4	589	15	2	608	12	5	4	8	21	4	9	22	4	35	1410
7:00 AM	25	400	12	3	437	0	332	10	1	342	4	5	0	3	9	3	3	12	3	18	806
7:15 AM	22	425	15	0	462	4	433	5	1	442	3	1	1	3	5	5	4	15	3	24	933
7:30 AM	28	446	3	1	477	3	383	7	0	393	5	5	3	1	13	4	8	20	4	32	915
7:45 AM	13	424	13	1	450	8	438	12	4	458	5	2	0	4	7	6	2	19	1	27	942
Hourly Total	88	1695	43	5	1826	15	1586	34	6	1635	17	13	4	11	34	18	17	66	11	101	3596
8:00 AM	26	398	10	1	434	2	402	8	3	412	6	8	3	5	17	9	7	23	4	39	902
8:15 AM	16	415	12	4	443	5	416	11	2	432	11	6	2	7	19	5	5	15	3	25	919
8:30 AM	25	392	15	8	432	6	364	10	1	380	8	8	3	5	19	7	3	10	8	20	851
8:45 AM	24	347	10	4	381	4	300	12	2	316	12	7	6	5	25	2	11	19	3	32	754
Hourly Total	91	1552	47	17	1690	17	1482	41	8	1540	37	29	14	22	80	23	26	67	18	116	3426
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	16	377	3	1	396	0	367	10	1	377	9	10	2	0	21	14	4	26	2	44	838
3:15 PM	21	427	3	1	451	0	363	9	1	372	13	8	2	6	23	4	6	24	4	34	880
3:30 PM	14	498	6	1	518	4	381	16	0	401	16	11	3	7	30	9	6	38	7	53	1002
3:45 PM	10	535	8	3	553	3	406	18	3	427	9	7	6	4	22	12	9	34	3	55	1057
Hourly Total	61	1837	20	6	1918	7	1517	53	5	1577	47	36	13	17	96	39	25	122	16	186	3777
4:00 PM	13	485	7	0	505	1	348	12	2	361	11	11	3	5	25	12	9	32	3	53	944
4:15 PM	19	516	9	2	544	6	388	11	1	405	15	7	1	4	23	15	2	35	7	52	1024
4:30 PM	10	528	9	4	547	0	368	8	6	376	11	14	2	8	27	10	9	21	3	40	990
4:45 PM	9	514	3	4	526	1	387	15	1	403	10	13	2	8	25	6	7	32	5	45	999
Hourly Total	51	2043	28	10	2122	8	1491	46	10	1545	47	45	8	25	100	43	27	120	18	190	3957
5:00 PM	14	475	6	5	495	2	377	14	3	393	6	9	2	4	17	21	10	27	5	58	963
5:15 PM	6	512	5	6	523	0	387	10	3	397	13	11	0	11	24	12	5	31	5	48	992
Grand Total	347	8806	167	54	9320	53	7429	213	37	7695	179	148	45	98	372	160	119	455	77	734	18121
Approach %	3.7	94.5	1.8	-	-	0.7	96.5	2.8	-	-	48.1	39.8	12.1	-	-	21.8	16.2	62.0	-	-	-
Total %	1.9	48.6	0.9	-	51.4	0.3	41.0	1.2	-	42.5	1.0	0.8	0.2	-	2.1	0.9	0.7	2.5	-	4.1	-
Lights	334	8268	161	-	8763	53	7095	211	-	7359	166	145	44	-	355	157	112	444	-	713	17190
% Lights	96.3	93.9	96.4	-	94.0	100.0	95.5	99.1	-	95.6	92.7	98.0	97.8	-	95.4	98.1	94.1	97.6	-	97.1	94.9
Buses	0	323	3	-	326	0	182	0	-	182	1	0	1	-	2	0	0	0	-	0	510
% Buses	0.0	3.7	1.8	-	3.5	0.0	2.4	0.0	-	2.4	0.6	0.0	2.2	-	0.5	0.0	0.0	0.0	-	0.0	2.8
Trucks	13	215	3	-	231	0	152	2	-	154	12	3	0	-	15	3	7	11	-	21	421
% Trucks	3.7	2.4	1.8	-	2.5	0.0	2.0	0.9	-	2.0	6.7	2.0	0.0	-	4.0	1.9	5.9	2.4	-	2.9	2.3
Pedestrians	-	-	-	54	-	-	-	-	37	-	-	-	-	98	-	-	-	-	77	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-
· · · · · · · · · · · · · · · · · · ·																					_

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 2



**Turning Movement Data Plot** 

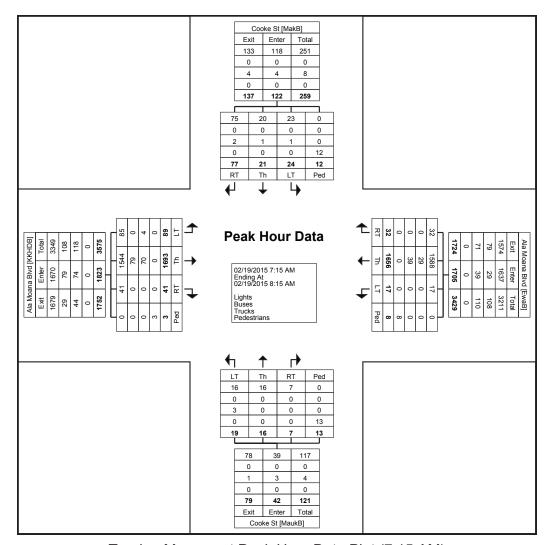
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 3

# Turning Movement Peak Hour Data (7:15 AM)

					I GII	, 19	IVIOV	CITIC	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	can	ııou	וטע	ta (1	. 10 /	\ivi						
		Ala	Moana E	Blvd			Ala	Moana E	Blvd				Cooke St	t				Cooke S	İ		
		Koko	Head B	ound			E	wa Bour	nd			Ma	auka Bou	nd			M	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
7:15 AM	22	425	15	0	462	4	433	5	1	442	3	1	1	3	5	5	4	15	3	24	933
7:30 AM	28	446	3	1	477	3	383	7	0	393	5	5	3	1	13	4	8	20	4	32	915
7:45 AM	13	424	13	1	450	8	438	12	4	458	5	2	0	4	7	6	2	19	1	27	942
8:00 AM	26	398	10	1	434	2	402	8	3	412	6	8	3	5	17	9	7	23	4	39	902
Total	89	1693	41	3	1823	17	1656	32	8	1705	19	16	7	13	42	24	21	77	12	122	3692
Approach %	4.9	92.9	2.2	-	-	1.0	97.1	1.9	-	-	45.2	38.1	16.7	-	-	19.7	17.2	63.1	-	-	-
Total %	2.4	45.9	1.1	-	49.4	0.5	44.9	0.9	-	46.2	0.5	0.4	0.2	-	1.1	0.7	0.6	2.1	-	3.3	-
PHF	0.795	0.949	0.683	-	0.955	0.531	0.945	0.667	-	0.931	0.792	0.500	0.583	-	0.618	0.667	0.656	0.837	-	0.782	0.980
Lights	85	1544	41	-	1670	17	1588	32	-	1637	16	16	7	-	39	23	20	75	-	118	3464
% Lights	95.5	91.2	100.0	-	91.6	100.0	95.9	100.0	-	96.0	84.2	100.0	100.0	-	92.9	95.8	95.2	97.4	-	96.7	93.8
Buses	0	79	0	-	79	0	29	0	-	29	0	0	0	-	0	0	0	0	-	0	108
% Buses	0.0	4.7	0.0	-	4.3	0.0	1.8	0.0	-	1.7	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	2.9
Trucks	4	70	0	-	74	0	39	0	-	39	3	0	0	-	3	1	1	2	-	4	120
% Trucks	4.5	4.1	0.0	-	4.1	0.0	2.4	0.0	-	2.3	15.8	0.0	0.0	-	7.1	4.2	4.8	2.6	-	3.3	3.3
Pedestrians	-	-	-	3	-	-	-	-	8	-	-	-	-	13	-	-	-	-	12	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)

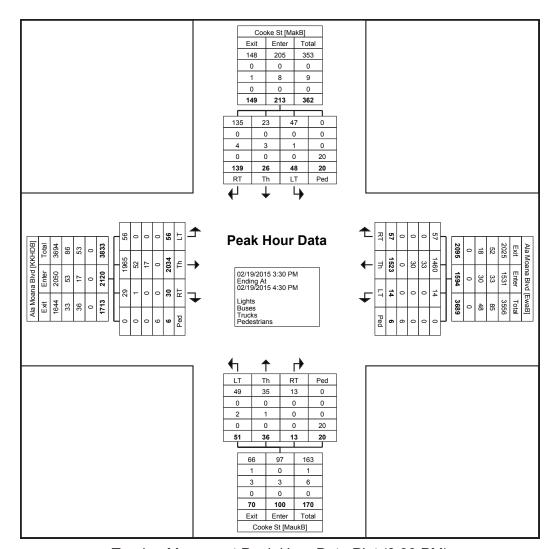
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 5

# Turning Movement Peak Hour Data (3:30 PM)

								• • • • •				. – -	( -		,						
		Ala	Moana I	Blvd			Ala	Moana E	Blvd				Cooke St	t				Cooke S	t		
		Koko	Head B	ound			E	wa Bour	ıd			Ma	auka Bou	nd			Ma	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
3:30 PM	14	498	6	1	518	4	381	16	0	401	16	11	3	7	30	9	6	38	7	53	1002
3:45 PM	10	535	8	3	553	3	406	18	3	427	9	7	6	4	22	12	9	34	3	55	1057
4:00 PM	13	485	7	0	505	1	348	12	2	361	11	11	3	5	25	12	9	32	3	53	944
4:15 PM	19	516	9	2	544	6	388	11	1	405	15	7	1	4	23	15	2	35	7	52	1024
Total	56	2034	30	6	2120	14	1523	57	6	1594	51	36	13	20	100	48	26	139	20	213	4027
Approach %	2.6	95.9	1.4	-	-	0.9	95.5	3.6	-	-	51.0	36.0	13.0	-	-	22.5	12.2	65.3	-	-	-
Total %	1.4	50.5	0.7	-	52.6	0.3	37.8	1.4	-	39.6	1.3	0.9	0.3	-	2.5	1.2	0.6	3.5	-	5.3	-
PHF	0.737	0.950	0.833	-	0.958	0.583	0.938	0.792	-	0.933	0.797	0.818	0.542	-	0.833	0.800	0.722	0.914	-	0.968	0.952
Lights	56	1965	29	-	2050	14	1460	57	-	1531	49	35	13	-	97	47	23	135	-	205	3883
% Lights	100.0	96.6	96.7	-	96.7	100.0	95.9	100.0	-	96.0	96.1	97.2	100.0	-	97.0	97.9	88.5	97.1	-	96.2	96.4
Buses	0	52	1	-	53	0	33	0	-	33	0	0	0	-	0	0	0	0	-	0	86
% Buses	0.0	2.6	3.3	-	2.5	0.0	2.2	0.0	-	2.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	2.1
Trucks	0	17	0	-	17	0	30	0	-	30	2	1	0	-	3	1	3	4	-	8	58
% Trucks	0.0	0.8	0.0	-	0.8	0.0	2.0	0.0	-	1.9	3.9	2.8	0.0	-	3.0	2.1	11.5	2.9	-	3.8	1.4
Pedestrians	-	-	-	6	-	-	-	-	6	-	-	-	-	20	-	-	-	-	20	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Ala Moana Blvd Cooke St 0630-0900 1500-1800 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 6



Turning Movement Peak Hour Data Plot (3:30 PM)

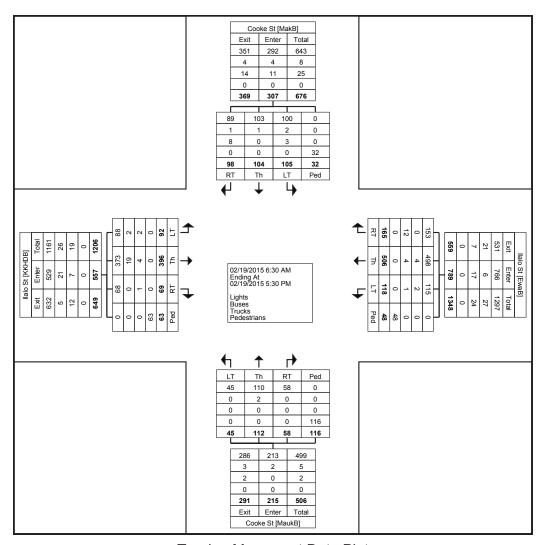
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 1

**Turning Movement Data** 

							I	urnir	ng ivi	over	ment	Dai	a								
			Ilalo St					Ilalo St					Cooke S	t				Cooke S	t		
		Koko	Head B	ound			Е	wa Bour	nd			Ma	auka Bou	ınd			M	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
6:30 AM	1	6	1	2	8	5	12	3	3	20	0	6	1	4	7	6	5	4	1	15	50
6:45 AM	2	8	1	3	11	3	15	6	1	24	0	5	1	4	6	4	3	6	1	13	54
Hourly Total	3	14	2	5	19	8	27	9	4	44	0	11	2	8	13	10	8	10	2	28	104
7:00 AM	4	8	3	1	15	7	18	4	4	29	0	2	0	8	2	6	0	6	0	12	58
7:15 AM	3	6	2	0	11	5	20	2	0	27	2	1	2	5	5	8	6	5	0	19	62
7:30 AM	5	11	2	3	18	5	28	4	3	37	1	4	4	7	9	4	4	3	0	11	75
7:45 AM	3	8	4	1	15	0	37	4	2	41	0	1	1	8	2	6	4	8	3	18	76
Hourly Total	15	33	11	5	59	17	103	14	9	134	3	8	7	28	18	24	14	22	3	60	271
8:00 AM	2	14	2	2	18	6	43	7	3	56	0	6	1	2	7	4	3	8	1	15	96
8:15 AM	5	17	1	4	23	11	37	11	5	59	1	6	4	7	11	3	10	5	3	18	111
8:30 AM	0	12	9	5	21	7	34	6	0	47	1	10	2	4	13	6	8	5	0	19	100
8:45 AM	6	13	4	5	23	13	37	8	0	58	1	11	0	1	12	7	9	8	1	24	117
Hourly Total	13	56	16	16	85	37	151	32	8	220	3	33	7	14	43	20	30	26	5	76	424
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	2	17	2	2	21	4	25	10	4	39	4	7	1	13	12	5	2	3	2	10	82
3:15 PM	7	18	2	5	27	6	28	12	1	46	3	3	6	7	12	5	4	2	6	11	96
3:30 PM	6	21	3	0	30	4	16	16	0	36	3	6	5	2	14	4	1	7	0	12	92
3:45 PM	3	22	2	3	27	5	18	12	0	35	6	7	2	5	15	5	6	6	2	17	94
Hourly Total	18	78	9	10	105	19	87	50	5	156	16	23	14	27	53	19	13	18	10	50	364
4:00 PM	3	26	3	3	32	6	23	15	2	44	1	5	4	9	10	7	5	2	3	14	100
4:15 PM	7	30	6	1	43	7	23	9	2	39	3	5	7	4	15	3	8	3	2	14	111
4:30 PM	5	27	3	1	35	3	33	14	9	50	4	8	7	7	19	6	8	9	2	23	127
4:45 PM	8	26	5	7	39	7	24	7	2	38	6	5	2	3	13	5	2	3	3	10	100
Hourly Total	23	109	17	12	149	23	103	45	15	171	14	23	20	23	57	21	23	17	10	61	438
5:00 PM	9	49	8	4	66	7	20	6	1	33	5	8	3	9	16	7	10	3	0	20	135
5:15 PM	11	57	6	11	74	7	15	9	6	31	4	6	5	7	15	4	6	2	2	12	132
Grand Total	92	396	69	63	557	118	506	165	48	789	45	112	58	116	215	105	104	98	32	307	1868
Approach %	16.5	71.1	12.4	-	-	15.0	64.1	20.9	-	-	20.9	52.1	27.0	-	-	34.2	33.9	31.9	-	-	-
Total %	4.9	21.2	3.7	-	29.8	6.3	27.1	8.8	-	42.2	2.4	6.0	3.1	-	11.5	5.6	5.6	5.2	-	16.4	-
Lights	88	373	68	-	529	115	498	153	-	766	45	110	58	-	213	100	103	89	-	292	1800
% Lights	95.7	94.2	98.6	-	95.0	97.5	98.4	92.7	-	97.1	100.0	98.2	100.0	-	99.1	95.2	99.0	90.8	-	95.1	96.4
Buses	2	19	0	-	21	2	4	0	-	6	0	2	0	-	2	2	1	1	-	4	33
% Buses	2.2	4.8	0.0	-	3.8	1.7	8.0	0.0	-	8.0	0.0	1.8	0.0	-	0.9	1.9	1.0	1.0	-	1.3	1.8
Trucks	2	4	1	-	7	1	4	12	-	17	0	0	0	-	0	3	0	8	-	11	35
% Trucks	2.2	1.0	1.4	-	1.3	0.8	0.8	7.3	-	2.2	0.0	0.0	0.0	-	0.0	2.9	0.0	8.2	-	3.6	1.9
Pedestrians	-	-	-	63	-	-	-	-	48	-	-	-	-	116	-	-	-	-	32	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 2



Turning Movement Data Plot

Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 3

# Turning Movement Peak Hour Data (7:15 AM)

												. – -	٠, ١		,						
			Ilalo St					Ilalo St					Cooke S	t				Cooke S	t		
		Koko	Head B	ound			E	wa Bour	ıd			Ma	auka Bou	nd			M	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
7:15 AM	3	6	2	0	11	5	20	2	0	27	2	1	2	5	5	8	6	5	0	19	62
7:30 AM	5	11	2	3	18	5	28	4	3	37	1	4	4	7	9	4	4	3	0	11	75
7:45 AM	3	8	4	1	15	0	37	4	2	41	0	1	1	8	2	6	4	8	3	18	76
8:00 AM	2	14	2	2	18	6	43	7	3	56	0	6	1	2	7	4	3	8	1	15	96
Total	13	39	10	6	62	16	128	17	8	161	3	12	8	22	23	22	17	24	4	63	309
Approach %	21.0	62.9	16.1	-	-	9.9	79.5	10.6	-	-	13.0	52.2	34.8	-	-	34.9	27.0	38.1	-	-	-
Total %	4.2	12.6	3.2	-	20.1	5.2	41.4	5.5	-	52.1	1.0	3.9	2.6	-	7.4	7.1	5.5	7.8	-	20.4	-
PHF	0.650	0.696	0.625	-	0.861	0.667	0.744	0.607	-	0.719	0.375	0.500	0.500	-	0.639	0.688	0.708	0.750	-	0.829	0.805
Lights	12	36	10	-	58	16	128	16	-	160	3	11	8	-	22	22	17	23	-	62	302
% Lights	92.3	92.3	100.0	-	93.5	100.0	100.0	94.1	-	99.4	100.0	91.7	100.0	-	95.7	100.0	100.0	95.8	-	98.4	97.7
Buses	0	3	0	-	3	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	4
% Buses	0.0	7.7	0.0	-	4.8	0.0	0.0	0.0	-	0.0	0.0	8.3	0.0	-	4.3	0.0	0.0	0.0	-	0.0	1.3
Trucks	1	0	0	-	1	0	0	1	-	1	0	0	0	-	0	0	0	1	-	1	3
% Trucks	7.7	0.0	0.0	-	1.6	0.0	0.0	5.9	-	0.6	0.0	0.0	0.0	-	0.0	0.0	0.0	4.2	-	1.6	1.0
Pedestrians	-	-	-	6	-	-	-	-	8	-	-	-	-	22	-	-	-	-	4	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 4

Cooke St [MakB] Enter Total Exit 63 105 Th Ped **Peak Hour Data** llalo St [KKHDB] န္က ≟ 02/19/2015 7:15 AM Ending At 02/19/2015 8:15 AM 0 Enter 58 - 0 8 F Lights Buses Trucks Pedestrians Ped **|** Th RT Ped Exit Enter Total Cooke St [MaukB]

Turning Movement Peak Hour Data Plot (7:15 AM)

Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 5

Turning Movement Peak Hour Data (3:30 PM)

					ı aı	, 19	10100	CITIC	,,,,,,,,	Cuit	1100	. Du	ia (o	.00 1	141						
			llalo St					Ilalo St					Cooke S	t				Cooke S	t		
		Koko	Head B	ound			E	wa Bour	nd			Ma	auka Bou	nd			M	akai Bou	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
3:30 PM	6	21	3	0	30	4	16	16	0	36	3	6	5	2	14	4	1	7	0	12	92
3:45 PM	3	22	2	3	27	5	18	12	0	35	6	7	2	5	15	5	6	6	2	17	94
4:00 PM	3	26	3	3	32	6	23	15	2	44	1	5	4	9	10	7	5	2	3	14	100
4:15 PM	7	30	6	1	43	7	23	9	2	39	3	5	7	4	15	3	8	3	2	14	111
Total	19	99	14	7	132	22	80	52	4	154	13	23	18	20	54	19	20	18	7	57	397
Approach %	14.4	75.0	10.6	-	-	14.3	51.9	33.8	-	-	24.1	42.6	33.3	-	-	33.3	35.1	31.6	-	-	-
Total %	4.8	24.9	3.5	-	33.2	5.5	20.2	13.1	-	38.8	3.3	5.8	4.5	-	13.6	4.8	5.0	4.5	-	14.4	-
PHF	0.679	0.825	0.583	-	0.767	0.786	0.870	0.813	-	0.875	0.542	0.821	0.643	-	0.900	0.679	0.625	0.643	-	0.838	0.894
Lights	19	93	14	-	126	22	79	49	-	150	13	23	18	-	54	18	20	15	-	53	383
% Lights	100.0	93.9	100.0	-	95.5	100.0	98.8	94.2	-	97.4	100.0	100.0	100.0	-	100.0	94.7	100.0	83.3	-	93.0	96.5
Buses	0	6	0	-	6	0	1	0	-	1	0	0	0	-	0	1	0	0	-	1	8
% Buses	0.0	6.1	0.0	-	4.5	0.0	1.3	0.0	-	0.6	0.0	0.0	0.0	-	0.0	5.3	0.0	0.0	-	1.8	2.0
Trucks	0	0	0	-	0	0	0	3	-	3	0	0	0	-	0	0	0	3	-	3	6
% Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	5.8	-	1.9	0.0	0.0	0.0	-	0.0	0.0	0.0	16.7	-	5.3	1.5
Pedestrians	-	-	-	7	-	-	-	-	4	-	-	-	-	20	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Ilalo St Cooke St 0630-0900 1500-1730 Site Code: Seagull Schools Start Date: 02/19/2015 Page No: 6

Turning Movement Peak Hour Data Plot (3:30 PM)

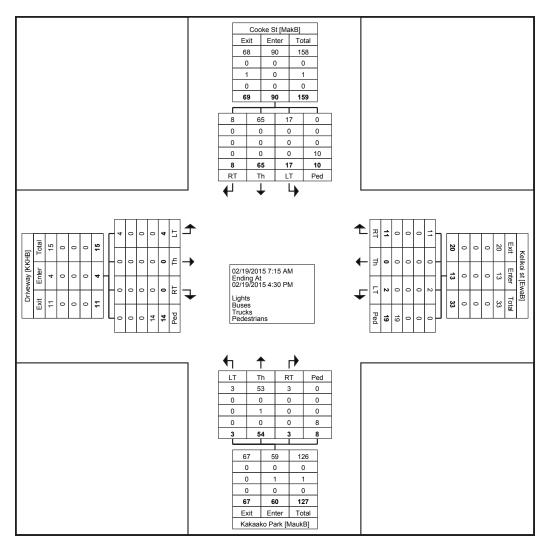
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 1

**Turning Movement Data** 

	I					I		arrini	_	0 1 0.						ı					ı
			Driveway					Kelikoi st					ikaako Pa					Cooke St			
		Koko	Head B	ound			Е	wa Boun	ıd			Ma	auka Bou	ınd			M	akai Boui	nd		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
7:15 AM	0	0	0	0	0	0	0	0	2	0	0	3	1	2	4	1	8	3	0	12	16
7:30 AM	0	0	0	1	0	1	0	0	5	1	0	6	0	3	6	1	4	1	1	6	13
7:45 AM	1	0	0	5	1	0	0	1	1	1	0	1	0	0	1	4	4	0	1	8	11
Hourly Total	1	0	0	6	1	1	0	1	8	2	0	10	1	5	11	6	16	4	2	26	40
8:00 AM	2	0	0	1	2	0	0	0	2	0	0	5	0	0	5	1	8	1	4	10	17
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	2	0	0	1	2	0	0	0	2	0	0	5	0	0	5	1	8	1	4	10	17
3:30 PM	1	0	0	1	1	0	0	3	0	3	0	8	1	1	9	3	8	0	0	11	24
3:45 PM	0	0	0	1	0	0	0	1	4	1	0	14	0	1	14	3	8	1	2	12	27
Hourly Total	1	0	0	2	1	0	0	4	4	4	0	22	1	2	23	6	16	1	2	23	51
4:00 PM	0	0	0	4	0	0	0	2	2	2	0	7	1	1	8	3	9	0	2	12	22
4:15 PM	0	0	0	1	0	1	0	4	3	5	3	10	0	0	13	1	16	2	0	19	37
Grand Total	4	0	0	14	4	2	0	11	19	13	3	54	3	8	60	17	65	8	10	90	167
Approach %	100.0	0.0	0.0	-	-	15.4	0.0	84.6	-	-	5.0	90.0	5.0	-	-	18.9	72.2	8.9	-	-	-
Total %	2.4	0.0	0.0	-	2.4	1.2	0.0	6.6	-	7.8	1.8	32.3	1.8	-	35.9	10.2	38.9	4.8	-	53.9	-
Lights	4	0	0	-	4	2	0	11	-	13	3	53	3	-	59	17	65	8	-	90	166
% Lights	100.0	-	-	-	100.0	100.0	-	100.0	-	100.0	100.0	98.1	100.0	-	98.3	100.0	100.0	100.0	-	100.0	99.4
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Trucks	0.0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	1.9	0.0	-	1.7	0.0	0.0	0.0	-	0.0	0.6
Pedestrians	-	-	-	14	-	-	-	-	19	-	-	-	-	8	-	-	-	-	10	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 2



**Turning Movement Data Plot** 

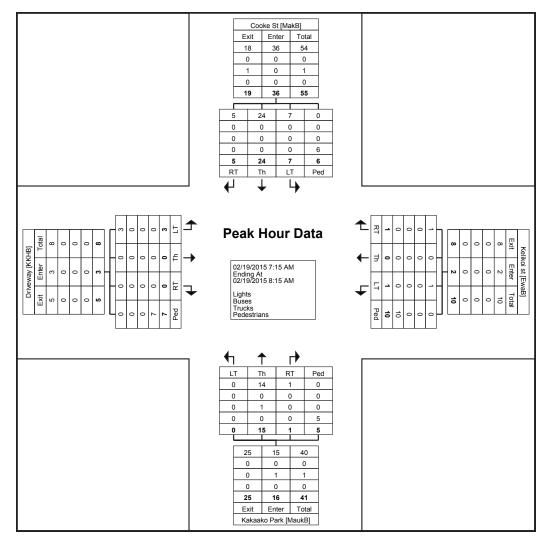
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

	Driveway					Kelikoi st				Kakaako Park					Cooke St					ĺ	
	Koko Head Bound				Ewa Bound				Mauka Bound					Makai Bound					ĺ		
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
7:15 AM	0	0	0	0	0	0	0	0	2	0	0	3	1	2	4	1	8	3	0	12	16
7:30 AM	0	0	0	1	0	1	0	0	5	1	0	6	0	3	6	1	4	1	1	6	13
7:45 AM	1	0	0	5	1	0	0	1	1	1	0	1	0	0	1	4	4	0	1	8	11
8:00 AM	2	0	0	1	2	0	0	0	2	0	0	5	0	0	5	1	8	1	4	10	17
Total	3	0	0	7	3	1	0	1	10	2	0	15	1	5	16	7	24	5	6	36	57
Approach %	100.0	0.0	0.0	-	-	50.0	0.0	50.0	-	-	0.0	93.8	6.3	-	-	19.4	66.7	13.9	-	-	-
Total %	5.3	0.0	0.0	-	5.3	1.8	0.0	1.8	-	3.5	0.0	26.3	1.8	-	28.1	12.3	42.1	8.8	-	63.2	-
PHF	0.375	0.000	0.000	-	0.375	0.250	0.000	0.250	-	0.500	0.000	0.625	0.250	-	0.667	0.438	0.750	0.417	-	0.750	0.838
Lights	3	0	0	-	3	1	0	1	-	2	0	14	1	-	15	7	24	5	-	36	56
% Lights	100.0	-	-	-	100.0	100.0	-	100.0	-	100.0	-	93.3	100.0	-	93.8	100.0	100.0	100.0	-	100.0	98.2
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	-	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Trucks	0.0	-	-	-	0.0	0.0	-	0.0	-	0.0	-	6.7	0.0	-	6.3	0.0	0.0	0.0	-	0.0	1.8
Pedestrians	-	-	-	7	-	-	-	-	10	-	-	-	-	5	-	-	-	-	6	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)

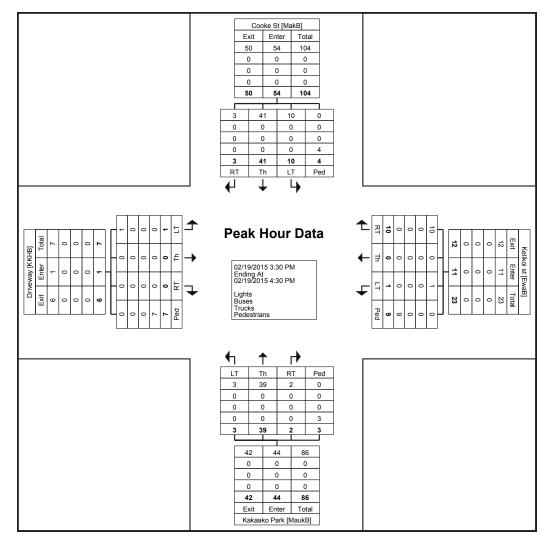
Honolulu, Hawaii, United States 96813 808-536-0223 tmchawaii@aol.com

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 5

Turning Movement Peak Hour Data (3:30 PM)

					_			-	-			_	( -		,						
	Driveway					Kelikoi st					Kakaako Park					Cooke St					ĺ
	Koko Head Bound						Ewa Bound				Mauka Bound					Makai Bound					ĺ
Start Time	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Left- Turn	Thru	Right- Turn	Peds	App. Total	Int. Total
3:30 PM	1	0	0	1	1	0	0	3	0	3	0	8	1	1	9	3	8	0	0	11	24
3:45 PM	0	0	0	1	0	0	0	1	4	1	0	14	0	1	14	3	8	1	2	12	27
4:00 PM	0	0	0	4	0	0	0	2	2	2	0	7	1	1	8	3	9	0	2	12	22
4:15 PM	0	0	0	1	0	1	0	4	3	5	3	10	0	0	13	1	16	2	0	19	37
Total	1	0	0	7	1	1	0	10	9	11	3	39	2	3	44	10	41	3	4	54	110
Approach %	100.0	0.0	0.0	-	-	9.1	0.0	90.9	-	-	6.8	88.6	4.5	-	-	18.5	75.9	5.6	-	-	-
Total %	0.9	0.0	0.0	-	0.9	0.9	0.0	9.1	-	10.0	2.7	35.5	1.8	-	40.0	9.1	37.3	2.7	-	49.1	-
PHF	0.250	0.000	0.000	-	0.250	0.250	0.000	0.625	-	0.550	0.250	0.696	0.500	-	0.786	0.833	0.641	0.375	-	0.711	0.743
Lights	1	0	0	-	1	1	0	10	-	11	3	39	2	-	44	10	41	3	-	54	110
% Lights	100.0	-	-	-	100.0	100.0	-	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	-	_	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Trucks	0.0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	_	0.0	0.0
Pedestrians	-	-	-	7	-	-	-	-	9	-	-	-	-	3	-	-	-	-	4	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Count Name: Cooke St Kelikoi St Site Code: Seagull Schools Kakaako Start Date: 02/19/2015 Page No: 6



Turning Movement Peak Hour Data Plot (3:30 PM)

Study Name Start Date Kakaako Waterfront Park

2/19/2015 Start Time 6:00 AM

Project: Kakaako First School

		Ma	akai Bound			<u>N</u>				
	Time Period		<u>Vehicle</u>		0	Limbia	<u>Vehicle</u>		0	Tatala
<b>Start</b> 6:00 AM	End 6:15 AM	<u>Lights</u> 7	Buses 1	Trucks 0	Subtotal 8	<u>Lights</u>	Buses 0	Trucks 0	Subtotal	Totals
6:15 AM	6:30 AM	5	0	0	5	0	0	0	0	5
6:30 AM	6:45 AM	9	0	0	9	6	0	0	6	15
6:45 AM	7:00 AM	3	0	0	3	3	1	0	4	7
7:00 AM	7:00 AM	6	0	1	7	2	0	0	2	9
7:15 AM	7:30 AM	8	0	0	8	4	0	0	4	12
7:30 AM	7:45 AM	5	0	0	5	6	0	0	6	11
7:45 AM	8:00 AM	4	0	0	4	0	0	1	1	5
8:00 AM	8:15 AM	8	0	0	8	5	0	0	5	13
8:15 AM	8:30 AM	12	0	0	12	8	0	0	8	20
8:30 AM	8:45 AM	15	0	0	15	10	0	0	10	25
8:45 AM	9:00 AM	16	1	0	17	7	0	0	7	24
9:00 AM	9:15 AM	15	2	0	17	3	0	0	3	20
9:15 AM	9:30 AM	12	1	2	15	6	0	1	7	22
9:30 AM	9:45 AM	10	0	0	10	4	0	0	4	14
9:45 AM	10:00 AM	8	1	0	9	4	0	0	4	13
10:00 AM	10:05 AM	11	1	0	12	6	0	1	7	19
10:15 AM	10:30 AM	12	0	1	13	4	0	0	4	17
10:30 AM	10:45 AM	7	1	0	8	8	2	1	11	19
10:45 AM	11:00 AM	9	0	2	11	14	2	0	16	27
11:00 AM	11:15 AM	5	0	0	5	6	0	1	7	12
11:15 AM	11:30 AM	10	0	0	10	16	4	0	20	30
11:30 AM	11:45 AM	9	0	0	9	10	0	0	10	19
11:45 AM	12:00 PM	12	0	0	12	16	0	0	16	28
12:00 PM	12:15 PM	6	0	0	6	22	0	1	23	29
12:15 PM	12:30 PM	8	0	0	8	11	0	0	11	19
12:30 PM	12:45 PM	6	1	0	7	11	0	0	11	18
12:45 PM	1:00 PM	9	0	1	10	9	0	0	9	19
1:00 PM	1:15 PM	6	1	0	7	13	0	0	13	20
1:15 PM	1:30 PM	13	1	0	14	11	0	0	11	25
1:30 PM	1:45 PM	4	0	0	4	12	1	0	13	17
1:45 PM	2:00 PM	9	0	0	9	4	1	1	6	
2:00 PM	2:15 PM	11	0	1	12	15	1	0	16	
2:15 PM	2:30 PM	10	0	0	10	10	0	0	10	20
2:30 PM	2:45 PM	14	0	0	14	13	0	0	13	27
2:45 PM	3:00 PM	8	0	0	8	7	0	0	7	15
3:00 PM	3:15 PM	8	0	0	8	10	0	0	10	
3:15 PM	3:30 PM	10	0	0	10	9	0	0	9	19
3:30 PM	3:45 PM	8	0	0	8	9	0	0	9	17
3:45 PM	4:00 PM	7	0	0	7	14	0	0	14	21
4:00 PM	4:15 PM	8	0	0	8	9	0	0	9	17
4:15 PM	4:30 PM	18	0	0	18	11	0	0	11	29
4:30 PM	4:45 PM	12	0	0	12	12	0	0	12	24
4:45 PM	5:00 PM	8	0	0	8	7	0	0	7	15
5:00 PM	5:15 PM	10	2	0	12	8	0	0	8	20
5:15 PM	5:30 PM	11	0	0	11	13	0	0	13	
5:30 PM	5:45 PM	8	0	0	8	5	1	0	6	
5:45 PM	6:00 PM	11	0	0	11	13	0	0	13	24
	Totals	441	13	8	462	407	13	7	427	889

# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL HONOLULU, HAWAII

TAX MAP KEY: 2-1-060: 008 (PORTION)

# **APPENDIX B**

CAPACITY ANALYSIS WORKSHEETS
EXISTING TRAFFIC CONDITIONS

	۶	<b>→</b>	•	•	<b>←</b>	•	4	†	~	<b>/</b>	ţ	-√
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተኈ		- 4	ተተኈ			र्स	7		र्स	7
Volume (vph)	89	1693	41	17	1656	32	19	16	7	24	21	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Storage Length (ft)	80		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100	4407	0	100	4770	0	100	4000	4504	100	4740	4540
Satd. Flow (prot)	1604	4427	0	1685	4772	0	0	1683	1561	0	1712	1516
Flt Permitted	0.950	4427	0	0.950 1685	4772	0	0	0.867 1490	1526	0	0.828 1448	1400
Satd. Flow (perm) Right Turn on Red	1604	4427	Yes	1000	4//2	Yes	U	1490	Yes	U	1440	1492 Yes
Satd. Flow (RTOR)		6	165		4	168			87			92
Link Speed (mph)		30			30			30	01		30	32
Link Distance (ft)		345			376			515			200	
Travel Time (s)		7.8			8.5			11.7			4.5	
Confl. Peds. (#/hr)		7.0	13		0.0	12		11.7	8	8	7.0	3
Peak Hour Factor	0.79	0.95	0.68	0.53	0.95	0.67	0.79	0.50	0.58	0.67	0.66	0.84
Heavy Vehicles (%)	5%	9%	0%	0%	1%	0%	16%	0%	0%	4%	5%	3%
Shared Lane Traffic (%)	• 70	• 70	0,0	0,0	.,0	• , ,	, ,	0,0	0,0	. , ,	0,0	0,0
Lane Group Flow (vph)	113	1842	0	32	1791	0	0	56	12	0	68	92
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0	41.0		8.0	41.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (s)	25.0	98.0		11.0	84.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	16.7%	65.3%		7.3%	56.0%		27.3%	27.3%	27.3%	27.3%	27.3%	27.3%
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0		4.0	7.0			7.0	7.0		7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	None	Yes		Mana	Yes		Max	Max	Max	Max	Max	Max
Recall Mode	None			None	C-Max		Max	Max	Max	Max	Max	Max
Act Effct Green (s) Actuated g/C Ratio	15.6 0.10	95.4 0.64		6.7 0.04	82.4 0.55			34.0 0.23	34.0 0.23		34.0 0.23	34.0 0.23
v/c Ratio	0.10	0.65		0.04	0.55			0.23	0.23		0.23	0.23
Control Delay	84.0	19.0		87.4	26.6			48.3	0.03		49.1	9.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	84.0	19.0		87.4	26.6			48.3	0.0		49.1	9.9
LOS	04.0 F	13.0 B		67. <del>4</del>	20.0 C			40.5 D	Α		73.1 D	9.9 A
Approach Delay	ı	22.7		'	27.6			39.8	/1		26.6	/1
. Apricacii Doiay		LL.I			21.0			00.0			20.0	

۶	-	$\rightarrow$	•	•	•	•	<b>†</b>	1	-	ļ	4
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	С			С			D			С	
108	424		31	449			44	0		55	0
149	477		40	545			46	0		72	40
	265			296			435			120	
80			100								
224	2818		78	2621			337	413		328	409
0	0		0	0			0	0		0	0
0	0		0	0			0	0		0	0
0	0		0	0			0	0		0	0
0.50	0.65		0.41	0.68			0.17	0.03		0.21	0.22
	108 149 80 224 0 0	C 108 424 149 477 265 80 224 2818 0 0 0 0	C 108 424 149 477 265 80 224 2818 0 0 0 0 0 0	C 108 424 31 149 477 40 265 80 100 224 2818 78 0 0 0 0 0 0 0 0 0	C         C           108         424         31         449           149         477         40         545           265         296           80         100           224         2818         78         2621           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0	C         C           108         424         31         449           149         477         40         545           265         296           80         100           224         2818         78         2621           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0	C     C       108     424     31     449       149     477     40     545       265     296       80     100       224     2818     78     2621       0     0     0     0       0     0     0     0       0     0     0     0       0     0     0     0       0     0     0     0	C         C         D           108         424         31         449         44           149         477         40         545         46           265         296         435           80         100           224         2818         78         2621         337           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0	C         C         D           108         424         31         449         44         0           149         477         40         545         46         0           265         296         435           80         100           224         2818         78         2621         337         413           0         0         0         0         0         0           0         0         0         0         0         0           0         0         0         0         0         0           0         0         0         0         0         0           0         0         0         0         0         0	C         C         D           108         424         31         449         44         0           149         477         40         545         46         0           265         296         435           80         100           224         2818         78         2621         337         413           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0	C         C         D         C           108         424         31         449         44         0         55           149         477         40         545         46         0         72           265         296         435         120           80         100         337         413         328           224         2818         78         2621         337         413         328           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0

# Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 107.8% ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 3: Cooke St & Ala Moana Blvd



Intersection												
Intersection Delay, s/veh	8.9											
Intersection LOS	Α											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	13	39	10	0	16	128	4	0	3	12	8
Peak Hour Factor	0.92	0.65	0.70	0.63	0.92	0.67	0.74	0.61	0.92	0.38	0.50	0.50
Heavy Vehicles, %	2	8	3	0	2	0	0	6	2	0	1	0
Mvmt Flow	0	20	56	16	0	24	173	7	0	8	24	16
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.4	9.5	8.6
HCM LOS	Α	Α	Α

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	13%	25%	0%	11%	0%	56%	0%	
Vol Thru, %	52%	75%	0%	89%	0%	44%	0%	
Vol Right, %	35%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	23	52	10	144	4	39	24	
LT Vol	3	13	0	16	0	22	0	
Through Vol	12	39	0	128	0	17	0	
RT Vol	8	0	10	0	4	0	24	
Lane Flow Rate	48	76	16	197	7	56	32	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.069	0.111	0.019	0.273	0.008	0.086	0.041	
Departure Headway (Hd)	5.176	5.296	4.382	4.992	4.234	5.573	4.586	
Convergence, Y/N	Yes							
Cap	692	677	817	720	845	644	780	
Service Time	3.208	3.025	2.11	2.717	1.959	3.302	2.315	
HCM Lane V/C Ratio	0.069	0.112	0.02	0.274	0.008	0.087	0.041	
HCM Control Delay	8.6	8.7	7.2	9.6	7	8.8	7.5	
HCM Lane LOS	Α	Α	Α	Α	Α	Α	Α	
HCM 95th-tile Q	0.2	0.4	0.1	1.1	0	0.3	0.1	

Intersection					
Intersection Delay, s/veh					
Intersection LOS					
Movement	SBU	SBL	SBT	SBR	
Vol, veh/h	0	22	17	24	
Peak Hour Factor	0.92	0.69	0.71	0.75	
Heavy Vehicles, %	2	0	0	4	
Mvmt Flow	0	32	24	32	
Number of Lanes	0	0	1	1	
Approach		SB			
Opposing Approach		NB			
Opposing Lanes		1			
Conflicting Approach Left		WB			
Conflicting Lanes Left		2			
Conflicting Approach Right		EB			
Conflicting Lanes Right		2			
HCM Control Delay		8.3			
HCM LOS		Α			
Lane					

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	0	1	0	1	0	15	1	7	24	5
Conflicting Peds, #/hr	6	0	5	5	0	6	7	0	10	10	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	U	-	-	0	-	-	0	-
Peak Hour Factor	38	92	92	25		25	92	63	25	44	75	42
Heavy Vehicles, %	0	0	0	0		0	0	7	0	0	0	0
Mvmt Flow	8	0	0	4	0	4	0	24	4	16	32	12
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	110	110	54	108	114	42	50	0	0	34	0	0
Stage 1	76	76	-	32	32	-	-	-	-	-	-	-
Stage 2	34	34	-	76	82	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	873	784	1019	876	780	1034	1570	-	-	1591	-	-
Stage 1	938	836	-	990	872	-	-	-	-	-	-	-
Stage 2	987	871	-	938	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	851	768	1005	858	764	1020	1557	-	-	1578	-	-
Mov Cap-2 Maneuver	851	768	-	858	764	-	-	-	-	-	-	-
Stage 1	933	824	-	985	868	-	-	-	-	-	-	-
Stage 2	975	867	-	921	819	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.3			8.9			0			1.9		
HCM LOS	Α			А								
Minor Lane/Major Mvm	: NBL	NBT	NBRE	BLn <b>1</b> WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1557			851 932			-					
HCM Lane V/C Ratio	-	_	-	0.009 0.009		-	-					
HCM Control Delay (s)	0	_	_	9.3 8.9		0	-					
HCM Lane LOS	A	-	-	A A		A	-					
HCM 95th %tile Q(veh)	0	-	-	0 0		-	-					
					•							

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተኈ		ħ	<b>↑</b> ↑₽			र्स	7		र्स	7
Volume (vph)	56	2034	30	14	1523	57	51	36	13	48	26	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Storage Length (ft)	80		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100	4600	0	100	4629	0	100	1722	1561	100	1605	1516
Satd. Flow (prot) Flt Permitted	1685 0.950	4688	U	1685 0.950	4029	0	0	0.763	1561	0	1685 0.736	1516
Satd. Flow (perm)	1685	4688	0	1685	4629	0	0	1353	1525	0	1271	1491
Right Turn on Red	1003	4000	Yes	1005	4023	Yes	U	1333	Yes	U	1271	Yes
Satd. Flow (RTOR)		3	103		7	103			82			146
Link Speed (mph)		30			30			30	02		30	140
Link Distance (ft)		345			376			515			200	
Travel Time (s)		7.8			8.5			11.7			4.5	
Confl. Peds. (#/hr)			13			12			8	8		3
Peak Hour Factor	0.74	0.95	0.83	0.58	0.94	0.79	0.80	0.82	0.54	0.80	0.72	0.91
Heavy Vehicles (%)	0%	3%	3%	0%	4%	0%	4%	3%	0%	2%	12%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	2177	0	24	1692	0	0	108	24	0	96	153
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases				_			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0 20.0	41.0 107.0		8.0 10.0	41.0 97.0		41.0 43.0	41.0 43.0	41.0 43.0	41.0 43.0	41.0 43.0	41.0 43.0
Total Split (s) Total Split (%)	12.5%	66.9%		6.3%	60.6%		26.9%	26.9%	26.9%	26.9%	26.9%	26.9%
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		2.0	0.0	0.0	2.0	0.0	0.0
Total Lost Time (s)	4.0	7.0		4.0	7.0			7.0	7.0		7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?		Yes			Yes							
Recall Mode	None	C-Max		None	C-Max		Max	Max	Max	Max	Max	Max
Act Effct Green (s)	12.2	104.0		5.9	93.8			36.0	36.0		36.0	36.0
Actuated g/C Ratio	0.08	0.65		0.04	0.59			0.22	0.22		0.22	0.22
v/c Ratio	0.59	0.71		0.39	0.62			0.36	0.06		0.34	0.34
Control Delay	89.3	20.5		93.2	23.1			56.2	0.3		56.0	10.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	89.3	20.5		93.2	23.1			56.2	0.3		56.0	10.5
LOS	F	С		F	С			E	Α		E	В
Approach Delay		22.8			24.1			46.1			28.0	

	•	-	•	•	←	•	1	<b>†</b>	1	-	<b>↓</b>	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		С			С			D			С	
Queue Length 50th (ft)	78	557		25	408			96	0		85	6
Queue Length 95th (ft)	110	612		38	483			143	0		113	69
Internal Link Dist (ft)		265			296			435			120	
Turn Bay Length (ft)	80			100								
Base Capacity (vph)	168	3048		63	2715			304	406		285	448
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.45	0.71		0.38	0.62			0.36	0.06		0.34	0.34

Area Type: Other

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 114.2% ICU Level of Service H

Analysis Period (min) 15



Intersection												
Intersection Delay, s/veh	8.8											
Intersection LOS	Α											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	19	99	14	0	22	80	52	0	13	23	18
Peak Hour Factor	0.92	0.68	0.83	0.58	0.92	0.79	0.87	0.81	0.92	0.54	0.82	0.64
Heavy Vehicles, %	2	0	6	0	2	0	1	6	2	0	0	0
Mvmt Flow	0	28	119	24	0	28	92	64	0	24	28	28
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9.1	8.5	9.1
HCM LOS	Α	Α	А

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	24%	16%	0%	22%	0%	49%	0%	
Vol Thru, %	43%	84%	0%	78%	0%	51%	0%	
Vol Right, %	33%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	54	118	14	102	52	39	18	
LT Vol	13	19	0	22	0	19	0	
Through Vol	23	99	0	80	0	20	0	
RT Vol	18	0	14	0	52	0	18	
Lane Flow Rate	80	147	24	120	64	60	28	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.119	0.213	0.03	0.174	0.079	0.096	0.037	
Departure Headway (Hd)	5.325	5.205	4.522	5.224	4.429	5.78	4.745	
Convergence, Y/N	Yes							
Cap	672	689	790	686	807	618	752	
Service Time	3.372	2.944	2.261	2.962	2.167	3.528	2.493	
HCM Lane V/C Ratio	0.119	0.213	0.03	0.175	0.079	0.097	0.037	
HCM Control Delay	9.1	9.4	7.4	9.1	7.5	9.1	7.7	
HCM Lane LOS	Α	Α	Α	Α	Α	Α	Α	
HCM 95th-tile Q	0.4	0.8	0.1	0.6	0.3	0.3	0.1	

Intersection					
Intersection Delay, s/veh					
Intersection LOS					
Movement	SBU	SBL	SBT	SBR	
Vol, veh/h	0	19	20	18	
Peak Hour Factor	0.92	0.68	0.63	0.64	
Heavy Vehicles, %	2	5	0	17	
Mvmt Flow	0	28	32	28	
Number of Lanes	0	0	1	1	
Approach		SB			
Opposing Approach		NB			
Opposing Lanes		1			
Conflicting Approach Left		WB			
Conflicting Lanes Left		2			
Conflicting Approach Right		EB			
Conflicting Lanes Right		2			
HCM Control Delay		8.7			
HCM LOS		Α			
Lane					

Intersection	0.0											
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	0	0	1	0	10	3	39	2	10	41	3
Conflicting Peds, #/hr	4	0	3	3	0	4	7	0	9	9	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	-, #	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	92	92	25	92	63	25	70	50	83	64	38
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	0	0	4	0	16	12	56	4	12	64	8
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	190	184	81	182	186	71	76	0	0	64	0	0
Stage 1	96	96	-	86	86	-	-	-	-	-	-	_
Stage 2	94	88	-	96	100	-	_	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	_
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	774	714	985	784	712	997	1536	-	-	1551	-	-
Stage 1	916	819	-	927	827	-	-	-	-	-	-	-
Stage 2	918	826	-	916	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	744	698	974	766	696	986	1524	-	-	1539	-	-
Mov Cap-2 Maneuver	744	698	-	766	696	-	-	-	-	-	-	-
Stage 1	906	810	-	917	818	-	-	-	-	-	-	-
Stage 2	889	817	-	902	807	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.9			8.9			1.2			1.1		
HCM LOS	A			Α			1.6			1.1		
110111 200	, ,			, ,								
Minor Lane/Major Mvm	t NBL	NBT	NIDDE	BLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1524	NDT	אוטוענ		1539	001	JUIN					
HCM Lane V/C Ratio	0.008	-	-	0.005 0.021		-	-					
		-		9.9 8.9		- 0	-					
HCM Control Delay (s) HCM Lane LOS	7.4 A	0 A	-	9.9 6.9 A A		A	-					
HCM 95th %tile Q(veh)		А	-	0 0.1	0	А	-					
HOW SOUL WILL W(VEIL)	, 0	-	-	0 0.1	U	-	-					

# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

FOR THE PROPOSED

# KAKAAKO FIRST SCHOOL HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 

# **APPENDIX C**

CAPACITY ANALYSIS WORKSHEETS
PEAK HOUR TRAFFIC WITHOUT PROJECT

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተኈ		ሻ	<b>↑</b> ↑₽			र्स	7		र्स	7
Volume (vph)	92	1880	42	18	1826	33	20	16	7	25	22	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Storage Length (ft)	80		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100	4.400	•	100	4==0	•	100	4000	4504	100	4740	4=40
Satd. Flow (prot)	1604	4426	0	1685	4772	0	0	1680	1561	0	1712	1516
Flt Permitted	0.950	4400	0	0.950	4770	0	0	0.862	4500	0	0.827	4.400
Satd. Flow (perm)	1604	4426	0	1685	4772	0	0	1479	1526	0	1446	1492
Right Turn on Red		C	Yes		4	Yes			Yes			Yes
Satd. Flow (RTOR)		6 30			30			30	87		30	94
Link Speed (mph)		345			376			515			200	
Link Distance (ft) Travel Time (s)		7.8			8.5			11.7			4.5	
Confl. Peds. (#/hr)		7.0	13		0.5	12		11.7	8	8	4.5	3
Peak Hour Factor	0.79	0.95	0.68	0.53	0.95	0.67	0.79	0.50	0.58	0.67	0.66	0.84
Heavy Vehicles (%)	5%	9%	0.00	0.33	1%	0.07	16%	0.30	0.30	4%	5%	3%
Shared Lane Traffic (%)	370	J /0	0 70	0 70	1 /0	0 70	10 /0	0 70	0 70	7/0	370	3 /0
Lane Group Flow (vph)	116	2041	0	34	1971	0	0	57	12	0	70	94
Turn Type	Prot	NA	Ū	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0	41.0		8.0	41.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (s)	23.0	98.0		11.0	86.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	15.3%	65.3%		7.3%	57.3%		27.3%	27.3%	27.3%	27.3%	27.3%	27.3%
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0		4.0	7.0			7.0	7.0		7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?		Yes			Yes							
Recall Mode	None			None	C-Max		Max	Max	Max	Max	Max	Max
Act Effet Green (s)	15.4	93.2		6.7	82.6			34.0	34.0		34.0	34.0
Actuated g/C Ratio	0.10	0.62		0.04	0.55			0.23	0.23		0.23	0.23
v/c Ratio	0.70 86.9	0.74 22.5		0.45 89.1	0.75 28.5			0.17 48.3	0.03		0.21 49.3	0.23
Control Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	9.8
Queue Delay Total Delay	86.9	22.5		89.1	28.5			48.3	0.0		49.3	9.8
LOS	00.9 F	22.5 C		09.1 F	20.5 C			40.3 D	0.1 A		49.3 D	9.0 A
Approach Delay	Г	25.9		Г	29.6			40.0	A		26.7	A
Approach Delay		20.3			23.0			+0.0			20.7	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		С			С			D			С	
Queue Length 50th (ft)	111	509		33	529			45	0		56	0
Queue Length 95th (ft)	154	569		42	616			47	0		73	40
Internal Link Dist (ft)		265			296			435			120	
Turn Bay Length (ft)	80			100								
Base Capacity (vph)	203	2752		78	2628			335	413		327	410
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.57	0.74		0.44	0.75			0.17	0.03		0.21	0.23

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

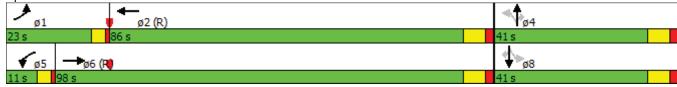
Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 111.5% ICU Level of Service H

Analysis Period (min) 15



Intersection												
Intersection Delay, s/veh	10											
Intersection LOS	А											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	13	40	10	0	16	197	4	0	3	12	8
Peak Hour Factor	0.92	0.65	0.70	0.63	0.92	0.67	0.74	0.61	0.92	0.38	0.50	0.50
Heavy Vehicles, %	2	8	3	0	2	0	0	6	2	0	1	0
Mvmt Flow	0	20	57	16	0	24	266	7	0	8	24	16
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.6	11	8.9
HCM LOS	Α	В	Α

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	13%	25%	0%	8%	0%	56%	0%	
Vol Thru, %	52%	75%	0%	92%	0%	44%	0%	
Vol Right, %	35%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	23	53	10	213	4	41	25	
LT Vol	3	13	0	16	0	23	0	
Through Vol	12	40	0	197	0	18	0	
RT Vol	8	0	10	0	4	0	25	
Lane Flow Rate	48	77	16	290	7	59	33	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.072	0.116	0.02	0.403	0.008	0.095	0.045	
Departure Headway (Hd)	5.431	5.402	4.489	5.001	4.261	5.815	4.829	
Convergence, Y/N	Yes							
Cap	658	663	795	719	838	616	740	
Service Time	3.48	3.145	2.231	2.734	1.994	3.558	2.571	
HCM Lane V/C Ratio	0.073	0.116	0.02	0.403	0.008	0.096	0.045	
HCM Control Delay	8.9	8.9	7.3	11.1	7	9.2	7.8	
HCM Lane LOS	Α	Α	Α	В	Α	Α	Α	
HCM 95th-tile Q	0.2	0.4	0.1	2	0	0.3	0.1	

Intersection								
Intersection Delay, s/veh							·	·
Intersection LOS								
Movement	SBU	SBL	SBT	SBR				
Vol, veh/h	0	23	18	25				
Peak Hour Factor	0.92	0.69	0.71	0.75				
Heavy Vehicles, %	2	0	0	4				
Mvmt Flow	0	33	25	33				
Number of Lanes	0	0	1	1				
Approach		SB						
Opposing Approach		NB						
Opposing Lanes		1						
Conflicting Approach Left		WB						
Conflicting Lanes Left		2						
Conflicting Approach Right		EB						
Conflicting Lanes Right		2						
HCM Control Delay		8.7						
HCM LOS		Α						
Lane								

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	0	1	0	1	0	16	1	7	25	5
Conflicting Peds, #/hr	6	0	5	5	0	6	7	0	10	10	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	92	92	25	92	25	92	63	25	44	75	42
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	0	0
Mvmt Flow	8	0	0	4	0	4	0	25	4	16	33	12
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	112	112	55	110	116	43	51	0	0	35	0	0
Stage 1	77	77	-	33	33	-	-	-	-	-	-	_
Stage 2	35	35	-	77	83	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	870	782	1018	873	778	1033	1568	-	-	1589	-	-
Stage 1	937	835	-	988	872	-	-	-	-	-	-	-
Stage 2	986	870	-	937	830	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	849	766	1004	855	763	1019	1555	-	-	1576	-	-
Mov Cap-2 Maneuver	849	766	-	855	763	-	-	-	-	-	-	-
Stage 1	932	823	-	983	868	-	-	-	-	-	-	-
Stage 2	974	866	-	920	818	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.3			8.9			0			1.9		
HCM LOS	Α			A			•					
Minor Lane/Major Mvm	t NBL	NBT	NRRF	BLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1555	ַ ועדו	- 1401 (L	849 930			-					
HCM Lane V/C Ratio	-	-	-	0.009 0.009		-	-					
HCM Control Delay (s)	0	_	-	9.3 8.9		0	<u>-</u>					
HCM Lane LOS	A	_	_	A A		A	-					
HCM 95th %tile Q(veh)		_	_	0 0		-	_					
	. 0			0 0	0							

Lane Group		۶	<b>→</b>	•	•	<b>←</b>	•	1	†	~	<b>/</b>	ţ	-√
Volume (vph)	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (ryhph)	Lane Configurations	7	ተተኈ		ħ	<b>↑</b> ↑₽			र्स	7		र्स	7
Lane Width (ft)	Volume (vph)												
Storage Length (ft)	· · · · /												
Storage Lanes			10			10			11			11	
Taper Length (fty													
Said. Flow (prot)	•			0			0			1			1
Fit Permitted	,		4690	0		4620	٥		1700	1561		1602	1516
Satd. Flow (perm)   1685   4689   0   1685   4629   0   0   1337   1525   0   1242   1491     Right Turn on Red	,,		4009	U		4029	U	U		1001	U		1310
Right Turn on Red			4689	0		4629	Λ	0		1525	0		1491
Said. Flow (RTOR)         3         7         82         118           Link Speed (mph)         30         30         30         30         20           Link Distance (ft)         345         376         515         200           Travel Time (s)         7.8         8.5         11.7         4.5           Confl. Peds. (#/hr)         13         8.5         12         8         8         8         3           Peak Hour Factor         0.74         0.95         0.83         0.58         0.94         0.79         0.80         0.82         0.54         0.80         0.72         0.91           Heavy Vehicles (%)         0%         3%         3%         0%         4%         0%         4%         3%         0%         2.2         12%         3%           Shared Lane Traffic (%)         1         6         5         2         1         6         9         157         7         7         7         7         12%         12%         9         157         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         <	\\ ,	1000	4000		1000	7023		O .	1001		U	1272	
Link Speed (mph)         345         376         515         200           Travel Time (s)         7.8         8.5         11.7         4.5           Confl. Peds. (#/hr)         13         8.5         11.7         8.8         8.8           Peak Hour Factor         0.74         0.95         0.83         0.58         0.94         0.79         0.80         0.82         0.54         0.80         0.72         0.91           Heavy Vehicles (%)         0%         3%         3%         0%         4%         0%         4%         3%         0%         2.9         0.91           Heavy Vehicles (%)         0%         3%         3%         0%         4%         0%         4%         3%         0%         0.99         157           Turn Type         Prot         NA         Prot         NA         Perm         NA         Perm         NA         Perm         NA         Perm         NA         Perm         NA         8         8         8         8           Detector Phases         1         6         5         2         4         4         8         8         8           Detector Phase         1         6         5			3			7	. 00						
Confi	\ /		30			30			30			30	
Confl. Peds. (#/hr)         13         12         8         8         3           Peak Hour Factor         0.74         0.95         0.83         0.58         0.94         0.79         0.80         0.82         0.54         0.80         0.72         0.91           Heavy Vehicles (%)         0%         3%         3%         0%         4%         0%         4%         3%         0%         2.04         12%         3%           Shared Lane Traffic (%)         Lane Group Flow (yph)         78         2425         0         24         1896         0         0         111         24         0         99         157           Turn Type         Prot         NA         Prot         NA         Prot         NA         Perm         Perm         NA         Perm           Pemitted Phases         1         6         5         2         4         4         4         8         8         8           Permitted Phases         1         6         5         2         4         4         4         8         8         8           Switch Phase         1         6         5         5         2         4         4         4	,		345			376			515			200	
Peak Hour Factor	Travel Time (s)		7.8			8.5			11.7			4.5	
Heavy Vehicles (%)	Confl. Peds. (#/hr)												
Shared Lane Traffic (%)   Lane Group Flow (vph)   78   2425   0   24   1896   0   0   0   111   24   0   99   157     Turn Type													
Lane Group Flow (vph)	, ,	0%	3%	3%	0%	4%	0%	4%	3%	0%	2%	12%	3%
Turn Type         Prot         NA         Prot         NA         Perm         A         A         A           Whinimum Initial (s)         4.0         7.0         4.0         7.0         7.0         7.0         7.0	` ,	=0	0.40=	•	0.4	1000	•	•	444	0.4	•	00	4 = =
Protected Phases         1         6         5         2         4         4         8         8           Detector Phase         1         6         5         2         4         4         4         8         8         8           Switch Phase         Minimum Initial (s)         4.0         7.0         4.0         7.0         8.0         9.0         9.0         9.0 <td>. , ,</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>	. , ,			0			0				-		
Permitted Phases	• •							Perm		Perm	Perm		Perm
Detector Phase   1   6   5   2   4   4   4   4   8   8   8   8   8   8			О		5	2		1	4	1	0	ð	0
Switch Phase         Minimum Initial (s)         4.0         7.0         4.0         7.0         41.0		1	6		5	2			1			Q	
Minimum Initial (s)         4.0         7.0         4.0         7.0			U		J	2		7	7	7	U	U	U
Minimum Split (s)         8.0         41.0         8.0         41.0		4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)         18.0         109.0         10.0         101.0         41.0 <td>` ,</td> <td></td>	` ,												
Yellow Time (s)         3.0         5.0         3.0         5.0         2.0			109.0			101.0				41.0	41.0	41.0	
All-Red Time (s) 1.0 2.0 1.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 Lost Time Adjust (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	,		68.1%		6.3%	63.1%		25.6%	25.6%	25.6%	25.6%	25.6%	25.6%
Lost Time Adjust (s)         0.0         7.0													
Total Lost Time (s)         4.0         7.0         4.0         7.0         3.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.0         34.								2.0			2.0		
Lead/Lag         Lead         Lag         Lead         Lag           Lead-Lag Optimize?         Yes         Yes           Recall Mode         None         C-Max         None         C-Max         Max	•												
Lead-Lag Optimize?         Yes         Yes           Recall Mode         None C-Max         None C-Max         Max	` ,								7.0	7.0		7.0	7.0
Recall Mode         None         C-Max         None         C-Max         Max		Lead	_		Lead								
Act Effct Green (s)       11.8 106.0       5.9 96.2       34.0 34.0 34.0       34.0 34.0         Actuated g/C Ratio       0.07 0.66 0.04 0.60 0.21 0.21 0.21 0.21       0.21 0.21 0.21         v/c Ratio       0.63 0.78 0.39 0.68 0.39 0.06 0.38 0.38         Control Delay 93.5 21.8 93.2 23.3 58.9 0.3 58.9 18.3         Queue Delay 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		None			None			Mov	Max	Mov	Mov	Mov	Mov
Actuated g/C Ratio       0.07       0.66       0.04       0.60       0.21       0.21       0.21       0.21         v/c Ratio       0.63       0.78       0.39       0.68       0.39       0.06       0.38       0.38         Control Delay       93.5       21.8       93.2       23.3       58.9       0.3       58.9       18.3         Queue Delay       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0         Total Delay       93.5       21.8       93.2       23.3       58.9       0.3       58.9       18.3         LOS       F       C       F       C       E       A       E       B								IVIAX			IVIAX		
v/c Ratio       0.63       0.78       0.39       0.68       0.39       0.06       0.38       0.38         Control Delay       93.5       21.8       93.2       23.3       58.9       0.3       58.9       18.3         Queue Delay       0.0													
Control Delay       93.5       21.8       93.2       23.3       58.9       0.3       58.9       18.3         Queue Delay       0.0	<u> </u>												
Queue Delay         0.0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
Total Delay         93.5         21.8         93.2         23.3         58.9         0.3         58.9         18.3           LOS         F         C         F         C         E         A         E         B													
LOS F C F C E A E B	·												
Approach Delay 24.0 24.2 48.5 34.0	•	F			F				Е	Α		Е	
	Approach Delay		24.0			24.2			48.5			34.0	

	۶	-	•	•	←	*	1	<b>†</b>	1	-	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		С			С			D			С	
Queue Length 50th (ft)	80	663		25	478			101	0		90	33
Queue Length 95th (ft)	113	725		38	541			149	0		118	104
Internal Link Dist (ft)		265			296			435			120	
Turn Bay Length (ft)	80			100								
Base Capacity (vph)	147	3107		63	2785			284	388		263	409
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.53	0.78		0.38	0.68			0.39	0.06		0.38	0.38

Area Type: Other

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 118.7% ICU Level of Service H

Analysis Period (min) 15



Intersection												
Intersection Delay, s/veh	9.1											
Intersection LOS	Α											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	102	14	0	23	117	54	0	13	24	19
Peak Hour Factor	0.92	0.68	0.83	0.58	0.92	0.79	0.87	0.81	0.92	0.54	0.82	0.64
Heavy Vehicles, %	2	0	6	0	2	0	1	6	2	0	0	0
Mvmt Flow	0	29	123	24	0	29	134	67	0	24	29	30
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9.3	9	9.3
HCM LOS	Α	Α	Α

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	23%	16%	0%	16%	0%	49%	0%	
Vol Thru, %	43%	84%	0%	84%	0%	51%	0%	
Vol Right, %	34%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	56	122	14	140	54	41	19	
LT Vol	13	20	0	23	0	20	0	
Through Vol	24	102	0	117	0	21	0	
RT Vol	19	0	14	0	54	0	19	
Lane Flow Rate	83	152	24	164	67	63	30	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.126	0.223	0.031	0.238	0.083	0.103	0.04	
Departure Headway (Hd)	5.453	5.281	4.596	5.233	4.463	5.913	4.877	
Convergence, Y/N	Yes							
Cap	654	678	775	684	799	604	730	
Service Time	3.512	3.03	2.345	2.979	2.209	3.674	2.637	
HCM Lane V/C Ratio	0.127	0.224	0.031	0.24	0.084	0.104	0.041	
HCM Control Delay	9.3	9.6	7.5	9.6	7.6	9.4	7.8	
HCM Lane LOS	Α	Α	Α	Α	Α	Α	Α	
HCM 95th-tile Q	0.4	8.0	0.1	0.9	0.3	0.3	0.1	

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR		
Vol, veh/h	0	20	21	19		
Peak Hour Factor	0.92	0.68	0.63	0.64		
Heavy Vehicles, %	2	5	0	17		
Mvmt Flow	0	29	33	30		
Number of Lanes	0	0	1	1		
Approach		SB				
Opposing Approach		NB				
Opposing Lanes		1				
Conflicting Approach Left		WB				
Conflicting Lanes Left		2				
Conflicting Approach Right		EB				
Conflicting Lanes Right		2				
HCM Control Delay		8.9				
HCM LOS		Α				
Lane						

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	0	0	1	0	10	3	40	2	10	42	3
Conflicting Peds, #/hr	4	0	3	3	0	4	7	0	9	9	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	v	-	-	0	-	-	0	-
Peak Hour Factor	25	92	92	25	92	63	25	70	50	83	64	38
Heavy Vehicles, %	0	0	0	0		0	0	0	0	0	0	0
Mvmt Flow	4	0	0	4	0	16	12	57	4	12	66	8
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	193	187	83	185	189	72	78	0	0	65	0	0
Stage 1	98	98	-	87	87	-	-	-	-	-	-	-
Stage 2	95	89	-	98	102	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	771	711	982	780	709	996	1533	-	-	1550	-	-
Stage 1	913	818	-	926	827	-	-	-	-	-	-	-
Stage 2	917	825	-	913	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	741	695	971	762	693	985	1522	-	-	1538	-	-
Mov Cap-2 Maneuver	741	695	-	762	693	-	-	-	-	-	-	-
Stage 1	903	809	-	916	818	-	-	-	-	-	-	-
Stage 2	888	816	-	899	806	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.9			9			1.2			1		
HCM LOS	Α			A								
Minor Lane/Major Mvmt		NBT	NBRE	BLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1522	-	-		1538	-	-					
HCM Lane V/C Ratio	0.008	-	-	0.005 0.021		-	-					
HCM Control Delay (s)	7.4	0	-	9.9 9		0	-					
HCM Lane LOS	Α	Α	-	A A		Α	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-					

# TRAFFIC MANAGEMENT PLAN AND TRAFFIC ASSESSMENT REPORT FOR THE PROPOSED

# **KAKAAKO FIRST SCHOOL**

HONOLULU, HAWAII

**TAX MAP KEY: 2-1-060: 008 (PORTION)** 

# APPENDIX D

CAPACITY ANALYSIS WORKSHEETS
PEAK HOUR TRAFFIC WITH PROJECT

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተኈ		ሻ	ተተኈ			र्स	7		र्स	7
Volume (vph)	92	1880	73	31	1826	33	51	42	19	25	38	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Storage Length (ft)	80		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100	4440	0	100	4770	0	100	4004	4504	100	4700	4540
Satd. Flow (prot)	1604	4418	0	1685	4772	0	0	1681	1561	0	1722	1516
Flt Permitted	0.950	4440	0	0.950	4770	0	^	0.815	4500	^	0.832	1400
Satd. Flow (perm)	1604	4418	0	1685	4772	0	0	1399	1526	0	1456	1492
Right Turn on Red		9	Yes		1	Yes			Yes 87			Yes 94
Satd. Flow (RTOR) Link Speed (mph)		30			30			30	0/		30	94
Link Speed (mpn) Link Distance (ft)		345			376			515			200	
Travel Time (s)		7.8			8.5			11.7			4.5	
Confl. Peds. (#/hr)		7.0	13		0.0	12		11.7	8	8	4.5	3
Peak Hour Factor	0.79	0.95	0.68	0.53	0.95	0.67	0.79	0.50	0.58	0.67	0.66	0.84
Heavy Vehicles (%)	5%	9%	0%	0.00	1%	0.07	16%	0.30	0.00	4%	5%	3%
Shared Lane Traffic (%)	070	0 70	0 70	0 70	170	0 70	1070	0 70	0 70	170	0 70	070
Lane Group Flow (vph)	116	2086	0	58	1971	0	0	149	33	0	95	94
Turn Type	Prot	NA	_	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases							4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	8.0	41.0		8.0	41.0		41.0	41.0	41.0	41.0	41.0	41.0
Total Split (s)	23.0	93.0		15.0	85.0		42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	15.3%	62.0%		10.0%	56.7%		28.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0		4.0	7.0			7.0	7.0		7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	N1	Yes		NI	Yes		N 4	N 4	N 4	N 4	N 4	N 4
Recall Mode	None			None			Max	Max	Max	Max	Max	Max
Act Effet Green (s)	15.4	89.5		9.5	81.6			35.0	35.0		35.0	35.0
Actuated g/C Ratio v/c Ratio	0.10 0.70	0.60 0.79		0.06	0.54 0.76			0.23	0.23		0.23	0.23
Control Delay	86.9	26.6		86.7	29.4			54.7	0.06		49.9	9.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.4		0.0	0.0
Total Delay	86.9	26.6		86.7	29.4			54.7	0.4		49.9	9.6
LOS	60.9 F	20.0 C		60. <i>1</i>	29.4 C			34.7 D	0.4 A		49.9 D	9.0 A
Approach Delay	ı-	29.7		I .	31.1			44.8	Α		29.8	^
Approach Delay		25.1			01.1			<del></del> .∪			23.0	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		С			С			D			С	
Queue Length 50th (ft)	111	575		56	538			126	0		77	0
Queue Length 95th (ft)	154	649		60	626			103	0		95	39
Internal Link Dist (ft)		265			296			435			120	
Turn Bay Length (ft)	80			100								
Base Capacity (vph)	203	2640		123	2596			326	422		339	420
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.57	0.79		0.47	0.76			0.46	0.08		0.28	0.22

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

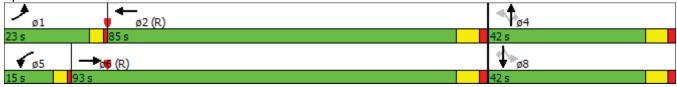
Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 30.9 Intersection LOS: C
Intersection Capacity Utilization 112.2% ICU Level of Service H

Analysis Period (min) 15



Intersection												
Intersection Delay, s/veh	17.2											
Intersection LOS	С											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	13	40	45	0	72	197	4	0	20	81	55
Peak Hour Factor	0.92	0.65	0.70	0.63	0.92	0.67	0.74	0.61	0.92	0.38	0.50	0.50
Heavy Vehicles, %	2	8	3	0	2	0	0	6	2	0	1	0
Mvmt Flow	0	20	57	71	0	107	266	7	0	53	162	110
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	10.6	21.8	17.8
HCM LOS	В	С	С

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	13%	25%	0%	27%	0%	23%	0%	
Vol Thru, %	52%	75%	0%	73%	0%	77%	0%	
Vol Right, %	35%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	156	53	45	269	4	101	25	
LT Vol	20	13	0	72	0	23	0	
Through Vol	81	40	0	197	0	78	0	
RT Vol	55	0	45	0	4	0	25	
Lane Flow Rate	325	77	71	374	7	143	33	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.574	0.155	0.125	0.676	0.01	0.28	0.058	
Departure Headway (Hd)	6.473	7.236	6.306	6.51	5.661	7.049	6.218	
Convergence, Y/N	Yes							
Cap	562	498	571	549	626	513	579	
Service Time	4.473	4.946	4.015	4.306	3.456	4.756	3.924	
HCM Lane V/C Ratio	0.578	0.155	0.124	0.681	0.011	0.279	0.057	
HCM Control Delay	17.8	11.3	9.9	22	8.5	12.5	9.3	
HCM Lane LOS	С	В	Α	С	Α	В	Α	
HCM 95th-tile Q	3.6	0.5	0.4	5.1	0	1.1	0.2	

Intersection					
Intersection Delay, s/veh					
Intersection LOS					
Movement	SBU	SBL	SBT	SBR	
Vol, veh/h	0	23	78	25	
Peak Hour Factor	0.92	0.69	0.71	0.75	
Heavy Vehicles, %	2	0	0	4	
Mvmt Flow	0	33	110	33	
Number of Lanes	0	0	1	1	
Approach		SB			
Opposing Approach		NB			
Opposing Lanes		1			
Conflicting Approach Left		WB			
Conflicting Lanes Left		2			
Conflicting Approach Right		EB			
Conflicting Lanes Right		2			
HCM Control Delay		11.9			
HCM LOS		В			
Lane					

Intersection												
	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	0	1	0	1	0	148	1	7	176	5
Conflicting Peds, #/hr	6	0	5	5	0	6	7	0	10	10	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	- #	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	92	92	25	92	25	92	63	25	44	75	42
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	0	0
Mvmt Flow	8	0	0	4	0	4	0	235	4	16	235	12
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	523	523	257	521	527	253	253	0	0	245	0	0
Stage 1	278	278	-	243	243	-	-	-	-	-	-	-
Stage 2	245	245	-	278	284	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	468	462	787	469	459	791	1324	-	-	1333	-	-
Stage 1	733	684	-	765	708	-	-	-	-	-	-	-
Stage 2	763	707	-	733	680	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	455	451	777	458	448	780	1313	-	-	1322	-	-
Mov Cap-2 Maneuver	455	451	-	458	448	-	-	-	-	-	-	-
Stage 1	729	671	-	761	704	-	-	-	-	-	-	-
Stage 2	753	703	-	717	667	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.1			11.3			0			0.5		
HCM LOS	В			В								
Minor Lane/Major Mvm	t NBL	NBT	NBRE	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1313				1322		-					
HCM Lane V/C Ratio	-	-	_	0.017 0.014		-	-					
HCM Control Delay (s)	0	_	_	13.1 11.3	7.8	0	-					
HCM Lane LOS	A	-	_	ВВ	Α	A	-					
HCM 95th %tile Q(veh)	0	-	-	0.1 0	0	-	-					
					,							

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተኈ		ች	<b>↑</b> ↑₽			र्स	7		र्स	7
Volume (vph)	58	2269	50	23	1712	59	82	57	20	49	43	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Storage Length (ft)	80		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100	10-0		100	1000		100	4=00		100	10-1	1-10
Satd. Flow (prot)	1685	4678	0	1685	4629	0	0	1722	1561	0	1674	1516
Flt Permitted	0.950	10-0		0.950	1000			0.706			0.620	
Satd. Flow (perm)	1685	4678	0	1685	4629	0	0	1252	1525	0	1060	1491
Right Turn on Red			Yes		•	Yes			Yes			Yes
Satd. Flow (RTOR)		4			6				82			119
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			376			515			200	
Travel Time (s)		7.8	40		8.5	40		11.7	•	•	4.5	•
Confl. Peds. (#/hr)	0 = 4		13	0.50	2.04	12	2.22	0.00	8	8	0.70	3
Peak Hour Factor	0.74	0.95	0.83	0.58	0.94	0.79	0.80	0.82	0.54	0.80	0.72	0.91
Heavy Vehicles (%)	0%	3%	3%	0%	4%	0%	4%	3%	0%	2%	12%	3%
Shared Lane Traffic (%)	70	0.4.40	•	40	4000	•	•	470	07	•	404	457
Lane Group Flow (vph)	78	2448	0	40	1896	0	0	172	37	0	121	157
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2		4	4	4	_	8	
Permitted Phases	4	0		_	0		4	4	4	8	0	8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase	4.0	7.0		4.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Initial (s)	4.0 8.0	7.0 41.0		4.0 8.0	7.0 41.0		7.0 41.0	7.0 41.0	7.0 41.0	7.0 41.0	7.0 41.0	7.0 41.0
Minimum Split (s)	18.0	105.0		13.0	100.0		42.0	41.0	42.0	41.0	42.0	41.0
Total Split (s)	11.3%	65.6%		8.1%	62.5%		26.3%	26.3%	26.3%	26.3%	26.3%	26.3%
Total Split (%) Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		2.0	0.0	0.0	2.0	0.0	0.0
Total Lost Time (s)	4.0	7.0		4.0	7.0			7.0	7.0		7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag			7.0	7.0		7.0	7.0
Lead-Lag Optimize?	Leau	Yes		Leau	Yes							
Recall Mode	None			None			Max	Max	Max	Max	Max	Max
Act Effct Green (s)	11.8	100.9		8.1	95.2		IVIGA	35.0	35.0	IVIGA	35.0	35.0
Actuated g/C Ratio	0.07	0.63		0.05	0.60			0.22	0.22		0.22	0.22
v/c Ratio	0.63	0.83		0.48	0.69			0.63	0.09		0.52	0.22
Control Delay	93.5	26.8		91.9	24.1			68.2	0.5		64.5	17.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	93.5	26.8		91.9	24.1			68.2	0.5		64.5	17.7
LOS	55.5	20.0 C		51.5	24.1 C			60.2 E	Α		04.5 E	В
Approach Delay	ı	28.8		'	25.5			56.2	, (		38.1	
pp. odon Dolay		20.0			20.0			JU.2			JU. 1	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		С			С			Е			D	
Queue Length 50th (ft)	80	730		41	486			165	0		113	32
Queue Length 95th (ft)	113	798		54	550			227	0		143	103
Internal Link Dist (ft)		265			296			435			120	
Turn Bay Length (ft)	80			100								
Base Capacity (vph)	147	2950		94	2756			273	397		231	419
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.53	0.83		0.43	0.69			0.63	0.09		0.52	0.37

Area Type: Other

Cycle Length: 160

Actuated Cycle Length: 160

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 110

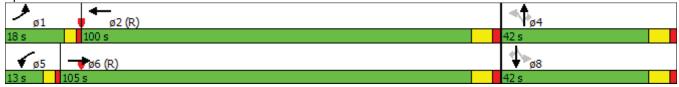
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 29.2
Intersection Capacity Utilization 119.1%

Intersection LOS: C
ICU Level of Service H

Analysis Period (min) 15



Intersection												
Intersection Delay, s/veh	12.6											
Intersection LOS	В											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	102	45	0	71	117	54	0	45	80	63
Peak Hour Factor	0.92	0.68	0.83	0.58	0.92	0.79	0.87	0.81	0.92	0.54	0.82	0.64
Heavy Vehicles, %	2	0	6	0	2	0	1	6	2	0	0	0
Mvmt Flow	0	29	123	78	0	90	134	67	0	83	98	98
Number of Lanes	0	0	1	1	0	0	1	1	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	10.9	12.5	14.8
HCM LOS	В	В	В

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	
Vol Left, %	24%	16%	0%	38%	0%	24%	0%	
Vol Thru, %	43%	84%	0%	62%	0%	76%	0%	
Vol Right, %	34%	0%	100%	0%	100%	0%	100%	
Sign Control	Stop							
Traffic Vol by Lane	188	122	45	188	54	85	19	
LT Vol	45	20	0	71	0	20	0	
Through Vol	80	102	0	117	0	65	0	
RT Vol	63	0	45	0	54	0	19	
Lane Flow Rate	279	152	78	224	67	133	30	
Geometry Grp	6	7	7	7	7	7	7	
Degree of Util (X)	0.478	0.274	0.124	0.403	0.103	0.247	0.048	
Departure Headway (Hd)	6.163	6.468	5.775	6.464	5.577	6.72	5.802	
Convergence, Y/N	Yes							
Cap	584	553	618	554	639	532	613	
Service Time	4.225	4.236	3.542	4.227	3.34	4.492	3.573	
HCM Lane V/C Ratio	0.478	0.275	0.126	0.404	0.105	0.25	0.049	
HCM Control Delay	14.8	11.7	9.4	13.6	9	11.7	8.9	
HCM Lane LOS	В	В	Α	В	Α	В	Α	
HCM 95th-tile Q	2.6	1.1	0.4	1.9	0.3	1	0.2	

					_	 
Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Marrana	ODLI	ODI	ODT	000		
Movement	SBU	SBL	SBT	SBR		
Vol, veh/h	0	20	65	19		
Peak Hour Factor	0.92	0.68	0.63	0.64		
Heavy Vehicles, %	2	5	0	17		
Mvmt Flow	0	29	103	30		
Number of Lanes	0	0	1	1		
Annragah		SB				
Approach						
Opposing Approach		NB				
Opposing Lanes		1				
Conflicting Approach Left		WB				
Conflicting Lanes Left		2				
Conflicting Approach Right		EB				
Conflicting Lanes Right		2				
HCM Control Delay		11.2				
HCM LOS		В				
Lano						
Lane						

Intersection														
	0.8													
Movement	EBL	EBT	EBR	WE	BL W	VBT	WBR	NE	L NE	ЗТ	NBR	SBL	SBT	SBR
Vol, veh/h	1	0	0		1	0	10		3 1	71	2	10	165	3
Conflicting Peds, #/hr	4	0	3		3	0	4		7	0	9	9	0	7
Sign Control	Stop	Stop	Stop	Sto	op S	Stop	Stop	Fre	e Fr	ее	Free	Free	Free	Free
RT Channelized	-	-	None		-	-	None		-	-	None	-	-	None
Storage Length	-	-	-		-	-	-		-	-	-	-	-	-
Veh in Median Storage,	# -	0	-		-	0	-		-	0	-	-	0	-
Grade, %	-	0	-		-	0	-		-	0	-	-	0	-
Peak Hour Factor	25	92	92	2	25	92	63	2		70	50	83	64	38
Heavy Vehicles, %	0	0	0		0	0	0		0	0	0	0	0	0
Mvmt Flow	4	0	0		4	0	16	•	2 2	14	4	12	258	8
Major/Minor	Minor2			Mino	r1			Majo	1			Major2		
Conflicting Flow All	572	566	275	56	64 (	568	259	27	0	0	0	252	0	0
Stage 1	290	290	-	2	74 2	274	-		-	-	-	-	-	-
Stage 2	282	276	-	29	90 2	294	-		-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7	'.1	6.5	6.2	4	.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6	5.1	5.5	-		-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6	5.1	5.5	-		-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3	5.5	4	3.3	2	.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	434	436	769			435	785	130	5	-	-	1325	-	-
Stage 1	722	676	-			687	-		-	-	-	-	-	-
Stage 2	729	685	-	7:	22 (	673	-		-	-	-	-	-	-
Platoon blocked, %										-	-		-	-
Mov Cap-1 Maneuver	414	424	761			423	777	129	5	-	-	1315	-	-
Mov Cap-2 Maneuver	414	424	-			423	-		-	-	-	-	-	-
Stage 1	712	666	-			677	-		-	-	-	-	-	-
Stage 2	701	675	-	70	09 (	663	-		-	-	-	-	-	-
Approach	EB			V	/B			N	В			SB		
HCM Control Delay, s	13.8			10	.6			0	4			0.3		
HCM LOS	В				В									
Minor Lane/Major Mvmt	: NBL	NBT	NBRE	BLn <b>1</b> WBL	n1 S	SBL	SBT	SBR						
Capacity (veh/h)	1295	-	-	414 60	67 13	315	-	-						
HCM Lane V/C Ratio	0.009	-	-		0.0		-	-						
HCM Control Delay (s)	7.8	0	-	13.8 10		7.8	0	-						
HCM Lane LOS	Α	Α	-	В	В	Α	Α	-						
HCM 95th %tile Q(veh)	0	-	-	0 0	.1	0	-	-						
. ,														

# **APPENDIX C**

**Phase I Environmental Site Assessment** 

# Phase I Environmental Site Assessment For

Proposed Kakaako First School
0.75-Acre Portion of 709 Kelikoi St.
TMK (1) 2-1-060:008
Honolulu, HI 96813

VPE Job Number 14-009 February 25,2015



99-1046 Iwaena St., #2210B, Aiea, Hawaii, USA 96701 808.349.9922 This report was prepared for:

Seagull Schools 1300 Kailua Road Kailua, HI 96734

# PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR PROPOSED KAKAAKO FIRST SCHOOL 0.75-ACRE PORTION OF 709 KELIKOI STREET TMK (1) 2-1-060:008 HONOLULU, HI 96813

VPE Job No. 14-009

February 25, 2015

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Myounghee Noh, MS, CIH Environmental Professional Joanna Boyette Principal

With

Verdant Pacific Environmental 99-1046 Iwaena Street, Suite 210B Aiea, Hawaii 96701 Tel (808) 349-9922

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## **APPENDICES**

Appendix A	Environmental	Data Resources	Report	and Maps

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## LIST OF ABBREVIATIONS/ACRONYMS

CERCLA Comprehensive Environmental Response, Compensation, and Liability

Act

CERCLIS Comprehensive Environmental Response, Compensation, and Liability

**Information System** 

CESQG Conditionally Exempt Small Quantity Generators

CORRACTS RCRA Facilities that are undergoing "corrective action"

EC Engineering Control

EDR Environmental Data Resources
EPA Environmental Protection Agency

ERNS Emergency Response Notification System

ESA Environmental Site Assessment

HCDA Hawaii Community Development Authority

HDOH Hawaii Department of Health HECO Hawaii Electric Company

HEER Office Hazard Evaluation and Emergency Response Office

HFD Hawaii Fire Department

HREC Historic Recognized Environmental Condition

IC Institutional Control

LQG Large Quantity Generators

LUST Leaking Underground Storage Tank

NFRAP CERCLIS No Further Remedial Action Planned

NLR No Longer RegulatedNPL National Priorities ListPCB Polychlorinated Biphenyls

RCRA Resource Conservation and Recovery Act
REC Recognized Environmental Condition
SHWB Solid and Hazardous Waste Branch

SQG Small Quantity Generators

TCLP Toxicity Characteristic Leaching Procedure

TMK Tax Map Key

TSD Treatment/Storage/Disposal
UIC Underground Injection Control
UST Underground Storage Tank
VPE Verdant Pacific Environmental

Verdant Pacific Environmental (VPE) was retained by Seagull Schools in November 2014 to conduct a Phase I Environmental Site Assessment (ESA) for the *subject property* at Kakaako Waterfront Park, Honolulu, Hawaii, identified as Tax Map Key (TMK) Island 1, Zone 2, Section 1, Plat 060, Parcel 008. The subject parcel was owned by the Hawaii Community Development Authority (HCDA). HCDA has held the property deed since 2001. At the time of this writing, the parcel was in use as a public park, with the 0.75-acre *subject property* as park maintenance baseyard.

