

Honolulu High-Capacity Transit Corridor Project Downtown Station Location Evaluation

Background

The Downtown Station services the Central Business District (CBD) of Honolulu and is located between the Chinatown District on the west and the Capitol District on the east. Each of these condensed neighborhoods has its own central focus. The Chinatown and the Capitol District stations are each located approximately 2,000 feet from the Downtown Station.

The CBD is centered between Bishop Street and Fort Street, which are the primary pedestrian-friendly streets oriented in the mauka-makai direction. The CBD is roughly bounded by Nu'uuanu Avenue, Nimitz Highway, Richards Street, and Vineyard Boulevard. Most of the headquarter buildings of Hawaii-based companies are located in this district.

During the Alternatives Analysis, five different east-west alignments through the CBD were evaluated. The alignment for the Locally Preferred Alternative, on Nimitz Highway, was selected by the Honolulu City Council in December 2006. The Downtown Station is one of the most important stations in the proposed system. It would have the third-highest station volume after two major transfer stations. Sensitivity study of system operations show that if the station were not constructed, station volumes would increase for adjacent stations, but overall system ridership would decrease by five percent.

Downtown Station Locations

The following station locations have been evaluated at various times:

- East of Dillingham Transportation Building (proposed location, Figure 1)
- Bishop Street (previously eliminated, Figure 2)
- Fort Street Mall (previously eliminated, Figure 3)
- Alakea Street (discussed in this memorandum, Figure 4)

East of Dillingham Transportation Building

The station would be located east of the Dillingham Transportation Building (Figure 1) to minimize the visual impact to the historic building. At this location the ground entrance mauka of Nimitz Highway would be positioned in the plaza between the historic building and the Pacific Guardian Building. The Nimitz Highway (makai) end of the plaza is currently used to house a trash dumpster, hidden behind a fountain used to mask traffic noise (Photo 1). The existing plaza between the buildings is currently used primarily at lunch time and for smoking breaks by office workers (Photos 2 and 3). The property managers for the development has been contacted by RTD and have indicated [need meeting notes].

The ground entrance on the makai side of Nimitz Highway provides access to the Waterfront and the Aloha Tower Marketplace. The entrance is proposed to be located on property owned by the Hawaiian Electric Company. This location avoids impacts to the parkland (Irwin Park) that is located on the mauka side of Aloha Tower (Photo 4).

The pedestrian circulation from the ground entrances are shown in Figure 5. Photo 6 along Bishop Street shows the pedestrian environment in this area.

Bishop Street

Bishop Street is a protected view corridor by the City and County of Honolulu. Locating the station approximately 60' west of the recommended location (Figure 2) would result in reduced capital cost and construction impacts since the station would not extend over the busy Alakea Street/Nimitz Highway intersection. The location of the ground entrances on either side of Nimitz Highway would be the same. The visual impact to the Dillingham Transportation Building would be greater, because the station would be within approximately 20 feet of the façade of the building. This location is not recommended.

Fort Street

Mauka-makai pedestrian circulation would be served well by a station located on Fort Street. However, this station location (Figure 3) would require that a 250' radius curve be provided to maintain a minimum distance between the edge of station platform and end of curve, which would not meet project design criteria. Such a tight curve would result in reduced train speed and potential for wheel squeal at this location; therefore it was not recommended. The location, configuration, and size of the station entrance also was constrained by Irwin and Walker Parks which are makai and mauka of Nimitz Highway at Fort Street. Placing an entrance makai of Nimitz Highway would create a Section 4(f) impact to Irwin Park. Mauka of Nimitz Highway, the entrance would either have to block the Fort Street pedestrian mall, or be placed in Walker Park, a Section 4(f) resource.

Alakea Street

Locating the station further east would further reduce the visual impact to the Dillingham Transportation Building and avoid routing pedestrians through the Pacific Guardian plaza. However, the primary parking structure and loading zone

access points to the Pacific Guardian development are located on the Ewa side of Alakea Street (Photo 7). This and additional vehicular access points to the Davis Pacific Building on the next block mauka makes Alakea Street a pedestrian route that should be avoided. Building driveways also exist on the Koko Head side of Alakea Street. Providing additional space by removing a lane of traffic from Alakea Street was considered in attempting to locate a ground entrance on Alakea Street. The combined space, however was still considered to be insufficient. Pedestrian connection makai of Nimitz Highway would be Koko Head of the HECO powerplant (Photo 8), with poor pedestrian connectivity to Aloha Tower. Due to these considerations, locating the station at Alakea Street is not recommended.

