

GLENN KUWAYE DIRECT TESTIMONY

PRESENTATION HEARING

Land Block 1, Project 6 (Mahana Ward Village) (KAK 23-027)

Q Please state your name, place of employment, and position.

A Glenn Kuwaye, P.E., LEED AP, Vice President & Director of Civil Engineering, Wilson Okamoto Corporation (“WOC”).

Q How long have you held this position?

A I have been with WOC for approximately 18 years, since 2005. I have held my current position as Vice President & Director of Civil Engineering for approximately 6 years, since 2017.

Q Please describe your educational background and experience.

A Please see my curriculum vitae, which is marked as an exhibit in this proceeding.

Q How are you involved with this project, Mahana Ward Village (Land Block 1, Project 6)?

A WOC was retained by Victoria Ward, Limited (VWL) for the civil engineering design of Mahana Ward Village (Land Block 1, Project 6). WOC prepared an Infrastructure Availability Report (IAR) for Mahana Ward Village dated May 2023.

The purpose of the IAR study was to determine and confirm the availability of infrastructure utilities to accommodate Mahana Ward Village, including sanitary/sewer, water, fire safety, drainage, electrical, communication, cable, and gas.

The IAR is included as Appendix F to the Planned Development Permit Application for Mahana Ward Village (Application) (Exhibit 1 in this proceeding), and is summarized at page 43 of the Application.

Q Please describe the aspects of the Project relevant to WOC’s Infrastructure Availability Report.

A According to the Application, the Project is currently planned as an approximately 340 unit residential community with commercial uses and parking. WOC, for purposes of preparing its report and findings, evaluated and analyzed infrastructure availability for 350 residential units rather than 340 residential units.

EXHIBIT 15

The Project site is approximately 1.69 acres, generally located at TMK: 2-3-002:116. The Project site is bounded by Ward Avenue to the west, Halekauwila Street to the south, and 'A'ali'i to the east.

The Project site is currently occupied by an asphalt concrete parking lot and demolished commercial/retail building. Sewer manholes are located in a Private Drive (Private Drive 2), and along the sewer easement that runs within the property. Drain inlets, trench drain, and catch basin are observed within the property.

The Project site is located in the Federal Emergency Management Agency Flood Insurance Rate Map as Zone AE (6 feet), Zone AE (7 feet), and Zone X. Zone AE is characterized as a special flood hazard area, where the annual chance of flooding (a 100 year flood) is determined as one percent. Zone X is characterized as areas determined to be outside the 0.2% annual chance floodplain. The proposed finish floor elevation at Level 1 for the Project is 7.25 feet.

Q Please summarize the conclusions of WOC's Infrastructure Availability Report.

A All required infrastructure is, or will be available, for the Project.

Sanitary/Sewer

Sewer service is available from the municipal sewer system owned by the City and County of Honolulu (City), and maintained by its Department of Environmental Services. The Project proposes to connect to the existing 18-inch sewer main within Private Drive 2 that connects to the existing 48-inch East End Relief sewer. See Figure 2-1 of the IAR, which identifies the existing sewer system within the Project vicinity.

A sewer connection application was submitted on May 1, 2023 to the City Department of Planning and Permitting (DPP), Wastewater Branch (WWB) to confirm the existing sanitary sewer system can accommodate the Project. An approved sewer connection application dated May 2, 2023 was received confirming available capacity. See Appendix A to the IAR.

Water

Potable water service for the Project will be provided by the City Board of Water Supply (BWS). The Project proposes to connect to an existing 12-inch water main in Queen Street to accommodate both the residential tower and the commercial space. The size and location of the laterals will be confirmed during the final design phase. See Figure 2-2 of the IAR, which identifies the existing water system within the Project vicinity.

BWS confirmed in its letter dated January 20, 2023 that the existing water system is currently adequate to accommodate the Project, and there is no moratorium on the issuance of new and additional water services. (Appendix A to IAR).

Fire Safety

The Honolulu Fire Department (HFD) was consulted on December 21, 2022 to discuss the proposed fire protection methods for the Project. The Project will be protected by private fire hydrants. Water supply from a fire hydrant must be within 400 feet to the closest point from the building. A fire sprinkler system will also be installed in the building. The size and location of the fire line that will supply for the sprinkler system will be confirmed during the final design phase.

Based on its preliminary assessment, HFD confirmed by email dated March 28, 2023 that it did not identify problems with any of the fire protection methods. (Appendix A to IAR).

Site Drainage and Low Impact Development

Runoff from the Project site will be collected within a private drainage system owned and maintained by VWL with a series of trench drains, drain inlets and catch basins. Drainage runoff from the Project will not increase the peak flow rate and volume. For this reason, the Project will not adversely impact the existing performance of the City system.

The Project will treat the overall storm water quality from the site with manufactured treatment devices within the site areas meeting City requirements and green roof. Storm water runoff collected by the drain inlets will be directed to the existing catch basin located at Ward Avenue (City) and Private Drive 2 where it will be discharged into the City Drainage System.

The City and County of Honolulu DPP confirmed the general acceptability of the storm water treatment concept by email dated April 13, 2023, with the actual confirmation of the concept and compliance with the Water quality rules to be made at the time of formal plan review. (Appendix A to IAR).

Electrical

Hawaiian Electric, in a February 18, 2023 will-serve letter, confirmed its intent to work with VWL to provide service to the Project. Existing distribution circuits along Robinson Lane could potentially be used to serve the Project. Upgrades to these circuits may be needed depending on the ultimate size of the Project's load. (Appendix A to IAR).

Communication, Cable, and Gas

Hawaiian Telecom and Charter Communications aka Spectrum confirmed that their existing systems have capacity to serve the Project. (Appendix A to IAR).

Hawaii Gas confirmed that a new line will be provided and will connect to the existing 3-inch main at the intersection of Ward Avenue and Queen Street. (Appendix A to IAR).

Q Did WOC also evaluate the impact of sea level rise on the Project?

A Yes. The Pacific Islands Ocean Observing System Hawaii Sea Level Rise Viewer shows that a small portion on the eastern side of the project site will be inundated by a 3.2-ft sea level rise by the year 2100 due to combined passive flooding and annual high wave flooding (see Figure 1-5 of the IAR). The proposed finish floor of the Project is above the property's Flood Base elevation, which is higher than the projected sea level rise; therefore, the Project will not be impacted by a 3.2-foot sea level rise.

In addition, project resiliency is a part of the Project's design. There are design solutions and best practices in place. For example:

- Site level planning – as previously noted, the proposed finish floor of the Project is above the property's flood base elevation, which is higher than the projected sea level rise; therefore, the Project will not be impacted by a 3.2-foot sea level rise.
- The Project complies with FEMA flood elevation requirements.
- Through design solutions and best practices, the project weather proofs utility elements, *e.g.*, location of utility elements above FEMA flood elevation, water backflow preventer design, and more.

#