The purpose of this Phase I ESA is to identify *recognized environmental conditions* (RECs) at the subject property, with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act and petroleum products. A Phase I ESA consists of four components. Three of those components are intended to collect information that will aid in the identification of RECs at the subject property. The information collected and reviewed consists of state, federal, and local environmental records; a site reconnaissance visit; and interviews with key site personnel and other individuals with knowledge regarding the subject property. The fourth part of a Phase I ESA is a report that documents the collection of information about the subject property and evaluation of that information towards making a determination of the presence of REC at the subject property.

## **FINDINGS**

The site is situated in Kakaako Makai District that was once used as a major industrial area including a waste incinerator and municipal landfill. The landfill, operated from the 1940s to the 1960s, was used to dispose of ash from the Kewalo Incinerator and a host of municipal solid waste including hazardous waste. It has since been developed into a public park; however, there remains a potential for adversely-impacted soil and groundwater.

No underground storage tanks or leaking underground storage tanks (LUST) were identified at the subject property; however, due to the remaining landfill content, the entire parcel is under the State of Hawaii Institutional Control/Engineering Control registries.

#### RECOGNIZED ENVIRONMENTAL CONDITIONS

VPE conducted this *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM E 1527-13 at the *subject property*, the proposed Kakaako First School's 0.75-acre campus, located within the former landfill at Kakaako Waterfront Park, Honolulu, Hawaii 96813, TMK (1) 2-1-060:008. Any exceptions to, or deletions from, this practice are described in Section 7.0 of this report.

This assessment has revealed that the previous use as a landfill at the subject parcel is a *Recognized Environmental Condition* (REC). There is a potential for adversely-impacted soil and groundwater.

## 1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (ESA) of the proposed Kakaako First School, herein referred to as *subject property*, within Kakaako Waterfront Park, Honolulu, Hawaii 96813. Tax Map Key (TMK) of the entire parcel is Island 1, Zone 2, Section 1, Plat 060, Parcel 008. Figure 1 presents the location of the *subject property* and its vicinity.

This Phase I ESA was conducted by Verdant Pacific Environmental (VPE) for Seagull Schools, the buyer of the *subject property*. At the time of this Phase I ESA, the subject property was owned by the Hawaii Community Development Authority (HCDA).

## 1.1 PURPOSE

The purpose of this Phase I ESA is to identify any *recognized environmental conditions* (*RECs*) at a subject property, with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the *innocent landowner defense* to CERCLA liability, "all appropriate inquiry into the previous ownership and uses of the site consistent with good commercial or customary practice."

The term *recognized environmental condition* denotes the presence, or likely presence, of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property, or into the ground, groundwater, or surface water of the property. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

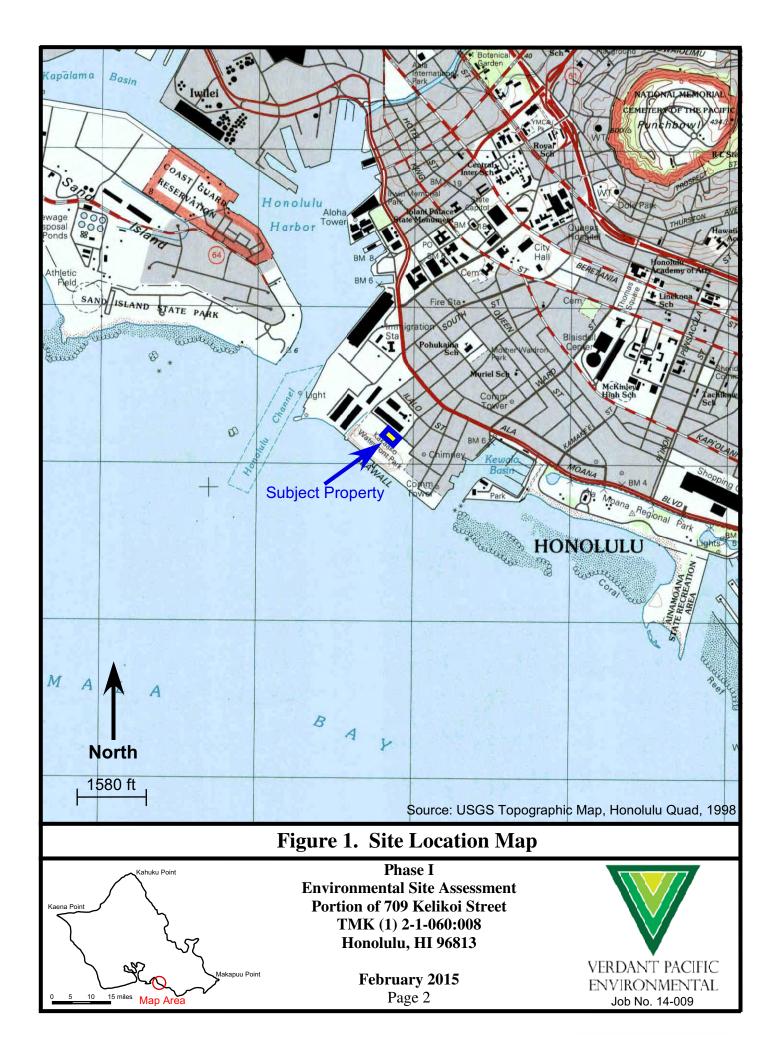
## 1.2 DETAILED SCOPE OF SERVICES

A Phase I ESA has four components: records review, site reconnaissance, interviews, and reporting. VPE conducted this ESA using information sources with the potential to identify past or current releases of hazardous substances or petroleum products that may have impacted the subject property. Adjoining and surrounding properties were also evaluated for their potential to affect the subject property.

## 1.2.1 Site History

Where available, and as needed, VPE researched historical and current topographic maps, tax records, fire insurance maps, and aerial photographs to identify previous and current uses of the property, adjoining properties, and the general surrounding area.

1



# 1.2.2 Regulatory Records

VPE examined government records with respect to environmental conditions, citations, complaints, and permits at the subject property, at adjoining properties, and within the surrounding area. VPE utilized a records search provided by Environmental Data Resources Inc. (EDR), to review records from the following federal and state programs.

- National Priorities List (NPL)
- Delisted NPL
- Resource Conservation and Recovery Act (RCRA) facilities that are undergoing "corrective action" (CORRACTS)
- RCRA-Treatment, Storage, & Disposal (TSD)
- Comprehensive Environmental Response, Compensation & Liability Information System (CERCLIS) List
- CERCLIS No Further Remedial Action Planned (NFRAP) List
- Federal and Hawaii State Brownfields
- Solid Waste & Landfill
- Leaking Underground Storage Tank (LUST)
- Underground Storage Tank (UST)
- Emergency Response Notification System (ERNS)
- RCRA Generators, including those No Longer Regulated (NLR)
- Hawaii Sites of Interest
- Hawaii Releases
- Federal and Hawaii State Land Use Controls
- Hawaii Voluntary Cleanup Sites
- Tribal Lands

Additionally, VPE reviewed state environmental databases and case files from the Hawaii Department of Health (HDOH), Hawaiian Electric Company (HECO), and the City and County of Honolulu Fire Department (HFD).

## 1.2.3 Site Reconnaissance

VPE performed a site reconnaissance to obtain information indicating the likelihood of contamination, to interview available site personnel, and to conduct a brief assessment of the adjoining properties. During the site reconnaissance, VPE looked for a variety of indicators of environmental hazards including, but not limited to, stained surface soil, dead or stressed vegetation, hazardous substances, aboveground and underground storage tanks, disposal areas, groundwater wells, drywells, and sumps. Sampling and testing of soil and groundwater were not part of this assessment.

# 1.2.4 Site Geology and Hydrogeology

VPE reviewed published information for the property and surrounding area regarding surface and subsurface conditions such as topography, drainage, surface water bodies, subsurface geology, and groundwater. VPE used this information to assess the potential for migration and impacts of hazardous substances or petroleum products released to the subject property from off-site properties.

# 1.2.5 Data Evaluation and Reporting

VPE evaluated the information collected, and prepared this report as part of the assessment. Section 2 presents the site background information; Section 3 user provided information; Section 4 information collected from records review; Section 5 site reconnaissance; Section 6 interviews; Section 7 data gap; Section 8 key findings and opinion; and Section 9 conclusion.

## 1.3 SIGNIFICANT ASSUMPTIONS

The conclusion presented in this report is based upon the assumption that reasonably ascertainable and relevant information pertaining to the environmental condition of the subject property was made available to VPE during the assessment. Information obtained from government agencies and other resources is presumed to be accurate and updated. Additionally, information provided in interviews is collected in "good faith" and believed to be true and accurate to the best knowledge of the interviewee.

## 1.4 LIMITATIONS AND EXCEPTIONS

The Phase I ESA provides a "snapshot" of the conditions of the property at the time of the assessment. Findings, opinions, and conclusions apply to the existing conditions of the property at the time of the investigation and those reasonably foreseeable. They do not apply to conditions at, or changes to, the property of which VPE is not aware, could not reasonably be aware, and has not had the opportunity to evaluate.

This report is based upon visual observations of property and vicinity, interpretation of the available historical and regulatory information and documents reviewed, and interviews of individuals with knowledge of the subject or surrounding properties. VPE cannot ensure the accuracy of the historical or regulatory information. This report is intended exclusively for the purpose outlined in Section 1.1 and applies only to the *subject property*.

This Phase I ESA excludes asbestos, lead paint, and investigation of geotechnical concerns. No surface or subsurface sampling was involved.

VPE performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13 of the proposed Seagull Schools campus within the Kakaako Waterfront Park, Honolulu, Hawaii. Any exceptions to, or deletions from, this practice are described in Section 7.0 of this report.

## 1.5 SPECIAL TERMS AND CONDITIONS

This Phase I ESA was conducted and prepared by VPE for the exclusive use of Seagull Schools. This report shall not be relied upon or transferred to any other parties without written authorization from Seagull Schools.

#### 1.6 USER RELIANCE

This report is an instrument of service of VPE, which summarizes its findings and opinions with respect to *RECs* at the *subject property*. Findings and opinions are predicated on information that VPE obtained on the dates and from individuals stated herein, from public records reviewed, a site reconnaissance, and ancillary Phase I ESA activities. This assessment relies upon the accuracy and completeness of the information provided. The information obtained for this assessment is used without extraordinary verification. It is possible that other information exists and may be discovered, or environmental conditions change subsequent to the submittal of this Phase I ESA report, to which VPE shall not be held responsible for exclusion.

## 2.0 SITE DESCRIPTION

This section contains: location and legal description; site and vicinity general characteristics; current uses of the subject property; structures, roads, and other improvements; past uses of the subject property; and current and past uses of adjoining properties.

#### 2.1 LOCATION AND LEGAL DESCRIPTION

The subject property is a portion of Kakaako Waterfront Park, Honolulu, on Kelikoi Street, Island of Oahu (Figure 1). The TMK of the parcel is Island 1, Zone 2, Section 1, Plat 060, and Parcel 008 (TMK [1] 2-1-060:008), and consists of 21 acres (City and County of Honolulu, 2014). The 30,492 square feet (0.7-acre) *subject property* is depicted in Figure 2; it is located directly south of the University of Hawaii Cancer Center (Figure 3).

## 2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The *subject property* is located in Kakaako Makai District in Honolulu. It is not known when Honolulu was first settled by the original Polynesian migrants to the archipelago. Oral histories and artifacts indicate that there was a settlement where Honolulu now stands in the 12th century.

After Kamehameha I conquered Oahu in the Battle of Nuuanu at Nuuanu Pali, he moved his royal court from the Island of Hawaii to Waikiki in 1804. His court later relocated in 1809 to what is now downtown Honolulu.

In 1845, Kamehameha III moved the permanent capital of the Hawaiian Kingdom from Lahaina on Maui to Honolulu. He and the kings who followed him transformed Honolulu into a modern capital, erecting buildings such as St. Andrew's Cathedral, Iolani Palace, and Aliiolani Hale. At the same time, Honolulu became the center of commerce in the islands, with descendants of American missionaries establishing major businesses in downtown Honolulu.

The *subject property* is located in a portion of Honolulu known as Kakaako. Today Kakaako is organized into a mauka (toward the mountain) and makai (toward the sea)

section that together comprise over 600 acres. The mauka section is bounded by Punchbowl, King, and Piikoi Streets as well as Ala Moana Boulevard.

The makai section is the area south of the mauka section, bounded on the west by Forrest Avenue and on the east by, and including, Kewalo Basin (Hawaii Community Development Authority, 2007).

Most of the Kakaako area was originally wetland. The land was filled and developed as a residential and industrial area. In the late 1800s industrial uses in the area included Honolulu Iron Works, which manufactured sugar mills. Also in Kakaako at the time, at the site then known as Fisherman's Point, a hospital for patients with Hansen's Disease, cared for them before they were transferred to Molokai (Hawaii Community Development Authority, 1991).

By 1940, Kakaako's residential population was more than 5,000 people. This generated shops and commercial activities that were established to serve the population. In the 1950s Kakaako was rezoned for industrial use beginning its conversion into an economic center where it took on an industrial and service character. By the 1970s, Kakaako was known largely for its small businesses and urban industrial establishments (Hawaii Community Development Authority, 1991).

In 1976, the State Legislature established the HCDA to plan and implement the redevelopment of urban areas. HCDA was given the authority to acquire and develop property, regulate land use, and override county ordinances (Hawaii Community Development Authority, 1983). The State Legislature selected the Kakaako area as the first development district based on its potential for growth.

In 1982, HCDA adopted the Kakaako Community Development District Plan. This plan and associated rules serve as the basis for guiding both public and private development activities in Kakaako (Hawaii Community Development Authority, 2007).

Today, Kakaako is a vibrant urban community with educational, commercial, and residential establishments. In the vicinity, Kakaako Waterfront Park was constructed in 1992, the Children's Discovery Center in 1998, the University of Hawaii John A. Burns School of Medicine was built in 2005, and the University of Hawaii Cancer Center was built in 2012.

# 2.2.1 Geology

Oahu began as a small, vigorously active volcanic islet that first rose above sea level nearly 4 million years ago. During the next million years, the young island grew rapidly as lava flows built the huge shield volcano. The eroded remnants are the Waianae Range. The overwhelming bulk of Waianae Volcano is composed of thin flows of pahoehoe lava. Koolau Volcano is younger and larger than Waianae, and accounts for two-thirds of the island. It rose above sea level 2.7 million years ago, when Waianae was becoming extinct. Pahoehoe basalts characterize the first stage of volcanism. Two vigorously active rift zones trended northwest and southeast of the caldera, parallel to the rift zones of Waianae (Hazlett & Hyndman, 1996).

Koolau and Waianae may have grown as separate islands. The broad saddle of the Leilehua Plateau that connects them consists mainly of alluvial deposits shed from Waianae and lava flows from Koolau. Koolau shed more alluvium onto the saddle as volcanic activity waned about 1.8 million years ago (Stearns, 1985).

The decay of Koolau was interrupted as a vigorous episode of rejuvenated volcanism produced the Honolulu Basalts. The first eruptions began a million to 850,000 years ago on Mokapu Peninsula, the northern margin of Koolau caldera. The largest group of Honolulu Volcanic Series trends south from the Mokapu Peninsula across the range crest to Honolulu's coastal plain. It includes the pu'us (volcanic tuff cones) known locally as Punchbowl, Sugarloaf, Tantalus Peak, Roundtop, and Diamond Head (MacDonald & Abott, 1996). The coastal plain, an area between Honolulu and Pearl Harbor contains eruption sites of volcanic vents including Salt Lake Crater, Makalapa, and Aliamanu. A younger cluster of pyroclastic cones erupted between 32,000 and 6,000 years ago in a chain that extends northwest from Makapuu Point and Koko Head at the southeastern end of the island (Hazlett & Hyndman, 1996).

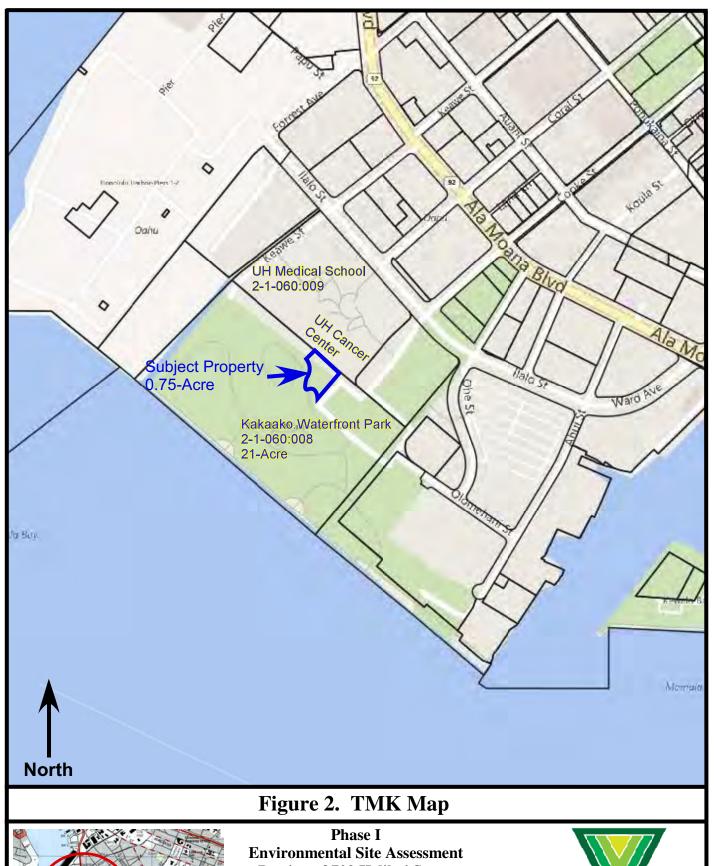
The Soil Conservation Service classifies the soils in the subject property area as fill. It is identified as a gravelly sandy loam from the surface to five inches depth, fine sandy loam from 5 to 59 inches depth, and bedrock from 59 to 70 inches depth. It has slow infiltration rates, and is well drained (Environmental Data Resources, Inc., 2014).

# 2.2.2 Hydrogeology

Southern Oahu is generally underlain by two hydraulically separate aquifer systems. The lower artesian basal aquifer, located in the underlying basalt, is confined by a wedge-shaped sedimentary formation or "caprock" composed of interbedded marine and alluvial deposits. This caprock formation also retains groundwater and is typically referred to as the upper or caprock aquifer. The upper caprock aquifer at the subject properties has moderate salinity and although used is not suitable for drinking or ecologically important (Mink & Lau, 1990). The hydraulic gradient of the basal groundwater within the basaltic formation is, in general, from mountain areas to the shoreline.

The HDOH Safe Drinking Water Branch has established an Underground Injection Control (UIC) line to serve as a boundary between drinking water and non-drinking water portions of aquifers. Areas above (mountain side) the UIC line are within drinking water portions of the aquifer, while areas below (ocean side) the UIC are in non-drinking water portions of the underlying aquifer. The subject property identified by TMK (1) 2-1-060:008 is below the UIC line in non-drinking water portion of the aquifer (HDOH Safe Drinking Water Branch, 1999).

According to the Mink and Lau Technical Report #179, published by the University of Hawaii, Water Resources Research Center, the subject property are located below the Nuuanu aquifer. Tables 1 and 2 provide information about the upper and lower aquifers (Mink and Lau, 1990).





Phase I Environmental Site Assessmen Portion of 709 Kelikoi Street TMK (1) 2-1-060:008 Honolulu, HI 96813

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Table 1. Nuuanu Upper Aquifer Classification System

Aquifer Code	30102116
Island Code	3 – Oahu
Aquifer Sector	01 – Honolulu
Aquifer System	03 – Nuuanu
Aquifer Type, hydrogeology	1 – Basal
Aquifer Condition	1 – Unconfined
Aquifer Type, geology	6 – Sedimentary; Non-volcanic lithology
Status Code	13321
Development Stage	1 – Currently used
Utility	3 – Neither
Salinity (in mg/L Cl <sup>-</sup> )	3 – Moderate (1000-5000)
Uniqueness	2 – Replaceable
Vulnerability to Contamination	1 – High

mg/L Cl-milligrams per liter of Chloride

Table 2. Nuuanu Lower Aquifer Classification System

Aquifer Code	30102121
Island Code	3 – Oahu
Aquifer Sector	01 – Honolulu
Aquifer System	02 – Nuuanu
Aquifer Type, hydrogeology	1 – Basal
Aquifer Condition	2 –Confined
Aquifer Type, geology	1 – Flank; Horizontally extensive lavas
Status Code	11113
Development Stage	1 – Currently used
Utility	1 – Drinking
Salinity (in mg/L Cl <sup>-</sup> )	1 – Fresh (<250)
Uniqueness	1 – Irreplaceable
Vulnerability to Contamination	3 – Low

mg/L Cl-milligrams per liter of Chloride

## 2.3 CURRENT USE OF THE SUBJECT PROPERTY

The *subject property* within the park is currently owned by the HCDA and is used as a maintenance baseyard for the waterfront park. Workers employed by the HCDA keep the landscaping equipment and supplies. The yard is also used for temporary storage of green waste (in bags) generated from the park landscaping.

# 2.4 STRUCTURES, ROADS, AND OTHER IMPROVEMENTS

The *subject property* is a portion within the Kakaako Waterfront Park, which was built in 1992. The 1,500 sq. ft. warehouse, built in 1976, is still servicing the park maintenance personnel and equipment, although only a portion of it is being utilized. The property has the municipal drinking water and sewer services as well as the HECO electricity. According to HECO, there are no transformers on the *subject property*.

## 2.5 PAST USES OF THE SUBJECT PROPERTY

Tax records indicated that the HCDA has owned the property since 2001. Table 3 summarizes the information available regarding the historical uses of the subject property.

Table 3. Users and Primary Uses of Subject Parcel

Period (approx.)	Owner/Lessee	Area (acre)	Primary Use
TMK (1) 2-1-060:008, 102 Ohe Street			
2001-present	Hawaii Community Development Authority	21.408	Public Park
1992-2001	State of Hawaii	21.408	Public Park
1977-1992	State of Hawaii	17.653	Landfill, Industrial
1927-1977	State of Hawaii	17.653	Landfill

# 2.6 CURRENT AND PAST USES OF ADJOINING PROPERTIES

Information regarding current and past uses of the adjoining properties was obtained from review of tax records, historic topographic maps, aerial photographs, and interviews. Property use information is summarized in Table 4.

Table 4. Users and Primary Uses of Adjoining Properties

Period (approx.)	Owner/Lessee	Area (acre	Primary Use
	TMK (1) 2-1-060:007, 74	1 Ilalo Str	eet
1998-present	Hawaii Community Development Authority	3.955	Public Park
1997-1998	State of Hawaii	4.146	Unused
1987-1997	State of Hawaii Y Hata & Company, Ltd.	4.146	Food distribution
1974-1987	State of Hawaii Produce Center Development, Ltd.	9.522	Food distribution
1968-1974	State of Hawaii Kentron Hawaii, Ltd.	0.127	Parking
	TMK (1) 2-1-060:009, 65	51 Ilalo Str	eet
2006-present	HCDA University of Hawaii	9.898	Cancer Research Center
1987-2006	HCDA Produce Center Development, Ltd.	6.6601	Food distribution
1966-1987	State of Hawaii Y. Hata & Company, Ltd.	4.146	Food distribution
1965-1966	State of Hawaii Honolulu Ford Auto Center, Inc.	4.146	Vehicle Storage
1927-1965	State of Hawaii	4.146	HDOH Mosquito Control and Rodent Control Labs, "garage lot"

Period (approx.)	Owner/Lessee	Area (acre	Primary Use
Prior to 1927	U.S. Military Reservation	4.146	Part of Fort Armstrong - Army dog training area, Army quarantine station

## 3.0 USER PROVIDED INFORMATION

User provided information was obtained from Daniel Simonich with the HCDA by an interview administered by VPE.

## 3.1 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Mr. Simonich was unaware of any liens or use limitations on the subject property.

## 3.2 SPECIALIZED KNOWLEDGE

Mr. Simonich stated that the property had been used as an industrial area and a landfill. The landfill had been capped with soil before developing it into a public park.

#### 3.3 VALUATION REDUCTION

Mr. Simonich stated that he was not aware of any events or elements influencing a valuation reduction of the property.

# 3.4 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The subject parcel is owned and managed by the Hawaii Community Development Authority. HCDA has held the property deed since 2001, and the parcel is in use as a public park. Current occupant is the HCDA park maintenance crew.

## 3.5 REASON FOR PERFORMING THE PHASE I ESA

The purpose of this Phase I ESA is to identify any *RECs* at the subject property, within the scope of ASTM Standard 1527-13, as part of the due diligence for the site development as educational facility.

# 4.0 RECORDS REVIEW

Under ASTM E 1527-13, records are to be reviewed by the environmental professional that may help identify *REC*s in connection with the *subject property*.

### 4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

VPE used EDR to search standard federal and state government databases for hazardous substance or petroleum product releases that could impact the *subject property*. A copy of the EDR report is provided in Appendix A.

ASTM E 1527-13 specifies a minimum search distance for specific environmental record sources. The following sources are specified for <u>incidents or sites within one mile of the subject property</u>:

- Federal NPL site list
- Federal RCRA CORRACTS TSD facilities list
- State Sites of Interest

The following sources are specified for <u>incidents or sites within one-half mile of the subject property:</u>

- Federal Delisted NPL site list
- Federal CERCLIS list.
- Federal CERCLIS NFRAP site list
- Federal RCRA non-CORRACTS TSD facilities list
- Federal and State Brownfield Sites
- State landfill and/or solid waste disposal site list
- State leaking UST list
- State voluntary cleanup program sites

The following sources are for <u>incidents on the subject and adjoining properties</u>:

- Federal RCRA generators list
- State registered UST list

Finally, the following are for incidents on the *subject property*:

- Federal ERNS list
- Federal and State IC Registries
- State releases list

# 4.1.1 Federal National Priorities List

The NPL, maintained by the Environmental Protection Agency (EPA), is a list of highly contaminated sites that have been identified by Superfund. EDR identified no NPL sites within one mile of the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.1.2 Federal RCRA CORRACTS TSD Facilities List

The RCRA CORRACTS TSD facilities list, maintained by the EPA, contains treaters, storers, and disposers of hazardous waste that have reported violations and are subject to corrective actions. EDR identified no RCRA CORRACTS TSD site within one mile of the *subject property* (Environmental Data Resources, Inc., 2014).

#### 4.1.3 State Sites of Interest

The State Sites of Interest List, maintained by the HDOH Hazard Evaluation and Emergency Response (HEER) Office, contains facilities, sites, or areas in which the

HEER Office has or had an interest or may investigate. This list includes CERCLIS sites. EDR identified no State Site of Interests within one mile of the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.1.4 Delisted NPL Site List

This list, maintained by the EPA, contains delisted NPL sites. EDR identified no delisted NPL sites within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014).

#### 4.1.5 Federal CERCLIS List

The CERCLIS list, maintained by the EPA, contains sites that are either proposed to be or are on the NPL list, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. EDR identified no CERCLIS sites within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.1.6 Federal CERCLIS NFRAP Site List

The CERCLIS NFRAP list, maintained by the EPA, contains designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed, and it has been determined that no further steps will be taken to list the sites on the NPL. EDR identified no CERCLIS NFRAP site within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.1.7 Federal RCRA non-CORRACTS TSD Facilities List

The RCRA non-CORRACTS TSD facilities list, maintained by the EPA, contains RCRA permitted facilities that treat, store, or dispose of hazardous waste. EDR identified no RCRA TSD facilities within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014).

#### 4.1.8 State Brownfield Sites

This database, maintained by the HDOH HEER Office, is an inventory of state designated brownfield sites. Under the Small Business Liability Relief and Brownfields Revitalization Act, a brownfield is defined as "real properties, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant." EPA provides grants and loans to state and local governments for the assessment, cleanup, and redevelopment of these properties. Properties located on the State Brownfield list may have received federal funding under this program or be designated a Brownfield for state administration or funding purposes.

EDR identified one State Brownfield Site within 1/2 mile of the subject property (Environmental Data Resources, Inc., 2014). The Kakaako Site Unit 6, at 1011 Ala Moana Blvd., was a former tuna processing operation dating from 1933. The operations included fish processing, canning, freezing and production of ice for operational use and sales. The operation included the use of underground storage tanks for petroleum

products. The tanks were removed in the 1980s and 1990s. All structures associated with the former operations have been removed. Hazards on the site, such as petroleum, polynuclear aromatic hydrocarbons, volatile organic compounds, lead and other metals, are managed with controls.

## 4.1.9 State Landfill/Solid Waste Disposal Sites

The HDOH records contain an inventory of permitted landfills in the State of Hawaii. EDR identified one permitted solid waste landfills, incinerators, or transfer stations within 1/2 mile of the subject property (Environmental Data Resources, Inc., 2014). According to the EDR report, Kewalo Ash Dump located approximately 2,400 ft. from the subject property at TMK (1) 2-3-037:001, :002, and :008 was an ash and unburned municipal solid waste landfill which operated between 1933 and 1974. Based on the records review, it is determined that the *subject property* is a portion of this landfill.

## 4.1.10 State LUST List

The state LUST list, maintained by the HDOH Solid and Hazardous Waste Branch (SHWB), contains an inventory of sites with leaking underground storage tanks. EDR identified 18 LUST facilities within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014) (Table 5).

Table 5. State Registered LUST Facilities

Site	Relative Location (feet) <sup>1</sup>	Address	Status
Roberts Hawaii Tours	216 NNE	759 Kelikoi St.	SCC
Produce Center Development, Ltd.	817 NNE	651 Ilalo St. (current UH Medical School site)	SCC
Verizon Hawaii	972 N	207 Keawe St.	SCC
City and County of Honolulu Electrical & Maintenance Service Department	1,074 ESE	160 Kolua St.	SCC
Honolulu Ford, Inc.	1,249 HE	711 Ala Moana Blvd.	SCC
Theo Davies Euromotors	1,317 NE	704 Ala Moana Blvd.	SCC
Pflueger Acura	1,377 ENE	777 Ala Moana Blvd.	CTTH
Fuller O'Brien Paint	1,383 ENE	770 Ala Moana Blvd.	SAO
GRG Enterprise Inc. Basin Marine	1,396 ESE	115 Ahui St.	SCC
Cutter Motor Cars, Inc.	1,491 ENE	800 Ala Moana Blvd.	SCC
Ara Services, Inc.	1,738 NE	746 Auahi St.	SCC
Former Shelly Motors Auto Sales	1,747 ENE	744 Ala Moana Blvd.	SCC
New City Nissan	1,755 ENE	900 Ala Moana Blvd.	SCC
Fort Armstrong Parking Lot	1,991 N	Buford and Pleasanton Ave.	SCC
WRAF – Hawaiian Tuna Packers	2,171 E	1011 Ala Moana Blvd.	SCC
Honolulu Ship Supply	2,405 ENE	834 Pohukaina St.	SCC
Tire Recap Service	2,551 NE	526 Keawe St.	SCC
Hawaii Community Development Authority	2,562 NE	548 Cooke St.	SCC

Non-GC – Non-geocoded

SCC - Site Cleanup Completed

SAO – Site Assessment Ongoing

CTTH - Case Transferred to HEER

<sup>&</sup>lt;sup>1</sup>Relative locations are based on a geocoded street address for the site.

# 4.1.11 State Voluntary Cleanup Sites

The state voluntary cleanup sites list, maintained by the HDOH HEER Office, contains sites participating in the State's Voluntary Response Program. EDR identified no sites participating in the State's Voluntary Response Program within 1/2 mile of the *subject property* (Environmental Data Resources, Inc., 2014).

#### 4.1.12 Federal RCRA Generators List

The RCRA Generators list, maintained by the EPA, contains small and large quantity generators of RCRA hazardous waste. The determination of generator size is used to establish the risk that the facility poses to public health and the environment, and consequently, the amount of regulation and reporting required. Large Quantity Generators (LQG) are facilities that generate more than a 1,000 kg/month of hazardous waste and/or more than 1 kg/month of acute hazardous waste. Small Quantity Generators (SQG) are facilities that generate less than 1,000 kg/month, but more than 100 kg/month of hazardous waste and/or less than 1 kg/month of acute hazardous waste. Conditionally Exempt Small Quantity Generators (CESQG) are facilities that generate less than 100 kg/month of hazardous waste and/or less than 1 kg/month of acute hazardous waste.

The EPA also maintains the RCRA No Longer Regulated (NLR) list. This list contains facilities that were once on the RCRA generators list, but are no longer in business, no longer in business at the listed address, or are no longer generating hazardous waste in quantities that require reporting. This list also identifies the facilities of hazardous waste transporters. EDR identified 4 RCRA Generators within 1/4 mile of the *subject property* (Environmental Data Resources, Inc., 2014) (Table 6).

Table 6. Federal RCRA Generators Sites

Facility	Relative Location (feet) <sup>1</sup>	Address	Classification
Produce Center Development, Ltd.	817 NNE	651 Ilalo St. (current UH Medical School site)	CESQG
Ala Moana Center – Upper Level Expansion Phase V-A	979 N	210 Keawe St.	CESQG
Department of Transportation	1,074 ESE	160 Koula St.	SQG
Honolulu Ford, Inc.	1,249 NE	711 Ala Moana Blvd.	CESQG

Non-GC – Non-geocoded

LQG - Large Quantity Generator

SQG - Small Quantity Generator

CESQG - Conditionally Exempt Small Quantity Generator

NLR - No Longer Regulated Generator

<sup>1</sup>Relative locations are based on a geocoded street address for the site.

# 4.1.13 State Registered UST List

The HDOH SHWB maintains a database of known underground storage tanks. EDR identified 9 UST facilities within 1/4 mile of the *subject property* (Environmental Data Resources, Inc., 2014) (Table 7).

Table 7. State Registered UST Facilities

Site	Relative Location (feet)1	Address	Status
Roberts Hawaii Tours	216 NNE	759 Kelikoi St.	1-Gasoline, out of use 1-Diesel, out of use 1-Used Oil, out of use
Produce Center Development, Ltd.	817 NNE	651 Ilalo St. (current UH Medical School site)	1-Gasoline, out of use 1-Diesel, out of use
Verizon Hawaii	972 N	207 Keawe St.	1-Diesel, out of use
Ala Moana Wastewater Pump Station	979 N	210 Keawe St.	4-Diesel, in use
City and County of Honolulu Electrical & Maintenance Service Department	1,074 ESE	160 Koula St.	1-Gasoline, out of use
Look Lab	1,133 SE	811 Olomehani St.	1-Gasohol, out of use
Honolulu Sea Water Air Conditioning	1,136 NNE	245 Keawe St.	1-Diesel, in use
Honolulu Ford, Inc.	1,249 NE	711 Ala Moana Blvd.	3-Used Oil, out of use
Theo Davies Euromotors	1,317 NE	704 Ala Moana Blvd.	1-Gasoline, out of use 1-Diesel, out of use 1-Used Oil, out of use

## 4.1.14 Federal ERNS List

The ERNS list, maintained by the EPA, contains CERCLA hazardous substance releases or spills, as maintained by the National Response Center. EDR identified no release incidents on the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.1.15 Hawaii Institutional and Engineering Controls

The State of Hawaii maintains a list of properties that have been remediated to a particular standard. Because the sites may continue to be impacted by past use, future use of the properties may be restricted in order to protect human health and the environment. Land Use Controls can be either institutional controls (IC) or engineering control (EC). ICs are limitations on how the properties may be used, such as limiting its use to industrial activities. ECs are physical structures or devices located on the properties that contain or limit exposure to contamination. ECs need to be maintained or protected to be effective. Nine IC or EC sites were identified within 1/2 mile, including the *subject property* (Environmental Data Resources, Inc., 2014).

Table 8. Hawaii Institutional and Engineering Controls

Site	Relative Location (feet) <sup>1</sup>	Address	Controls
Kewalo Incinerator Landfill	504 NNW	709 Kelikoi St. (includes subject property)	IC & EC
Kewalo Incinerator Ash Dump	755 ESE	111 Ohe St.	IC
HCDA/UH John A. Burns School of Medicine Center	817 NNE	651 Ilalo St.	IC & EC
Ala Moana Wastewater Pump Station	979 N	210 Keawe St.	IC
Kakaako Makai District Parking Garage Unit 1 & 3	1,382 SE	Ahui St., Ohe St., Ilalo St., & Olomehani St.	IC & EC
Kakaako Brownfield Project Unit 8	1,407 SE	59 Ahui St.	IC & EC
Underground Hoists	1,747 ENE	744 Ala Moana Blvd.	IC
WRAF – Hawaiian Tuna Packers	2,171 E	1011 Ala Moana Blvd.	EC
Cooke Street Lead Contamination	2,339 NE	501 Cooke St.	IC & EC

## 4.1.16 State Releases List

The HDOH HEER Office maintains a database of known hazardous materials or petroleum product releases to the environment. EDR identified no incident at the *subject property* (Environmental Data Resources, Inc., 2014).

## 4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

VPE reviewed additional environmental record sources as needed and available. Additional record sources filed by the HDOH HEER Office, SHWB, HECO, and HFD were requested. The HEER Office provided an electronic copy of existing Kakaako Makai District documents, and the SHWB provided additional documents.

#### 4.2.1 Kewalo Landfill

The landfill was established on a filled area of near-shore reef and intertital deposits at the tip of a peninsula. From 1927 until operations ceased in 1977, ash from the burning of municipal refuse was deposited at the Kewalo landfill. In 1948, a rock seawall was constructed along the southwestern boundary of the site to contain the expanding ash disposal area. Other wastes suspected to have been deposited include: unburned municipal refuse, construction and household debris, drums of unknown liquids, automobile batteries, and cans of paint thinner. In 1990, the site was being used by a construction contractor to sieve, sort, and stockpile imported soil for reuse (National Oceanic and Atmosphere Administration, 1990).

From the late 1950s until the early 1960s, refuse which exceeded the incinerator capacity of 200 tons per day was reportedly open-burned at Kewalo. During the mid 1960s,

excess refuse was disposed onsite without burning. This practice was curtailed in 1970, with the site receiving only incinerator ask and slag until 1977. Since 1975, Kewalo has been used by Richard Lee, Inc., as a disposal area for construction debris and as a separation and stockpiling area for the reuse of imported excavation soils. On April 26, 1989, EPA recommended No Further CERCLA action (Ecology and Environment, Inc., 1989).

# 4.2.2 UST Removal at Produce Center, Adjoining to the North

In 1994, three USTs were removed from the former State of Hawaii Produce Center where the entire University of Hawaii John A. Burns School of Medicine Center campus is present today. The former Produce Center included produce warehouses, State of Hawaii Department of Agriculture, a greenhouse, and historically a quarantine station. Two gasoline USTs (4,000- and 6,000-gallon) and a diesel UST (4,000-gallon) were removed, and a release was observed. The UST closure and release response procedures were completed to address the petroleum release from the former USTs. In a letter dated June 1, 2001, HDOH Solid and Hazardous Waste Branch concurred with Masa Fujioka and Associates' recommendation for "no further action" (Kimura International, 2002).

# 4.2.3 Subsurface Investigation at the UH John A. Burns School of Medicine, Adjoining to the North

During the design and construction of the University of Hawaii John A. Burns School of Medicine, two rounds of Phase II ESA were conducted by Kimura International. The initial "Limited" Phase II ESA focused on the former USTs, two transformers, a concrete vault, and southern and western boundaries. The results indicated that the samples along the southern boundary, immediately adjacent to the subject property, contained lead, PCB, and fluoranthene levels exceeding the HDOH Tier 1 Soil Action Levels (Kimura International, 2002a).

In July 2002, the additional Phase II ESA focused on the historical uses of the former Produce Center. The sampling design considered the animal quarantine station operations, vector control operations, vehicle servicing, and carpentry shop. Lead, fluoranthene, PCB, and dieldrin were found in soil samples, exceeding the HDOH Action Levels. Based on the report, a subsurface seawall was present at the southern boundary which may have been constructed to separate the landfill material from the Produce Center; however, ash layer was observed at the site near the southern boundary. Lead levels ranged from 9 ppm to 4,300 ppm (Kimura International, 2002b).

## 4.2.4 Methane

Methane gas was reported in the Phase II ESA report, ranging from 11 parts per million by volume (ppmV) to 740 ppmV, well below the explosive range of 5% (50,000 ppmV) and 15% (150,000 ppmV) (Kimura International, 2002b). These methane gas data were collected from the southern boundary of the UH Cancer Center which is directly north of the subject property.

# 4.2.5 Roberts Hawaii Tours, 759 Kelikoi Street

In October 1990, three USTs were removed from the site at 759 Kelikoi Street (Table 7), reportedly 216 feet north northeast of the Kewalo Landfill. One 12,000 gallon diesel, one 6,000 gallon premium unleaded gasoline, and one 500 gallon waste oil tank were removed. It was reported that a film of petroleum hydrocarbons was visible upon the groundwater surface within the UST excavation after the tanks were removed. On May 24, 1991, soil and groundwater samples were taken by Brewer Environmental Services. Laboratory analysis of the soil samples indicated that petroleum contamination was not present in the UST excavation, except for low levels of total recoverable petroleum hydrocarbons and trace levels of toluene. Organic lead was not detected in soils or water samples. Total lead was detected at low levels in one water sample. Soil samples analyzed for total lead contained elevated lead levels ranging from 1,011 to 2,550 ppm. The analytical results were below the DOH recommended guidelines for TPH and BTEX, except for the total lead levels which significantly exceeded the DOH guidelines.

On February 13, 1996, the State of Hawaii DOH issued a letter in response to the release, and stated that the metals contamination at the facility appeared to be linked to an area wide contamination problem, not associated with the former USTs. The high levels of lead would more likely be attributed to the former Kewalo Municipal Incinerator Landfill.

# 4.2.6 Children's Discovery Center, 111 Ohe Street

In January 2007, the State of Hawaii DOH stated in a letter to the HCDA that the fill material used in the open area posed no threat to human health or the environment. In October 2007, EnviroServices and Training Center collected samples of the site. The investigation concluded that the concentrations of RCRA 8 metals, polynuclear aromatic hydrocarbons, and dioxin/furans in the Children's Discovery Center had conservative adjusted mean concentrations, below the direct exposure DOH EALs, except for total chromium levels. Further laboratory analysis of the soil samples was conducted to determine the level of hexavalent chromium present, but the results indicated that hexavalent chromium was not detected in any of the soil samples. DOH issued a No Further Action determination for the Children's Discovery Center.

## 4.3 HISTORICAL USE INFORMATION ON THE SUBJECT PROPERTY

VPE reviewed historical use information for the subject property, including aerial photographs and topographic maps provided by EDR. Fire insurance maps were also requested but did not exist for review.

# 4.3.1 Historical Aerial Photographs

Aerial photographs from the years 1952, 1968, 1976, 1978, 1985, 1992, 2000, and 2004 of the subject and adjoining properties were reviewed (Environmental Data Resources, Inc., 2014). The following observations were made:

Table 9. Historical Photograph Details

		D		
Year	Photograph ID	Image Type	Plane Elevation (feet)	Approximate Scale
1952		B/W		1"=750
1968		B/W		1"=750'
1976		С		1"=500'
1978		B/W		1"=500"
1985		С		1"=500'
1992		С		1"=500'
2000		С		1"=500'
2004		С		1"=500'

<sup>---</sup> Information not provided

- 1952: The subject property and surrounding area were open fields. To the north, warehouses were visible as was Ala Moana Boulevard. To the south, and adjoining the ocean, the area appeared to be undeveloped but expanding toward the ocean.
- <u>1968</u>: Warehouses were visible on the subject parcel. The area appeared to be used as industrial. The area to the south was filled and in use as an ash dump. The seawall containing the landfill was visible.
- 1976: Warehouses were visible on the subject property, and it appeared to be paved. The area to the north was dense with structures. Kelikoi Street was visible to the north. To the south, industrial activity was visible at the ash dump.
- 1978: No other changes were observed from the subject property and surrounding areas.
- 1985: No other changes were observed from the subject property and surrounding areas.
- 1992: The subject property and surrounding area were not visible due to cloud cover.
- <u>2000</u>: The subject property was occupied by a single warehouse. Kakaako Waterfront Park was visible to the south at the location of the former ash dump. To the east, a parking lot was visible.
- <u>2004</u>: No other changes were observed from the subject property and surrounding areas.

VPE also review historical photographs included in various documents, provided by the HEER Office. A standalone file containing 12 aerial photographs from 1948 to 2009, assumed to have been compiled by the HCDA, was identified and provided in Appendix C of this report.

## 4.3.2 Historical Topographic Maps

USGS topographic maps that cover the subject property and vicinity were reviewed. Maps were available for the years 1928, 1953, 1954, 1959, 1969, 1970, 1983, and 1998

B/W - Black and White

C - Color photograph

(Environmental Data Resources, Inc., 2014). A copy of the historical topographic maps provided by EDR is included in Appendix A. The maps depicted the following.

- 1928: The subject parcel and surrounding area were not developed. The areas to the north and south were vacant. Warehouses were visible to the west.
- 1953: No structures were visible on the subject parcel or surrounding area. The land area to the south had expanded with the use of the ash dump, and a smokestack was visible to the east at the location of the waste incinerator. Ala Moana School was visible north of the subject parcel. Fort Armstrong was visible northwest of the subject parcel.
- 1954: No changes were visible in the 1954 map.
- 1959: No structures for the subject parcel were visible on the map (only a red shading to represent an urban area). A seawall was established south of the subject site around the ash dump. To the north Ilalo Street and Ala Moana Boulevard were visible.
- <u>1969</u>: No changes were visible in the 1969 map.
- 1970: No structures for the subject parcel were visible on the map (only a red shading to represent an urban area). Large warehouses were visible to the west in the Fort Armstrong area.
- 1983: No changes were visible in the 1983 map.
- 1998: No changes were visible in the 1998 map.

## 5.0 SITE RECONNAISSANCE

VPE personnel conducted a site reconnaissance December 23, 2014. The site reconnaissance focused on the identification of *RECs* that may have the ability to impact the subject property.

#### 5.1 METHODOLOGY AND LIMITING CONDITIONS

The site reconnaissance was conducted by Joanna Boyette of VPE. VPE visually inspected the subject and adjoining properties. VPE looked for a variety of potential environmental hazard indicators at and around the subject property including, but are not limited to, stained surface soil or floor, dead or stressed vegetation, hazardous substances, aboveground and underground storage tanks, disposal areas, groundwater wells, drywells, and sumps. Inspection of subsurface wastewater or other utility systems was not part of this assessment. Photographs of the site reconnaissance are presented in Appendix B.

## 5.2 GENERAL SITE SETTING

Kakaako Waterfront Park is located along the Kelikoi Street, Honolulu, HI, and the *subject property* is immediately ocean side of the University of Hawaii Cancer Center (Photograph 1 in Appendix B). The park was in good condition with grassy slopes and paved sidewalks and is a popular destination of urban residents, tourists, and homeless people.

#### 5.2.1 Exterior Observations

On the *subject property* was a fenced-in maintenance baseyard, with a rock wall on the south boundary, abutting the ocean-side hill. Along the north boundary was the warehouse structure. The warehouse stored landscaping equipment used to upkeep the park. The driveway connecting the east and west entrances was asphalt paved, and in front of the warehouse was concrete slab. A strip of land near the rock wall appeared unpaved. Numerous filled trash bags containing green waste were observed on the ground in the yard (Photograph 5). A dumpster in a concrete enclosure was also observed immediately outside of the east entrance. No hazardous or regulated waste was observed.

South of the rock wall was a portion of Kakaako Waterfront Park. The area was grassy and covered with foliage. Sidewalks and an amphitheater bordered the *subject property* to the south and west, respectively (Photographs 1-4).

#### 5.2.2 Interior Observations

Interior observations were made of the one-story warehouse on the *subject property*. One half of the warehouse was in poor condition and unused. The other half of the warehouse stored landscaping equipment used to upkeep the park (Photographs 7-8). No stains, hazardous waste, or regulated waste were observed in visible areas.

## 5.2.3 Hazardous Substances and Petroleum Products

VPE observed empty gasoline canisters in the warehouse (Photograph 9). According to an employee on site, the containers were brought in daily to fuel landscaping equipment and then removed at the end of the day. Gasoline was not stored on site. There was no evidence of spills or leaks from the equipment.

# 5.2.4 Underground Storage Tanks

Records from the HDOH HEER Office and the SHWB verified that no USTs were associated with the *subject property*. No evidence of USTs, such as dispensers, vent pipes, fill ports, or manholes were observed on the *subject property*.

# 6.0 INTERVIEWS

VPE interviewed Daniel Simonich, a Planner with the HCDA, Germaine Agustin, a park maintenance worker, Kerry Kakazu, a former Cancer Center faculty member, and Fletcher Kimura, a former environmental consultant who supported the Cancer Center design and construction team.

# 6.1 Daniel Simonich, HCDA Planner

Mr. Simonich has been working with the HCDA, for the past 18 years. He stated that prior to the current use as a public park, the subject parcel had been an industrial area and a landfill.

# 6.2 Germaine Agustin, Park Maintenance

Germaine Agustin works at the park, maintaining and supervising workers. The workers are state-employees and maintain the park area and collect green waste from landscaping. No fuel or hazardous or regulated wastes are in the maintenance facility. Some equipment maintenance is performed in the baseyard, but no hazardous waste is generated. All other rubbish in the park is managed by the City and County.

# 6.3 Kerry Kakazu, Ph.D., Former UH Cancer Center Liaison

Dr. Kakazu served as a liaison for the UH Cancer Center staff during the design and construction of the new building, adjoining the subject property to the north. He did not observe the soil conditions first hand, but he was aware of the contaminant concerns, especially at the south edge of the center property. His understanding was that the potentially hazardous soil was remediated in place. Wilson Okamoto and Kimura International conducted the pre-construction environmental work.

# 6.4 Fletcher Kimura, Ph.D., Former Environmental Consultant for Cancer Center

Dr. Fletcher was onsite during the earthwork at the UH Cancer Center. He indicated that the Makai wall of the center building is approximately where the landfill starts. When digging, it was easily seen that the top 2 ft was clean material after which rubbish, glasses, ceramic pieces surfaced which indicated the presence of landfill. Incompletely burnt tires and messy mixture were also observed in deeper soil. Water was encountered at about 4 to 5 ft below ground surface, and during the construction, dewatering took place onsite using multiple seepage pits. Heavy metal lead was a main concern; however, the excavated excess landfill content passed the Toxicity Characteristic Leaching Procedure (TCLP); therefore, the contractor was able to dispose of the material locally. The new building's foundation work alone took about four months, using auger casting piles down to about 90 feet deep.

## 7.0 DATA GAPS AND DEVIATIONS

No data gaps were encountered during this Phase I ESA.

No deviations from the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* were conducted (ASTM International, 2013).

## 8.0 KEY FINDINGS AND OPINION

This section evaluates the key findings of this assessment and makes a determination as to the presence of a *REC*.

# 8.1 Subject Property

#### 8.1.1 REC

No records of registered UST or LUST were identified at the *subject property* from the HDOH UST databases (Hawaii Department of Health, 2014). EDR identified no records of NPL sites, RCRA CORRACTS TDS or non-CORRACTS facilities, State Sites of Interest, delisted NPL sites, CERCLIS or CERCLIS NFRAP sites, State Brownfield sites, landfill or solid waste disposal sites, RCRA generator sites, State Voluntary Cleanup sites, or Federal ERNS list sites. However, the *subject property* is a portion of the parcel listed under the Institutional and Engineering Controls registries due to the former landfill activities.

Additionally, there was an evidence of landfill content (ash layer, glasses, and ceramic pieces) at the Cancer Center's southern boundary which is immediately north of the *subject property* (Section 6.3). Soil samples collected at the former Produce Center site were found to contain lead, PCB, fluoranthene, and dieldrin levels exceeding the HDOH Tier 1 Soil Action Levels (Sections 4.2, 6.2, 6.3). Based on the proximity of the *subject property* to the parcel 9, this is considered a REC (Figure 3).

# 8.2 Surrounding Properties

### 8.2.1 Non-REC

During the site reconnaissance conducted on December 23, 2014, VPE observed the adjoining properties and found no active release, signs of previous release, or material threat of release to the subject property. The HDOH SHWB did not identify any records or concerns related to the adjoining properties.

Three USTs were removed from the former Produce Center directly north of the *subject property*. The UST closure and release response procedures were completed to address the petroleum release from the former USTs. In a letter dated June 1, 2001, HDOH Solid and Hazardous Waste Branch concurred with Masa Fujioka and Associates' recommendation for "no further action." This is not considered a REC.

#### 8.2.2 REC

The DOH HEER Records indicated that the entire parcel including the *subject property* is a former landfill. Kewalo Landfill, in operation from 1927 to 1977, was used to dispose of ash from the Kewalo Incinerator and a host of municipal and industrial solid wastes, including unburned municipal refuse, construction and household debris, drums of unknown liquids, automobile batteries, and cans of paint thinner (Section 4.2.1). It has since been developed into a public park; however, the potential still remains that the soil is adversely impacted. This is considered a REC.

## 9.0 CONCLUSION

VPE conducted a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM E 1527-13 at the subject property located at a 0.75-acre portion of 709 Kelikoi Street, Honolulu, HI 96813. This assessment has revealed evidence of *recognized environmental conditions* in connection with the *subject property*.

Appendix C provided a set of record aerial photographs from 1948 to 2009, assumed to be compiled by HCDA.

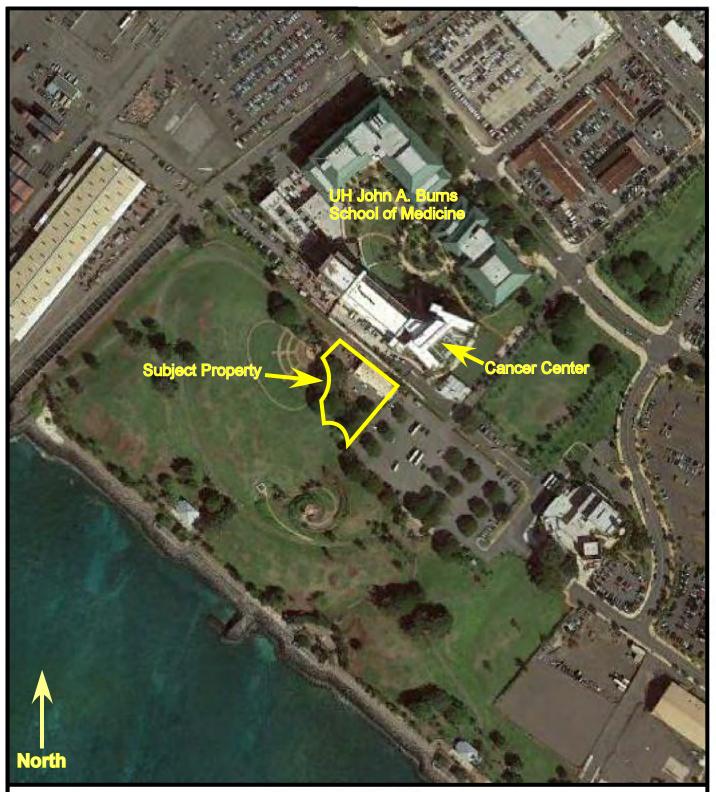


Figure 3. Site Map



Phase I Environmental Site Assessment Portion of 709 Kelikoi Street TMK (1) 2-1-060:008 Honolulu, HI 96813

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# APPENDIX A

**Environmental Data Resources Report and Maps** 

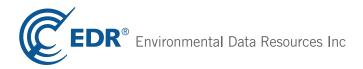
# Seagull Schools Kakaako

Kakaako Waterfront Park Honolulu, HI 96813

Inquiry Number: 4150044.2s

December 02, 2014

# The EDR Radius Map™ Report with GeoCheck®



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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

KAKAAKO WATERFRONT PARK HONOLULU County, HI 96813

#### **COORDINATES**

Latitude (North): 21.2945000 - 21° 17' 40.20" Longitude (West): 157.8640000 - 157° 51' 50.40"

Universal Tranverse Mercator: Zone 4 UTM X (Meters): 617837.6 UTM Y (Meters): 2355027.0

Elevation: 3 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 21157-C7 HONOLULU, HI

Most Recent Revision: Not reported

West Map: 21157-C8 PEARL HARBOR, HI

Most Recent Revision: Not reported

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

#### **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL..... National Priority List

Proposed NPL..... Proposed National Priority List Sites

NPL LIENS..... Federal Superfund Liens Federal Delisted NPL site list Delisted NPL..... National Priority List Deletions Federal CERCLIS list Federal RCRA generators list RCRA-LQG...... RCRA - Large Quantity Generators Federal institutional controls / engineering controls registries US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL..... Sites with Institutional Controls LUCIS.....Land Use Control Information System Federal ERNS list ERNS..... Emergency Response Notification System State and tribal leaking storage tank lists INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land State and tribal registered storage tank lists INDIAN UST...... Underground Storage Tanks on Indian Land FEMA UST..... Underground Storage Tank Listing State and tribal voluntary cleanup sites INDIAN VCP..... Voluntary Cleanup Priority Listing ADDITIONAL ENVIRONMENTAL RECORDS Local Lists of Landfill / Solid Waste Disposal Sites DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations ODI...... Open Dump Inventory INDIAN ODI...... Report on the Status of Open Dumps on Indian Lands Local Lists of Hazardous waste / Contaminated Sites US CDL..... Clandestine Drug Labs HI CDL..... Clandestine Drug Lab Listing US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

#### Records of Emergency Release Reports

Hazardous Materials Information Reporting System

HI SPILLS 90..... SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

DOT OPS..... Incident and Accident Data DOD...... Department of Defense Sites FUDS..... Formerly Used Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees

ROD...... Records Of Decision UMTRA..... Uranium Mill Tailings Sites US MINES..... Mines Master Index File

TRIS...... Toxic Chemical Release Inventory System

TSCA..... Toxic Substances Control Act

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems PADS...... PCB Activity Database System MLTS..... Material Licensing Tracking System RADINFO...... Radiation Information Database

RAATS...... RCRA Administrative Action Tracking System

RMP..... Risk Management Plans

HI UIC...... Underground Injection Wells Listing HI DRYCLEANERS...... Permitted Drycleaner Facility Listing

INDIAN RESERV..... Indian Reservations

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

PCB TRANSFORMER...... PCB Transformer Registration Database US FIN ASSUR..... Financial Assurance Information COAL ASH DOE \_\_\_\_\_ Steam-Electric Plant Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List US AIRS...... Aerometric Information Retrieval System Facility Subsystem LEAD SMELTERS..... Lead Smelter Sites

EPA WATCH LIST..... EPA WATCH LIST

PRP..... Potentially Responsible Parties

## **EDR HIGH RISK HISTORICAL RECORDS**

#### **EDR Exclusive Records**

EDR MGP..... EDR Proprietary Manufactured Gas Plants EDR US Hist Cleaners...... EDR Exclusive Historic Dry Cleaners

### **EDR RECOVERED GOVERNMENT ARCHIVES**

#### Exclusive Recovered Govt. Archives

HI RGA HWS...... Recovered Government Archive State Hazardous Waste Facilities List

HI RGA LF..... Recovered Government Archive Solid Waste Facilities List

HI RGA LUST...... Recovered Government Archive Leaking Underground Storage Tank

## **SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/10/2014 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HONOLULU GENERATING STATION	170 ALA MOANA BLVD.	N 1/2 - 1 (0.781 mi.)	60	102

### Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/10/2014 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEPT OF TRANSPORTATION	160 KOULA ST	ESE 1/8 - 1/4 (0.203 mi.)	E13	22

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 06/10/2014 has revealed that there are

3 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PRODUCE CENTER DEV.LTD.	651 ILALO STREET	NNE 1/8 - 1/4 (0.155 mi.)	C8	14
ALA MOANA CENTER - UPPER LEVEL	210 KEAWE STREET	N 1/8 - 1/4 (0.185 mi.)	D11	18
HONOLULU FORD INC.	711 ALA MOANA BLVD	NE 1/8 - 1/4 (0.237 mi.)	H23	38

## State- and tribal - equivalent CERCLIS

HI SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Health.

A review of the HI SHWS list, as provided by EDR, and dated 01/04/2014 has revealed that there are 37 HI SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KEWALO INCINERATOR LANDFILL	709 KELIKOI ST	NNW 0 - 1/8 (0.095 mi.)	3	9
KEWALO INCINERATOR ASH DUMP	111 OHE ST	ESE 1/8 - 1/4 (0.143 mi.)	4	10
HCDA/UH HEALTH AND WELLNESS CE	651 ILALO ST	NNE 1/8 - 1/4 (0.155 mi.)	C7	13
ALA MOANA WASTEWATER PUMP STAT	210 KEAWE ST	N 1/8 - 1/4 (0.185 mi.)	D12	20
C&C WASTE WATER DIVISION MAINT	98 KOULA ST	SE 1/8 - 1/4 (0.207 mi.)	F17	26
KAKAAKO PUMP STATION	240 KEAWE ST	NNE 1/8 - 1/4 (0.211 mi.)	G19	33
KAKAAKO MAKAI DISTRICT PARKING	AHUI ST, OHE ST, ILALO	SE 1/4 - 1/2 (0.262 mi.)	J27	44
KAKAAKO BROWNFIELD PROJECT - U	59 AHUI ST	SE 1/4 - 1/2 (0.266 mi.)	J32	55
UNDERGROUND HOISTS	744 ALA MOANA BLVD	ENE 1/4 - 1/2 (0.331 mi.)	K35	58
595 ALA MOANA BLACK OIL PIPELI	595 ALA MOANA BLVD	N 1/4 - 1/2 (0.399 mi.)	39	64
WRAF - HAWAIIAN TUNA PACKERS	1011 ALA MOANA BLVD	E 1/4 - 1/2 (0.411 mi.)	L40	65
COOKE STREET LEAD CONTAMINATIO	501 COOKE ST	NE 1/4 - 1/2 (0.443 mi.)	42	69
HAWAII INSTRUMENTATION & CONTR	822 HALEKAUWILA ST	ENE 1/2 - 1 (0.546 mi.)	48	81
RUBBER STAMP PLANTATION	746 ILANIWAI ST	NE 1/2 - 1 (0.578 mi.)	49	83
U.S. COAST GUARD BASE HONOLULU	400 SAND ISLAND PARKWA	Y NW 1/2 - 1 (0.629 mi.)	50	84
QUEEN EMMALANI TOWER	600 QUEEN ST	NE 1/2 - 1 (0.656 mi.)	51	88
AMERICAN LINEN WAREHOUSE	837 KAWAIAHAO ST	ENE 1/2 - 1 (0.675 mi.)	N52	92
836 KAWAIAHAO STREET	836 KAWAIAHAO ST	ENE 1/2 - 1 (0.676 mi.)	N53	93
K&Y AUTO SERVICE AND WAYNE'S A	902 KAWAIAHAO ST & 539	ENE 1/2 - 1 (0.691 mi.)	54	94
HAWAII OPERA THEATER SETS & PR	962 KAWAIAHAO ST	ENE 1/2 - 1 (0.720 mi.)	55	95
HD&C, 725 KAPIOLANI BOULEVARD	725 KAPIOLANI BLVD	NE 1/2 - 1 (0.755 mi.)	56	97
BMW OF HONOLULU	777 KAPIOLANI BLVD	ENE 1/2 - 1 (0.770 mi.)	<i>57</i>	98
CHUEI SHOKOH, INC.	825 KAPIOLANI BLVD	ENE 1/2 - 1 (0.774 mi.)	O58	100
HECO SOIL CONTAMINATION CHAPIN	CHAPIN LN & KAPIOLANI B	ENE 1/2 - 1 (0.778 mi.)	O59	101
HONOLULU GENERATING STATION	170 ALA MOANA BLVD.	N 1/2 - 1 (0.781 mi.)	60	102
KEEHI SMALL BOAT HARBOR	4 SAND ISLAND RD	NW 1/2 - 1 (0.782 mi.)	61	114
HAWAII NEWSPAPER AGENCY INC	605 KAPIOLANI BLVD	NE 1/2 - 1 (0.796 mi.)	P62	115
SYMPHONY PARK	850 KAPIOLANI BLVD	ENE 1/2 - 1 (0.797 mi.)	63	118
HECO PAD-MOUNTED #65844 TRANSF	650 KAPIOLANI BLVD	NE 1/2 - 1 (0.803 mi.)	P64	119
JAS W GLOVER LTD	1046 WAIMAMU ST	E 1/2 - 1 (0.822 mi.)	65	120
PACIFICA CONDOMINIUM	1009 KAPIOLANI BLVD	ENE 1/2 - 1 (0.837 mi.)	66	123
SELF STORAGE 1	438 KAMAKEE ST	E 1/2 - 1 (0.839 mi.)	67	124
RESERVE HOUSING TOWER SOIL CON	1141 WAIMANU ST	E 1/2 - 1 (0.892 mi.)	68	125
SAND ISLAND BUSINESS ASSOCIATI	1020 ULUPONO ST	NW 1/2 - 1 (0.922 mi.)	69	126
KOOLANI TOWER PROJECT	1189 WAIMANU ST	E 1/2 - 1 (0.933 mi.)	70	127
ONE ARCHER LANE	801 S KING ST	NE 1/2 - 1 (0.942 mi.)	71	128
HARBOR COURT	66 QUEEN ST	N 1/2 - 1 (0.970 mi.)	72	130

### State and tribal landfill and/or solid waste disposal site lists

HI SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Health's Permitted Landfills in the State of Hawaii database.

A review of the HI SWF/LF list, as provided by EDR, and dated 09/17/2012 has revealed that there is 1 HI SWF/LF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KEWALO ASH DUMP		ESE 1/4 - 1/2 (0.455 mi.)	M43	70

## State and tribal leaking storage tank lists

HI LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Active Leaking Underground Storage Tank Log Listing.

A review of the HI LUST list, as provided by EDR, and dated 09/17/2014 has revealed that there are 18 HI LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROBERTS HAWAII TOURS Facility Status: Site Cleanup Completed	<b>759 KELIKOI ST</b> d (NFA)	NNE 0 - 1/8 (0.041 mi.)	A1	7
PRODUCE CENTER DEV.LTD. Facility Status: Site Cleanup Completed	<b>651 ILALO ST</b> d (NFA)	NNE 1/8 - 1/4 (0.155 mi.)	C6	12
VERIZION HAWAII Facility Status: Site Cleanup Completed	<b>207 KEAWE ST</b> d (NFA)	N 1/8 - 1/4 (0.184 mi.)	D10	17
C&CH ELECTRICAL & MAINTENANCE Facility Status: Site Cleanup Completed	<b>160 KOULA ST</b> d (NFA)	ESE 1/8 - 1/4 (0.203 mi.)	E14	23
HONOLULU FORD INC. Facility Status: Site Cleanup Completed	711 ALA MOANA BLVD	NE 1/8 - 1/4 (0.237 mi.)	H23	38
THEO DAVIES EUROMOTORS Facility Status: Site Cleanup Completed	704 ALA MOANA BLVD	NE 1/8 - 1/4 (0.249 mi.)	H25	41
PFLUEGER ACURA Facility Status: LUST Cleanup Initiated Facility Status: Case Transferred to HE	777 ALA MOANA BLVD ER (regulated)	ENE 1/4 - 1/2 (0.261 mi.)	126	43
FULLER O'BRIEN PAINT Facility Status: Site Cleanup Completed Facility Status: Site Assessment Ongoin	` '	ENE 1/4 - 1/2 (0.262 mi.)	128	45
GRG ENTERPRISE INC. BASIN MARI Facility Status: Site Cleanup Completed	<b>115 AHUI ST</b> d (NFA)	ESE 1/4 - 1/2 (0.264 mi.)	J30	49
CUTTER MOTOR CARS, INC Facility Status: Site Cleanup Completed	800 ALA MOANA BLVD d (NFA)	ENE 1/4 - 1/2 (0.282 mi.)	33	56
ARA SERVICES INC. Facility Status: Site Cleanup Completed	<b>746 AUAHI ST</b> d (NFA)	NE 1/4 - 1/2 (0.329 mi.)	34	58
FORMER SHELLY MOTORS AUTO SAL Facility Status: Site Cleanup Completed		ENE 1/4 - 1/2 (0.331 mi.)	K36	60
<b>NEW CITY NISSAN</b> Facility Status: Site Cleanup Completed	900 ALA MOANA BLVD d (NFA)	ENE 1/4 - 1/2 (0.332 mi.)	37	60

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORT ARMSTRONG PARKING LOT (MO Facility Status: Site Cleanup Completed (	<b>BUFORD AND PLEASANTON</b> NFA)	AN 1/4 - 1/2 (0.377 mi.)	38	63
WRAF - HAWAIIAN TUNA PACKERS Facility Status: Site Cleanup Completed (	<i>1011 ALA MOANA BLVD</i> NFA)	E 1/4 - 1/2 (0.411 mi.)	L40	65
HONOLULU SHIP SUPPLY Facility Status: Site Cleanup Completed (	<b>834 POHUKAINA ST</b> NFA)	ENE 1/4 - 1/2 (0.455 mi.)	44	70
TIRE RECAP SERVICE Facility Status: Site Cleanup Completed (	<b>526 KEAWE ST</b> NFA)	NE 1/4 - 1/2 (0.483 mi.)	46	80
HAWAII COMMUNITY DEVELOPMENT A Facility Status: Site Cleanup Completed (	<b>548 COOKE ST</b> NFA)	NE 1/4 - 1/2 (0.485 mi.)	47	81

# State and tribal registered storage tank lists

HI UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health's Listing of Underground Storage Tanks.

A review of the HI UST list, as provided by EDR, and dated 09/17/2014 has revealed that there are 9 HI UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROBERTS HAWAII TOURS	759 KELIKOI ST	NNE 0 - 1/8 (0.041 mi.)	A1	7
PRODUCE CENTER DEV.LTD.	651 ILALO ST	NNE 1/8 - 1/4 (0.155 mi.)	C6	12
VERIZION HAWAII	207 KEAWE ST	N 1/8 - 1/4 (0.184 mi.)	D10	17
ALA MOANA WASTEWATER PUMP STAT	210 KEAWE ST	N 1/8 - 1/4 (0.185 mi.)	D12	20
C&CH ELECTRICAL & MAINTENANCE	160 KOULA ST	ESE 1/8 - 1/4 (0.203 mi.)	E14	23
LOOK LAB	811 OLOMEHANI ST	SE 1/8 - 1/4 (0.215 mi.)	F20	34
HONOLULU SEA WATER AIR CONDITI	245 KEAWE ST	NNE 1/8 - 1/4 (0.215 mi.)	G21	35
HONOLULU FORD INC.	711 ALA MOANA BLVD	NE 1/8 - 1/4 (0.237 mi.)	H23	38
THEO DAVIES EUROMOTORS	704 ALA MOANA BLVD	NE 1/8 - 1/4 (0.249 mi.)	H25	41

### State and tribal institutional control / engineering control registries

HI ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the HI ENG CONTROLS list, as provided by EDR, and dated 01/04/2014 has revealed that there are 6 HI ENG CONTROLS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KEWALO INCINERATOR LANDFILL	709 KELIKOI ST	NNW 0 - 1/8 (0.095 mi.)	3	9
HCDA/UH HEALTH AND WELLNESS CE	651 ILALO ST	NNE 1/8 - 1/4 (0.155 mi.)	C7	13
KAKAAKO MAKAI DISTRICT PARKING	AHUI ST, OHE ST, ILALO	SE 1/4 - 1/2 (0.262 mi.)	J27	44
KAKAAKO BROWNFIELD PROJECT - U	59 AHUI ST	SE 1/4 - 1/2 (0.266 mi.)	J32	55
WRAF - HAWAIIAN TUNA PACKERS	1011 ALA MOANA BLVD	E 1/4 - 1/2 (0.411 mi.)	L40	65
COOKE STREET LEAD CONTAMINATIO	501 COOKE ST	NE 1/4 - 1/2 (0.443 mi.)	42	69

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

A review of the HI INST CONTROL list, as provided by EDR, and dated 01/04/2014 has revealed that there are 8 HI INST CONTROL sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KEWALO INCINERATOR LANDFILL	709 KELIKOI ST	NNW 0 - 1/8 (0.095 mi.)	3	9
KEWALO INCINERATOR ASH DUMP	111 OHE ST	ESE 1/8 - 1/4 (0.143 mi.)	4	10
HCDA/UH HEALTH AND WELLNESS CE	651 ILALO ST	NNE 1/8 - 1/4 (0.155 mi.)	C7	13
ALA MOANA WASTEWATER PUMP STAT	210 KEAWE ST	N 1/8 - 1/4 (0.185 mi.)	D12	20
KAKAAKO MAKAI DISTRICT PARKING	AHUI ST, OHE ST, ILALO	SE 1/4 - 1/2 (0.262 mi.)	J27	44
KAKAAKO BROWNFIELD PROJECT - U	59 AHUI ST	SE 1/4 - 1/2 (0.266 mi.)	J32	55
UNDERGROUND HOISTS	744 ALA MOANA BLVD	ENE 1/4 - 1/2 (0.331 mi.)	K35	58
COOKE STREET LEAD CONTAMINATIO	501 COOKE ST	NE 1/4 - 1/2 (0.443 mi.)	42	69

### State and tribal Brownfields sites

HI BROWNFIELDS: Brownfields Site List

A review of the HI BROWNFIELDS list, as provided by EDR, and dated 01/04/2014 has revealed that there is 1 HI BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WRAF - HAWAIIAN TUNA PACKERS	1011 ALA MOANA BLVD	E 1/4 - 1/2 (0.411 mi.)	L40	65

## ADDITIONAL ENVIRONMENTAL RECORDS

### Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 09/22/2014 has revealed that there are 6 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HISTORIC ALA MOANA (KAKA'AKO)	240 KEAWE STREET	NNE 1/8 - 1/4 (0.211 mi.)	G18	26
KAKA'AKO SITE: UNIT 8	BORDERED W BY AHUI ST,	E 1/8 - 1/4 (0.227 mi.)	22	35
KAKA'AKO MAKAI PARCEL I	FORREST AVENUE	N 1/4 - 1/2 (0.263 mi.)	29	46
KAKA'AKO SITE: UNIT 7	123 AHUI ST	ESE 1/4 - 1/2 (0.266 mi.)	31	50
KAKA'AKO SITE: UNIT 6	1011 ALA MOANA BLVD	E 1/4 - 1/2 (0.412 mi.)	L41	67
KAKA'AKO BROWNFIELD PROJECT	TEN VARIOUS AREAS NW O	F ESE 1/4 - 1/2 (0.461 mi.)	M45	71

#### Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/10/2014 has revealed that there are 5 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page	
SERVCO PACIFIC, INC RUSTPROOFI	741B KELIKOI ST	N 0 - 1/8 (0.056 mi.)	A2	7	
SHELLY MOTORS BODY SHOP	720 ILALO ST	ENE 1/8 - 1/4 (0.143 mi.)	B5	11	
FLINT INK CORP CAL INK DIV	223 COOKE ST	ENE 1/8 - 1/4 (0.167 mi.)	B9	16	
KEWALO INCINERATOR	111 KOULA ST	ESE 1/8 - 1/4 (0.205 mi.)	F15	24	
THEO DAVIES EUROMOTORS	704 ALA MOANA BLVD	NE 1/8 - 1/4 (0.249 mi.)	H25	41	

#### **EDR HIGH RISK HISTORICAL RECORDS**

### **EDR Exclusive Records**

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 2 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	98 KOULA ST	SE 1/8 - 1/4 (0.207 mi.)	F16	25
Not reported	704 ALA MOANA BLVD	NE 1/8 - 1/4 (0.249 mi.)	H24	41

HI SHWS, HI ENG CONTROLS, HI

**BROWNFIELDS** 

**BROWNFIELDS** 

Due to poor or inadequate address information, the following sites were not mapped. Count: 11 records.