Constructing ground entrances on Richards Street, at the Koko Head edge of the CBD, was also considered. The long, skewed span length over the Nimitz Highway/Halekauwila Street intersection would make construction of a station platform very difficult. On the makai side although there is sufficient space to construct a ground entrance, the direct pedestrian access route to Aloha Tower, along Nimitz Highway, is not a pedestrian-friendly route (Photo 9).



Photo 1: View of Dillingham Transportation Building and Pacific Guardian Center area, looking mauka



Photo 2: View of plaza between Dillingham Transportation Building and Pacific Guardian Center, looking makai



Photo 3: Plaza between Dillingham Transportation Building and Pacific Guardian Center, typical mid-morning use



Photo 4: View of proposed entrance location makai of Nimitz Highway, HECO powerplant is on the left and Irwin Park on the right of Bishop Street



Photo 5: View of Bishop Street sidewalk, looking makai

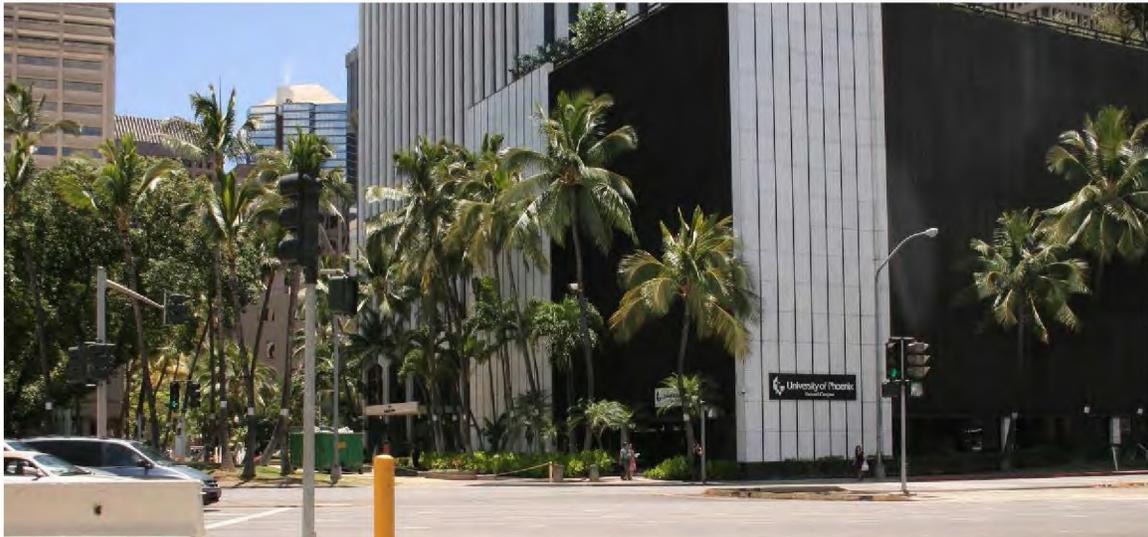


Photo 6: Fort Street (with dumpster) Walker Park is at left, looking mauka



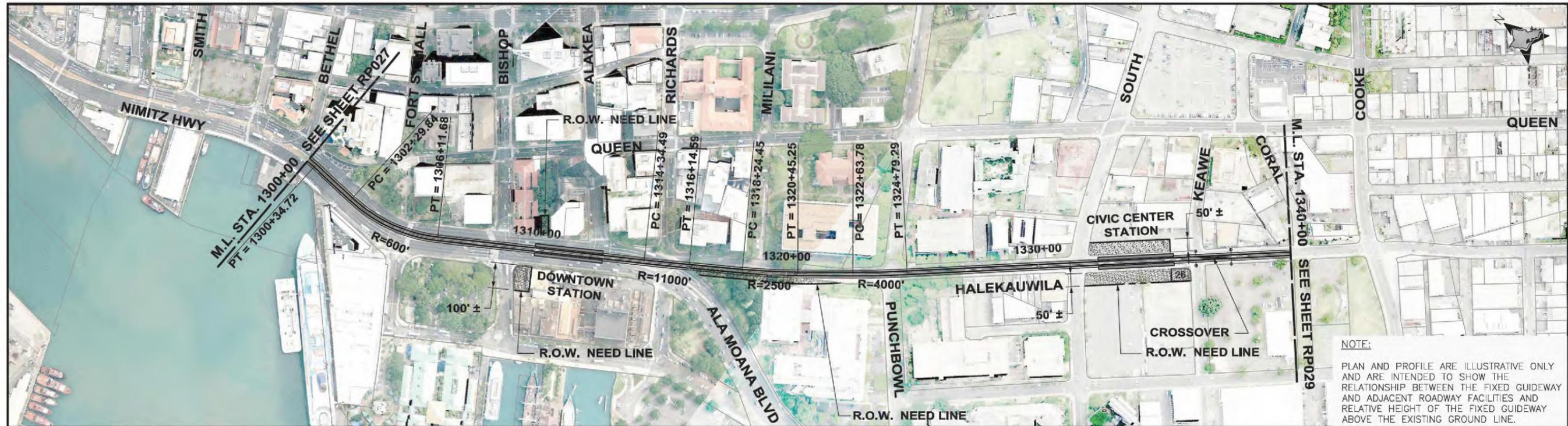
Photo 7: Alakea Street, looking 'Ewa-mauka



Photo 8: Pedestrian Environment, makai side of Nimitz Highway



Photo 9: Richards Street, looking mauka



NOTE:
 PLAN AND PROFILE ARE ILLUSTRATIVE ONLY AND ARE INTENDED TO SHOW THE RELATIONSHIP BETWEEN THE FIXED GUIDEWAY AND ADJACENT ROADWAY FACILITIES AND RELATIVE HEIGHT OF THE FIXED GUIDEWAY ABOVE THE EXISTING GROUND LINE.

