

## **I. INTRODUCTION**

### **A. Project Location**

The property of land fondly referred to as the Stadium Bowl-O-Drome site, is located at 820 Isenberg Street, Honolulu on the Island of Oahu. It consists of 2 parcels, identified on the Tax Map Key (TMK) as parcels (1) 2-7-08:18 and (1) 2-7-08:20 with a combined area of 1.894 acres (82,493 square feet). The land is currently owned by the State of Hawaii, Department of Hawaiian Home Lands (DHHL). DHHL obtained title to the property on June 1, 1995.

The site is currently in land use zone P-2, General Preservation District. However, DHHL has the authority to exempt its property land use zoning and is considering designating the site for development under BMX-3 (business mixed use) guidelines.

The Property is located in the McCully/Moiliili area between Kapiolani Boulevard and King Street. It is bound on the north and west by Stadium Park (owned by the State of Hawaii and maintained by the City and County of Honolulu) and on the south by a private residential high rise condominium (Scenic Towers). It has approximately 206.4 linear feet of frontage on Isenberg Street.

### **B. Reference Material and Record Drawings**

1. Phase I, Environmental Site Assessment Stadium Bowl-O-Drome Property, prepared by Mountain Edge Environmental, Inc., dated April 17, 2001.
2. DHHL Residential Development Feasibility Study for Stadium Bowl-O-Drome Site, prepared by Townscape, Inc., April 2000.
3. Preliminary Geotechnical Engineering Study for Stadium Bowl-O-Drome Site, prepared by Hirata & Associates, Inc., dated April 15, 2016.
4. Record Drawings
  - a. Honolulu Stadium State Park Utility and Grading Plans, dated March 1978.
  - b. University Apartment Area Major Drain Plans & Profiles, dated February 1971.
  - c. McCully Track Improvement District, Isenberg Street South Plan & Profile, dated April 1951
  - d. Board of Water Supply Distribution Map, Tile R37C46, dated April 2006.

## **II. EXISTING CONDITIONS**

### **A. Soil**

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) Web Soil Survey, the only soil class present at the project site is Ewa silty clay loam (EmA).

Ewa silty clay loam is present over the entirety of the project site with the sloping being nearly level to moderate (0-2%). The surface layer contains a dark reddish-brown silty clay loam. The subsoil layer comprises of a dark reddish-brown and dark-red silty clay loam with a subangular blocky structure. The substratum layer is typically coral limestone, sand, or gravely alluvium. The depth to the substratum layer ranges from 20 to 50 inches from the surface. The permeability of the soil is moderate and the surface and subsoil layers are neutral.

A Preliminary Geotechnical Engineering Study was prepared by Hirata & Associates on April 15, 2016 for this redevelopment.

### **B. Topographic Survey and Adjacent Property**

A topographic survey of the current site was conducted in March 2016 by Ace Land Surveying, LLC.

The site varies in elevation from its highest point at 11.0 feet above mean sea level (MSL) at the northeast front corner of the property to 7.3 feet at the back south west corner, at a gradual 0.9% cross slope through the property.

### **C. Existing Facility and Previous Usage**

The property is currently occupied by an existing building and paved parking lot. The existing 22,346 square foot structure was built in 1955 and was operated as a bowling alley until May 2004. Prior to the 1956, historical records indicate the site was vacant and undeveloped.

Since the abandonment of the building, DHHL is currently rented on a month-to-month basis as a baseyard for Oahu Auto Towing.

### **D. Vehicle Access, Parking and Pedestrian Safety**

The property frontage is a 206.42 foot section along Isenberg Street, midblock between King Street and Citron Street. The existing entrance to the site is through a 24.0 wide driveway on the northern side of the property frontage from Isenberg Street.

Isenberg Street block, between King Street and Citron Street, is a 4-lane roadway with on-street parking. Fronting the site are 8 public parking stalls. The 8.0 foot sidewalk area is totally paved in concrete.



**Figure 1: 820 Isenberg Street Frontage**

**E. Grading and Storm Drainage**

The site is located in Flood Zone X, outside of the 500 year flood plain.