Site Name	Database(s)
-----------	-------------

KAKAAKO BROWNFIELD PROJECT - UNIT

KAKAAKO BROWNFIELD PROJECT - UNIT HI SHWS, HI ENG CONTROLS, HI

HONOLULU SEAWATER AIR CONDITIONING

HI SHWS, HI ENG CONTROLS, HI

KAKAAKO BROWNFIELD PROJECT - UNIT INST CONTROLS, HI SHWS, HI ENG CONTROLS, HI

BROWNFIELDS

KAKAAKO BROWNFIELD PROJECT - UNIT

HI SHWS, HI ENG CONTROLS, HI BROWNFIELDS

CITIZENS ENERGY SERVICES PIER 38 HI SHWS, HI SPILLS, HI ENG

KAKAAKO MAKAI DISTRICT JOHN DOMINI CONTROL HI SHWS, HI INST CONTROL

ALA WAI HARBOR BOAT REPAIR YARD

KAKAAKO MAKAI GATEWAY

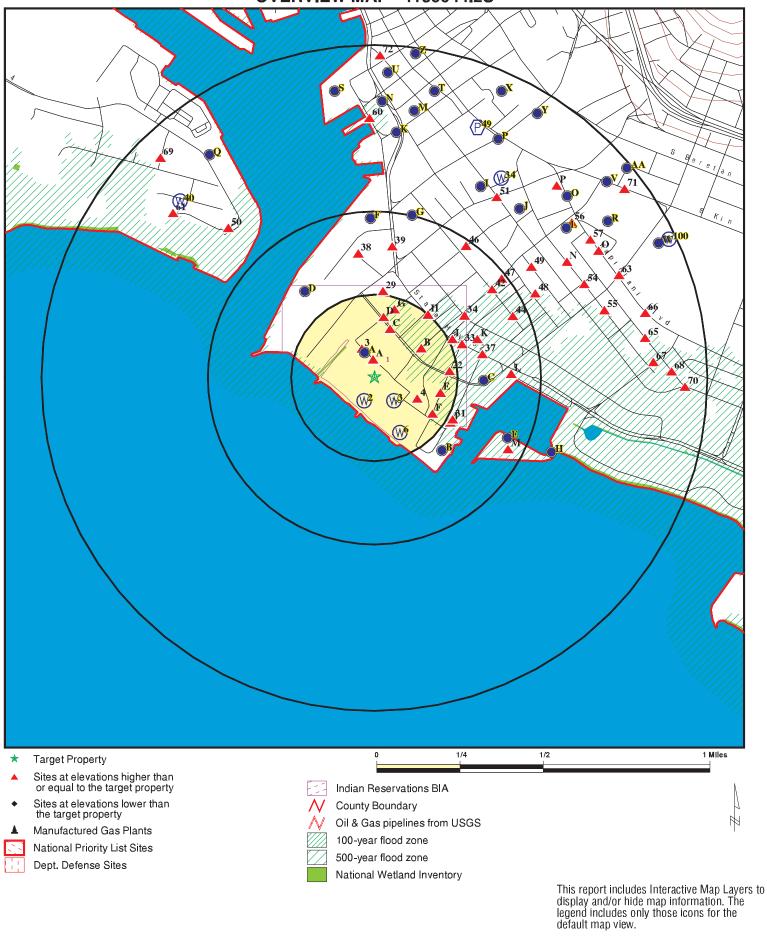
HI SHWS

HI SHWS

FORMER KAPALAMA MILITARY RESERVATI
DLNR BURIED DRUM SITE
HI SHWS
HI SHWS, HI SPILLS, HI INST

NR BURIED DRUM SITE HI SHWS, I

# **OVERVIEW MAP - 4150044.2S**



SITE NAME: Seagull Schools Kakaako

Kakaako Waterfront Park Honolulu HI 96813

21.2945 / 157.864

ADDRESS:

LAT/LONG:

December 02, 2014 6:55 pm Copyright © 2014 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

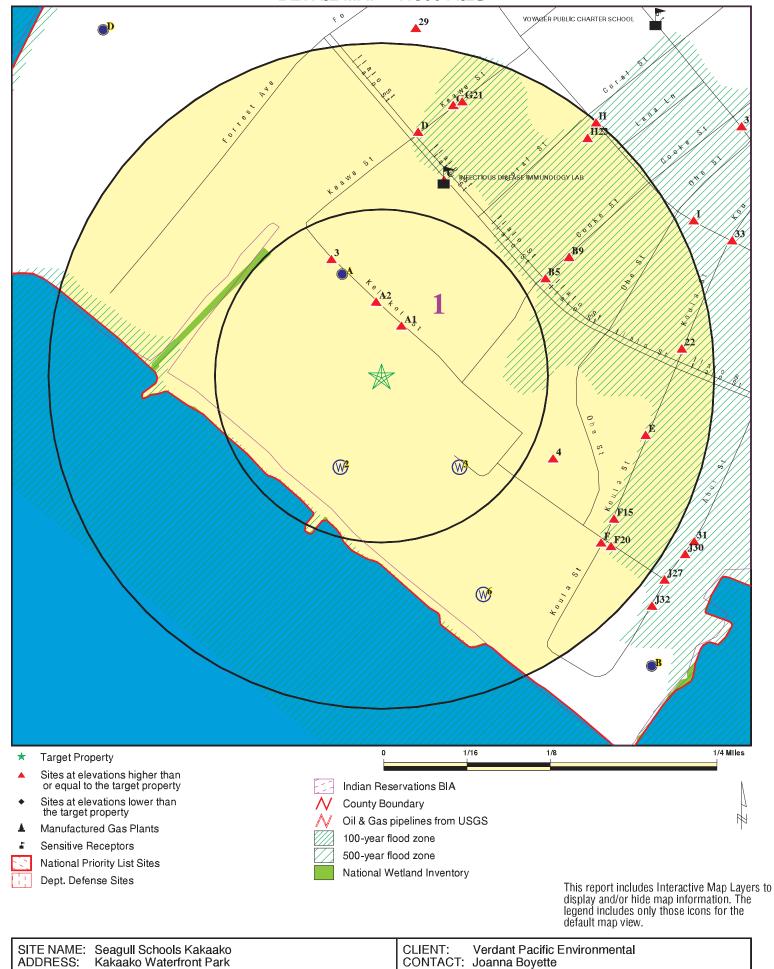
Verdant Pacific Environmental

CLIENT: Verdant Pacific I CONTACT: Joanna Boyette

INQUIRY #: 4150044.2s

DATE:

# **DETAIL MAP - 4150044.2S**



Seagull Schools Kakaako

Kakaako Waterfront Park

Honolulu HI 96813

21 2945 / 157 864

ADDRESS:

LAT/LONG:

December 02, 2014 6:56 pm Copyright © 2014 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

Joanna Boyette

4150044.2s

INQUIRY #:

DATE:

Verdant Pacific Environmental

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENT	AL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL site	e list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	s list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 1 3	NR NR NR	NR NR NR	NR NR NR	0 1 3
Federal institutional con engineering controls reg								
US ENG CONTROLS US INST CONTROL LUCIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	lent CERCLIS	3						
HI SHWS	1.000		1	5	6	25	NR	37
State and tribal landfill and/or solid waste disposal site lists								
HI SWF/LF	0.500		0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
HI LUST INDIAN LUST	0.500 0.500		1 0	5 0	12 0	NR NR	NR NR	18 0
State and tribal registered storage tank lists								
HI UST	0.250		1	8	NR	NR	NR	9

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN UST FEMA UST	0.250 0.250		0	0 0	NR NR	NR NR	NR NR	0 0
State and tribal institution control / engineering con		s						
HI ENG CONTROLS HI INST CONTROL	0.500 0.500		1 1	1 3	4 4	NR NR	NR NR	6 8
State and tribal voluntary	cleanup site	es .						
HI VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	lds sites							
HI BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENT	TAL RECORDS	<u> </u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	2	4	NR	NR	6
Local Lists of Landfill / So Waste Disposal Sites	olid							
DEBRIS REGION 9 ODI INDIAN ODI	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Local Lists of Hazardous Contaminated Sites	waste /							
US CDL HI CDL US HIST CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS HI SPILLS HI SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Records								
RCRA NonGen / NLR DOT OPS DOD FUDS CONSENT ROD UMTRA US MINES TRIS	0.250 TP 1.000 1.000 1.000 1.000 0.500 0.250 TP		1 NR 0 0 0 0 0 0 NR	4 NR 0 0 0 0 0 0 0 NR	NR NR 0 0 0 0 NR NR	NR NR 0 0 0 0 NR NR NR	NR NR NR NR NR NR NR	5 0 0 0 0 0 0

# **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	Ö
PADS	TP		NR	NR	NR	NR	NR	Ö
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	Õ
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	Õ
HI UIC	TP		NR	NR	NR	NR	NR	0
HI DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA HAZNET	TP		NR	NŘ	NR	NR	NR	Õ
HI AIRS	TP		NR	NR	NR	NR	NR	Õ
INDIAN RESERV	1.000		0	0	0	0	NR	Ő
SCRD DRYCLEANERS	0.500		0	Ö	Ö	NR	NR	Ő
HI Financial Assurance	TP		NR	NR	NR	NR	NR	Õ
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	Õ
COAL ASH DOE	TP		NR	NR	NR	NR	NR	Ő
COAL ASH EPA	0.500		0	0	0	NR	NR	Ő
US AIRS	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	Ő
PRP	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	Ő
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	2	NR	NR	NR	2
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERN	IMENT ARCHIV	/ES						
Exclusive Recovered Go	vt. Archives							
HI RGA HWS	TP		NR	NR	NR	NR	NR	0
HI RGA LF	TP		NR	NR	NR	NR	NR	Ö
HI RGA LUST	TP		NR	NR	NR	NR	NR	Õ
	• •			• • • •	• • • •			•

# NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

Α1 **ROBERTS HAWAII TOURS** HI LUST U001235283 HI UST N/A

NNE 759 KELIKOI ST HONOLULU, HI 96813 < 1/8

0.041 mi.

216 ft. Site 1 of 2 in cluster A

LUST: Relative:

Facility ID: 9-100893 Higher

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 02/13/1996 6 ft. Release ID: 910017

> Project Officer: Lene Ichinotsubo

UST:

9-100893 Facility ID:

ROBERTS HAWAII TOURS, INC Owner: Owner Address: 680 IWILEI ROAD, SUITE 700

Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2948 Longitude: -157.864 Horizontal Reference Datum N&A@83

Tank ID: R-1

04/08/1976 Date Installed:

**Tank Status: Permanently Out of Use** 

01/28/1991 Date Closed: Tank Capacity: 12000 Substance: Diesel

Tank ID: R-2

04/08/1976 Date Installed:

Tank Status: **Permanently Out of Use** 

Date Closed: 01/28/1991 Tank Capacity: 6000 Substance: Gasoline

Tank ID: R-3 Date Installed: 04/08/1976

**Permanently Out of Use** Tank Status:

01/28/1991 Date Closed: Tank Capacity: 1000 Substance: Used Oil

**A2** SERVCO PACIFIC, INC RUSTPROOFING CENTER

1000429559 **RCRA NonGen / NLR** HID981455884 North 741B KELIKOI ST

< 1/8 HONOLULU, HI 96813

0.056 mi.

Site 2 of 2 in cluster A 295 ft.

Relative: Date form received by agency: 12/10/1993 Higher

RCRA NonGen / NLR:

SERVCO PACIFIC, INC RUSTPROOFING CENTER Facility name:

Actual: 741B KELIKOI ST Facility address:

6 ft. HONOLULU, HI 96813

EPA ID: HID981455884 Mailing address: **KELIKOI ST** 

HONOLULU, HI 96813

Direction Distance

Elevation Site Database(s) EPA ID Number

### SERVCO PACIFIC, INC RUSTPROOFING CENTER (Continued)

1000429559

**EDR ID Number** 

Contact: ENVIRONMENTAL MANAGER

Contact address: 741B KELIKOI ST

HONOLULU, HI 96813

Contact country: US

Contact telephone: (808) 537-5554 Contact email: Not reported

EPA Region: 09

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: SERVCO PACIFIC, INC

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner

Owner/Op start date: Not reported Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator

Owner/Op start date: Not reported
Owner/Op end date: Not reported

### Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

3 KEWALO INCINERATOR LANDFILL HI SHWS \$108859951
NNW 709 KELIKOI ST HI ENG CONTROLS N/A

709 KELIKOI ST HI ENG CONTROLS N/A
HONOLULU, HI 96813 HI INST CONTROL

< 1/8 I 0.095 mi.

0.095 m 504 ft.

Relative: SHWS:

HigherOrganization:Not reportedSupplemental Location:709 Kelikoi St

Actual: Island: Oahu

3 ft. Environmental Interest: Kewalo Incinerator Landfill

HID Number: HID980497226
Facility Registry Identifier: Not reported

Facility Registry Identifier:

Lead Agency:

Program:

Not reported
HEER
State

Project Manager: Melody Calisay

Hazard Priority: Low

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: 709 Kelikoi St

SDAR Environmental Interest Name: Kewalo Incinerator Landfill

HID Number: HID980497226

Facility Registry Identifier:

Lead Agency:

Progran Name:

Not reported
HEER
State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: Low

Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Found: Pb, PAH in soil

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required Description of Restrictions: Prohibit Disturbance of Soil

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: Historic NFA - Incomplete Documentation

Document Date: 02/23/1990
Document Number: Not reported

Document Subject: Feasibility Study Kewalo Municipal Incinerator Landfill, Honolulu HI

Volume I (Sections 1 through 5

Project Manager: Melody Calisay

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:** 

Supplemental Location Text: 709 Kelikoi St Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls Engineering Control: Engineering Control Required

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: 709 Kelikoi St Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Direction Distance

Distance EDR ID Number
Elevation Site EPA ID Number

4 KEWALO INCINERATOR ASH DUMP HI SHWS S108859950
ESE 111 OHE ST HI SPILLS N/A

111 OHE ST HI SPILLS N/A
HONOLULU, HI 96813 HI INST CONTROL

1/8-1/4 HONOLULU, HI 96813 0.143 mi.

755 ft.

4 ft.

Relative: SHWS:

HigherOrganization:Not reportedSupplemental Location:Not reported

Supplemental Location: Not reported

Actual: Island: Oahu

Environmental Interest: Kewalo Incinerator
HID Number: Not reported
Facility Registry Identifier: 110013769626

Lead Agency: HEER
Program: State
Project Manager: Cal Miyahara
Hazard Priority: Medium

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported
Island: Oahu
Supplemental Location Text: Not reported
SDAR Environmental Interest Name: Kewalo Incinerator
HID Number: Not reported
Facility Registry Identifier: 110013769626

Lead Agency: 110013769626

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: Medium

Assessment: Response Necessary
Response: Response Complete

Nature of Contamination: Not reported

Nature of Residual Contamination: No COCs above EALs for this limited area, ICs in place for other parts

of site

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Not reported

Description of Restrictions: Prohibit Disturbance of Soil

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 01/08/2008
Document Number: 2008-015-CMM

Document Subject: No Further Action Determination

Project Manager: Cal Miyahara

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19920724-6
HID Number: Not reported
Facility Registry Id: 110013769626
Lead and Program: HEER EP&R
ER: None

Units: Kewalo Incinerator Substances: Incinerator Ash Less Or Greater Than: Not reported

Numerical Quantity: 0

Units: Not reported Activity Type: Response

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

## **KEWALO INCINERATOR ASH DUMP (Continued)**

S108859950

**EDR ID Number** 

Activity Lead: Mike Cripps Assignment End Date: Not reported Result: Not reported

File Under: State of Hawaii, Hawaii Community Development Authority

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

**B5** SHELLY MOTORS BODY SHOP

RCRA NonGen / NLR 1000823304 **ENE** 720 ILALO ST **FINDS** HID984469684

1/8-1/4 HONOLULU, HI 96813

0.143 mi.

757 ft. Site 1 of 2 in cluster B

RCRA NonGen / NLR: Relative:

Date form received by agency: 01/12/1997 Higher

SHELLY MOTORS BODY SHOP Facility name:

Actual: Facility address: 720 ILALO ST

5 ft. HONOLULU, HI 96813

HID984469684 EPA ID:

Mailing address: **ILALO ST** 

HONOLULU, HI 96813

Contact: Not reported Not reported Contact address: Not reported

Contact country: Not reported Contact telephone: Not reported Contact email: Not reported EPA Region: 09 Land type: Private Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

SHELLY MOTORS INC Owner/operator name: Owner/operator address: 900 ALA MOANA

HONOLULU, HI 96813

Owner/operator country: Not reported Owner/operator telephone: (808) 521-8080 Legal status: Private

Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: Nο

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## SHELLY MOTORS BODY SHOP (Continued)

1000823304

Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: Nο

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 12/04/1996

COMPLIANCE EVALUATION INSPECTION ON-SITE Evaluation:

Not reported Area of violation: Date achieved compliance: Not reported Evaluation lead agency: State

FINDS:

Registry ID: 110005728739

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

corrective action activities required under RCRA.

PRODUCE CENTER DEV.LTD. C6 NNE

651 ILALO ST

1/8-1/4 HONOLULU, HI 96813

0.155 mi.

Site 1 of 3 in cluster C 817 ft.

LUST: Relative:

Facility ID: 9-101735 Higher

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 06/01/2001 3 ft. Release ID: 940165

Project Officer: Shaobin Li

UST:

Facility ID: 9-101735

Owner: PRODUCE CENTER DEV. LTD.

Owner Address: 651 ILALO ST

Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2964 -157.863 Longitude: Horizontal Reference Datum N&A@83

Tank ID: Date Installed: 03/10/1978

Permanently Out of Use Tank Status:

Date Closed: 07/07/1994 HI LUST

HI UST

U001235575

N/A

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

PRODUCE CENTER DEV.LTD. (Continued)

Tank Capacity: 4000 Substance: Diesel

Tank ID: R-2

Date Installed: 03/10/1978

Tank Status: **Permanently Out of Use** 

Date Closed: 07/04/1994 Tank Capacity: 4000 Substance: Gasoline

Tank ID: R-3

Date Installed: 03/10/1978

Tank Status: **Permanently Out of Use** 

Date Closed: 07/07/1994 Tank Capacity: 6000 Substance: Gasoline

**C7 HCDA/UH HEALTH AND WELLNESS CENTER** 

NNE 651 ILALO ST 1/8-1/4 HONOLULU, HI 96813

0.155 mi.

817 ft. Site 2 of 3 in cluster C

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Not reported

Actual: Oahu Island:

3 ft. Environmental Interest:

HCDA/UH Medical School HID Number: Not reported

> 110013791673 Facility Registry Identifier: Lead Agency: **HEER**

Program: State Project Manager: Laura Young

Hazard Priority: High

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: **HCDA/UH Medical School** 

HID Number: Not reported Facility Registry Identifier: 110013791673

Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: High

Assessment: Assessment Ongoing Response: Response Ongoing

Nature of Contamination: Found: The whole Kakaako area is considered contaminated area. The

site is filled with ash material generated from two incenerators previously operating at the site. Pb was found to be above HDOH EAL

for commercial/industrial

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

**Engineering Control: Engineering Control Required** 

Description of Restrictions: An exposure management plan is in use.

Institutional Control: Government - Hawaii Dept. of Health Letter Issued **EDR ID Number** 

U001235575

1006821120

N/A

HI SHWS

**HI ENG CONTROLS** 

HI INST CONTROL

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **HCDA/UH HEALTH AND WELLNESS CENTER (Continued)**

1006821120

RCRA-CESQG 1000906752

HI0000477513

FINDS

Within Designated Areawide Contamination: Not reported

No Further Action Letter - Restricted Use Site Closure Type:

Document Date: 12/30/2002 **Document Number:** Not reported **Document Subject:** NFA letter Project Manager: Laura Young

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported

Oahu Island:

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

C8 PRODUCE CENTER DEV.LTD. NNE **651 ILALO STREET** 1/8-1/4 HONOLULU, HI 96813

0.155 mi.

817 ft. Site 3 of 3 in cluster C

RCRA-CESQG: Relative:

Higher Date form received by agency: 10/03/2002

Facility name: PRODUCE CENTER Actual: Facility address: 651 ILALO ST

3 ft. HONOLULU, HI 96813

EPA ID: HI0000477513 Contact: SANDRA PFUND

> Contact address: 677 ALA MOANA BLVD NO 1001

> > HONOLULU, HI 96813

Contact country: US

(808) 587-8160 Contact telephone: Contact email: Not reported

EPA Region: Land type: State

Classification: Conditionally Exempt Small Quantity Generator

Handler: generates 100 kg or less of hazardous waste per calendar Description:

month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from

the cleanup of a spill, into or on any land or water, of acutely

hazardous waste

Direction Distance Elevation

ion Site Database(s) EPA ID Number

### PRODUCE CENTER DEV.LTD. (Continued)

1000906752

**EDR ID Number** 

Owner/Operator Summary:

Owner/operator name: H I COMMUNITY DEVELOPMENT
Owner/operator address: 677 ALA MOANA BLVD NO 1001

HONOLULU, HI 96813

Owner/operator country: Not reported
Owner/operator telephone: (808) 587-8160

Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No No Used oil transfer facility: Used oil transporter: No

Historical Generators:

Date form received by agency: 12/30/1996

Site name: PRODUCE CENTER
Classification: Not a generator, verified

Hazardous Waste Summary:

Waste code: D000
Waste name: Not Defined

Waste code: D008 Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 02/07/1996

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Not reported Date achieved compliance: Not reported Evaluation lead agency: State

FINDS:

Registry ID: 110022300259

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

## PRODUCE CENTER DEV.LTD. (Continued)

1000906752

**EDR ID Number** 

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

Registry ID: 110005722254

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

FLINT INK CORP CAL INK DIV

RCRA NonGen / NLR 1000321576 FINDS HID044845493

1/8-1/4

HONOLULU, HI 96813

223 COOKE ST

0.167 mi.

**B9** 

**ENE** 

881 ft. Site 2 of 2 in cluster B

RCRA NonGen / NLR: Relative:

Date form received by agency: 12/10/1993 Higher

Facility name: FLINT INK CORP CAL INK DIV

Facility address: Actual: 223 COOKE ST 3 ft.

HONOLULU, HI 96813 EPA ID: HID044845493

COOKE ST Mailing address:

HONOLULU, HI 96813

Contact: ENVIRONMENTAL MANAGER

Contact address: 223 COOKE ST

HONOLULU, HI 96813

Contact country: US

(808) 538-6718 Contact telephone: Contact email: Not reported

EPA Region: 09

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: **NOT REQUIRED** Owner/operator address: **NOT REQUIRED** 

NOT REQUIRED. ME 99999

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212 Legal status: Private

Direction Distance

Elevation Site Database(s) EPA ID Number

## FLINT INK CORP CAL INK DIV (Continued)

1000321576

**EDR ID Number** 

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: FLINT INK CORPORATION

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: Nο On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110005284361

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

corrective action activities required under RCRA.

D10 VERIZION HAWAII HI LUST U001235188

North 207 KEAWE ST HI UST N/A 1/8-1/4 HONOLULU, HI 96813 HI Financial Assurance

1/8-1/4 0.184 mi.

972 ft. Site 1 of 3 in cluster D

Relative: LUST:

Higher Facility ID: 9-100496

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 09/25/1998

Actual: Facility Status Date: 09/25/1998
3 ft. Release ID: 970065
Project Officer: Jeffrey Ung

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

**VERIZION HAWAII (Continued)** 

U001235188

UST:

Facility ID: 9-100496 Owner: VERIZON HAWAII

Owner Address: 1177 BISHOP ST.P.O. BOX 2200 Hon.HI 96841

Owner City, St, Zip: Honolulu, 96813 96813

21.2972 Latitude: -157.863 Longitude: Horizontal Reference Datum N&AAD83

Tank ID: R-1 Date Installed: 07/01/1981

Tank Status: **Permanently Out of Use** 

03/24/1997 Date Closed: Tank Capacity: 10000 Substance: Diesel

HI Financial Assurance:

Alt Facility ID: 9-100496 Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: Insurance **Expiration Date:** Not reported

ALA MOANA CENTER - UPPER LEVEL EXPANSION PHASE V-A

RCRA-CESQG 1007879505 FINDS HIR000136226

North **210 KEAWE STREET** 1/8-1/4 HONOLULU, HI 96813

0.185 mi.

D11

979 ft. Site 2 of 3 in cluster D

RCRA-CESQG: Relative:

Date form received by agency: 10/27/2004 Higher

ALA MOANA WASTEWATER PUMP STN Facility name:

Actual: 210 KEAWE ST Facility address:

3 ft.

HONOLULU, HI 96813

EPA ID: HIR000136226 Mailing address: 1000 ULU OHI A ST

**STE 308** 

KAPOLEI, HI 96707

Contact: ALLEN PERRY

Contact address: 1000 ULU OHI A ST STE 308 KAPOLEI, HI 96707

Contact country: US

Contact telephone: 808-847-8329 Contact email: Not reported

EPA Region: 09

Conditionally Exempt Small Quantity Generator Classification:

Handler: generates 100 kg or less of hazardous waste per calendar Description:

> month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of

> > TC4150044.2s Page 18

Direction Distance Elevation

Site Database(s) EPA ID Number

## ALA MOANA CENTER - UPPER LEVEL EXPANSION PHASE V-A (Continued)

1007879505

**EDR ID Number** 

any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CITY AND COUNTY OF HONOLULU

Owner/operator address: Not reported Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: County Owner/Operator Type: Owner Owner/Op start date: 01/01/1900 Owner/Op end date: Not reported

Owner/operator name: ATHAN ADACHI
Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: County Owner/Operator Type: Operator Owner/Op start date: 04/01/2004 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Hazardous Waste Summary:

Waste code: D008 Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110014053273

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that

Direction Distance

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

### ALA MOANA CENTER - UPPER LEVEL EXPANSION PHASE V-A (Continued)

1007879505

U001235062

N/A

**HI SHWS** 

HI INST CONTROL

**HI Financial Assurance** 

HI UST

discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

ALA MOANA WASTEWATER PUMP STATION

210 KEAWE ST North 1/8-1/4 HONOLULU, HI 96813

0.185 mi.

Site 3 of 3 in cluster D 979 ft.

SHWS: Relative:

D12

Organization: Higher Not reported

Supplemental Location: Not reported Actual: Island: Oahu

3 ft. **Environmental Interest:** Ala Moana #2 WWPS

> HID Number: Not reported Facility Registry Identifier: 110014053273 Not reported

Lead Agency: Program: State

Project Manager: Clarence Callahan

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Oahu Supplemental Location Text: Not reported

Ala Moana #2 WWPS SDAR Environmental Interest Name:

HID Number: Not reported 110014053273 Facility Registry Identifier: Lead Agency: Not reported

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary Response: Response Complete

Nature of Contamination: Found: Low levels of hydrocarbon and metals in soil and groundwater. Nature of Residual Contamination: Low levels of hydrocarbon and metals in soil and groundwater.

Use Restrictions: Controls Required to Manage Contamination

No Engineering Control Required **Engineering Control:** 

Description of Restrictions: Test excavated soil prior to disposal at landfill in accordance with

> the TGM and landfill requirements. Complete a health and safety plan to protect workers from exposure. Follow "Guidance Fact Sheet for Use

when Petroleum Contamination is Encountered..."

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

No Further Action Letter - Restricted Use Site Closure Type:

Document Date: 02/16/2006

Direction Distance

Elevation Site Database(s) EPA ID Number

# ALA MOANA WASTEWATER PUMP STATION (Continued)

U001235062

**EDR ID Number** 

Document Number: 2006-093-CAC

Document Subject: Review of Final Site Investigation Report for Ala Moana Wastewater

Pump Station, Honolulu HI

Project Manager: Clarence Callahan

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

UST:

Facility ID: 9-100135

Owner: C&C HNL - DEPT OF ENVIRONMENTAL SERVICES

Owner Address: 1000 ULU'OHIA STREET, SUITE 308

Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2976 Longitude: -157.864 Horizontal Reference Datum Na/A-283

Tank ID: M-1

Date Installed: 05/07/1980

Tank Status: Currently in Use
Date Closed: Not reported
Tank Capacity: 10000
Substance: Diesel

Tank ID: M-1
Date Installed: 05/07/1980

Tank Status: Currently in Use
Date Closed: Not reported
Tank Capacity: 10000
Substance: Diesel

Tank ID: M-2

Date Installed: 04/01/2005

Tank Status: Currently In Use
Date Closed: Not reported

Tank Capacity: 10000

Substance: Diesel

Tank ID: M-2
Date Installed: 04/01/2005

Tank Status: Currently In Use
Date Closed: Not reported
Tank Capacity: 10000
Substance: Diesel

**INST CONTROL:** 

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

HI Financial Assurance:

Alt Facility ID: 9-100135
Tank Id: M-1

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **ALA MOANA WASTEWATER PUMP STATION (Continued)**

U001235062

Tank Status: Currently in Use FRTYPE: Other **Expiration Date:** 06/30/2014

Alt Facility ID: 9-100135 Tank Id: M-2

Tank Status: Currently In Use

FRTYPE: Other 06/30/2014 **Expiration Date:** 

**DEPT OF TRANSPORTATION** RCRA-SQG 1000886880 E13 **FINDS** HI0000117697

**ESE** 160 KOULA ST 1/8-1/4 HONOLULU, HI 96813

0.203 mi.

1074 ft. Site 1 of 2 in cluster E

RCRA-SQG: Relative:

Higher

Date form received by agency: 02/11/1994

**DEPT OF TRANSPORTATION** Facility name:

Actual: 160 KOULA ST Facility address: 3 ft.

HONOLULU, HI 96813

EPA ID: HI0000117697

Mailing address: S KING ST

HONOLULU, HI 96813 KAY IZUMIHARA

Contact: Contact address: 650 S KING ST

HONOLULU, HI 96813

Contact country: US

(808) 527-5340 Contact telephone: Contact email: Not reported

EPA Region: 09

Classification: Small Small Quantity Generator

Handler: generates more than 100 and less than 1000 kg of hazardous Description:

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: CITY AND COUNTY OF HONOLULU

Owner/operator address: 650 S KING ST

HONOLULU, HI 96813

Owner/operator country: Not reported Owner/operator telephone: (808) 523-4564 Legal status: Municipal Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **DEPT OF TRANSPORTATION (Continued)**

1000886880

Furnace exemption: Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: Nο

Violation Status: No violations found

FINDS:

Registry ID: 110005721807

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

STATE MASTER

**C&CH ELECTRICAL & MAINTENANCE SERV DEPT** E14 HI LUST U003154621 **ESE** 160 KOULA ST **HI UST** N/A

HONOLULU, HI 96813 1/8-1/4

0.203 mi.

1074 ft. Site 2 of 2 in cluster E

LUST: Relative:

Facility ID: 9-102755 Higher

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 06/05/1997 3 ft. Release ID: 940017

Project Officer: Jose Ruiz

UST:

Facility ID: 9-102755 Owner: **C&C HNL** 

530 S KING ST RM 115 Owner Address: Honolulu, 96813 96813 Owner City, St, Zip:

Latitude: 21.2939 Longitude: -157.861 Horizontal Reference Datum N&A@83

Tank ID: R-1 **HI Financial Assurance** 

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

C&CH ELECTRICAL & MAINTENANCE SERV DEPT (Continued)

U003154621

1000906768

HI0000705061

**FINDS** 

Date Installed: 01/01/1950

Tank Status: **Permanently Out of Use** 

08/06/1993 Date Closed: 500 Tank Capacity: Substance: Gasoline

HI Financial Assurance:

Alt Facility ID: 9-102755

Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: Not Listed **Expiration Date:** Not reported

Alt Facility ID: 9-102755 Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: Self Insured **Expiration Date:** Not reported

**KEWALO INCINERATOR** F15 RCRA NonGen / NLR

**ESE** 111 KOULA ST

1/8-1/4 HONOLULU, HI 96813

0.205 mi.

1082 ft. Site 1 of 4 in cluster F

RCRA NonGen / NLR: Relative:

Date form received by agency: 02/28/1996 Higher

Facility name: **KEWALO INCINERATOR** 

Actual: Facility address: 111 KOULA ST 3 ft.

HONOLULU, HI 968130000 EPA ID: HI0000705061

677 ALA MOANA BLVD

Mailing address:

**SUITE 1001** HONOLULU, HI 968130000

J LEOPARDI Contact: LARRY

Contact address: Not reported

> Not reported Not reported

Contact country: Contact telephone: (808) 587-2870 Contact email: Not reported

EPA Region: 09

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

HONOLULU COMM DEV AUTHORITY Owner/operator name:

Owner/operator address: 677 ALA MOANA BLVD

HONOLULU, HI 96813

Owner/operator country: Not reported Owner/operator telephone: (808) 587-2870

Legal status: Private Owner Owner/Operator Type: Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **KEWALO INCINERATOR (Continued)**

1000906768

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

**Historical Generators:** 

Date form received by agency: 09/13/1994

Site name: **KEWALO INCINERATOR** Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110000789317

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

corrective action activities required under RCRA.

F16 **EDR US Hist Auto Stat** 1015687742 SE 98 KOULA ST N/A

HONOLULU, HI 96813 1/8-1/4

0.207 mi.

1093 ft. Site 2 of 4 in cluster F

EDR Historical Auto Stations: Relative:

MAACO AUTO PAINTING & BODYWORKS Name: Higher

Year: 2005

Actual: 98 KOULA ST Address:

3 ft.

MAP FINDINGS Map ID Direction

**EDR ID Number** Distance Elevation Site Database(s) **EPA ID Number** 

F17 **C&C WASTE WATER DIVISION MAINTENANCE YARD HI SHWS** 1006820134

98 KOULA ST N/A

1/8-1/4 HONOLULU, HI 96813

0.207 mi.

SE

1093 ft. Site 3 of 4 in cluster F

SHWS: Relative:

Higher Organization: Not reported Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. **Environmental Interest:** City & County Wastewater Collection System Maintenance Yard

> HID Number: Not reported 110013780382 Facility Registry Identifier: Lead Agency: Not reported Program: State Project Manager: Unassigned Hazard Priority: NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

City & County Wastewater Collection System Maintenance Yard SDAR Environmental Interest Name:

HID Number: Not reported

Facility Registry Identifier: 110013780382 Not reported Lead Agency: Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment Ongoing Assessment:

Response: Not reported Nature of Contamination: Not reported Nature of Residual Contamination: Not reported Undetermined Use Restrictions: **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported

No Further Action - Type Undetermined Site Closure Type:

Document Date: 07/09/2001 **Document Number:** Not reported **Document Subject:** Not reported Project Manager: Unassigned

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

G18 HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION **US BROWNFIELDS** 1011855651 **FINDS** N/A

NNE **240 KEAWE STREET** 

1/8-1/4 HONOLULU, HI 96813

0.211 mi.

1112 ft. Site 1 of 3 in cluster G

**US BROWNFIELDS:** Relative:

Hawaii Department of Business, Economic Development, and Tourism Recipient name: Higher

Grant type:

Actual: HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION Property name:

3 ft. Tax Map Keys: 2-1-015: parcel 35, 44, and 43 Property #:

Parcel size:

Property Description: Former Kaka'ako Pump Station for sewage/wastewater disposal under the

> City and County of Honolulu / Bishop Estate, Territory of Hawaii, State of Hawaii. The property houses an historic sewage pump station

that will be preserved in the redevelopment process.

Direction Distance

Elevation Site Database(s) EPA ID Number

### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

**EDR ID Number** 

Latitude: 21.2975
Longitude: -157.8632
HCM label: Not reported
Map scale: Not reported
Point of reference: Not reported

Datum: World Geodetic System of 1984

ACRES property ID: 54561
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 4103.4

Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:

Not reported
Not reported
EPA

Cleanup funding entity: Not reported

Grant type: H

Accomplishment type: Phase I Environmental Assessment

Accomplishment count:

Cooperative agreement #: 96915601
Ownership entity: Government

Current owner: Hawaii Community Development Authority

Did owner change:

Cleanup required:

Video available:

Not reported

Photo available: No Institutional controls required: N

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported IC in place: State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Not reported Air cleaned: Asbestos found:

Asbestos cleaned:

Controled substance found:

Controled substance cleaned:

Drinking water affected:

Drinking water cleaned:

Drinking water cleaned:

Groundwater affected:

Not reported

Not reported

Y

Groundwater cleaned: Not reported

Lead contaminant found:

Lead cleaned up:

No media affected:

Unknown media affected:

Other cleaned up:

Not reported

Not reported

Not reported

Other metals found: Y

Other metals cleaned: Not reported

Map ID MAP FINDINGS
Direction

Distance Elevation S

Site Database(s) EPA ID Number

### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

**EDR ID Number** 

Other contaminants found: Not reported Other contams found description: Not reported

PAHs found: Y

PAHs cleaned up: Not reported

PCBs found:

PCBs cleaned up: Not reported

Petro products found:

Petro products cleaned:

Sediments found:

Y

Not reported

Not reported

Sediments found: Not reported Sediments cleaned: Not reported

Soil affected: Y

Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported VOCs cleaned: Not reported Cleanup other description: Not reported Not reported Num. of cleanup and re-dev. jobs: Past use greenspace acreage: Not reported Past use residential acreage: Not reported Past use commercial acreage: Not reported

Past use industrial acreage: 2.2 Future use greenspace acreage: Not reported Not reported Future use residential acreage: Future use commercial acreage: Not reported Future use industrial acreage: Not reported Not reported Greenspace acreage and type: Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported nickel cleaned up: Not reported Not reported No clean up: Pesticides cleaned up: Not reported Selenium cleaned up: Not reported SVOCs cleaned up: Not reported Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Not reported Iron contaminant found: Not reported Mercury contaminant found: Nickel contaminant found: Not reported Not reported No contaminant found:

Media affected Bluiding Material:

Media affected indoor air:

Not reported

Not reported

Not reported Not reported

Not reported

Not reported

Pesticides contaminant found:

Selenium contaminant found:

SVOCs contaminant found: Unknown contaminant found:

Future Use: Multistory

Direction Distance

Elevation Site Database(s) EPA ID Number

### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

**EDR ID Number** 

Past Use: Multistory Not reported

Recipient name: Hawaii Department of Business, Economic Development, and Tourism

Grant type: Assessment

Property name: HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION

Property #: Tax Map Keys: 2-1-015: parcel 35, 44, and 43

Parcel size: 2.2

Property Description: Former Kaka'ako Pump Station for sewage/wastewater disposal under the

City and County of Honolulu / Bishop Estate, Territory of Hawaii, State of Hawaii. The property houses an historic sewage pump station

that will be preserved in the redevelopment process.

Latitude: 21.2975
Longitude: -157.8632
HCM label: Not reported
Map scale: Not reported
Point of reference: Not reported

Datum: World Geodetic System of 1984

ACRES property ID: 54561
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 13243.45

Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:
Cleanup funding entity:

Not reported
Not reported
Not reported
Not reported
Not reported

Grant type:

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 0
Cooperative agreement #: 96915601
Ownership entity: Government

Current owner: Hawaii Community Development Authority

Did owner change: N
Cleanup required: Yes
Video available: Not r

Video available: Not reported Photo available: No

Photo available: No Institutional controls required: N

IC Category proprietary controls: Not reported Not reported IC cat. info. devices: Not reported IC cat. gov. controls: IC cat. enforcement permit tools: Not reported IC in place date: Not reported IC in place: Not reported State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Not reported Air cleaned:

Asbestos found:

Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported

Map ID MAP FINDINGS
Direction

Distance Elevation

Site Database(s) EPA ID Number

### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

**EDR ID Number** 

Drinking water affected: Not reported Drinking water cleaned: Not reported

Groundwater affected: Y

Groundwater cleaned: Not reported

Lead contaminant found:

Lead cleaned up: Not reported No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported

Other metals found: Y

Other metals cleaned: Not reported
Other contaminants found: Not reported
Other contams found description: Not reported

PAHs found: Y

PAHs cleaned up: Not reported

PCBs found: Y

PCBs cleaned up: Not reported

Petro products found: Y

Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported

Soil affected:

Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported VOCs cleaned: Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Past use residential acreage: Not reported Past use commercial acreage: Not reported

Past use industrial acreage: 2.2

Future use greenspace acreage: Not reported Future use residential acreage: Not reported Not reported Future use commercial acreage: Not reported Future use industrial acreage: Greenspace acreage and type: Not reported Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Cadmium cleaned up: Not reported Not reported Chromium cleaned up: Copper cleaned up: Not reported Iron cleaned up: Not reported Not reported mercury cleaned up: Not reported nickel cleaned up: No clean up: Not reported Pesticides cleaned up: Not reported Selenium cleaned up: Not reported SVOCs cleaned up: Not reported Not reported Unknown clean up: Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Not reported Copper contaminant found: Iron contaminant found: Not reported Mercury contaminant found: Not reported Nickel contaminant found: Not reported

Direction Distance Elevation

**EDR ID Number** Site Database(s) **EPA ID Number** 

#### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

No contaminant found: Not reported Not reported Pesticides contaminant found: Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Unknown contaminant found: Not reported Not reported Future Use: Multistory Not reported Media affected Bluiding Material: Media affected indoor air: Not reported Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Unknown media cleaned up: Not reported Not reported Past Use: Multistory

Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type:

Property name: HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION

Tax Map Keys: 2-1-015: parcel 35, 44, and 43 Property #:

Parcel size:

Property Description: Former Kaka'ako Pump Station for sewage/wastewater disposal under the

City and County of Honolulu / Bishop Estate, Territory of Hawaii, State of Hawaii. The property houses an historic sewage pump station

that will be preserved in the redevelopment process.

Latitude: 21.2975 Longitude: -157.8632 HCM label: Not reported Map scale: Not reported Point of reference: Not reported

Datum: World Geodetic System of 1984

ACRES property ID: 54561 Start date: Not reported Completed date: Not reported Acres cleaned up: Not reported Cleanup funding: Not reported Cleanup funding source: Not reported Assessment funding: 12000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding: Not reported Redev. funding source: Not reported Redev. funding entity name: Not reported Redevelopment start date: Not reported Assessment funding entity: Not reported Not reported Cleanup funding entity:

Grant type:

Accomplishment type: Phase I Environmental Assessment

Accomplishment count: Cooperative agreement #: n/a

Ownership entity: Government

Current owner: Hawaii Community Development Authority

Did owner change: Ν Cleanup required: Yes Video available: Not reported

Photo available: No Institutional controls required:

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported

Direction Distance Elevation

**EDR ID Number** Site Database(s) **EPA ID Number** 

#### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

IC in place date: Not reported IC in place: Not reported Not reported State/tribal program date: State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported Asbestos found:

Asbestos cleaned: Not reported Controled substance found: Not reported Not reported Controled substance cleaned: Drinking water affected: Not reported Drinking water cleaned: Not reported

Groundwater affected:

Groundwater cleaned: Not reported

Lead contaminant found:

Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported

Other metals found:

Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported PAHs found:

PAHs cleaned up: Not reported

PCBs found:

PCBs cleaned up: Not reported

Petro products found:

Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported

Soil affected:

Soil cleaned up: Not reported Surface water cleaned: Not reported Not reported VOCs found: VOCs cleaned: Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Not reported Past use residential acreage: Not reported Past use commercial acreage:

Past use industrial acreage: 2.2

Not reported Future use greenspace acreage: Not reported Future use residential acreage: Future use commercial acreage: Not reported Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Superfund Fed. landowner flag: Not reported Not reported Arsenic cleaned up: Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Not reported Iron cleaned up: mercury cleaned up: Not reported nickel cleaned up: Not reported No clean up: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### HISTORIC ALA MOANA (KAKA'AKO) PUMPING STATION (Continued)

1011855651

Pesticides cleaned up: Not reported Not reported Selenium cleaned up: Not reported SVOCs cleaned up: Not reported Unknown clean up: Arsenic contaminant found: Not reported Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Iron contaminant found: Mercury contaminant found: Not reported Not reported Nickel contaminant found: Not reported No contaminant found: Pesticides contaminant found: Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Not reported Unknown contaminant found: Not reported Not reported Future Use: Multistory Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Unknown media cleaned up: Not reported Not reported Past Use: Multistory

FINDS:

110038724477 Registry ID:

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)

is an federal online database for Brownfields Grantees to

electronically submit data directly to EPA.

**HI SHWS KAKAAKO PUMP STATION** S107022565 N/A

NNE 240 KEAWE ST HONOLULU, HI 96813 1/8-1/4

0.211 mi.

G19

1112 ft. Site 2 of 3 in cluster G

SHWS: Relative:

Organization: Not reported Higher

Supplemental Location: Ala Moana Blvd & Forrest St, Kakaako Area

Actual: Island: Oahu

3 ft. Environmental Interest: Kakaako Pump Station

> HID Number: Not reported Facility Registry Identifier: Not reported **HEER** Lead Agency: Program: State

Project Manager: Melody Calisay

Hazard Priority:

Potential Hazards And Controls: Hazard Present Organization: Not reported Island: Oahu

Supplemental Location Text: Ala Moana Blvd & Forrest St, Kakaako Area

SDAR Environmental Interest Name: Kakaako Pump Station

HID Number: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**KAKAAKO PUMP STATION (Continued)** 

S107022565

Facility Registry Identifier: Not reported **HEER** Lead Agency: Progran Name: State

Potential Hazard And Controls: Hazard Present

Priority: Low

Response Necessary Assessment: Response Ongoing Response:

Nature of Contamination: Found: Subsurface soil samples indicated elevated levels of TPH,

benzo(a)pyrene, As, Pb, and Cr above the DOH EAL.

Nature of Residual Contamination: Not reported

Controls Required to Manage Contamination Use Restrictions:

**Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported Site Closure Type: Not reported Document Date: Not reported **Document Number:** Not reported **Document Subject:** Not reported Melody Calisay Project Manager:

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**LOOK LAB** HI UST U001235905 F20

**HI Financial Assurance** SF **811 OLOMEHANI ST** N/A

1/8-1/4 HONOLULU, HI 96813

0.215 mi.

1133 ft. Site 4 of 4 in cluster F

UST: Relative:

Facility ID: 9-102414 Higher

Owner: STATE U.H. - HAWAII NATURAL ENERGY INSTITUTE

Actual: Owner Address: 2540 DOLE St / HOLMES HALL 240

3 ft. Owner City, St, Zip: Honolulu, 96813 96813

> Latitude: Not reported Longitude: Not reported Horizontal Reference Datum Nahoereported

Tank ID: R-1 Date Installed: 12/06/1989

Tank Status: **Permanently Out of Use** 

Date Closed: 05/18/1998 Tank Capacity: 8000 Substance: Gasohol

HI Financial Assurance:

Alt Facility ID: 9-102414 Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: State Fund **Expiration Date:** Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

G21 HONOLULU SEA WATER AIR CONDITIONING HI UST U004190453

N/A

NNE 245 KEAWE ST 1/8-1/4 HONOLULU, HI 96813

0.215 mi.

1136 ft. Site 3 of 3 in cluster G

UST: Relative:

Facility ID: 9-103917 Higher

Owner: Honolulu sea water air conditioning Actual: Owner Address: 1132 Bishop Street, Suite 1410 3 ft.

Owner City,St,Zip: Honolulu, 96813 96813

Latitude: Not reported Longitude: Not reported Horizontal Reference Datum Nahoereported

Tank ID: e-1

Date Installed: Not reported Tank Status: **Currently in Use** Date Closed: Not reported Tank Capacity: 5000 Substance: Diesel

22 **KAKA'AKO SITE: UNIT 8** US BROWNFIELDS 1012106997 BORDERED W BY AHUI ST, N BY KEWALO SHIPYARD, E BY KEWALO BAS **East FINDS** N/A

1/8-1/4 HONOLULU, HI 96813

0.227 mi. 1196 ft.

**US BROWNFIELDS:** Relative:

Recipient name: R9 TBA (STAG Funded) Higher

Grant type: TBA

Actual: KAKA'AKO SITE: UNIT 8 Property name: 3 ft. Property #: 2-1-58: 41, 82, 83, 84, 85, 86, 91

Parcel size:

Used as an ash and refuse storage and disposal facility between 1949 Property Description:

and 1955. Historic documentation indicates that the property is reclaimed land and likely composed of incinerator ash mixed with

coral and silty / clay fill material. Current activities on the property include a variety of fish brokering, processing, and sales.

21.2948 Latitude: -157.8605 Longitude:

Address Matching-Other HCM label:

Map scale: Not reported Point of reference: Other Point

Datum: World Geodetic System of 1984

27941 ACRES property ID: Start date: Not reported Completed date: Not reported Not reported Acres cleaned up: Cleanup funding: Not reported Cleanup funding source: Not reported Assessment funding: 35113

Assessment funding source: US EPA - TBA Funding

Not reported Redevelopment funding: Redev. funding source: Not reported Redev. funding entity name: Not reported Redevelopment start date: Not reported Assessment funding entity: Not reported Cleanup funding entity: Not reported

Grant type: Н Map ID MAP FINDINGS Direction

Distance Elevation Site Database(s)

KAKA'AKO SITE: UNIT 8 (Continued)

1012106997

**EDR ID Number** 

**EPA ID Number** 

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: Cooperative agreement #: n/a

Ownership entity: Government

Current owner: Hawaii Community Development Authority

Did owner change: Cleanup required: Unknown Video available: Not reported Photo available: Not reported

Institutional controls required:

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported IC in place: Unknown Not reported State/tribal program date: State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Not reported Air cleaned: Asbestos found: Not reported Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported Not reported Drinking water affected: Drinking water cleaned: Not reported

Groundwater affected: Υ Groundwater cleaned: Υ

Not reported Lead contaminant found: Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported Not reported Other metals found: Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported PAHs found: Not reported PAHs cleaned up: Not reported PCBs found: Not reported Not reported PCBs cleaned up: Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported Soil affected: Υ

Soil cleaned up:

Surface water cleaned: Not reported Not reported VOCs found: VOCs cleaned: Not reported Cleanup other description: Not reported Not reported Num. of cleanup and re-dev. jobs: Past use greenspace acreage: Not reported Past use residential acreage: Not reported Past use commercial acreage: Not reported Past use industrial acreage: Not reported

Distance EDR ID Number
Elevation Site EDR ID Number
Database(s) EPA ID Number

KAKA'AKO SITE: UNIT 8 (Continued)

1012106997

Future use greenspace acreage: Not reported Not reported Future use residential acreage: Not reported Future use commercial acreage: Not reported Future use industrial acreage: Greenspace acreage and type: Not reported Not reported Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Cadmium cleaned up: Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported Not reported nickel cleaned up: Not reported No clean up: Pesticides cleaned up: Not reported Selenium cleaned up: Not reported Not reported SVOCs cleaned up: Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Not reported Iron contaminant found: Mercury contaminant found: Not reported Not reported Nickel contaminant found: Not reported No contaminant found: Pesticides contaminant found: Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Not reported Not reported Unknown contaminant found: Future Use: Multistory Not reported Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Not reported Indoor air media cleaned up: Unknown media cleaned up: Not reported Not reported Past Use: Multistory

# FINDS:

Registry ID: 110038751687

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to

electronically submit data directly to EPA.

Direction Distance

Actual:

3 ft.

**EDR ID Number** Elevation Site **EPA ID Number** Database(s)

H23 HONOLULU FORD INC. RCRA-CESQG 1000334046 NE 711 ALA MOANA BLVD FINDS HID981652043

1/8-1/4 HONOLULU, HI 96813 0.237 mi.

1249 ft. Site 1 of 3 in cluster H HI Financial Assurance

RCRA-CESQG: Relative:

Higher Date form received by agency: 09/09/1986

> Facility name: HONOLULU FORD Facility address: 711 ALA MOANA BLVD

HONOLULU, HI 96813

EPA ID: HID981652043 Mailing address: ALA MOANA BLVD

HONOLULU, HI 96813

Contact: **GARY GIBO** 

Contact address: 711 ALA MOANA BLVD

HONOLULU, HI 96813

Contact country: US

Contact telephone: (808) 523-8200 Contact email: Not reported

EPA Region:

Land type: Facility is not located on Indian land. Additional information is not known.

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar

> month, and accumulates 1000 kg or less of hazardous waste at any time: or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from

the cleanup of a spill, into or on any land or water, of acutely

hazardous waste

Owner/Operator Summary:

Owner/operator name: JAMES S MARKEY Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212 Legal status: Private

Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

**NOT REQUIRED** Owner/operator name: Owner/operator address: **NOT REQUIRED** 

NOT REQUIRED, ME 99999

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212

Legal status: Private Owner/Operator Type: Operator

Owner/Op start date: Not reported Owner/Op end date: Not reported **HI LUST** 

HI UST

Direction Distance Elevation

Site Database(s) EPA ID Number

## **HONOLULU FORD INC. (Continued)**

1000334046

**EDR ID Number** 

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: Nο Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 04/04/1996

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:
Date achieved compliance:
Evaluation lead agency:
Not reported
State

FINDS:

Registry ID: 110005724573

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

STATE MASTER

LUST:

Facility ID: 9-100937

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 08/22/2006 Release ID: 050036 Project Officer: Shaobin Li

Direction Distance

Elevation Site Database(s) EPA ID Number

## **HONOLULU FORD INC. (Continued)**

1000334046

**EDR ID Number** 

UST:

Facility ID: 9-100937

Owner: HONOLULU FORD INC.
Owner Address: 711 ALA MOANA BLVD
Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2966 Longitude: -157.862 Horizontal Reference Datum N&A&B&3

Tank ID: R-01 Date Installed: 05/28/1962

Tank Status: Permanently Out of Use

Date Closed: 10/10/1988
Tank Capacity: 500
Substance: Used Oil

Tank ID: R-02 Date Installed: 05/28/1962

Tank Status: Permanently Out of Use

Date Closed: 10/10/1988
Tank Capacity: 500
Substance: Used Oil

Tank ID: R-3
Date Installed: 10/28/1988

Tank Status: Permanently Out of Use

Date Closed: 06/29/2005
Tank Capacity: 2500
Substance: Used Oil

HI Financial Assurance:

Alt Facility ID: 9-100937 Tank Id: R-01

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-100937 Tank Id: 8-02

Tank Status: Permanently Out of Use

FRTYPE: Insurance Expiration Date: Not reported

Alt Facility ID: 9-100937
Tank Id: R-02

Tank Status: Permanently Out of Use

FRTYPE: Other

Expiration Date: Not reported

Alt Facility ID: 9-100937
Tank Id: 8-3

Tank Status: Permanently Out of Use

FRTYPE: Insurance Expiration Date: Not reported

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

**HONOLULU FORD INC. (Continued)** 

1000334046

N/A

**HI UST** 

Alt Facility ID: 9-100937
Tank Id: R-3

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-100937
Tank Id: R-01

Tank Status: Permanently Out of Use

FRTYPE: Insurance Expiration Date: Not reported

H24 EDR US Hist Auto Stat 1015607786

NE 704 ALA MOANA BLVD 1/8-1/4 HONOLULU, HI 96813

0.249 mi.

1317 ft. Site 2 of 3 in cluster H

Relative: EDR Historical Auto Stations:

Higher Name: JARDINE HAWAII MOTOR HOLDINGS

Year: 2005

Actual: Address: 704 ALA MOANA BLVD

3 ft.

Name: JARDINE HAWAII MOTOR HOLDINGS

Year: 2009

Address: 704 ALA MOANA BLVD

\_\_\_\_

 H25
 THEO DAVIES EUROMOTORS
 RCRA NonGen / NLR
 1000324981

 NE
 704 ALA MOANA BLVD
 HI LUST
 HID981674476

1/8-1/4 HONOLULU, HI 96813 0.249 mi.

1317 ft. Site 3 of 3 in cluster H

Relative: RCRA NonGen / NLR:
Higher Date form received by agency: 12/30/1996

Facility name: THEO DAVIES EUROMOTORS

Actual: Facility address: 704 ALA MOANA BLVD 10 ft.

BPA ID: HID981674476

Mailing address: ALA MOANA BLVD

Mailing address: ALA MOANA BLVD HONOLULU, HI 96813

Contact: Not reported Contact address: Not reported

Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported

EPA Region: 09

Land type: Facility is not located on Indian land. Additional information is not known.

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: THEO DAVIES
Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Direction Distance

Elevation Site Database(s) EPA ID Number

## THEO DAVIES EUROMOTORS (Continued)

1000324981

**EDR ID Number** 

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

#### Handler Activities Summary:

U.S. importer of hazardous waste: Mixed waste (haz. and radioactive): No Recycler of hazardous waste: Nο Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 11/19/1996

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

Not reported

State

LUST:

Facility ID: 9-101329

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 03/04/1999
Release ID: 920169
Project Officer: Jeffrey Ung

UST:

Facility ID: 9-101329

Owner: THEO H. DAVIES EUROMOTORS, LTD.

Owner Address: 704 ALA MOANA BLVD Owner City,St,Zip: Honolulu, 96813 96813

Latitude: 21.2973

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

THEO DAVIES EUROMOTORS (Continued)

Longitude:

-157.861

Horizontal Reference Datum NahAe 83

Tank ID: Date Installed:

03/28/1981

**Permanently Out of Use** Tank Status: Date Closed: 05/16/1992

2000 Tank Capacity: Substance: Diesel

Tank ID: R-2

03/28/1976 Date Installed:

**Tank Status: Permanently Out of Use** 

Date Closed: 05/23/1992 Tank Capacity: 2000 Substance: Gasoline

Tank ID: R-3

Date Installed: 03/28/1981

Tank Status: **Permanently Out of Use** 

Date Closed: 05/24/1992 Tank Capacity: 500 Used Oil Substance:

**PFLUEGER ACURA** 126 **ENE** 777 ALA MOANA BLVD 1/4-1/2 HONOLULU, HI 96814

0.261 mi.

1377 ft. Site 1 of 2 in cluster I

LUST: Relative:

Facility ID: 9-103885 Higher

Facility Status: **LUST Cleanup Initiated** Actual:

Facility Status Date: 07/14/2010 3 ft. Release ID: 100018

Project Officer: Shunsheng Fu

Facility ID: 9-103885

Facility Status: Case Transferred to HEER (regulated)

Facility Status Date: 07/14/2012 Release ID: 100010 Project Officer: Shunsheng Fu

UST:

Facility ID: 9-103885

Owner: KamehaMEHA Schools

567 South King Street, Suite 200 Owner Address:

Owner City,St,Zip: Honolulu, 96814 96814

21.2961 Latitude: Longitude: -157.86 Horizontal Reference Datum N&AAD83

Tank ID:

Date Installed: Not reported

Tank Status: Permanently out of Use 1000324981

HI LUST

HI UST

**HI SPILLS** 

U004175703

N/A

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

PFLUEGER ACURA (Continued)

U004175703

Date Closed: 12/21/2009 Tank Capacity: 1000 Substance: Used Oil

Tank ID: r-2

04/01/1978 Date Installed:

Tank Status: Permanently out of Use

Date Closed: 12/21/2009 Tank Capacity: 1500 Substance: Gasoline

Tank ID: r-3

Date Installed: 04/01/1978

Tank Status: Permanently out of Use

Date Closed: 04/28/2010 Tank Capacity: 1500 Substance: Gasoline

HI SPILLS:

Island: Oahu

Supplemental Loc. Text: Pflueger Company 20091221-1600 Case Number: Not reported HID Number: Facility Registry Id: Not reported Lead and Program: HEER EP&R

ER: None

Units: Pflueger Company oil-water separator release

Substances: Oil Less Or Greater Than: Not reported

**Numerical Quantity:** 0 Units: Unknown

Activity Type: Response Activity Lead: Liz Galvez Assignment End Date: 2009-12-22 00:00:00

Result: Refer to SDAR

File Under: Pflueger Auto Group, LLC

J27 **KAKAAKO MAKAI DISTRICT PARKING GARAGE-UNIT 1AND 3** 

SE AHUI ST, OHE ST, ILALO ST & OLOMEHANI ST

1/4-1/2 HONOLULU, HI 96813 0.262 mi.

1382 ft. Site 1 of 3 in cluster J

SHWS:

Relative: Higher Organization: Not reported Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. **Environmental Interest:** Kakaako Makai District Parking Garage-Unit 1and 3

> HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: **HEER** Program: State

Project Manager: Melody Calisay Hazard Priority: Medium

Potential Hazards And Controls: Hazard Managed With Controls S108859949

N/A

**HI SHWS** 

**HI ENG CONTROLS** 

**HI INST CONTROL** 

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### KAKAAKO MAKAI DISTRICT PARKING GARAGE-UNIT 1AND 3 (Continued)

S108859949

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Kakaako Makai District Parking Garage-Unit 1and 3

HID Number: Not reported Facility Registry Identifier: Not reported HEER Lead Agency: Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: Medium

Response Necessary Assessment: Response Complete Response: Found: Lead in soil Nature of Contamination: Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: **Engineering Control Required** 

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping

System

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported Site Closure Type: Not reported **Document Date:** Not reported **Document Number:** Not reported **Document Subject:** Not reported Project Manager: Melody Calisay

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

**INST CONTROL:** 

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

128 **FULLER O'BRIEN PAINT** HI LUST U001236007

**ENE** 770 ALA MOANA BLVD 1/4-1/2 HONOLULU, HI 96813 0.262 mi.

1383 ft. Site 2 of 2 in cluster I

LUST: Relative:

Facility ID: 9-102671 Higher

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 09/23/1993 3 ft. Release ID: 930135 Project Officer: Shunsheng Fu

> Facility ID: 9-102671

Facility Status: Site Assessment Ongoing

Facility Status Date: 09/20/2007 N/A

**HI UST** 

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**FULLER O'BRIEN PAINT (Continued)** 

U001236007

Release ID: 020015 Project Officer: Shunsheng Fu

UST:

Facility ID: 9-102671

Owner: KamehaMEHA Schools

Owner Address: 567 South King Street, Suite 200

Owner City,St,Zip: Honolulu, 96813 96813

Latitude: 21.2961 Longitude: -157.86 Horizontal Reference Datum N&A@83

Tank ID: R-1

Date Installed: 12/30/1965

Tank Status: **Permanently Out of Use** 

Date Closed: 12/01/1985 Tank Capacity: 1000 Substance: Gasoline

Tank ID: R-2

Date Installed: 12/30/1965

Tank Status: **Permanently Out of Use** 

12/01/1985 Date Closed: Tank Capacity: 1000 Substance: Other

Tank ID: R-3

Date Installed: Not reported

Tank Status: **Permanently Out of Use** 

Date Closed: 02/17/1994 Tank Capacity: 1000 Substance: Unknown

**US BROWNFIELDS** 29 KAKA'AKO MAKAI PARCEL I 1016440031 North **FORREST AVENUE FINDS** N/A

1/4-1/2 0.263 mi. 1387 ft.

**US BROWNFIELDS:** Relative:

HONOLULU, HI 96814

R9 TBA (STAG Funded) Recipient name: Higher

Grant type: TBA

Actual: Property name: KAKA'AKO MAKAI PARCEL I 3 ft.

Property #: 2-1-015:061

Parcel size: 3.26

Property Description: 1897-1950 part of Fort Armstrong; 1950-1979 warehouse and housed

large above-ground storage tanks; and 1979-present temporary vehicle

storage, vacant, and leased out.

21.2983 Latitude: -157.8636 Longitude: HCM label: Interpolation-Map Map scale: Not reported

Point of reference: Center of a Facility or Station Datum: World Geodetic System of 1984

ACRES property ID: 164401

Direction Distance Elevation

vation Site Database(s) EPA ID Number

#### KAKA'AKO MAKAI PARCEL I (Continued)

1016440031

**EDR ID Number** 

Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 55000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:
Cleanup funding entity:

Not reported
Peach
Not reported
Not reported
Not reported
Not reported

Grant type: N/A

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 1
Cooperative agreement #: n/a

Ownership entity: Government

Current owner: Office of Hawaiian Affairs

Did owner change:

Cleanup required:

Video available:

Photo available:

Institutional controls required:

U

No

Yes

U

U

IC Category proprietary controls:
IC cat. info. devices:
IC cat. gov. controls:
IC cat. enforcement permit tools:
IC in place date:

Not reported
Not reported
Not reported
Not reported

IC in place: No

State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Not reported Air cleaned: Not reported Asbestos found: Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported Drinking water affected: Not reported Not reported Drinking water cleaned: Not reported Groundwater affected: Groundwater cleaned: Not reported Not reported Lead contaminant found: Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported Other metals found: Not reported Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported Not reported PAHs found: PAHs cleaned up: Not reported PCBs found: Not reported PCBs cleaned up: Not reported Petro products found: Not reported

Direction Distance Elevation

Site Database(s) EPA ID Number

## KAKA'AKO MAKAI PARCEL I (Continued)

1016440031

**EDR ID Number** 

Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported Soil affected: Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported Not reported VOCs cleaned: Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Not reported Past use greenspace acreage: Past use residential acreage: Not reported Past use commercial acreage: Not reported Past use industrial acreage: 3.26 Future use greenspace acreage: Not reported Future use residential acreage: Not reported Not reported Future use commercial acreage: Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported nickel cleaned up: Not reported No clean up: Not reported Pesticides cleaned up: Not reported Not reported Selenium cleaned up: SVOCs cleaned up: Not reported Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Not reported Chromium contaminant found: Not reported Copper contaminant found: Iron contaminant found: Not reported Mercury contaminant found: Not reported Nickel contaminant found: Not reported No contaminant found: Not reported Not reported Pesticides contaminant found: Not reported Selenium contaminant found: SVOCs contaminant found: Not reported Not reported Unknown contaminant found: Not reported Future Use: Multistory Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Unknown media cleaned up: Not reported

#### FINDS:

Past Use: Multistory

Registry ID: 110055950591

Not reported

Environmental Interest/Information System

Direction Distance

Elevation Site Database(s) EPA ID Number

## KAKA'AKO MAKAI PARCEL I (Continued)

1016440031

**EDR ID Number** 

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

\_\_\_\_\_

J30 GRG ENTERPRISE INC. BASIN MARINE HI LUST U001235099
ESE 115 AHUI ST HI UST N/A

1/4-1/2 HONOLULU, HI 96813

0.264 mi.

1396 ft. Site 2 of 3 in cluster J

Relative: LUST:

Higher Facility ID: 9-100212

Facility Status: Site Cleanup Completed (NFA)

Actual: Sacility Status Date: 08/04/2003

 Actual:
 Facility Status Date:
 08/04/2003

 3 ft.
 Release ID:
 990034

Project Officer: Richard Takaba

UST:

Facility ID: 9-100212

Owner: GRG ENTERPRISE INC. BASIN MARINE

Owner Address: 115 AHUI ST

Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2925 Longitude: -157.86 Horizontal Reference Datum Naha@83

Tank ID: R-1

Date Installed: 02/27/1979

Tank Status: Permanently Out of Use

Date Closed: 10/22/1998
Tank Capacity: 1000
Substance: Gasoline

Tank ID: R-2 Date Installed: 02/27/1979

Tank Status: Permanently Out of Use

Date Closed: 10/22/1998
Tank Capacity: 1000
Substance: Gasoline

Tank ID: R-3

Date Installed: 02/27/1959

Tank Status: Permanently Out of Use

Date Closed: 10/22/1998
Tank Capacity: 6000
Substance: Diesel

Tank ID: R-4
Date Installed: 02/27/1959

Tank Status: Permanently Out of Use

Date Closed: 10/22/1998
Tank Capacity: 6000
Substance: Diesel

Direction Distance

Elevation Site Database(s) EPA ID Number

31 KAKA'AKO SITE: UNIT 7 US BROWNFIELDS 1012106823

ESE 123 AHUI ST ICIS N/A 1/4-1/2 HONOLULU, HI 96813 FINDS

1/4-1/2 0.266 mi.

1403 ft.

Relative: US BROWNFIELDS:

Higher Recipient name: R9 TBA (STAG Funded)

Grant type: TBA

Actual: Property name: KAKA'AKO SITE: UNIT 7
3 ft. Property #: 21.058:003, 21.058:007

Property #: 2-1-058:002, 2-1-058:047, 2-1-048:107

Parcel size:

Property Description: Has been an operating shipyard and ship repair facility since the

1950s. The property is fenced, contains numerious structures and is partially paved. Some of the property is used as a storage yard and

covered with various equipment and materials.

Latitude: 21.29278 Longitude: -157.85972

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: World Geodetic System of 1984

ACRES property ID: 27921

Start date:

Completed date:

Acres cleaned up:

Cleanup funding:

Cleanup funding source:

Assessment funding:

Not reported

Not reported

Not reported

Not reported

35113

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:
Cleanup funding entity:
Not reported
Not reported
Not reported
Not reported
Not reported

Grant type: H

Accomplishment type: Phase II Environmental Assessment

Not reported

Accomplishment count: 1
Cooperative agreement #: n/a

Ownership entity: Not reported Current owner: Not reported

Current owner: Not repo Did owner change: N

Cleanup required:
Video available:
Photo available:

Unknown
Not reported
Not reported

Institutional controls required: U

Asbestos found:

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported IC in place: Unknown State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported **EDR ID Number** 

Map ID MAP FINDINGS
Direction

Distance Elevation

Site Database(s) EPA ID Number

## KAKA'AKO SITE: UNIT 7 (Continued)

1012106823

**EDR ID Number** 

Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported Drinking water affected: Not reported Drinking water cleaned: Not reported Groundwater affected: Not reported Groundwater cleaned: Not reported Lead contaminant found: Not reported Lead cleaned up: Not reported No media affected: Not reported Not reported Unknown media affected: Other cleaned up:

Other metals found: Not reported Other metals cleaned: Not reported

Other contaminants found: Other contams found description: arsenic PAHs found: Not reported PAHs cleaned up: Not reported PCBs found: Not reported PCBs cleaned up: Not reported Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported Soil affected: Not reported Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported VOCs cleaned: Not reported

PCP Cleanup other description: Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Past use residential acreage: Not reported Past use commercial acreage: Not reported Not reported Past use industrial acreage: Future use greenspace acreage: Not reported Future use residential acreage: Not reported Future use commercial acreage: Not reported Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Not reported Superfund Fed. landowner flag: Arsenic cleaned up: Not reported Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Not reported Copper cleaned up: Iron cleaned up: Not reported

Selenium cleaned up:

SVOCs cleaned up:

Unknown clean up:

Arsenic contaminant found:

Cadmium contaminant found:

Chromium contaminant found:

Copper contaminant found:

Not reported

Not reported Not reported

mercury cleaned up:

Pesticides cleaned up:

nickel cleaned up:

No clean up:

Direction Distance

Elevation Site Database(s) EPA ID Number

KAKA'AKO SITE: UNIT 7 (Continued)

1012106823

**EDR ID Number** 

Iron contaminant found: Not reported Not reported Mercury contaminant found: Nickel contaminant found: Not reported No contaminant found: Not reported Pesticides contaminant found: Not reported Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Unknown contaminant found: Not reported Future Use: Multistory Not reported Media affected Bluiding Material: Not reported Not reported Media affected indoor air: Building material media cleaned up: Not reported Not reported Indoor air media cleaned up: Unknown media cleaned up: Not reported Past Use: Multistory Not reported

ICIS:

Enforcement Action ID: 09-2010-1574
FRS ID: 110005728935
Program ID: FRS 110005728935

Action Name: HONOLULU MARINE, LLC ADMINISTRATIVE COMPLAINT

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HOME DEPOT, DOLE LOCATION

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309G2B AO For Class II Penalties

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2010-1574
FRS ID: 110005728935
Program ID: HI-EHW 4527

Action Name: HONOLULU MARINE, LLC ADMINISTRATIVE COMPLAINT

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HOME DEPOT, DOLE LOCATION

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309G2B AO For Class II Penalties

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2010-1574 FRS ID: 110005728935

Program ID: RCRAINFO HID984469965

Action Name: HONOLULU MARINE, LLC ADMINISTRATIVE COMPLAINT

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HONOLULU MARINE INC

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309G2B AO For Class II Penalties

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2010-1574

Direction Distance

Elevation Site Database(s) EPA ID Number

## KAKA'AKO SITE: UNIT 7 (Continued)

1012106823

**EDR ID Number** 

FRS ID: 110005728935 Program ID: HI-EHW 4675

Action Name: HONOLULU MARINE, LLC ADMINISTRATIVE COMPLAINT

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HPC FOODS, LTD Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309G2B AO For Class II Penalties

Facility County: HONOLULU

EPA Region #: 9

 Enforcement Action ID:
 09-2009-1548

 FRS ID:
 110005728935

 Program ID:
 FRS 110005728935

 Action Name:
 HONOLULU MARINE, LLC

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HOME DEPOT, DOLE LOCATION

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309A AO For Compliance

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2009-1548
FRS ID: 110005728935
Program ID: HI-EHW 4527

Action Name: HONOLULU MARINE, LLC

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HOME DEPOT, DOLE LOCATION

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309A AO For Compliance

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2009-1548 FRS ID: 110005728935

Program ID: RCRAINFO HID984469965
Action Name: HONOLULU MARINE, LLC

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Facility Name: HONOLULU MARINE INC

Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309A AO For Compliance

Facility County: HONOLULU

EPA Region #: 9

Enforcement Action ID: 09-2009-1548
FRS ID: 110005728935
Program ID: HI-EHW 4675

Action Name: HONOLULU MARINE, LLC

Full Address: 123 AHUI ST HONOLULU HI 96813

State: Hawaii

Direction Distance

Elevation Site Database(s) EPA ID Number

# KAKA'AKO SITE: UNIT 7 (Continued)

1012106823

**EDR ID Number** 

Facility Name: HPC FOODS, LTD Facility Address: 123 AHUI ST

HONOLULU, HI 96813

Enforcement Action Type: CWA 309A AO For Compliance

Facility County: HONOLULU

EPA Region #: 9

Program ID: FRS 110005728935

Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: HI-EHW 4527

Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: HI-EHW 4675

Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: RCRAINFO HID984469965 Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: FRS 110005728935

Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: HI-EHW 4527

Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: N Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: HI-EHW 4675

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

KAKA'AKO SITE: UNIT 7 (Continued)

1012106823

HOME DEPOT, DOLE LOCATION Facility Name:

Address: 123 AHUI ST

Tribal Indicator: Ν Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

Program ID: RCRAINFO HID984469965 Facility Name: HOME DEPOT, DOLE LOCATION

Address: 123 AHUI ST

Tribal Indicator: Ν Fed Facility: No

NAIC Code: Not reported SIC Code: Not reported

FINDS:

Registry ID: 110038751678

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)

is an federal online database for Brownfields Grantees to

electronically submit data directly to EPA.

J32 **KAKAAKO BROWNFIELD PROJECT - UNIT 8 HI SHWS** S108008547 **HI ENG CONTROLS** SE 59 AHUI ST N/A

HONOLULU, HI 96814 1/4-1/2

0.266 mi.

1407 ft. Site 3 of 3 in cluster J

SHWS: Relative:

Not reported Organization: Higher Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. **Environmental Interest:** Kakaako Brownfield Project-Unit 8

> HID Number: Not reported 110013787688 Facility Registry Identifier: **HEER** Lead Agency: Program: State

Project Manager: Melody Calisay

Hazard Priority: High

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Kakaako Brownfield Project-Unit 8

HID Number: Not reported 110013787688 Facility Registry Identifier: Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: High

Response Necessary Assessment: Response: Response Ongoing

Nature of Contamination: Found: Laboratory analytical results of soil samples collected from

the site indicated elevated levels of Pb, As, and PAH's above DOH Tier

HI INST CONTROL

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## KAKAAKO BROWNFIELD PROJECT - UNIT 8 (Continued)

S108008547

I EAL in soil.

Nature of Residual Contamination: Not reported

Controls Required to Manage Contamination Use Restrictions:

**Engineering Control: Engineering Control Required** 

Description of Restrictions: Zoned - Industrial

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Not reported Within Designated Areawide Contamination: Site Closure Type: Not reported Document Date: Not reported Document Number: Not reported Not reported **Document Subject:** Project Manager: Melody Calisay

(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814 Contact Information:

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

33 **CUTTER MOTOR CARS, INC** HI LUST U001235288 **ENE 800 ALA MOANA BLVD HI UST** N/A 1/4-1/2 HONOLULU, HI 96813 **HI Financial Assurance** 

0.282 mi. 1491 ft.

LUST: Relative:

Higher Facility ID: 9-100911

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 02/12/1998 3 ft. Release ID: 900080

Project Officer: Jose Ruiz

UST:

Facility ID: 9-100911

Owner: **CUTTER MOTOR CARS, LTD** Owner Address: 800 ALA MOANA BLVd Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2965 Longitude: -157.859 Horizontal Reference Datum N&A@83

Tank ID:

Date Installed: 06/19/1990 Tank Status: **Currently in Use** Date Closed: Not reported Tank Capacity: 550 Used Oil Substance:

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **CUTTER MOTOR CARS, INC (Continued)**

U001235288

Tank ID: R-25 Date Installed: 05/05/1965

Tank Status: **Permanently Out of Use** 

Date Closed: 05/30/1990 Tank Capacity: 4000 Substance: Gasoline

Tank ID: R-26 Date Installed: 05/05/1966

**Tank Status: Permanently Out of Use** 

Date Closed: 05/30/1990 Tank Capacity: 500 Substance: Used Oil

Tank ID: R-27 Date Installed: 05/05/1960

**Permanently Out of Use** Tank Status:

05/30/1990 Date Closed: Tank Capacity: 1000 Substance: Gasoline

HI Financial Assurance:

Alt Facility ID: 9-100911 Tank Id: R-25

Tank Status: Permanently Out of Use

FRTYPE: Insurance **Expiration Date:** 02/01/2014

Alt Facility ID: 9-100911 Tank Id: R-26

Permanently Out of Use Tank Status:

FRTYPE: Insurance Expiration Date: 02/01/2014

Alt Facility ID: 9-100911 Tank Id: R-27

Tank Status: Permanently Out of Use

FRTYPE: Insurance **Expiration Date:** 02/01/2014

Alt Facility ID: 9-100911 Tank Id: 26

Tank Status: Currently in Use FRTYPE: Insurance **Expiration Date:** 02/01/2014

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

34 ARA SERVICES INC. HI LUST U001237389 NE 746 AUAHI ST HI UST N/A

1/4-1/2 HONOLULU, HI 96800

0.329 mi. 1738 ft.

LUST: Relative:

Facility ID: 9-102521 Higher

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 08/24/1994 3 ft. Release ID: 920084 Project Officer: Eric Sadoyama

UST:

9-102521 Facility ID:

Owner: JOHN L. WADE JR.

C/O CADES, SCHUTTE, FLEMING AND WRIGHT1000 BISHOP ST Owner Address:

Owner City, St, Zip: Honolulu, 96800 96800

Latitude: 21.2972 Longitude: -157.86 Horizontal Reference Datum N&A@83

Tank ID: R-1

Date Installed: 12/30/1989

Tank Status: **Permanently Out of Use** 

02/22/1992 Date Closed: Tank Capacity: Not reported Substance: Gasoline

Tank ID: R-2

12/30/1974 Date Installed:

Tank Status: **Permanently Out of Use** 

Date Closed: 02/22/1992 Tank Capacity: Not reported Substance: Gasoline

Tank ID: R-3 Date Installed: 12/30/1974

Tank Status: **Permanently Out of Use** 

02/22/1992 Date Closed: Tank Capacity: Not reported Substance: Gasoline

**UNDERGROUND HOISTS HI SHWS** 1006819562 744 ALA MOANA BLVD **HI SPILLS** N/A **HI INST CONTROL** 

HONOLULU, HI 96813 1/4-1/2

0.331 mi.

K35

**ENE** 

Site 1 of 2 in cluster K 1747 ft.

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Not reported Actual:

Island: Oahu 3 ft.

**Environmental Interest:** Bishop Estate - Underground Hoists Removal

> HID Number: Not reported 110013773844 Facility Registry Identifier:

Lead Agency: **HEER** 

Direction Distance

Elevation Site Database(s) EPA ID Number

#### **UNDERGROUND HOISTS (Continued)**

1006819562

**EDR ID Number** 

Program: State

Project Manager: Clarence Callahan

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu
Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Bishop Estate - Underground Hoists Removal

HID Number: Not reported Facility Registry Identifier: 110013773844 Lead Agency: HEER

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Not reported

Nature of Contamination:

Not reported
Nature of Residual Contamination:

Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Not reported

Description of Restrictions: Limit Further Land Use

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 06/30/2003
Document Number: 2003-179-CAC

Document Subject: NFA Letter for Hoist Removal, etc 744 Ala Moana Blvd, Honolulu HI

Project Manager: Clarence Callahan

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

## HI SPILLS:

Island: Oahu

Supplemental Loc. Text: Not reported
Case Number: 20021113-1500
HID Number: Not reported
Facility Registry Id: 110013773844
Lead and Program: HEER EP&R

ER: No

Units: Underground Hoists Removal

Substances: Hydraulic Oil
Less Or Greater Than: Not reported
Numerical Quantity: 25
Units: Gallons
Activity Type: Response
Activity Lead: Liz Galvez
Assignment End Date: Not reported
Result: Refer to ISST

File Under: Kamehameha Schools

#### INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Direction Distance

Elevation Site Database(s) EPA ID Number

K36 FORMER SHELLY MOTORS AUTO SALES HI LUST U001235757
ENE 744 ALA MOANA BLVD HI UST N/A

ENE 744 ALA MOANA BLVD 1/4-1/2 HONOLULU, HI 96814

0.331 mi.

1747 ft. Site 2 of 2 in cluster K

Relative: LUST:

Higher Facility ID: 9-102163

Facility Status: Site Cleanup Completed (NFA)

 Actual:
 Facility Status Date:
 08/11/1993

 3 ft.
 Release ID:
 890036

 Project Officer:
 Eric Sadoyama

UST:

Facility ID: 9-102163

Owner: SHELLY MOTORS, INC
Owner Address: 900 ALA MOANA BLVD
Owner City, St, Zip: Honolulu, 96814 96814

Latitude: 21.2966 Longitude: -157.861 Horizontal Reference Datum N&A&B83

Tank ID: R-1

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: 05/04/1989
Tank Capacity: 550
Substance: Used Oil

Tank ID: R-2

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: 05/04/1989
Tank Capacity: 1000
Substance: Gasoline

37 NEW CITY NISSAN RCRA-CESQG 1000252026 ENE 900 ALA MOANA BLVD FINDS HID981983844

1/4-1/2 HONOLULU, HI 96814 HI LUST 0.332 mi. HI Financial Assurance

Relative: RCRA-CESQG:

Higher Date form received by agency: 09/08/1992
Facility name: NEW CITY NISSAN

Actual: Facility address: 900 ALA MOANA BLVD HONOLULU, HI 96814

EPA ID: HID981983844
Contact: RANDAL TACHINO

Contact address: 900 ALA MOANA BLVD HONOLULU, HI 96814

Contact country: US

Contact telephone: (808) 524-2111
Contact email: Not reported

EPA Region: 09 Land type: Private

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar

**EDR ID Number** 

Direction Distance Elevation

Site Database(s) EPA ID Number

## **NEW CITY NISSAN (Continued)**

1000252026

**EDR ID Number** 

month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country:
Owner/operator telephone:
Legal status:
Owner/Operator Type:
Owner/Op start date:
Owner/Op end date:
Not reported
Not reported
Not reported

Owner/operator name: NEW CITY NISSAN
Owner/operator address: 900 ALA MOANA BLVD

HONOLULU, HI 96814 Not reported

Owner/operator telephone: (808) 524-2111
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

# Handler Activities Summary:

Owner/operator country:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: Nο Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 04/04/1996

Direction Distance

Elevation Site Database(s) EPA ID Number

**NEW CITY NISSAN (Continued)** 

1000252026

**EDR ID Number** 

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

Not reported

State

FINDS:

Registry ID: 110005725885

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

corrective action activities required under RCRA.