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE

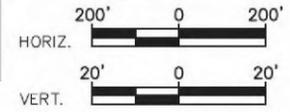
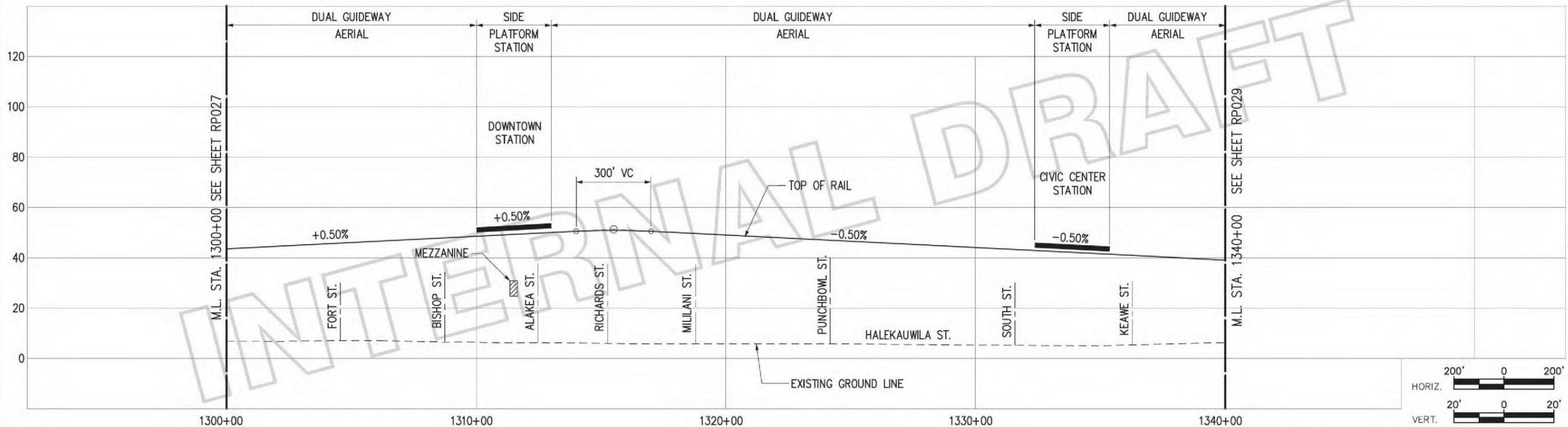
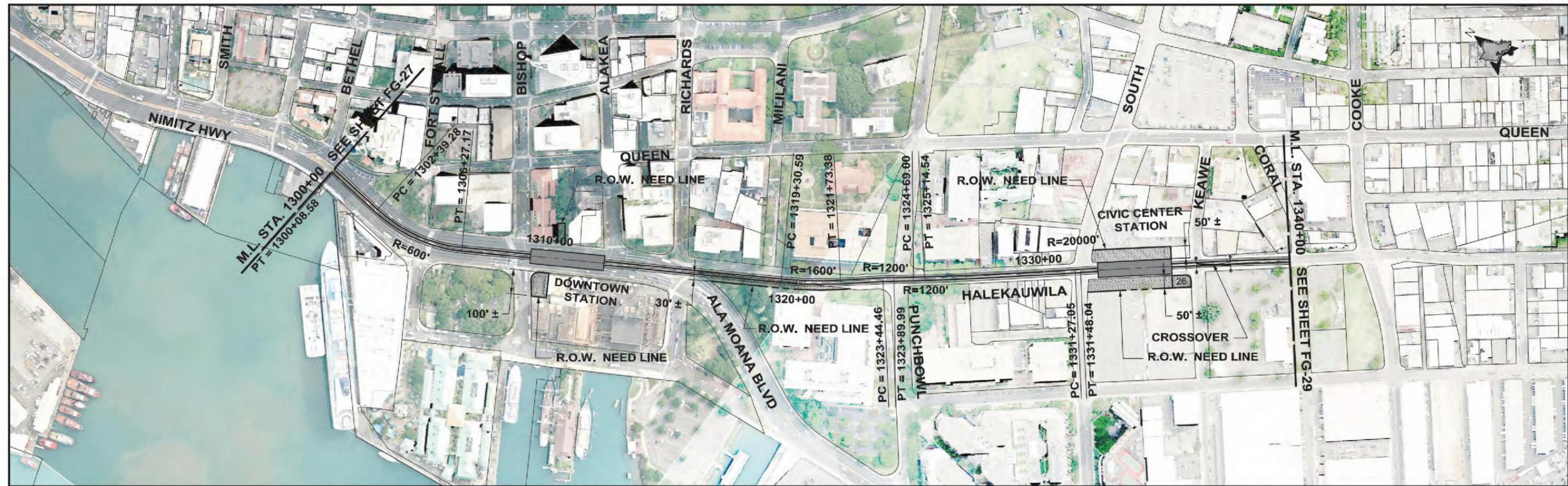


