CATHY LEONG 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 Cathy Leong, Licensed Professional Civil Engineer and Director, Transportation Group, Wilson Okamoto Corporation (WOC).

Q How long have you been employed by WOC?

A I joined WOC in 1997 as a Traffic Engineer. I became a Senior Project Manager with the Traffic and Transportation Engineering Group in 2001, and Director of the Transportation Group in 2017.

Q Please describe your educational background and experience.

A Please see my resume, which is marked as an exhibit in this proceeding. I have prepared various traffic reports such as impact studies, parking and loading studies, construction traffic management plans, queuing and delay studies, transportation management plans, and other types of traffic-related documents, including the design of roadways, intersections, and traffic signal systems.

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

A WOC was retained by Victoria Ward, Limited (VWL) to prepare a traffic impact report (TIR) to identify and assess the potential traffic impacts resulting from Mahana Ward Village, and to identify necessary measures to mitigate such impacts. The TIR is included as Appendix E to the Planned Development Permit Application for Mahana Ward Village (the Project or Mahana Ward Village) which is marked as Exhibit 1 in this proceeding.

Q Please summarize the aspects of Mahana Ward Village relevant to the TIR.

A Mahana Ward Village is included in Phase 5 of the overall Ward Village Master Plan, and is the first project within this phase.

The project site for Mahana Ward Village is bounded by Ward Avenue to the west, the ʻAʻaliʻi development to the east, the future Kakaʻako Station site to the north, and a private driveway to the south (the Halekauwila Extension).

EXHIBIT 17

Primary access to Mahana Ward Village will be via a new driveway off the Halekauwila Extension. As discussed in the Ward Village TMP, the existing private driveway that intersects Kamakee Street between Auahi and Queen Streets is expected to be extended westward to intersect with Ward Avenue forming a 4-way intersection with Halekauwila Street in connection with the development of The Park Ward Village.

Q Please summarize the methodology, findings, and recommendations of the TIR.

A The TIR analyzes the potential traffic-related effects of the Project. A previous assessment, which included this Project, was included in the "Transportation Master Plan and Assessment for the Ward Villages Master Plan" (the Ward Village TMP) dated October, 2020 and updated in October, 2022. This TIR is a supplemental study to specifically address the proposed development and incorporate the most recent development plans.

Traffic conditions were evaluated for the following conditions: Baseline Year 2027, Year 2028 Without Project, Year 2028 With Project. Traffic projections were based on the Institute of Transportation Engineers (ITE) methodology for trip generation and on the Oahu Metropolitan Planning Organization (OMPO) regional travel forecast model for network distribution. Capacity analyses procedures were performed to identify the operational traffic impacts to the surrounding intersections as a result of the Project.

Based on the regional growth rates as well as the anticipated traffic generation as a result of the Project, the TIR makes several recommendations to mitigate Project-related traffic impacts. The recommendations include the following:

1. Provide sufficient sight distance for motorists to safely enter and exit the Project driveway to ensure visibility between pedestrians, bicyclists, motorists, or other users at these conflict points. It should be noted that there is a planned pullout along the opposite side of Halekauwila Street offset from the proposed residential driveway for Block N West, as well as a marked pedestrian crossing slightly east of the Project site.

2. Provide adequate on-site loading and off-loading service areas to accommodate all anticipated vehicle types and prohibit off-site loading operations.

3. Provide adequate turn-around areas for service, delivery, and refuse collection vehicles to maneuver on-site and prohibit vehicle-reversing maneuvers onto public roadways.

4. Provide sufficient turning radii at all project driveways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

5. If access at the entrances to the parking areas are controlled, provide sufficient storage for entering vehicles at the parking area access controls (*i.e.*, automatic gate, etc.) to ensure that queues do not extend onto the adjacent roadway. The layout and dimensions shall be determined during the design phase.

6. Provide bicycle facilities within the project boundaries including designated and secured bicycle parking to encourage the use of this alternative mode of transportation. Access to these facilities should be safe, convenient, and clearly delineated, especially within the designated parking areas where conflicts with vehicular traffic are expected.

7. Update the study should development phasing, land use intensity, or land use mix change.

8. Continue to develop and/or enhance bicycle and pedestrian facilities, as well as public transportation services in the project vicinity as described in the Ward Village TMP.

9. Coordinate the management of the Project with those discussed in the Ward Village TMP including the overall Transportation Demand Management (TDM) Plan.

Q As part of the TIR you made a level of service determination. What is a level of service determination and how is that prepared?

A Level of Service (LOS) is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through LOS "F"; where LOS "A" represents ideal or free-flow traffic operating conditions and LOS "F" representing unacceptable or potentially congested traffic operating conditions. The LOS rating is generally based on delays experienced by motorists associated with movements at an intersection.

Q Please summarize the level of service determinations made in connection with the TIR for this project, Mahana Ward Village.

A The intersections in the study area included:

- Along Ward Avenue at the intersections with Queen Street, Halekauwila Street, Auahi Street, and Ala Moana Boulevard, and

- Along Kamakee Street at the intersections with Queen Street, Halekauwila Extension, Auahi Street, and Ala Moana Boulevard.