STATE MASTER

Registry ID: 110046217385

Environmental Interest/Information System

STATE MASTER

LUST:

Facility ID: 9-100929

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 08/01/1994
Release ID: 920004
Project Officer: Eric Sadoyama

UST:

Facility ID: 9-100929

Owner: PACIFIC OLDSMOBILE-GMC
Owner Address: 900 ALA MOANA BLVD
Owner City,St,Zip: Honolulu, 96814 96814

Latitude: 21.2957 Longitude: -157.859 Horizontal Reference Datum Na/AD83

Tank ID: R-1

Date Installed: 03/24/1985

Tank Status: Permanently Out of Use

Date Closed: 10/18/1991 Tank Capacity: 4000 Substance: Gasoline

Tank ID: R-2 Date Installed: 03/24/1985

Tank Status: Permanently Out of Use

Date Closed: 10/10/1991
Tank Capacity: 2000
Substance: Used Oil

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

**NEW CITY NISSAN (Continued)** 

1000252026

HI Financial Assurance:

Alt Facility ID: 9-100929
Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100929
Tank Id: R-2

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

38 FORT ARMSTRONG PARKING LOT (MOTORPOOL)
North BUFORD AND PLEASANTON AVE

HI LUST U003221870 HI UST N/A

1/4-1/2 HONOLULU, HI 96813

0.377 mi. 1991 ft.

Relative: LUST:

Higher Facility ID: 9-103002

Facility Status: Site Cleanup Completed (NFA)

 Actual:
 Facility Status Date:
 08/26/1999

 3 ft.
 Release ID:
 950048

Project Officer: Renato Maniulit

UST:

Facility ID: 9-103002

Owner: U.S. GENERAL SERVICES ADMINISTRATION

Owner Address: PJKK FEDERAK BLDG & COURTHOUSE300 ALA MOANA BLVD. RM 3-119

Owner City,St,Zip: Honolulu, 96813 96813

Latitude: 21.2979
Longitude: -157.867
Horizontal Reference Datum Nahae83

Tank ID: R-1

Date Installed: 01/01/1969

Tank Status: Permanently Out of Use

Date Closed: 01/18/1995 Tank Capacity: 4000 Substance: Gasoline

Tank ID: R-2 Date Installed: 01/01/1982

Tank Status: Permanently Out of Use

Date Closed: 01/25/1995
Tank Capacity: 12000
Substance: Gasoline

Direction Distance

Elevation Site Database(s) EPA ID Number

39 595 ALA MOANA BLACK OIL PIPELINE HI SHWS S108859626 North 595 ALA MOANA BLVD HI SPILLS N/A

North 595 ALA MOANA BLVD 1/4-1/2 HONOLULU, HI 96814

0.399 mi. 2109 ft.

Relative: SHWS:

Higher Organization: Not reported

Supplemental Location: sidewalk manholes fronting Federal ICE Bldg

Actual: Island: Oahu

3 ft. Environmental Interest: 595 Ala Moana Black Oil Pipeline

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: HEER Program: State

Project Manager: Richard Palmer

Hazard Priority: Low

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu

Supplemental Location Text: sidewalk manholes fronting Federal ICE Bldg

SDAR Environmental Interest Name: 595 Ala Moana Black Oil Pipeline

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: HEER Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: Low

Assessment: Assessment Ongoing

Response: Not reported

Nature of Contamination: Found: petroleum in soil

Nature of Residual Contamination:
Use Restrictions:
Undetermined
Engineering Control:
Description of Restrictions:
Institutional Control:
Not reported
Not reported
Not reported

Within Designated Areawide Contamination: Honolulu Harbor Downtown Unit

Site Closure Type:

Document Date:

Document Number:

Document Subject:

Project Manager:

Not reported

Not reported

Not reported

Richard Palmer

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu

Supplemental Loc. Text: sidewalk manholes fronting Federal ICE Bldg

Case Number: 20070629-1129
HID Number: Not reported
Facility Registry Id: Not reported
Lead and Program: HEER EP&R
ER: Site Visit

Units: 595 Ala Moana Black Oil pipeline

Substances: Bunker C/IFO/HFO Less Or Greater Than: Not reported

Numerical Quantity: 2
Units: Cups
Activity Type: Response
Activity Lead: Mike Cripps

**EDR ID Number** 

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

595 ALA MOANA BLACK OIL PIPELINE (Continued)

S108859626

Assignment End Date: 2007-07-20 00:00:00 Result: Refer to SDAR

File Under: Department of Transportation - Highways Division

**WRAF - HAWAIIAN TUNA PACKERS HI SHWS** U001236016

L40 East 1011 ALA MOANA BLVD **HI LUST** N/A

**HI UST** 

1/4-1/2 HONOLULU, HI 96814 0.411 mi. **HI ENG CONTROLS** 

**HI BROWNFIELDS** Site 1 of 2 in cluster L 2171 ft. **HI Financial Assurance** 

Relative:

SHWS: Higher Organization: Not reported

Actual: Supplemental Location: Ahui St & Ward Ave 3 ft.

Island: Oahu **Environmental Interest:** 

Kakaako Brownfield Project-Unit 6 HID Number: Not reported

110013787704 Facility Registry Identifier: Lead Agency: Not reported Brownfields Program: Project Manager: Melody Calisay

Hazard Priority:

Hazard Managed With Controls Potential Hazards And Controls:

Organization: Not reported Island: Oahu

Supplemental Location Text: Ahui St & Ward Ave

SDAR Environmental Interest Name: Kakaako Brownfield Project-Unit 6

HID Number: Not reported Facility Registry Identifier: 110013787704 Lead Agency: Not reported Progran Name: Brownfields

Potential Hazard And Controls: Hazard Managed With Controls

Priority:

Assessment: **Assessment Ongoing** 

Response: Not reported

Nature of Contamination: Found: Petroleum, PAHs, VOCs, lead, and other metals in soil.

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

**Engineering Control Required Engineering Control:** 

Description of Restrictions: Zoned - Industrial Institutional Control: Not reported Within Designated Areawide Contamination: Not reported Site Closure Type: Not reported **Document Date:** Not reported **Document Number:** Not reported **Document Subject:** Not reported Project Manager: Melody Calisay

(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814 Contact Information:

LUST:

Facility ID: 9-102690

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 04/17/2001 Release ID: 920179 Project Officer: To HEER

Direction Distance

Elevation Site Database(s) EPA ID Number

## WRAF - HAWAIIAN TUNA PACKERS (Continued)

U001236016

**EDR ID Number** 

UST:

Facility ID: 9-102690

Owner: WRAF - HAWAIIAN TUNA PACKERS

Owner Address: 1011 ALA MOANA BLVD
Owner City,St,Zip: Honolulu, 96814 96814

Latitude: 21.2947 Longitude: -157.857 Horizontal Reference Datum N&A@83

Tank ID: R-1

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: 08/01/1985
Tank Capacity: Not reported
Substance: Gasoline

Tank ID: R-2

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: 01/01/1985
Tank Capacity: Not reported
Substance: Diesel

**ENG CONTROLS:** 

Supplemental Location Text: Ahui St & Ward Ave Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls Engineering Control: Engineering Control Required

**BROWNFIELDS:** 

Program: Brownfields
Supplemental Location: Ahui St & Ward Ave

Island: Oahu
Zip Suffix: Not reported

HI Financial Assurance:

Alt Facility ID: 9-102690
Tank Id: R-1

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-102690 Tank Id: R-2

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

L41 KAKA'AKO SITE: UNIT 6 US BROWNFIELDS 1009569568
East 1011 ALA MOANA BLVD FINDS N/A

East 1011 ALA MOANA BLVI 1/4-1/2 HONOLULU, HI 96813

0.412 mi.

2174 ft. Site 2 of 2 in cluster L

Relative: Higher US BROWNFIELDS:

Recipient name: R9 TBA (STAG Funded)

Grant type: TBA

Actual: Property name: KAKA'AKO SITE: UNIT 6

Property #: 2-1-058:095 Parcel size: 3.7

Property Description: Majority of property was a former tuna processing operation

(originally operated by Hawai'i Tuna Packers) dating from 1933. The operations included fish processing, canning, freezing and production of ice for operational use and sales. The operation included the use of underground storage tanks for petroleum products. The tanks were removed in the 1980s and 1990s. All structures associated with the

former operations have been removed.

Latitude: 21.29361 Longitude: -157.85888

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: World Geodetic System of 1984

ACRES property ID: 27902
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 35113

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:
Cleanup funding entity:
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported

Grant type: H

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 1
Cooperative agreement #: n/a

Ownership entity: Not reported Current owner: Not reported

Did owner change: N

Cleanup required: Unknown
Video available: Not reported
Photo available: Not reported

Institutional controls required: U

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported Not reported IC cat. gov. controls: IC cat. enforcement permit tools: Not reported Not reported IC in place date: IC in place: Unknown State/tribal program date: Not reported State/tribal program ID: Not reported

State/tribal NFA date: Not reported

**EDR ID Number** 

Map ID MAP FINDINGS
Direction

Distance Elevation

Site Database(s) EPA ID Number

#### KAKA'AKO SITE: UNIT 6 (Continued)

1009569568

**EDR ID Number** 

Air contaminated: Not reported Not reported Air cleaned: Asbestos found: Not reported Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported Drinking water affected: Not reported Not reported Drinking water cleaned: Groundwater affected: Not reported Groundwater cleaned: Not reported Not reported Lead contaminant found: Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported Other metals found: Not reported Not reported Other metals cleaned: Other contaminants found: Not reported Other contams found description: Not reported PAHs found: Not reported PAHs cleaned up: Not reported PCBs found: Not reported PCBs cleaned up: Not reported Petro products found: Not reported Petro products cleaned: Not reported Not reported Sediments found: Sediments cleaned: Not reported Soil affected: Not reported Soil cleaned up: Not reported Surface water cleaned: Not reported Not reported VOCs found: VOCs cleaned: Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Past use residential acreage: Not reported Past use commercial acreage: Not reported Past use industrial acreage: Not reported Future use greenspace acreage: Not reported Future use residential acreage: Not reported Not reported Future use commercial acreage: Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Not reported Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported Not reported mercury cleaned up: nickel cleaned up: Not reported No clean up: Not reported Pesticides cleaned up: Not reported Not reported Selenium cleaned up: SVOCs cleaned up: Not reported Unknown clean up: Not reported Arsenic contaminant found: Not reported

MAP FINDINGS Map ID Direction

Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## KAKA'AKO SITE: UNIT 6 (Continued)

1009569568

Cadmium contaminant found: Not reported Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Iron contaminant found: Mercury contaminant found: Not reported Nickel contaminant found: Not reported

No contaminant found:

Pesticides contaminant found: Not reported Not reported Selenium contaminant found: SVOCs contaminant found: Not reported Not reported Unknown contaminant found: Future Use: Multistory Not reported Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Not reported Unknown media cleaned up: Past Use: Multistory Not reported

FINDS:

Registry ID: 110013787704

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)

is an federal online database for Brownfields Grantees to

electronically submit data directly to EPA.

42 **COOKE STREET LEAD CONTAMINATION HI SHWS** 1006820105 **HI ENG CONTROLS** NE **501 COOKE ST** N/A HONOLULU, HI 96813 HI INST CONTROL

1/4-1/2 0.443 mi. 2339 ft.

SHWS: Relative:

Higher Organization: Not reported Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. Environmental Interest: Cooke Street Lead Contamination Not reported

HID Number: 110013780051 Facility Registry Identifier: Lead Agency: **HEER** Program: State Project Manager: Steve Mow

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Cooke Street Lead Contamination

HID Number: Not reported Facility Registry Identifier: 110013780051 Lead Agency: **HEER** Progran Name:

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **COOKE STREET LEAD CONTAMINATION (Continued)**

1006820105

Assessment: Response Necessary Response Complete Response: Nature of Contamination: Found: lead in soil

Nature of Residual Contamination: lead in soil above 400 ppm, under cap. Use Restrictions: Controls Required to Manage Contamination

**Engineering Control Required** Engineering Control:

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping

System

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

No Further Action Letter - Restricted Use Site Closure Type:

Document Date: 05/11/2005 Document Number: 2005-254-SPM

**Document Subject:** Cap Maintenance Requirement at 501 Cooke St

Project Manager: Steve Mow

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Not reported Zip Suffix: Oahu Island.

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Not reported Zip Suffix:

Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

M43 **KEWALO ASH DUMP** HI SWF/LF S106401380

**ESE** 

1/4-1/2 HONOLULU, HI

0.455 mi.

Site 1 of 2 in cluster M 2400 ft.

SWF/LF: Relative:

Facility Status: **INACTIVE LANDFILLS - OAHU1** Higher TMK: 1st, 2-3-037:001, 002, 008

Actual: Island Location: Oahu 3 ft. Close Date: 1933-1974

Waste Type: Ash and unburned MSW; Large appliances and other scrap metal wastes

U003832856 **HONOLULU SHIP SUPPLY** HI LUST 44 **ENE** 834 POHUKAINA ST **HI UST** N/A

1/4-1/2 0.455 mi. 2405 ft.

LUST: Relative:

Facility ID: 9-103735 Higher

HONOLULU, HI 96813

Facility Status: Site Cleanup Completed (NFA)

Actual: Facility Status Date: 12/27/2001 3 ft. Release ID: 940090

N/A

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

HONOLULU SHIP SUPPLY (Continued)

Project Officer: Shunsheng Fu

UST:

Facility ID: 9-103735

Owner: DCL - HONOLULU SHIP SUPPLY CO.

Owner Address: 506 AHUI ST

Owner City,St,Zip: Honolulu, 96813 96813

Latitude: 21.2972 Longitude: -157.857 Horizontal Reference Datum N&AAD83

Tank ID: R-1

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: 01/12/1994
Tank Capacity: 550
Substance: Diesel

M45 KAKA'AKO BROWNFIELD PROJECT US BROWNFIELDS

ESE TEN VARIOUS AREAS NW OF KEWALO BASIN

1/4-1/2 HONOLULU, HI 96813

0.461 mi.

2433 ft. Site 2 of 2 in cluster M

Relative: US BROWNFIELDS:

Higher Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type: TBA

Actual: Property name: KAKA'AKO BROWNFIELD PROJECT
3 ft. Property # Not reported

ft. Property #: Not reported
Parcel size: 33

Property Description: Not reported

Latitude: Not reported 21.291294

Longitude: -157.85772099999997

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: North American Datum of 1983

ACRES property ID: 11274
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 25000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:

Not reported
Not reported
Redevelopment start date:
EPA

Cleanup funding entity: Not reported

Grant type:

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 0
Cooperative agreement #: n/a

Ownership entity: Not reported Current owner: Not reported

U003832856

1016307040

N/A

**FINDS** 

Map ID MAP FINDINGS
Direction

Distance Elevation Site

ite Database(s) EPA ID Number

Not reported

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

Did owner change:

1016307040

**EDR ID Number** 

Cleanup required: Unknown Video available: Not reported Not reported Photo available: Institutional controls required: U IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported Not reported IC in place: State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported Not reported Asbestos found: Asbestos cleaned: Not reported Controled substance found: Not reported Controled substance cleaned: Not reported Not reported Drinking water affected: Drinking water cleaned: Not reported Groundwater affected: Not reported Groundwater cleaned: Not reported Lead contaminant found: Not reported Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Other cleaned up: Not reported Not reported Other metals found: Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported PAHs found: Not reported Not reported PAHs cleaned up: PCBs found: Not reported PCBs cleaned up: Not reported Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported Not reported Sediments cleaned: Soil affected: Not reported Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported VOCs cleaned: Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Not reported Past use residential acreage: Past use commercial acreage: Not reported Past use industrial acreage: Not reported Future use greenspace acreage: Not reported Not reported Future use residential acreage: Future use commercial acreage: Not reported Future use industrial acreage: Not reported

Greenspace acreage and type:

Not reported

Direction Distance Elevation

on Site Database(s) EPA ID Number

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Not reported Cadmium cleaned up: Not reported Chromium cleaned up: Copper cleaned up: Not reported Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported nickel cleaned up: No clean up: Not reported Pesticides cleaned up: Not reported Not reported Selenium cleaned up: Not reported SVOCs cleaned up: Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Not reported Copper contaminant found: Iron contaminant found: Not reported Mercury contaminant found: Not reported Nickel contaminant found: Not reported Not reported No contaminant found: Pesticides contaminant found: Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Not reported Unknown contaminant found: Not reported Not reported Future Use: Multistory Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Not reported Indoor air media cleaned up: Unknown media cleaned up: Not reported Past Use: Multistory Not reported

Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type: TBA

Property name: KAKA'AKO BROWNFIELD PROJECT

Property #: Not reported

Parcel size: 33

Property Description: Not reported Latitude: 21.291294

Longitude: -157.85772099999997

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: North American Datum of 1983

ACRES property ID: 11274
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 25000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding: Not reported Redev. funding source: Not reported Redev. funding entity name: Not reported Redevelopment start date: Not reported

Distance Elevation Site

ite Database(s) EPA ID Number

## KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

Assessment funding entity: EPA

Cleanup funding entity: Not reported

Grant type:

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 0
Cooperative agreement #: n/a

Ownership entity:

Current owner:

Did owner change:

Cleanup required:

Video available:

Not reported

Unknown

Not reported

Not reported

Not reported

Not reported

Institutional controls required: IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported IC in place: Not reported State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported Asbestos found: Not reported Not reported Asbestos cleaned: Controled substance found: Not reported Controled substance cleaned: Not reported Drinking water affected: Not reported Not reported Drinking water cleaned: Groundwater affected: Not reported Groundwater cleaned: Not reported Lead contaminant found: Not reported Lead cleaned up: Not reported Not reported No media affected: Not reported Unknown media affected: Other cleaned up: Not reported Other metals found: Not reported Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported Not reported PAHs found: PAHs cleaned up: Not reported Not reported PCBs found: Not reported PCBs cleaned up: Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported Sediments cleaned: Not reported Soil affected: Not reported Soil cleaned up: Not reported

> Not reported Not reported

Not reported

Not reported

Not reported

Not reported

Surface water cleaned:

Cleanup other description:

Num. of cleanup and re-dev. jobs:

Past use greenspace acreage:

VOCs found: VOCs cleaned:

Distance Elevation

Site Database(s) EPA ID Number

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

Past use residential acreage: Not reported Past use commercial acreage: Not reported Not reported Past use industrial acreage: Not reported Future use greenspace acreage: Future use residential acreage: Not reported Not reported Future use commercial acreage: Not reported Future use industrial acreage: Not reported Greenspace acreage and type: Superfund Fed. landowner flag: Not reported Arsenic cleaned up: Not reported Not reported Cadmium cleaned up: Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported nickel cleaned up: Not reported Not reported No clean up: Pesticides cleaned up: Not reported Selenium cleaned up: Not reported SVOCs cleaned up: Not reported Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Not reported Iron contaminant found: Mercury contaminant found: Not reported Nickel contaminant found: Not reported No contaminant found: Not reported Not reported Pesticides contaminant found: Selenium contaminant found: Not reported SVOCs contaminant found: Not reported Unknown contaminant found: Not reported Future Use: Multistory Not reported Not reported Media affected Bluiding Material: Not reported Media affected indoor air: Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Unknown media cleaned up: Not reported Past Use: Multistory Not reported

Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type: TBA

Property name: KAKA'AKO BROWNFIELD PROJECT

Property #: Not reported

Parcel size: 33

Property Description: Not reported Latitude: 21.291294

Longitude: -157.85772099999997

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: North American Datum of 1983

ACRES property ID: 11274
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported

Distance Elevation

n Site Database(s) EPA ID Number

## KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

Cleanup funding: Not reported Cleanup funding source: Not reported Assessment funding: 10000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:

EPA

Not reported
Not reported
Not reported
Not reported
Not reported

Cleanup funding entity: Not reported

Grant type: H

Accomplishment type: Supplemental Assessment

Accomplishment count: 0
Cooperative agreement #: n/a
Ownership entity: Not

Ownership entity:

Current owner:

Did owner change:

Cleanup required:

Video available:

Not reported

Unknown

Not reported

Not reported

Not reported

Institutional controls required: U IC Category proprietary controls: Not reported Not reported IC cat. info. devices: IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported Not reported IC in place date: IC in place: Not reported State/tribal program date: Not reported State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported Asbestos found: Not reported Asbestos cleaned: Not reported Not reported Controled substance found: Not reported Controled substance cleaned:

Not reported

Not reported

Drinking water affected:

Sediments cleaned:

Drinking water cleaned: Not reported Groundwater affected: Not reported Groundwater cleaned: Not reported Lead contaminant found: Not reported Not reported Lead cleaned up: No media affected: Not reported Not reported Unknown media affected: Not reported Other cleaned up: Other metals found: Not reported Other metals cleaned: Not reported Other contaminants found: Not reported Other contams found description: Not reported Not reported PAHs found: PAHs cleaned up: Not reported PCBs found: Not reported Not reported PCBs cleaned up: Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported

Direction Distance Elevation

on Site Database(s) EPA ID Number

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

Soil affected: Not reported Soil cleaned up: Not reported Surface water cleaned: Not reported VOCs found: Not reported VOCs cleaned: Not reported Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Past use residential acreage: Not reported Past use commercial acreage: Not reported Past use industrial acreage: Not reported Future use greenspace acreage: Not reported Future use residential acreage: Not reported Future use commercial acreage: Not reported Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Not reported Superfund Fed. landowner flag: Arsenic cleaned up: Not reported Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Iron cleaned up: Not reported mercury cleaned up: Not reported nickel cleaned up: Not reported No clean up: Not reported Not reported Pesticides cleaned up: Selenium cleaned up: Not reported SVOCs cleaned up: Not reported Unknown clean up: Not reported Not reported Arsenic contaminant found: Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Copper contaminant found: Not reported Iron contaminant found: Not reported Not reported Mercury contaminant found: Not reported Nickel contaminant found: No contaminant found: Not reported Pesticides contaminant found: Not reported Selenium contaminant found: Not reported SVOCs contaminant found: Not reported Not reported Unknown contaminant found: Not reported Future Use: Multistory Media affected Bluiding Material: Not reported Not reported Media affected indoor air: Building material media cleaned up: Not reported Indoor air media cleaned up: Not reported Unknown media cleaned up: Not reported Past Use: Multistory Not reported

Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type: TBA

Property name: KAKA'AKO BROWNFIELD PROJECT

Property #: Not reported

Parcel size: 33

Property Description: Not reported Latitude: 21.291294

Longitude: -157.85772099999997

Direction Distance

Elevation Site Database(s) EPA ID Number

## KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

**EDR ID Number** 

HCM label: Address Matching-House Number

Map scale: Not reported

Point of reference: Entrance Point of a Facility or Station
Datum: North American Datum of 1983

ACRES property ID: 11274
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 25000

Assessment funding source: US EPA - TBA Funding

Redevelopment funding:
Redev. funding source:
Redev. funding entity name:
Redevelopment start date:
Assessment funding entity:
Cleanup funding entity:

Not reported
Not reported
EPA
Not reported

Grant type: H

Accomplishment type: Phase II Environmental Assessment

Accomplishment count: 1
Cooperative agreement #: n/a
Ownership entity: Not reported

Current owner: Not reported
Did owner change: Not reported
Cleanup required: Unknown
Video available: Not reported
Photo available: Not reported

Institutional controls required: U

IC Category proprietary controls: Not reported IC cat. info. devices: Not reported IC cat. gov. controls: Not reported IC cat. enforcement permit tools: Not reported IC in place date: Not reported Not reported IC in place: Not reported State/tribal program date: State/tribal program ID: Not reported State/tribal NFA date: Not reported Air contaminated: Not reported Air cleaned: Not reported Not reported Ashestos found: Not reported Asbestos cleaned: Controled substance found: Not reported Not reported Controled substance cleaned: Not reported Drinking water affected: Drinking water cleaned: Not reported Groundwater affected: Not reported Groundwater cleaned: Not reported Lead contaminant found: Not reported Not reported Lead cleaned up: No media affected: Not reported Unknown media affected: Not reported Not reported Other cleaned up: Other metals found: Not reported Other metals cleaned: Not reported Other contaminants found: Not reported

Not reported

Other contams found description:

Map ID MAP FINDINGS
Direction

Distance
Elevation Site

EDR ID Number
Database(s) EPA ID Number

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

PAHs found: Not reported PAHs cleaned up: Not reported PCBs found: Not reported Not reported PCBs cleaned up: Petro products found: Not reported Petro products cleaned: Not reported Sediments found: Not reported Not reported Sediments cleaned: Soil affected: Not reported Soil cleaned up: Not reported Not reported Surface water cleaned: Not reported VOCs found: VOCs cleaned: Not reported Cleanup other description: Not reported Num. of cleanup and re-dev. jobs: Not reported Past use greenspace acreage: Not reported Not reported Past use residential acreage: Past use commercial acreage: Not reported Past use industrial acreage: Not reported Future use greenspace acreage: Not reported Future use residential acreage: Not reported Future use commercial acreage: Not reported Future use industrial acreage: Not reported Greenspace acreage and type: Not reported Superfund Fed. landowner flag: Not reported Not reported Arsenic cleaned up: Cadmium cleaned up: Not reported Chromium cleaned up: Not reported Copper cleaned up: Not reported Not reported Iron cleaned up: mercury cleaned up: Not reported nickel cleaned up: Not reported Not reported No clean up: Pesticides cleaned up: Not reported Not reported Selenium cleaned up: SVOCs cleaned up: Not reported Unknown clean up: Not reported Arsenic contaminant found: Not reported Cadmium contaminant found: Not reported Chromium contaminant found: Not reported Not reported Copper contaminant found: Not reported Iron contaminant found: Mercury contaminant found: Not reported Not reported Nickel contaminant found: Not reported No contaminant found: Pesticides contaminant found: Not reported Not reported Selenium contaminant found: SVOCs contaminant found: Not reported Unknown contaminant found: Not reported Not reported Future Use: Multistory Media affected Bluiding Material: Not reported Media affected indoor air: Not reported Building material media cleaned up: Not reported Not reported Indoor air media cleaned up: Unknown media cleaned up: Not reported Past Use: Multistory Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### KAKA'AKO BROWNFIELD PROJECT (Continued)

1016307040

FINDS:

Registry ID: 110015334556

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)

is an federal online database for Brownfields Grantees to

electronically submit data directly to EPA.

46 TIRE RECAP SERVICE HI LUST U003154623 ΝE **526 KEAWE ST HI UST** N/A HONOLULU, HI 96813

1/4-1/2 0.483 mi. 2551 ft.

LUST: Relative:

Facility ID: 9-102758 Higher

Facility Status: Site Cleanup Completed (NFA) Actual:

Facility Status Date: 06/20/1997 3 ft. Release ID: 930108 Project Officer: Eric Sadoyama

UST:

Facility ID: 9-102758

Owner: AMELCO CORPORATION Owner Address: 2308 PAHOUNUI DR Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.3003 Longitude: -157.86 Horizontal Reference Datum NahAe 83

Tank ID: R-D Date Installed: Not reported

Tank Status: **Permanently Out of Use** 

Date Closed: 06/30/1990 2000 Tank Capacity: Substance: Not Listed

Tank ID: R-E Date Installed: Not reported

**Tank Status: Permanently Out of Use** 

Date Closed: 06/30/1990 Tank Capacity: 2000 Not Listed Substance:

Tank ID: R-F

Date Installed: Not reported

Tank Status: **Permanently Out of Use** 

Date Closed: 06/30/1990 Tank Capacity: 550 Substance: Not Listed

Direction Distance

Distance EDR ID Number

Elevation Site EDA ID Number

47 HAWAII COMMUNITY DEVELOPMENT AUTHORITY HI LUST U001235908 NE 548 COOKE ST HI UST N/A

1/4-1/2 HONOLULU, HI 96813

0.485 mi. 2562 ft.

Relative: LUST:

Higher Facility ID: 9-102418

Facility Status: Site Cleanup Completed (NFA)

 Actual:
 Facility Status Date:
 08/24/1999

 3 ft.
 Release ID:
 910060

 Project Officer:
 Richard Takaba

UST:

Facility ID: 9-102418

Owner: STATE DBEDT - HAWAII COMM DEVELOPMENT AUTHORITY

Owner Address: 677 ALA MOANA BLVD, SUITE 1001

Owner City, St, Zip: Honolulu, 96813 96813

Latitude: 21.2991 Longitude: -157.858 Horizontal Reference Datum NaMA

Tank ID:

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: Not reported Tank Capacity: 500 Substance: Used Oil

Tank ID: R-2

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: Not reported Tank Capacity: 2000 Substance: Used Oil

Tank ID: R-3

Date Installed: Not reported

Tank Status: Permanently Out of Use

Date Closed: Not reported Tank Capacity: 400 Substance: Used Oil

48 HAWAII INSTRUMENTATION & CONTROLS, INC HI SHWS S106817350

ENE 822 HALEKAUWILA ST HI SPILLS N/A
1/2-1 HONOLULU, HI HI ENG CONTROLS
0.546 mi. HI INST CONTROL

2885 ft.

Relative: SHWS:

Higher Organization: Not reported Supplemental Location: Not reported Actual: Island: Oahu

Actual: Island: Oahu 3 ft. Fnyironmental Interest: Hawai

Environmental Interest: Hawaii Instrumentation & Controls, Inc

HID Number: Not reported Facility Registry Identifier: 110013789604

Lead Agency: HEER

Direction Distance

Elevation Site Database(s) EPA ID Number

## HAWAII INSTRUMENTATION & CONTROLS, INC (Continued)

S106817350

**EDR ID Number** 

Program: State

Project Manager: Richard Palmer Hazard Priority: Medium

Potential Hazards And Controls: Hazard Managed With Controls

Organization:

Island:

Supplemental Location Text:

Not reported

Not reported

SDAR Environmental Interest Name: Hawaii Instrumentation & Controls, Inc

HID Number: Not reported Facility Registry Identifier: 110013789604

Lead Agency: HEER Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: Medium

Assessment: Response Necessary Response: Response Ongoing

Nature of Contamination: Presumed: Solvent vapors encountered inside and around 822 Halekauwila

St. Restroom renovation, and capping/sealing of grounds, alleviated

the vapor intrusion problem.

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Not reported

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination:

Site Closure Type:

Document Date:

Document Number:

Document Subject:

Project Manager:

Not reported

Not reported

Not reported

Richard Palmer

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

#### HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19941216-4
HID Number: Not reported
Facility Registry Id: 110013789604
Lead and Program: HEER EP&R
ER: Not reported

Units: HCDA Site/Hawaii Instrumentaion & Controls Inc.

Substances: unknown odor Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Odor Activity Type: Response Activity Lead: Mike Cripps Assignment End Date: Not reported SOSC NFA Result:

File Under: Hawaii Instrumentation & Controls Inc.

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19910620-3
HID Number: Not reported
Facility Registry Id: 110013789604
Lead and Program: HEER EP&R

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### **HAWAII INSTRUMENTATION & CONTROLS, INC (Continued)**

S106817350

S111704854

N/A

ER: Not reported

HAWAII INSTRUMENTATION & CONTROLS, INC., HALEKAUWILA ST. 822 Units:

Substances: UNKNOWN CHEMICAL

Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Not reported Units: Response Activity Type: Activity Lead: Not reported Assignment End Date: Not reported Result: SOSC NFA

File Under: Hawaii Instrumentation & Controls Inc.

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Hazard Managed With Controls Potential Hazards And Controls: **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported

Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

HI SHWS 49 **RUBBER STAMP PLANTATION** 

ΝE 746 ILANIWAI ST 1/2-1 HONOLULU, HI

0.578 mi. 3051 ft.

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. Rubber Stamp Plantation **Environmental Interest:** 

HID Number: Not reported Not reported Facility Registry Identifier: Lead Agency: **HEER** 

Program: Preliminary Assessment/Site Inspection

Project Manager: Paul Chong Hazard Priority: NFA Potential Hazards And Controls: No Hazard Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

Rubber Stamp Plantation SDAR Environmental Interest Name:

Not reported HID Number: Facility Registry Identifier: Not reported HEER Lead Agency:

Progran Name: Preliminary Assessment/Site Inspection

Potential Hazard And Controls: No Hazard Priority: NFA

Response Not Necessary Assessment: Response Complete Response:

Nature of Contamination: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**RUBBER STAMP PLANTATION (Continued)** 

S111704854

**HI Financial Assurance** 

Nature of Residual Contamination: Not reported

No Hazard Present For Unrestricted Residential Use Use Restrictions:

**Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported

No Further Action Letter - Unrestricted Residential Use Site Closure Type:

**Document Date:** 07/08/2011 Document Number: 2011-378-PC

**Document Subject:** Closure and Removal of Underground Fuel Tank at 746 Ilaniwai St

Project Manager: Paul Chong

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

U.S. COAST GUARD BASE HONOLULU 50 **HI SHWS** U003541746 NW **400 SAND ISLAND PARKWAY HI LUST** N/A HONOLULU, HI 96819 HI UST 1/2-1 0.629 mi. **HI SPILLS** 

SHWS: Relative:

3320 ft.

Organization: Not reported Higher

Supplemental Location: Coast Guard Base Honolulu

Actual: Island: Oahu

3 ft. Environmental Interest: U.S. Coast Guard Base Honolulu

> HID Number: HID984469890 Facility Registry Identifier: 110013772916 Lead Agency: Not reported Program: State Project Manager: John Peard

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Oahu Island:

Supplemental Location Text: Coast Guard Base Honolulu SDAR Environmental Interest Name: U.S. Coast Guard Base Honolulu

HID Number: HID984469890 Facility Registry Identifier: 110013772916 Lead Agency: Not reported Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority:

Assessment: Assessment Ongoing

Not reported Response: Nature of Contamination: Presumed: Unknown

Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported

Within Designated Areawide Contamination: Honolulu Harbor Sand Island Unit Site Closure Type: No Further Action - Type Undetermined

Document Date: 07/20/1994 **Document Number:** Not reported **Document Subject:** Not reported Project Manager: John Peard

(808) 933-9921 Environmental Health Bldg, 1582 Kamehameha Ave, Hilo, Contact Information:

HI 96720

Direction
Distance

Elevation Site Database(s) EPA ID Number

## U.S. COAST GUARD BASE HONOLULU (Continued)

U003541746

**EDR ID Number** 

LUST:

Facility ID: 9-101798

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 01/28/2000
Release ID: 970128
Project Officer: Renato Maniulit

UST:

Facility ID: 9-101798

Owner: U.S. COAST GUARD BASE EXCHANGE SYSTEM

Owner Address: 400 SAND ISLAND PARKWAY

Owner City, St, Zip: Honolulu, 96819 96819

Latitude: 21.3058 Longitude: -157.873 Horizontal Reference Datum Nahae83

Tank ID: 87-NAFA-4
Date Installed: 05/01/1989

Tank Status: Currently in Use
Date Closed: Not reported
Tank Capacity: 6000
Substance: Gasoline

Tank ID: 92-NAFA-3
Date Installed: 05/01/1989

Tank Status: Currently in Use
Date Closed: Not reported
Tank Capacity: 6000
Substance: Gasoline

Tank ID: R-FE-REG
Date Installed: 05/01/1970

Tank Status: Permanently Out of Use

Date Closed: 01/01/1989
Tank Capacity: 1000
Substance: Gasoline

Tank ID: R-FE-UNL Date Installed: 05/01/1970

Tank Status: Permanently Out of Use

Date Closed: 01/01/1989
Tank Capacity: 2000
Substance: Gasoline

Tank ID: R-IND-1 Date Installed: 05/06/1964

Tank Status: Permanently Out of Use

Date Closed: 09/16/1988
Tank Capacity: 1000
Substance: Diesel

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### U.S. COAST GUARD BASE HONOLULU (Continued)

U003541746

Tank ID: R-IND-2 Date Installed: 05/02/1967

Tank Status: **Permanently Out of Use** 

Date Closed: 08/30/1989 Tank Capacity: 350 Substance: Diesel

Tank ID: R-NAFA-1 Date Installed: 05/01/1963

**Permanently Out of Use** Tank Status:

02/01/1989 Date Closed: 4000 Tank Capacity: Substance: Gasoline

Tank ID: R-NAFA-2 Date Installed: 05/01/1963

Tank Status: **Permanently Out of Use** 

02/28/1989 Date Closed: Tank Capacity: 4000 Substance: Gasoline

R-OOD Tank ID: Date Installed: 12/30/1960

**Tank Status: Permanently Out of Use** 

Date Closed: 12/30/1983 Tank Capacity: 1000 Substance: Diesel

HI SPILLS:

Island: Oahu

Supplemental Loc. Text: Not reported Case Number: 20110118-1438 HID Number: Not reported Facility Registry Id: Not reported Lead and Program: HEER EP&R

ER: None

Raw Sewage Release Units:

Substances: Sewage Less Or Greater Than: Not reported **Numerical Quantity:** 200 Gallons Units: Activity Type: Response Activity Lead: Liz Galvez Assignment End Date: Not reported Result: Not reported

US Coast Guard Base Honolulu File Under:

Island: Oahu

NRC 971075 DRILL DRILL Supplemental Loc. Text:

Case Number: 20110324-1338 HID Number: Not reported Not reported Facility Registry Id: Lead and Program: HEER EP&R ER: None

Direction Distance

Elevation Site Database(s) EPA ID Number

## U.S. COAST GUARD BASE HONOLULU (Continued)

DRILL NRC 971075 DRILL

Substances: Bilge Slops
Less Or Greater Than: Not reported

Units:

Numerical Quantity: 2
Units: Gallons
Activity Type: Response
Activity Lead: Liz Galvez

Assignment End Date: 2011-03-24 00:00:00

Result: Drill
File Under: Not reported

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20120802-1015
HID Number: Not reported
Facility Registry Id: Not reported

ER: None

Units: Drill Spill for Pacific Commercial Services

HEER EP&R

Substances: Oil

Lead and Program:

Less Or Greater Than: Not reported **Numerical Quantity:** 10 Not reported Units: Activity Type: Drill Activity Lead: Adam Teekell Assignment End Date: Not reported Result: Drill File Under: Not reported

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20130210-1930
HID Number: Not reported
Facility Registry Id: Not reported
Lead and Program: HEER EP&R

ER: None

Units: Sewage Spilled on Vessel Substances: Sewage

Less Or Greater Than: Not reported Numerical Quantity: 1
Units: Gallons

Activity Type: Response
Activity Lead: Adam Teekell
Assignment End Date: 2013-02-11 00:00:00

Result: SOSC NFA File Under: Not reported

HI Financial Assurance:

Alt Facility ID: 9-101798
Tank Id: 8-IND-2

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-101798
Tank Id: 8-NAFA-2

Tank Status: Permanently Out of Use

**EDR ID Number** 

U003541746

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## U.S. COAST GUARD BASE HONOLULU (Continued)

U003541746

FRTYPE: Other **Expiration Date:** Not reported

Alt Facility ID: 9-101798 Tank Id: R-OOD

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-101798 Tank Id: R-NAFA-1

Tank Status: Permanently Out of Use

FRTYPE: Other **Expiration Date:** Not reported

Alt Facility ID: 9-101798 Tank Id: R-FE-UNL

Tank Status: Permanently Out of Use

FRTYPE: Other Expiration Date: Not reported

Alt Facility ID: 9-101798 Tank Id: R-FE-REG

Tank Status: Permanently Out of Use

FRTYPE: Other

**Expiration Date:** Not reported

Alt Facility ID: 9-101798 Tank Id: 87-NAFA-4 Tank Status: Currently in Use FRTYPE: Other

**Expiration Date:** Not reported

Alt Facility ID: 9-101798 Tank Id: 92-NAFA-3 Tank Status: Currently in Use

FRTYPE: Other **Expiration Date:** Not reported

Alt Facility ID: 9-101798 Tank Id: R-IND-1

Tank Status: Permanently Out of Use

FRTYPE: Other **Expiration Date:** Not reported

CERC-NFRAP 1000688441 51 **QUEEN EMMALANI TOWER** NE **600 QUEEN ST** RCRA NonGen / NLR HID982442394

1/2-1 HONOLULU, HI 96813 **FINDS** 0.656 mi. HI SHWS 3463 ft. **HI SPILLS HI ENG CONTROLS HI INST CONTROL** 

Relative: Higher

CERC-NFRAP:

Actual: Site ID: 0903920 7 ft.

Federal Facility: Not a Federal Facility NPL Status: Not on the NPL

Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Direction Distance

Elevation Site Database(s) EPA ID Number

# QUEEN EMMALANI TOWER (Continued)

1000688441

**EDR ID Number** 

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13037379.00000
Person ID: 9000059.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: QUEEN EMMALANI TOWER
Alias Address: QUEEN & SOUTH STREET
HONOLULU, OAHU, HI 85546

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: / /
Date Completed: 06/04/91

Date Completed: 06/04/91
Priority Level: Not reported

Action: ARCHIVE SITE

Date Started: //
Date Completed: 10/11/94
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT

Date Started: / /
Date Completed: 10/11/94

Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

RCRA NonGen / NLR:

Date form received by agency: 05/07/1991

Facility name: QUEEN EMMALANI TOWER

Facility address: 600 QUEEN ST

HONOLULU, HI 96813

EPA ID: HID982442394 Mailing address: 436 ENA RD

HONOLULU, HI 96815

Contact: ENVIRONMENTAL MANAGER

Contact address: 600 QUEEN ST

HONOLULU, HI 96813

Contact country: US

Contact telephone: (808) 949-0065 Contact email: Not reported

EPA Region: 09

Land type: Other land type Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: MOTOI KOSAN USA INC

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Operator date: Not reported

Owner/Op start date: Not reported Owner/Op end date: Not reported

Distance

Elevation Site Database(s) EPA ID Number

## **QUEEN EMMALANI TOWER (Continued)**

1000688441

**EDR ID Number** 

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 01/29/1996

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110005726651

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

SHWS:

Organization: Not reported Supplemental Location: Not reported Island: Oahu

Environmental Interest: Queen Emmalani Tower

Direction Distance

Elevation Site Database(s) EPA ID Number

## **QUEEN EMMALANI TOWER (Continued)**

1000688441

**EDR ID Number** 

HID Number: HID984466698
Facility Registry Identifier: 110005726651
Lead Agency: Not reported
Program: State
Project Manager: Mark Sutterfield

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization:

Island:

Supplemental Location Text:

Not reported

Not reported

SDAR Environmental Interest Name: Queen Emmalani Tower

HID Number: HID984466698
Facility Registry Identifier: 110005726651
Lead Agency: Not reported

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary
Response: Response Complete

Nature of Contamination: Found: Contamination was place under building

Nature of Residual Contamination: Contaminated (lead and metals) soil removed or capped by building.

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping

System

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 02/01/2006

Document Number: 2006-058-MS

Document Subject: NFA for areas 1 and 3.

Project Manager: Mark Sutterfield

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

# HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19910807-2
HID Number: HID984466698
Facility Registry Id: 110005726651
Lead and Program: HEER EP&R
ER: Not reported

Units: Queen Emmalani Tower Development

Substances: petroleum Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Not reported Activity Type: Response Not reported Activity Lead: Assignment End Date: Not reported Result: Not reported

File Under: Queen Emmalani Tower

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20060112-0950
HID Number: HID984466698

Direction Distance

Elevation Site Database(s) EPA ID Number

# QUEEN EMMALANI TOWER (Continued)

1000688441

**EDR ID Number** 

Facility Registry Id: 110005726651 Lead and Program: HEER EP&R

ER: No

Units: 600 Queen Street Lead Contamination

Substances: Lead
Less Or Greater Than: Not reported
Numerical Quantity: Not reported
Units: Unknown
Activity Type: Response
Activity Lead: Liz Galvez

Assignment End Date: 2006-01-12 00:00:00

Result: Refer to SDAR

File Under: Queen Emmalani Tower

**ENG CONTROLS:** 

Supplemental Location Text:

Zip Suffix:

Island:

Not reported

Not reported

Oahu

Potential Hazards And Controls: Hazard Managed With Controls Engineering Control: Engineering Control Required

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

N52 AMERICAN LINEN WAREHOUSE HI SHWS \$106816215 ENE 837 KAWAIAHAO ST HI SPILLS N/A

1/2-1 HONOLULU, HI

0.675 mi.

3566 ft. Site 1 of 2 in cluster N

Relative: SHWS:

HigherOrganization:Not reportedSupplemental Location:Not reported

Actual: Island: Oahu
3 ft. Equironmental Interest: 937 Kay

ft. Environmental Interest: 837 Kawaiahao Street
HID Number: Not reported

Facility Registry Identifier: 110014053371
Lead Agency: Not reported
Program: State

Project Manager: Mark Sutterfield

Hazard Priority:

Potential Hazards And Controls:

Organization:

Island:

Supplemental Location Text:

NFA

No Hazard

Not reported

Oahu

Not reported

SDAR Environmental Interest Name: 837 Kawaiahao Street

HID Number:

Facility Registry Identifier:
Lead Agency:
Progran Name:
Potential Hazard And Controls:

Not reported
State
No Hazard

Priority: No Haz

Assessment: Response Necessary

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### **AMERICAN LINEN WAREHOUSE (Continued)**

S106816215

Response: Response Complete Nature of Contamination: Found: Diesel in soil

Nature of Residual Contamination: Benzo(a)pyrene in soil in one sample collected 3.5 feet bgs exceeded

HDOH EALs.

Use Restrictions: No Hazard Present for Unrestricted Residential Use

No Engineering Control Required **Engineering Control:** 

Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Unrestricted Residential Use

03/24/2005 **Document Date:** Document Number: 2005-153-MS

**Document Subject:** NFA letter for American Linen Warehouse

Project Manager: Mark Sutterfield

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 19970312-0000 HID Number: Not reported Facility Registry Id: 110014053371 Lead and Program: HEER EP&R ER: Not reported

Units: Kawaiahao Street Leaking Heating Oil Tank

Substances: Fuel Oil #5, Fuel Oil #6, Bunker C

Less Or Greater Than: Not reported Numerical Quantity: Not reported Units: Not reported Activity Type: Response Activity Lead: Bill Perry

Assignment End Date: 2002-10-28 00:00:00 Result: Refer to ISST File Under: American Linen

836 KAWAIAHAO STREET **HI SHWS** S111704659

**ENE** 836 KAWAIAHAO ST HONOLULU, HI 1/2-1

0.676 mi.

N53

3567 ft. Site 2 of 2 in cluster N

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Not reported Actual: Island: Oahu

3 ft. Environmental Interest: 836 Kawaiahao Street

> HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: **HEER** Program: State

Project Manager: Melody Calisay

Hazard Priority: Low

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

836 Kawaiahao Street SDAR Environmental Interest Name:

N/A

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### 836 KAWAIAHAO STREET (Continued)

S111704659

S111677440

HID Number: Not reported Not reported Facility Registry Identifier: Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: Low

Assessment: Response Necessary Response: Response Ongoing

Nature of Contamination: Found: TPH-oil detected in one soil sample collected in surface soil.

Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported Site Closure Type: Not reported **Document Date:** Not reported **Document Number:** Not reported **Document Subject:** Not reported Project Manager: Melody Calisay

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**K&Y AUTO SERVICE AND WAYNE'S AUTO ELECTRIC** 54

HI SHWS **ENE** 902 KAWAIAHAO ST & 539 KAMANI ST **HI SPILLS** N/A

1/2-1 HONOLULU, HI

0.691 mi. 3647 ft.

SHWS: Relative:

Organization: Not reported Higher

Supplemental Location: TMK 1-2-1-049 parcels 058 and 059 Actual:

Island: Oahu 3 ft.

**Environmental Interest:** K&Y Auto Service and Wayne's Auto Electric

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: **HEER** Program: State Project Manager: Cal Miyahara

Hazard Priority: Low

Potential Hazards And Controls: Hazard Present Organization: Not reported Island: Oahu

Supplemental Location Text: TMK 1-2-1-049 parcels 058 and 059 SDAR Environmental Interest Name: K&Y Auto Service and Wayne's Auto Electric

HID Number: Not reported Facility Registry Identifier: Not reported **HEER** Lead Agency: Progran Name: State

Potential Hazard And Controls: Hazard Present

Priority:

Assessment: Assessment Ongoing

Response: Not reported

Found: Barium found in soil samples above Tier 1 EAL. Benzo(a)pyrene Nature of Contamination:

found in gw above Tier 1 EAL.

Nature of Residual Contamination: Not reported

Controls Required to Manage Contamination Use Restrictions:

**Engineering Control:** Not reported Description of Restrictions: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### K&Y AUTO SERVICE AND WAYNE'S AUTO ELECTRIC (Continued)

S111677440

Institutional Control: Not reported Not reported Within Designated Areawide Contamination: Site Closure Type: Not reported Document Date: Not reported Document Number: Not reported Not reported Document Subject: Cal Miyahara Project Manager:

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu

Supplemental Loc. Text: TMK 1-2-1-049 parcels 058 and 059

Case Number: 20100518-1415 HID Number: Not reported Facility Registry Id: Not reported Lead and Program: HEER EP&R ER: None

Units: 902 Kawaiahao and 539 Kamani Streets

Substances: Oil

Less Or Greater Than: Not reported

**Numerical Quantity:** 0

Units: Not reported Activity Type: Response Activity Lead: Liz Galvez

2010-06-21 00:00:00 Assignment End Date: Result: Refer to SDAR File Under: Asanoma Trust

55 **HAWAII OPERA THEATER SETS & PROPS WAREHOUSE HI SHWS** S115488700 **ENE** 962 KAWAIAHAO ST **HI SPILLS** N/A

1/2-1 HONOLULU, HI **HI ENG CONTROLS HI INST CONTROL** 

0.720 mi. 3804 ft.

SHWS: Relative:

Organization: Not reported Higher

Supplemental Location: Not reported Actual: Oahu Island:

3 ft. Environmental Interest: Hawaii Opera Theater Sets & Props Warehouse

HID Number: Not reported Facility Registry Identifier: Not reported Not reported Lead Agency: Program: State Project Manager: Steve Mow

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Hawaii Opera Theater Sets & Props Warehouse

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: Not reported Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary

Direction Distance

Elevation Site Database(s) EPA ID Number

## HAWAII OPERA THEATER SETS & PROPS WAREHOUSE (Continued)

S115488700

**EDR ID Number** 

Response: Response Ongoing

Nature of Contamination: Found: Capped petroleum and lead contamination.

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Not reported

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 04/26/2012
Document Number: 2012-261-SPM

Document Subject: No Further Action Determination with Institutional Controls for Hawaii

Opera Theater Sets & Props Wa

Project Manager: Steve Mow

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20120201-1355
HID Number: Not reported
Facility Registry Id: Not reported
Lead and Program: HEER EP&R
ER: None

Units: Hawaii Opera Theatre Prop Warehouse

Substances: Benzopyrene Less Or Greater Than: Not reported

Numerical Quantity: 0

Units: Not reported Activity Type: Response Activity Lead: Curtis Martin Assignment End Date: Not reported Result: Not reported

File Under: Hawaii Opera Theater Sets & Props Warehouse

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20120201-1355
HID Number: Not reported
Facility Registry Id: Not reported
Lead and Program: HEER EP&R
ER: None

Units: Hawaii Opera Theatre Prop Warehouse

Substances: TPH
Less Or Greater Than: Not reported

Numerical Quantity: 0

Units: Not reported Activity Type: Response Activity Lead: Curtis Martin Assignment End Date: Not reported Result: Not reported

File Under: Hawaii Opera Theater Sets & Props Warehouse

ENG CONTROLS:

Supplemental Location Text: Not reported Zip Suffix: Not reported

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

#### HAWAII OPERA THEATER SETS & PROPS WAREHOUSE (Continued)

S115488700

**HI INST CONTROL** 

Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls Engineering Control: Engineering Control Required

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

56 HD&C, 725 KAPIOLANI BOULEVARD HI SHWS S106817426 NE 725 KAPIOLANI BLVD HI SPILLS N/A

1/2-1 HONOLULU, HI

1/2-1 HONOLULU 0.755 mi. 3987 ft.

Relative: SHWS:

Higher Organization: Not reported

Supplemental Location: The Imperial Plaza Cooke St & Kapiolani St

Actual: Island: Oahu

3 ft. Environmental Interest: 725 Kapiolani Boulevard

HID Number: Not reported
Facility Registry Identifier: 110013791664
Lead Agency: SHWB
Program: State

Project Manager: Eric Sadoyama

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu

Supplemental Location Text: The Imperial Plaza Cooke St & Kapiolani St

SDAR Environmental Interest Name: 725 Kapiolani Boulevard

HID Number: Not reported Facility Registry Identifier: 110013791664 Lead Agency: SHWB

Lead Agency: SHWE Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Not reported
Nature of Residual Contamination: Petroleum in soil

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Not reported Description of Restrictions: Not reported

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 02/13/1996
Document Number: Not reported

Document Subject: Imperial Plaza, 725 Kapiolani Blvd, Oahu HI

Project Manager: Eric Sadoyama

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## HD&C, 725 KAPIOLANI BOULEVARD (Continued)

S106817426

S106816569

N/A

Supplemental Loc. Text: The Imperial Plaza Cooke St & Kapiolani St

19900417-2 Case Number: Not reported HID Number: Facility Registry Id: 110013791664 Lead and Program: HEER EP&R ER: Not reported

Units: HD&C, 725 Kapiolani Boulevard

Substances: OIL, DIESEL Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Not reported Response Activity Type: Curtis Martin Activity Lead: Assignment End Date: Not reported Result: SOSC NFA

File Under: Hawaiian Dredging & Construction Company

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: The Imperial Plaza Cooke St & Kapiolani St

Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

**HI SHWS** 

57 **BMW OF HONOLULU ENE** 777 KAPIOLANI BLVD 1/2-1 HONOLULU, HI

**HI SPILLS HI ENG CONTROLS HI INST CONTROL** 

0.770 mi. 4067 ft.

SHWS: Relative:

Higher

Organization: Not reported Supplemental Location: Not reported Island: Oahu

Actual: 3 ft. **Environmental Interest:** 

**BMW** Dealership HID Number: Not reported Facility Registry Identifier: 110013779982 Lead Agency: **HEER** Program: State Project Manager: Amy Playdon

Hazard Priority:

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported SDAR Environmental Interest Name: **BMW Dealership** HID Number: Not reported Facility Registry Identifier: 110013779982 Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary Response Complete Response: Nature of Contamination: Not reported Nature of Residual Contamination: Not reported

Controls Required to Manage Contamination Use Restrictions:

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### **BMW OF HONOLULU (Continued)**

S106816569

**Engineering Control: Engineering Control Required** 

Description of Restrictions: Additional investigation & remediation may be necessary if future demolition or excavation is conducted on site (1/24/01 HEER letter

01-031-AP).

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 01/24/2001 Document Number: 2001-031-AP

Document Subject: No Further Action Priority Notification Letter for the 767/777

Kapiolani Blvd Site, Honolulu HI

Amy Playdon Project Manager:

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Oahu Island: Supplemental Loc. Text: Not reported Case Number: 19990401-1450 HID Number: Not reported 110013779982 Facility Registry Id: Lead and Program: HEER EP&R Referred ER:

Units: Free Petroleum Product Found at 777 Kapiolani Blvd.

Substances: Petroleum product Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Not reported Units: Activity Type: Response Activity Lead: Terry Corpus Assignment End Date: Not reported Result: Refer to ISST File Under: BMW of Honolulu

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls

**Engineering Control Required** Engineering Control:

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

O58 CHUEI SHOKOH, INC. HI SHWS 1006820040
ENE 825 KAPIOLANI BLVD HI SPILLS N/A

ENE 825 KAPIOLANI BLVD 1/2-1 HONOLULU, HI 96813

0.774 mi.

4088 ft. Site 1 of 2 in cluster O

HI ENG CONTROLS
HI INST CONTROL
HI VCP

Relative: SHWS:

HigherOrganization:Not reportedSupplemental Location:Not reported

Actual: Island: Oahu 3 ft. Environmental Interest: Chuei

Environmental Interest: Chuei Shokoh, Inc. 825 Kapiolani Blvd. HID Number: Not reported Facility Registry Identifier: 110013779269

Lead Agency: HEER

Program: Voluntary Response Program

Project Manager: Mark Sutterfield

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization:

Island:

Supplemental Location Text:

Not reported

Not reported

SDAR Environmental Interest Name: Chuei Shokoh, Inc. 825 Kapiolani Blvd.

HID Number: Not reported Facility Registry Identifier: 110013779269

Lead Agency: HEER

Progran Name: Voluntary Response Program
Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary Response: Response Complete

Nature of Contamination: Found: TPH, BTEX, PAHs, and free product in soil and groundwater.

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Prohibit Excavation

Institutional Control: Proprietary - Environmental Covenant

Within Designated Areawide Contamination: Not reported

Site Closure Type: Letter of Completion - Restricted Use

Document Date: 04/20/2005 Document Number: 2005-192-MS

Document Subject: Letter accepting monitoring well closure.

Project Manager: Mark Sutterfield

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19981207-1525
HID Number: Not reported
Facility Registry Id: 110013779269
Lead and Program: HEER EP&R

ER: No

Units: Former Auto Body Shop and UST

Substances: Diesel Fuel
Less Or Greater Than: Not reported
Numerical Quantity: Not reported
Units: Not reported
Activity Type: Response
Activity Lead: Liz Galvez

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

CHUEI SHOKOH, INC. (Continued)

1006820040

**EDR ID Number** 

Assignment End Date: Not reported Result: Refer to ISST File Under: Chuei Shokoh, Inc.

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Proprietary - Environmental Covenant

VCP:

Voluntary Response Program Program:

Zip Suffix: Not reported Supplemental Location: Not reported Island: Oahu

**O59** HECO SOIL CONTAMINATION CHAPIN LANE AND KAPIOLANI BOULEVARD **HI SHWS** S106817445 **HI ENG CONTROLS ENE CHAPIN LN & KAPIOLANI BLVD** N/A HI INST CONTROL

HONOLULU, HI 1/2-1

0.778 mi.

Actual:

4107 ft. Site 2 of 2 in cluster O

SHWS: Relative:

Not reported Organization: Higher

Supplemental Location: Not reported Island: Oahu

3 ft. **Environmental Interest:** Kapiolani Blvd. and Chapin Ln. Soil Contamination

> HID Number: Not reported 110013791067 Facility Registry Identifier: **HEER** Lead Agency: Program: State

Project Manager: Richard Palmer

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Kapiolani Blvd. and Chapin Ln. Soil Contamination

HID Number: Not reported 110013791067 Facility Registry Identifier: Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Response Necessary Assessment: Response: Response Complete Nature of Contamination: Not reported

Nature of Residual Contamination: Residual contamination TPH-diesel 1,960 mg/kg and TPH-gasoline 3,580

Direction Distance

Elevation Site Database(s) EPA ID Number

#### HECO SOIL CONTAMINATION CHAPIN LANE AND KAPIOLANI BOULEVARD (Continued)

S106817445

**EDR ID Number** 

mg/kg

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping

System

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 03/30/2010
Document Number: 2010-213-RP

Document Subject: Soil Contamination Chapin Lane and Kapiolani Blvd, NFA Letter

Project Manager: Richard Palmer

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:** 

Supplemental Location Text:

Zip Suffix:

Island:

Not reported

Not reported

Oahu

Potential Hazards And Controls: Hazard Managed With Controls Engineering Control: Engineering Control Required

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

60 HONOLULU GENERATING STATION RCRA-TSDF 1000146691
North 170 ALA MOANA BLVD. CERC-NFRAP HID000150680

 1/2-1
 HONOLULU, HI 96813
 CORRACTS

 0.781 mi.
 RCRA-SQG

 4125 ft.
 HI SHWS

 Relative:
 CA HAZNET

Higher HI AIRS
Actual: 2020 COR ACTION

Actual:

RCRA-TSDF:

Date form received by agency: 02/26/2004

Facility name: HONOLULU GENERATING STATION

Facility address: 170 ALA MOANA BLVD.

HONOLULU, HI 96813 HID000150680

EPA ID: HID000150680
Mailing address: P.O. BOX 2750

HONOLULU, HI 96840 DONN T FUKUDA

Contact: DONN T FUR
Contact address: Not reported
Not reported

Contact country: Not reported
Contact telephone: (808) 543-4525

Contact email: DONN.FUKUDA@HECO.COM

EPA Region: 09
Land type: Private
Classification: TSDF

Description: Handler is engaged in the treatment, storage or disposal of hazardous

waste

Direction Distance Elevation

tion Site Database(s) EPA ID Number

#### **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Owner/Operator Summary:

Owner/operator name: HAWAIIAN ELECTRIC COMPANY, INC

Owner/operator address: P.O. BOX 2750

HONOLULU, HI 96840

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: Private Owner/Operator Type: Owner Owner/Op start date: 01/01/1893 Owner/Op end date: Not reported

Owner/operator name: HAWAIIAN ELECTRIC CO., INC.

Owner/operator address: PO BOX 2750

CITY NOT REPORTED, HI 99999

Owner/operator country: Not reported
Owner/operator telephone: (808) 548-7311
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: HAWAIIAN ELECTRIC CO., INC.

Owner/operator address: PO BOX 2750

HONOLULU, HI 96840

Owner/operator country: Not reported
Owner/operator telephone: (808) 548-7311
Legal status: Private

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: HAWAIIAN ELECTRIC COMPANY, INC

Owner/operator address: Not reported Not reported

Owner/operator country: US

Owner/operator telephone: Not reported Legal status: Private Owner/Operator Type: Operator Owner/Op start date: 01/01/1893 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: Yes Used oil Specification marketer: Yes Used oil transfer facility: No

Direction Distance

Elevation Site Database(s) EPA ID Number

### **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Used oil transporter: No

Historical Generators:

Date form received by agency: 03/19/2003

Site name: HONOLULU GENERATING STATION

Classification: Small Quantity Generator

Date form received by agency: 07/29/1993

Site name: HAWAIIAN ELECTRIC CO HONOLULU GEN STE

Classification: Small Quantity Generator

Date form received by agency: 10/15/1992

Site name: HAWAIIAN ELECTRIC CO HONOLULU GEN STE

Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002

Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

Waste code: D008 Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

Waste code: F003

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT
MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT
NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS
CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED
SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL
BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

Map ID MAP FINDINGS
Direction

Direction Distance Elevation

vation Site Database(s) EPA ID Number

### **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

MIXTURES.

Waste code: P106

Waste name: SODIUM CYANIDE

Corrective Action Summary:

Event date: 01/01/1990 Event: CA029ST

Event date: 04/30/1990 Event: CA049PA

Event date: 04/30/1990

Event: CA Prioritization, Facility or area was assigned a low corrective

action priority.

Event date: 04/30/1990 Event: CA029EP

Event date: 03/16/1992

Event: Stabilization Measures Evaluation, This facility is not amenable to

stabilization activity at the present time for reasons other than 1it appears to be technically infeasible or inappropriate (NF) or 2there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at

the facility, or other administrative considerations.

Event date: 03/16/1992

Event: CA Prioritization, Facility or area was assigned a low corrective

action priority.

Event date: 04/01/2010

Event: Current Human Exposures under Control, Yes, Current Human Exposures

Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant

changes at the facility.

Event date: 12/11/2012

Event: Igration of Contaminated Groundwater under Control, Yes, Migration of

Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of

significant changes at the facility.

Event date: 12/11/2012 Event: CA550RC

Direction Distance Elevation

ation Site Database(s) EPA ID Number

### **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Facility Has Received Notices of Violations:

Regulation violated: FR - 40 CFR 262.34(a)(2)
Area of violation: Generators - Pre-transport

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA

Not reported Enforcement action: Enforcement action date: 05/28/2003 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: EPA Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 262.34(a)(2)
Area of violation: Generators - Pre-transport

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA

Enforcement action:

Enforcement action date:

Enforcement action date:

O5/15/2003

Enf. disposition status:

Not reported

Not reported

Not reported

Not reported

Enforcement lead agency:

EPA

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 262.34(a)(2)
Area of violation: Generators - Pre-transport

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 07/31/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 279.22(c)(1)
Area of violation: Used Oil - Generators

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA
Enforcement action: Not reported

Enforcement action:
Enforcement action date:
Enforcement action date:
O5/15/2003
Enf. disposition status:
Enf. disp. status date:
Enforcement lead agency:
Not reported
Not reported
EPA

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Direction Distance Elevation

ion Site Database(s) EPA ID Number

# **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Regulation violated: FR - 40 CFR 279.22(c)(1)
Area of violation: Used Oil - Generators

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA
Enforcement action: Not reported

Enforcement action date: 05/28/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA

Proposed populty amount: Net reported

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: FR - 40 CFR 279.22(c)(1)
Area of violation: Used Oil - Generators

Date violation determined: 03/18/2003
Date achieved compliance: 03/18/2004
Violation lead agency: EPA

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 07/31/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: TSD - Financial Requirements

Date violation determined: 03/31/1986
Date achieved compliance: 05/08/1986
Violation lead agency: EPA

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/31/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

**Evaluation Action Summary:** 

Evaluation date: 03/18/2003

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Used Oil - Generators

Date achieved compliance: 03/18/2004 Evaluation lead agency: EPA

Evaluation date: 03/18/2003

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 03/18/2004
Evaluation lead agency: EPA

Evaluation date: 03/13/1987

Evaluation: FINANCIAL RECORD REVIEW

Direction Distance

Elevation Site Database(s) EPA ID Number

# **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Area of violation:

Date achieved compliance:

Not reported

Not reported

Evaluation lead agency: EPA

Evaluation date: 09/15/1986

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:

Date achieved compliance:

Evaluation lead agency:

Not reported

Not reported

State

Evaluation date: 03/31/1986

Evaluation: FINANCIAL RECORD REVIEW Area of violation: TSD - Financial Requirements

Date achieved compliance: 05/08/1986 Evaluation lead agency: EPA

Evaluation date: 02/13/1986

Evaluation: COMPLIANCE SCHEDULE EVALUATION

Area of violation: Not reported Date achieved compliance: Not reported

Evaluation lead agency: EPA

Evaluation date: 07/11/1985

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CERC-NFRAP:

Site ID: 0900377

Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

**CERCLIS-NFRAP Site Contact Details:** 

Contact Sequence ID: 13037252.00000 Person ID: 9000059.00000

Program Priority:

Description: RCRA Deferral - Lead Confirmed

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: //
Date Completed: 05/08/90

Date Completed: 05/08/90
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT

Date Started: /

Date Completed: 05/15/90

Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE

Date Started: //
Date Completed: 01/23/96
Priority Level: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

### **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

CORRACTS:

EPA ID: HID000150680

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 20100401

Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human

Exposures Under Control has been verified

NAICS Code(s): 221112

Fossil Fuel Electric Power Generation

Original schedule date: 20100401 Schedule end date: Not reported

EPA ID: HID000150680

EPA Region: 09

Area Name: ENTIRE FACILITY

 Actual Date:
 20121211

 Action:
 CA550RC

 NAICS Code(s):
 221112

Fossil Fuel Electric Power Generation

Original schedule date: 20121211 Schedule end date: Not reported

EPA ID: HID000150680

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 20121211

Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes,

Migration of Contaminated Groundwater Under Control has been verified

NAICS Code(s): 221112

Fossil Fuel Electric Power Generation

Original schedule date: 20121211 Schedule end date: Not reported

EPA ID: HID000150680

EPA Region: 09

Area Name: ENTIRE FACILITY
Actual Date: 19920316

Action: CA075LO - CA Prioritization, Facility or area was assigned a low

corrective action priority

NAICS Code(s): 221112

Fossil Fuel Electric Power Generation

Original schedule date: Not reported Schedule end date: Not reported

EPA ID: HID000150680

EPA Region:

Area Name: ENTIRE FACILITY

Actual Date: 19900430

Action: CA075LO - CA Prioritization, Facility or area was assigned a low

corrective action priority

NAICS Code(s): 221112

Fossil Fuel Electric Power Generation

Original schedule date: Not reported Schedule end date: Not reported

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

# **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

SHWS:

Organization: Not reported Supplemental Location: Not reported Island: Oahu

**Environmental Interest:** Hawaiian Electric Company (HECO)-Honolulu Generating Station

HID000150680 HID Number: 110000700064 Facility Registry Identifier: Lead Agency: **HEER** 

Program: State Project Manager: Unassigned Hazard Priority:

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Hawaiian Electric Company (HECO)-Honolulu Generating Station

Low

HID Number: HID000150680 Facility Registry Identifier: 110000700064 Lead Agency: **HEER** 

Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: Low

Assessment: Response Not Necessary

Response: Not reported

Nature of Contamination: Found: Heavy fuel oil - probably not migrating; no contact hazard due

to soil; may be probable release to surface water - 3/7/1996

Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported

Within Designated Areawide Contamination: Honolulu Harbor Downtown Unit

Site Closure Type: Not reported **Document Date:** Not reported Document Number: Not reported **Document Subject:** Not reported Project Manager: Unassigned

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 20011024-1407 HID Number: HID000150680 Facility Registry Id: 110000700064 Lead and Program: HEER EP&R ER: Not reported

Units: Guzzler Hydraulic Fluid Spill

Substances: Hydraulic Fluid Less Or Greater Than: Not reported **Numerical Quantity:** Gallons Units: Activity Type: Response Activity Lead: Not reported Assignment End Date: Not reported Result: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **HONOLULU GENERATING STATION (Continued)**

1000146691

File Under: Hawaiian Electric Company (HECO)-Honolulu Generating Station

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 19980415-0845 HID Number: HID000150680 Facility Registry Id: 110000700064 Lead and Program: HEER EP&R ER: Not reported

Units: **HECO-Honolulu Gererating Station** 

Fuel Oil Substances: Not reported Less Or Greater Than: **Numerical Quantity:** 35 Units: Gallons Activity Type: Response Activity Lead: Not reported Assignment End Date: Not reported Result: Not reported

File Under: Hawaiian Electric Company (HECO)-Honolulu Generating Station

Island: Oahu

Supplemental Loc. Text: Not reported Case Number: 20040708-0700 HID Number: HID000150680 Facility Registry Id: 110000700064 Lead and Program: HEER EP&R

ER: No

Units: Honolulu Generating Station Seawater Intake

Substances: Oil Sheen Less Or Greater Than: < **Numerical Quantity:** 1 Units: Gallons Activity Type: Response Activity Lead: Paul Chong

2004-07-08 00:00:00 Assignment End Date:

Result: SOSC NFA

File Under: Hawaiian Electric Company (HECO)-Honolulu Generating Station

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 20041105-1850 HID Number: HID000150680 Facility Registry Id: 110000700064 Lead and Program: HEER EP&R

ER: No

Ward Avenue Blown Transformer Units:

Substances: Shell Diala Oil Less Or Greater Than: Not reported **Numerical Quantity:** 100 Gallons Units: Activity Type: Response Activity Lead: Paul Chong 2004-11-09 00:00:00 Assignment End Date:

Result: SOSC NFA

File Under: Hawaiian Electric Company (HECO)-Honolulu Generating Station

Island: Oahu

Direction Distance

Elevation Site Database(s) EPA ID Number

# **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Supplemental Loc. Text: Not reported
Case Number: 19960214-1545
HID Number: HID000150680
Facility Registry Id: 110000700064
Lead and Program: HEER EP&R

ER: No

Units: Honolulu Power Plant HECO Fuel oil storage tanks

Substances: Fuel Oil #6 Less Or Greater Than: Not reported **Numerical Quantity:** 1000 Units: Gallons Activity Type: Response Activity Lead: Chris Takeno Assignment End Date: Not reported Result: SOSC NFA

File Under: Hawaiian Electric Company (HECO)-Honolulu Generating Station

<u>Click this hyperlink</u> while viewing on your computer to access 2 additional HI SPILLS: record(s) in the EDR Site Report.

HAZNET:

Year: 2013

Gepaid: HID000150680
Contact: DONN FUKUDA
Telephone: 8085435674
Mailing Name: Not reported

Mailing Address: 170 ALA MOANA BLVD
Mailing City,St,Zip: HONOLULU, HI 968130000

Gen County: 99

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

(H010-H129) Or (H131-H135)

Tons: 0.0325 Facility County: Not reported

Year: 2013

Gepaid: HID000150680
Contact: DONN FUKUDA
Telephone: 8085435674
Mailing Name: Not reported

Mailing Address: 170 ALA MOANA BLVD
Mailing City,St,Zip: HONOLULU, HI 968130000

Gen County: 99

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

(H010-H129) Or (H131-H135)

Tons: 2.25

Facility County: Not reported

Year: 2013

Gepaid: HID000150680 Contact: DONN FUKUDA Telephone: 8085435674

Direction Distance

Elevation Site Database(s) EPA ID Number

# **HONOLULU GENERATING STATION (Continued)**

1000146691

**EDR ID Number** 

Mailing Name: Not reported

Mailing Address: 170 ALA MOANA BLVD
Mailing City,St,Zip: HONOLULU, HI 968130000

Gen County: 99

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

(H010-H129) Or (H131-H135)

Tons: 0.25 Facility County: Not reported

Year: 2012

Gepaid: HID000150680
Contact: DONN FUKUDA
Telephone: 8085435674
Mailing Name: Not reported

Mailing Address: 170 ALA MOANA BLVD
Mailing City,St,Zip: HONOLULU, HI 968130000

Gen County: 99

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

(H010-H129) Or (H131-H135)

Tons: 0.075 Facility County: 99

Year: 2012

Gepaid: HID000150680
Contact: DONN FUKUDA
Telephone: 8085435674
Mailing Name: Not reported

Mailing Address: 170 ALA MOANA BLVD
Mailing City,St,Zip: HONOLULU, HI 968130000

Gen County: 99

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Not reported

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

(H010-H129) Or (H131-H135)

Tons: 0.01 Facility County: 99

<u>Click this hyperlink</u> while viewing on your computer to access 26 additional CA\_HAZNET: record(s) in the EDR Site Report.

AIRS:

Facility ID: 0238-01-C
Island: Oahu
Mailing Address: P.O. Box 2750
Locale: Not reported

Mailing City, St, Zip: Honolulu, HI 96840-0001

Contact Name: Sheri-Ann Loo

Contact Title: Manager, Environmental Department

Description: Honolulu Generating StationThis permit encompasses the following

equipment and associated appurtenances: HECOUnit No. Description 856 MW

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **HONOLULU GENERATING STATION (Continued)**

1000146691

Babcock and Wilcox Boiler, 589.0 MMBtu/hr957 MW Babcock and Wilcox Boiler, 631.5 MMBtu/hr

2020 COR ACTION:

EPA ID: HID000150680

Region:

Action: Not reported

1006819167 61 **KEEHI SMALL BOAT HARBOR** HI SHWS NW **4 SAND ISLAND RD HI SPILLS** N/A

HONOLULU, HI 96819 1/2-1 0.782 mi.

4127 ft.

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Keehi Lagoon

Actual: Island: Oahu

3 ft. Environmental Interest: Honolulu Marine Small Boat Shipyard at Keehi Lagoon

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: **HEER** Program: State Paul Chong Project Manager:

Hazard Priority: Low

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Keehi Lagoon Supplemental Location Text:

SDAR Environmental Interest Name: Honolulu Marine Small Boat Shipyard at Keehi Lagoon

HID Number: Not reported Facility Registry Identifier: Not reported **HEER** Lead Agency: Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: Low

Assessment: Assessment Ongoing

Response: Not reported Nature of Contamination: Not reported Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported Site Closure Type: Not reported **Document Date:** Not reported **Document Number:** Not reported **Document Subject:** Not reported Project Manager: Paul Chong

(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814 Contact Information:

HI SPILLS:

Island: Oahu

Not reported Supplemental Loc. Text: 20080720-1230 Case Number: HID Number: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# **KEEHI SMALL BOAT HARBOR (Continued)**

1006819167

HI UST

TC4150044.2s Page 115

**HI SPILLS** 

Facility Registry Id: 110013769396 Lead and Program: HEER EP&R

ER: None

Units: Boat Sank - Gasoline Release

Substances: Gasoline, Unleaded Less Or Greater Than: Not reported

**Numerical Quantity:** 0.5 Units: Gallons Response Activity Type: Activity Lead: Liz Galvez Assignment End Date: Not reported Result: Not reported

File Under: State of Hawaii, Department of Transportation, Harbors Division

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 19900629 HID Number: Not reported Facility Registry Id: 110013769396 Lead and Program: HEER EP&R ER: Not reported

Units: KEEHI SMALL BOAT HARBOR, SAND ISLAND ACCESS RD. 4

Substances: **PROPANE** Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Not reported Units: Activity Type: Response Activity Lead: Not reported Assignment End Date: Not reported Result: SOSC NFA

File Under: State of Hawaii, Department of Transportation, Harbors Division

HAWAII NEWSPAPER AGENCY INC P62 **HI SHWS** 1000146678 NE **605 KAPIOLANI BLVD HI LUST** N/A

1/2-1 HONOLULU, HI 96813 0.796 mi.

**HI ENG CONTROLS** 4205 ft. Site 1 of 2 in cluster P **HI INST CONTROL** 

Relative:

SHWS: Higher

Organization: Not reported Actual: Supplemental Location: Not reported 7 ft. Island: Oahu

Environmental Interest: The Honolulu Advertiser (Hawaii Newspaper Agency)

Not reported HID Number: 110005726330 Facility Registry Identifier: **HEER** Lead Agency: Program: State Project Manager: Cal Miyahara

Hazard Priority: Medium Potential Hazards And Controls:

Hazard Managed With Controls Organization: Not reported

Island: Oahu Supplemental Location Text: Not reported

SDAR Environmental Interest Name: The Honolulu Advertiser (Hawaii Newspaper Agency)

HID Number: Not reported

110005726330 Facility Registry Identifier: Lead Agency: **HEER** 

Direction Distance

Elevation Site Database(s) EPA ID Number

# HAWAII NEWSPAPER AGENCY INC (Continued)

1000146678

**EDR ID Number** 

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: Medium

Assessment: Response Necessary Response: Response Ongoing

Nature of Contamination: Found: TPH-g found in soil near New Building loading dock. TPH-o found

in soil on east side of property near Kapiolani Blvd. Lead (4050

mg/kg) found in soil in westside parking lot.

Nature of Residual Contamination: Not reported

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Not reported

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 10/26/2011
Document Number: 2011-618-CMM

Document Subject: Final Environmental Hazard Management Plan (EHMP), Honolulu Advertiser

Property, 605 Kapiolani Blvd

Project Manager: Cal Miyahara

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:

Facility ID: 9-100938

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 10/27/1993
Release ID: 940008
Project Officer: Eric Sadoyama

Facility ID: 9-100938

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 05/07/1999
Release ID: 930071
Project Officer: Eric Sadoyama

UST:

Facility ID: 9-100938

Owner: HAWAII NEWSPAPER AGENCY, INC.

Owner Address: 605 KAPIOLANI BLVD Owner City,St,Zip: Honolulu, 96813 96813

Latitude: 21.3031 Longitude: -157.856 Horizontal Reference Datum Naha@83

Tank ID: R-1

Date Installed: 05/16/1978

Tank Status: Permanently Out of Use

Date Closed: 12/01/1994
Tank Capacity: 6000
Substance: Gasoline

Tank ID: R-2 Date Installed: 05/16/1978

Tank Status: Permanently Out of Use

Date Closed: 12/01/1994

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

# **HAWAII NEWSPAPER AGENCY INC (Continued)**

1000146678

**EDR ID Number** 

6000 Tank Capacity: Substance: Gasoline

Tank ID: R-3

Date Installed: Not reported

Tank Status: **Permanently Out of Use** 

Date Closed: 10/16/1989 Tank Capacity: Not reported Substance: Not Listed

HI SPILLS:

Oahu Island: Supplemental Loc. Text: Not reported Case Number: 20100826-1115 HID Number: Not reported Facility Registry Id: 110005726330 Lead and Program: HEER EP&R

ER: None

Units: former Honolulu Advertiser site

Substances: Lead Less Or Greater Than: Not reported Numerical Quantity:

Units: Unknown Activity Type: Response Activity Lead: Liz Galvez

Assignment End Date: 2011-01-11 00:00:00 Result: Refer to SDAR

File Under: The Honolulu Advertiser

Oahu Island:

Supplemental Loc. Text: Not reported 20100826-1115 Case Number: HID Number: Not reported Facility Registry Id: 110005726330 Lead and Program: HEER EP&R ER:

None

Units: former Honolulu Advertiser site

Substances: Oil

Less Or Greater Than: Not reported

**Numerical Quantity:** 

Units: Unknown Activity Type: Response Activity Lead: Liz Galvez

2011-01-11 00:00:00 Assignment End Date: Result: Refer to SDAR

File Under: The Honolulu Advertiser

ENG CONTROLS:

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### **HAWAII NEWSPAPER AGENCY INC (Continued)**

1000146678

INST CONTROL:

Hazard Managed With Controls Potential hazards and controls:

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

63 SYMPHONY PARK HI SHWS S107022567 850 KAPIOLANI BLVD **ENE** N/A

1/2-1 HONOLULU, HI 96807

0.797 mi. 4210 ft.

SHWS: Relative:

Organization: Not reported Higher

Supplemental Location: Intersection with Ward Avenue

Actual: Island: Oahu

3 ft. Environmental Interest: Symphony Park HID984467654 HID Number:

110013778206 Facility Registry Identifier: Lead Agency: **HEER** 

Program: State Project Manager: Liz Galvez NFA Hazard Priority:

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu

Supplemental Location Text: Intersection with Ward Avenue

SDAR Environmental Interest Name: Symphony Park HID Number: HID984467654 Facility Registry Identifier: 110013778206 Lead Agency: **HEER** 

Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment: Assessment Ongoing

Response: Not reported Not reported Nature of Contamination: Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Not reported Institutional Control: Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action - Type Undetermined

08/31/1995 Document Date: Document Number: Not reported **Document Subject:** Not reported Project Manager: Liz Galvez

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

P64 **HECO PAD-MOUNTED #65844 TRANSFORMER RELEASE HI SHWS** 1006818926 N/A

NE 650 KAPIOLANI BLVD **HI SPILLS** HONOLULU, HI 96813 **HI INST CONTROL** 1/2-1

0.803 mi.