Figure 1: Proposed Downtown Station Location



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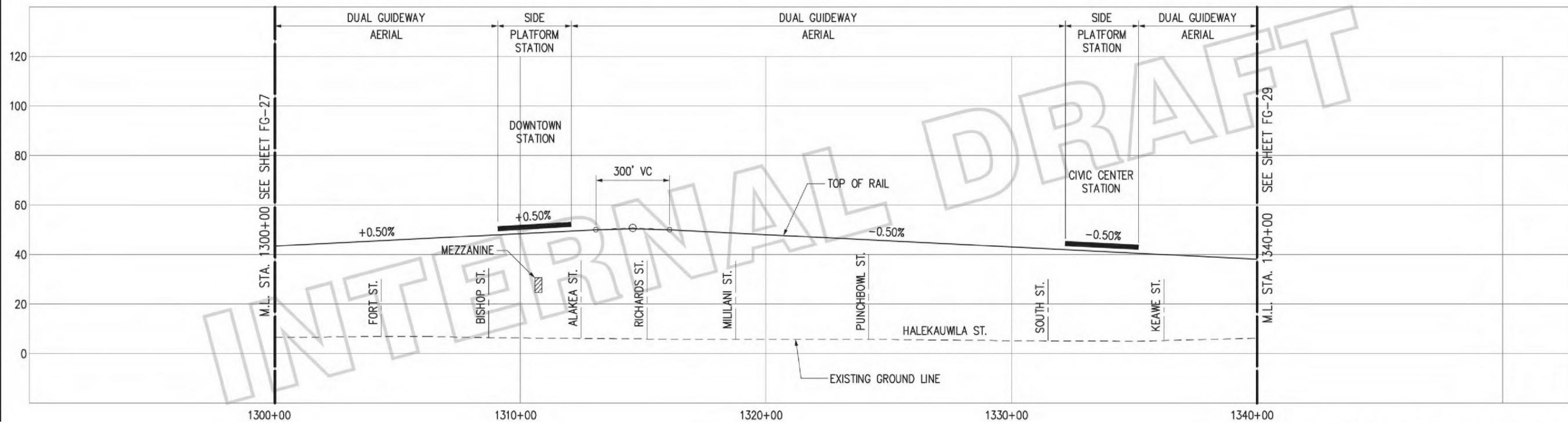