As more fully described in the TIR, with the implementation of the recommendations to mitigate project-related traffic impacts, the operating conditions at the study

intersections in the vicinity of Mahana Ward Village are expected to remain similar to conditions without Mahana Ward Village. In addition, VWL continues to work with the City and County of Honolulu to incorporate bicycle and enhanced pedestrian facilities into the development plans for the Project to encourage alternative modes of travel and further minimize the impact of the Project to the surrounding roadways.

Q The TIR also describes the concept of "trip generation". What is "trip generation" and how is that relevant to your analysis?

A Trip generation is an estimate of the number of trips that would be generated by the Project during the commuter peak hours of traffic. The methodology to calculate the number of trips generated is based on generally accepted techniques developed by ITE. The ITE trip generation rates are developed empirically by correlating vehicle trip generation data with various land use characteristics such as the number of trips generated per dwelling unit. The trip generation methodology developed by ITE also includes provisions for multi-modal trips, *i.e.*, trips utilizing non-motorized modes of travel such as walking and biking, as well as trips made using transit. The calculated trips are then superimposed over projected conditions without the project to measure the traffic impacts associated with the Project utilizing the concept of LOS.

Q How does the Project impact pedestrian, bicycle, and transit facilities?

A *Pedestrian Facilities*

Improved pedestrian facilities such as sidewalks and crosswalks are currently provided along the roadways adjacent to Mahana Ward Village, including Ward Avenue and Halekauwila Street, as well as further east and south along Kamakee Street and Auahi Street. A rectangular rapid flashing beacon (RRFB) was also previously installed at the intersection of Kamakee Street with the Halekauwila Extension to facilitate pedestrian crossings at this midblock location.

Existing pedestrian facilities along the adjacent roadways are generally expected to be improved / maintained with Mahana Ward Village The Project frontage along the Halekauwila Extension will incorporate sidewalks and landscaping treatments consistent with the already constructed segments of the Halekauwila Extension east of Ward Avenue. In addition, Mahana Ward Village is also located in close proximity to the Victoria Ward Mauka / Makai Parks, which will include a north-south pedestrian route extending from Halekauwila Street to Ala Moana Boulevard and the future Ala Moana Pedestrian Bridge.

Bicycle Facilities

Mahana Ward Village will provide short-term and long-term bicycle facilities on-site for residents, guests, and employees to encourage the use of alternate modes of

transportation. In addition, the Project is located within close proximity to a number of BIKI bikeshare facilities. Figure 13 of the TIR depicts the existing and proposed bicycle facilities in the vicinity of the Project.

In addition, the additional improvements planned in conjunction with the overall Ward Village Master Plan will also enhance bicycle connectivity within the area as well as to the surrounding areas. In conjunction with the Auahi Street project, the roadway is expected to convert to a 2-lane roadway to accommodate enhanced multimodal facilities with additional pavement striping installed to provide buffered bike lanes resulting in additional separation between bicyclists and vehicles.

There are also other bicycle improvements planned by the City and County of Honolulu Department Transportation Services in the vicinity of the Project as included in the Oahu Bike Plan (updated 2019). These additional bicycle improvements, including those listed below, are expected to improve the level of traffic stress along the roadways in the project vicinity.

- Bike lanes along Ala Moana Boulevard between Nimitz Highway and Kalakaua Avenue;
- Bike lanes along Kamakee Street between Auahi Street and Ala Moana Boulevard; and
- Protected bike lanes along Halekauwila Street between Ala Moana Boulevard and Ward Avenue.

Transit Facilities

There is good transit quality of service in the Project vicinity. Levels of service for transit in the vicinity of the project are anticipated to remain similar to existing conditions.

In conjunction with the planned improvements along Auahi Street, the existing bus stops will be relocated to facilitate access to future planned developments within Ward Village with additional bus stops provided to further enhance convenient access to transit. Service to these stops is not expected to change significantly. All bus and trolley stops along Auahi Street will be modified to include bus/trolley pull-in areas to facilitate through traffic along the roadway.

West of Kamakee Street, the existing bus stops north and south of the roadway near the Ward Entertainment Center are expected to be relocated further west near The Park Ward Village development and the Victoria Ward Mauka and Makai Parks.

Along Ward Avenue, the existing bus stop at Halekauwila Street on the east side of the roadway is also expected to be relocated slightly south near the future The Park Ward Village project.

Q Do you know if VWL intends to implement all of the recommended mitigation measures that you have proposed?

A Yes. It is my understanding that VWL intends to implement all of the recommended mitigation measures identified in the TIR.

Q In summary, is there an impact to traffic from this specific Project?

A The project is expected to add traffic to the surrounding roadway network but any impacts can be mitigated by the recommendations in the TIR, which VWL intends to pursue and implement.

Q Did the City and County of Honolulu Traffic Review Branch (TRB) review and comment on the TIR?

A Yes, the City and County of Honolulu TRB confirmed in an email dated May 2, 2023 that TRB accepts the TIR dated March 2023.

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