4239 ft. Site 2 of 2 in cluster P

SHWS: Relative:

Organization: Not reported Higher Not reported Supplemental Location:

Actual: Island: Oahu

7 ft. **Environmental Interest:** Motor Imports

HID Number: Not reported 110013766825 Facility Registry Identifier:

Lead Agency: **HEER** Program: State

Project Manager: Mark Sutterfield

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported SDAR Environmental Interest Name: Motor Imports HID Number: Not reported Facility Registry Identifier: 110013766825

**HEER** Lead Agency:

Progran Name: State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Nature of Residual Contamination:

Use Restrictions:

Assessment: Response Necessary Response: Response Complete

Found: Petroleum contaminated soil and groundwater on and off the Nature of Contamination:

> site. Cannot remove soil based on electical corridirs Free product still observed in one monitoring well Controls Required to Manage Contamination

**Engineering Control:** Not reported

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Monitoring

System

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

**Document Date:** 07/13/2004 Document Number: 2004-267-MS

**Document Subject:** No further Groundwater monitoring required

Project Manager: Mark Sutterfield

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 20110629-1249 HID Number: Not reported Facility Registry Id: Not reported Lead and Program: HEER EP&R ER: None

Units: HECO pad-mounted #65844 transformer release

Substances: Transformer Oil

Less Or Greater Than: Numerical Quantity: 2 Units: Gallons

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### HECO PAD-MOUNTED #65844 TRANSFORMER RELEASE (Continued)

1006818926

Activity Type: Response Curtis Martin Activity Lead: Assignment End Date: Not reported Result: Not reported File Under: Not reported

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

RCRA NonGen / NLR 1000135795 65 **JAS W GLOVER LTD East** 1046 WAIMAMU ST **FINDS** HID981637861

1/2-1 HONOLULU, HI 96814 **HI SHWS** 0.822 mi. **HI LUST** HI UST 4341 ft.

RCRA NonGen / NLR: Relative:

Date form received by agency: 01/09/1987 Higher

Facility name: JAS W GLOVER LTD Actual: Facility address: 1046 WAIMAMU ST 3 ft. HONOLULU, HI 96814

EPA ID: HID981637861 Mailing address: PO BOX 579

HONOLULU, HI 96809

ENVIRONMENTAL MANAGER Contact:

Contact address: 1046 WAIMAMU ST

HONOLULU, HI 96814

Contact country:

Contact telephone: (808) 533-1777 Not reported Contact email:

EPA Region: 09

Other land type Land type: Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/Op end date:

Owner/operator name: JAS W GLOVER Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported (415) 555-1212 Owner/operator telephone: Legal status: Private Owner/Operator Type: Owner Owner/Op start date: Not reported

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Not reported

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212 Legal status: Private Owner/Operator Type: Operator Owner/Op start date: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

# JAS W GLOVER LTD (Continued)

1000135795

**EDR ID Number** 

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 12/21/1995

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:
Date achieved compliance:
Evaluation lead agency:
Not reported
Not reported
State

FINDS:

Registry ID: 110005724252

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

SHWS:

Organization:

Not reported
Supplemental Location:

Island:

Environmental Interest:

HID Number:

Facility Registry Identifier:

Lead Agency:

Not reported

110005724252

HEER

Program: State

Project Manager: Melody Calisay Hazard Priority: NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## JAS W GLOVER LTD (Continued)

1000135795

Island: Oahu Supplemental Location Text: Not reported SDAR Environmental Interest Name: Glover Building HID Number: Not reported 110005724252 Facility Registry Identifier:

Lead Agency: **HEER** Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment: Response Necessary Response: Response Complete Nature of Contamination: Found: Hydraulic fluid

Nature of Residual Contamination: unknown Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Not reported Within Designated Areawide Contamination:

Site Closure Type: ISST NFA - No Letter

Document Date: 06/10/2004 Document Number: Not reported **Document Subject:** Not reported Project Manager: Melody Calisay

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:

Facility ID: 9-100835

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 05/26/2004 020019 Release ID: Project Officer: Richard Takaba

UST:

Facility ID: 9-100835

Owner: JAS W. GLOVER, LTD

Owner Address: 725 KAPIOLANI BLVD, SUITE 306

Owner City, St, Zip: Honolulu, 96814 96814

21.2963 Latitude: Longitude: -157.851 Horizontal Reference Datum NahAe 83

Tank ID: R-1 Date Installed: 03/07/2037

Tank Status: **Permanently Out of Use** 

11/12/1990 Date Closed: Tank Capacity: 600 Substance: Gasoline

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

66 PACIFICA CONDOMINIUM HI SHWS S110765470
ENE 1009 KAPIOLANI BLVD HI LUST N/A

1/2-1 0.837 mi. 4418 ft.

Relative: SHWS:

HONOLULU, HI 96814

Higher Organization: Not reported

Supplemental Location: Not reported

Actual: Island: Oahu

3 ft. Environmental Interest: Pacifica Condominiums

HID Number:

Facility Registry Identifier:

Lead Agency:

Program:

Project Manager:

Hazard Priority:

Not reported

Not report

Hazard Priority:

Potential Hazards And Controls:

Organization:

Island:

Supplemental Location Text:

NFA

No Hazard

Not reported

Oahu

Not reported

SDAR Environmental Interest Name: Pacifica Condominiums

HID Number:
Racility Registry Identifier:
Not reported
Lead Agency:
HEER
Progran Name:
State
Potential Hazard And Controls:
No Hazard
Priority:
NFA

Assessment: Response Necessary Response: Response Complete

Nature of Contamination: Found: Low levels of contaminated soil left in place. Area capped with

multistory building

Nature of Residual Contamination: Not reported

Use Restrictions: No Hazard Present For Unrestricted Residential Use

Engineering Control:

Description of Restrictions:

Institutional Control:

Within Designated Areawide Contamination:

Not reported
Not reported
Not reported
Not reported

Site Closure Type: No Further Action Letter - Unrestricted Residential Use

 Document Date:
 07/19/2011

 Document Number:
 2011-399-PC

Document Subject: Subsurface Soil Assessment Report, Honolulu HI dated October 28, 2010

Project Manager: Paul Chong

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:

Facility ID: 9-103909

Facility Status: Site Cleanup Completed (NFA)

Facility Status Date: 11/07/2011
Release ID: 110013
Project Officer: Shunsheng Fu

Direction Distance

Elevation Site Database(s) EPA ID Number

67 SELF STORAGE 1 HI SHWS 1006819998
East 438 KAMAKEE ST HI SPILLS N/A

1/2-1 HONOLULU, HI 96814

0.839 mi. 4432 ft.

Relative: SHWS:

HigherOrganization:Not reportedSupplemental Location:Not reported

Actual: Island: Oahu

3 ft. Environmental Interest: Hencelyly I

Environmental Interest: Honolulu Laundry HID Number: Not reported Facility Registry Identifier: 110013778769

Lead Agency: HEER Program: State

Project Manager: Mark Sutterfield

Hazard Priority: NFA Potential Hazards And Controls: No Hazard Organization: Not reported Island: Oahu Supplemental Location Text: Not reported SDAR Environmental Interest Name: Honolulu Laundry HID Number: Not reported Facility Registry Identifier: 110013778769

Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: No Hazard
Priority: NFA

Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Not reported

Nature of Residual Contamination: Petroleum contaminated soil. 2 tanks closed in place; suggested they

be removed when site is redeveloped.

Use Restrictions: No Hazard Present For Unrestricted Residential Use

Engineering Control:

Description of Restrictions:

Institutional Control:

Within Designated Areawide Contamination:

Not reported

Not reported

Not reported

Site Closure Type: No Further Action Letter - Unrestricted Residential Use

 Document Date:
 08/26/2004

 Document Number:
 2004-350-MS

Document Subject: NFA letter for Self Storage 1at 438 Kamakee St

Project Manager: Mark Sutterfield

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19981028-1300
HID Number: Not reported
Facility Registry Id: 110013778769
Lead and Program: HEER EP&R
ER: Yes

Units: Self Storage 1 ( previously Volkswagon repair shop, Laundry Facility) 5 sand filled UST's onsite

Substances: Oil/Hydraulic Fluid/Solvents

Less Or Greater Than: Not reported
Numerical Quantity: Not reported
Units: Not reported
Activity Type: Cost Recovery

**EDR ID Number** 

Direction Distance

Elevation Site Database(s) EPA ID Number

**SELF STORAGE 1 (Continued)** 

1006819998

**EDR ID Number** 

Activity Lead: Tricia Nagatani
Assignment End Date: 2002-11-30 00:00:00

Result: New PM
File Under: Self Storage 1

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19981028-1300
HID Number: Not reported
Facility Registry Id: 110013778769
Lead and Program: HEER EP&R
ER: Yes

Units: Self Storage 1 ( previously Volkswagon repair shop, Laundry Facility) 5 sand filled UST's onsite

Substances: Oil/Hydraulic Fluid/Solvents

Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Not reported Units: Activity Type: Response Activity Lead: Bill Perry Assignment End Date: Not reported Result: Refer to ISST File Under: Self Storage 1

68 RESERVE HOUSING TOWER SOIL CONTAMINATION HI SHWS 1006819959
East 1141 WAIMANU ST HI SPILLS N/A

1/2-1 HONOLULU, HI 96813

0.892 mi. 4712 ft.

Relative: SHWS:

 Higher
 Organization:
 Not reported

 Supplemental Location:
 Not reported

 Actual:
 Island:
 Oahu

3 ft. Environmental Interest: Reserve Housing Tower Soil Contamination

HID Number:
Racility Registry Identifier:
Lead Agency:
Program:
Project Manager:
Hazard Priority:
Not reported
State
Unassigned
NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu
Supplemental Location Text: Not reported

SDAR Environmental Interest Name: Reserve Housing Tower Soil Contamination

HID Number: Not reported
Facility Registry Identifier: 110013778322
Lead Agency: Not reported
Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment: Assessment Ongoing

Response: Not reported Nature of Contamination: Found: oil

Nature of Residual Contamination: contaminants below HDOH EALs, and under a parking garage.

Use Restrictions:

Engineering Control:
Description of Restrictions:

Undetermined
Not reported
Not reported

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

## RESERVE HOUSING TOWER SOIL CONTAMINATION (Continued)

1006819959

Institutional Control: Not reported Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action - Type Undetermined

Document Date: 10/25/1995
Document Number: Not reported
Document Subject: Not reported
Project Manager: Unassigned

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19951025-2
HID Number: Not reported
Facility Registry Id: 110013778322
Lead and Program: HEER EP&R
ER: No

Units: Reserve Housing Tower

Substances: oil/stained soil Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Not reported Activity Type: Response Activity Lead: Bill Perry Assignment End Date: Not reported Refer to ISST Result:

File Under: Reserve Housing Tower

69 SAND ISLAND BUSINESS ASSOCIATION LOT 023

NW 1020 ULUPONO ST 1/2-1 HONOLULU, HI 96819

0.922 mi. 4869 ft.

Relative: SHWS:

Higher Organization: Not reported

Supplemental Location: Sand Island Business Association Lot 023

Actual: Island: Oahu

3 ft. Environmental Interest: Sand Island Business Association Lot 023 AST

HID Number:
Racility Registry Identifier:
Lead Agency:
Program:
Project Manager:
Hazard Priority:
Not reported
State
Laura Young
NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu

Island: Oahu
Supplemental Location Text: Sand Island Business Association Lot 023

Supplemental Location Text.

Sand Island Business Association Lot 023

SDAR Environmental Interest Name:

HID Number:

Sand Island Business Association Lot 023 AST

Not reported

Facility Registry Identifier: 110013778830
Lead Agency: Not reported
Progran Name: State

Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment: Assessment Ongoing

**HI SHWS** 

1006820004

N/A

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

## SAND ISLAND BUSINESS ASSOCIATION LOT 023 (Continued)

1006820004

Response: Not reported
Nature of Contamination: Not reported
Nature of Residual Contamination: Not reported
Use Restrictions: Undetermined
Engineering Control: Not reported
Description of Restrictions: Not reported
Institutional Control: Not reported

Within Designated Areawide Contamination: Honolulu Harbor Sand Island Unit Site Closure Type: Honolulu Harbor Sand Island Unit No Further Action - Type Undetermined

Document Date: 07/08/2002

Document Number: Not reported

Document Subject: Not reported

Project Manager: Laura Young

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

\_\_\_\_\_

70 KOOLANI TOWER PROJECT HI SHWS \$106818609
East 1189 WAIMANU ST HI SPILLS N/A
1/2-1 HONOLULU, HI 96814 HI ENG CONTROLS
0.933 mi. HI INST CONTROL

0.933 mi. 4926 ft.

Relative: SHWS:

 Higher
 Organization:
 Not reported

 Supplemental Location:
 Not reported

Actual: Island: Not repo

3 ft. Environmental Interest: Koolani Tower Project

HID Number: Not reported Facility Registry Identifier: Not reported Lead Agency: HEER Program: State

Project Manager: Mark Sutterfield

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Managed With Controls Organization: Not reported

Island: Oahu
Supplemental Location Text: Not reported
SDAR Environmental Interest Name: Koolani Tower Project

HID Number:

Facility Registry Identifier:

Lead Agency:

Progran Name:

Not reported

Not reported

HEER

State

Potential Hazard And Controls: Hazard Managed With Controls

Priority: NFA

Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Found: Lead

Nature of Residual Contamination: Thin layer of lead covered by new condominium building

Use Restrictions: Controls Required to Manage Contamination

Engineering Control: Engineering Control Required

Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System. Thin layer of lead covered by new condominium building.

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Within Designated Areawide Contamination: Not reported

Site Closure Type: No Further Action Letter - Restricted Use

Document Date: 02/02/2006
Document Number: 2006-059-MS

Document Subject: NFA for footprint of building and parking lot in Area 2

Project Manager: Mark Sutterfield

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## **KOOLANI TOWER PROJECT (Continued)**

S106818609

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu Supplemental Loc. Text: Not reported 20040615-1651 Case Number: HID Number: Not reported Facility Registry Id: Not reported Lead and Program: HEER EP&R ER: Not reported

Units: Koolani Tower Project

Substances: Diesel Fuel Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Unknown Response Activity Type: Activity Lead: Liz Galvez Assignment End Date: Not reported Result: Refer to ISST File Under: Cresent Heights

**ENG CONTROLS:** 

Supplemental Location Text: Not reported Zip Suffix: Not reported Island: Oahu

Potential Hazards And Controls: Hazard Managed With Controls **Engineering Control: Engineering Control Required** 

INST CONTROL:

Potential hazards and controls: Hazard Managed With Controls

Supplemental Location: Not reported Zip Suffix: Not reported Island: Oahu

Institutional Control: Government - Hawaii Dept. of Health Letter Issued

71 **ONE ARCHER LANE HI SHWS** 1006818981 ΝE 801 S KING ST **HI SPILLS** N/A HONOLULU, HI 96813

1/2-1 0.942 mi. 4972 ft.

SHWS: Relative:

Organization: Not reported Higher Supplemental Location: Not reported

Actual: Island: Oahu

10 ft. Environmental Interest: One Archer Lane Petroleum Contamination

HID Number: Not reported 110013767414 Facility Registry Identifier: Lead Agency: SHWB Program: State

Project Manager: Eric Sadoyama

Hazard Priority: NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ONE ARCHER LANE (Continued)** 

1006818981

One Archer Lane Petroleum Contamination SDAR Environmental Interest Name:

HID Number: Not reported Facility Registry Identifier: 110013767414 SHWB Lead Agency: Progran Name: State

Hazard Undetermined Potential Hazard And Controls:

Priority: NFA

Within Designated Areawide Contamination:

Assessment: Assessment Ongoing Not reported Response: Nature of Contamination: Not reported Nature of Residual Contamination: Not reported Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported

No Further Action - Type Undetermined Site Closure Type:

**Document Date:** 01/10/2006 Document Number: Not reported **Document Subject:** Not reported Project Manager: Eric Sadoyama

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Not reported

HI SPILLS:

Oahu Island: Supplemental Loc. Text: Not reported Case Number: 20011013-1451 HID Number: Not reported Facility Registry Id: 110013767414 Lead and Program: HEER EP&R ER: Site Visit

Units: 1 Archer Lane, Honolulu, White Powder-Anthrax Scare

Substances: Unknown white powder possibily containing a bioterrorism agent anthrax

Less Or Greater Than: Not reported Not reported **Numerical Quantity:** Not reported Units: Activity Type: Response Activity Lead: Bill Perry Not reported Assignment End Date: SOSC NFA Result:

File Under: Myers King Street Partners

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 19960724-1544 HID Number: Not reported Facility Registry Id: 110013767414 Lead and Program: HEER EP&R

ER: No

Units: One Archer Lane, petroleum contamination

Substances: Petroleum Less Or Greater Than: Not reported Not reported **Numerical Quantity:** Units: Not reported Activity Type: Response Activity Lead: Terry Corpus Assignment End Date: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**ONE ARCHER LANE (Continued)** 

1006818981

HI SHWS

1006820894

N/A

Result: Refer to ISST

File Under: Myers King Street Partners

Island: Oahu Supplemental Loc. Text: Not reported Case Number: 19961002-1100 HID Number: Not reported Facility Registry Id: 110013767414 Lead and Program: HEER EP&R

ER:

Units: One Archer Lane, discovered UST

Substances: Not reported Less Or Greater Than: Not reported **Numerical Quantity:** Not reported Units: Not reported Activity Type: Response Activity Lead: Terry Corpus Assignment End Date: Not reported Result: Refer to ISST

File Under: Myers King Street Partners

72 HARBOR COURT North **66 QUEEN ST** 1/2-1 HONOLULU, HI 96813

0.970 mi. 5119 ft.

SHWS: Relative:

Not reported Organization: Higher Supplemental Location: Not reported Actual: Island: Oahu

7 ft. **Environmental Interest: Harbor Court** HID Number: Not reported

110013789212 Facility Registry Identifier: Lead Agency: Not reported Program: State Project Manager: Unassigned Hazard Priority: NFA

Potential Hazards And Controls: Hazard Undetermined

Organization: Not reported Island: Oahu Supplemental Location Text: Not reported SDAR Environmental Interest Name: **Harbor Court** HID Number: Not reported 110013789212 Facility Registry Identifier: Lead Agency: Not reported

Progran Name: State Potential Hazard And Controls: Hazard Undetermined

Priority: NFA

Assessment: Assessment Ongoing

Response: Not reported Nature of Contamination: Not reported Not reported Nature of Residual Contamination: Use Restrictions: Undetermined **Engineering Control:** Not reported Description of Restrictions: Not reported Institutional Control: Not reported Within Designated Areawide Contamination: Not reported

Map ID MAP FINDINGS Direction

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

HARBOR COURT (Continued) 1006820894

Site Closure Type: No Further Action - Type Undetermined

Document Date: 12/21/1994
Document Number: Not reported
Document Subject: Not reported
Project Manager: Unassigned

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Count: 11 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HONOLULU	S108008546	KAKAAKO BROWNFIELD PROJECT - UNIT	AHUI ST	96814	HI SHWS, HI ENG CONTROLS, HI BROWNFIELDS
HONOLULU	S110061573	KAKAAKO BROWNFIELD PROJECT - UNIT	AHUI ST	96814	HI SHWS, HI ENG CONTROLS, HI BROWNFIELDS
HONOLULU	S111704760	KAKAAKO MAKAI DISTRICT JOHN DOMINI	AHUI ST		HI SHWS, HI INST CONTROL
HONOLULU	S111704669	ALA WAI HARBOR BOAT REPAIR YARD	ALA MOANA BLVD		HI SHWS
HONOLULU	1006820751	KAKAAKO MAKAI GATEWAY	COOKE ST & ILALO ST	96814	HI SHWS
HONOLULU	S111704745	HONOLULU SEAWATER AIR CONDITIONING	KEAWE ST		HI SHWS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	S108859943	KAKAAKO BROWNFIELD PROJECT - UNIT	KOULA ST	96814	HI SHWS, HI ENG CONTROLS, HI BROWNFIELDS
HONOLULU	S110061572	KAKAAKO BROWNFIELD PROJECT - UNIT	KOULA ST	96814	HI SHWS, HI ENG CONTROLS, HI BROWNFIELDS
HONOLULU	S111704706	FORMER KAPALAMA MILITARY RESERVATI	N NIMITZ HWY		HI SHWS
HONOLULU	S108008765	CITIZENS ENERGY SERVICES PIER 38	NIMITZ HWY		HI SHWS, HI SPILLS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	1006820220	DLNR BURIED DRUM SITE	SAND ISLAND ACCESS RD	96819	HI SHWS, HI SPILLS, HI INST CONTROL

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/29/2014 Source: EPA
Date Data Arrived at EDR: 10/08/2014 Telephone: N/A

Date Made Active in Reports: 11/17/2014 Last EDR Contact: 10/08/2014

Number of Days to Update: 40 Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/29/2014 Source: EPA
Date Data Arrived at EDR: 10/08/2014 Telephone: N/A

Number of Days to Update: 40 Next Scheduled EDR Contact: 01/19/2015

Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Source: EPA

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site list

**DELISTED NPL: National Priority List Deletions** 

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/29/2014 Date Data Arrived at EDR: 10/08/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 40

Source: EPA Telephone: N/A

Last EDR Contact: 10/08/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Quarterly

#### Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 11/24/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Quarterly

## FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/21/2014 Date Data Arrived at EDR: 10/07/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 10/07/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 11/11/2013 Date Made Active in Reports: 02/13/2014

Number of Days to Update: 94

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 11/24/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 78

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014 Number of Days to Update: 78

Telephone: (415) 495-8895 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

Source: Environmental Protection Agency

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014 Number of Days to Update: 78

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 78

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 78

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014 Date Data Arrived at EDR: 09/19/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/08/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014 Date Data Arrived at EDR: 09/19/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/08/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/29/2014 Date Data Arrived at EDR: 10/09/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 11

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 11/17/2014

Next Scheduled EDR Contact: 03/02/2015 Data Release Frequency: Varies

### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014 Date Data Arrived at EDR: 09/30/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 37

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 09/30/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

# State- and tribal - equivalent CERCLIS

SHWS: Sites List

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/07/2014

Number of Days to Update: 9

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Landfills in the State of Hawaii

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/17/2012 Date Data Arrived at EDR: 04/03/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 37

Source: Department of Health Telephone: 808-586-4245 Last EDR Contact: 10/03/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Varies

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/17/2014 Date Data Arrived at EDR: 09/19/2014 Date Made Active in Reports: 09/25/2014

Number of Days to Update: 6

Source: Department of Health Telephone: 808-586-4228 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/22/2014 Date Data Arrived at EDR: 08/22/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 27

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014

Date Data Arrived at EDR: 10/29/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 19

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014 Date Data Arrived at EDR: 06/10/2014 Date Made Active in Reports: 08/22/2014

Number of Days to Update: 73

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014 Date Data Arrived at EDR: 11/07/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 10

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014 Date Data Arrived at EDR: 11/05/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 12

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013

Number of Days to Update: 184

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/31/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014 Date Data Arrived at EDR: 08/12/2014 Date Made Active in Reports: 08/22/2014

Number of Days to Update: 10

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Semi-Annually

#### State and tribal registered storage tank lists

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/17/2014 Date Data Arrived at EDR: 09/19/2014 Date Made Active in Reports: 09/25/2014

Number of Days to Update: 6

Source: Department of Health Telephone: 808-586-4228 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013 Date Data Arrived at EDR: 05/01/2013 Date Made Active in Reports: 01/27/2014

Number of Days to Update: 271

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/31/2014

Next Scheduled EDR Contact: 02/09/2015

Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014 Date Data Arrived at EDR: 08/12/2014 Date Made Active in Reports: 08/22/2014

Number of Days to Update: 10

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014 Date Data Arrived at EDR: 11/05/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 12

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014 Date Data Arrived at EDR: 10/29/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 8

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 08/20/2014 Date Data Arrived at EDR: 08/22/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 27

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014 Date Data Arrived at EDR: 11/07/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 10

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/14/2014 Date Data Arrived at EDR: 08/15/2014 Date Made Active in Reports: 08/22/2014

Number of Days to Update: 7

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/20/2014 Date Data Arrived at EDR: 06/10/2014 Date Made Active in Reports: 08/15/2014

Number of Days to Update: 66

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 10/10/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Varies

### State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Control Sites

A listing of sites with engineering controls in place.

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/07/2014

Number of Days to Update: 9

Source: Department of Health Telephone: 404-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Varies

INST CONTROL: Sites with Institutional Controls

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/07/2014

Number of Days to Update: 9

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Varies

#### State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014 Date Data Arrived at EDR: 10/01/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 36

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 10/01/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

VCP: Voluntary Response Program Sites

Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/07/2014

Number of Days to Update: 9

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Varies

#### State and tribal Brownfields sites

**BROWNFIELDS: Brownfields Sites** 

With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/07/2014

Number of Days to Update: 9

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Varies

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/22/2014 Date Data Arrived at EDR: 09/23/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 27

Source: Environmental Protection Agency Telephone: 202-566-2777

Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/05/2015 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 10/24/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency Telephone: 800-424-9346

Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 10/29/2014

Next Scheduled EDR Contact: 02/16/2015 Data Release Frequency: Varies

#### Local Lists of Hazardous waste / Contaminated Sites

#### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014 Date Data Arrived at EDR: 09/09/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 41

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 11/25/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab site locations.

Date of Government Version: 08/04/2010 Date Data Arrived at EDR: 09/10/2010 Date Made Active in Reports: 10/22/2010

Number of Days to Update: 42

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/25/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: Varies

#### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/25/2014 Date Data Arrived at EDR: 09/09/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 41

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 11/25/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: No Update Planned

#### Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Date Data Arrived at EDR: 03/18/2014 Date Made Active in Reports: 04/24/2014

Number of Days to Update: 37

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

#### Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/30/2014 Date Data Arrived at EDR: 10/01/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 36

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 10/01/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

SPILLS: Release Notifications

Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency

Response since 1988.

Date of Government Version: 01/04/2014 Date Data Arrived at EDR: 02/26/2014 Date Made Active in Reports: 03/10/2014

Number of Days to Update: 12

Source: Department of Health Telephone: 808-586-4249 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015

Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 03/10/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013

Number of Days to Update: 39

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/10/2014 Date Data Arrived at EDR: 07/02/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 78

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 11/04/2014

Next Scheduled EDR Contact: 02/16/2015 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 09/18/2014

Number of Days to Update: 8

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 09/10/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 01/24/2014 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 09/30/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/24/2014

Number of Days to Update: 74

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 09/09/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2014 Date Data Arrived at EDR: 09/04/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 74

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/04/2014

Next Scheduled EDR Contact: 12/15/2014 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/31/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 44

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 64

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 09/26/2014

Next Scheduled EDR Contact: 01/05/2015 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 11/19/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 11/19/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014 Date Data Arrived at EDR: 10/29/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 8

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 10/10/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 10/15/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 33

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 10/15/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/08/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Quarterly

**RADINFO: Radiation Information Database** 

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014 Date Data Arrived at EDR: 10/08/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 12

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 10/08/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Quarterly

#### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: EPA Telephone: (415) 947-8000 Last EDR Contact: 09/10/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Quarterly

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

#### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014 Date Data Arrived at EDR: 08/12/2014 Date Made Active in Reports: 11/06/2014

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 10/27/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013

Number of Days to Update: 52

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/09/2015 Data Release Frequency: Biennially

UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 02/07/2013 Date Data Arrived at EDR: 02/12/2013 Date Made Active in Reports: 04/09/2013

Number of Days to Update: 56

Source: Department of Health Telephone: 808-586-4258 Last EDR Contact: 11/26/2014

Next Scheduled EDR Contact: 03/16/2015 Data Release Frequency: Varies

DRYCLEANERS: Permitted Drycleaner Facility Listing
A listing of permitted drycleaner facilities in the state.

Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 05/09/2014 Date Made Active in Reports: 06/03/2014

Number of Days to Update: 25

Source: Department of Health Telephone: 808-586-4200 Last EDR Contact: 10/03/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

AIRS: List of Permitted Facilities

A listing of permitted facilities in the state.

Date of Government Version: 07/08/2014 Date Data Arrived at EDR: 07/10/2014 Date Made Active in Reports: 08/08/2014

Number of Days to Update: 29

Source: Department of Health Telephone: 808-586-4200 Last EDR Contact: 11/04/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 11/18/2014

Next Scheduled EDR Contact: 02/02/2015

Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 11/07/2014

Next Scheduled EDR Contact: 01/26/2015

Data Release Frequency: N/A

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 10/17/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 3

Source: EPA Telephone: 202-564-6023

Last EDR Contact: 09/30/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

#### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014 Date Data Arrived at EDR: 06/12/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 10/06/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

#### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/04/2014 Date Data Arrived at EDR: 09/04/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 11/11/2014

Next Scheduled EDR Contact: 03/02/2015 Data Release Frequency: Quarterly

#### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 11/14/2014

Next Scheduled EDR Contact: 02/23/2015 Data Release Frequency: Quarterly

#### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 11/14/2014

Next Scheduled EDR Contact: 02/23/2015 Data Release Frequency: Varies

#### Financial Assurance: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/17/2014 Date Data Arrived at EDR: 09/19/2014 Date Made Active in Reports: 09/25/2014

Number of Days to Update: 6

Source: Department of Health Telephone: 808-586-4226 Last EDR Contact: 09/15/2014

Next Scheduled EDR Contact: 12/29/2014 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 10/31/2014

Next Scheduled EDR Contact: 02/09/2015 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 09/10/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 10/17/2014

Next Scheduled EDR Contact: 01/26/2015 Data Release Frequency: Varies

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/16/2014 Date Data Arrived at EDR: 10/31/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 17

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/29/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014 Date Data Arrived at EDR: 10/31/2014 Date Made Active in Reports: 11/17/2014

Number of Days to Update: 17

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/29/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

### **EDR HIGH RISK HISTORICAL RECORDS**

**EDR Exclusive Records** 

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

### **EDR RECOVERED GOVERNMENT ARCHIVES**

#### **Exclusive Recovered Govt. Archives**

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 191

Source: Department of Health Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/17/2014
Number of Days to Update: 200

Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

Source: Department of Health

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Health Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

### **OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image

is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

### STREET AND ADDRESS INFORMATION

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# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

SEAGULL SCHOOLS KAKAAKO KAKAAKO WATERFRONT PARK HONOLULU, HI 96813

#### **TARGET PROPERTY COORDINATES**

Latitude (North): 21.2945 - 21° 17' 40.20" Longitude (West): 157.864 - 157° 51' 50.40"

Universal Tranverse Mercator: Zone 4 UTM X (Meters): 617837.6 UTM Y (Meters): 2355027.0

Elevation: 3 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map: 21157-C7 HONOLULU, HI

Most Recent Revision: Not reported

West Map: 21157-C8 PEARL HARBOR, HI

Most Recent Revision: Not reported

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

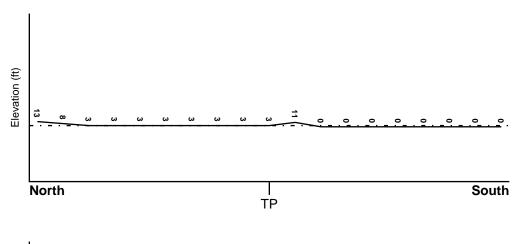
### **TOPOGRAPHIC INFORMATION**

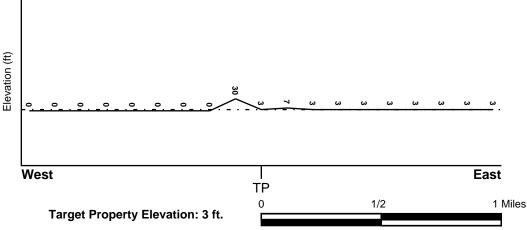
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### **HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood Electronic Data

Target Property County HONOLULU, HI

YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 15003C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

**NATIONAL WETLAND INVENTORY** 

NWI Electronic

NWI Quad at Target Property HONOLULU <u>Data Coverage</u> <u>YES - refer to the Overview Map and Detail Map</u>

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION
MAP ID FROM TP GROUNDWATER FLOW

Not Reported

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

#### **GEOLOGIC AGE IDENTIFICATION**

Era: - Category: -

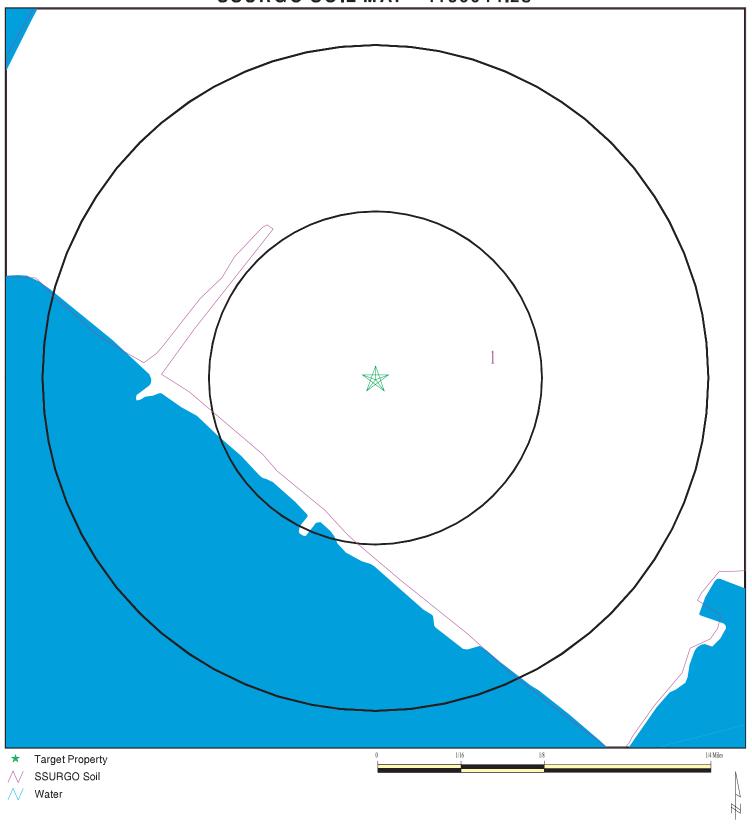
System: -

Series:

Code: N/A (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 4150044.2s



SITE NAME: Seagull Schools Kakaako ADDRESS: Kakaako Waterfront Park

Honolulu HI 96813 LAT/LONG: 21.2945 / 157.864

CLIENT: Verdant Pacific Environmental CONTACT: Joanna Boyette INQUIRY #: 4150044.2s

DATE: December 02, 2014 6:56 pm

# DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Fill land, mixed

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 152 inches

Depth to Watertable Min: > 0 inches

	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	J Com Modellon
1	0 inches	5 inches	gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 1.41	Max: 7.3 Min: 6.1
2	5 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 1.41	Max: 7.3 Min: 6.1
3	59 inches	70 inches	bedrock	Not reported	Not reported	Max: 0.42 Min: 0.02	Max: Min:

### **LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

LOCATION

## WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	FROM TP
	USGS40000269557	0 - 1/8 Mile NW
2	USGS40000269547	0 - 1/8 Mile SSW
3	USGS40000269546	0 - 1/8 Mile SE
6	USGS40000269541	1/8 - 1/4 Mile SSE
B8	USGS40000269537	1/4 - 1/2 Mile SE
C9	USGS40000269550	1/4 - 1/2 Mile East
C10	USGS40000269551	1/4 - 1/2 Mile East
D13	USGS40000269579	1/4 - 1/2 Mile NW
E16	USGS40000269539	1/4 - 1/2 Mile ESE
F17	USGS40000269612	1/4 - 1/2 Mile North
F19	USGS40000269618	1/4 - 1/2 Mile North
G21	USGS40000269617	1/4 - 1/2 Mile NNE
H25	USGS40000269536	1/2 - 1 Mile ESE
126	USGS40000269635	1/2 - 1 Mile NNE
128	USGS40000269634	1/2 - 1 Mile NNE
J29	USGS40000269621	1/2 - 1 Mile NE
K33	USGS40000269647	1/2 - 1 Mile North
34	USGS40000269636	1/2 - 1 Mile NNE
L35	USGS40000269609	1/2 - 1 Mile NE
K37	USGS40000269667	1/2 - 1 Mile North
K38	USGS40000269666	1/2 - 1 Mile North
N41	USGS40000269674	1/2 - 1 Mile North
O42	USGS40000269627	1/2 - 1 Mile NE
P43	USGS40000269646	1/2 - 1 Mile NNE
Q44	USGS40000269640	1/2 - 1 Mile NW
P48	USGS40000269649	1/2 - 1 Mile NNE
R51	USGS40000269608	1/2 - 1 Mile ENE
M53	USGS40000269679	1/2 - 1 Mile North
S57	USGS40000269684	1/2 - 1 Mile North
T59	USGS40000269682	1/2 - 1 Mile NNE
T60	USGS40000269683	1/2 - 1 Mile NNE
N61	USGS40000269690	1/2 - 1 Mile North
N62	USGS40000269691	1/2 - 1 Mile North
S64	USGS40000269693	1/2 - 1 Mile North
R70	USGS40000269623	1/2 - 1 Mile NE
T73	USGS40000269688	1/2 - 1 Mile North
T74	USGS40000269689	1/2 - 1 Mile North
V75	USGS40000269633	1/2 - 1 Mile NE
U76	USGS40000269692	1/2 - 1 Mile North
X81	USGS40000269681	1/2 - 1 Mile NNE
U83	USGS40000269697	1/2 - 1 Mile North

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

# FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
Y84	USGS40000269673	1/2 - 1 Mile NNE
U88	USGS40000269700	1/2 - 1 Mile North
U89	USGS40000269701	1/2 - 1 Mile North
X92	USGS40000269695	1/2 - 1 Mile NNE
V93	USGS40000269639	1/2 - 1 Mile NE
W98	USGS40000269604	1/2 - 1 Mile ENE
W99	USGS40000269605	1/2 - 1 Mile ENE
Z101	USGS40000269708	1/2 - 1 Mile North
Z102	USGS40000269706	1/2 - 1 Mile North
Z103	USGS40000269707	1/2 - 1 Mile North
AA104	USGS40000269638	1/2 - 1 Mile NE
Z106	USGS40000269705	1/2 - 1 Mile North

### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
49	HI0000331	1/2 - 1 Mile NNE

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

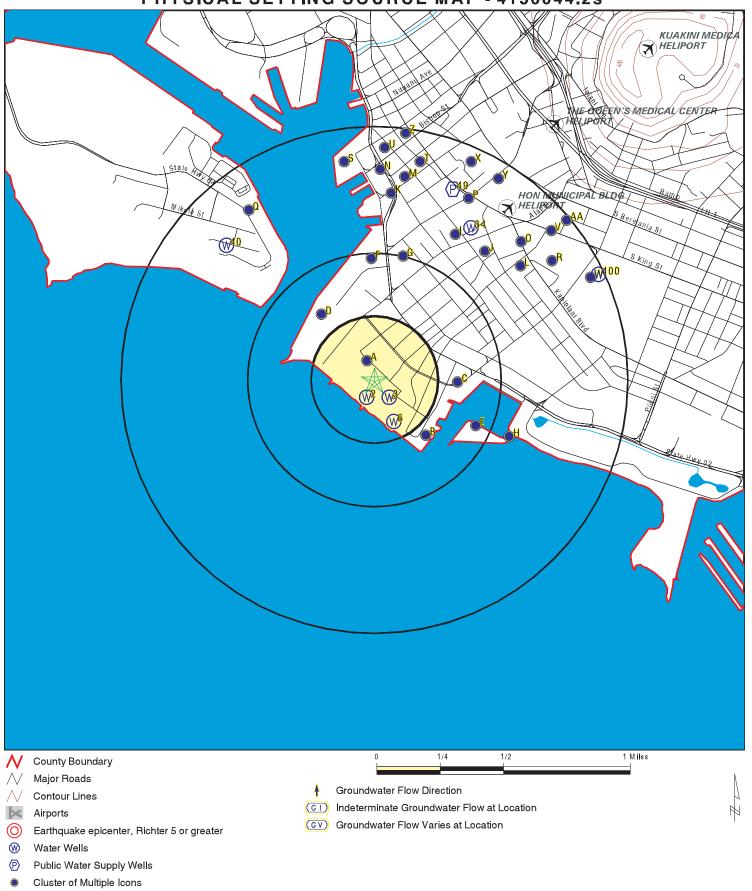
MAP ID	WELL ID	LOCATION FROM TP
A4	HI8000000002122	0 - 1/8 Mile North
A5	HI800000002121	0 - 1/8 Mile NNW
B7	HI800000002097	1/4 - 1/2 Mile SE
C11	HI800000002112	1/4 - 1/2 Mile East
C12	HI800000002113	1/4 - 1/2 Mile East
D14	HI800000002144	1/4 - 1/2 Mile NW
E15	HI800000002103	1/4 - 1/2 Mile ESE
F18	HI800000002182	1/4 - 1/2 Mile North
F20	HI800000002184	1/4 - 1/2 Mile North
G22	HI800000002185	1/2 - 1 Mile NNE
H23	HI800000002096	1/2 - 1 Mile ESE
H24	HI800000002098	1/2 - 1 Mile ESE
127	HI800000002214	1/2 - 1 Mile NNE
130	HI800000002207	1/2 - 1 Mile NNE
J31	HI800000002190	1/2 - 1 Mile NE
K32	HI800000002227	1/2 - 1 Mile North
L36	HI800000002177	1/2 - 1 Mile NE
M39	HI800000002245	1/2 - 1 Mile North
40	HI800000002194	1/2 - 1 Mile NW
N45	HI800000002246	1/2 - 1 Mile North
O46	HI800000002205	1/2 - 1 Mile NE
P47	HI800000002225	1/2 - 1 Mile NNE
P50	HI800000002229	1/2 - 1 Mile NNE
P52	HI800000002230	1/2 - 1 Mile NNE
R54	HI800000002178	1/2 - 1 Mile ENE

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

# STATE DATABASE WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
R55	HI80000000002164	1/2 - 1 Mile ENE
M56	HI800000002254	1/2 - 1 Mile North
S58	HI800000002259	1/2 - 1 Mile North
Q63	HI800000002226	1/2 - 1 Mile NW
T65	HI800000002260	1/2 - 1 Mile NNE
T66	HI800000002261	1/2 - 1 Mile NNE
U67	HI800000002266	1/2 - 1 Mile North
U68	HI800000002265	1/2 - 1 Mile North
U69	HI800000002267	1/2 - 1 Mile North
S71	HI800000002264	1/2 - 1 Mile North
R72	HI800000002195	1/2 - 1 Mile NE
W77	HI800000002166	1/2 - 1 Mile ENE
V78	HI800000002208	1/2 - 1 Mile NE
T79	HI800000002269	1/2 - 1 Mile NNE
T80	HI800000002268	1/2 - 1 Mile NNE
X82	HI800000002257	1/2 - 1 Mile NNE
U85	HI800000002276	1/2 - 1 Mile North
U86	HI800000002277	1/2 - 1 Mile North
Y87	HI800000002250	1/2 - 1 Mile NNE
U90	HI800000002279	1/2 - 1 Mile North
U91	HI800000002278	1/2 - 1 Mile North
Z94	HI800000002281	1/2 - 1 Mile North
Z95	HI800000002280	1/2 - 1 Mile North
X96	HI800000002271	1/2 - 1 Mile NNE
AA97	HI800000002221	1/2 - 1 Mile NE
100	HI800000002169	1/2 - 1 Mile ENE
Z105	HI800000002286	1/2 - 1 Mile North
AA107	HI800000002220	1/2 - 1 Mile NE

# PHYSICAL SETTING SOURCE MAP - 4150044.2s



SITE NAME: Seagull Schools Kakaako ADDRESS: Kakaako Waterfront Park

LAT/LONG:

Honolulu HI 96813 21.2945 / 157.864 CLIENT: Verdant Pacific Environmental

CONTACT: Joanna Boyette

INQUIRY #: 4150044.2s

DATE: December 02, 2014 6:56 pm

Map ID Direction Distance

Elevation Database EDR ID Number

A1 NW 0 - 1/8 Mile

FED USGS USGS40000269557

0 - 1/8 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211754157520201

Monloc name: 3-1752-01M KEWALO LANDFILL B-1

Monloc type: Well

Monloc desc: Not Reported

20060000 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 21.29517 Contrib drainagearea units: Not Reported Latitude: Longitude: -157.8644789 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 50.

Vert measure units: feet Vertacc measure val: .1

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19881202 Welldepth: 57
Welldepth units: ft Wellholedepth: 58.5

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1988-12-02 50.

2 SSW FED USGS USGS40000269547

0 - 1/8 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211748157520201

Monloc name: 3-1752-02M KEWALO LANDFILL B-4

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 21.2935034 Contrib drainagearea units: Not Reported Latitude: Longitude: -157.8644789 Sourcemap scale: 24000 Horiz Acc measure units: Horiz Acc measure: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 55.0 Vert measure units: 55.0 Vert measure val: .1

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19881130 Welldepth: 57 Welldepth units: ft Wellholedepth: 57

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1988-11-30 55.

3 SE FED USGS USGS40000269546

0 - 1/8 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211748157515701

Monloc name: 3-1751-01 KEWALO LANDFILL B-3

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2935034 Longitude: -157.86309 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 43.0 Vert measure units: 43.0 Vert measure val: .1

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19881202 Welldepth: 51 Welldepth units: ft Wellholedepth: 51

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

\_\_\_\_\_

1988-12-02 44.

A4 North HI WELLS HI800000002122

0 - 1/8 Mile Higher

 Objectid:
 625
 Wid:
 3-1752-002

 Island:
 Oahu
 Well name:
 Cooling 2

Old name: Not Reported

Yr drilled: 2005

Driller: WAT RES INTL

Quad map: 13

Long83dd: -157.864167 Lat83dd: 21.295833

Gps: -1 Utm: 0

Owner user: Honolulu BWS Old number: Not Reported

Well type: ROT 32 Casing dia:

Ground el: 9 Well depth: 750

650 Solid case: 100 Perf case:

Use: IND - Geothermal, Thermoelectric@conjinggr:Power De Not Reported Init head: Not Reported Init head2: Not Reported

Not Reported Init head3: Init cl: 18800

1/7/2005 Test date: 5837 Test gpm:

Test chlor: Not Reported Test ddown: 2.6

Test temp: 73.6 Test unit:

Pump gpm: 3500

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: **PLS** 2005

Pump yr: Draft yr: Not Reported Bot hole: -741

Bot solid: -91 Bot perf: -641

Spec capac: Not Reported Pump mgd: 5.04

Draft mgd: Not Reported Pump elev: -44

Pump depth: 48 Tmk: (1) 2-1-060:009

Aqui code: 30102

Not Reported Latest hd: Wcr: 30-DEC-99 Surveyor: Pir: Not Reported RYAN M SUZUKI T: Not Reported Site id: HI800000002122

NNW HI800000002121 **HI WELLS** 0 - 1/8 Mile

Higher

624 Wid: 3-1752-001 Objectid: Island: Oahu Well name: Cooling 1

Old name: Not Reported Yr drilled: 2005

WAT RES INTL Driller: Quad map: 13 -157.864722 Long83dd: Lat83dd: 21.295833

Utm: 0 Gps: -1

Owner user: Honolulu BWS Old number: Not Reported

Well type: ROT Casing dia: 32

Ground el: 8 Well depth: 750

Solid case: 100 Perf case: 650

IND - Geothermal, Thermoelectric Useolingr: Power De Not Reported Use: Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

18500 Init cl:

7084 Test date: 1/14/2005 Test gpm:

Test ddown: 4.8 Test chlor: Not Reported

73.8 Test unit: Test temp:

Pump gpm: 3500

Draft mgy: Not Reported Head feet: Not Reported Not Reported Max chlor: Min chlor: Not Reported

Geology: **PLS** Pump yr: 2005

-742 Draft yr: Not Reported Bot hole: -642

Bot solid: -92 Bot perf:

Spec capac: Not Reported

Pump mgd: 5.04

Draft mgd: Not Reported Pump elev: -44

Pump depth: 48 Tmk: (1) 2-1-060:009

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 Not Reported
 Surveyor:
 RYAN M SUZUKI

 T:
 Not Reported
 Site id:
 HI800000002121

6 SSE FED USGS USGS40000269541

1/8 - 1/4 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211743157515601

Monloc name: 3-1751-02M KEWALO LANDFILL B-2

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2921146 Longitude: -157.8628124 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 22. Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19881202 Welldepth: 32 Welldepth units: ft Wellholedepth: 32

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1988-12-02 23.

B7 SE HI WELLS HI800000002097

1/4 - 1/2 Mile Higher

Objectid: 622 Wid: 3-1751-006
Island: Oahu Well name: Kewalo PBRC

Old name: Not Reported Yr drilled: 1970

Driller: ROSCOE MOSS

Quad map: 13

Long83dd: -157.860833333 Lat83dd: 21.2913888889

Gps: 0 Utm: -1

Owner user: State of Hawaii UH Old number: Not Reported

Well type: PER Casing dia: 14

Ground el: 5 Well depth: 151

Solid case: 46 Perf case: Not Reported Use: Other Use year: Not Reported Init head: Not Reported Init head: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm: 179

Test ddown: 8 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS

Pump yr: 0
Draft yr: Not Reported Bot hole:

Draft yr: Not Reported Bot hole: -146
Bot solid: -41 Bot perf: Not Reported

Spec capac: 22 Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported (1) 2-1-060:001

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-70

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002097

B8 SE FED USGS USGS40000269537

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211740157514901 Monloc name: 3-1751-06 W92-5 KEWA

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.2912812 Latitude: -157.860868 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 5.00 Vert measure units: 5.00 Vert measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19700831 Welldepth: 151

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1970-08-01 5.00

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211751157514201 Monloc name: 3-1751-01 W92-1 KEWA

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2943366 -157.8589236 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00 Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19390601 Welldepth: 142

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211751157514202 Monloc name: 3-1751-02 W92-2 KEWA

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2943366 Longitude: -157.8589236 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00 Vert measure units: Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19490601 Welldepth: 150

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

1/4 - 1/2 Mile Higher

Objectid:617Wid:3-1751-001Island:OahuWell name:Haw Tuna Pack

Old name: Not Reported
Yr drilled: 1939
Driller: NAT WHITON

Quad map: 13

Long83dd: -157.858888889 Lat83dd: 21.294444444

 Gps:
 0
 Utm:
 -1

 Owner user:
 Haw Tuna Pack
 Old number:
 92-1

 Well type:
 Not Reported
 Casing dia:
 12

Ground el: Not Reported

Well depth: 142

Solid case: 7 Perf case: Not Reported Use: IND - Industrial Other Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head: Not Reported Init cl: Not Reported Init cl: 16100

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Test temp: Not F Pump gpm: 700

Pump gpm: 700

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0
Draft yr: Not Reported Bot hole:

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported Space capacity.

Spec capac: Not Reported Pump mgd: 1.008

Higher

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-058:002

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-39

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002112

C12 East 1/4 - 1/2 Mile

HI WELLS HI800000002113

Objectid: 618 Wid: 3-1751-002
Island: Oahu Well name: Haw Tuna Pack

Old name: Not Reported
Yr drilled: 1949
Driller: MULLIN
Quad map: 13

Long83dd: -157.858888889 Lat83dd: 21.294444444

 Gps:
 0
 Utm:
 -1

 Owner user:
 Haw Tuna Pack
 Old number:
 92-2

 Well type:
 Not Reported
 Casing dia:
 12

Ground el: Not Reported

Well depth: 150 Solid case: 62

Solid case: 62 Perf case: Not Reported Use: IND - Industrial Use year: Not Reported Init head: Not Reported Init head2: Not Reported Init head3: Not Reported

Init cl: 15700

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: 1400

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0

Draft yr:Not ReportedBot hole:Not ReportedBot solid:Not ReportedBot perf:Not Reported

Spec capac: Not Reported

Pump mgd: 2.016

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-49

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002113

D13
NW
FED USGS USGS40000269579
1/4 - 1/2 Mile

Org. Identifier: USGS-HI

Higher

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211805157521201 Monloc name: 3-1852-02 W93-1 PR2

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2982255 Longitude: -157.8672565 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00 Vert measure units: Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19390914 Welldepth: 102

Welldepth units: Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

D14 HI800000002144 NW **HI WELLS** 

1/4 - 1/2 Mile Higher

> Objectid: 806 Wid: 3-1852-002 Island: Oahu Well name: Fort Armstrong

Old name: Not Reported Yr drilled: 1939 Driller: MULLIN Quad map: 13

-157.867222222 Long83dd: Lat83dd: 21.2983333333

Utm: Gps: -1 Owner user: State Of Hawaii Old number: 93-1 Well type: Not Reported Casing dia: 8

Ground el: Not Reported

Well depth: 102

Solid case: Perf case: Not Reported Use: UNU - Unused Use year: Not Reported Not Reported Not Reported Init head: Init head2:

Init head3: Not Reported

Init cl: 14500

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Not Reported Not Reported Test unit: Test temp:

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: RF

Pump yr: 0 Draft yr: Not Reported Bot hole:

Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported (1) 2-1-057:004 Pump depth: Not Reported Tmk:

Aqui code: 30102

1/4 - 1/2 Mile Higher

Latest hd: Not Reported Wcr: 01-JAN-39 Pir: Not Reported Surveyor: Not Reported T: Not Reported Site id: HI800000002144

E15 ESE **HI WELLS** HI800000002103

619 Wid: 3-1751-003 Objectid: Island: Oahu Well name: Ala Moana

Old name: Not Reported Yr drilled: 1959

SAMSON-SMOCK Driller:

Quad map: 13

Long83dd: -157.857777778 Lat83dd: 21.2919444444

Utm: Gps: -1 State of Hawaii HCDA Owner user: Old number: 92-3 Well type: Not Reported Casing dia: 6

Ground el: Not Reported

Well depth: 92 Solid case: 79

Perf case: Not Reported Not Reported Other Use: Use year: Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported Init cl: 18000

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Not Reported Test unit: Not Reported Test temp:

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Not Reported Geology:

Pump yr:

Draft yr: Not Reported Bot hole: Not Reported Not Reported Not Reported Bot solid: Bot perf:

Spec capac: Not Reported

Pump mgd:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-058:064

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-59 Pir: Not Reported Surveyor: Not Reported T: Not Reported Site id: HI800000002103

**FED USGS** USGS40000269539 **ESE** 1/4 - 1/2 Mile

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211742157513801 3-1751-03 W92-3 KEWA Monloc name:

Well Monloc type:

Higher

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2918367 Longitude: -157.8578126 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 2.00 Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: HILOCAL Countrycode:

Not Reported Aquifername: Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19590101 Welldepth: 92

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

F17 North FED USGS USGS40000269612

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211816157520301 Monloc name: 3-1852-07 W93-2 PR 3

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3012807 Longitude: -157.8647566 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 Vert measure units: 6eet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19550826 Welldepth: 95

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

F18

North 1/4 - 1/2 Mile Higher

Objectid: 811 Wid: 3-1852-007
Island: Oahu Well name: Immigration Sta

Old name: Not Reported Yr drilled: 1955

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.864722222 Lat83dd: 21.3013888889

 Gps:
 0
 Utm:
 -1

 Owner user:
 State Of Hawaii
 Old number:
 93-2

 Well type:
 Not Reported
 Casing dia:
 10

Ground el: 8 Well depth: 95

Solid case: 28 Perf case: Not Reported Use: UNU - Unused Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm: 600

Test ddown: 3.1 Test chlor: Not Reported

**HI WELLS** 

HI800000002182

Not Reported

Test temp: Not Reported Test unit:

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS

Pump yr: 0

Draft yr: Not Reported Bot hole:

Bot solid: -20 Bot perf: Not Reported

Spec capac: 194 Pump mgd: 0

Draft mgd:

Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-028:003

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-55 Pir: Not Reported Surveyor: Not Reported HI800000002182 T: Not Reported Site id:

F19 North 1/4 - 1/2 Mile **FED USGS** USGS40000269618 Higher

Org. Identifier: **USGS-HI** 

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211817157515901 Monloc name: 3-1851-29 W93 DWNTN

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3015585 -157.8636455 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds 5

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Not Reported Formation type: Aquifer type: Not Reported

19130101 Welldepth: Construction date: 1009

Welldepth units: Wellholedepth: Not Reported ft

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

F20 North 1/4 - 1/2 Mile Higher

**HI WELLS** HI800000002184

757 Wid: 3-1851-029 Objectid: Island: Oahu Well name: Ala Moana Blvd

Old name: Not Reported Yr drilled: 1913

**MCCANDLESS** Driller:

Quad map: 13

Long83dd: -157.863611111 Lat83dd: 21.3016666667

Utm: Gps: -1 93-Owner user: InterisInd Nv Old number: Well type: Not Reported Casing dia: 12

Ground el:

Well depth: 1009 Solid case: 911

Perf case: Not Reported ABN - Sealed Not Reported Use: Use year: Init head: 30.2 Init head2: Not Reported

Init head3: Not Reported

Init cl: 103

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: 6 Head feet: Not Reported Not Reported Min chlor:

Max chlor: Not Reported

TKB Geology: Pump yr:

Draft yr: Not Reported Bot hole: -1002

Not Reported Bot solid: -904 Bot perf:

Not Reported Spec capac:

Pump mgd:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-13 Pir: Not Reported Surveyor: Not Reported HI800000002184 T: Not Reported Site id:

**G21 FED USGS** USGS40000269617 NNE 1/4 - 1/2 Mile

Org. Identifier: USGS-HI

Higher

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211817157515401 3-1851-17 W94 DWNTN Monloc name:

Well Monloc type:

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 21.3015584 Contrib drainagearea units: Not Reported Latitude: Longitude: -157.8622567 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 5.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: HILOCAL Countrycode:

Not Reported Aquifername: Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19000101 Welldepth: 1007

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

G22 NNE HI WELLS HI800000002185

1/2 - 1 Mile Higher

Objectid:745Wid:3-1851-017Island:OahuWell name:Pohukaina

Old name:

Not Reported

Yr drilled:

Yr drilled:

Yr drilled:

Yr drilled:

Yr drilled:

Yr drilled:

Driller: MCCANDLESS

 Quad map:
 13

 Long83dd:
 -157.862222222

 Lat83dd:
 21.3016666667

Gps: 0 Utm: -1

Owner user: Hon Iron Works Old number: Not Reported

Well type: Not Reported Casing dia: 8

Ground el: 5 Well depth: 1007

Solid case: 803 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: 27.8 Init head2: Not Reported

Init head3: Not Reported

Init cl: 98

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

 Pump yr:
 0

 Draft yr:
 Not Reported
 Bot hole:
 -1002

Bot solid: -798 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0
Draft mgd: Not Reported Pump elev: Not Reported

Pump depth: Not Reported Tmk: Not Reported

 Aqui code:
 30102

 Latest hd:
 Not Reported
 Wcr:
 02-JAN-00

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002185

\_\_\_\_

H23 ESE 1/2 - 1 Mile Higher

HI WELLS HI800000002096

Objectid: 623 Wid: 3-1751-008
Island: Oahu Well name: Kewalo-KBMML

Old name: Not Reported Yr drilled: 2001

Driller: BEYLIK DRLG

Quad map: 13

Long83dd: -157.856111111 Lat83dd: 21.291111111

Gps: 0 Utm: -1

Owner user: State of Hawaii UH Old number: Not Reported

Well type: ROT Casing dia: 14

Ground el: Not Reported

Well depth: 101

Solid case: 60 Perf case: 100

Use: AGR - Aquatic Plants and AnimaldUse year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date:Not ReportedTest gpm:Not ReportedTest ddown:Not ReportedTest chlor:Not ReportedTest temp:Not ReportedTest unit:Not Reported

Pump gpm: 1000

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Max chlor: Not Reported Geology: QLS

Pump yr: 2001

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 1.44

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: 43 Tmk: Not Reported (1) 2-1-058:060

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI8000000002096

H24 ESE HI WELLS HI800000002098

1/2 - 1 Mile Higher

 Objectid:
 621
 Wid:
 3-1751-005

 Island:
 Oahu
 Well name:
 KBMML

Old name: Not Reported Yr drilled: 1968

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.85555556 Lat83dd: 21.2913888889

Gps: 0 Utm: -1

 Owner user:
 State of Hawaii UH
 Old number:
 Not Reported

 Well type:
 Not Reported
 Casing dia:
 Not Reported

Ground el: Not Reported

Well depth: 0

Solid case: Not Reported Perf case: Not Reported Use: AGR - Other? Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl:

Test date:Not ReportedTest gpm:600Test ddown:Not ReportedTest chlor:17070

Not Reported

Test temp: Not Reported Test unit:

Pump gpm: 1000

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: RF 2001 Pump yr:

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 1.44

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: 63 Tmk: (1) 2-1-058:060

Aqui code: 30102 Latest hd: Not Reported Wcr: 01-JAN-68 Pir: Not Reported Surveyor: Not Reported HI800000002098 T: Not Reported Site id:

H25 ESE 1/2 - 1 Mile **FED USGS** USGS40000269536

Higher

Org. Identifier: **USGS-HI** 

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211740157513001 Monloc name: 3-1751-05 W92-4 KEWA

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.2912811 Longitude: -157.8555905 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 2.00 Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Not Reported Formation type: Aquifer type: Not Reported

Welldepth: Not Reported Construction date: 19680501 Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

**FED USGS** USGS40000269635

1/2 - 1 Mile Higher

TC4150044.2s Page A-26

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211822157514401 3-1851-18 W95 DWNTN Monloc name:

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3029471 Latitude: -157.859479 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 feet Vert measure units: Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Not Reported Aquifername: Not Reported Formation type: Not Reported Aquifer type:

Construction date: 19000101 Welldepth: 799

Welldepth units: Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

**HI WELLS** HI800000002214 NNE

Casing dia:

Init head2:

1/2 - 1 Mile Higher

> Objectid: 746 Wid: 3-1851-018

Island: Oahu Well name: American Brewery

Old name: Not Reported

Yr drilled: 1900

Driller: **MCCANDLESS** 

Quad map: 13

Long83dd: -157.859444444 Lat83dd: 21.3030555556

Gps: Utm: Owner user: Haw Comm Dev Old number: Not Reported

Well type: Ground el: 8

Well depth: 806 Solid case: 774 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported

Init head: 27.7 Init head3: Not Reported

Init cl: 89

Test date: Not Reported Test gpm: Test ddown: Not Reported Test chlor:

Not Reported Test temp: Test unit:

Pump gpm: 0 Not Reported Head feet: Draft mgy:

Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr:

Not Reported Draft yr: Bot hole: -798

Bot solid: -766 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd:

-1

95-

Not Reported

Not Reported

Not Reported

Not Reported

8

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 02-JAN-00

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI8000000002214

I28 NNE FED USGS USGS40000269634

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211821157514101 Monloc name: 3-1851.04 -65/W95-1

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3026693 Longitude: -157.8586457 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19671201 Welldepth: 80 Welldepth units: ft Wellholedepth: 80

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1967-12-04 5.50

Note: The site had been pumped recently.

J29 NE FED USGS USGS40000269621

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211818157513601 Monloc name: 3-1851-21 W92 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code:20060000Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:21.301836Longitude:-157.8572569Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 4.00 Vert measure units: 4 Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19010101 Welldepth: 789

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

I30 NNE HI WELLS HI800000002207

1/2 - 1 Mile Higher

 Objectid:
 793
 Wid:
 3-1851-065

 Island:
 Oahu
 Well name:
 Queen St

Old name: Not Reported
Yr drilled: 1967

Driller: ROSCOE MOSS

Quad map: 13

Long83dd: -157.858611111 Lat83dd: 21.3027777778

 Gps:
 0
 Utm:
 -1

 Owner user:
 K&Y Service
 Old number:
 95-1

 Well type:
 PER
 Casing dia:
 8

Ground el: 7
Well depth: 80

Solid case:12Perf case:Not ReportedUse:OtherUse year:Not ReportedInit head:1.5Init head2:Not Reported

Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm: 275
Test ddown: 0.7 Test chlor: 2100

Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0

Draft yr: Not Reported Bot hole: -73

Bot solid: -5 Bot perf: Not Reported

Spec capac: 393 Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

Latest hd:Not ReportedWcr:01-JAN-67Pir:Not ReportedSurveyor:Not ReportedT:Not ReportedSite id:HI8000000002207

Map ID Direction				
Distance				
Elevation			Database	EDR ID Number
J31 NE 1/2 - 1 Mile Higher			HI WELLS	HI8000000002190
Objectid:	749	Wid:	3-1851-021	
Island:	Oahu	Well name:	Kawaiahao St	
Old name:	Not Reported			
Yr drilled:	1901			
Driller:	MCCANDLESS			
Quad map:	13			
Long83dd:	-157.857222222			
Lat83dd:	21.301944444			
Gps:	0	Utm:	-1	
Owner user:	Magoon Estate	Old number:	92-	
Well type:	Not Reported	Casing dia:	8	
Ground el:	4	3		
Well depth:	791			
Solid case:	614	Perf case:	Not Reported	
Use:	ABN - Sealed	Use year:	Not Reported	
Init head:	29.1	Init head2:	Not Reported	
Init head3:	Not Reported		•	
Init cl:	90			
Test date:	Not Reported	Test gpm:	Not Reported	
Test ddown:	Not Reported	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0			
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	RTSP			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	-787	
Bot solid:	-610	Bot perf:	Not Reported	
Spec capac:	Not Reported			
Pump mgd:	0			
Draft mgd:	Not Reported	Pump elev:	Not Reported	
Pump depth:	Not Reported	Tmk:	(1) 2-1-048:018	
Aqui code:	30102			
Latest hd:	Not Reported	Wcr:	01-JAN-01	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI8000000002190	
K32 North			HI WELLS	HI8000000002227
1/2 - 1 Mile Higher				
Objectid:	750	Wid:	3-1851-022	
Island:	Oahu	Well name:	Ala Moana Blvd	
Old name:	Not Reported			
Yr drilled:	1901			
Driller:	MCCANDLESS			
Quad map:	13			
Long83dd:	-157.863333333			
Lat83dd:	21.3047222222			
Gps:	0	Utm:	-1	

Utm:

Old number:

USGS

Gps:

Owner user:

101-

8

Well type: Not Reported Casing dia:

Ground el: 4 Well depth: 1152

Solid case: 1125 Perf case: Not Reported Use: OBS - Observation Use year: Not Reported Init head: 22.5 Init head2: Not Reported

Init head3: Not Reported

Init cl: 194

Test date: 12/16/1982 Test gpm: 38

Test ddown: 6.2 Test chlor: Not Reported

Test temp: 22.8 Test unit: C

Pump gpm: 0 Draft mgy: 21

Draft mgy: 219 Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: TKB

Pump yr: 0

Draft yr: Not Reported Bot hole: -1148
Bot solid: -1121 Bot perf: Not Reported

Spec capac: 6
Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-01

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002227

K33
North
1/2 - 1 Mile

K33
FED USGS USGS40000269647

1/2 - 1 Mil Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211828157515801

Monloc name: 3-1851-22 Ala Moana Blvd, Oahu, HI

Monloc type: Well

Monloc desc: former local no. W101

Not Reported Huc code: 20060000 Drainagearea value: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3047778 Latitude: -157.8634167 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Global positioning system (GPS), uncorrected

Horiz coord refsys: NAD83 Vert measure val: 7
Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Hawaii volcanic-rock aquifers
Formation type: Koolau Volcanic Series, Lava Flows

Aquifer type: Not Reported

Construction date: 19010101 Welldepth: 1142 Welldepth units: ft Wellholedepth: 1142

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 32

	eet below urface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-10-15		 16.85	2004-07-26		16.12
2004-06-17		16.84	2004-03-11		16.34
2004-01-07		15.35	2003-09-29		14.17
2003-06-16		15.16	2003-04-18		16.23
2003-03-10		16.09	2003-01-23		15.85
2002-10-10		14.68			
2002-09-17		15.13			
Minter The area		and the state of t	la a contra del Persona	La antida de la colo	

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-07-16 15.54

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-05-16 16.20

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-03-25 16.25

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-12-27 15.78

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-09-25 14.24

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-08-09 14.30

Note: The site was flowing, but the head could not be measured without additional equipment.

2001-06-14 14.86

Note: The site was flowing, but the head could not be measured without additional equipment.

2001-03-28 15.35

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-11-03 14.96

Note: The site was flowing, but the head could not be measured without additional equipment. 000-09-27 14.74 2000-07-21

2000-09-27	14.74	2000-07-21	15.09
2000-05-23	15.73	2000-04-04	16.51
2000-01-21	16.83	1999-11-03	15.81
1999-09-24	15.37	1999-08-02	15.81
1999-06-02	15.86	1999-02-25	16.43
1998-12-04	16.08		

34 NNE 1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211823157513901 Monloc name: 3-1851-09 W96 DWNTN

Monloc type: Well

Monloc desc: Not Reported

20060000 Not Reported Huc code: Drainagearea value: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3032248 Longitude: -157.8580902 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 14.32 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

**FED USGS** 

USGS40000269636

Aquifer type: Not Reported

Construction date: 18930101 Welldepth: 748 Welldepth units: ft Wellholedepth: 765

Wellholedepth units: ft

1919-02-03 -11.75

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

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L35

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211815157512801 Monloc name: 3-1851-26 W89 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3010027 Longitude: -157.8550348 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 6.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19100101 Welldepth: 725

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

L36

NE 1/2 - 1 Mile Higher

Objectid: 754 Wid: 3-1851-026
Island: Oahu Well name: Kapiolani Blvd

Old name: Not Reported Yr drilled: 1910

Driller: MCCANDLESS

Quad map: 13

Long83dd: -157.855079 Lat83dd: 21.301106

 Gps:
 0
 Utm:
 -1

 Owner user:
 Bus Invest Ltd
 Old number:
 89

**HI WELLS** 

**FED USGS** 

USGS40000269609

HI800000002177

8

Well type: Not Reported Casing dia:

Ground el: 6 Well depth: 725

Solid case: 659 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: 27.8 Init head2: Not Reported

Init head3: Not Reported

Init cl: 95

Test date: Not Reported Test gpm: 800

Test ddown: 6 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0
Draft yr: Not Reported Bot hole: -719

Bot solid: -653 Bot perf: Not Reported

Spec capac: 133 Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported (1) 2-1-049:053

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-10

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002177

K37
North FED USGS USGS40000269667

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211832157515502

Monloc name: 3-1851-19 Halekauwila Street, Pipe B, Oahu, HI

Monloc type: Well

Monloc desc: former local no. W102

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3056944 Latitude: Longitude: -157.8625833 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Global positioning system (GPS), uncorrected

Horiz coord refsys: NAD83 Vert measure val: 6
Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Hawaii volcanic-rock aquifers
Formation type: Koolau Volcanic Series, Lava Flows

Aquifer type: Confined single aquifer

Construction date: 18970101 Welldepth: 988 Welldepth units: ft Wellholedepth: 1053

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 32

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-10-15		12.28	2004-07-26		11.60
2004-06-17		12.44	2004-03-11		11.86
2004-01-07		11.14	2003-09-29		10.06
2003-07-10		10.59	2003-04-25		12.24
2003-03-10		12.20	2003-01-23		11.87
2002-10-10		10.75			
2002-09-17		11.24			

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-07-16 11.80

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-05-16 12.58

Note: The site was flowing, but the head could not be measured without additional equipment. 2002-03-25 13.68

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-12-27 11.76

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-09-25 10.75

Note: The site was flowing, but the head could not be measured without additional equipment. 2001-08-09 11.05

Note: The site was flowing, but the head could not be measured without additional equipment.

2001-06-14 11.65

Note: The site was flowing, but the head could not be measured without additional equipment.

2001-03-28 12.15

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-11-03 11.97

2000-11-03 11.97

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-09-28 11.83

Note: A nearby site that taps the same aquifer had been flowing recently.

2000-07-21

Note: The site was flowing, but the head could not be measured without additional equipment.

2000-05-23 12.76

Note: A nearby site that taps the same aquifer had been flowing recently.

2000-04-04 13.6

Note: A nearby site that taps the same aquifer had been flowing recently.

2000-01-21 14.32

Note: A nearby site that taps the same aquifer was flowing.

1999-11-03 13.31

Note: A nearby site that taps the same aquifer had been flowing recently.

 1999-09-13
 13.08
 1999-08-02
 13.50

 1999-06-02
 13.66
 1999-02-25
 14.51

 1008-13-04
 14.30

1998-12-04 14.30

K38 North 1/2 - 1 Mile Higher

FED USGS USGS40000269666

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211832157515501

Monloc name: 3-1851-19 Halekauwila Street, Pipe A, Oahu, HI

Monloc type: Well

Monloc desc: former local no. W102

Huc code:20060000Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:21.3057222Longitude:-157.8625556Sourcemap scale:24000

seconds Horiz Acc measure: Horiz Acc measure units: Horiz Collection method: Global positioning system (GPS), uncorrected Horiz coord refsys: NAD83 6 Vert measure val: Vert measure units: feet Vertacc measure val: 1 Vert accmeasure units: feet Vertcollection method: Interpolated from topographic map Vert coord refsys: HILOCAL Countrycode: US Aquifername: Hawaii volcanic-rock aquifers Formation type: Koolau Volcanic Series, Lava Flows Confined single aquifer Aquifer type: Construction date: 18970101 Welldepth: 1043 Wellholedepth: 1053 Welldepth units: ft

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 27

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-10-15		5.30	2004-07-26		5.56
2004-06-17		5.77	2004-03-11		5.96
2004-01-07		5.27	2003-09-29		3.89
2003-01-23		4.90	2002-12-09		5.02
2002-10-10		4.20			
2002-09-17		4.61			
Note: A no	arby cita that	tane the came aquifor was flowing			

Note: A nearby site that taps the same aquifer was flowing.

2002-07-18 4.83

Note: A nearby site that taps the same aquifer was flowing.

2002-05-16 5.60

Note: The site was flowing, but the head could not be measured without additional equipment.

2002-03-25 5.60

Note: The site was flowing, but the head could not be measured without additional equipment.

2001-12-27 5.26

Note: A nearby site that taps the same aquifer was flowing.

2001-09-25 4.44

Note: The site was flowing, but the head could not be measured without additional equipment.

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-09-28

Note: The site was flowing, but the head could not be measured without additional equipment.

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-05-23

Note: The site was flowing, but the head could not be measured without additional equipment. 2000-04-04

Note: The site was flowing, but the head could not be measured without additional equipment.

Note: A nearby site that taps the same aquifer was flowing.

1999-11-03

Note: The site was flowing, but the head could not be measured without additional equipment. 1999-09-13

Note: The site was flowing, but the head could not be measured without additional equipment. 1999-08-02

Note: The site was flowing, but the head could not be measured without additional equipment. 1999-06-17

Note: The site was flowing, but the head could not be measured without additional equipment.

1999-02-25 5.75 1998-12-04 5.80

Map ID Direction Distance Elevation Database EDR ID Number M39 **HI WELLS** HI800000002245 North 1/2 - 1 Mile Higher Objectid: 747 Wid: 3-1851-019 Island: Well name: Halekauwila St Oahu Old name: Not Reported Yr drilled: 1900 **MCCANDLESS** Driller: Quad map: 13 Long83dd: -157.8625 Lat83dd: 21.305833 Gps: 0 Utm: -1 Owner user: **HECO** Old number: 102-Well type: Not Reported Casing dia: 1 Ground el: 6 Well depth: 1053 Solid case: 1043 Perf case: Not Reported Use: **OBS** - Observation Use year: Not Reported Init head: 27.2 Init head2: Not Reported Init head3: Not Reported Init cl: 67 Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Not Reported Not Reported Test temp: Test unit: Pump gpm: Not Reported Head feet: Draft mgy: Not Reported Max chlor: Not Reported Min chlor: Not Reported Geology: Not Reported Pump yr: 0 -1047 Draft yr: Not Reported Bot hole: Bot solid: -1037 Bot perf: Not Reported Spec capac: Not Reported Pump mgd: Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-016:015 Aqui code: 30102 Latest hd: Not Reported Wcr: 02-JAN-00 Pir: Not Reported Surveyor: Not Reported HI800000002245 Not Reported T: Site id: NW **HI WELLS** HI800000002194 1/2 - 1 Mile Higher Wid: 3-1852-010 Objectid: 813 Ocean Seafoods 1 Island: Oahu Well name: Old name: Not Reported Yr drilled: 1998 Driller: MELS WTR WKS Quad map: 13 -157.873055556 Long83dd: Lat83dd: 21.302222222

Utm:

Old number:

Ocean Seafoods

Gps:

Owner user:

Not Reported

Well type: ROT Casing dia: 6

Ground el: 10 Well depth: 63

Solid case: 20 Perf case: 60

Use: AGR - Aquatic Plants and AnimalsUse year: Not Reported Init head: 0.1 Init head2: Not Reported

Init head3: Not Reported Init cl: 22000

Test date: 3/4/1998 Test gpm: 125

Test ddown: 1.45 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 65

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported Pump yr: 1998

Draft yr:

Not Reported

Bot hole:

-53

Bot solid:

-10

Bot perf:

-50

Spec capac: Not Reported

Pump mgd: .093

Draft mgd: Not Reported Pump elev: -11

Pump depth: 21 Tmk: (1) 1-5-041:328

Aqui code: 30103

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI8000000002194

N41
North
1/2 - 1 Mile
FED USGS USGS40000269674

1/2 - 1 Mi Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211833157520001 Monloc name: 3-1852-06 W102-1 DWN

Monloc type: Well

Monloc desc: Not Reported

Not Reported Huc code: 20060000 Drainagearea value: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3060026 Latitude: Sourcemap scale: Longitude: -157.8639233 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00 Vert measure units: Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19530703 Welldepth: 94

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance

Elevation Database EDR ID Number

O42 NE FED USGS USGS40000269627

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211820157512801 Monloc name: 3-1851-14 W91 DWNTN

Monloc type: Well

Monloc desc: Not Reported

20060000 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 21.3023915 Contrib drainagearea units: Not Reported Latitude: Longitude: -157.8550348 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9.00 Vert measure units: 9 Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 18970101 Welldepth:

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

P43
NNE FED USGS USGS40000269646

691

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211828157513901 Monloc name: 3-1851-73 KAWAIHAO 2

Monloc type: Well
Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3046136 Latitude: Longitude: -157.8580902 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 13. Vert measure units: feet Vertacc measure val: .5

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19860522 Welldepth: 777 Welldepth units: ft Wellholedepth: 777

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1986-06-13 -6.17

Note: The site was flowing, but the head could not be measured without additional equipment.