Figure 2: Bishop Street Location Option



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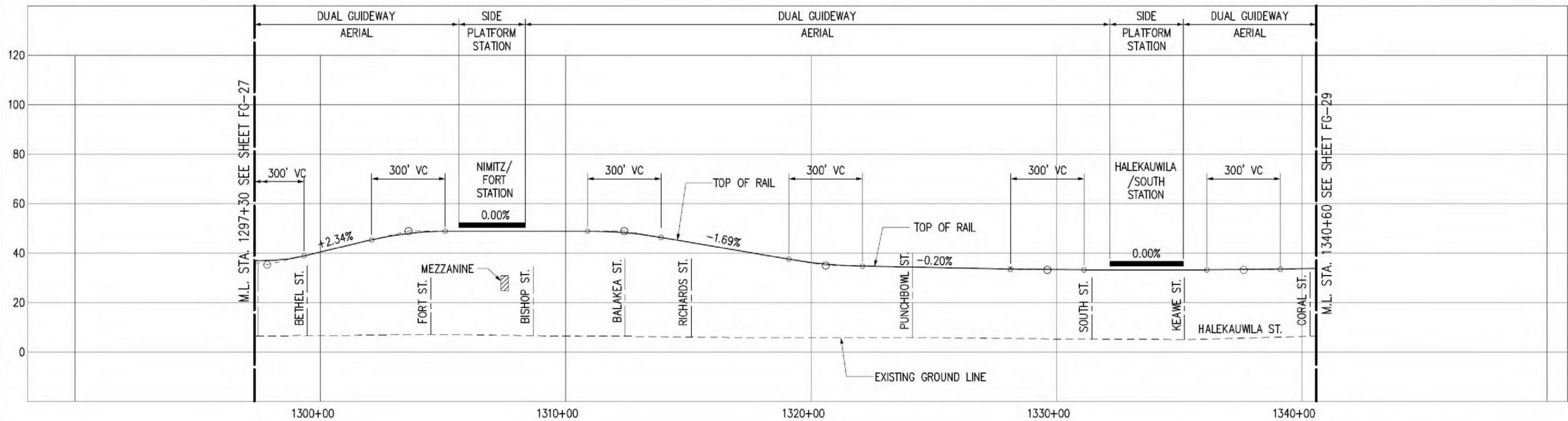
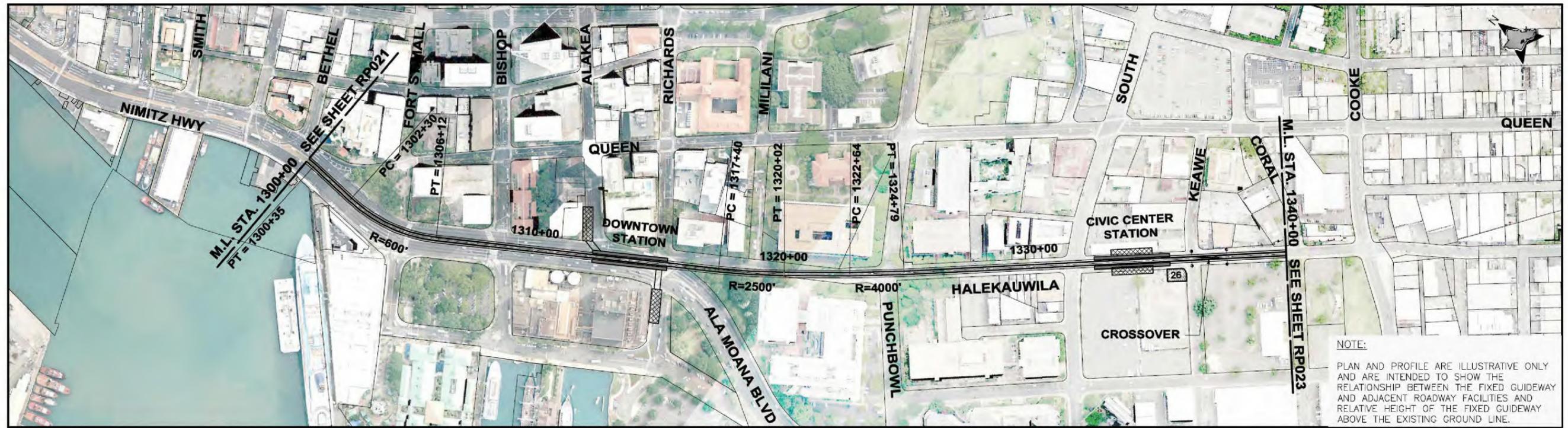