The public drainage system for this drainage basin is 12' X 7.5' box culvert within Isenberg Street. There are four (4) catch basins located along this block of Isenberg Street near the project site that collect runoff from the area. Two of the catch basins are located in front of the project site, on either sides of the street and connect to the box culvert with an 18-inch reinforced concrete pipe (RCP), Class III. The other two catch basins are located approximately 500 feet north, near the intersection of Isenberg and South King Street. The drainage system was installed in 1971 to handle the severe drainage problems in the area.

In addition, the Stadium Park directly mauka of the Bowl-O-Drome site has its own underground drainage system along the common property line of the 2 properties. See Figures 2 and 3 showing the drain inlets that collect the runoff from the Stadium Park before entering the Bowl-O-Drome site.

During a 10-year storm event, the existing, entirely impervious (developed) site is anticipated to generate approximately 10.8 cfs of runoff. This rainwater flows toward a drywell (top elevation at 6.5 feet above MSL) at the southwest corner of the property within the Stadium Park site. See Appendix A for drainage calculations.



**Figures 2 & 3: Existing Drain Inlets and Drainage System along northern property line in Stadium Park**

**G. Water System**

**1. Public Water System**

Fronting the project site, there are two water mains, a 30-inch cast iron, class 250 installed in 1952 and a 12-inch cast iron installed 1954, running within Isenberg Street right-of-way, owned and maintained by the City and County of Honolulu, Board of Water Supply (BWS).

Currently, BWS provides water to the site through a 2-inch water lateral / 1-1/2" water meter (#11060323, premise ID no. 1052327) that is connected to the 12-inch water distribution main.

Calculated test pressures of the 12-inch distribution main, as provided by BWS at fire hydrant no. M03237, is 72 psi static and 65 psi residual for a fire flow of 2,000 gpm. The data provided is based on the existing water system and the static pressure at the point of calculation with the reservoir full and no demands on the water system. The static pressure is not indicative of the actual pressure in the field. Fire flows test are no longer conducted so the residual pressure is also hypothetical.

Per the 2000 Feasibility Study, "According to the Board Water Supply (BWS), there are currently no identified water distribution problems in the Moiliili area."

Once the proposed development is determined, a water availability letter should be requested from the Board of Water Supply to confirm capacity, pressure and facility charges.

## **2. Fire Protection**

There are five (5) fire hydrants located within the vicinity of the site. Four (4) on the same block of Isenberg Street and one (1) at the back side of the site and Honolulu Stadium Park at the end of Makahiki Way. The closest fire hydrant (#M03237) is located directly across the street of the Stadium Bowl-O-Drome site, approximately 80 feet away.

## **3. On-site Water and Irrigation System**

Within the Stadium Bowl-O-Drome site, beyond the water meter is an existing shutoff valve in the front steps. Beyond this there does not seem to be any exterior backflow preventers assemblies for the existing building and/or irrigations system.

The existing building does not seem to have any existing on-site fire protection or building sprinkler system. No separate FM meter was found.



**Figure 4: Existing Water Meter and Shutoff Valve at Front Steps**

#### **H. Wastewater System**

The sewer system running within Isenberg Street includes two separate sewer systems. The older of the 2 systems, installed prior to 1971, consist of a 6-inch cast iron (CI) pipe that at the sewer manhole (SMH) fronting the Stadium Bowl-O-Drome site increases to an 8-inch CI pipe. The second sewer system, installed in 1971 with the drainage system improvements, consists of an 8-inch vitrified clay (VC) pipe running on the east portion of the street to collect wastewater from the east side.

The west side sewer system services the Bowl-O-Drome where a 6-inch sewer lateral connects to the SMH fronting the site.

There is currently no sewer moratorium placed on the site for redevelopment. A sewer connection permit was obtained from the City and County on May 17, 2016 based on the highest possible density for the site of a high rise condominium with 276 units, a modification of Option C from the 2000 Feasibility Study.

#### **I. Electrical System**

The electrical utility system in the area consists of overhead electrical distribution lines run on joint use wood poles. The pole line is located in the sidewalk area and runs along the east side of Isenberg Street across the street from the Bowl-O-Drome site.