Q44 NW **FED USGS** USGS40000269640 1/2 - 1 Mile

Higher

Org. Identifier: **USGS-HI** 

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211825157522701 3-1852-08 W120 SANDI Monloc name:

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3037807 Longitude: -157.8714229 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: 8.00 NAD83 Vert measure val: Vertacc measure val: Vert measure units: feet 2

Vert accmeasure units: feet

Interpolated from topographic map Vertcollection method:

Vert coord refsys: US HILOCAL Countrycode:

Aquifername: Not Reported Formation type: Not Reported Not Reported Aquifer type:

Construction date: 19710623 Welldepth: 100

Welldepth units: Wellholedepth: Not Reported ft

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

N45 **HI WELLS** HI800000002246

North 1/2 - 1 Mile Higher

3-1852-006 Objectid: 810 Wid: Island: Oahu Well name: Ala Moana Blvd

Old name: Not Reported

Yr drilled: 1953 Driller:

SAMSON-SMOCK

Quad map: 13

Long83dd: -157.863889 Lat83dd: 21.306111

Gps: Λ Utm: -1 **HECO** Old number: 102-1 Owner user:

TC4150044.2s Page A-40

24

Well type: Not Reported Casing dia:

Ground el: Not Reported

Well depth:

Not Reported Solid case: Not Reported Perf case: UNU - Unused Use: Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl:

Not Reported Not Reported Test date: Test gpm: Not Reported Not Reported Test ddown: Test chlor: Test temp: Not Reported Test unit: Not Reported

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Not Reported Min chlor:

Geology: QLS

Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported Pump mgd: 0

Draft mgd: Not Reported

Not Reported Pump elev: Pump depth: Not Reported (1) 2-1-016:015 Tmk:

Aqui code: 30102

01-JAN-53 Latest hd: Not Reported Wcr: Pir: Not Reported Not Reported Surveyor: T: Not Reported Site id: HI800000002246

**O46** HI800000002205 **HI WELLS** 

1/2 - 1 Mile Higher

> 742 Wid: 3-1851-014 Objectid: Island: Oahu Well name: Kapiolani Blvd

Old name: Not Reported

Yr drilled: 1897 **MCCANDLESS** Driller:

Quad map: 13

Long83dd: -157.855 Lat83dd: 21.3025

Utm: Gps: -1 C&C Honolulu 91-Owner user: Old number: Well type: Not Reported Casing dia:

Ground el: Well depth: 691

Solid case: 650 Perf case: Not Reported ABN - Sealed Not Reported Use: Use year: Init head: 24.9 Init head2: Not Reported

Init head3: Not Reported

Init cl: 80

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Not Reported Test unit: Not Reported Test temp:

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr:

Draft yr: Not Reported Bot hole: -682

Bot solid: -641 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002205

P47
NNE
HI WELLS
HI8000000002225
1/2 - 1 Mile

Higher

Objectid:801Wid:3-1851-073Island:OahuWell name:Kawaiahao Church

Old name: Not Reported
Yr drilled: 1986
Driller: WAT RES INTL

 Quad map:
 13

 Long83dd:
 -157.85775

 Lat83dd:
 21.304611

Gps: 0 Utm: -1

Owner user: Kawaiahao Ch Old number: Not Reported

Well type: ROT Casing dia: 9

Ground el: 13 Well depth: 777

Solid case: 709 Perf case: Not Reported Use: IRR - Landscape/Water Features Use year: Not Reported Init head: 19.17 Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: 5/28/1986 Test gpm: 102

Test ddown: 6 Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: TKB Pump yr: 0

Draft yr: Not Reported Bot hole: -764

Bot solid: -696 Bot perf: Not Reported

Spec capac: 17
Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-032:017

Aqui code: 30102

Latest hd: Not Reported Wcr: 22-MAY-86
Pir: Not Reported Surveyor: Not Reported
T: Not Reported Site id: HI8000000002225

P48 NNE 1/2 - 1 Mile Higher

FED USGS USGS40000269649

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211830157514101 Monloc name: 3-1851-03 W97 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3051692 Latitude: -157.8586457 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 14.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 18820101 Welldepth: 767

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

NNE FRDS PWS HI0000331

1/2 - 1 Mile Higher

Epa region: 09 State: HI

Pwsid: HI0000331

Pwsname: HNL-WINDWARD-PEARL HARBOR

City served: HONOLULU-WINDWARD-PEARLSHAMES@Red: HI

Zip served: Not Reported Fips county: Not Reported 665735 Status: Active Pop srvd: 104070 Pwssvcconn: Source: Groundwater Pws type: **CWS** Owner: Local\_Govt

Contact: KAWATA, ERWIN Contactor gname: KAWATA, ERWIN

Contact phone: 808-748-5080 Contact address1: Honolulu Board of Water Supply

Contact address2: 630 S. Beretania St., Rm. 308 Contact city: HONOLULU Contact state: HI Contact zip: 96843

Activity code: A

Facid: 1185

Facname: PUNALUU II P4

Facility type: Treatment\_plant Activity code: I

Treatment obj: organics removal Treatment process: gaseous chlorination, pre

Facid: 1194

Facname: BERETANIA PUMPING STATION CHLORINATOR

Facility type: Treatment\_plant Activity code: A

Treatment obj: organics removal Treatment process: gaseous chlorination, pre

Facid: 1195

Facname: BERETANIA TP 4

Facility type: Treatment\_plant Activity code: A

Treatment obj: organics removal Treatment process: gaseous chlorination, pre

Facid: 1196

Facname: BERETANIA TP 5

Facility type: Treatment\_plant Activity code: ATC4150044.2s Page A-43 gaseous chlorination; pre

Facid: 1197

Facname: BERETANIA TP 6

Location Information:

Name: HNL-WINDWARD-PEARL HARBOR

Pwstypcd: CWS Primsrccd: GW

Popserved: 676358

Add1: HONOLULU BOARD OF WATER SUPPLY

Add2: 630 S. BERETANIA ST., RM. 308

City: HONOLULU State: HI

Zip:96843Phone:808-748-5080Cityserv:HONOLULU-WINDWARD-PEARLE DAY Stateserv:Not ReportedStateserv:HIZipserv:Not Reported

**Enforcement Information:** 

Violation id: 8310330 Orig cd: 5

Enf fy: 2014 Enf act date: 10/19/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310330 Orig cd: S

Enf fy: 2014 Enf act date: 10/19/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310330 Orig cd: S

Enf fy: 2014 Enf act date: 10/18/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310329 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310329 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310329 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

**Enforcement Information:** 

Violation id: 8310328 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310328 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310328 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310327 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310327 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310327 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310326 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310326 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310326 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310325 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310325 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310325 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310324 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310324 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Enforcement Information:

Violation id: 8310324 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310323 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310323 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310323 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310322 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310322 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310322 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310321 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

Enforcement Information:

Violation id: 8310321 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310321 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310320 Orig cd: S

Enforcement Information:

Violation id: 8310320 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310320 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310319 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310319 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310319 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310318 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Enforcement Information:

Violation id: 8310318 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310318 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310317 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310317 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Enforcement Information:

Violation id: 8310317 Orig cd: S

**Enforcement Information:** 

Violation id: 8310316 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310316 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310316 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310315 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310315 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310315 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310314 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310314 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310314 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310313 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310313 Orig cd: S

**Enforcement Information:** 

Violation id: 8310313 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310312 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310312 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310312 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

**Enforcement Information:** 

Violation id: 8310311 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310311 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310311 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310310 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310310 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310310 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310309 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Enforcement Information:

Violation id: 8310309 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310309 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310308 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310308 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310308 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310307 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310307 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310307 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310306 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310306 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Enforcement Information:

Violation id: 8310306 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310305 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310305 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310305 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310304 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

**Enforcement Information:** 

Violation id: 8310304 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310304 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310303 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310303 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310303 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310302 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310302 Orig cd: S

Enforcement Information:

Violation id: 8310302 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310301 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310301 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310301 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310300 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310300 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310300 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310299 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

Enforcement Information:

Violation id: 8310299 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310299 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310298 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310298 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310298 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310297 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310297 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310297 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310296 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310296 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310296 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310295 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310295 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310295 Orig cd: S

**Enforcement Information:** 

Violation id: 8310294 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310294 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

Enforcement Information:

Violation id: 8310294 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310293 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

**Enforcement Information:** 

Violation id: 8310293 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310293 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310292 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

Enforcement Information:

Violation id: 8310292 Orig cd: S

Enf fy:2013Enf act date:07/16/2013Enf act detail:St Public Notif receivedEnf act cat:Informal

Enforcement Information:

Violation id: 8310292 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310291 Orig cd: S

Enf fy: 2013 Enf act date: 07/31/2013 Enf act detail: St Compliance achieved Enf act cat: Resolving

Enforcement Information:

Violation id: 8310291 Orig cd: S

**Enforcement Information:** 

Violation id: 8310291 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310290 Orig cd: S

Enf fy: 2013 Enf act date: 07/01/2013 Enf act detail: St Violation/Reminder Notice Enf act cat: Informal

**Enforcement Information:** 

Violation id: 8310290 Orig cd: S

Enf fy:2013Enf act date:07/31/2013Enf act detail:St Compliance achievedEnf act cat:Resolving

**Enforcement Information:** 

Violation id: 8310290 Orig cd: S

Enf fy: 2013 Enf act date: 07/16/2013 Enf act detail: St Public Notif received Enf act cat: Informal

Violations Information:

 Violoation id:
 8310330
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2013

Contamcd: 3100

Contamnm: Coliform (TCR)

Viol code: 21

Viol name: MCL, Acute (TCR)

Rule code: 110 Rule name: TCR

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:10/01/2013

Cmpedt: 10/31/2013

Violations Information:

 Violoation id:
 8310329
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2946

Contamnm: ETHYLENE DIBROMIDE Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320 Rule name: SOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310328
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2931

Contamnm: 1,2-DIBROMO-3-CHLOROPROPANE

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320 Rule name: SOC

Violmeasur: Not Reported Unitmeasur: Not Reported

State mcl: Not Reported Cmpbdt: 01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310327
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2051 Contamnm: LASSO Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320

Rule name: SOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310326
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2046
Contamnm: Carbofuran
Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320 Rule name: SOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310325
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2036 Contamnm: OXAMYL

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320 Rule name: SOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310324
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2034 Contamnm: Glyphosate

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 320 Rule name: SOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Orig cd:

Viol fy:

S

2008

Violations Information:

 Violoation id:
 8310323

 State:
 HI

 Contamcd:
 2996

 Contamnm:
 Styrene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008Cmpedt:12/31/2010

Violations Information:

 Violoation id:
 8310322
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2992 Contamnm: Ethylbenzene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310321
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2991 Contamnm: Toluene Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310320
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2990 Contamnm: Benzene Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310319
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2989

Contamnm: CHLOROBENZENE

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310

Rule name: VOC

Violmeasur: Not Reported Unitmeasur: Not Reported

State mcl: Not Reported Cmpbdt: 01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310318
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2987

Contamnm: Tetrachloroethylene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310

Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310317
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2985

Contamnm: 1,1,2-Trichloroethane

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310316
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2984

Contamnm: Trichloroethylene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310

Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310315
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2983

Contamnm: 1,2-Dichloropropane

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310314
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2982

Contamnm: Carbon tetrachloride

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310313
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2981

Contamnm: 1,1,1-Trichloroethane

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310312
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2980

Contamnm: 1,2-Dichloroethane

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310311
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2979

Contamnm: trans-1,2-Dichloroethylene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310310
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2977

Contamnm: 1,1-Dichloroethylene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur: Not Reported Unitmeasur: Not Reported

State mcl: Not Reported Cmpbdt: 01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310309
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2976

Contamnm: Vinyl chloride

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310

Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310308
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2969
Contamnm: p-Dichlorobenzene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310307
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2968

Contamnm: o-Dichlorobenzene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310

Rule name: VOC Violmeasur: Not Re

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310306
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2964

Contamnm: DICHLOROMETHANE

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310305
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2955 Contamnm: Xylenes, Total

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008Cmpedt:12/31/2010

Violations Information:

 Violoation id:
 8310304
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2380

Contamnm: cis-1,2-Dichloroethylene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310303
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 2378

Contamnm: 1,2,4-Trichlorobenzene

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 310 Rule name: VOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310302
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1041 Contamnm: Nitrite Viol code: 03

Viol name: Monitoring, Regular

Rule code: 331 Rule name: Nitrates

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310301
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1040 Contamnm: Nitrate Viol code: 03

Viol name: Monitoring, Regular

Rule code: 331 Rule name: Nitrates

Violmeasur: Not Reported Unitmeasur: Not Reported

Unitmeasur:

Cmpbdt:

Not Reported

01/01/2008

State mcl: Not Reported Cmpbdt: 01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310300
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1025 Contamnm: Fluoride Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other l

Rule name: Other IOC
Violmeasur: Not Reported
State mcl: Not Reported

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310299
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1045
Contamnm: Selenium
Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310298
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1085

Contamnm: Thallium, Total

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310297
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1075

Contamnm: Beryllium, Total

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310296
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1074

Contamnm: Antimony, Total

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008Cmpedt:12/31/2010

Violations Information:

 Violoation id:
 8310295
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1036 Contamnm: Nickel Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333

Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310294
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1035 Contamnm: Mercury Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008Cmpedt:12/31/2010

Violations Information:

Violoation id: 8310293 Orig cd: S
State: HI Viol fy: 2008

Contamcd: 1020 Contamnm: Chromium

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310292
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1015 Contamnm: Cadmium

Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333 Rule name: Other IOC

Violmeasur: Not Reported Unitmeasur: Not Reported

State mcl: Not Reported Cmpbdt: 01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310291
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamed: 1010
Contamnm: Barium
Viol code: 03

Viol name: Monitoring, Regular

Rule code: 333

Rule name: Other IOC
Violmeasur: Not Reported

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

Violations Information:

 Violoation id:
 8310290
 Orig cd:
 S

 State:
 HI
 Viol fy:
 2008

Contamcd: 1005 Contamnm: Arsenic Viol code: 03

Viol name: Monitoring, Regular

Rule code: 332 Rule name: Arsenic

Violmeasur:Not ReportedUnitmeasur:Not ReportedState mcl:Not ReportedCmpbdt:01/01/2008

Cmpedt: 12/31/2010

PWS ID: HI0000331

Date Initiated: Not Reported Date Deactivated: Not Reported

PWS Name: HONOLULU-WINDWARD-PEARL HARBOR

630 S BERETANIA STREET 630 SOUTH BERETANIA HONOLULU, OANU, HI 96843

Addressee / Facility: System Owner/Responsible Party

MR. KAZU HAYASHIDA BOARD OF WATER SUPPLY

630 SOUTH BERETANIA STREET

HONOLULU, HI 96843

Facility Latitude: Facility Longitude: 157 48 58.0000 21 12 17.0000 Facility Latitude: 21 17 7.0000 Facility Longitude: 157 46 17.0000 Facility Latitude: 21 17 13.0000 Facility Longitude: 157 46 53.0000 Facility Latitude: 21 17 27.0000 Facility Longitude: 157 48 58.0000 Facility Latitude: 21 17 53.0000 Facility Longitude: 157 45 19.0000 Facility Latitude: 21 18 13.0000 Facility Longitude: 157 49 47.0000 Facility Latitude: 21 18 31.0000 Facility Longitude: 157 51 43.0000 Facility Latitude: 21 19 36.0000 Facility Longitude: 157 46 27.0000 Facility Latitude: 21 20 2.0000 Facility Longitude: 157 52 8.0000 21 21 17.0000 Facility Latitude: Facility Longitude: 157 48 40.0000 Facility Latitude: 21 22 35.0000 Facility Longitude: 157 49 55.0000 Facility Latitude: 21 22 57.0000 Facility Longitude: 157 55 14.0000 Facility Latitude: 21 23 38.0000 Facility Longitude: 157 56 49.0000 Facility Latitude: 21 24 7.0000 Facility Longitude: 157 58 25.0000

Facility Latitude:	21 24 10.0000	Facility Longitude:	157 56 45.0000
Facility Latitude:	21 24 12.0000	Facility Longitude:	157 56 47.0000
Facility Latitude:	21 26 16.0000	Facility Longitude:	157 51 23.0000
Facility Latitude:	21 34 50.0000	Facility Longitude:	157 53 12.0000
Facility Latitude:	21 35 17.0000	Facility Longitude:	157 53 49.0000
Facility Latitude:	21 17 19.0000	Facility Longitude:	157 47 36.0000
Facility Latitude:	21 18 37.0000	Facility Longitude:	157 47 29.0000
Facility Latitude:	21 20 14.0000	Facility Longitude:	157 45 1.0000
Facility Latitude:	21 21 27.0000	Facility Longitude:	157 49 5.0000
Facility Latitude:	21 22 56.0000	Facility Longitude:	157 49 35.0000
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Facility Latitude:	21 23 13.0000	Facility Longitude:	127 55 35.0000
Facility Latitude:	21 23 27.0000	Facility Longitude:	157 56 47.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 57 25.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 57 27.0000
Facility Latitude:	21 24 14.0000	Facility Longitude:	158 57 25.0000
Facility Latitude:	21 34 41.0000	Facility Longitude:	157 49 17.0000
Facility Latitude:	21 35 17.0000	Facility Longitude:	157 53 46.0000
Facility Latitude:	21 18 33.0000	Facility Longitude:	157 51 23.0000
Facility Latitude:	21 19 59.0000	Facility Longitude:	157 47 33.0000
Facility Latitude:	21 19 59.0000	Facility Longitude:	157 48 18.0000
Facility Latitude:	21 20 12.0000	Facility Longitude:	157 44 55.0000
Facility Latitude:	21 24 13.0000	Facility Longitude:	157 58 12.0000
Facility Latitude:	21 27 2.0000	Facility Longitude:	157 51 41.0000
Facility Latitude:	21 27 3.0000	Facility Longitude:	157 51 38.0000
Facility Latitude:	21 36 39.0000	Facility Longitude:	157 52 12.0000
Facility Latitude:	21 16 13.0000	Facility Longitude:	157 49 47.0000
Facility Latitude:	21 19 53.0000	Facility Longitude:	157 52 27.0000
Facility Latitude:	21 20 7.0000	Facility Longitude:	157 44 44.0000
Facility Latitude:	21 21 19.0000	Facility Longitude:	157 53 54.0000
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Facility Latitude:	21 21 20.0000	Facility Longitude:	157 53 54.0000
Facility Latitude:	21 23 5.0000	Facility Longitude:	157 48 31.0000
Facility Latitude:	21 23 5.0000	Facility Longitude:	157 54 26.0000
Facility Latitude:	21 23 22.0000	Facility Longitude:	157 48 52.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 55 53.0000
Facility Latitude:	21 24 12.0000	Facility Longitude:	158 57 23.0000
Facility Latitude:	21 24 35.0000	Facility Longitude:	157 50 2.0000
Facility Latitude:	21 24 37.0000	Facility Longitude:	157 50 8.0000
Facility Latitude:	21 35 27.0000	Facility Longitude:	157 53 59.0000
Facility Latitude:	21 18 31.0000	Facility Longitude:	157 51 20.0000
Facility Latitude:	21 20 11.0000	Facility Longitude:	157 45 12.0000
Facility Latitude:	21 21 16.0000	Facility Longitude:	157 49 14.0000
Facility Latitude:	21 25 7.0000	Facility Longitude:	157 49 41.0000
Facility Latitude:	21 33 14.0000	Facility Longitude:	157 53 8.0000
Facility Latitude:	21 35 22.0000	Facility Longitude:	157 53 53.0000
Facility Latitude:	21 20 52.0000	Facility Longitude:	157 52 36.0000
Facility Latitude:	21 21 52.0000	Facility Longitude:	157 48 11.0000
Facility Latitude:	21 22 28.0000	Facility Longitude:	157 49 49.0000
Facility Latitude:	21 23 13.0000	Facility Longitude:	157 55 35.0000
Facility Latitude:	21 23 38.0000	Facility Longitude:	157 55 54.0000
Facility Latitude:	21 23 38.0000	Facility Longitude:	157 55 55.0000
Facility Latitude:	21 23 39.0000	Facility Longitude:	157 55 53.0000
Facility Latitude:	21 23 42.0000	Facility Longitude:	157 49 9.0000
Facility Latitude:	21 25 53.0000	Facility Longitude:	157 57 31.0000
Facility Latitude:	21 26 39.0000	Facility Longitude:	157 52 12.0000
Facility Latitude:		Facility Longitude:	
Facility Latitude:	21 26 58.0000 21 34 41 0000	Facility Longitude:	157 51 40.0000
i acility Latitude.	21 34 41.0000	i acinty Longitude.	157 53 44.0000

Facility Latitude: 21 19 58.0000 Facility Longitude: 157 43 58.0000 Facility Latitude: 21 21 20.0000 Facility Longitude: 157 53 55.0000 Facility Latitude: 21 22 14.0000 Facility Longitude: 157 50 11.0000 Facility Latitude: 21 22 58.0000 Facility Longitude: 157 49 35.0000 Facility Latitude: 21 23 39.0000 Facility Longitude: 157 55 55.0000 Facility Latitude: 21 23 42.0000 Facility Longitude: 157 56 47.0000 Facility Latitude: 21 24 11.0000 Facility Longitude: 157 56 46.0000 Facility Latitude: 21 24 14.0000 Facility Longitude: 157 57 6.0000 Facility Latitude: Facility Longitude: 157 56 3.0000 21 23 20.0000 Facility Longitude: 157 55 3.0000 Facility Latitude: 21 23 22.0000 Facility Latitude: 21 23 27.0000 Facility Longitude: 157 56 43.0000 Facility Latitude: 21 23 39.0000 Facility Longitude: 157 55 54.0000 Facility Latitude: 21 23 48.0000 Facility Longitude: 157 56 22.0000 Facility Latitude: Facility Longitude: 157 56 22.0000 21 23 49.0000 158 57 24.0000 Facility Latitude: 21 24 13.0000 Facility Longitude: Facility Latitude: 21 24 39.0000 Facility Longitude: 157 57 59.0000 Facility Latitude: 21 26 16.0000 Facility Longitude: 157 51 32.0000 Facility Latitude: 21 33 15.0000 Facility Longitude: 157 53 11.0000 Facility Latitude: 21 34 39.0000 Facility Longitude: 157 53 47.0000

City Served: PEARL CITY
City Served: KANEOHE
City Served: AIEA
City Served: KAILUA

City Served: HONO-WINDW-PEAR

City Served: HONOLULU

Treatment Class: Mixed (treated and untreated) Population: 645741

Violations information not reported.

P50 NNE HI WELLS HI800000002229

1/2 - 1 Mile Higher

Objectid: 737 Wid: 3-1851-009
Island: Oahu Well name: Kawaihao Ch

Old name: Not Reported
Yr drilled: 1893
Driller: PINKHAM
Quad map: 13

Long83dd: -157.858055556

Lat83dd: 21.305

Gps:0Utm:-1Owner user:Kawaiahao ChOld number:96-Well type:Not ReportedCasing dia:4

Ground el: 14 Well depth: 765

Solid case: 715 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: 16.1 Init head: Not Reported

Init head3: Not Reported

Init cl: 52

Test date: Not Reported Test gpm: Not Reported
Test ddown: Not Reported Test chlor: Not Reported

Test unit:

Not Reported

Test temp: Not Reported

Pump gpm: 100

Draft mgy: 1 Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0

Draft yr: Not Reported Bot hole: -751

Bot solid: -701 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: .144

Draft mgd:Not ReportedPump elev:Not ReportedPump depth:Not ReportedTmk:(1) 2-1-032:017

 Aqui code:
 30102

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 9/1/1972
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002229

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R51
ENE FED USGS USGS40000269608
1/2 - 1 Mile
Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211815157512202 Monloc name: 3-1851-15 W85 DWNTN

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3010026 -157.8533682 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 5.00 Vert measure units: 5 Vertacc measure val: 2

Vert accmeasure units: feet
Vertcollection method: Interpolated from topograph

Vertcollection method: Interpolated from topographic map
Vert coord refsys: HILOCAL Countrycode:

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 18980101 Welldepth: 734

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Ground water levels, Number of Measurements.

NNE 1/2 - 1 Mile Higher

HI WELLS HI800000002230

US

731 Wid: 3-1851-003 Objectid: Island: Oahu Well name: King St

Old name: Not Reported Yr drilled: 1882 Driller: Not Reported Quad map:

Long83dd: -157.858611111

13

Lat83dd: 21.3052777778

Utm: Gps: -1 State Of Hawaii 97-Owner user: Old number: Well type: Not Reported Casing dia: 5

Ground el: 14 Well depth: 769

Solid case: 715 Perf case: Not Reported ABN - Sealed Not Reported Use: Use year: Init head: 30.8 Init head2: Not Reported

Init head3: Not Reported

Init cl: 55

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: Draft mgy: 36

Head feet: Not Reported Not Reported Max chlor: Not Reported Min chlor:

Geology: **TKB** Pump yr:

Draft yr: Not Reported Bot hole: -755

Not Reported Bot solid: -701 Bot perf:

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-025:003

Aqui code: 30102

Latest hd: Not Reported Wcr: 30-DEC-99 Pir: Not Reported Surveyor: Not Reported HI800000002230 T: Not Reported Site id:

M53 **FED USGS** USGS40000269679 North 1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211834157515301 3-1851-27 W103 DWNTN Monloc name:

Well Monloc type:

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3062803 Longitude: -157.8619789 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 2.00 Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: HILOCAL Countrycode:

Not Reported Aquifername: Formation type: Not Reported

Not Reported Aquifer type:

Construction date: 19100101 Welldepth: 1145 Wellholedepth: Not Reported

Welldepth units:

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

HI800000002178 ENE **HI WELLS** 

1/2 - 1 Mile Higher

> Objectid: 743 Wid: 3-1851-015 Island: Oahu Well name: Ward Ave

Old name: Not Reported Yr drilled: 1898 Driller: **MCCANDLESS** 

Quad map: 13

Long83dd: -157.853333 Lat83dd: 21.301111

Utm: Gps: 0 -1 Owner user: **HECO** Old number: 85-

Well type: Not Reported Casing dia: 8 Ground el: 5

Well depth: 734 Solid case: 602

Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Not Reported Init head: 28.3 Init head2:

Init head3: Not Reported

Init cl: 70

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Not Reported Not Reported Test unit: Test temp:

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: Draft yr: Not Reported Bot hole: -729

Bot solid: -597 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: Draft mgd: Not Reported Pump elev: Not Reported

(1) 2-1-044:039 Pump depth: Not Reported Tmk: Aqui code: 30102

Latest hd: Not Reported Wcr: 30-DEC-99 Pir: Not Reported Surveyor: Not Reported Not Reported T: Site id: HI800000002178

R55 ENE 1/2 - 1 Mile Higher

**HI WELLS** HI800000002164

Objectid: 786 Wid: 3-1851-058 Island: Oahu Well name: Kapiolani Myers

Old name: Not Reported Yr drilled: 1960

PACIFIC DRLG Driller:

Quad map: 13

Long83dd: -157.852777778 Lat83dd: 21.3002777778

Utm: -1 Gps: Meyers/Daiichi Old number: 86-1 Owner user: Not Reported Well type: Casing dia: 6

Ground el:

Well depth: 710 Solid case: 640 Perf case: Not Reported ABN - Sealed Not Reported Use: Use year: Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Not Reported Not Reported Test date: Test gpm: Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr:

-704 Draft yr: Not Reported Bot hole:

Not Reported Bot solid: -634 Bot perf:

Spec capac: Not Reported

Pump mgd:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-044:008

30102 Aqui code:

Latest hd: Not Reported Wcr: 01-JAN-60 Pir: Not Reported Surveyor: Not Reported HI800000002164 T: Not Reported Site id:

M56 North 1/2 - 1 Mile **HI WELLS** HI800000002254

755 Wid: 3-1851-027 Objectid: Island: Oahu Well name: Queen St

Old name: Not Reported Yr drilled: 1910

Driller: **MCCANDLESS** 

Quad map: 13

Higher

Long83dd: -157.861944 Lat83dd: 21.306389

Gps: 0 Utm:

-1 Owner user: **HECO** Old number: 103-Well type: Not Reported Casing dia: 12

Ground el: 2 Well depth: 1145

Solid case: 805 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: Init head2: Not Reported

27.2

Init head3: Not Reported

Init cl: 55 Not Reported Test date:

Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported

Not Reported

**FED USGS** 

USGS40000269684

Test temp: Not Reported Test unit:

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: TKB

Pump yr: 0

Draft yr: Not Reported Bot hole: -1143

Bot solid: -803 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-10

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002254

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S57 North 1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211836157520701 Monloc name: 3-1852-05 W90-6 DWNT

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3068359 -157.8658676 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00 Vert measure units: Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19510201 Welldepth: 40

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0  $\,$ 

S58 North 1/2 - 1 Mile Higher

HI WELLS HI800000002259

Objectid: 809 Wid: 3-1852-005 Island: Oahu Well name: Aloha Tower

Old name: Not Reported
Yr drilled: 1951

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.865833333 Lat83dd: 21.3069444444

Lat83dd: 21.3069444444 Gps: 0

 Gps:
 0
 Utm:
 -1

 Owner user:
 Podmore J W
 Old number:
 90-6

 Well type:
 Not Reported
 Casing dia:
 8

Ground el: Not Reported

Well depth: 40 Solid case: 14

Solid case: 14 Perf case: Not Reported Use: UNU - Unused Use year: Not Reported Init head: Not Reported Init head2: Not Reported Init head3: Not Reported

Init cl: 0

Test date: Not Reported

Test ddown: 3.4 Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: Not Reported

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: 26

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

Latest hd:Not ReportedWcr:01-JAN-51Pir:Not ReportedSurveyor:Not ReportedT:Not ReportedSite id:HI8000000002259

T59
NNE
1/2 - 1 Mile
FED USGS USGS40000269682

Test gpm:

90

Org. Identifier: USGS-HI

Higher

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211836157515001 Monloc name: 3-1851-45 W103-1A DW

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3068358 Longitude: -157.8611456 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 Vert measure units: 6eet Vertacc measure val: 3

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19391016 Welldepth: 80

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

T60
NNE
FED USGS USGS40000269683

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211836157515002 Monloc name: 3-1851-46 W103-1B DW

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3068358 Latitude: Longitude: -157.8611456 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 Vert measure units: 6eet Vertacc measure val: 3

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19391023 Welldepth: 75

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

N61 North FED USGS USGS40000269690

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157515801 Monloc name: 3-1851-68 W90-8A DWN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3071136 Longitude: -157.8633677 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00
Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19680101 Welldepth: 36

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

N62 North FED USGS USGS40000269691

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157515802 Monloc name: 3-1851-69 W90-8B DWN

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3071136 Longitude: -157.8633677 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode:

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19680101 Welldepth: 40

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Q63 NW HI WELLS HI800000002226

NW 1/2 - 1 Mile Higher

Objectid: 812 Wid: 3-1852-008

Island: Oahu Well name: Coast Guard Res

Old name: Not Reported Yr drilled: 1971

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.871944444 Lat83dd: 21.3047222222

Gps: 0 Utm: -

Owner user: State DAR Old number: Not Reported

Well type: Not Reported Casing dia: 12

Ground el: 8 Well depth: 80

Solid case: 32 Perf case: Not Reported Use: AGR - Aquatic Plants and AnimalsUse year: Not Reported Init head: 0.81 Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

 Test date:
 6/23/1971
 Test gpm:
 900

 Test ddown:
 2.3
 Test chlor:
 19000

US

Not Reported

Test temp: Not Reported Test unit:

Pump gpm: 400

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: RF

Pump yr: 0

Draft yr: Not Reported Bot hole: -72

Bot solid: -24 Bot perf: Not Reported

Spec capac: 391

Pump mgd: .576

Draft mgd:Not ReportedPump elev:Not ReportedPump depth:Not ReportedTmk:(1) 1-5-041:002

Aqui code: 30102

Latest hd:Not ReportedWcr:01-JAN-71Pir:Not ReportedSurveyor:Not ReportedT:Not ReportedSite id:HI8000000002226

S64
North
1/2 - 1 Mile
Higher

FED USGS USGS40000269693

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157520701 Monloc name: 3-1852-04 W90-5 DWNT

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3071137 -157.8658676 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 3.00
Vert measure units: feet Vertacc measure val: 1

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19470501 Welldepth: 64

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

NNE 1/2 - 1 Mile Higher

HI WELLS HI800000002260

Objectid: 773 Wid: 3-1851-045 Island: Oahu Well name: Merchant&Richard

Old name: Not Reported Yr drilled: 1939 MULLIN Driller: Quad map: 13

Long83dd: -157.861111111 Lat83dd: 21.3069444444

Utm: Gps: -1 Old number: Owner user: Not Reported 103-1A Well type: Not Reported Casing dia: 6

Ground el: Not Reported Well depth: 80

Solid case: 21 Perf case: Not Reported Other Not Reported Use: Use year: Init head: Not Reported Init head2: Not Reported Init head3: Not Reported

Init cl: 1040 Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported

Test temp: Not Reported Test unit: Not Reported Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported

Max chlor: Not Reported Min chlor: Not Reported Geology: QLS

Pump yr: Draft yr: Not Reported Bot hole: Not Reported

Not Reported Not Reported Bot solid: Bot perf: Spec capac: Not Reported

Pump mgd: Draft mgd: Not Reported Pump elev: Not Reported

Not Reported Pump depth: Tmk: Not Reported 30102

Aqui code: Latest hd: Not Reported 01-JAN-39 Wcr: Pir: Not Reported Surveyor: Not Reported HI800000002260 T: Not Reported Site id:

T66 **HI WELLS** HI800000002261 NNE

1/2 - 1 Mile Higher

> 774 3-1851-046 Objectid: Wid:

> Island: Oahu Well name: Merchant&Richard Old name: Not Reported Yr drilled: 1939 Driller: **MULLIN**

Quad map: 13 Long83dd: -157.861111111 Lat83dd: 21.3069444444

Gps: 0 Utm: Owner user: Not Reported Old number: 103-1B Not Reported Well type: Casing dia:

Ground el: Not Reported Well depth: 75

Solid case: Perf case: Not Reported Use: **UNU** - Unused Not Reported Use year: Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: Not Reported Test date: Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported

Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-39

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002261

U67
North
HI WELLS
HI800000002266
1/2 - 1 Mile

Objectid: 797 Wid: 3-1851-069 Island: Oahu Well name: Bishop St

Old name: Not Reported
Yr drilled: 1968

Driller: NAT WHITON

Quad map: 13

Higher

Long83dd: -157.863333333 Lat83dd: 21.3072222222

 Gps:
 0
 Utm:
 -1

 Owner user:
 Duesenburg Inv Co
 Old number:
 90-8B

 Well type:
 Not Reported
 Casing dia:
 24

Ground el: 7
Well depth: 40

Well depth: 40 Solid case: 9

Solid case:

9 Perf case: Not Reported
Use: IND - Geothermal, Thermoelectric (Casc) inegr: Power De Not Reported
Init head: 0.3 Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date:Not ReportedTest gpm:425Test ddown:11.2Test chlor:17300Test temp:25.6Test unit:C

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0

Draft yr: Not Reported Bot hole: -33

Bot solid: -2 Bot perf: Not Reported

Spec capac: 38 Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-68

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI8000000002266

Map ID Direction Distance Elevation

U68
North HI WELLS HI800000002265

1/2 - 1 Mile Higher

Objectid: 796 Wid: 3-1851-068 Island: Oahu Well name: Bishop St

Old name: Not Reported
Yr drilled: 1968
Driller: NAT WHITON
Quad map: 13

Long83dd: -157.863333333 Lat83dd: 21.3072222222

Gps:0Utm:-1Owner user:Duesenburg Inv CoOld number:90-8AWell type:Not ReportedCasing dia:24

Ground el: 7 Well depth: 36

Solid case: 8 Perf case: Not Reported Use: IND - Geothermal, Thermoelectricul Descripting: Power De Not Reported

Init head: Not Reported Init head2:

Init head3: Not Reported

Init cl: 0

Test date:Not ReportedTest gpm:440Test ddown:4.5Test chlor:16750Test temp:26.1Test unit:C

Pump gpm: 1400

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 1968

Draft yr: Not Reported Bot hole: -29

Bot solid: -1 Bot perf: Not Reported Spec capac: 98

Pump mgd: 2.016

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-013:006 Aqui code: 30102

 Adult code:
 30 102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-68

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI8000000002265

U69

North 1/2 - 1 Mile Higher

 Objectid:
 798
 Wid:
 3-1851-070

 Island:
 Oahu
 Well name:
 Ft St Mall

Old name: Not Reported Yr drilled: 1968

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.863333333 Lat83dd: 21.3072222222

 Gps:
 0
 Utm:
 -1

 Owner user:
 AMFAC
 Old number:
 90-8C

**HI WELLS** 

HI800000002267

Database

Not Reported

EDR ID Number

24

Well type: Not Reported Casing dia:

Ground el:

Well depth: 30

Not Reported Solid case: Not Reported Perf case: Not Reported Use: Other Use year: Init head: Init head2: Not Reported 0.3

Init head3: Not Reported

Init cl:

Not Reported 550 Test date: Test gpm: 17800 Test ddown: 1.9 Test chlor: Test temp: 25.6 Test unit:

0 Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Not Reported Min chlor:

Geology: QLS

Pump yr: 0 Draft yr: Not Reported

Bot hole: -23 Not Reported Not Reported Bot solid: Bot perf:

Spec capac: 289 Pump mgd: 0

Draft mgd: Not Reported Not Reported Pump elev: Not Reported (1) 2-1-013:006 Tmk:

Pump depth: Aqui code: 30102

01-JAN-68 Latest hd: Not Reported Wcr: Pir: Not Reported Not Reported Surveyor: T: Not Reported Site id: HI800000002267

**R70 FED USGS** USGS40000269623

1/2 - 1 Mile Higher

> USGS-HI Org. Identifier:

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211819157512101 Monloc name: 3-1851-59 W85-1 DWNT

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3021137 Latitude: -157.8530904 Longitude: Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 Vertacc measure val: Vert measure units: feet .5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Not Reported Formation type: Aquifer type: Not Reported

19600101 Welldepth: 736 Construction date:

Welldepth units: Wellholedepth: Not Reported

Not Reported Wellholedepth units:

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1964-04-27 -17.90

North **HI WELLS** HI800000002264 1/2 - 1 Mile

Higher

Objectid: 808 Wid: 3-1852-004 Island: Oahu Well name: Aloha Towers

Old name: Not Reported Yr drilled: 1947 NAT WHITON Driller:

Quad map: 13

Long83dd: -157.865833333 Lat83dd: 21.3072222222

Gps: Utm: -1 Owner user: Castle & Cooke Hawaii, Inc. [03] Old number: 90-5 Well type: Not Reported Casing dia: 6

Ground el: Not Reported

Well depth: 64

Solid case: 34 Perf case: Not Reported Use: Other Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Not Reported Init head3:

Init cl:

Test date: Not Reported Test gpm: 150

Test ddown: Test chlor: Not Reported 1.5 Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: 100

Pump mgd: 0 Draft mgd: Not Reported Pump elev: Not Reported (1) 2-1-001:001

Pump depth: Not Reported Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-47 Pir: Not Reported Surveyor: Not Reported T: Not Reported Site id: HI800000002264

Tmk:

R72 **HI WELLS** 1/2 - 1 Mile Higher

TC4150044.2s Page A-80

HI800000002195

Objectid: 787 Wid: 3-1851-059 Island: Oahu Well name: King St

Old name: Not Reported Yr drilled: 1960

Driller: PACIFIC DRLG

Quad map: 13

Long83dd: -157.853055556 Lat83dd: 21.3022222222

 Gps:
 0
 Utm:
 -1

 Owner user:
 Spuds Ldry
 Old number:
 85-1

 Well type:
 Not Reported
 Casing dia:
 4

Ground el: 8

Well depth: 678
Solid case: 607 Perf case: Not Reported
Use: ABN - Sealed Use year: Not Reported
Init head: 25.9 Init head2: Not Reported

Init head3: Not Reported

Init cl: 48

Test date:Not ReportedTest gpm:Not ReportedTest ddown:Not ReportedTest chlor:Not ReportedTest temp:Not ReportedTest unit:Not Reported

Pump gpm: 0

 Draft mgy:
 36
 Head feet:
 Not Reported

 Max chlor:
 Not Reported
 Min chlor:
 Not Reported

Geology: RTSP

Pump yr: 0

Draft yr: Not Reported Bot hole: -670

Bot solid: -599 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported (1) 2-1-045:017

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-60

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002195

T73
North
1/2 - 1 Mile
Higher

FED USGS USGS40000269688

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157515101 Monloc name: 3-1851-47 W103-2A DW

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 21.3071136 Contrib drainagearea units: Not Reported Latitude: Longitude: -157.8614233 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 10.00 Vert measure units: feet Vertacc measure val: 3

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19391030 Welldepth: 41

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

T74
North FED USGS USGS40000269689

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157515102 Monloc name: 3-1851.02 -48/103-2B

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3071136 Latitude: Longitude: -157.8614233 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 10.00 Vert measure units: feet Vertacc measure val: 3

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19390101 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

V75 NE FED USGS USGS40000269633

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211821157512201 Monloc name: 3-1851.03 -64/W85-2

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3026692 Longitude: -157.8533682 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19671008 Welldepth: 91
Welldepth units: ft Wellholedepth: 91

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

-----

1967-10-05 7.00

Note: The site had been pumped recently.

U76
North FED USGS USGS40000269692
1/2 - 1 Mile

Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211837157515803 Monloc name: 3-1851.05 -70/W90-8C

Monloc type: Well

Monloc desc: Not Reported

20060000 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Drainagearea Units: Not Reported Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3073914 Longitude: -157.8633677 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: 7.00 Vert measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19681025 Welldepth: 30 Welldepth units: ft Wellholedepth: 30

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1968-10-01 7.00

W77
ENE HI WELLS HI800000002166
1/2 - 1 Mile

Higher

Objectid: 791 Wid: 3-1851-063
Island: Oahu Well name: Blaisdell Center

Old name: Not Reported Yr drilled: 1967

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.851667 Lat83dd: 21.300278

Gps: 0 Utm:

Owner user: C&C Pks&Rec Old number: Not Reported

Well type: Not Reported Casing dia: 16

Ground el: Not Reported

Well depth: 80

Not Reported Solid case: 28 Perf case: Use: IRR - Landscape/Water Features Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 2350

Not Reported Not Reported Test date: Test gpm: Not Reported Not Reported Test ddown: Test chlor: Test temp: Not Reported Test unit: Not Reported

700 Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Not Reported Min chlor:

Geology: QA Pump yr: 0

Draft yr: Not Reported

Bot hole: Not Reported Not Reported Bot solid: Bot perf: Not Reported

Spec capac: Not Reported Pump mgd: 1.008

Draft mgd: Not Reported

Not Reported Pump elev: Pump depth: Not Reported Tmk: (1) 2-3-008:001

Aqui code: 30102

01-JAN-67 Latest hd: Not Reported Wcr: Pir: Not Reported Not Reported Surveyor: T: Not Reported Site id: HI800000002166

**V78** HI800000002208 **HI WELLS** 

1/2 - 1 Mile Higher

> 792 Wid: 3-1851-064 Objectid: Island: Oahu Well name: King St

Old name: Not Reported

Yr drilled: 1967 Driller: **ROSCOE MOSS** 

Quad map: 13 -157.853333333 Long83dd: Lat83dd: 21.3027777778

Utm: Gps: 0 -1 Berts Service 85-2 Owner user: Old number: Well type: PER Casing dia: 8

Ground el: 7 Well depth: 91

Solid case: 27 Perf case: 35

Other Not Reported Use: Use year: Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm:

Test ddown: 0.3 Test chlor: Not Reported Not Reported Test unit: Not Reported Test temp:

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Not Reported Max chlor: Min chlor: Not Reported

Geology: **RTSP** 

Pump yr:

Draft yr: Not Reported Bot hole: -84 Bot solid: -20 Bot perf: -28

Spec capac: 667 Pump mgd: 0

200

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

01-JAN-67 Latest hd: Not Reported Wcr: Pir: Not Reported Surveyor: Not Reported HI800000002208 T: Not Reported Site id:

NNE **HI WELLS** HI800000002269

1/2 - 1 Mile Higher

> Wid: Objectid: 771 3-1851-043 Island: Oahu Well name: Merchant St

Old name: Not Reported Yr drilled: 1939 NAT WHITON Driller:

Quad map: 13

Long83dd: -157.861111111 Lat83dd: 21.307222222

Gps: Utm: Wilcox Dev 90-1B Owner user: Old number: Not Reported Well type: Casing dia: 8

Ground el: 10 Well depth: 40

37 Solid case: 17 Perf case:

Other Not Reported Use: Use year: Init head: Not Reported Init head2: Not Reported

Not Reported Init head3:

Init cl:

Test date: Not Reported Test gpm: 125

Test ddown: Not Reported 3.1 Test chlor: Not Reported

Test temp: Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Draft yr: Not Reported Bot hole: -30

Bot solid: -7 Bot perf: -27 Spec capac: 40

Pump mgd: 0

Draft mgd: Not Reported Not Reported Pump elev: Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-39 Pir: Not Reported Surveyor: Not Reported HI800000002269 T: Not Reported Site id:

T80 NNE **HI WELLS** HI800000002268 1/2 - 1 Mile Higher

770 Wid: 3-1851-042 Objectid: Island: Oahu Well name: Merchant St

Old name: Not Reported Yr drilled: 1939

Driller: NAT WHITON

Quad map: 13

Long83dd: -157.861111111 Lat83dd: 21.3072222222

Utm: Gps: -1 Owner user: Wilcox Dev Old number: 90-1A Well type: Not Reported Casing dia: 8

Ground el: 10 Well depth: 50

Solid case: 22 Perf case: 40

Other Use: Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported Init cl: 2100

125 Test date: Not Reported Test gpm: Test ddown: 2.3 Test chlor:

Not Reported Test temp: Test unit: Not Reported Not Reported

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr:

Draft yr: Not Reported Bot hole: -40 -30

Bot solid: -12 Bot perf: Spec capac: 54

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Not Reported Pump depth: Tmk: Not Reported

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-39 Pir: Not Reported Surveyor: Not Reported HI8000000002268 T: Not Reported Site id:

**FED USGS** USGS40000269681 NNE 1/2 - 1 Mile

Org. Identifier: USGS-HI

Higher

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211835157513801 3-1851-51 W99-1 DWNT Monloc name:

Well Monloc type:

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.306558 Longitude: -157.8578124 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 18.00 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: HILOCAL Countrycode:

Not Reported Aquifername: Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19521202 Welldepth: 71

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

NNE HI WELLS HI800000002257

Casing dia:

8

1/2 - 1 Mile Higher

Objectid:779Wid:3-1851-051Island:OahuWell name:Iolani Palace

Old name: Not Reported
Yr drilled: 1952
Driller: NAT WHITON
Quad map: 13

Long83dd: -157.857778 Lat83dd: 21.306667

Gps: 0 Utm: -1
Owner user: State Of Hawaii Old number: 99-1

Well type: Not Reported
Ground el: 18
Well depth: 71

Solid case: 24 Perf case: Not Reported Use: IND - Geothermal, Thermoelectric@oojiegr:Power De Not Reported Init head: 3.6 Init head2: Not Reported

Init head3: Not Reported

Init cl: 966

Test date: Not Reported Test gpm: 300

Test ddown: 1.6 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: RTSP

Pump yr: 0
Draft yr: Not Reported

Draft yr: Not Reported Bot hole: -53
Bot solid: -6 Bot perf: Not Reported

Spec capac: 188
Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-52

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002257

U83 North 1/2 - 1 Mile Higher

FED USGS USGS40000269697

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211840157515601 Monloc name: 3-1851-53 W90-7 DWNT

Monloc type: Well

Monloc desc: Not Reported Huc code: 20060000

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3079469 Latitude: -157.8628122 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 8.00 Vert measure units: 6eet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode:

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19561028 Welldepth: 122

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Y84
NNE FED USGS USGS40000269673

US

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211833157513301 Monloc name: 3-1851-44 W97-1 DWNT

Monloc type: Well

Monloc desc: Not Reported 20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3060024 Longitude: -157.8564236 Sourcemap scale: 24000 5 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 15.00 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19390101 Welldepth: 62

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance Elevation

U85 North HI WELLS HI800000002276

1/2 - 1 Mile Higher

Objectid: 804 Wid: 3-1851-076
Island: Oahu Well name: Amfac Center

Old name: Not Reported
Yr drilled: 0
Driller: Not Reported
Quad map: 13
Long83dd: -157.863611111
Lat83dd: 21.3080555556

Gps: 0 Utm: -1

Owner user: Duesenburg Inv Co Old number: Not Reported Well type: Not Reported Casing dia: Not Reported

Ground el: Not Reported

Well depth: 0

Solid case: Not Reported Perf case: Not Reported Use: IND - Geothermal, Thermoelectricul (Descripting): Power De Not Reported

Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm: Not Reported Test ddown: Not Reported Test chlor: Not Reported Test temp: Not Reported Test unit: Not Reported

Pump gpm: 1400

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 1969

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 2.016

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-1-013:006 Aqui code:

Latest hd:Not ReportedWcr:30-DEC-99Pir:Not ReportedSurveyor:Not ReportedT:Not ReportedSite id:HI8000000002276

U86
North HI WELLS HI800000002277

Well name:

Old name: Not Reported Yr drilled: 1956

Driller: SAMSON-SMOCK

Oahu

Quad map: 13

Island:

Long83dd: -157.862777778 Lat83dd: 21.3080555556

 Gps:
 0
 Utm:
 -1

 Owner user:
 A&B
 Old number:
 90-7

Queen St

Database

EDR ID Number

Perf case:

30

Well type: Not Reported Casing dia: 12

Ground el: 8 Well depth: 122

Solid case: 22

Use: Other Use year: Not Reported Init head: 0.4 Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date:Not ReportedTest gpm:400Test ddown:13.1Test chlor:19

Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS

Pump yr: 0

Draft yr: Not Reported Bot hole: -114
Bot solid: -14 Bot perf: -22

Spec capac: 31 Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-56

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002277

Y87

NNE 1/2 - 1 Mile Higher

Objectid: 772 Wid: 3-1851-044
Island: Oahu Well name: Punchbowl St

Old name: Not Reported
Yr drilled: 1939
Driller: MULLIN
Quad map: 13

Long83dd: -157.856388889 Lat83dd: 21.3061111111

Gps:0Utm:-1Owner user:Medical GroupOld number:97-1Well type:Not ReportedCasing dia:6

Ground el: Not Reported

Well depth: 62

Solid case: 40 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date:Not ReportedTest gpm:Not ReportedTest ddown:Not ReportedTest chlor:Not ReportedTest temp:Not ReportedTest unit:Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: RTSP

Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported Spec capac: Not Reported

Pump mgd: 0

HI800000002250

**HI WELLS** 

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-39

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002250

U88
North FED USGS USGS40000269700
1/2 - 1 Mile

Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211841157515901

Monloc name: 3-1851-71 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3082247 Longitude: -157.8636455 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: .5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19730702 Welldepth: 45 Welldepth units: ft Wellholedepth: 45

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1973-07-02 7.00

U89
North FED USGS USGS40000269701

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211841157515902 Monloc name: 3-1851-72 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code:20060000Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:21.3082247Longitude:-157.8636455Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 7.00 Vert measure units: feet Vertacc measure val: .5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19730712 Welldepth: 45
Welldepth units: ft Wellholedepth: 45

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1973-07-12 7.00

U90
North
HI WELLS HI800000002279
1/2 - 1 Mile

Higher

 Objectid:
 800
 Wid:
 3-1851-072

 Island:
 Oahu
 Well name:
 Ft St Mall 2

Old name: Not Reported

Yr drilled: 1973

Driller: ROSCOE MOSS

Quad map: 13

Long83dd: -157.863611111 Lat83dd: 21.3083333333

Gps: 0 Utm: -1

Owner user: Center Prop Old number: Not Reported

Well type: PER Casing dia: 16

Ground el: 7

Well depth: 45

Solid case: 10 Perf case: Not Reported Use: IND - Geothermal, Thermoelectric@coljegr;Power De Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 0

Test date: 7/12/1973 Test gpm: 950

Test ddown: 8.5 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS

Pump yr: 0

Draft yr: Not Reported Bot hole: -38

Bot solid: -3 Bot perf: Not Reported

Spec capac: 112 Pump mgd: 0

Draft mgd:Not ReportedPump elev:Not ReportedPump depth:Not ReportedTmk:(1) 2-1-013:001

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JUL-73

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002279

U91
North
1/2 - 1 Mile

HI WELLS
HI8000000002278

Higher

 Objectid:
 799
 Wid:
 3-1851-071

 Island:
 Oahu
 Well name:
 Ft St Mall 1

Old name: Not Reported Yr drilled: 1973

Driller: ROSCOE MOSS

Quad map: 13

Long83dd: -157.863611111 Lat83dd: 21.3083333333

Gps: 0 Utm: -

Owner user: Center Prop Old number: Not Reported

Well type: PER Casing dia: 16

Ground el: 7 Well depth: 45

Solid case: 10 Perf case: Not Reported Use: IND - Geothermal, Thermoelectrict (Composition of the Composition of the Compositio

Init head3: Not Reported

Init cl: 0

Test date: 7/2/1973 Test gpm: 850

Test ddown:

8.2

Test chlor:

Not Reported

Test unit:

Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Draft yr: Not Reported Bot hole:

Bot solid: -3 Bot perf: Not Reported

Spec capac: 104

Pump mgd: 0
Draft mgd: Not Reported Pump elev: Not Reported

Pump depth: Not Reported Tmk: (1) 2-1-013:001

Aqui code: 30102

Latest hd:Not ReportedWcr:01-JUL-73Pir:Not ReportedSurveyor:Not ReportedT:Not ReportedSite id:HI8000000002278

\_\_\_\_\_\_X92

NNE 1/2 - 1 Mile Higher

FED USGS USGS40000269695

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211838157514001 Monloc name: 3-1851-04 W99, 99A,B

Monloc type: Well

Monloc desc: Not Reported Huc code: 20060000

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3073913 Latitude: -157.8583679 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 18.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 18820101 Welldepth: 752 Welldepth units: ft Wellholedepth: 765

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

V93 FED USGS USGS40000269639

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211825157512001 Monloc name: 3-1851-08 W86 DWNTN

Monloc type: Well

Monloc desc: Not Reported 20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.3037802 Latitude: Longitude: -157.8528126 Sourcemap scale: 24000 5 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 19.00
Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 18890101 Welldepth: 648

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Map ID				
Direction Distance				
Elevation			Database	EDR ID Number
Z94 North 1/2 - 1 Mile Higher			HI WELLS	HI8000000002281
Objectid:	776	Wid:	3-1851-048	
Island:	Oahu	Well name:	King St	
Old name:	Not Reported		-	
Yr drilled:	1939			
Driller:	NAT WHITON			
Quad map:	13			
Long83dd:	-157.861666667			
Lat83dd:	21.3083333333			
Gps:	0	Utm:	-1	
Owner user:	Walston & Co	Old number:	103-2B	
Well type:	Not Reported	Casing dia:	8	
Ground el:	Not Reported			
Well depth:	40	Dorf assau	Not Donostod	
Solid case:	34 UNU - Unused	Perf case:	Not Reported	
Use: Init head:	3.6	Use year: Init head2:	Not Reported Not Reported	
Init head:	Not Reported	mit neauz.	Not Reported	
Init ricado:	1360			
Test date:	Not Reported	Test gpm:	75	
Test ddown:	0.3	Test chlor:	Not Reported	
Test temp:	Not Reported	Test unit:	Not Reported	
Pump gpm:	0		•	
Draft mgy:	Not Reported	Head feet:	Not Reported	
Max chlor:	Not Reported	Min chlor:	Not Reported	
Geology:	QLS			
Pump yr:	0			
Draft yr:	Not Reported	Bot hole:	Not Reported	
Bot solid:	Not Reported	Bot perf:	Not Reported	
Spec capac:	250			
Pump mgd:	0 Not Bonortod	Dump alove	Not Paparted	
Draft mgd: Pump depth:	Not Reported	Pump elev: Tmk:	Not Reported Not Reported	
Aqui code:	Not Reported 30102	THIK.	Not Reported	
Latest hd:	Not Reported	Wcr:	01-JAN-39	
Pir:	Not Reported	Surveyor:	Not Reported	
T:	Not Reported	Site id:	HI800000002281	
Z95 North			HI WELLS	HI8000000002280
1/2 - 1 Mile Higher				
Objectid:	775	Wid:	3-1851-047	
Island:	Oahu	Well name:	King St	
Old name:	Not Reported		•	
Yr drilled:	1939			
Driller:	NAT WHITON			
Quad map:	13			
Long83dd:	-157.861666667			
Lat83dd:	21.3083333333	I I I		

Utm:

Old number:

Walston & Co

Gps:

Owner user:

103-2A

6

Well type: Not Reported Casing dia:

Ground el: Not Reported Well depth: 41

Solid case: 22 Perf case: Not Reported Use: UNU - Unused Use year: Not Reported Init head: 3.7 Init head2: Not Reported

Init head3: Not Reported

Init cl: 3290

Test date: Not Reported Test gpm: 75

Test ddown: 0.3 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: QLS Pump yr: 0

Pump yr: 0
Draft yr: Not Reported Bot hole: Not Reported

Bot solid: Not Reported Bot perf: Not Reported Spec capac: 250

Pump mgd: 0

Higher

Quad map:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-39

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002280

X96 NNE HI WELLS HI800000002271 1/2 - 1 Mile

Objectid: 732 Wid: 3-1851-004

Island: Oahu Well name: Iolani Palace
Old name: Not Reported
Yr drilled: 1882
Driller: Not Reported

Long83dd: -157.858333 Lat83dd: 21.3075 Gps: 0 Utm: -1

Owner user: State Of Hawaii Old number: 99-Well type: Not Reported Casing dia: 14 Ground el: 18

 Ground el:
 18

 Well depth:
 752

 Solid case:
 748
 Perf case:

13

Solid case: 748 Perf case: Not Reported Use: UNU - Unused Use year: Not Reported Init head: 25.2 Init head2: Not Reported

Init head: 25.2 Init head2: No Init head3: Not Reported

Init cl: 43
Test date: Not Reported Test gpm: Not Reported

Test ddown: Not Reported Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported
Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported

May chlor: Not Reported Min chlor: Not Reported

Max chlor: Not Reported Min chlor: Not Reported Geology: TKB

Pump yr: 0
Draft yr: Not Reported Bot hole: -734

Bot solid: -730 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported (1) 2-1-025:002

Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 30-DEC-99

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002271

1/2 - 1 Mi Higher

Objectid: 736 Wid: 3-1851-008 Island: Oahu Well name: Hotel St

Old name: Not Reported Yr drilled: 1889

Driller: MCCANDLESS
Quad map: 13

Long83dd: -157.852777778 Lat83dd: 21.3038888889

 Gps:
 0
 Utm:
 -1

 Owner user:
 H R T
 Old number:
 86 

 Well type:
 Not Reported
 Casing dia:
 8

Ground el: 19 Well depth: 648

Solid case: 584 Perf case: Not Reported Use: ABN - Sealed Use year: Not Reported Init head: 27.2 Init head2: Not Reported

Init head3: Not Reported

Init cl: 56

Test date: Not Reported Test gpm: Not Reported
Test ddown: Not Reported Test chlor: Not Reported

Test temp: Not Reported Test unit: Not Reported

Pump gpm: 0

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: TKB Pump yr: 0

Draft yr: Not Reported Bot hole: -629

Bot solid: -565 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0
Draft mgd: Not Reported Pump elev: Not Reported

Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102
Latest hd: Not Reported Wcr: 30-DEC-99
Pir: Not Reported Surveyor: Not Reported

T: Not Reported Site id: HI800000002221

W98 ENE 1/2 - 1 Mile Higher

FED USGS USGS40000269604

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211813157511101 Monloc name: 3-1851-63 W82-2B DWN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 21.300447 Latitude: -157.8503128 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 5.00 Vert measure units: 5 Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode:

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19670701 Welldepth: Not Reported Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

W99
ENE FED USGS USGS40000269605

US

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211813157511102 Monloc name: 3-1851-62 W82-2A DWN

Monloc type: Well

Monloc desc: Not Reported 20060000 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.300447 Longitude: -157.8503128 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 5.00
Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19670714 Welldepth: 65

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance Elevation

100 ENE HI WELLS HI800000002169

1/2 - 1 Mile Higher

NE HI WELLS HI800000002169 /2 - 1 Mile

Well name:

Wid:

Objectid: 790
Island: Oahu

 Old name:
 Not Reported

 Yr drilled:
 1967

 Driller:
 NAT WHITON

 Quad map:
 13

 Long83dd:
 -157.850277778

 Lat83dd:
 21.3005555556

Gps: 0 Utm: -1

Owner user: C&C Pks&Rec Old number: Not Reported

Well type: Not Reported Casing dia: 16

Ground el: Not Reported

Well depth: 65

Solid case: 14 Perf case: Not Reported Use: IRR - Landscape/Water Features Use year: Not Reported Init head: Not Reported Init head2: Not Reported

Init head3: Not Reported

Init cl: 376

Test date: Not Reported Test gpm: 600

Test ddown: 1.9 Test chlor: Not Reported
Test temp: Not Reported Test unit: Not Reported

Pump gpm: 700

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: Not Reported

Pump yr: 0

Draft yr: Not Reported Bot hole: Not Reported Bot solid: Not Reported Bot perf: Not Reported

Spec capac: 316

Pump mgd: 1.008

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: (1) 2-3-008:001 Aqui code: 30102 Ucr: 14-JUL-67

Pir: Not Reported Surveyor: Not Reported
T: Not Reported Site id: HI800000002169

Z101 North 1/2 - 1 Mile Higher

pher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211843157515601 Monloc name: 3-1851-38 W90 DWNTN

Monloc type: Well

Monloc desc: Not Reported

Huc code:20060000Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:21.3087802Longitude:-157.8628122Sourcemap scale:24000

**FED USGS** 

USGS40000269708

Database

3-1851-062

Nbc

EDR ID Number

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 12.00 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19370101 Welldepth: 100

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Z102 North FED USGS USGS40000269706 1/2 - 1 Mile

Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211843157515301 Monloc name: 3-1851-42 W90-1A DWN

Monloc type: Well

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 21.3087801 Contrib drainagearea units: Not Reported Latitude: -157.8619789 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 10.00 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19390101 Welldepth: 50

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Z103
North FED USGS USGS40000269707

1/2 - 1 Mile Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211843157515302 Monloc name: 3-1851.01 -43/W90-1B

Monloc type: Well

Monloc desc: Not Reported

Huc code:20060000Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:21.3087801Longitude:-157.8619789Sourcemap scale:24000

TC4150044.2s Page A-100

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 10.09
Vert measure units: feet Vertacc measure val: .5

Vert accmeasure units: feet

Vertcollection method: Level or other surveying method

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19390701 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1939-07-27 10.00

Note: A nearby site that taps the same aquifer had been pumped recently.

AA104 NE FED USGS USGS40000269638 1/2 - 1 Mile

Higher

Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211824157511701
Monloc name: 3-1851-36 W80 DWNTN

Monloc type: Well
Monloc desc: Not Reported

20060000 Drainagearea value: Not Reported Huc code: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 21.3035024 Longitude: -157.8519793 Sourcemap scale: 24000 Horiz Acc measure: 5 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 15.00 Vert measure units: feet Vertacc measure val: 2

Vert accmeasure units: feet
Vertcollection method: Interpolated from topographic map

Vert coord refsys: HILOCAL Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19360101 Welldepth: 700

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

Z105 North 1/2 - 1 Mile Higher

HI WELLS HI800000002286

766 Wid: 3-1851-038 Objectid: Island: Oahu Well name: Ft St Mall

Old name: Not Reported Yr drilled: 1937 Driller: MULLIN Quad map: 13

Long83dd: -157.862777778 Lat83dd: 21.3088888889

Utm: Gps: -1 Brewer C & Co Owner user: Old number: 90-Well type: Not Reported Casing dia: 6

Ground el: Not Reported

Well depth: 100 Solid case: 20

Perf case: Not Reported UNU - Unused Not Reported Use: Use year: Init head: Not Reported Init head2: Not Reported Init head3: Not Reported

Init cl: 0

Test date: Not Reported Test gpm: 130

Test ddown: Not Reported Test chlor: Not Reported Not Reported Test unit: Not Reported Test temp:

Pump gpm:

Draft mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: PLS Pump yr:

Draft yr: Not Reported Bot hole:

Not Reported Not Reported Not Reported Bot solid: Bot perf:

Spec capac: Not Reported

Pump mgd:

Draft mgd: Not Reported Pump elev: Not Reported Pump depth: Not Reported Tmk: Not Reported

Aqui code: 30102

Latest hd: Not Reported Wcr: 01-JAN-37 Pir: Not Reported Surveyor: Not Reported T: Not Reported Site id: HI800000002286

Z106 North 1/2 - 1 Mile Higher

> Org. Identifier: USGS-HI

Formal name: USGS Hawaii Water Science Center

Monloc Identifier: USGS-211843157515201 3-1851-52 W104-1 DWN Monloc name:

Well Monloc type:

Monloc desc: Not Reported

Huc code: 20060000 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 21.3087801 Longitude: -157.861701 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 15.00 Vert measure units: feet Vertacc measure val: 5

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: HILOCAL Countrycode:

Not Reported Aquifername: Formation type: Not Reported **FED USGS** 

USGS40000269705

Aquifer type: Not Reported

Construction date: 19520302 Welldepth: 100

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

AA107 NE HI WELLS HI800000002220

1/2 - 1 Mile Higher

 Objectid:
 764
 Wid:
 3-1851-036

 Island:
 Oahu
 Well name:
 Hotel St

Old name: Not Reported
Yr drilled: 1936
Driller: MULLIN
Quad map: 13

Long83dd: -157.851944444 Lat83dd: 21.3036111111

Gps:0Utm:-1Owner user:Haw Juice IndOld number:80-Well type:Not ReportedCasing dia:6

Ground el: 15 Well depth: 700

Solid case:603Perf case:Not ReportedUse:ABN - SealedUse year:Not ReportedInit head:29Init head2:Not Reported

Init head3: Not Reported

Init cl: 38

Test date:Not ReportedTest gpm:Not ReportedTest ddown:Not ReportedTest chlor:Not ReportedTest temp:Not ReportedTest unit:Not Reported

Pump gpm: 0

Draff mgy: Not Reported Head feet: Not Reported Max chlor: Not Reported Min chlor: Not Reported

Geology: TKB Pump yr: 0

Draft yr: Not Reported Bot hole: -685

Bot solid: -588 Bot perf: Not Reported

Spec capac: Not Reported

Pump mgd: 0
Draft mgd: Not Reported Pump elev: Not Reported

Pump depth: Not Reported Tmk: Not Reported Aqui code: 30102

 Latest hd:
 Not Reported
 Wcr:
 01-JAN-36

 Pir:
 Not Reported
 Surveyor:
 Not Reported

 T:
 Not Reported
 Site id:
 HI800000002220

### AREA RADON INFORMATION

Federal EPA Radon Zone for HONOLULU County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96813

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.067 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.350 pCi/L	100%	0%	0%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map. USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **LOCAL / REGIONAL WATER AGENCY RECORDS**

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Well Index Database

Source: Commission on Water Resource Management

Telephone: 808-587-0214

CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii

#### OTHER STATE DATABASE INFORMATION

#### **RADON**

Area Radon Information Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### **OTHER**

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STREET AND ADDRESS INFORMATION

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## Seagull Schools Kakaako

Kakaako Waterfront Park Honolulu, HI 96813

Inquiry Number: 4150044.9

December 03, 2014

# The EDR Aerial Photo Decade Package



## **EDR Aerial Photo Decade Package**

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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with any questions or comments.

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## **Date EDR Searched Historical Sources:**

Aerial Photography December 03, 2014

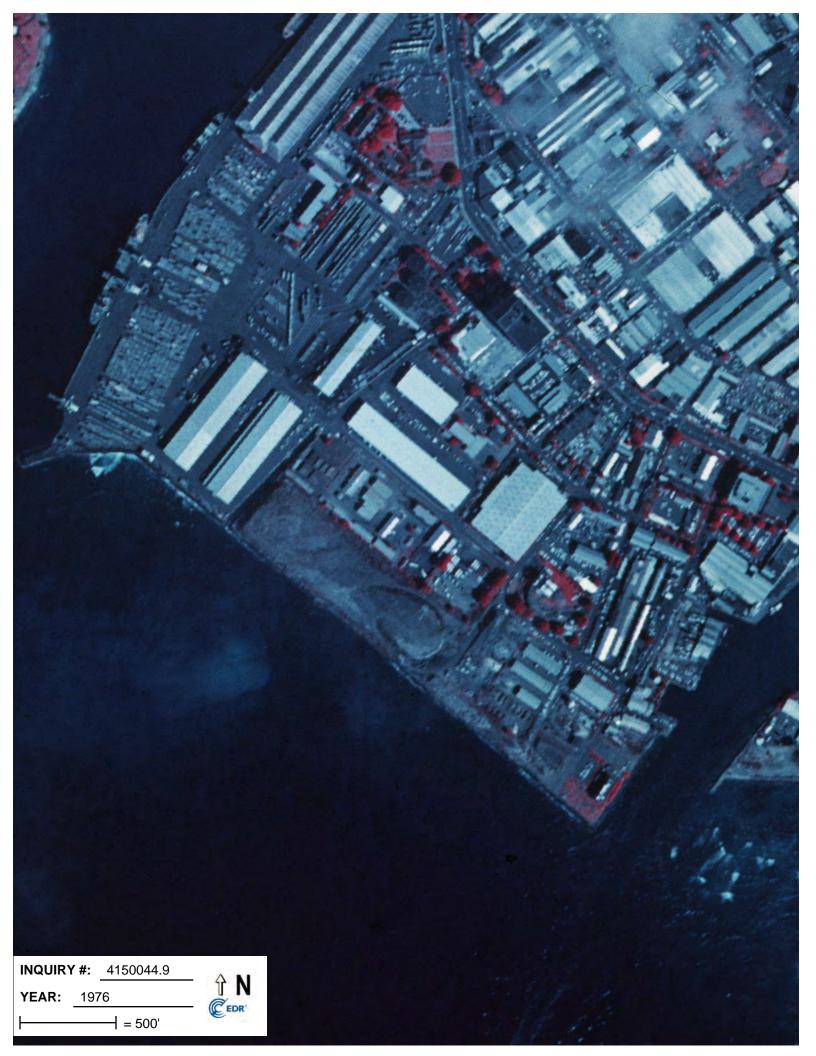
## **Target Property:**

Kakaako Waterfront Park Honolulu, HI 96813

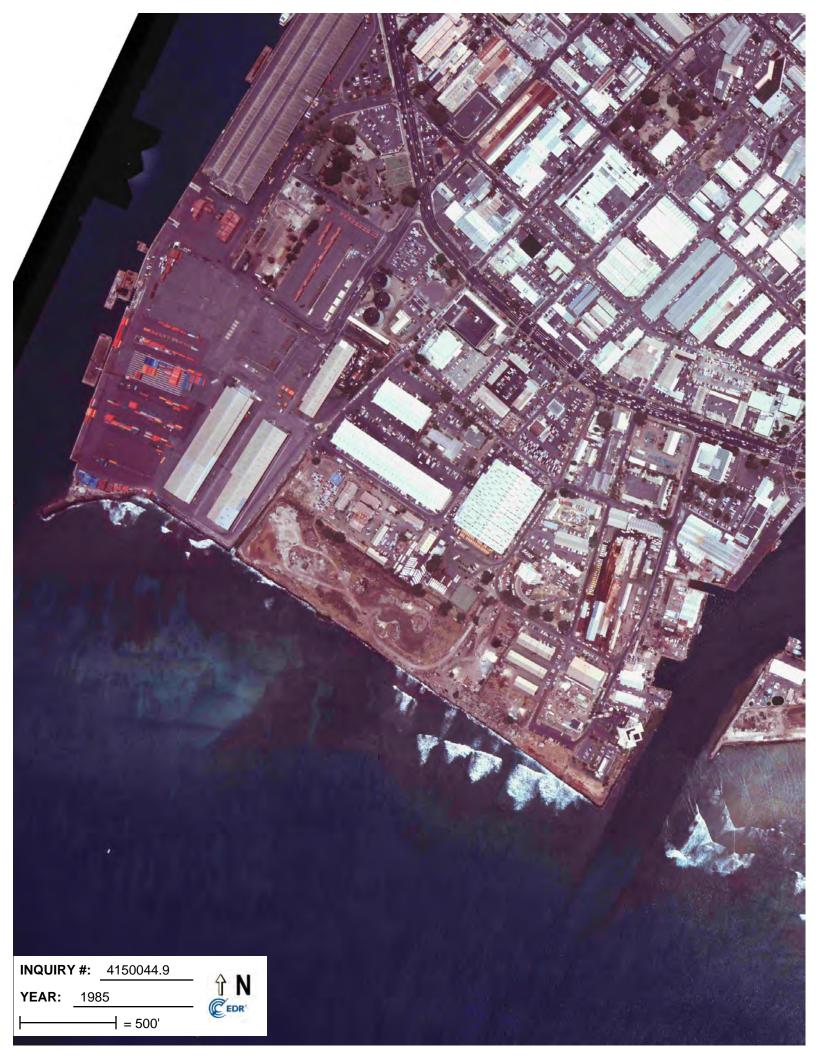
<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1952	Aerial Photograph. Scale: 1"=750'	Flight Date: April 03, 1952	EDR
1968	Aerial Photograph. Scale: 1"=500'	Flight Date: February 26, 1968	EDR
1976	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1976	USGS
1978	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1978	USGS
1985	Aerial Photograph. Scale: 1"=500'	Flight Date: May 03, 1985	EDR
1992	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1992	USGS
2000	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: January 30, 2000	USGS/DOQQ
2004	Aerial Photograph. Scale: 1"=500'	Flight Date: February 16, 2004	EDR

















## Seagull Schools Kakaako

Kakaako Waterfront Park Honolulu, HI 96813

Inquiry Number: 4150044.4

December 03, 2014

# **EDR Historical Topographic Map Report**



## **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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TARGET QUAD

HONOLULU NAME:

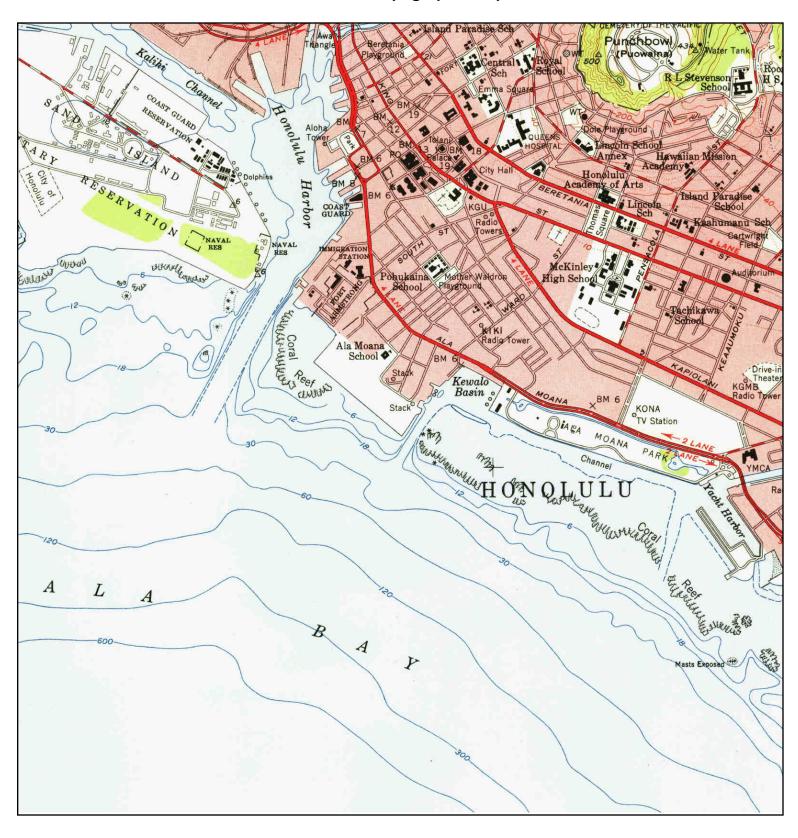
MAP YEAR: 1928

SERIES: 7.5 SCALE: 1:20000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park

Honolulu, HI 96813 21.2945 / -157.864 LAT/LONG:

CLIENT: Verdant Pacific Environmental





TARGET QUAD

NAME: HONOLULU

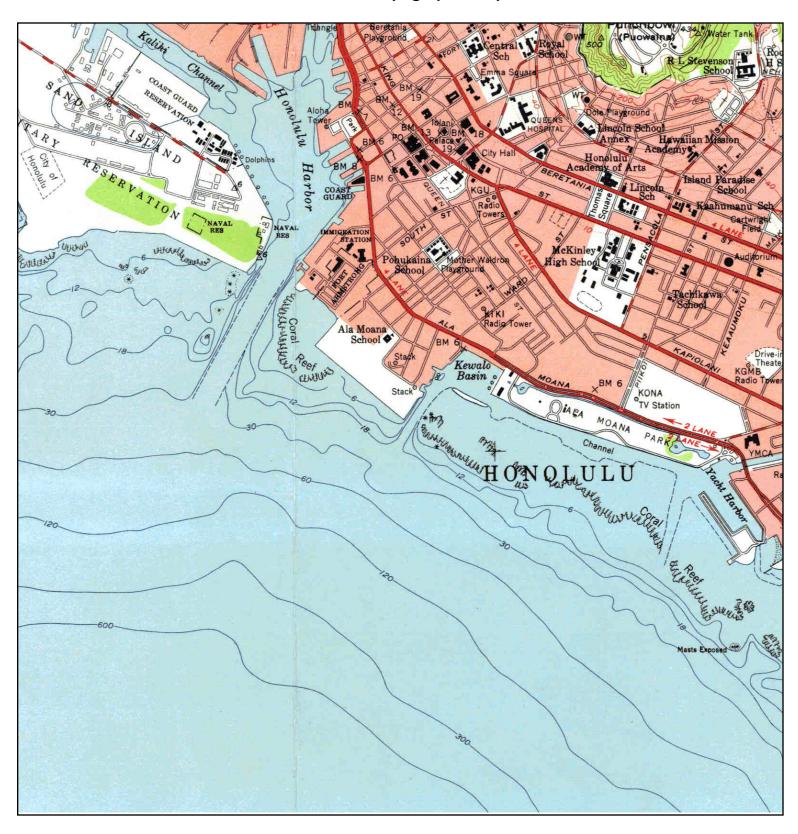
MAP YEAR: 1953

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental



N A **TARGET QUAD** 

NAME: HONOLULU VICINITY

SOUTH

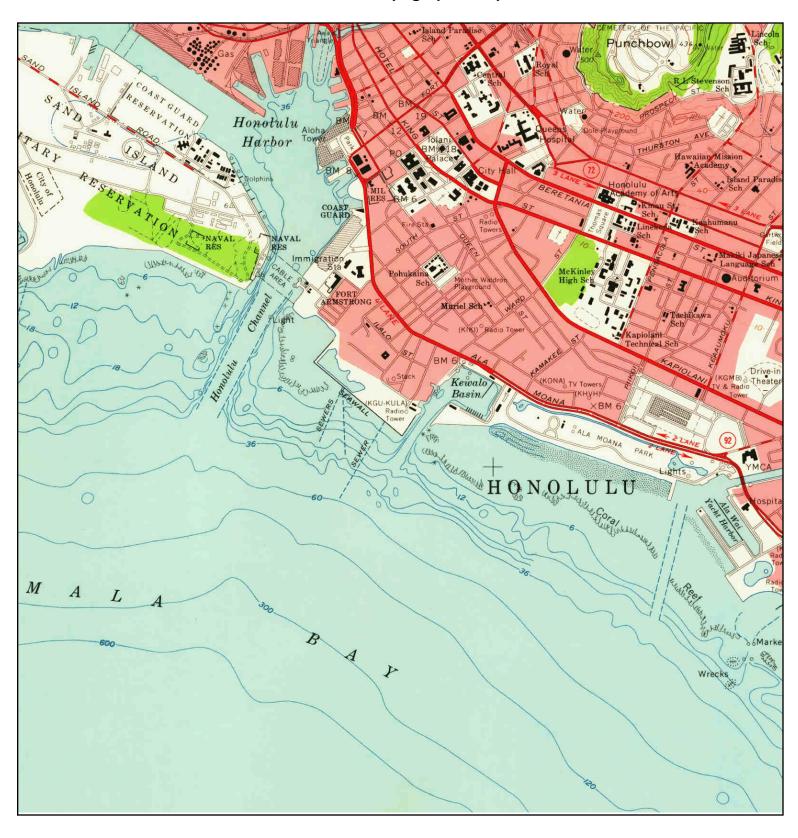
MAP YEAR: 1954

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park

Honolulu, HI 96813 LAT/LONG: 21.2945 / -157.864 CLIENT: Verdant Pacific

Environmental
Joanna Boyette





TARGET QUAD

NAME: HONOLULU

MAP YEAR: 1959

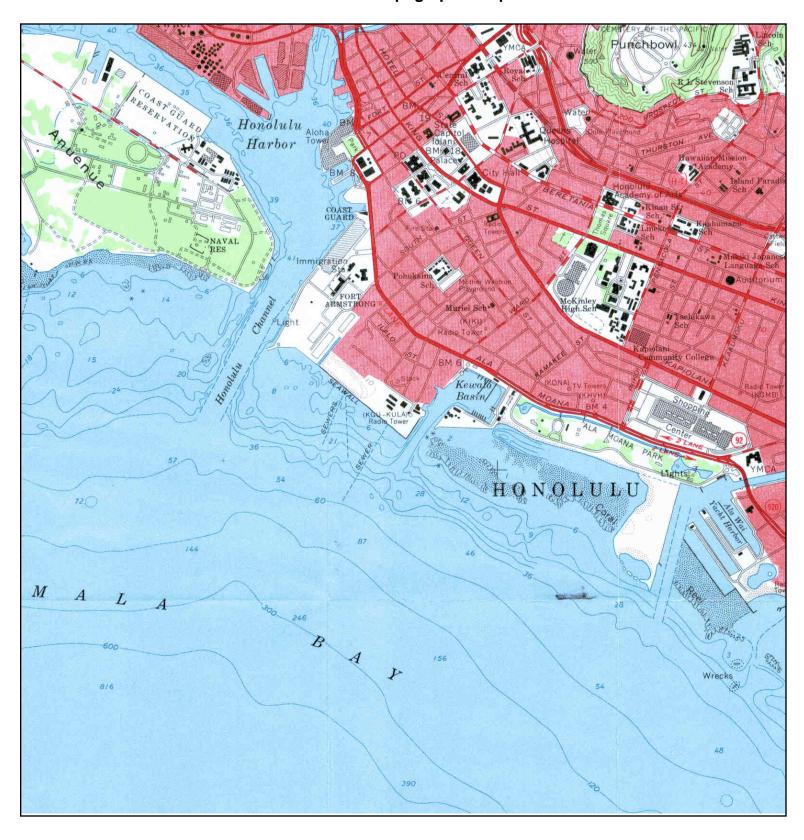
SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park

Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental





TARGET QUAD

NAME: HONOLULU

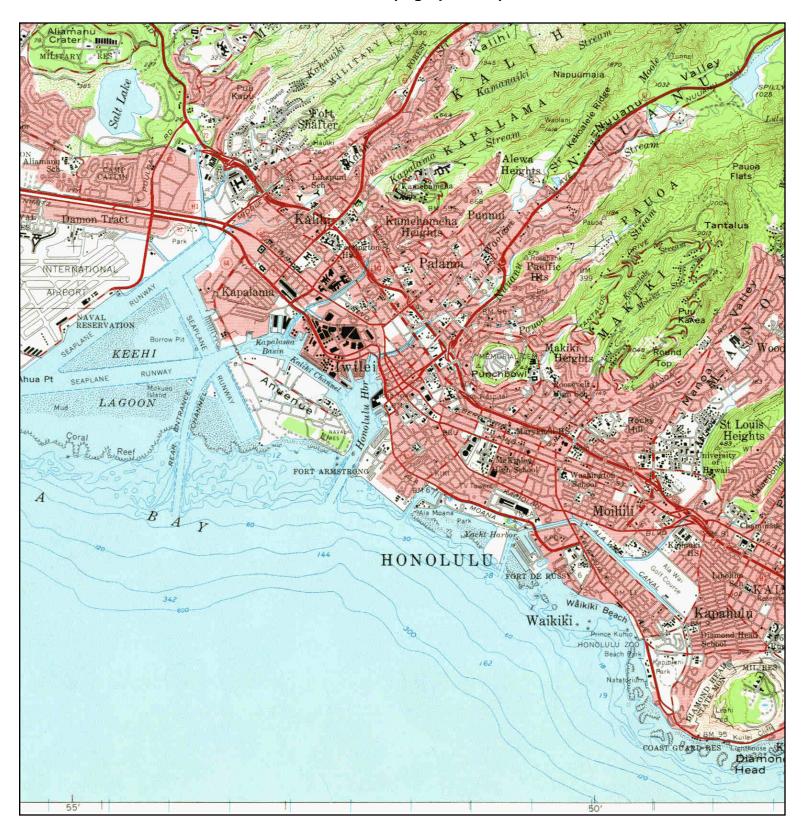
MAP YEAR: 1969

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental





TARGET QUAD
NAME: OAHU
MAP YEAR: 1970

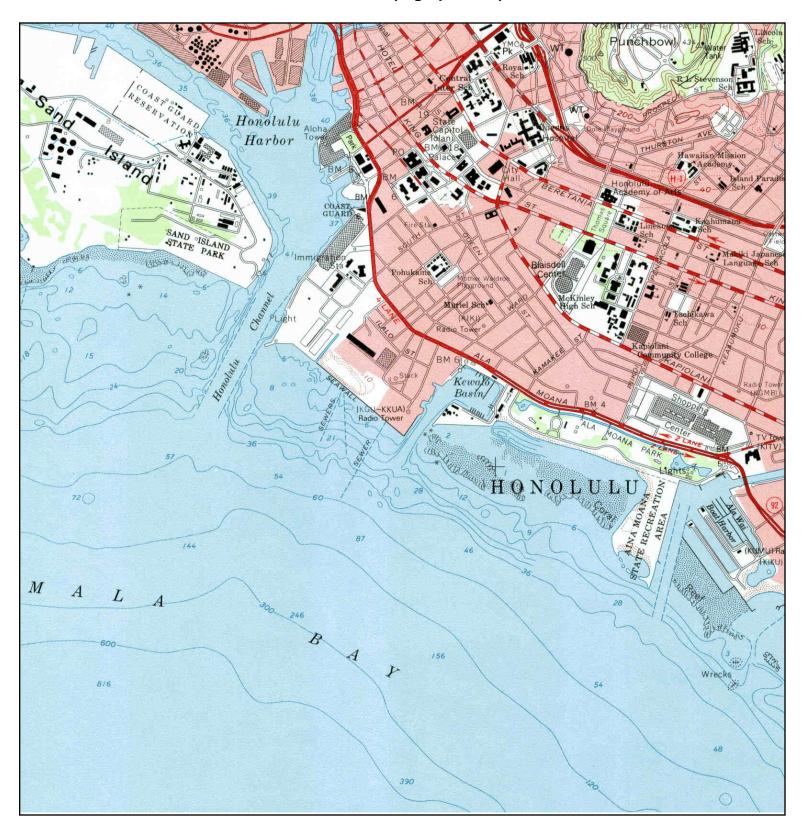
MAP YEAR: 1970 REVISED FROM:1954

SERIES: 15 SCALE: 1:62500 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental





TARGET QUAD

NAME: HONOLULU

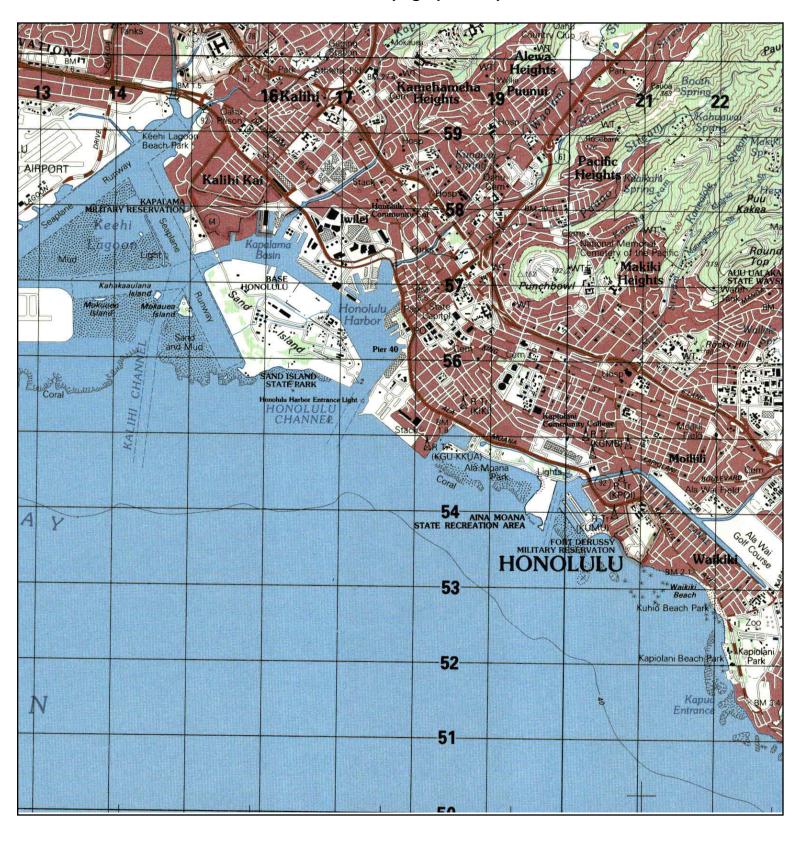
MAP YEAR: 1983

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental



N A TARGET QUAD

NAME: HONOLULU

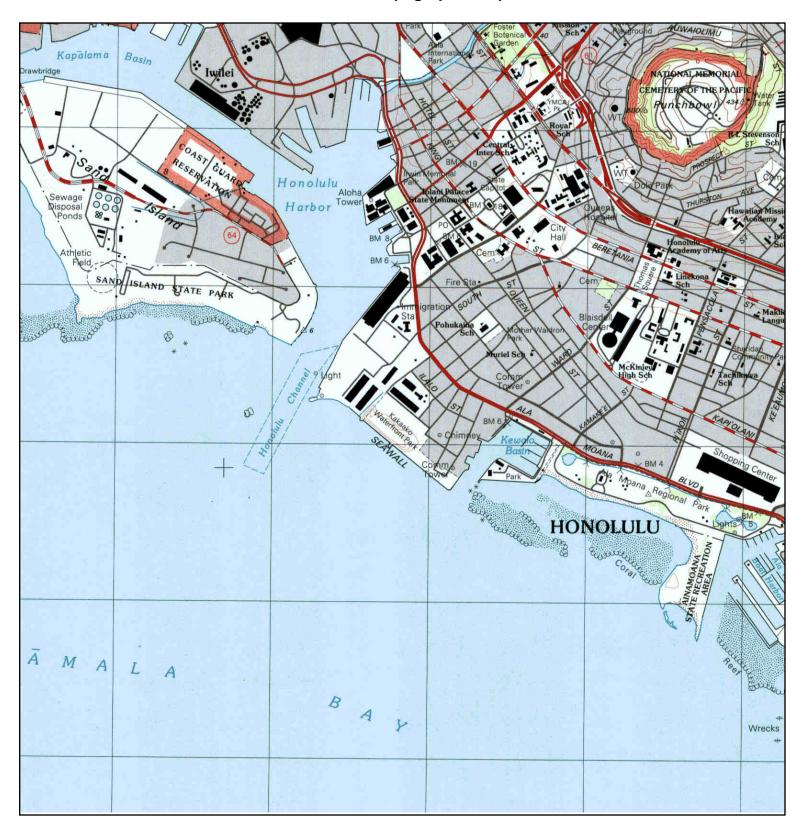
MAP YEAR: 1983

SERIES: 15 SCALE: 1:50000 SITE NAME: Seagull Schools Kakaako ADDRESS: Kakaako Waterfront Park

Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental



N <del>|</del> TARGET QUAD

NAME: HONOLULU

MAP YEAR: 1998

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Seagull Schools Kakaako

ADDRESS: Kakaako Waterfront Park

Honolulu, HI 96813

LAT/LONG: 21.2945 / -157.864

CLIENT: Verdant Pacific Environmental

### APPENDIX B

**Site Reconnaissance Photographs** 



Photograph 1. A view of the subject property from the south. A majority of the property was used as a public park and a warehouse for landscaping equipment (December 23, 2014). (December 23, 2014).