Figure 3: Fort Street Pedestrian Mall Location Option



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 AND ADJACENT ROADWAY FACILITIES AND
 RELATIVE HEIGHT OF THE FIXED GUIDEWAY
 ABOVE THE EXISTING GROUND LINE.

NOTE: PLANS ARE CONCEPTUAL AND SUBJECT TO CHANGE

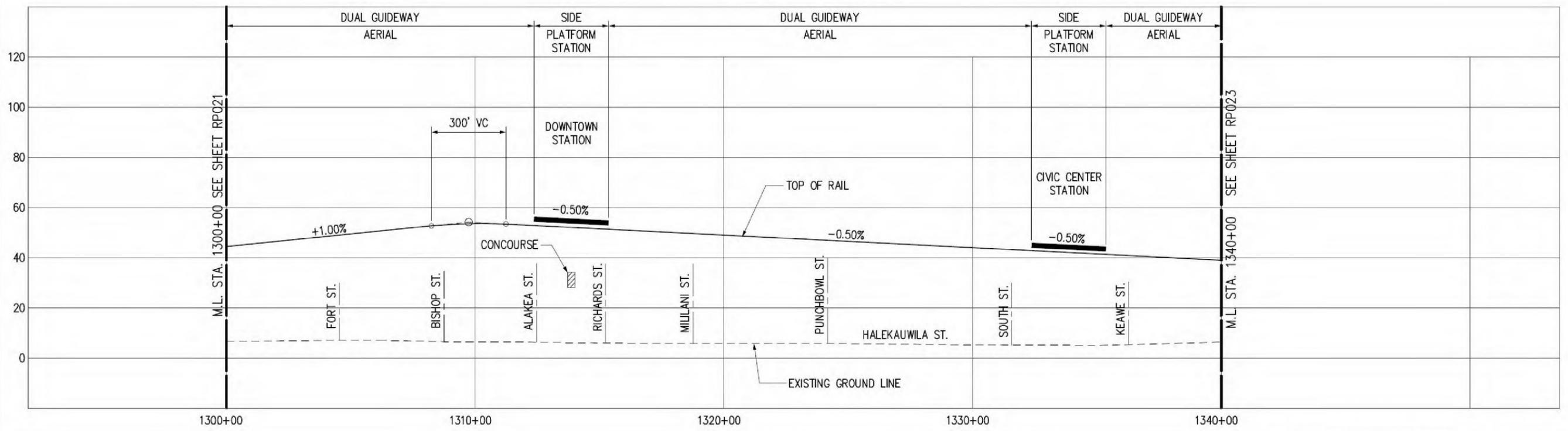


Figure 4: Alakea Street Location Option

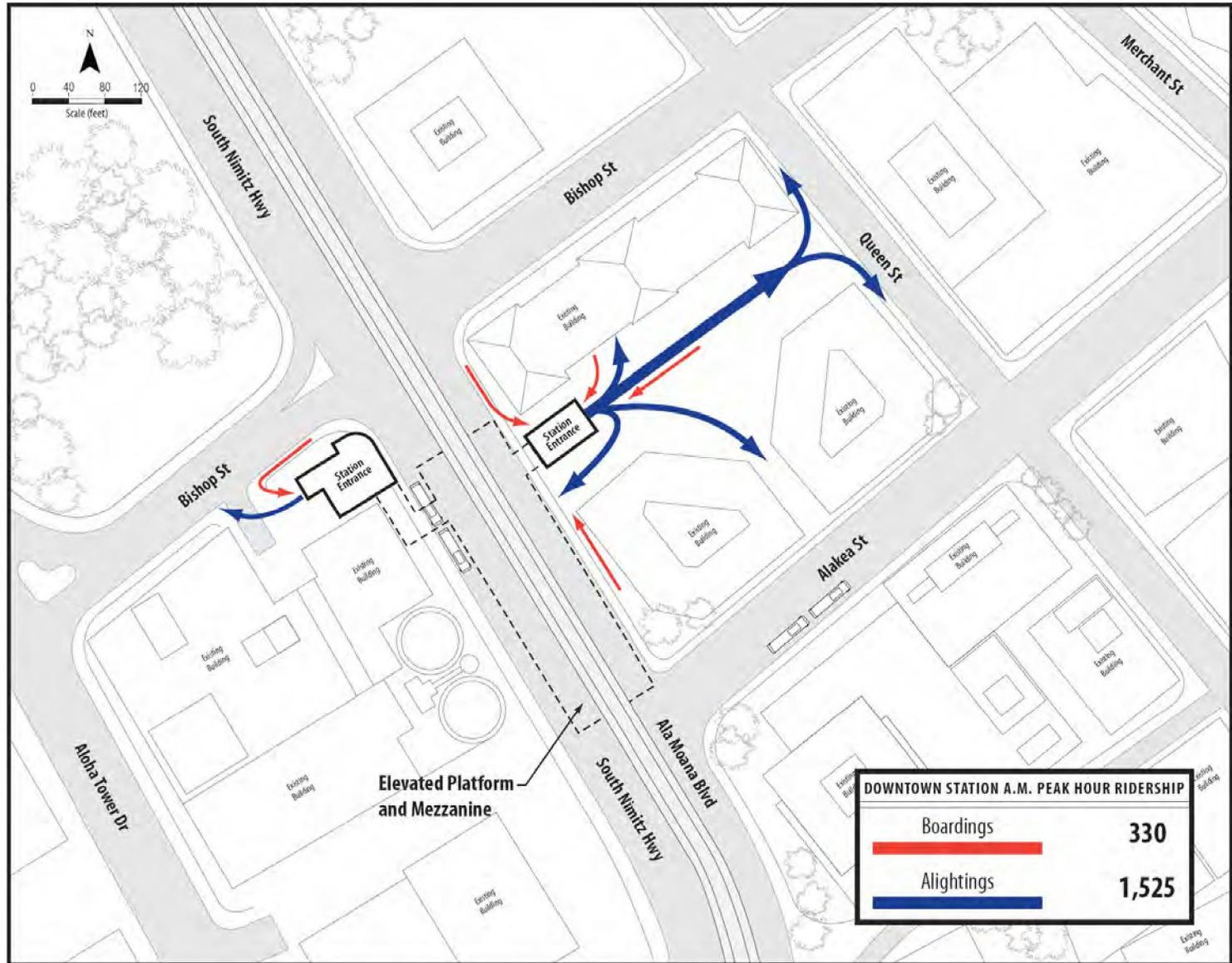


Figure 5: 2030 A.M. Peak-Hour Downtown Station Pedestrian Travel Patterns