The overhead electrical pole line actually supports several electrical circuits (different voltages) and telecommunication systems. Starting from the top of a typical pole then descending in height, the systems include:

High Voltage Level – 46 kV, 3 phase, 3wire circuit at the top

Medium Voltage Level – 12 kV, 3 phase, 3 wire circuit

Low Voltage Level – 120/240 V, single phase, 3 wire (sometimes 120/208 V, 3 phase, 4 wire) circuit

Street Light Level – street light only mounted on selected poles.

Telecommunication Level – Hawaiian Telcom, Oceanic Time Warner Cable and other telecommunication company cables.

The Hawaiian Electric Company's (HECO) 12 kV circuit is "tapped" on pole #24 which is located across Isenberg Street from the site. The 12 kV circuit is then extended overhead across Isenberg Street to H-frame poles #24X and #24XX located at the sidewalk area near the northeast corner of the site. The H-frame poles support three single phase 50 kVA pole mounted transformers. This 150 kVA, 3 phase transformer bank appears to only provide electricity for the Bowl-O-Drome. There is an overhead service cable connection from the transformer bank to the northeast corner of the Bowl-O-Drome building. The overhead service drop terminates at two weatherheads mounted at the exterior of the building. There are two weatherheads because the service feeder consists of two parallel sets of 4 cables each. From the weatherheads the service feeder cables are run in conduit down the exterior of the building to a large wall mounted junction box. It appears that the service cables then enter the building to connect to the electrical service disconnect and HECO meter located just inside the building's entry.



**Figure 5: Existing Overhead Electrical Lines Along Isenberg Street**



**Figure 6: Existing Transformer Bank and Overhead Electrical Service to Property**

Existing HECO Meter No. 528522 is still active according to communication with HECO on May 15, 2017. The electrical service account for the meter is under Kuni's Enterprises Corporation with address at 820 Isenberg Street. The meter is a non-demand type meter so no information is available on demand readings.

#### **J. Telecommunication System**

The telecommunication distribution system in the area consists of overhead cables which are supported on the joint use wood poles. The telecommunication system cables are located at the lowest level of the pole line; refer to above paragraph. There appears to be a mix of copper, fiber optic and possibly coaxial type cables making up the overhead telecommunication lines. In addition, the lines (cables) could belong to Hawaiian Telcom, Oceanic Time Warner Cable, and/or other communications companies who can provide alternative telecommunications services. These companies can provide voice, internet and other data services.

A telecommunication cable, likely Hawaiian Telcom, is "tapped" on pole #24 and run overhead to H-frame pole #24XX across Isenberg Street similar to the electrical overhead line. The telecommunication line then risers down via a 1.5 inch conduit which is assumed to run underground to a telecommunications service point within the Bowl-O-Drome building. No information is available on whether this telecommunication service is still active. However, the visible portions of the exterior cables appear to be intact and not disconnected/cut.

#### **K. Street Lighting**

Isenberg Street and the sidewalk fronting the site are illuminated by pole mounted street lights. The street lights appear to be the high pressure sodium type of luminaire. The street lights are a combination of lights mounted on the wood utility poles and lights mounted on metal street lighting poles. Street lights are wood pole and metal pole mounted on the east and west sides, respectively, of Isenberg Street. The metal pole standards consist of galvanized steel poles with anchor base.

The Isenberg Street frontage of the site is generally illuminated by three street lights. The two metal pole mounted lights are located on the west side of Isenberg Street while the third street light is mounted on wood utility pole #22 at the east side of Isenberg Street.

The two street light metal poles associated with the site are located adjacent to the north and south driveways to the site. Each of the two poles is located right next to the south edge of its associated driveway.



**Figure 7: Existing Street Lights at Frontage of Property**

**L. Solid Waste**

Trash collection is by private contractors.

**III. DEVELOPMENT CRITERIA**

- A. Current Land Use
- B. Site Constraints
- C. Utility Restrictions
- D. Other Codes

**IV. AFFECTS OF PROPOSED DEVELOPMENT**

- A. Affect on Adjacent Properties and Neighborhood
- B. Site Demolition
- C.

**V. OTHER ALTERNATIVES CONSIDERED**

- A.

**VI. SUMMARY OF FINDINGS**