Photograph 2. A view of the paved walkways bordering the subject property (December 23, 2014).



Photograph 3. A view of the warehouse on the subject property. At the time of the site visit it was in use to store landscaping equipment (December 23, 2014)



Photograph 4. A view of the subject property from the adjoining parking lot. The University of Hawaii Cancer Research Center was visible in the background (December 23, 2014).



Photograph 5. A view of solid waste collected on the subject property. There was no evidence of hazardous or petroleum waste (December 23, 2014).



Photograph 6. A view of the warehouse on the subject property and landscaping used at the public park (December 23, 2014).



Photograph 7. A view of the landscaping equipment stored in the warehouse on the subject property. There was no evidence of spills or leaks (December 23, 2014).



Photograph 8. A view of an unused portion of the warehouse on the subject property. Approximately half of the warehouse was unused (December 23, 2014).



Photograph 9. A view of empty gasoline containers in the warehouse on the subject property. The containers were removed daily as the work was completed (December 23, 2014).



Photograph 10. A view the public park adjoining the subject property to the south and west (December 23, 2014).



Photograph 11. A view of the parking lot adjoining the subject property to the east (December 23, 2014).



Photograph 12. A view of the University of Hawaii Cancer Research Center adjoining the subject property to the north (December 23, 2014).

### APPENDIX C

Historical Aerial Photographs, 1948 to 2009



Kakaako Makai -1948



Kakaako Makai-1952



Kakaako Makai-1950



Kakaako Makai-1952



Kakaako Makai -1955



Kakaako Makai-1974



Kakaako Makai-1960



Kakaako Makai-1982



Kakaako Makai-1998



Kakaako Makai-2007



Kakaako Makai-2001



Kakaako Makai-2009

### APPENDIX D

**Geotechnical Engineering Exploration** 

# GEOTECHNICAL ENGINEERING EXPLORATION SEAGULL SCHOOL – KAKAAKO FIRST SCHOOL HONOLULU, OAHU, HAWAII W.O. 7060-00 MARCH 23, 2015

Prepared for

SEAGULL SCHOOLS, INC.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE
OF THE LICENSE



GEOLABS, INC.

Geotechnical Engineering and Drilling Services 2006 Kalihi Street • Honolulu, HI 96819



March 23, 2015 W.O. 7060-00

Mr. Charles E. Lunson, Executive Director Seagull Schools, Inc. 1300 Kailua Road Kailua, HI 96734

Dear Mr. Lunson:

Geolabs, Inc. is pleased to submit our report entitled "Geotechnical Engineering Exploration, Seagull School – Kaka'ako First School, Honolulu, Oahu, Hawaii" prepared in support of the design of the new building project.

Our work was performed in general accordance with the scope of services outlined in our fee proposal dated June 30, 2014.

Please note that the soil samples recovered during our field exploration (remaining after testing) will be stored for a period of two months from the date of this report. The samples will be discarded after that date unless arrangements are made for a longer sample storage period. Please contact our office for alternative sample storage requirements, if appropriate.

Detailed discussion and specific design recommendations are contained in the body of the report. If there is any point that is not clear, please contact our office.

Very truly yours,

GEOLABS, INC.

Clayton S. Mimura, P.E.

President

CSM:GS:as

### GEOTECHNICAL ENGINEERING EXPLORATION SEAGULL SCHOOL – KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

W.O. 7060-00 MARCH 23, 2015

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## GEOTECHNICAL ENGINEERING EXPLORATION SEAGULL SCHOOL – KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII W.O. 7060-00 MARCH 23, 2015

### SUMMARY OF FINDINGS AND RECOMMENDATIONS

Our field exploration generally encountered a surface fill layer about 7.5 to 9 feet thick underlain by medium dense to dense lagoonal and coralline detritus deposits followed by an upper coral ledge to about 15.5 to 22 feet deep. Below the upper coral ledge, very loose to medium dense coralline detritus, very soft and loose to medium dense lagoonal deposit and dense coral ledges of coral formation were encountered extending to the maximum explored depth of 102.5 feet below the existing ground surface. Groundwater was encountered in the borings at depths of about 5.7 to 6 feet below the ground surface at the time of our field exploration. The groundwater levels encountered generally correspond to about Elevations 0.0 to +0.9 feet MSL.

Based on the subsurface conditions encountered, we believe that shallow foundations consisting of spread and/or continuous footings may be used to support the proposed school buildings planned for the project. An allowable bearing pressure of up to 3,000 psf may be utilized for the design of shallow foundations bearing on the on-site soils and/or new compacted fills needed to raise the existing grades to the design finished grades. The footings should be embedded a minimum of 18 inches below the lowest adjacent grade. Seismically induced ground settlements of about 4 to 5 inches were calculated for the thickness of loose soil in Boring No. 2. The loose soil layer in the other borings was thinner or non-existent. Since the liquefiable soils are isolated pockets and the presence of the upper coral ledge above the liquefiable pockets would tend to bridge over the deposits, we believe that the seismically induced settlements will be less than the calculated settlements with estimated magnitude of about 1 to 2 inches. If these seismically induced ground settlements is unacceptable, consideration may be given to supporting the proposed structures on a deep foundation system.

We understand that the west side of the two-story classroom building will act as a retaining structure. Active and at-rest lateral earth pressures of 42 and 61 pounds per square foot per foot of depth, respectively, may be used for the design of the retaining structure above groundwater. To resist lateral loads acting on the retaining structure, a coefficient of friction of 0.35 and a passive earth pressure of 300 pounds per square foot may be used.

We anticipate that new driveways and parking areas will be needed for the project. Based on the anticipated vehicle loading consisting primarily of passenger vehicles, light pick-up trucks with occasional heavy delivery trucks and trash pickup vehicles and the clayey silt and silty sand subgrade soils, we recommend the following preliminary pavement sections.

### Flexible Pavement Section (Standard Pavement for Parking Areas)

- 2.0-Inch Asphaltic Concrete
- 6.0-Inch Aggregate Base Course (95 Percent Relative Compaction)
- 8.0-Inch Total Pavement Thickness on Moist Compacted Subgrade

### Flexible Pavement Section (Access Driveways and Heavy Truck Route)

- 3.0-Inch Asphaltic Concrete
- 8.0-Inch Aggregate Base Course (95 Percent Relative Compaction)
- 11.0-Inch Total Pavement Thickness on Moist Compacted Subgrade

The text of this report should be referred to for detailed discussion and specific design recommendations.

END OF SUMMARY OF FINDINGS AND RECOMMENDATIONS

### **SECTION 1. GENERAL**

### 1.1 Introduction

This report presents the results of our geotechnical engineering exploration and engineering analyses performed in support of the design of the proposed Seagull School – First Kaka'ako School project in Honolulu on the Island of Oahu, Hawaii. The project location and general vicinity are shown on the Project Location Map, Plate 1.

This report summarizes the findings and presents our geotechnical recommendations based on our field exploration, laboratory testing, and engineering analyses. The recommendations presented herein are intended for the design of foundations, slabs-on-grade, retaining structures, and site grading only. The findings and recommendations presented herein are subject to the limitations noted at the end of this report.

### 1.2 Project Considerations

The project site is located in the Kaka'ako Makai area of Honolulu on the Island of Oahu, Hawaii. The project is part of the Kaka'ako Waterfront Park and involves the development of a new preschool with two single-story buildings (Buildings 01 & 03) and one two-story classroom building (Building 02). We understand that the new buildings will be of steel frame and concrete masonry unit (CMU) construction. The new buildings are shown on the Site Plan, Plate 2.

We understand that the existing Building 01 will be retrofitted and reused. The concrete slab and steel frames for the existing building will be retained and converted into a four-classroom building. Two new buildings consisting of a single-story classroom building on the Ewa side and a two-story classroom/office/kitchen building on the Makai side of the existing building.

Based on information provided by the structural engineer, the new building structures, Building Nos. 2 and 3 will have maximum column loads (dead-plus-live loads) on the order of about 60 and 21 kips per column, respectively. In addition, Building No. 2 will have wall loads on the order of about 7 kips per foot.

Based on the site topography at the time of our field exploration, we envision that site grading consisting of fills up to about 3 feet thick will be required for the development. We anticipate that the deepest fills will be under Building 03.

### 1.3 Purpose and Scope

The purpose of our field exploration was to obtain an overview of the surface and subsurface conditions at the project site in support of the design of the Seagull School – First Kaka'ako School project. The subsurface information obtained was used to develop a generalized subsurface data set to formulate geotechnical recommendations for the design of foundations, slabs-on-grade, retaining structures, and site grading only. The work was performed in general accordance with our fee proposal dated June 30, 2014. The scope of work for this exploration included the following tasks and work efforts:

- 1. Filing of applications for permits to drill and utility clearances.
- 2. Mobilization and demobilization of truck-mounted drilling equipment and operators to the project site and back.
- 3. Drilling and sampling of four borings extending to depths of about 42 to 102.5 feet below the existing ground surface for a total of 228.5 lineal feet of exploration.
- 4. Coordination of the field exploration and logging of the borings by our field engineer.
- 5. Laboratory testing of selected soil samples obtained during the field exploration as an aid in classifying the materials and evaluating their engineering properties.
- 6. Analyses of the field and laboratory data to develop geotechnical recommendations pertaining to the design of foundations, slabs-on-grade, retaining structures, and site grading.
- 7. Preparation of this report summarizing our work on the project and presenting our findings and geotechnical recommendations.
- 8. Coordination of our work on the project by our senior engineer.
- 9. Quality assurance of our overall work on the project and client/design team consultation by our principal engineer.

10. Miscellaneous work efforts such as drafting, word processing, and clerical support.

Detailed descriptions of our field exploration methodology and the Logs of Borings are presented in Appendix A. Results of the laboratory tests performed on selected soil samples obtained from our field exploration are presented in Appendix B. Photographs of the recovered core samples are presented in Appendix C.

END OF GENERAL	

### **SECTION 2. SITE CHARACTERIZATION**

### 2.1 Regional Geology

The Island of Oahu was built by the extrusion of basalt and basaltic lavas from the Waianae and Koolau shield volcanoes. The older Waianae Volcano is estimated to be middle to late Pliocene in age, and Koolau Volcano is estimated to be late Pliocene to early Pleistocene in age. After a long period of volcanic inactivity, during which time erosion incised deep valleys into the Koolau Volcano, volcanic activity returned with a series of lava flows followed by cinder and tuff cone formations. These series are referred to as the Honolulu Volcanic Series.

The project site is located on the coastal plain of Southern Oahu. The coastal plain was built on the eroded flanks of the Koolau Volcano, which forms the eastern two-thirds of the Island of Oahu. The coastal plain was built by extensive accumulation of alluvium derived from erosion of the volcano, interbedded with coral reefs and associated deposits.

During the Pleistocene Epoch (Ice Age), sea levels fluctuated in response to the cycles of continental glaciation. Most of the coastal plains were developed during the Pleistocene Epoch when the sea levels fluctuated significantly. As the glaciers grew and advanced, less water was available to fill the oceanic basins such that sea levels fell below the present stands of the sea. When the glaciers melted and receded, an excess of water became available such that the sea levels rose to above its present level.

The processes of erosion and deposition were affected by these glacio-eustatic sea level fluctuations. When the sea level was low, the erosional base level was correspondingly lower, and valleys were carved to depths below the present sea level. When the sea level was high, the erosional base level was raised such that sediments accumulated at higher elevations.

The project site generally is underlain by deposits consisting of calcareous sediments and lagoonal deposits. A surface layer of man-made fill was placed over these deposits for development of the Kaka'ako area within the last century.

### 2.2 <u>Site Description</u>

The project site is located east of the intersection of Cooke Street and Kelikoi Street and south of the University of Hawaii Cancer Center in the Kaka`ako Waterfront Park area of Honolulu on the Island of Oahu, Hawaii. The property is triangular in shape with plan dimensions of approximately 236 feet by 212 feet along the north and east sides, respectively, as shown on the Site Plan, Plate 2.

At the time of our field exploration, an existing one-story building was observed at the northeast corner of the site. We understand that the building was used as a maintenance facility. A roadway covered with asphaltic concrete crossing the site was noted.

Cement Rubble Masonry (CRM) retaining walls were observed on the southern portion of the project site. The remaining areas of the site were covered with grass and trees.

Based on the topographic survey plan, the existing ground elevations generally ranged between about +5.5 and +16.5 feet Mean Sea Level (MSL). The existing ground surface generally slopes down towards the northeast direction.

### 2.3 Subsurface Conditions

The subsurface conditions were explored by drilling and sampling four borings designated as Boring Nos. 1, 2, 2A and 3, extending to depths of about 42 to 102.5 feet below the existing ground surface. The approximate boring locations are shown on the Site Plan, Plate 2.

Based on our field exploration, the subsurface conditions generally consisted of a surface fill layer about 7.5 to 9 feet thick underlain by medium dense to dense lagoonal and coralline detritus deposits to about 13 to 14.5 feet depths followed by a medium hard to hard coral formation to 15.5 to 22 feet below the existing ground surface. Below the coral formation, very loose to medium dense coralline detritus, very soft and loose to medium dense lagoonal deposit and dense ledges of coral formation extending to the maximum explored depth of 102.5 feet below the existing ground surface.

The fill materials encountered generally consisted of asphaltic concrete about 2 to 4 inches thick, stiff to very hard clay and clayey silt with sand and gravel, and medium dense to dense silty sand with some gravel. The coralline detritus consisted of very loose to dense sands and gravels with some clay and silt. The lagoonal deposits encountered generally consisted of very soft sandy silt, and very loose to medium dense coralline sands and gravels with silt.

It should be noted that a lower coral ledge, varying between about 5 and 21.5 feet thick, was encountered in some of the borings between depths of about 25 and 77.5 feet below the existing ground surface. It should be noted that the coral ledges (both upper and lower ledges) encountered at the project site are highly variable (erratic) in terms of thickness and quality and likely is absent at some portions.

For illustration purposes only, a Generalized Geological Cross Section A-A' depicting the interpreted subsurface conditions at the project site is provided on Plate 3. The approximate surface location of the subsurface profile prepared for this report is shown on the Site Plan, Plate 2.

We encountered groundwater in the drilled borings at depths ranging from about 5.7 to 6 feet below the existing ground surface at the time of our field exploration. The groundwater levels generally correspond to about Elevations 0.0 to +0.9 feet MSL. Due to the proximity of the project site to the Pacific Ocean, water levels are expected to vary with tidal fluctuations and storm events. It should be noted that water levels also may vary with seasonal rainfall, time of the year, and other factors.

Detailed descriptions of the field exploration methodology are presented in Appendix A. Descriptions and graphic representations of the materials encountered and water levels observed in the borings are presented on the Logs of Borings in Appendix A. Laboratory tests were performed on selected soil samples obtained during our field exploration, and the test results are presented in Appendix B. Photographs of the recovered core samples are presented in Appendix C.

### 2.4 Seismic Design Considerations

Based on the International Building Code, 2006 Edition (IBC 2006), the project site may be subject to seismic activity, and seismic design considerations will need to be addressed. The following sections provide discussions on the seismicity, soil profile for seismic design, and the potential for liquefaction at the project site.

### 2.4.1 <u>Earthquakes and Seismicity</u>

In general, earthquakes that occur throughout the world are caused solely by shifts in the tectonic plates. In contrast, earthquake activity in Hawaii is linked primarily to volcanic activity. Therefore, earthquake activity in Hawaii generally occurs before or during volcanic eruptions. In addition, earthquakes may result from the underground movement of magma that comes close to the surface but does not erupt. The Island of Hawaii experiences thousands of earthquakes each year, but most of the earthquakes are so small that they can only be detected by sensitive instruments. However, some of the earthquakes are strong enough to be felt, and a few cause minor to moderate damage.

In general, earthquakes (associated with volcanic activity) are most common on the Island of Hawaii. Earthquakes that are directly associated with the movement of magma are concentrated beneath the active Kilauea and Mauna Loa Volcanoes on the Island of Hawaii. Because the majority of the earthquakes in Hawaii (over 90 percent) are related to volcanic activity, the risk of high seismic activity and degree of ground shaking diminishes with increased distance from the Island of Hawaii. The Island of Hawaii has experienced numerous earthquakes greater than Magnitude 5 (M5+); however, earthquakes are not confined only to the Island of Hawaii.

To a lesser degree, the Island of Maui has experienced numerous earthquakes greater than Magnitude 5. Therefore, moderate to strong earthquakes have occurred in the County of Maui. The effects of earthquakes occurring on the Islands of Hawaii and Maui may be felt on the Island of Oahu. For example, several small landslides occurred on the Island of Oahu as a result of the Maui Earthquake of

1938 (M6.8). In addition, some houses on the Island of Oahu were reportedly damaged as a result of the Lanai Earthquake of 1871 (M7+).

Due to the relatively short period of documented earthquake monitoring in the State of Hawaii, information pertaining to earthquakes that were felt on the Island of Oahu may not be complete. In general, over the last 150 years of recorded history, we are not aware of reported earthquakes greater than Magnitude 6 occurring on the Island of Oahu. Based on available information, we understand that an earthquake of about Magnitude 5.6 occurred on June 28, 1948 in the vicinity of the Island of Oahu, possibly along the hypothesized and controversial Diamond Head Fault feature.

The Diamond Head Fault feature is believed to extend northeasterly away from the southeastern tip of the Island of Oahu. The Diamond Head Fault feature may be related to the widely documented Molokai Fracture Zone located on the sea floor in the vicinity of the Hawaiian Islands. Despite only the moderate tremor intensity, the resulting damage was reportedly widespread and included broken windows, ruptured masonry building walls, and a broken underground water main. In addition, some areas on the Island of Oahu, including the Tantalus, Iwilei, and Tripler areas, reported more intense ground shaking, severe enough to have cracked reinforced concrete.

### 2.4.2 Soil Profile

Our field exploration generally encountered stiff and dense surface fills of about 7.5 to 9 feet in thickness across the project site. The surface fills generally were underlain by medium dense to dense lagoonal and coralline detritus deposits to depths of about 13 to 14.5 feet followed by an upper coral ledge to 15.5 to 22 feet below the existing ground surface. Below the upper coral ledge, very loose to medium dense coralline detritus, very soft and loose to medium dense lagoonal deposit and dense ledges of coral formation was encountered extending down to the maximum depth explored of about 102.5 feet below the existing ground surface.

Based on our analysis, it appears that the very soft lagoonal deposits below the upper coral ledge have a factor of safety of less than 1.0 against liquefaction. Since the proposed structures are one to two-story structures with fundamental periods of vibration less than 0.5 seconds, the project site may be classified from a seismic analysis standpoint as being Site Class E based on ASCE 7-10.

Based on Site Class E, the following seismic design parameters were estimated and may be used for seismic analysis of the project structures.

SEISMIC DESIGN PARAMETERS					
Parameter	Value				
Mapped MCE Spectral Response Acceleration, S <sub>S</sub> =	0.61g				
Mapped MCE Spectral Response Acceleration, S <sub>1</sub> =	0.18g				
Site Class =	"E"				
Site Coefficient, F <sub>pga</sub> =	1.37				
Site Coefficient, F <sub>a</sub> =	1.47				
Site Coefficient, F <sub>v</sub> =	3.27				
Adjusted MCE Spectral Response Acceleration, S <sub>MS</sub> =	0.90g				
Adjusted MCE Spectral Response Acceleration, S <sub>M1</sub> =	0.58g				
Design Spectral Response Acceleration, S <sub>DS</sub> =	0.60g				
Design Spectral Response Acceleration, S <sub>D1</sub> =	0.39g				
Peak Bedrock Acceleration, PBA (Site Class B) =	0.27g				
Peak Ground Acceleration, PGA (Site Class E) =	0.24g				

### 2.4.3 <u>Liquefaction Potential</u>

The project site may be subject to seismic activity and should be evaluated for the potential for soil liquefaction. Based on the subsurface conditions encountered and a design peak ground acceleration of 0.24g, liquefaction will likely occur in some zones of the subsurface materials. Therefore, the effects of potential liquefaction should be taken into consideration in the design of the proposed development.

Soil liquefaction is a condition where saturated cohesionless soils near the ground surface undergo a substantial loss of strength due to the build-up of excess pore water pressures resulting from cyclic stress applications induced by earthquakes. In this process, when the loose saturated sand deposit is subjected to vibration (such as during an earthquake), the soil tends to densify and decrease in volume causing an increase in pore water pressure. If drainage is unable to occur rapidly enough to dissipate the build-up of pore water pressure, the effective stress (internal strength) of the soil is reduced. Under sustained vibrations, the pore water pressure build-up could equal the overburden pressure, essentially reducing the soil shear strength to zero and causing it to behave as a viscous fluid. During liquefaction, the soil acquires a sufficient mobility to permit both horizontal and vertical movements, and if not confined, will result in significant deformations.

Soils most susceptible to liquefaction are loose, uniformly graded, fine-grained sands and loose silts with little cohesion. Generally, it is acknowledged that liquefaction will not occur if the deposit is greater than 40 to 50 feet below the ground surface. In deeper deposits, the greater overburden pressure is generally sufficient to prevent liquefaction from occurring. The major factors affecting the liquefaction characteristics of a soil deposit are as follows:

- 1. <u>Grain Size Distribution</u> Fine and uniform sands and silts are more susceptible to liquefaction than coarse or well-graded sands.
- 2. <u>Initial Relative Density</u> Loose sands and silts are most susceptible to liquefaction. Liquefaction potential is inversely proportional to relative density.
- 3. <u>Magnitude and Duration of Vibration</u> Liquefaction potential is directly proportional to the magnitude and duration of the earthquake.

In general, the subsurface information obtained from the borings drilled indicate that the project site is underlain by very soft/very loose lagoonal and coralline detritus deposits underlying the upper coral ledge. The lagoonal deposits consisting of very soft sandy silt with little cohesion are potentially liquefiable during a seismic event of Magnitude 6 with an associated peak ground acceleration of 0.24g.

We evaluated the liquefaction potential of the saturated soils at the site using the computer software program LiquefyPro (Version 5) by CivilTech Software and the

procedures outlined by Youd, et. al. (2001). Our analyses were performed on the drilled borings based on a seismic event of Magnitude 6 with an associated peak ground acceleration of 0.24g.

Based on our analyses, it appears that the very soft lagoonal deposits below the upper coral ledge have a factor of safety of less than 1.0 against liquefaction. However, the zones of potentially liquefiable soils appear to be isolated pockets of very soft lagoonal materials ranging from about 7.5 to 15 feet thick. We believe that surface manifestation from potential liquefaction should be limited, because the potentially liquefiable soils appear to occur in isolated areas across the site, the presence of the upper coral ledge will help to bridge the liquefiable soils, and there appears to be an adequate thickness of non-liquefiable soils above the liquefiable soils.

The potentially liquefiable soils are located at some depth below the toe of existing slopes at the site. In addition, the site topography is relatively flat. Therefore, we believe that the potential for lateral spreading associated with liquefaction at the site would not be a significant design consideration for the project.

END OF SITE CHARACTERIZATION

### SECTION 3. DISCUSSION AND RECOMMENDATIONS

Our field exploration generally encountered a surface fill layer over medium dense to dense lagoonal and coralline deposits followed by an upper coral ledge to about 15.5 to 22 feet deep. Below the upper coral ledge, very loose to medium dense coralline detritus, very soft and loose to medium dense lagoonal deposit and dense ledges of coral formation were encountered extending to the maximum explored depth of 102.5 feet below the existing ground surface. We encountered groundwater in the drilled borings at depths of about 5.7 to 6 feet below the ground surface at the time of our field exploration. The groundwater levels encountered generally correspond to about Elevations 0.0 to +0.9 feet MSL.

Based on the subsurface conditions encountered in the borings and the results of our liquefaction analysis, we believe that the new building structures may be supported by shallow spread and/or continuous footings bearing on the stiff and dense fill material.

Detailed discussions and recommendations for design of foundations, retaining structures, site grading, pavements and other geotechnical aspects of the project are presented in the following sections.

### 3.1 Shallow Foundations

We understand that the proposed building structures will have column loads from about 21 to 60 kips. Based on the results of our field exploration and liquefaction analysis, we believe that the new building structures for the project may be supported on shallow foundations consisting of spread and/or continuous strip footings.

An allowable bearing pressure of up to 3,000 pounds per square foot (psf) may be used for the design of footings bearing on the re-compacted on-site or compacted select fill materials (minimum 90 percent relative compaction). This bearing value is for supporting dead-plus-live loads and may be increased by one-third (1/3) for transient loads, such as those caused by wind or seismic forces. Footings should be embedded a minimum of 18 inches and a maximum of 30 inches below the lowest adjacent finished grade.

Foundations next to utility trenches or easements should be embedded below a 45-degree imaginary plane extending upward from the bottom edge of the utility trench, or the footings should be extended to a depth as deep as the inverts of the utility lines. If the foundations are designed and constructed as recommended herein, we estimate the footing settlements under the anticipated static design loads for footings bearing on the re-compacted on-site soils to be on the order of about 1 inch. Differential settlements between adjacent footings supported on similar materials should be on the order of about 0.75 inches or less. Please note that seismically induced ground settlements of about 4 to 5 inches were calculated based on the thickness of loose soil in Boring No. 2. The loose soil layer in the other borings was thinner or non-existent. Since the liquefiable soils are isolated pockets and the presence of the upper coral ledge will help to bridge over the liquefiable pockets, we believe that the seismically induced ground settlements will be less than the calculated settlements with estimated magnitude of about 1 to 2 inches. If these seismically induced ground settlements are unacceptable, consideration may be given to supporting these lightly loaded structures on a deep foundation system.

Lateral loads acting on the structures supported on shallow foundations may be resisted by a combination of friction between the base of the foundation and the bearing materials and by passive earth pressure developed against the near-vertical faces of the embedded portion of the footings. A coefficient of friction of 0.35 may be used for footings bearing on the re-compacted on-site fill or compacted select fill soils. Resistance due to passive earth pressure may be calculated using an equivalent fluid pressure of 300 pcf (above groundwater level) or 140 pcf (below groundwater level) for footings embedded in the fill materials. This value assumes that the concrete for the footings is cast neat against dense/stiff on-site materials. Otherwise, the soils around the footings should be well compacted (minimum of 90 percent relative compaction). Unless covered by pavements or slabs, the passive pressure resistance in the upper 12 inches below the finished grade should be neglected.

It is important that a Geolabs representative observe the footing excavations to evaluate the competency of the bearing materials and the embedment depths. If unsuitable materials are encountered in the footing excavations, these materials should

be over-excavated to expose the underlying firm materials and replaced with compacted fills. Considering the relatively thin layer of existing fill materials at the project site, provisions should be made in the contract documents to over-excavate below the footings and backfill with compacted select granular fill or lean concrete (controlled low strength materials) in the event that soft and/or loose materials are encountered at the footing subgrades for shallow foundations.

### 3.2 Slabs-On-Grade

We anticipate that the ground floor slabs for the new building construction will consist of reinforced concrete slabs-on-grade. Based on the existing topography and the anticipated finished floor elevation, we envision that the slabs-on-grade will be supported either on new compacted fills placed to raise the existing ground surface to the finished subgrades or on the existing ground conditions.

As mentioned previously, the project site could be subjected to ground settlements in the event of liquefaction caused by a moderate seismic event (M6+). Seismically induced ground settlements on the order of about 1 to 2 inches may be anticipated, and the building slabs-on-grade may sustain some damage. Therefore, there exists the potential for damage and distress to the building slabs-on-grade (not structurally supported). However, we believe that the potential for damage may be reduced significantly by increasing the building slab thickness (5 inches minimum) and by incorporating steel reinforcement into the concrete slab (No. 4 reinforcing bars spaced at 12 inches each direction).

As discussed above, concrete slabs-on-grade may be subjected to ground settlements and distress in the event of seismically induced soil liquefaction. As an alternative to slabs-on-grade, consideration may be given to structurally supporting the ground floor slab on deep foundations to reduce the potential for damage to the building slab in the event of seismically induced ground settlements.

For the interior building slabs (not subjected to vehicular traffic), we recommend providing a minimum 4-inch thick layer of cushion fill consisting of open-graded gravel (ASTM C33, No. 67 gradation) below the slabs. The open-graded gravel cushion fill

would serve as a capillary moisture break and would provide for uniform support of the slabs. To reduce the potential for excessive future moisture infiltration through the slab and subsequent damage to floor coverings, an impervious moisture barrier is recommended on top of the open-graded gravel cushion layer. Interior walls should be designed to incorporate some flexibility to accommodate a small amount of possible ground movements.

Where the slabs will be subjected to vehicular traffic, such as the ground floor parking level, we recommend that a 6-inch layer of aggregate subbase be provided below the slabs in lieu of the 4-inch thick gravel cushion layer. The moisture barrier may be omitted for these slabs. The aggregate subbase should consist of crushed basaltic aggregates compacted to a minimum of 95 percent relative compaction. For the design of structural slabs supported on 6 inches of aggregate subbase, a modulus of subgrade reaction of about 200 pounds per square inch per inch of deflection (pci) may be used for the slab resting on the compacted aggregate subbase. Where slabs are intended to function as rigid pavements for trucks, a minimum slab thickness of 6 inches may be used for preliminary design purposes. In addition, provisions should be made for proper load transfer across the slab joints that will be subject to vehicular traffic.

The thickened edges of slabs adjacent to unpaved areas should be embedded at least 12 inches below the lowest adjacent grade. It should be emphasized that the areas adjacent to the slab edges should be backfilled tightly against the edges of the slabs with relatively impervious soils. These areas also should be graded to divert water away from the slabs and to reduce the potential for water ponding around the slabs.

Soft and/or yielding areas encountered during clearing and grubbing within the building footprint should be over-excavated to expose firm and/or dense materials, and the resulting excavation should be backfilled with well-compacted fills. The excavated soft and/or organic soils should be properly disposed of off-site and/or used in landscape areas, where appropriate. Contract documents should include additive and deductive unit prices for over-excavation and compacted fill placement to account for variations in the over-excavation quantities.

After clearing and grubbing, the building subgrade should be scarified to a depth of about 8 inches, moisture-conditioned to above the optimum moisture content, and compacted to a minimum of 90 percent relative compaction. Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density as determined by ASTM D1557. Optimum moisture is the water content (percentage by weight) corresponding to the maximum dry density.

Fill materials required for the building construction should be placed in level lifts not exceeding 8 inches in loose thickness, moisture-conditioned to above the optimum moisture content, and compacted to a minimum of 90 percent relative compaction. Compaction requirements for the subgrades of improvements subjected to vehicular traffic should be increased to a minimum of 95 percent relative compaction.

Aggregate subbase required for the project should consist of crushed basaltic aggregates and should conform to Section 30 of the City & County Standard Specifications (September 1986). Aggregate subbase materials should be moisture-conditioned to above the optimum moisture content, placed in level lifts not exceeding 8 inches in loose thickness, and compacted to a minimum of 95 percent relative compaction. Imported fill materials should be tested for conformance with these recommendations prior to delivery to the project site for the intended use.

In general, a Geolabs representative should monitor the site preparation operations to observe whether undesirable materials are encountered during the scarification process and to confirm whether the exposed soil conditions are similar to those encountered in the field exploration.

### 3.3 Retaining Structures

Based on the information provided, we understand that retaining structures, such as the west side of the two-story classroom building, will be required for the project. Design of retaining structures may be based on the parameters presented in the following subsections.

### 3.3.1 Retaining Structure Foundations

Based on the stiff/dense surface fill soils encountered at the project site, we believe shallow continuous strip footings may be used for support of retaining walls for the project. An allowable bearing pressure of up to 3,000 psf may be used for the design of shallow foundations bearing on the re-compacted surface fill or compacted select fill soils. This bearing value is for supporting dead-plus-live loads and may be increased by up to one-third (1/3) for transient loads, such as those caused by wind or seismic forces. Wall footings should have a minimum width of 18 inches. In addition, wall footings on relatively flat areas should be embedded a minimum depth of 24 inches below the lowest adjacent finished grade. The bottom of the footing excavations should be re-compacted to a minimum of 90 percent relative compaction to provide a relatively firm and smooth bearing surface prior to the placement of reinforcing steel or concrete.

If soft and/or loose materials are encountered at or near the bottom of footing excavations, the soft and/or loose materials should be over-excavated to expose the underlying firm and/or dense materials. The over-excavation may be backfilled with on-site soils compacted to a minimum of 90 percent relative compaction, or the footing bottom may be extended down to bear on the underlying competent materials.

Lateral loads acting on the retaining structure may be resisted by friction developed between the bottom of the foundation and the bearing soil and by passive earth pressure acting against the near-vertical faces of the foundation system. A coefficient of friction of 0.35 may be used for footings bearing on the compacted fill. Resistance due to passive earth pressure may be estimated using an equivalent fluid pressure of 300 psf for above groundwater conditions. The recommended value assume the soils around the footings are well compacted. Unless covered by pavements or slabs, the passive pressure resistance in the upper 12 inches of soil should be neglected.

### 3.3.2 Static Lateral Earth Pressures

Retaining structures should be designed to resist the lateral earth pressures due to the adjacent soils and surcharge effects. The recommended lateral earth pressures for design of retaining structures, expressed in equivalent fluid pressures of pounds per square foot per foot of depth (pcf), are presented below.

LATERAL EARTH PRESSURES FOR DESIGN OF RETAINING STRUCTURES						
Groundwater <u>Condition</u>	Active (pcf)	At-Rest (pcf)	Passive (pcf)			
Above Groundwater	42	61	300			

The values provided in the table above assume the on-site soils will be used to backfill behind the walls. It is assumed that the backfill behind retaining structures will be compacted to between 90 and 95 percent relative compaction. Over-compaction of the retaining structure backfill should be avoided.

In general, an active condition may be used for gravity retaining walls and walls that are free to deflect by as much as 0.5 percent of the wall height. If the tops of the walls are not free to deflect beyond this degree, or are restrained, the walls should be designed for the at-rest condition. The lateral earth pressures presented do not include hydrostatic pressures that might be caused by groundwater trapped behind the walls.

Surcharge stresses due to areal surcharges, line loads, and point loads within a horizontal distance equal to the depth of the wall should be considered in the design. For uniform surcharge stresses imposed on the loaded side of the wall, a rectangular distribution with uniform pressure equal to 36 percent of the vertical surcharge pressure acting over the entire height of the wall, which is free to deflect (cantilever), may be used in design. For walls that are restrained, a rectangular distribution equal to 53 percent of the vertical surcharge pressure acting over the entire height of the wall may be used for design. Additional analyses during design may be needed to evaluate the surcharge effects of point loads and line loads.

### 3.3.3 Dynamic Lateral Earth Pressures

Dynamic lateral earth forces due to seismic loading ( $a_{max}$ = 0.24g) may be estimated by using 7.4H<sup>2</sup> pounds per lineal foot of wall length for level backfill conditions, where H is the height of the wall in feet. It should be noted that the dynamic lateral earth forces provided assume that the wall will be allowed to move laterally by up to about 3 to 4 inches in the event of an earthquake. The resultant force should be assumed to act through the mid-height of the wall. An appropriately reduced factor of safety may be used when dynamic lateral earth forces are accounted for in the design of the retaining structures.

If the estimated amount of lateral movement is not acceptable, the retaining structure should be designed with higher dynamic lateral forces for a restrained condition. For a restrained condition (less than 0.5 inches of lateral movement), dynamic lateral forces due to seismic loading may be estimated using 36.5H<sup>2</sup> pounds per lineal foot of wall (H measured in feet) for level backfill conditions.

### 3.3.4 Drainage

Retaining structures should be well drained to reduce the potential for build-up of hydrostatic pressures. A typical drainage system for site retaining walls would consist of 1 cubic foot of permeable material, such as open graded gravel (ASTM C33, No. 67 gradation), wrapped with non-woven filter fabric (Mirafi 180N or equivalent) placed at each of the weep hole locations. The weep holes should be spaced not more than 6 feet apart.

The backfill from the bottom of the wall to the bottom of the weep hole should consist of relatively impervious material to reduce the potential for significant water infiltration into the subsurface. In addition, the upper 12 inches of the retaining wall backfill should consist of relatively impervious material to reduce the potential for significant water infiltration behind the retaining structure unless covered by concrete slabs at the surface.

### 3.4 Site Grading

We anticipate that site grading consisting of fills less than about 3 feet thick may be required to achieve the finished grades. The following site grading items are addressed in the succeeding subsections:

- Site Preparation
- Fills and Backfills
- Fill Placement and Compaction Requirements

A Geolabs representative should monitor the grading operations to observe whether undesirable materials are encountered during the excavation and scarification process, and to confirm whether the exposed soil conditions are similar to those encountered in our field exploration.

### 3.4.1 Site Preparation

At the on-set of earthwork, areas within the contract grading limits should be cleared thoroughly. Vegetation, debris, deleterious materials, existing structures to be demolished, and other unsuitable materials should be removed and disposed properly off-site to reduce the potential for contaminating the excavated materials.

Soft and yielding areas encountered during clearing within the building footprints should be over-excavated to expose firm and/or dense materials, and the resulting excavation should be backfilled with well-compacted fills. The excavated soft and/or organic soils should be disposed properly off-site and/or used in landscape areas, where appropriate. Contract documents should include additive and deductive unit prices for over-excavation and compacted fill placement to account for variations in the over-excavation quantities.

After clearing, the building subgrades should be scarified to a depth of about 8 inches, moisture-conditioned to above the optimum moisture content, and re-compacted to a minimum of 90 percent relative compaction. Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density as determined by ASTM D1557. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.

### 3.4.2 Fills and Backfills

In general, the near-surface clayey silt, silty sand, and clay soils encountered during our field exploration should be suitable for use as general fill materials provided that the maximum particle size is less than 3 inches in largest dimension. The on-site materials generated from the excavations may be used as a source of general fill or backfill materials provided that they are screened of the over-sized materials and/or processed to meet the above gradation requirements (less than 3 inches in largest dimension).

Imported materials required for site filling should consist of select granular fill material, such as crushed coral and/or basaltic gravel. The materials should be well graded from coarse to fine with particles no greater than 3 inches in largest dimension. In addition, the materials also should contain between 10 and 30 percent particles passing the No. 200 sieve. The materials should have a California Bearing Ratio (CBR) value of 20 or higher, and a swell potential of 1 percent or less when tested in accordance with ASTM D1883. Imported fill materials should be tested by Geolabs for conformance with these recommendations prior to delivery to the project site for the intended use.

Where groundwater is encountered (within the excavations), backfill materials should consist of free-draining granular materials, such as No. 3B Fine gravel (ASTM C33, No. 67 gradation), wrapped on all sides with non-woven filter fabric. The free-draining granular materials should be used up to a level of about 12 inches above the groundwater level to facilitate compaction of the fill materials.

### 3.4.3 Fill Placement and Compaction Requirements

In general, fills and backfills should be moisture-conditioned to above the optimum moisture content, placed in level lifts not exceeding 8 inches in loose thickness, and compacted to at least 90 percent relative compaction. Compaction requirements for the subgrades of improvements subjected to vehicular traffic should be increased to a minimum of 95 percent relative compaction.

Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density as determined by ASTM D1557. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.

Compaction should be accomplished by sheepsfoot rollers, vibratory rollers, or other types of acceptable compaction equipment. Water tamping, jetting, or ponding should not be allowed to compact the fills.

## 3.5 Pavement Design

We anticipate that access driveway and guest parking stalls will be required to serve the new school project. In general, we anticipate that the vehicle loading would consist primarily of passenger vehicles, light pick-up trucks with occasional heavy delivery trucks and trash pickup vehicles. We have assumed that the pavement subgrade soils will be similar to the clayey silt and silty sand fill materials encountered during our field exploration. On this basis, we recommend the following preliminary pavement designs.

## Flexible Pavement Section (Standard Pavement for Parking Areas)

- 2.0-Inch Asphaltic Concrete
- 6.0-Inch Aggregate Base Course (95 Percent Relative Compaction)
- 8.0-Inch Total Pavement Thickness on Moist Compacted Subgrade

#### Flexible Pavement Section (Access Driveways and Heavy Truck Route)

- 3.0-Inch Asphaltic Concrete
- 8.0-Inch Aggregate Base Course (95 Percent Relative Compaction)
- 11.0-Inch Total Pavement Thickness on Moist Compacted Subgrade

## Rigid Pavement Section

- 6.0-Inch Portland Cement Concrete
- 6.0-Inch Aggregate Subbase Course (95 Percent Relative Compaction)
- 12.0-Inch Total Pavement Thickness on Moist Compacted Subgrade

The subgrade soils under the pavement areas should be scarified to a minimum depth of 8 inches, moisture-conditioned to above the optimum moisture, and compacted to at least 95 percent relative compaction. CBR tests and/or field observations should be performed on the actual subgrade soils during construction to confirm that the above

design sections are adequate. The aggregate base and subbase courses should consist of crushed basaltic aggregates compacted to a minimum of 95 percent relative compaction.

In general, paved areas should be sloped, and drainage gradients should be maintained to carry surface water off the pavements. Surface water ponding should not be allowed on the site during or after construction. Where concrete curbs are used to isolate landscaping in or adjacent to the pavement areas, we suggest extending the curbs a minimum of 2 inches into the subgrade soil to reduce the potential for migration of excessive landscape water into the pavement section.

## 3.6 Underground Utility Lines

We envision that new utility lines (i.e., water, sewer, and drain lines) and utility line connections may be required for the development. It is anticipated that most of the trenches for utilities will be excavated in the fill deposit. In general, we recommend granular bedding consisting of 6 inches of free-draining granular materials (ASTM C33, No. 67 gradation) below the pipes for uniform support. Free-draining granular materials, such as No. 3B Fine gravel (ASTM C33, No. 67 gradation), also should be used for the initial trench backfill up to about 12 inches above the pipes.

It is critical to use this free-draining material to reduce the potential for formation of voids below the haunches of the pipes and to provide adequate support for the sides of the pipes. Improper backfill material around the pipes and improper placement of the backfill could result in backfill settlement and pipe damage. Where groundwater is encountered, the bedding should be wrapped on all sides by non-woven filter fabric (Mirafi 180N or equivalent).

The upper portion of the trench backfill from a level of 12 inches above the pipes to the top of the subgrade or finished grade should consist of granular materials generally less than 6 inches in maximum particle size. The backfill material should be moisture-conditioned to above the optimum moisture content, placed in maximum 8-inch level loose lifts, and mechanically compacted to at least 90 percent relative compaction. Where trenches will be located in paved areas, the upper 3 feet of the

trench backfill below the pavement finish grade should be compacted to not less than 95 percent relative compaction.

## 3.7 <u>Design Review</u>

Final drawings and specifications for the proposed construction should be forwarded to Geolabs for review and written comments prior to construction. This review is necessary to evaluate adherence of the plans and specifications with the intent of the foundation and earthwork recommendations provided herein. If this review is not made, Geolabs cannot assume responsibility for misinterpretation of the recommendations presented in this report.

## 3.8 Post-Design Services/Services During Construction

It is highly recommended to retain Geolabs for geotechnical engineering support and continued services during construction. The critical items of construction monitoring requiring "Special Inspection" include the following:

- Observation of shallow footing excavation and preparation
- Observation of the subgrade soil preparation

A Geolabs representative should monitor other aspects of the earthwork construction to observe compliance with the intent of the design concepts, specifications, or recommendations and to expedite suggestions for design changes that may be required in the event that subsurface conditions differ from those anticipated at the time this report was prepared. The recommendations provided in this report are contingent upon such observations.

If the actual subsurface conditions encountered during construction are different from those assumed or considered in this report, then appropriate design modifications should be made.

END OF DISCUSSION AND RECOMMENDATIONS	

### **SECTION 4. LIMITATIONS**

The analyses and recommendations submitted in this report are based in part upon information obtained from the field borings. Variations of the subsurface conditions between and beyond the field borings may occur, and the nature and extent of these variations may not become evident until construction is underway. If variations then appear evident, it will be necessary to re-evaluate the recommendations presented in this report.

The locations of the field borings indicated in this report are approximate, having been estimated by taping from visible features shown on the topographic survey transmitted by Urban Works on December 30, 2014. Elevations of the borings were interpolated based on the spot elevations shown on the same plan. The locations and elevations of the field borings should be considered accurate only to the degree implied by the methods used.

The stratification breaks shown on the graphic representations of the borings depict the approximate boundaries between soil and/or rock types and, as such, may denote a gradual transition. Water level data from the borings were measured at the times shown on the graphic representations and/or presented in the text of this report. These data have been reviewed and interpretations made in the formulation of this report. However, it must be noted that fluctuation may occur due to variation in tides, rainfall, perched groundwater conditions, groundwater withdrawal, and other factors.

This report has been prepared for the exclusive use of Seagull Schools, Inc. and their project consultants for specific application to the Seagull School – Kaka'ako First School project in accordance with generally accepted geotechnical engineering principles and practices. No warranty is expressed or implied.

This report has been prepared solely for the purpose of assisting the architects and engineers in the preparation of the design documents for the new school building project. Therefore, this report may not contain sufficient data, or the proper information, for use to form the basis for preparation of construction cost estimates or contract

bidding. A contractor wishing to bid on this project should retain a competent geotechnical engineer to assist in the interpretation of this report and/or performance of site-specific exploration for bid estimating purposes.

The owner/client should be aware that unanticipated soil conditions are commonly encountered. Unforeseen subsurface conditions, such as perched groundwater, soft deposits, hard layers or cavities, may occur in localized areas and may require additional probing or corrections in the field (which may result in construction delays) to attain a properly constructed project. Therefore, a sufficient contingency fund is recommended to accommodate these possible extra costs.

This geotechnical engineering exploration conducted at the project site was not intended to investigate the potential presence of hazardous materials existing at the project site. It should be noted that the equipment, techniques, and personnel used to conduct a geo-environmental exploration differ substantially from those applied in geotechnical engineering.

-	END OF LIMITATIONS	
	END OF LIMITATIONS	

## **CLOSURE**

The following plates and appendices are attached and complete this report:

Project Location Map	Plate 1
Site Plan	Plate 2
Generalized Geological Cross-Section A-A'	Plate 3
Field Exploration	Appendix A
Laboratory Tests	Appendix B
Photographs of Rock Cores	Appendix C
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Respectfully submitted,

GEOLABS, INC.

Gerald Y. Seki, P.E.

Senior Project Engineer

Clayton S. Mimura, P.E.

President

CSM:GS:as

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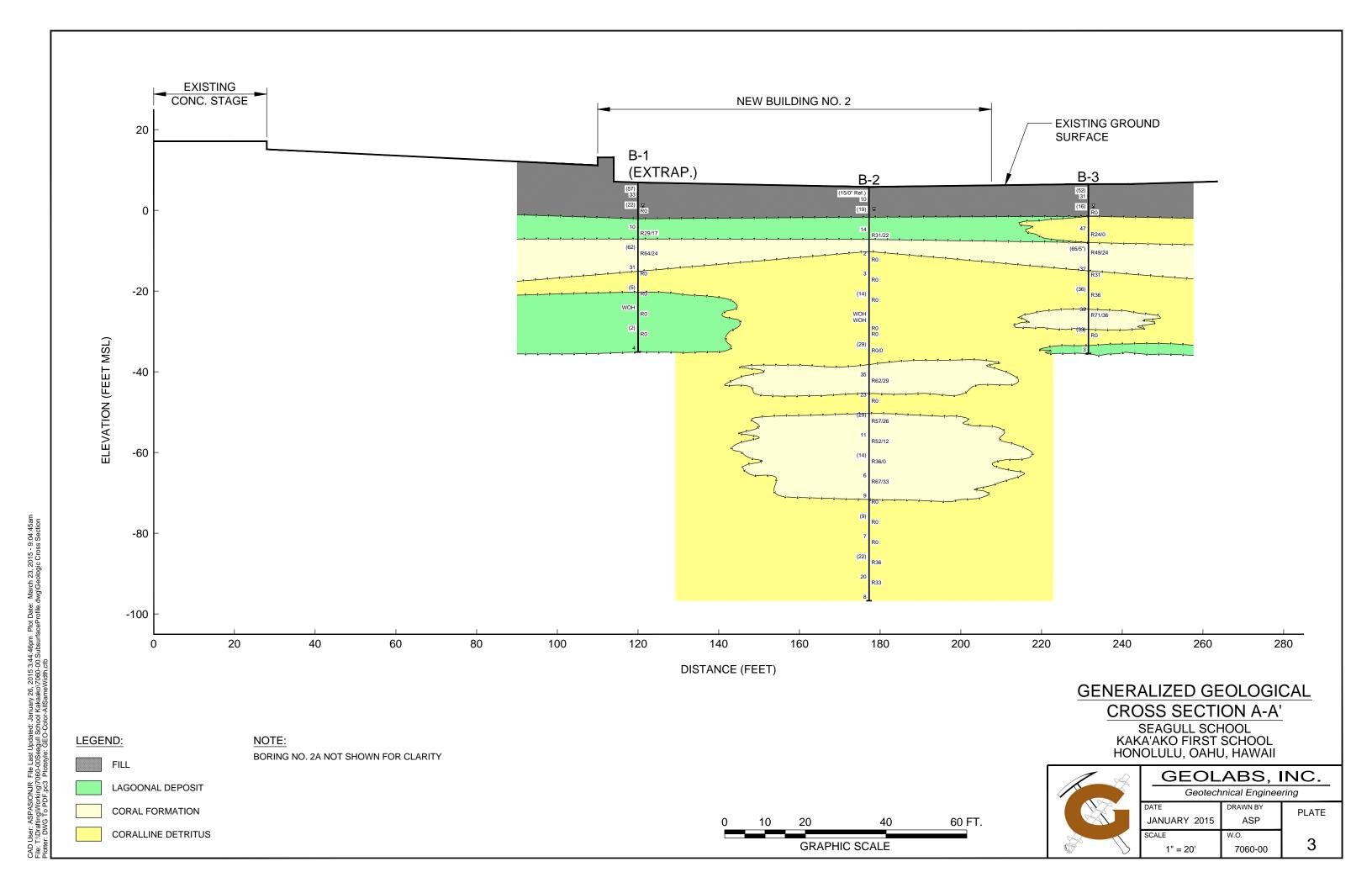
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7060-00

1" = 2,000'

CAD User: ASPASIONJR File Last Updated: January 08, 2015 1:47:52pm Plot Date: January 09, 2015 - 9:59:22am File: T\Drafting\Working\7060-00Seagull School Kakaako\7060-00.PLM.dwg\PLM Plotter: DWG To PDF.pc3 Plotstyle: GEO-No-Dithering-Blue-Boring.ctb

GEOGRAPHIC (WWW.NATIONALGEOGRAPHIC.COM/TOPO).





## APPENDIX A

## Field Exploration

The subsurface conditions at the project site were explored by drilling and sampling four borings, designated as Boring Nos. 1, 2, 2A and 3, extending to depths of about 42 to 102.5 feet below the existing ground surface. The approximate locations of the borings drilled are shown on the Site Plan, Plate 2. The borings were drilled using a truck-mounted drill rig equipped with continuous flight augers and coring tools.

The materials encountered in the borings were classified by visual and textural examination in the field by a geologist, who monitored the drilling operations on a near-continuous basis. These classifications were further reviewed visually and by testing in the laboratory. Soils were classified in general conformance with the Unified Soil Classification System, as shown on Plate A-0.1. Graphic representations of the materials encountered are provided on the Logs of Borings, Plates A-1.1 through A-4.2.

Relatively "undisturbed" soil samples were obtained from the borings drilled in general accordance with ASTM D3550, Ring-Lined Barrel Sampling of Soils, by driving a 3-inch OD Modified California sampler with a 140-pound hammer falling 30 inches. Some samples were obtained from the borings drilled in general accordance with ASTM D1586, Penetration Test and Split-Barrel Sampling of Soils, by driving a 2-inch OD standard penetration sampler using the same hammer and drop. The blow counts needed to drive the sampler the second and third 6 inches of an 18-inch drive are shown as the "Penetration Resistance" on the Logs of Boring at the appropriate sample depths.

Core samples of the coral formations encountered at the site were obtained using diamond core drilling techniques in general accordance with ASTM D2113, Diamond Core Drilling for Site Investigation. Core drilling is a rotary drilling method that uses a hollow bit to cut into the coral formation. The material left in the hollow core of the bit is mechanically recovered for examination and description. Rock cores were described in general accordance with the Rock Description System, as shown on the Rock Log Legend, Plate A-0.2.

Recovery (REC) is used as a subjective guide to the interpretation of the relative quality of rock masses. Recovery is defined as the actual length of material recovered from a coring attempt versus the length of the core attempt. For example, if 3.7 feet of material is recovered from a 5.0-foot core run, the recovery would be 74 percent and would be shown on the Logs of Borings as REC = 74%.

The Rock Quality Designation (RQD) is also a subjective guide to the relative quality of rock masses. RQD is defined as the percentage of the core run that is sound material in excess of 4 inches in length without discontinuities, discounting drilling induced fractures or breaks. If 2.5 feet of sound material is recovered from a 5.0-foot core run, the RQD would be 50 percent and would be shown on the Logs of Borings as RQD = 50%. Generally, the following is used to describe the relative quality of the rock, based on the "Practical Handbook of Physical Properties of Rocks and Minerals." It should be noted that RQD does not apply to coral material. However, the RQD values of the coral material are included in the boring logs for rough characterization of the coral material.

Rock Quality	<u>RQD</u> (%)
Very Poor	0 – 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 – 100



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# Soil Log Legend

## **UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)**

	MAJOR DIVISION	IS	US	cs	TYPICAL DESCRIPTIONS
	GRAVELS	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
COARSE-	GRAVELS	LESS THAN 5% FINES	0000	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
GRAINED SOILS	MORE THAN 50% OF COARSE FRACTION	GRAVELS WITH FINES	0000	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
	RETAINED ON NO. 4 SIEVE	MORE THAN 12% FINES	9 6 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS	CLEAN SANDS	0	sw	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
MORE THAN 50% OF MATERIAL	SANDS	LESS THAN 5% FINES		SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
RETAINED ON NO. 200 SIEVE	50% OR MORE OF COARSE FRACTION PASSING	SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
	THROUGH NO. 4 SIEVE	MORE THAN 12% FINES		sc	CLAYEY SANDS, SAND-CLAY MIXTURES
	SILTS			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
FINE- GRAINED SOILS	AND CLAYS	LIQUID LIMIT LESS THAN 50		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			*** *** * *** *	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
50% OR MORE OF				МН	INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
MATERIAL PASSING THROUGH NO. 200	SILTS AND CLAYS	LIQUID LIMIT 50 OR MORE		СН	INORGANIC CLAYS OF HIGH PLASTICITY
SIEVE				ОН	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
Н	GHLY ORGANIC SO	DILS		PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS **LEGEND** 

WATER LEVEL OBSERVED IN BORING OVERNIGHT

	(2-INCH) O.D. STANDARD PENETRATION TEST	LL	LIQUID LIMIT (NP=NON-PLASTIC)
X	(3-INCH) O.D. MODIFIED CALIFORNIA SAMPLE	PI	PLASTICITY INDEX (NP=NON-PLASTIC)
S	SHELBY TUBE SAMPLE	TV	TORVANE SHEAR (tsf)
G	GRAB SAMPLE	PEN	POCKET PENETROMETER (tsf)
	CORE SAMPLE	UC	UNCONFINED COMPRESSION (psi)
$\bar{\Delta}$	WATER LEVEL OBSERVED IN BORING AT TIME OF DRILLING	TXUU	UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (ksf)
<b>T</b>	WATER LEVEL OBSERVED IN BORING AFTER DRILLING		

 $ar{m{\Lambda}}$ 

LOG LEGEND FOR SOIL 6685-50.GPJ GEOLABS.GDT 1/6/15

Plate

A-0.1



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## Rock Log Legend

#### **ROCK DESCRIPTIONS**

	BASALT		FINGER CORAL
99	BOULDERS		LIMESTONE
	BRECCIA		SANDSTONE
× × × × ×	CLINKER		SILTSTONE
×	COBBLES		TUFF
\$\disp\{\din\{\disp\{\disp\{\disp\{\din\{\\\\\\\\\\	CORAL		VOID/CAVITY

## **ROCK DESCRIPTION SYSTEM**

#### **ROCK FRACTURE CHARACTERISTICS**

The following terms describe general fracture spacing of a rock:

Massive: Greater than 24 inches apart

Slightly Fractured: 12 to 24 inches apart

Moderately Fractured: 6 to 12 inches apart

Closely Fractured: 3 to 6 inches apart

Severely Fractured: Less than 3 inches apart

#### **DEGREE OF WEATHERING**

The following terms describe the chemical weathering of a rock:

**Unweathered:** Rock shows no sign of discoloration or loss of strength.

Slightly Weathered: Slight discoloration inwards from open fractures.

Moderately Weathered: Discoloration throughout and noticeably weakened though not able to break by hand.

Highly Weathered: Most minerals decomposed with some corestones present in residual soil mass. Can be broken by hand.

Extremely Weathered: Saprolite. Mineral residue completely decomposed to soil but fabric and structure preserved.

#### **HARDNESS**

The following terms describe the resistance of a rock to indentation or scratching:

Very Hard: Specimen breaks with difficulty after several "pinging" hammer blows.

Example: Dense, fine grain volcanic rock

**Hard:** Specimen breaks with some difficulty after several hammer blows.

Example: Vesicular, vugular, coarse-grained rock

Medium Hard: Specimen can be broked by one hammer blow. Cannot be scraped by knife. SPT may penetrate by

~25 blows per inch with bounce.

Example: Porous rock such as clinker, cinder, and coral reef

Soft: Can be indented by one hammer blow. Can be scraped or peeled by knife. SPT can penetrate by

~100 blows per foot.

Example: Weathered rock, chalk-like coral reef

Very Soft: Crumbles under hammer blow. Can be peeled and carved by knife. Can be indented by finger

pressure.
Example: Saprolite

A-0.2

Plate

LOG LEGEND FOR ROCK 6972-00.GPJ GEOLABS.GDT 10/30/14



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### SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

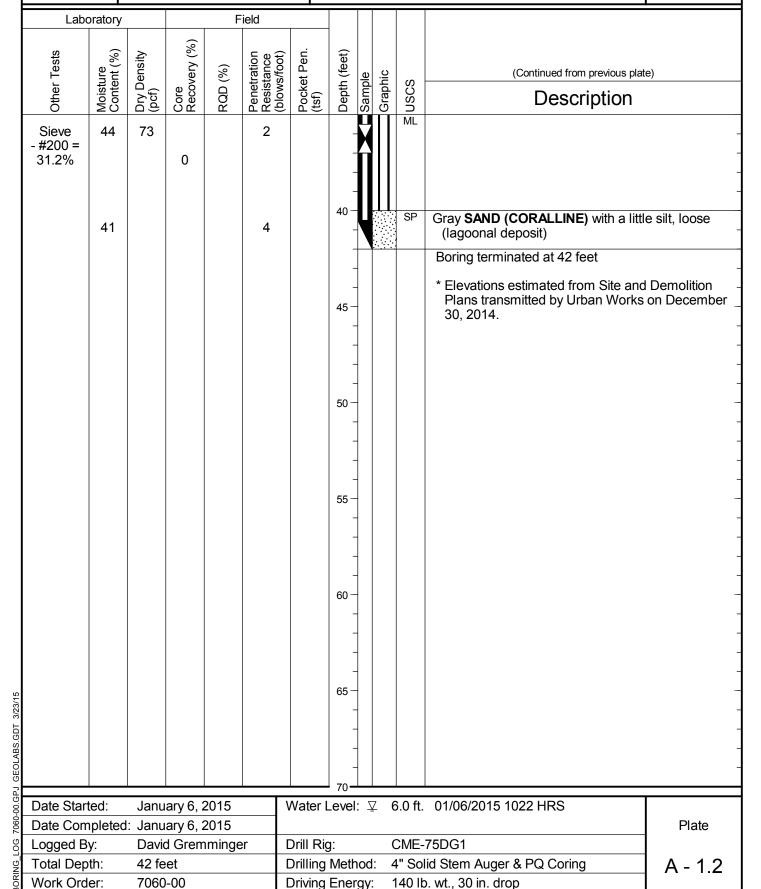
Log of Boring

Γ	Labo	oratory			F	ield						
	Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	(%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	ole	hic	S	Approximate Ground Surface Elevation (feet ): 6.9 *
	Other	Moist Conte	Dry D (pcf)	Core Reco	RQD (%)	Pene Resis (blow	Pock (tsf)	Deptl	Sample	Graphic	nscs	Description
t	_									$\otimes$	MH	4-inch ASPHALTIC CONCRETE
l	Direct Shear	14	113			57	4.5	-	X	$\bigotimes$		Brown <b>CLAYEY SILT</b> with some sand, glass fragments and gravel, hard, moist (fill)
		15				33		-		$\otimes$		
		21	109			22		5-				- -
		21	109	0		22	Z	<u>Z</u> -	X		SM	Dark gray <b>SILTY SAND</b> with some clay and
				U				-	11	$\bigotimes$		gravel, medium dense (fill)
								-	H	$\bigotimes$	SW	Gray <b>GRAVELLY SAND (CORALLINE)</b> with a little
		40				10		10 -	Ų	O .		silt, medium dense (lagoonal deposit)
				29	17			-		О.:		
								-				
								15 -	L	,		Tan cemented <b>CORAL</b> , severely to closely fractured, highly weathered, medium hard (coral
		36	84			62		-	X	*		formation)
				64	24			-	$\ $	*		
								-	H	* *		
		47				31		20 -	H	* * *		
				0				-	П	.0	SW	Tan GRAVELLY SAND (CORALLINE) with a little
								-	П			silt, loose (coralline detritus)
	LI -ND	22	66			_		25 -		ο Ο		-
	LL=NP PI=NP	33	66	•		5		-	X	<i>.0</i> 		
l	Sieve - #200 =			0				-	H		ML	Grayish tan <b>SANDY SILT</b> with a little gravel (coralline), very soft (lagoonal deposit)
	9.7%							30 -	П			
3/23/15	LL=31	51				WOH		-	K			
S.GDI	PI=5			0				-	n			
SEOLAE								_				
BORING_LOG 7060-00.GPJ GEOLABS.GDT 3/23/15	Date Start	od.	lanı	ary 6, 2	2015	<u> </u>	Water L	35-	. 7	7 6	n ft	01/06/2015 1022 HRS
7090-01	Date Start			ary 6, 2			vvalei L	-c vei	· ÷	<u>.</u> C	.∪ II.	Plate
5    -	Logged By: David Gremminger					Drill Rig		_			75DG1	
SORING P	Total Dep		42 fe 7060				Drilling Driving					lid Stem Auger & PQ Coring  D. wt., 30 in. drop
Work Order. 7000-00 Briving Energy. 140 lb. Wt., 30 lif. drop												



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SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring





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SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring

Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HRS  Date Completed: September 23, 2014 Plate  Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1	F	l aba					i a l al						·	
Elevation (feet ): 5.8 *  Description  Description  Description  TXUU 23 107	$\vdash$	Labo	ratory			Г	leia						Approximate Ground Surface	<b>;</b>
18 79		· Tests	ure ent (%)	ensity	very (%)	(%)	tration stance s/foot)	et Pen.	n (feet)	ole	JIC	0	Elevation (feet ): 5.8 *	
18 79		Other	Moist Conte	Dry D (pcf)	Core	RQD	Pene Resis (blow	Pock (tsf)	Dept	Samp	Grap	USC	•	
TXUU 23 107 19 3.5	l		40	70					-			CH		y hard,
LL=44 Pl=20	l		18	79					-				most (III)	
TXUU 23 107	l		19				10		-				grades to stiff	
grades to gray, very stiff  GW G	l	1 1-20							-					
Date Started:  September 23, 2014  Date Started:  September 23, 2014  Date Completed:  September 24, 2014  Date Completed:  September 25, 2014  Date Completed:  September 28, 2014  Date Completed:  Date Completed:  September 28, 2014  Date Completed:  Date Completed:  Date Completed:  September 28, 2014  D	l	TXUU	23	107			19	3.5 5	5-   				grades to gray very stiff	
Sieve -#200 = 14.1%	l								-				grades to gray, very sum	
LL=36	l								-			GW-		
LL=36 Pl=14 Pl=15	l								-			O.V.		onai
LL=36	l		26				14		10 -	4				
LL=36	l				31	22			-	H				
LL=36	l								-	<b>       </b>			Tannish white comented COPAL severe	alv to
LL=36 Pl=14	l								-	- ×	> >		closely fractured, moderately weathere	
Pl=14  Sieve #200 = 14.1%  29 92 0 14  WOH	l								15-	- × ~ ;;	<b>\$</b>		hard (coral formation)	
Sieve -#200 = 14.1% 29 92 14	l		44				2			Ó				with a little
Sieve -#200 = 14.1%  29 92 0 14  WOH  WOH  WOH  WOH  WOH  Date Started: September 23, 2014  Date Completed: September 23, 2014  Logged By: David Gremminger  Total Depth: 102.5 feet  Date Started: Drill Rig: CME-75DG1  Total Depth: 102.5 feet  Total Depth: 102.5 feet  Total Started: Drill Rig: CME-75DG1  Drill Rig: CME-75DG1  A - 2.1	l	PI=14			0				-	<b>∏</b> ∷	o l	Oivi	siit, very loose (coralline detritus)	
Sieve -#200 = 14.1%  29 92 0 14  WOH  WOH  WOH  WOH  WOH  Date Started: September 23, 2014  Date Completed: September 23, 2014  Logged By: David Gremminger  Total Depth: 102.5 feet  Date Started: Drill Rig: CME-75DG1  Total Depth: 102.5 feet  Total Depth: 102.5 feet  Total Started: Drill Rig: CME-75DG1  Drill Rig: CME-75DG1  A - 2.1	l								-	- D				
-#200 = 14.1% 29 92 0 14 25	l								20 -		.0			
14.1% 29 92 0 14			24				3		-					
Date Started: September 23, 2014 Date Completed: September 23, 2014 Logged By: David Gremminger  Date Started: David Gremminger  Date Started: David Gremminger  Drill Rig: CME-75DG1  Total Depth: 102.5 feet  Grayish tan SANDY SILT with a little gravel (coralline), very soft (lagoonal deposit)  Plate  CME-75DG1  A - 2.1					0				-		O			
Date Started: September 23, 2014 Date Completed: September 23, 2014 Logged By: David Gremminger  Date Started: David Gremminger  Date Started: David Gremminger  Drill Rig: CME-75DG1  Total Depth: 102.5 feet  Grayish tan SANDY SILT with a little gravel (coralline), very soft (lagoonal deposit)  Plate  CME-75DG1  A - 2.1	l								-	-     : . i	0			
Date Started: September 23, 2014 Date Completed: September 23, 2014 Logged By: David Gremminger  Dill Rig: CME-75DG1  Total Depth: 102.5 feet  NOH  WOH  WOH  WOH  Grayish tan SANDY SILT with a little gravel (coralline), very soft (lagoonal deposit)  Water Level:   5.8 ft. 09/23/2014 0906 HRS  Plate  CME-75DG1  A - 2.1	l								25 -	 	0			
WOH	l		29	92			14		-		<i>o</i> : .		grades to medium dense	
WOH	l				0				-	$A \circ$				
WOH	l								_		0			
Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HRS  Date Completed: September 23, 2014 Plate  Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1									30 -	 ∴.o				
Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HRS  Date Completed: September 23, 2014 Plate  Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1							WOH		-	<b>U</b> i	:0	ML	Gravish tan <b>SANDY SILT</b> with a little gra	avel
Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HRS  Date Completed: September 23, 2014 Plate  Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1									-	7			(coralline), very soft (lagoonal deposit)	-
Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HRS  Date Completed: September 23, 2014 Plate  Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1							VVOH							
Date Completed: September 23, 2014PlateLogged By: David GremmingerDrill Rig: CME-75DG1Total Depth: 102.5 feetDrilling Method: 4" Solid Stem Auger & PQ CoringA - 2.1	_								35-					
Logged By:David GremmingerDrill Rig:CME-75DG1Total Depth:102.5 feetDrilling Method:4" Solid Stem Auger & PQ CoringA - 2.1	-	Date Start	ed:	Septe	ember	23, 20	14	Water I	_evel	: <u>\</u>	5	.8 ft.	09/23/2014 0906 HRS	
Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ Coring A - 2.1	L		•									Plate		
· · · · · · · · · · · · · · · · · · ·	L					ıminge								
L MORK LINGOR (1961) III L L LINGO L NOVOUR 470 IN LA SOLIA ARON	┢	Total Dep Work Ord		Drilling Method: 4" Solid Stem Auger & PQ Coring  A - 2.1  Driving Energy: 140 lb. wt., 30 in. drop										



Geotechnical Engineering

7060-00

Work Order:

#### SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

Log of Boring

2

									_	_				
	Labo	oratory			F	ield								
	Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	nscs	(Continued from previous plate)  Description		
				0				-			ML	-		
	LL=35 PI=12 Sieve - #200 = 18.4%	28	94	0	0	29			X		SC	Grayish tan CLAYEY SAND (CORALLINE) with some silt, and gravel (coralline) medium dense (coralline detritus)		
		29		62	29	35		45				Tannish white cemented <b>CORAL</b> , severely to closely fractured, highly to moderately weathered, medium hard to hard (coral formation) breaks down to a silty sand with some gravel		
	Sieve - #200 = 12.8%	25		0		23		- - - 55 –			SW- SM	Whitish tan <b>GRAVELLY SAND (CORALLINE)</b> with some silt, medium dense (coralline detritus)		
		22	103	57	26	29		- 60	X			Tannish white cemented <b>CORAL</b> , severely to moderately fractured, moderately to highly weathered, medium hard to soft (coral formation) breaks down to a silty sand with some gravel		
3/15		28		52	12	11		65 -				- - -		
DRING_LOG 7060-00.GPJ GEOLABS.GDT 3/23/15		27	97	36	0	14		- - - - 70-	X	;		- - -		
.00.GF	Date Start	23, 20	14	Water L	evel	: Z	7 5	5.8 ft.	09/23/2014 0906 HRS					
-0902	Date Com	pleted	: Sept	ember	23, 20	14						Plate		
-0G	Logged B	Logged By: David Gremminger					Drill Rig	<b>j</b> :		(	CME-	75DG1		
NG	Total Depth: 102.5 feet						Drilling					lid Stem Auger & PQ Coring A - 2.2		
R.	Work Order: 7060-00						Driving	Ena	.uv.	1	140 lb wt 30 in drop			

Driving Energy:

140 lb. wt., 30 in. drop



Work Order:

7060-00

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Geotechnical Engineering

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring

2

Laboratory Field	
	ed from previous plate)  Scription
	_
	-
21 9 9 ***	-
Sieve 20 100 9	AND (CORALLINE) with some oose (coralline detritus)
-#200 = 25.8% 0	- - - -
LL=NP   17   7   -1     0     7     -1	- - - -
21 103 22 grades to medium de (coralline)	ense, with a little cobbles
25 20 95 — 1 · · · · · · · · · · · · · · · · · ·	- - -
Date Started: September 23, 2014 Date Completed: September 23, 2014 Logged By: David Gremminger Total Depth: 102.5 feet  Date Started: Date Completed: September 23, 2014 Date Completed: September 24, 2014 Date Completed: September 24, 2014 Date Completed: September 25, 2014 Date Completed: September 26, 2014 Date Completed: Sept	- - : 102.5 feet -
	-
Date Started: September 23, 2014 Water Level: ∑ 5.8 ft. 09/23/2014 0906 HR	RS I
Date Completed: September 23, 2014	Plate
Logged By: David Gremminger Drill Rig: CME-75DG1  Total Depth: 102.5 feet Drilling Method: 4" Solid Stem Auger & PQ C	Coring A - 2.3

Driving Energy:

140 lb. wt., 30 in. drop



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### SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

Log of Boring

2A

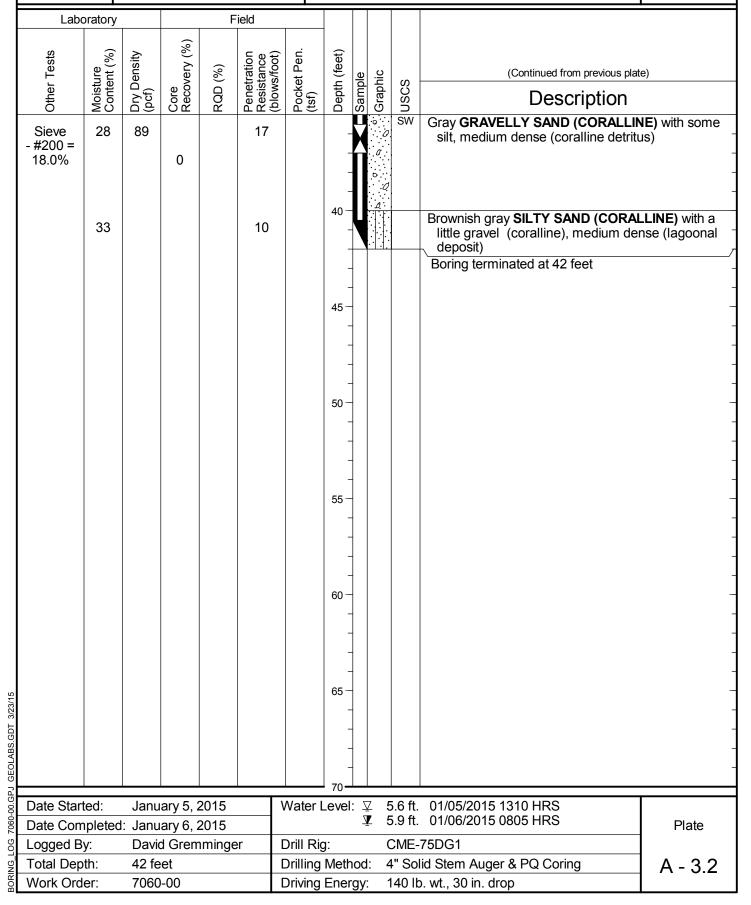
	Labo	ratory			F	ield						
	Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	(%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	ele Se	Jic	(0	Approximate Ground Surface Elevation (feet ): 6.1 *
	Other	Moist	Dry D (pcf)	Core Reco	RQD (%)	Pener Resis	Pocke (tsf)	Depth	Sample	Graphic	nscs	Description
										XX	SM	4-inch ASPHALTIC CONCRETE
		8 11	111			52 22		-	5 -		Brownish gray <b>SILTY SAND</b> with some gravel, with a little clay dense to medium dense, moist (fill)	
		20	96	13		19	Ž	5 - Z -				grades to dark brown, wet
		28		60	12	18		- - 10 - - -			SW- SM	Light gray <b>GRAVELLY SAND (CORALLINE)</b> with some silt, medium dense (lagoonal deposit)
		34	79	12		10		- 15 - - -	X	**************************************	SW	Tan cemented CORAL, severely to closely fractured, moderately weathered, hard (coral formation)  Tan GRAVELLY SAND (CORALLINE) with some silt, medium dense (coralline detritus) grades with a little cobbles
		27		31	0	14		20	- 20 - - -	0.0		- - - -
		25	83	0	0	29/6" +34/0 Ref.	)"	25 - - -	  X			Tan cemented <b>CORAL</b> , severely fractured, highly weathered, medium hard (coral formation)
GEOLABS.GDT 3/23/15		25		19	0	35		30 - - - -			SW	- - - -
								35-	П	;		
7060-00.GPJ		ate Started: January 5, 2015 ate Completed: January 6, 2015							<u>7</u>		5.6 ft. 5.9 ft.	01/05/2015 1310 HRS 01/06/2015 0805 HRS Plate
LOG 7		Logged By: David Gremminger					Drill Rig: CME-75DG1					
	Total Depth: 42 feet Work Order: 7060-00										lid Stem Auger & PQ Coring A - 3.1	
BORING	Work Orde			Driving Energy: 140 lb. wt., 30 in. drop								



Geotechnical Engineering

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring

2A





Geotechnical Engineering

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring

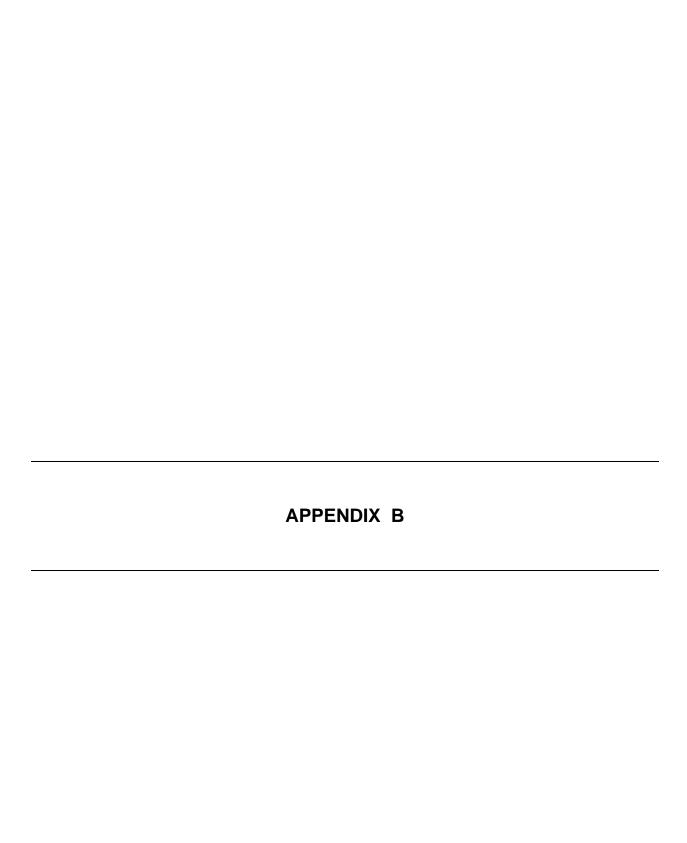
þ									_					
L	Labo	Laboratory Field				ield						Approximate Cround Surface		
	Other Tests	Moisture Content (%)	/ Density f)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	nscs	Approximate Ground Surface Elevation (feet ): 6.5 *		
١	₽	₽Ō	Dry D (pcf)	Re C	RQ	Reg (blc	Po (tst	De	Sal	Gra	SN	Description		
		7	107			52 31		-	X		SM	\2-inch <b>ASPHALTIC CONCRETE</b> Brownish gray <b>SILTY SAND</b> with some gravel, dense, moist (fill)		
		22	74	0		16	Ž	5 - <u>7</u> -	X			grades to dark gray, wet, medium dense		
	Sieve - #200 = 18.7%	22		24	0	47		- 10 - - - -			SW- SM	Light gray <b>GRAVELLY SAND (CORALLINE)</b> with some silt, dense (coralline detritus)		
		31	76	49	24	65/5"		15 - - -	X			Tan cemented <b>CORAL</b> , severely to moderately fractured, moderately weathered, hard (coral formation)		
		21		31		32		20		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	SW	Tan <b>GRAVELLY SAND (CORALLINE)</b> with a little silt, medium dense (coralline detritus)		
		30	81	36		36		25 - - -	X	0.0.0				
BORING_LOG /060-00.GPJ GEOLABS.GDI 3/23/15		30		71	36	39		30 -		```````\``\``\````````\`\`\`\\\\\\\\\\		grades to dense with traces of clay  Tan cemented <b>CORAL</b> , severely to closely fractured, highly to slightly weathered, hard (coral formation)		
.G.	Date Start	od:	lon	ary 5, 2	2015		Water L	00/0	. 7	7 <b>E</b>	5.7 ft.	01/05/2015 0902 HRS		
00-090			—	vvater L	_evel	· ¬	<u> </u>	)./ IĹ.						
۲ <b> </b>		Date Completed: January 5, 2015 Logged By: David Gremminger						Drill Rig: CME-75DG1						
<u>ال</u> اح	Total Dep		42 fe				Drilling		nod			lid Stem Auger & PQ Coring A - 4.1		
Work Order: 7060-00 Driving Energy: 140 lb. wt., 30 in. drop														
a <b>L</b>														



Geotechnical Engineering

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII Log of Boring

Lab	Laboratory Field		ield						<u> </u>			
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	nscs	(Continued from previous plate)  Description	
Sieve - #200 = 14.1%	Moist Moist Conte	(Jod) 87	O Core	RQD	Resisa (blow (blow (c))	Pock (tsf)	40	Samp	Control of the contro	SOSU SW-SW	Gray SILTY SAND (CORALLINE), coal refuse medium dense to loose (coralline detritus)  Brownish gray SILTY SAND (CORALLINE) with little gravel (coralline), loose (lagoonal deposed boring terminated at 42 feet)	a a it)
Date Star Date Con Logged E Total Dep Work Orc	npleted By:	: Janu	d Grem	2015	er [	Water L Orill Rig	g:		(	CME-	01/05/2015 0902 HRS Plate 75DG1 id Stem Auger & PQ Coring A - 4	



## APPENDIX B

## Laboratory Tests

Moisture Content (ASTM D2216) and Unit Weight (ASTM D2937) determinations were performed on selected soil samples as an aid in the classification and evaluation of soil properties. The test results are presented on the Logs of Borings at the appropriate sample depths.

One one-inch Ring Swell test was performed on a selected sample to evaluate the swelling potential of the soil under surcharge pressure. The test was run on a natural sample. The swell test results are presented on Plate B-1.

Seven Atterberg Limits tests (ASTM D 4318) were performed on selected soil samples to evaluate the liquid and plastic limits. The test results are presented on the Logs of Borings at the appropriate sample depth. Graphic presentation of the test results is provided on Plates B-2.

Nine Sieve Analysis tests (ASTM C117 & D136) were performed on selected soil samples to evaluate the gradation characteristics of the soils and to aid in soil classification. Graphic presentations of the grain size distributions are provided on Plates B-3 and B-4.

One Direct Shear test (ASTM D 3080) was performed on a selected soil sample to evaluate the shear strength parameters. The test results are presented on Plate B-5.

One Unconsolidated Undrained Triaxial Compression test (ASTM D2850) was performed on a selected in-situ soil sample to evaluate the undrained shear strength of the soils. The approximate in-situ effective overburden pressures were used as the applied confining pressures for the relatively "undisturbed" soil samples. The test results and the stress-strain curves are presented on Plate B-6.

			Dry	Moi	Ring		
Location	Depth	Soil Description	Density	Initial	Air-Dried	Final	Swell
	(feet)		(pcf)	(%)	(%)	(%)	(%)
B-2 <sup>*</sup>	1.0 - 1.5	Brown clay with some sand and gravel	101.5	19.1	11.7	19.2	0.0

NOTE: Samples tested were either relatively undisturbed or remolded in 2.4-inch diameter by 1-inch high rings. They were air-dried overnight and then saturated for 24 hours under a surcharge pressure of 55 psf.

- Relatively Undisturbed Remolded



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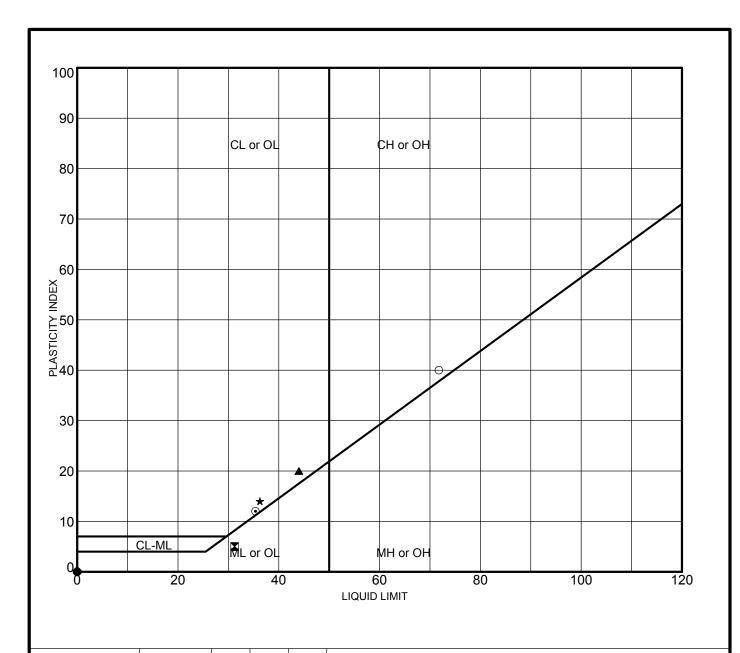
W.O. 7060-00

## **SUMMARY OF RING SWELL TESTS**

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

Plate B - 1

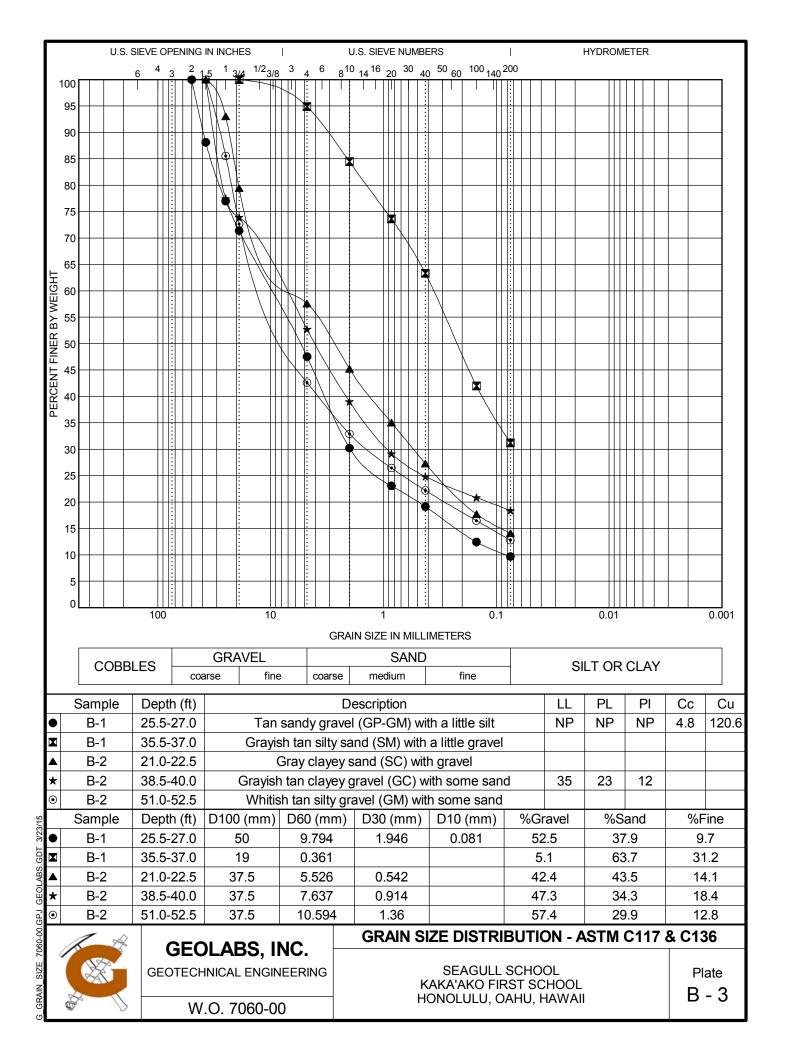
G\_RING SWELL TEST 7060-00.GPJ GEOLABS.GDT 1/26/15

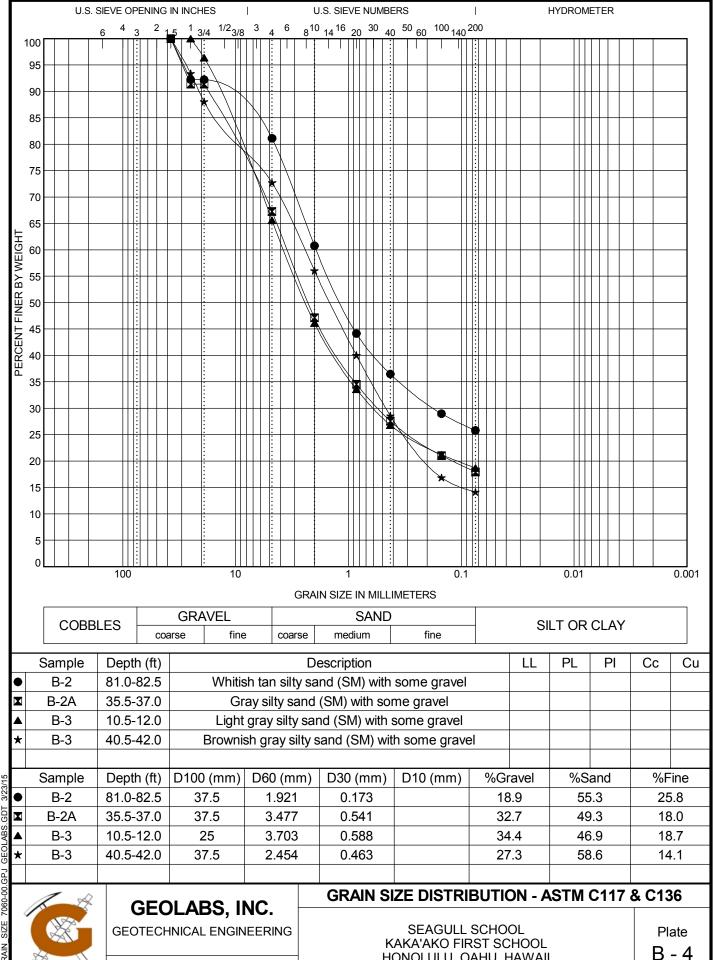


	Sample         Depth (ft)         LL         PL         PI           ●         B-1         25.5-27.0         NP         NP         NP					PI	Description				
						NP	Tan sandy gravel with a little silt				
	■ B-1 30.5-32.0 31			26	5	Grayish tan silty sand (SM) with a little gravel					
					24	20	Brown clay (CL) with some sand and gravel				
3/23/15	★ B-2 16.0-17.5 36 22 14			22	14	Gray clayey sand (SC) with gravel					
GDT 3/				35	23	12	Grayish tan clayey gravel (GC) with some sand				
ABS.	<b>o</b> B-2		86.0-87.5	NP	NP	NP	Whitish tan silty sand with some gravel				
GEOL	O Bulk-1		0.0-0.3	72	32	40	Brown clay (CH) with little sand				
00.GPJ											
70907											
L-120											
-100 L			CEOL /	NDC	INIC		ATTERBERG LIMITS TEST RESULTS - AST	M D4318			
TERBERG_PI-100	4		GEOLABS, INC. GEOTECHNICAL ENGINEERING			SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII	Plate B - 2				
G_AT			W.O. 7060-00				HONOLOLO, OARO, RAVVAII				



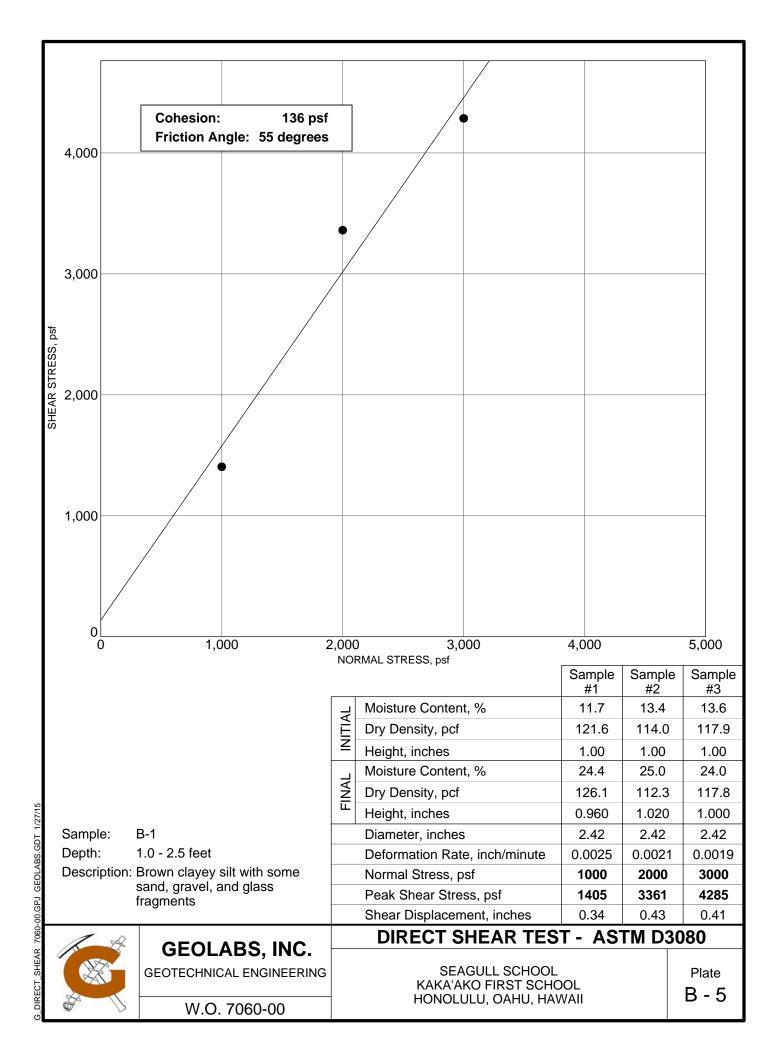
## ATTERBERG LIMITS TEST RESULTS - ASTM D4318

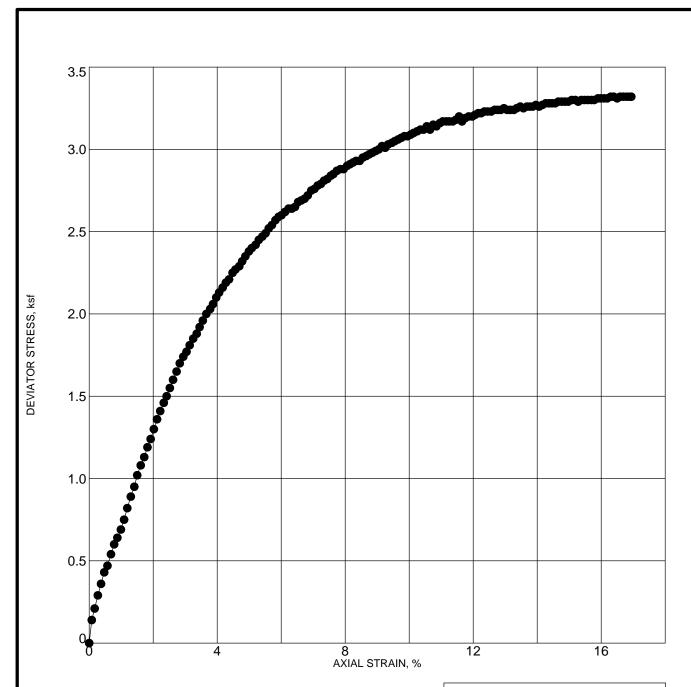




HONOLULU, OAHU, HAWAII

W.O. 7060-00





Max. Deviator Stress (ksf): 3.3

Confining Stress (ksf): 0.6

Location: B-2

Depth: 5.0 - 6.5 feet

Description: Gray clay with some sand

Test Date: 1/23/2015

Dry Density (pcf)	106.6	Sample Diameter (inches)	2.390
Moisture (%)	22.8	Sample Height (inches)	4.990
Axial Strain at Failure (%)	15.0	Strain Rate (% / minute)	1.00

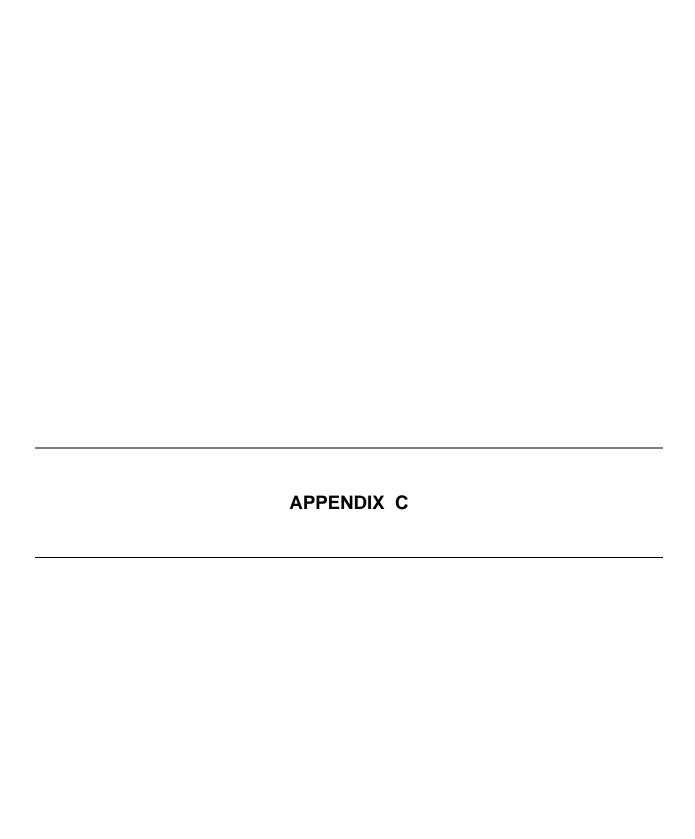


# GEOLABS, INC. GEOTECHNICAL ENGINEERING W.O. 7060-00

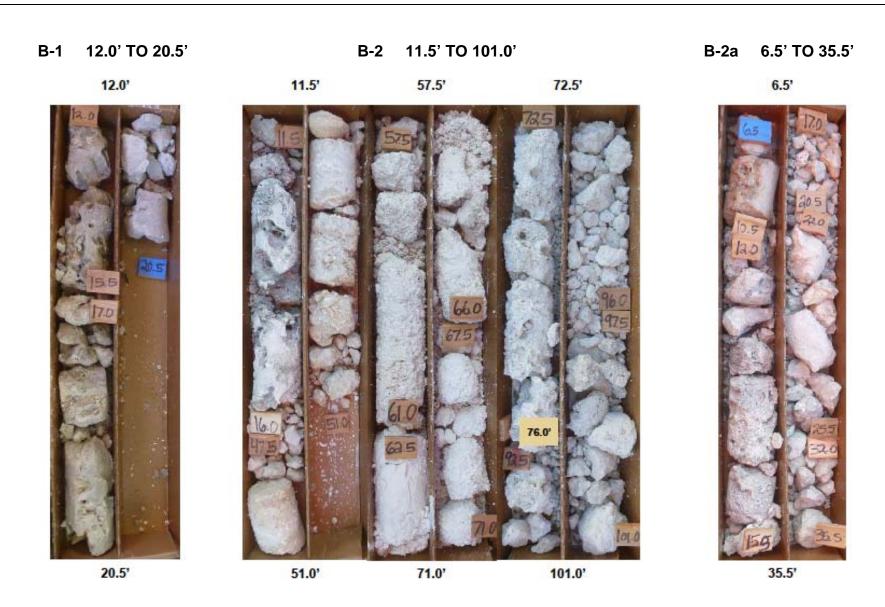
# TRIAXIAL UU COMPRESSION TEST - ASTM D2850

SEAGULL SCHOOL KAKA'AKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

Plate B - 6



## SEAGULL SCHOOL KAKAAKO FIRST SCHOOL HONOLULU, OAHU, HAWAII



## SEAGULL SCHOOL KAKAAKO FIRST SCHOOL HONOLULU, OAHU, HAWAII

B-3 12.0' TO 35.5'

12.0' 32.0'



30.5' 35.5'

# Comments Received on Draft Environmental Assessment



LINDA ROSEN, M.D., M.P.H.

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

In reply, please refer to:

11030PCTM.14

November 25, 2014

Mr. Daniel Simonich Hawaii Community Development Authority 461 Cooke Street Honolulu, Hawaii 96813

Dear Mr. Simonich:

SUBJECT: Comments on the Draft Environmental Assessment (DEA) for

Kakaako First School, Seaguil Schools

Honolulu, Island of Oahu, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated November 10, 2014, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://health.hawaii.gov/epo/files/2013/10/CWB\_Oct22.pdf

- 1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
- 2. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for pollutant discharges into State surface waters and for certain situations involving storm water (HAR, Chapter 11-55).
  - a. Discharges into Class 2 or Class A State waters can be covered under an NPDES general permit only if all of the NPDES general permit requirements are met. Please see the DOH-CWB website (<a href="http://health.hawaii.gov/cwb/">http://health.hawaii.gov/cwb/</a>) for the NPDES general permits and instructions to request coverage.

- b. All other discharges into State surface waters and discharges into Class 1 or Class AA State waters require an NPDES individual permit. To request NPDES individual permit coverage, please see the DOH-CWB forms website located at: <a href="http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms/">http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms/</a>
- c. NPDES permit coverage for storm water associated with construction activities is required if your project will result in the disturbance of one (1) acre or more of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. NPDES permit coverage is required before the start of the construction activities.
  - Land disturbance includes, but is not limited to clearing, grading, grubbing, uprooting of vegetation, demolition (even if leaving foundation slab), staging, stockpiling, excavation into pavement areas which go down to the base course, and storage areas (including areas on the roadway to park equipment if these areas are blocked off from public usage, grassed areas, or bare ground).
- If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.
  - Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.
- 4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
- 5. For information regarding potential impacts on traditional and cultural practices and beliefs of any cultural or ethnic groups, it is recommended that you contact the Office of Hawaiian Affairs or the Department of Land and Natural Resources, State Historic Preservation Division for comments on the proposed project.

If you have any questions, please visit our website at: <a href="http://health.hawaii.gov/cwb">http://health.hawaii.gov/cwb</a>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF

Clean Water Branch

CTM:bk

c: Mr. Chuck Larson, Seagull Schools

[via e-mail chuck@seagullschools.com only]

Mr. Taeyong Kim, Environmental Communications, Inc. [via e-mail tkim@environcom.com only]

December 23, 2014

Mr. Alec Wong, Chief Clean Water Branch Department of Health P.O. Box 3378 Honolulu, Hawaii 96801-3378

Subject:

**Draft Environmental Assessment** 

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Wong,

Thank you for your comments of November 25 regarding the subject project. We have reviewed your branch's comments and offer the following:

- 1. We understand that the potential impacts to State waters must meet the criteria established in HAR, Sections 11-54- 1.1, 3, and 4 through 8. It is not anticipated that the proposed action will have significant impact on any State waters.
- 2. We understand that a National Pollutant Discharge Elimination System (NPDES) permit is required for pollutant discharges into State surface waters. The proposed action is not expected to have any State surface waters and is also less than one acre in size.
- 3. The proposed action will not involve any work in, over, or under waters of the United States. No Army Corps of Engineers permits are required for this project.
- 4. We understand that any construction activity must comply with the State's Water Quality Standards. The proposed action will be constructed in compliance with these standards.
- 5. The Office of Hawaiian Affairs and Department of Land and Natural Resources have been included in the review process.

We stand advised of the Department of Health Clean Water Branch's comments and thank you for your participation in the environmental review process.

Sincerely.

Taeyong Kim

Environmental Communications, Inc.



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

File

EPO 14-241

November 14, 2014

Mr Daniel Simonich Hawaii Community Development Authority 461 Cooke Street, Honolulu, HI 96813 Via email: Daniel.P.Simonich@HCDAweb.org

Mr. Taeyong Kim
Environmental Communications, Inc.
P.O. Box 236097, Honolulu, HI 96813
Via email: tkim@environcom.com

Dear Mr. Simonich and Mr. Kim:

### SUBJECT: DEA Kakaako First School, Seagull Schools

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your project through the letter and copy of EA we received on November 10<sup>th</sup>, 2014 and the Office of Environmental Quality Control's October 23rd, 2014 "Environmental Notice". Thank you for allowing us to review and comment on the proposed school in Kakaako. The document was routed to relevant offices and branches for their more detailed review. They will provide specific comments to you if necessary. EPO recommends that you review the standard comments at: <a href="http://health.hawaii.gov/epo/home/landuse-planning-review-program/">http://health.hawaii.gov/epo/home/landuse-planning-review-program/</a>. You are required to adhere to all applicable standard comments.

The EPO has some concerns regarding the project site being located on fill land from the site's former use as a sanitary landfill as well as the site's very close proximity to the shoreline. EPO strongly recommends that you review the U.S. Environmental Protection Agency School Siting Guidelines, available to view, download and print at: <a href="http://www.epa.gov/schools/guidelinestools/siting/download.html">http://www.epa.gov/schools/guidelinestools/siting/download.html</a>

EPO suggests that you examine the many sources available on strategies to support the sustainable and healthy siting and design of communities and buildings, including the:

- 2014 Climate Change Impacts in Hawaii: <a href="http://seagrant.soest.hawaii.edu/sites/seagrant.soest.hawaii.edu/files/publications/smfinal-hawaiiclimatechange.pdf">http://seagrant.soest.hawaii.edu/sites/seagrant.soest.hawaii.edu/files/publications/smfinal-hawaiiclimatechange.pdf</a>
- 2014 National Climate Change Report Highlights for Hawaii: http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap29 FGDall.pdf;
- U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability;
- U.S. Green Building Council's LEED program: www.usgbc.org/leed;
- Smart Growth America: www.smartgrowthamerica.org; and
- International Well Building Standard: http://delosliving.com

We request you share all of this information with others to increase community awareness on safe sustainable, innovative, inspirational, and healthy community design.

We encourage you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: <a href="https://eba-cloud.doh.hawaii.gov">https://eba-cloud.doh.hawaii.gov</a>

Mahalo nui loa.

Laura Leialoha Phillips McIntyre, AICP

Program Manager, Environmental Planning Office

December 23, 2014

Ms. Laura Leialoha Phillips McIntyre Program Manager, Environmental Planning Office Department of Health P.O. Box 3378 Honolulu, Hawaii 96801-3378

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Ms. McIntyre,

Thank you for your comments of November 14 regarding the subject project. We have reviewed your branch's comments and offer the following:

- 1. We understand your concerns regarding historic uses occurring within the project vicinity. An environmental site assessment is presently being conducted for the site and preliminary findings indicate that the site is not located above any hazardous materials. We are advised that extra diligence is required for any activities occurring in the area we thank you for your recommended guidelines.
- 2. Thank you for your references regarding strategies to support sustainable design. We have taken these references in advisement and will incorporate sustainability methods where practicable.
- 3. Thank you again for your reference to the Hawaii Environmental Health Portal.

We appreciate your comments and thank you for your participation in the environmental review process.

Sincerely,

Taeyong Kim

Environmental Communications, Inc.

DAVID Y, IGE GOVERNOR OF HAWAI





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

POST OFFICE BOX 621 HONOLULU, HAWAII 96809 WILLIAM J, AILA, JR. CHARPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI

WILLIAM M, TAM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOAING AND OCTION RECREATION
BUREAU OF CONSTRAINES
COMMISSION ON WATHER RESOURCE IMANAGEMENT
CONSERVATION AND RESOURCE E INFORCEMENT
ENGINE RING
FORESTRY AND WILD HELL
HISTORY PRESERVATION
KAHOOLAWE ESLAND RESERVE! COMMISSION
LAND
STATIF PARKS

December 17, 2014

Hawaii Community Development Authority Attn: Mr. Daniel Simonich 461 Cooke Street Honolulu, HI 96813

Environmental Communications, Inc.

Attn: Mr. Taeyong Kim P. O. Box 236097 Honolulu, HI 96823

via email: tkim@environcom.com

via email: Daniel.P.Simonich@hcdaweb.org

Dear Ms. Simonich and Mr. Kim:

SUBJECT: Draft Environmental Assessment, Kakaako First School

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments sent to you dated December 8, 2014, enclosed are additional comments from the Commission on Water Resource Management on the subject matter. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Sincerel

Russell Y. Tsuji Land Administrator

**Enclosures** 



WILLIAM J. AH.A., JR. U-BARDINSON BOARD OF LANEAND NATURAL RESIDIRE'S COMMISSION ON WATER RESIDERED MANAGEMENT



LOCATION:

# STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

November 19, 2014

**MEMORANDUM** 

# DLNR Agencies: \_\_Div. of Aquatic Resources \_\_Div. of Boating & Ocean Recreation X Engineering Division X Div. of Forestry & Wildlife \_\_Div. of State Parks X Commission on Water Resource Management X Office of Conservation & Coastal Lands X Land Division Oahu District

X Historic Preservation

Russell Y. Tsuji, Land Administrator

SUBJECT: Draft Environmental Assessment, Kakaako

Draft Environmental Assessment, Kakaako First School
"The project is located at northwestern boundary of Ka

"The project is located at northwestern boundary of Kakaako Waterfront Park in Kakaako, Honolulu, Hawaii. The park address is 709 Kelikoi Street." Tax Map Key: 2-1-060: portion

of 008

APPLICANT: Seagull Schools by agent Environmental Communications, Inc.

Transmitted for your review and comment on the above-referenced document. The document can be found here:

- 1. Go to: https://sp01.ld.dlnr.hawaii.gov/LD
- 2. Login: Username: LD\Visitor Password: 0pa\$\$word0 (first and last characters are zeros)
- 3. Click on: Requests for Comments
- 4. Click on the subject file "Draft Environmental Assessment, Kakaako First School" then click on "Files" and "Download a copy". ". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or Jonathan. C. Real@hawaii.gov)

We would appreciate your comments on this document. Please submit any comments by December 5, 2014. 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 Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

questions about this request, please contact Supervisi	ıng .	Lanc	Agent Steve Molmen at (8	308) 587-0439.	Thank y
Attachments					
	(	)	We have no objections. We have no comments.	/7	

Signed: WILLIAM M. TAM, Deputy Director
Date: December 17, 2014

Comments are attached

FILE ID: RFD. 40923 DOCID: 11886. David Y. Ige



WILLIAM J. AILA, JR.

DENISE ANTOLINI KAMANA BEAMER MICHAEL G. BUCK MILTON D. PAVAO JONATHAN STARR

WILLIAM M. TAM

REF: RFD.4092.3

## STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

P.O. BOX 621 HONOLULU, HAWAII 96809

December 17, 2014

TO: Russell Tsuji, Administrator Land Division William M. Tam, Deputy Director FROM: Commission on Water Resource Management SUBJECT: Draft Environmental Assessment, Kakaako First School, Honolulu FILE NO .: TMK NO.: 2-1-060:portion of 008 Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <a href="http://www.hawaii.gov/dlnr/cwrm">http://www.hawaii.gov/dlnr/cwrm</a>. Our comments related to water resources are checked off below. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information. 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <a href="http://www.usgbc.org/leed">http://www.usgbc.org/leed</a>. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <a href="http://hawaii.gov/dbedt/czm/initiative/lid.php">http://hawaii.gov/dbedt/czm/initiative/lid.php</a>.

7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses

that strive to operate in an environmentally and socially responsible manner. The program description can be

6. We recommend the use of alternative water sources, wherever practicable.

found online at http://energy.hawaii.gov/green-business-program

Pag	e 2	Tsuji, Administrator per 17, 2014
	8.	We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at <a href="http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf">http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf</a>
	9.	There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
		required by CWRM:
Add		al information and forms are available at <a href="http://hawaii.gov/dlnr/cwrm/info_permits.htm">http://hawaii.gov/dlnr/cwrm/info_permits.htm</a> .  The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
	11.	A Well Construction Permit(s) is (are) required before any well construction work begins.
	12.	A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
	13.	There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
	14.	Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
	15.	A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
	16.	A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
	17.	A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
	18.	The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
$\boxtimes$		HER:
	used	DEA should include a discussion of the water requirements for the project, both potable and non-potable, and the calculations to derive the projected water needs; water conservation and efficiency measures that will be implemented; any alternative ces of water that may be available to meet nonpotable needs; and BMPs for stormwater management.
	to m Com restr	Commission strongly encourages the proposed implementation of water conservation measures, best management practices itigate stormwater runoff, and the reuse of stormwater and other alternative non-potable sources, where practicable. The impossion has published a Water Conservation Manual for State of Hawaii Facilities (2007) that lists conservation measures for come and shower facilities; kitchens, cafeterias, and staff rooms; and landscaping. A listing of fixtures certified by the EPA as and high water efficiency can be found at <a href="http://www.epa.gov/watersense/products/index.html">http://www.epa.gov/watersense/products/index.html</a>
		Commission has also published a Handbook for Stormwater Reclamation and Reuse Best Management Practices in Hawaii 8). Please visit the Commission's website at http://hawaii.gov/dlnr/cwrm to view or download a copy of these documents
	for th	Commission encourages the use of xeriscaping or drught-tolerant plantings. To help you select the type of plants appropriate ne climate in your area, visit the Board of Water Supply's website at //www.boardofwatersupply.com/cssweb/display.cfm?sid=1360.
		also recommend following the Landscape Industry Council of Hawaii's irrigation water conservation best practices (see page of Hawaii Water Conservation Plan located at http://files.hawaii.gov/dlnr/cwrm/planning/hwcp2013.pdf).

If there are any questions, please contact Lenore Ohye at 587-0216.

Environmental Communications, Inc.

April 30, 2015

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

Subject: Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Tsuji,

Thank you for your comments of December 8, 2014 regarding the subject project. We have reviewed your agency's comments and offer the following:

### 1. Land Division, Oahu District

We understand that the Land Division does not have any comments regarding the Draft EA for the project.

### 2. <u>Engineering Division</u>

Thank you for confirming that the project is in Flood Zone AE.

Water demand and infrastructure requirements will be determined as the project completes the design phase. This information will be conveyed to the DLNR Engineering Division to be included in the State Water Projects Plan Update.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim Environmental Communications, Inc.



HAWAII COMMUNITY DEVELOPMENT AUTHORITY



David Y. Ige Governor

Brian Lee Chairperson

Anthony J. H. Ching Executive Director

461 Cooke Street Honolulu, Hawaii 96813

Telephone (808) 594-0300

Facsimile (808) 594-0299

E-Mail contact@hcdaweb.org

Web site www.hcdaweb.org Ref. No.: DEV DP 2.81

December 3, 2014

Mr. Taeyoung Kim Environmental Communications, Inc. P. O. Box 236097 Honolulu, Hawaii 96813

Dear Mr. Kim:

Re: Draft Environmental Assessment, Proposed Development of Kakaako First School, Tax Map Key: 2-1-060: 008 Por., 709 Kelikoi Street

The Hawaii Community Development Authority ("HCDA"), which for the purposes of Chapter 343, Hawaii Revised Statutes ("HRS"), is the accepting agency for the Environmental Assessment for the proposed development of the Kakaako First School project, would like to offer the following clarifying comments.

While the HCDA has yet to formally receive plan drawings or project information as part of submittal for development permit application, certain basic information about the project has become known through early discussions with the Applicant as well as review of the submitted Draft Environmental Assessment. So, even though a thorough review of the proposed project has not been completed by HCDA staff, there is a need to address general issues of conformance with the applicable Makai Area Plan and Makai Area Rules.

The project, which is proposed to be located on a portion of the Kakaako Waterfront Park will require developing approximately 10,000 square feet of new floor area in addition to renovation of the existing maintenance building. The Makai Area Plan does not specifically assign a maximum floor area ratio ("FAR") for the project site parcel (Figure IV-1); however, §15-23-80 of the Makai Area Rules does provide for joint development of two or more adjacent lots. Accordingly, the proposed project site will need to be considered and treated as one development lot with the adjacent park parcel of approximately 199,069 square feet (4.57acres) which has an assigned maximum FAR of 0.10. Section 15-23-80 of the Makai Area Rules also provides that an agreement shall be made for joint development which assures future protection of the public interest and is

Mr. Taeyoung Kim Page Two December 3, 2014

consistent with the intent of the Makai Area Plan and which agreement shall be part of the conditions of development and filed as a covenant running with the land.

The project, which proposes developing classroom facilities for use as an early education center, is not an explicitly listed in the Makai Area Rules as a permitted use in designated "Park" areas; however, §15-23-40 of the Makai Area Rules provides that the Authority may allow other uses and structures in Park areas which further the purpose and intent of the Makai Area Plan.

The project will be required by §§6E-42 and §6E-43, HRS, and Chapter 13-284, Hawaii Administrative Rules ("HAR"), to follow any necessary historic preservation review. The HCDA plans to correspond with the State Historic Preservation Division on offering an opinion that the proposed project will have no effect with regards to the historical review.

Once the Final Environmental Assessment has concluded in a Finding of No Significant Impact (FONSI), HCDA staff will review a complete development permit application and prepare for the project to be considered at public hearings, in accordance with Act 61, Session Laws of Hawaii 2014, Subchapter 3 HAR, Chapter 15-219, and HAR Chapter 15-23, before the Authority makes a determination on the development permit application.

Should you have any questions or concerns regarding this project, please contact Mr. Daniel Simonich at 594-0300.

Sincerely,

Anthony J. H. Q

Executive Directo

AJHC/DN/DS:ak

December 23, 2014

Mr. Anthony J. H. Ching Executive Director Hawaii Community Development Authority 461 Cooke Street Honolulu, Hawaii 96813

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Ching,

Thank you for your comments of December 3, 2014 regarding the subject project. We have reviewed your agency's comments and offer the following:

- 1. We understand that the project site and the Kakaako Waterfront Park will be considered as a joint development for the purposes of establishing a maximum floor area under the Makai Area Rules.
- 2. We concur that the proposed action supports the purpose and intent of the Makai Area Plan, particularly in the area of education.
- 3. Thank you for your assistance in obtaining a review from the State Historic Division.

We appreciate your comments and assistance through the environmental review process.

Sincerely,

Taeyong Kim

Environmental Communications, Inc.

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

November 26, 2014

ROSS M. HIGASHI INTERIM DIRECTOR

Deputy Directors
JEFFREY CHANG
RANDY GRUNE
AUDREY HIDANO
JADINE URASAKI

IN REPLY REFER TO: STP 8.1720

Mr. Daniel Simonich Hawaii Community Development Authority 461 Cooke Street Honolulu, Hawaii 96813

Dear Mr. Simonich:

Subject: Kakaako First School

Draft Environmental Assessment (DEA)

Kakaako, Honolulu, Oahu TMK: (1) 2-1-060:008 (por.)

Our Department of Transportation's (DOT) comments on the subject project are as follows:

### **Airports Division**

The DOT Airports Division is still conducting its review and has not yet provided comments. The Statewide Transportation Planning Office will inform you of any further DOT comments once received

### **Highways Division**

- 1. No traffic assessment (TA) was prepared for the DEA and the treatment of potential trips by the school was not satisfactorily handled in the DEA.
- 2. Given the expected nature of the student population and the relative lack of nearby housing, the DOT anticipates that substantially all the students will be dropped off and picked up from the school. A TA is needed to evaluate and document the possible impact that this school would have on Ala Moana Boulevard intersections and proposed improvements, if needed.
- 3. The requested TA shall be prepared and submitted to our Highways Division for review and acceptance.

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Sincerely,

ROSS M. HIGASHI

Interim Director of Transportation

c: Taeyong Kim, Environmental Communications, Inc.

December 23, 2014

Mr. Ross M. Higashi Interim Director of Transportation Department of Transportation 869 Punchbowl Street Honolulu, Hawaii 96813-5097

Subject:

**Draft Environmental Assessment** 

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Higashi,

Thank you for your comments of November 26, 2014 regarding the subject project. We have reviewed the Highway Divisions comments and understand that a traffic assessment should be conducted for the project. The applicant has retained a traffic consultant that is presently in the process of conducting the requested study. Upon its completion, the study will be submitted to the Highways Division for review and acceptance.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

Environmental Communications, Inc.



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

IN REPLY REFER TO:

STP 8.1722

December 5, 2014

Mr. Daniel Simonich Hawaii Community Development Authority 461 Cooke Street Honolulu, Hawaii 96813

Dear Mr. Simonich:

Subject: Kakaako First School

Draft Environmental Assessment (DEA)

Kakaako, Honolulu, Oahu TMK: (1) 2-1-060:008 (por.)

Our State Department of Transportation (DOT) previously commented on the subject project in our letter STP 8.1720 dated November 26, 2014 (see attached) and now offers the following supplemental comments:

### Airports Division

- 1. The proposed site of the Kakaako First School campus is located within the 70-65 day-night average sound level (DNL) noise contour on the Honolulu International Airport 5-Year (2008) Noise Exposure Map (see attached). The proposed buildings will be subject to noise from aircraft arriving and departing Honolulu International Airport; therefore, we highly recommend the classroom buildings be sound attenuated to an interior noise level of 45 DNL due to its noise sensitive use.
- 2. Additionally, the developer should be aware that photovoltaic (PV) systems, located in or near the approach path of aircraft into an airport, can create a hazardous condition for a pilot due to possible glint and glare reflected from the PV array. The following website may assist with preparation of a glint and glare analysis: wwlw.sandia.gov/glare
- 3. If glint or glare from the PV array creates a hazardous condition for pilots, Kakaako First School must be prepared to immediately mitigate the hazard, upon notification by the Department of Transportation, Airports Division or the Federal Aviation Administration (FAA).

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

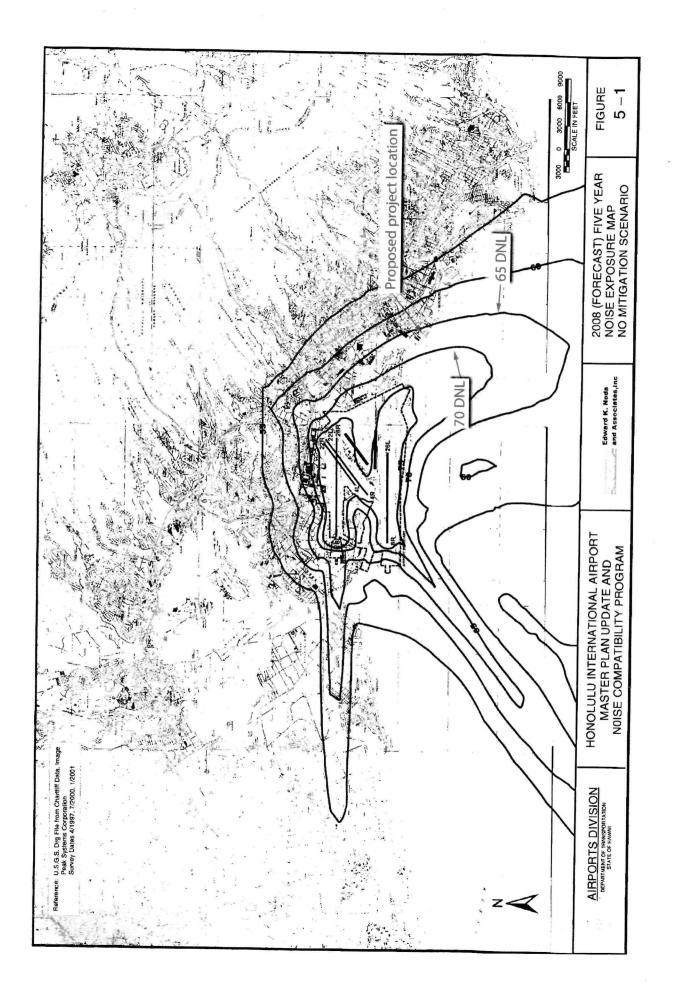
Sincerely,

FORD N. FUCHIGAMI

Interim Director of Transportation

Attachment: 5-Year Noise Exposure Map

c: Taeyong Kim, Environmental Communications, Inc.



December 23, 2014

Mr. Ford N. Fuchigami Interim Director Department of Transportation 869 Punchbowl Street Honolulu, Hawaii 96813-5097

Subject:

**Draft Environmental Assessment** 

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Fuchigami,

Thank you for your comments of December 5, 2014 regarding the subject project. We have reviewed your agency's comments and offer the following:

- 1. Thank you for the information regarding the day-night sound average level based on the Honolulu International Airport 2008 Noise Exposure Map. We stand advised and will pass this information on to the project architect for appropriate action during the design process.
- 2. A photovoltaic system is not presently a part of the project design. This does not preclude the possibility of a future installation however we stand advised regarding glint and glare and will refer to your recommended citation.
- 3. We understand that if a hazardous condition is created by the installation of a PV system in the future, immediate mitigation will be required.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

Environmental Communications, Inc.

PHONE (808) 594-1888



20 FAX (808) 594-1865 20 FAX (808) 594-1865 PM 3 15 CARALL GOLLECTOR AUTHORITY AUTHORITY

HRD14/7314

December 15, 2014

Environmental Communications, Inc. Attn: Mr. Taeyoung Kim P.O. Box 236097 Honolulu, HI 96823

Re:

Draft Environmental Assessment Kakaako First School

Honolulu Ahupua'a, Kona Moku

TMK (1) 2-1-060:008

Aloha Mr. Kim:

The Office of Hawaiian Affairs (OHA) is in receipt of your letter dated November 19, 2014, requesting comments on the draft environmental assessment (DEA) for Kakaako First School. We apologize for the delay in responding, as there was a delay in receiving the DEA because it was mailed to our previous address at 711 Kapi'olani Boulevard. Please change your records to have future OHA correspondence sent to 560 North Nimitz Highway, Suite 200, Honolulu, HI 96817.

OHA is aware that the Kakaako First School will be built on Kaka'ako Makai fill land, as described in the DEA geographical characteristics soils section. The DEA further describes the fill as "material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources." Based on our own due diligence efforts, OHA has significant concerns with regard to the fill and its potential health effects, particularly when disturbed by construction activities. This concern is heightened given that Kakaako First School will be providing daily care for children as young as infants.

<sup>2</sup> Id.

<sup>&</sup>lt;sup>1</sup> DEA Kakaako First School 3.3.1 Geological characteristics (October 24, 2014).

Taeyoung Kim December 15, 2014 Page 2

Accordingly, OHA strongly urges that the applicant inform the State of Hawai'i Department of Health of its plans and consult on the appropriate implementation of the planned use.

Thank you the opportunity to submit comments. Should you have any questions, please contact Jeannin Jeremiah at 594-1790 or by email at jeanninj@oha.org.

'O wau iho nō me ka 'oia 'i'o,

Kamana'opono M. Crabbe, Ph.D.

Ka Pouhana, Chief Executive Officer

KC:jj

√C: Mr. Daniel Simonich, Hawaii Community Development Authority

Environmental Communications, Inc.

April 30, 2015

Mr. Kamanaopono M. Crabbe, Ph.D. Chief Executive Officer
Office of Hawaiian Affairs
560 North Nimitz Highway, Suite 200
Honolulu, Hawaii 96817

Subject: Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Crabbe,

Thank you for your comments of December 15, 2014 regarding the subject project. We have reviewed your office's comments and offer the following:

- 1. We understand your concern regarding the former use of the project site and its associated potential impacts. A Phase I Environmental Site Assessment has been conducted for the site and this study is not included in the Final Environmental Assessment document.
- 2. We have been in contact with the Department of Health Hazard Evaluation and Emergency Response (HEER) Office. The Phase I report was developed in consultation with the agency and we will continue to maintain coordination with HEER as the project develops.

Thank you for your participation in the environmental review process. Your comments are greatly appreciated.

Sincerely,

Taeyong Kim Environmental Communications, Inc.



### OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813

Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

**NEIL ABERCROMBIE** 

LEO R. ASUNCION ACTING DIRECTOR OFFICE OF PLANNING

Telephone:

(808) 587-2846

(808) 587-2824 http://planning.hawaii.gov/ Web:

Ref. No. P-14583

November 26, 2014

Mr. Taeyong Kim Environmental Communications, Inc. P.O. Box 236097 Honolulu, Hawaii 96823

Dear Mr. Kim:

Subject:

Draft Environmental Assessment for Kakaako First School, Makai Area of the

Kakaako Community Development District (CDD), Honolulu, Hawaii; Tax Map Key:

(1) 2-1-060: 008 (por.)

We are in receipt of your review request, received November 10, 2014, on the Draft Environmental Assessment (EA) associated with the proposed school project in the Kakaako Makai Area, Honolulu.

According to the Draft EA, the proposed project will construct a new classroom building, and a new two-story administration and classroom building within Kakaako Waterfront Park. The school area will be secured by a fence. The proposed school is anticipated to serve 220 preschool through 3rd grade aged children and approximately 30 staff.

The Office of Planning (OP) has reviewed the Draft EA, and has the following comments to offer.

- The Final EA should provide appropriate assessments, information, data and/or references to support the following statements, pages 35 to 41 of the Draft EA:
  - 1) The project is consistent with surrounding land uses and the intent of the prevailing Makai Area Plan.
  - 2) Parking during the hours of the proposed operation is readily available. The existing parking lot will be minimally impacted by the proposed school operations.
  - 3) Recreational uses on the surrounding Kakaako Waterfront Park will not be affected.
  - 4) Construction of the school will result in the long-term loss of the area for other uses but this is largely off-set by the education and services provided by the preschool operation.
  - 5) The project will not have any impact on an environmentally sensitive area.

- 6) Impacts associated with the proposed project have generally been determined to be negligible.
- The project area is zoned as park under Hawaii Administrative Rules (HAR) Chapter 15-23, Kakaako CDD Rules for the Makai Area. The Final EA should assess the compatibility of the proposed school with the land use zones, land use plan and policies, in accordance with the Makai Area Plan 2005 and Kakaako Makai Conceptual Master Plan Final Report 2011 as well.
- 3. Kakaako Waterfront Park was constructed in the late 1980s from a former landfill. Due to the potentially hazardous material in the mounds, the entire site was sealed over with a heavy neoprene mat and covered with several feet of new soil and planted with grass. The applicant should consult with the Hazard Evaluation and Emergency Response (HEER) Office, State Department of Health (DOH), and assess the potential risk of hazardous material imposed to human health, and to the Park area as a result of the proposed construction, use and operation.
- 4. The Final EA should assess cumulative impact which may result from the incremental impact of the subject proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.
- 5. The proposed school is located within the oceanfront park. The Final EA should assess the site-specific risk of coastal hazards including tsunami and storm waves, and consider the climate change adaptation priority guidelines set forth in Hawaii Revised Statutes (HRS) § 226-109, to reduce hazard to life and property from coastal hazards.
- 6. Given the location of the proposed school, the Final EA should assess the ingress and egress effects of vehicle traffic, and the impacts on park users parking, generated from the proposed action on public access to the ocean and the adjacent parks. The Final EA should propose site-specific mitigation measures to ensure that public access, including park users parking, to the ocean and the adjacent parks will not be affected.
- 7. HRS Chapter 205A requires all State and county agencies to enforce the coastal zone management (CZM) objectives and policies. The Final EA should include an assessment as to how the proposed action conforms to the CZM objectives and its supporting policies set forth in HRS § 205A-2. The assessment on compliance with HRS Chapter 205A is an important component for satisfying the requirements of HRS Chapter 343 and obtaining a special management area (SMA) use approval.
- 8. The SMA permit was established in 1975 with the enactment of Act 176, when the legislature found that special controls on developments within an area along the shoreline are necessary to avoid permanent losses of valuable resources and the foreclosure of management options, and to ensure that adequate access, by dedication or other means, to public owned or used beaches, recreation areas, and natural reserves is provided. When

consistency with the CZM objectives and policies, and the SMA guidelines cannot be achieved by a proposed development, the SMA permit would be denied, and the proposed development within the SMA would not be allowed pursuant to HRS § 205A-28.

- 9. Pursuant to HRS § 206E-8.5, all requests for developments within an SMA and shoreline setback variances for developments within a community development district, for which a community development plan has been developed and approved in accordance with HRS § 206E-5, shall be submitted to and reviewed by the OP. Please consult with our office and refer to HAR Chapter 15-150 for the requirements of SMA use.
- 10. Page 42, the OP was on the list of parties to be consulted prior to publication of the Draft EA for their early comments regarding the proposed project. However, our office was neither contacted by the applicant nor by its consultant prior to November 8, 2014, the date of publication of the subject Draft EA under *The Environmental Notice*, the Office of Environmental Quality Control (OEQC).
- 11. Page 44, Appendix A, Cultural Resources, is not included. The Final EA should include Appendix A as listed.
- 12. The Final EA should replace and/or revise <u>Figure 2 to Figure 10</u> of the Draft EA. These Figures are in a low resolution and unclear.

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

Sincerely,

Leo R. Asuncion Acting Director

c: Mr. Anthony J.H. Ching, HCDA

Ms. Melody Calisay, HEER Office, DOH

Mr. Herman Tuiolosega, OEQC

April 30, 2015

Mr. Leo R. Asuncion Acting Director' Office of Planning P.O. Box 2359 Honolulu, Hawaii 96804

Subject: Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Asuncion,

Thank you for your comments of November 26, 2014 regarding the subject project. We have reviewed your agency's comments and offer the following:

1. The Kakaako First School project is considered consistent with the educational associated with the University of Hawaii School of Medicine uses found immediately mauka of the project site as well as the not for profit Children's Discovery Center located across the Kakaako Gateway Park. As stated in the Makai Area Plan Section 1.6:

The overall vision for the Makai Area is to create an active, vibrant area through a variety of new developments, including an expansive waterfront park, maritime uses along the harbor, restaurants, markets and entertainment along Kewalo Basin, a children's museum, <u>educational</u> (emphasis added) and research facilities, residential and commercial developments.

Parking impacts resulting from implementation of the school is assessed in a recently completed traffic management plan that is included in the Final Environmental Assessment. The projected parking demand is less than 10% of the parking lot capacity and can be readily accommodated according to the plan.

The recreational resources of the Kakaako Waterfront Park will not be impacted because the school is located on a portion of the park that was never available for recreational use as the site was used for storage and maintenance vehicles.

As stated in the Draft Environmental Assessment, the project site is the location of a former maintenance building and parking area. The area is essentially devoid of significant flora and fauna with the exception of some large trees that will be incorporated into the project plan.

The project will continue to be subject to further review as planning and design progresses and applicable permitting agencies become involved. At the present time, the most significant comments regarding the project are limited to a thorough assessment of traffic impacts and an assessment of the underlying soil conditions. Both of these concerns are presently under further investigation by technical consultants and these results will be passed on to the applicable reviewing agencies.

- 2. While the proposed pre-school use is not specifically addressed in the Makai Area Plans, discussion with the Hawaii Community Development Authority indicate that the use is generally consistent with the educational component of the park's intended use. The general statement providing for such use is included in the previous response.
- 3. We understand that portions of the Kakaako Waterfront were constructed over a former landfill. An Environmental Site Assessment has been conducted for the project site and is now included in the Final Environmental Assessment. We are in coordination with the Department of Health Hazard Evaluation and Emergency Response Office and will continue to do so as the planning and design of the project proceeds.
- 4. The Environmental Assessment provides for past, present and near term future events specific to the project site but it should be noted that the programmatic Environmental Impact Statement for the Kakaako Makai Area provides a more comprehensive picture of the impacts of development within the district.
- 5. Coastal hazard impact is expected to be minimal and it was verified by the Department of Planning and Permitting that the proposed project is located in Flood Zone X, an area of undetermined flood hazard which indicates that the site is essentially not a risk area. The Kakaako Waterfront Park site is very large and the school site is located over 600 feet from the hardend shoreline.
- 6. We concur that further assessment of traffic and parking conditions are warranted therefore a traffic impact assessment and traffic management plan have been conducted and are included in the Final Environmental Assessment. This consolidated study finds that the project will increase traffic in the area but will not result in any significant decrease in the level of service in the surrounding intersections nor will the project create demand for parking that will adversely affect parking for the general public.
- 7.-9. The Final EA includes an expanded narrative regarding the coastal zone management assessment. The project will submit a formal special management area use permit application after a development permit is obtained for the project.

Environmental Communications, Inc.

- 10. We apologize for the typographical error at the heading of page 42. The heading should have read "List of Parties to be Consulted During the Draft Environmental Assessment". This will be corrected in the FEA.
- 11. We apologize for this omission. The study is printed in its entirety in the historic section of the DEA but we will also include this in the FEA appendix.
- 12. We will make an effort to improve the quality of the graphics of the Final Environmental Assessment.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim Environmental Communications, Inc.

# DEPARTMENT OF COMMUNITY SERVICES CITY AND COUNTY OF HONOLULU

715 SOUTH KING STREET, SUITE 311 ● HONOLULU, HAWAII 96813 ● AREA CODE 808 ● PHONE: 768-7762 ● FAX: 768-7792

RESEIVED

KIRK CALDWELL MAYOR



2014 DEC 22 PM 3 15
GARY K. NAKATA
ACTING DIRECTOR
AUTHORITY

December 16, 2014

Mr. Taeyong Kim
Environmental Communications, Inc.
P.O. Box 236097
Honolulu, Hawaii 96823

Dear Mr. Kim:

SUBJECT: Chapter 343, HRS and 11-200, HAR

**Draft Environmental Assessment** 

Kakaako First School, TMK: 2-1-060:008 (por.) 709 Kelikoi Street, Honolulu, Oahu, Hawaii

We have reviewed your letter dated December 4, 2014, and the enclosed Draft Environmental Assessment for the Kakaako First School Project located at 709 Kelikoi Street, Honolulu, Oahu.

Our review of the documents indicates that the proposed project will have no adverse impacts on any Department of Community Services' activities or projects at this time.

Thank you for providing us with the opportunity to comment on this matter.

Sincerely,

Gary K. Nakata Acting Director

GKN:sgk

cc: Daniel Simonich, Hawaii Community Development Authority

Environmental Communications, Inc.

April 30, 2015

Mr. Gary K. Nakata Director Department of Community Services 715 South King Street, Suite 311 Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Nakata,

Thank you for your comments of December 16, 2014 regarding the subject project. We understand that the proposed project is not expected to have any adverse impact on the Department of Community Services' activities or projects.

Thank you for your participation in the environmental review process. Your comments are greatly appreciated.

Sincerely,

Taeyong Kim Environmental Communications, Inc.

### DEPARTMENT OF ENVIRONMENTAL SERVICES CITY AND COUNTY OF HONOLULU

REGEIVED

1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3486 • FAX: (808) 768-3487 • WEBSITE: http://envhonolulu.org

KIRK CALDWELL MAYOR



December 11, 2014

HAVALL COMMUNITY

DIRECTOR
AUTHORITY
TIMOTHY A. HOUGHTON
DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E. DEPUTY DIRECTOR

> IN REPLY REFER TO PRO 14-194

Mr. Daniel Simonich Hawaii Community Development Authority 461 Cooke Street Honolulu, Hawaii 96813

Dear Mr. Simonich:

SUBJECT: Draft Environmental Assessment

Kakaako First School

We have reviewed the subject document as transmitted to us by the letter from Environmental Communications, Inc. received by our office on November 13, 2014. The Department of Planning and Permitting (DPP), Wastewater Branch has the lead role in issuing sewer connection permits. We have no other comments or objections to the proposed project at this time.

Should you have any questions, please call Lisa Kimura, Civil Engineer, at 768-3455.

Sincerely,

Director

December 23, 2014

Ms. Lori M. K. Kahikina Director Department of Environmental Services 1000 Uluohia Street, Suite 308 Kapolei, Hawaii 96707

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Ms. Kahikina,

Thank you for your comments of December 11, 2014 regarding the subject project. We understand that the Department of Planning and Permitting Wastewater Branch has the lead role in issuing sewer connection permits. Thank you for this information.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

Environmental Communications, Inc.

#### DEPARTMENT OF PLANNING AND PERMITTING

#### CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813 PHONE: (808) 768-8000 • FAX: (808) 768-6041

DEPT. WEB SITE: <a href="www.honoluludpp.org">www.honoluludpp.org</a> • CITY WEB SITE: <a href="www.honolulu.gov">www.honolulu.gov</a>

KIRK CALDWELL MAYOR



GEORGE I. ATTA, FAICP DIRECTOR

ARTHUR D. CHALLACOMBE DEPUTY DIRECTOR

2014/ELOG-2157 (as)

December 8, 2014

Mr. Taeyong Kim Environmental Communications, Inc. P.O. Box 236097 Honolulu, Hawaii 96823

Dear Mr. Kim:

We have reviewed the Draft Environmental Assessment (DEA) for the Kakaako First School and offer the following comments:

- 1. The Environmental Assessment should include a discussion on how the proposed project is consistent with the City and County of Honolulu's General Plan and the Primary Urban Center.
- 2. Given that the location of the Kakaako First School is several blocks away from residential development in Kakaako and bus transit stops, the Final Environmental Assessment should specifically address the experience of pedestrians walking to the site. To be consistent with the Makai Area Plan's policy of an "outstanding pedestrian environment," continuous sidewalks should be in place and clear pedestrian paths identified through abutting parking lots.
  - Additionally, the Makai Area Plan recommends public art as a way to enliven the area and create a sense of place. The frontage of the Kakaako First School would be an excellent opportunity for colorful art and architecture.
- 3. A Traffic Management Plan (TMP) should be prepared in an effort to minimize the number of vehicles driving to this location. The TMP should propose Traffic Demand Management (TDM) strategies, such as car pooling, ride sharing, etc., for parents and transit and bicycle incentives for employees. The TMP should ensure there is enough parking for parents dropping and picking children up from school so vehicles do not queue onto public streets. This can be achieved by minimizing the average dwell time for each parent. Adequate parking should also be made available for special events being sponsored by the school. The TMP should be prepared prior to the issuance of the (temporary) Certificate of Occupancy and the TDM strategies should be in place when the facility is ready to open.

4. The DEA should include an analysis of the possible impact of sea level rise on the project. If it is likely that sea level rise will increase the risk of flooding during the life of the structure, the DEA should discuss how the design and operation of the project will address that risk and provide resilience in recovering from any flooding.

The Army Corps of Engineers (COE) has issued an Engineering Circular (EC 1165-2-212) which provides guidance on likely ranges of sea level rise through 2100, which they require to be used in evaluating projects in shoreline areas subject to COE review.

Recently, they have provided online tools which can be used to adapt the circular's guidance to reflect historic sea level rise conditions measured at the closest local tidal gauge.

Using the circular as adapted to reflect the local sea level rise rate, the elevation above sea level at the project site, and the estimated life of the structures involved in the project, a determination of whether sea level rise is likely to increase the risk of flooding at the project site during the life of the project structures can be made.

A practical example of how the COE circular and the tidal gauge adjustments can be incorporated into a Honolulu area study is provided by the COE's Ala Wai Canal Study.

For further details on how the Engineering Circular and local tidal gauge information could be used to assess sea level rise risk for a local project, contact Mr. Michael Wong, Chief, Engineering and Construction Technical Branch, COE, Honolulu District (808-835-4138).

- 5. Section 3.3.2 should be corrected to state that only the ewa makai corner of the property, and portions along the shoreline are subject to the 1-percent-annual-chance flood event (Zones AE 7 feet and VE 10 feet). The school project site is in the Zone X, an area determined to be outside the 0.2 percent annual chance floodplain.
- 6. A sewer connection application is required. Sewage capacity reservation is contingent on submittal and approval of a Site Development Division Master Application Form for Sewer Connection. This project may be liable for payment of the Wastewater System Facility Charge.
- 7. On Page 32 (Stormwater Drainage), why would the Department of Environmental Services (DES) review and approve the proposed drainage system? Since the existing drainage system is within the State park, does the State review and approve the proposed realignment?

Mr. Taeyong Kim December 8, 2014 Page 3

8. Under Section 4.0 (Necessary Permits and Approvals), the Department of Planning and Permitting, not DES, issues grading and stockpiling permits.

Thank you for the opportunity to comment on this Draft EA.

Should you have any questions, please contact Adrian Siu-Li of our staff at 768-8031.

Very truly yours,

George I. Atta, FAICP

Director

GIA:bkg 1197109

Mr. George I. Atta, FAICP Director Department of Planning and Permitting 650 South King Street, 7<sup>th</sup> Floor Honolulu, Hawaii 96813

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Atta,

Thank you for your comments of December 8, 2014 regarding the subject project. We Have reviewed your comments and offer the following:

- 1. The Environmental Assessment has been revised to include statement on the proposed project's consistency with the City and County of Honolulu's General Plan and Primary Urban Center.
- 2. Thank you for your comment regarding the pedestrian experience from the project site to the bus transit stops. The project site is located adjacent to the Kakaako Gateway Park which features a pleasant tree-lined walkway that terminates at Ala Moana Boulevard. This two block walk is the most open pedestrian experience in Kakaako and will remain so in the future as the Gateway Park is a central element in the Kakaako Makai Plan. No direct sidewalk from the school campus to the Gateway Park is planned at this time, and any improvement as such would be under the purview of the Hawaii Community Development Authority which is responsible for the Waterfront Park.

We concur that pubic art is a desirable element in creating a sense of place. This will be taken in to consideration during the design process.

- 3. A traffic study is presently being conducted for the proposed project and we will inform the traffic engineering consultant of your department's recommendation.
- 4. Thank you for your information regarding sea level rise assessment. This will be taken in to consideration and if we require any additional information or assistance, we will contact the COE Engineering and Construction Technical Branch.

- 5. Thank you for this clarification. The Environmental Assessment will be revised to state that only the ewa makai corner is located within zone AE and VE.
- 6. We understand that sewage capacity is subject to reservation and approval of sewer connection application. We also understand that this connection may be subject to a payment to the Wastewater System Facility Charge.
- 7. We apologize for this error. You are correct in that the State is responsible for the proposed drainage system. This will be revised in the Environmental Assessment.
- 8. We understand that grading and stockpiling permits are subject to approval by the Department of Planning and Permitting. This will be clarified in the Environmental Assessment.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

### DEPARTMENT OF TRANSPORTATION SERVICES CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR HONOLULU, HAWAII 96813 Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL MAYOR



MICHAEL D. FORMBY

MARK N. GARRITY, AICP DEPUTY DIRECTOR

TP11/14-588008R

December 3, 2014

Mr. Taeyong Kim Planning Consultant Environmental Communications, Inc. P.O. Box 236097 Honolulu, Hawaii 96823

Dear Mr. Kim:

SUBJECT: Draft Environmental Assessment (DEA) for Kakaako First School

Kakaako, Oahu, Hawaii

In response to your DEA submittal for Kakaako First School, we have the following comments:

- The design of the project should be consistent with the City's Complete Streets ordinance and include features to encourage walking, bicycling and use of public transit. Consideration should be given to the connectivity between modes such as the availability and quality of pedestrian and cycling access to transit and facilities.
- 2. On-site bicycle facilities for the project should be anticipated and accommodated.
- 3. All access driveways to the project site should be kept safe for pedestrians and bicyclists to traverse.
- 4. Drop-off and pick-up areas for the school shall be accommodated on-site of the school.
- 5. The area Neighborhood Board, as well as the area residents, businesses, emergency personnel, Oahu Transit Services, Inc. (TheBus), etc., should be kept apprised of the details of the proposed project and the impacts, particularly during construction, the project may have on the adjoining local street area network.

- 6. Any construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets.
- 7. A street usage permit from the City's Department of Transportation Services should be obtained for any construction-related work that may require the temporary closure of any traffic lane on a City street.

Thank you for the opportunity to review this matter. Should you have any questions, please contact Renee Yamasaki of my staff at 768-8383.

Very truly yours,

Michael D. Formby

Director

Mr. Michael D. Formby Director Department of Transportation Services 650 South King Street, 3rd Floor Honolulu, Hawaii 96813

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Formby,

Thank you for your comments of December 3, 2014 regarding the subject project. We Have reviewed your comments and offer the following:

- 1. Thank you for the information regarding the City's Complete Streets ordinance. The proposed site is located very close to the Kakaako Gateway Park which is a central element in the overall Makai Area Plan. As such, it is very pedestrian friendly and provides convenient access to public transportation routes.
- 2. Your suggestion regarding bicycle facilities is noted and will be considered as the design process develops.
- 3. The proposed First School is unique in that it does not have a dedicated access driveway and rather, shares the common driveways that access the Kakaako Waterfront Park. With this in mind, the access to parking lot for pedestrians and bicyclists is adequate.
- 4. The First School is access through the parking lot of the Kakaako Waterfront Park. A dedicated access point for pick-ups and drop-offs is included in the design of the project however it is not possible to include vehicular access on-site within the schools metes and bounds.
- 5. We stand advised regarding communication to affected parties during the construction and operations phases of the proposed project.
- 6. We stand advised regarding traffic impacts that may occur from the delivery of material or the transport of construction equipment. These activities will occur during off-peak hours.
- 7. We stand advised that a street usage permit will be require for any construction related work that may require the temporary closure of any City traffic lane.

We appreciate your comments and participation in the environmental review process.

Singerely,

Taeyong Kim

#### HONOLULU FIRE DEPARTMENT

#### CITY AND COUNTY OF HONOLULU

Phone: 808-723-7139

636 South Street
Honolulu, Hawaii 96813-5007
Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL MAYOR



MANUEL P. NEVES FIRE CHIEF

LIONEL CAMARA JR. DEPUTY FIRE CHIEF

December 2, 2014

Mr. Taeyong Kim, Planning Consultant Environmental Communications, Inc. P.O. Box 236097 Honolulu, Hawaii 96823

Dear Mr. Kim:

Subject: Draft Environmental Assessment

Kakaako First School

Tax Map Key: 2-1-060: 008 (Portion)

In response to your letter postmarked November 8, 2014, regarding the abovementioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

 Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1, Uniform Fire Code [UFC]<sup>TM</sup>, 2006 Edition, Section 18.2.3.2.2.)

A fire department access road shall extend to within 50 ft of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1, UFC<sup>TM</sup>, 2006 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around

Mr. Taeyong Kim, Planning Consultant Page 2 November 26, 2014

the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1, UFC™, 2006 Edition, Section 18.3.1, as amended.)

- 3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1, UFC<sup>TM</sup>, 2006 Edition, Section 18.2.3.4.1.1, as amended.)
- 4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,

SÓCRATES D. BRATAKOS

**Assistant Chief** 

SDB/SY:bh

cc: Daniel Simonich

Hawaii Community Development Authority

Mr. Socrates D. Bratakos Assistant Chief Honolulu Fire Department 636 South Street Honolulu, Hawaii 96813-5007

Subject:

Draft Environmental Assessment

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Assistant Chief Bratakos,

Thank you for your comments of December 2, 2014 regarding the subject project. We have reviewed your comments and offer the following:

- 1. A fire equipment lane in conformance with the Uniform Fire Code will be provided through the school campus.
- 2. Two fire hydrants that will added along the fire lane and will ensure that adequate fire flow will be provided to portions of the school.
- 3. The aforementioned fire land will conform with County width and height clearance requirements for fire apparatus..
- 4. Civil engineering drawings will be submitted to HFD at the appropriate permitting stage.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

				*

#### POLICE DEPARTMENT

#### CITY AND COUNTY OF HONOLULU

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

KIRK CALDWELL MAYOR



LOUIS M. KEALOHA

DAVE M. KAJIHIRO MARIE A. McCAULEY DEPUTY CHIEFS

OUR REFERENCE MT-LS

December 4, 2014

Mr. Taeyong Kim Environmental Communications, Inc. P.O. Box 236097 Honolulu, Hawaii 96823

Dear Mr. Kim:

This is in response to your letter requesting comments on a Draft Environmental Assessment for the proposed Kakaako First School project located at 709 Kelikoi Street.

The Honolulu Police Department has reviewed this project and has concerns regarding the safe flow of vehicular traffic, pedestrian passage, and security topics in the project area.

The project area is in a community currently occupied by the University of Hawaii Medical School and Children's Discovery Center and is inhabited by residentially challenged persons. We recommend that the construction vehicles use Cooke Street (only to Ilalo Street) and then Ilalo Street to Ward Avenue. The Ewa end (from Cooke Street) of the Kakaako Waterfront Park's parking lot should be fenced for a straight in/straight out access with a turn-around area for large construction vehicles. Providing a fenced area for the construction vehicles use should mitigate pedestrian safety hazards.

The use of Ohe Street, Koula Street, Ahui Street, and Keawe Street should be strictly prohibited by construction vehicles because of the narrow road ways and high pedestrian traffic.

The developer should also consider effects to the community caused by vehicles moving in and out of the area during the school's operating hours. We recommend a designated area for supplemental parking and student drop offs and pickups to avoid traffic congestion during the school's operating hours. The use of traffic monitor personnel should be considered during "high traffic" times. We also recommend that

Mr. Taeyong Kim Page 2 December 4, 2014

the Department of Transportation evaluate the addition of traffic lights at the intersections of Cooke Street/Ilalo Street, Ohe Street/ Ilalo Street, and Ahui Street/Ilalo Street to provide pedestrian and vehicle management.

Section 2.2.4 titled School Operations in the provided Draft Environmental Assessment states the school will be secured by a fence for student safety. The Children's Discovery Center, located in the project area, is having problems with trespassing, criminal property damages to the buildings, graffiti, and health safety issues. The minimum 10 feet in height perimeter fence should deter trespassers from entering on to the school's property. We highly recommend the use of private security be used on school grounds during nonoperating hours to further mitigate issues of security and safety for students, staff, and grounds protection

If there are any questions, please call Major Roy Sugimoto of District 1 (Central Honolulu) at 723-3327.

Thank you for the opportunity to review this project.

Sincerely,

LOUIS M. KEALOHA Chief of Police

By

MARK TSUYÉMURA Management Analyst VI Office of the Chief

cc: Mr. Daniel Simonich, Hawaii Community
Development Authority

Mr. Mark Tsuyemura Management Analyst VI Office of the Chief of Police Honolulu Police Department 801 South Beretania Street Honolulu, Hawaii 96813

Subject:

**Draft Environmental Assessment** 

Kakaako First School Honolulu, Oahu, Hawaii TMK: (1) 2-1-060: 008 Por.

Dear Mr. Tsuyemura,

Thank you for your comments of December 4, 2014 regarding the subject project. We have reviewed your comments and offer the following:

- We have taken your comment regarding site access during the construction phase into consideration and will provide this information to the selected contractor for appropriate implementation.
- 2. We understand that Ohe, Koula, Ahui and Keawe Streets should not be used by construction vehicles due to the narrow roadways and high pedestrian volumes. This information will also be provided to the selected contractor for appropriate coordination.
- 3. We stand advised regarding community impacts that may be caused by the addition of the First School project. A traffic management plan is presently under consideration and your suggestions will be taken into advisement and implementation whenever practicable.
- 4. Thank you for informing us of the current security condition of the adjacent use. While the addition of a 10-foot perimeter fence is not likely, your comment will require the proposed applicant to seriously consider alternatives for the safety of the school grounds. Your recommendations are well received and will be thoughtfully considered.

We appreciate your comments and participation in the environmental review process.

Sincerely,

Taeyong Kim

# OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE GOVERNOR

(808) 587-2846

(808) 587-2824 http://planning.hawaii.gov/

LEO R. ASUNCION ACTING DIRECTOR OFFICE OF PLANNING

Roll - Will

Telephone:

DEASTON NEW BR

AUTHORIT

Web:

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. P-14600

December 12, 2014

Mr. Chuck Larson Seagull Schools, Inc. 1300 Kailua Road Kailua, Hawaii 96734

Dear Mr. Larson:

Subject: Special Management Area (SMA) Minor Approval for Three Geotechnical

Borings within the Makai Area of the Kakaako Community Development

District (CDD), Honolulu, Oahu

OP File No.: SMA/14-6

Applicant: Seagull Schools, Inc.

Agent: Environmental Communications, Inc.

Recorded Owner: Hawaii Community Development Authority (HCDA)

Tax Map Key: 2-1-060: 008 por.

Location: Kakaako Makai Area, Honolulu

Request: Geotechnical Soil Borings

HCDA Approval: KAK 14-136

Chapter 343, Hawaii

Revised Statutes: Exempt under Hawaii Administrative Rules § 11-200-8(a)(5)

Estimated Cost: \$25,000

The SMA Minor Approval application, received December 4, 2014, from Seagull Schools, Inc. for the proposed geotechnical borings has been reviewed in accordance with the Coastal Zone Management (CZM) objectives and policies, Hawaii Revised Statutes (HRS) § 205A-2, and the review guidelines, Hawaii Administrative Rules (HAR) § 15-150-6.

The purpose of the proposed geotechnical borings is to determine an appropriate foundation for a proposed school facility at Kakaako Waterfront Park. According to the subject application, the proposed borings will be conducted within a fenced-off area during daytime hours. The three proposed borings will be drilled to a depth of 40 to 100 feet below the ground surface, with approximately 4 to 5 inches in outside diameter. The borings will be backfilled with cuttings generated by the drilling work and other soil, as needed.

The Hawaii Intermediate Court of Appeals' (ICA) decision in Kauai Springs v. Planning Commission of the County of Kauai, dated April 30, 2013, requires decision-makers to

specifically consider the applicant's use of public trust resources pursuant to Article XI, section 1 of the Hawaii Constitution. Consequently, in addition to the criteria under HRS Chapter 205A, the Office of Planning (OP) must make "appropriate assessments" and "require reasonable measures" to protect public trust resources. Where public trust resources are used for economic gain, the ICA (1) requires OP to give the application for SMA use and shoreline setback variance a higher level of scrutiny, and (2) places a higher burden on the applicant to justify the use of the public trust resources. This public trust evaluation is integrated into OP's assessment and conditions of SMA use approval and shoreline setback variance.

OP has found that the proposed geotechnical boring action has no substantial adverse environmental or ecological effect, taking into account potential cumulative effects and with fulfillment of the conditions prescribed below, will be consistent with the statutory objectives and policies, and regulatory guidelines cited above. SMA Minor Approval is granted for the subject application, subject to the following conditions:

- 1. OP may impose additional conditions, restrictions, or requirements on this SMA Minor Approval should unanticipated circumstances arise that require additional conditions to ensure compliance with HRS Chapter 205A.
- 2. Any modifications to the proposal or plans originally submitted to OP shall require additional review and approval.
- 3. The applicant shall implement site-specific best management practices by consulting with the Hazard Evaluation and Emergency Response (HEER) Office, State Department of Health (DOH), to confine the proposed activities, and to prevent any potential soil and groundwater contaminants from adversely impacting the State waters as specific in HAR Chapter 11-54, and from posing a risk to human health.
- 4. If any archaeological resources are discovered during the proposed boring activities, the applicant shall stop work and contact the State Historic Preservation Division (SHPD), Department of Land and Natural Resources. Subsequent work shall proceed only upon an archaeological clearance from SHPD.
- 5. The applicant shall minimize potential traffic impacts generated from the proposed boring activities on public access, including park users parking, to the ocean and adjacent park recreation area.
- 6. The applicant shall complete the proposed geotechnical borings within one year from the date of this SMA Minor Approval.

- 7. A time extension for this SMA Minor Approval may be granted upon review of a written request that shall be submitted to OP no less than 30 days prior to the expiration date.
- 8. Failure to comply with the foregoing conditions may result in fines pursuant to HAR § 15-150-32, and revocation of this SMA Minor Approval.

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

Sincerely,

Leo R. Asuncion Acting Director

c: Mr. Taeyong Kim, Environmental Communications, Inc.

Mr. Anthony J.H. Ching, HCDA

Ms. Melody Calisay, HEER Office, DOH

# Kakaako Agenda June 24, 2015

## III. Kakaako Matters, No. 3

Decision Making: Shall the Authority Approve a Finding of No Significant Impact for the Final Environmental Assessment for the Proposed Early Education Center in the Kakaako Waterfront Park Area, Tax Map Key No.: (1) 2-1-060: 008 (Por.), in Accordance with HRS Chapter 343?

**Public Testimony** 



Public Testimony Website Submission Other WayneTakamine

to: contact 06/24/2015 06:01 AM Hide Details

From: WayneTakamine < waynetakamine@hawaii.rr.com>

To: contact@hcdaweb.org,

Name

Wayne Takamine

Organization

Kaka'ako Makai CPAC

Email

waynetakamine@hawaii.rr.com

**Project Name** 

Other

Do you support or oppose?

Oppose

#### Comment

Kakaako Agenda 6-24-15
III-3 Seagull Schools Finding of No Significant Impact for the Final Environmental Assessment

Aloha HCDA Chair John Whalen and Members of the Authority Board:

My name is Wayne Takamine and I am the spokesman for the Kaka'ako Makai Community Planning Advisory Council that was created by HCR 30 (2006).

CPAC has been following the planning process for the Seagull Schools Early Childhood Educational Facility in Waterfront Park. At the March 5, 2014 HCDA Board meeting, the Authority approved an "Exclusive Negotiations Agreement (ENA)" for exclusive and private negotiations between the HCDA Executive Director and Seagull Schools. During our research for legislative testimony, CPAC members and various Kaka'ako Community Stakeholders met with legal experts in regards to the ENA process. We were informed that these exclusive agreements and negotiations between the HCDA and private developers poses a legal risk and are not in compliance with HRS 343 Environmental Impact Statements. CPAC was also alarmed to find it was listed as an endorsing group in the Environmental Assessment Draft when CPAC had not even been contacted by Seagull School.

CPAC created the Kaka'ako Makai Vision and Guiding Principles and the Kaka'ako Makai Master Plan approved in 2011 by the Authority. During the planning process, the highest priority is the need for expanding and preserving open green parks space for the "Lei of Green" concept and public recreational use for a fast growing Kaka'ako and Honolulu. This proposal in contrary to park preservation and public recreation because of its exclusive use of public park land for a private student membership school. It should be noted that during the 2014 election a constitutional amendment for public funding of private schools was voted down.

There is also an ongoing EIS for Kaka'ako Makai Parks that is also planning for the area on which the preschool is planned. We believe the Kaka'ako Makai Parks EIS process should cover the park lands in the subject EA.

CPAC believes the Early Childhood Educational Facility should be further studied and the FONSI for this EA should not granted. We also believe the Exclusive Negotiation Agreement granted to Seagul! Schools is not an applicable public process for Kaka'ako Makai park lands.

Mahalo,

Wayne Takamine Kaka'ako Makai CPAC Chairman RECEIVED

2015 JUN 24 AM 7 53

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