



DATE: April 24, 2018
TO: Mayor and City Council
FROM: Interim Director of Public Works
SUBJECT I-880/Whipple Road/Industrial Parkway Interchanges Project

RECOMMENDATION

That Council reviews this report, receives conceptual project alternatives presentations by Alameda CTC staff, and provides comments on the alternatives for the I-880/Whipple Road/Industrial Parkway Interchanges Project.

SUMMARY

The project, sponsored by the City of Hayward with Alameda County Transportation Commission (Alameda CTC) as the lead agency, utilizes voter-approved Measure BB funds to improve traffic capacity, make pavement improvements, and improve pedestrian/bicycle connections at the I-880/Whipple and I-880/Industrial interchanges. Staff from Alameda CTC, and the cities of Hayward and Union City, conducted a pre-scoping study between December 2015 and March 2016 for the I-880/Whipple Road and I-880/Industrial Parkway project.

The I-880/Whipple Road interchange currently exceeds capacity and traffic is forecasted to increase by 30% between present day and 2035. Congestion occurs daily during morning and afternoon commute hours. Congestion is further impacted by the lack of a northbound off-ramp at the adjacent I-880/Industrial Parkway interchange. As such, northbound traffic wishing to access Industrial Parkway and the City's primary industrial areas must exit at Whipple Road and divert through local streets. Improvements are needed at both interchanges to address current and future congestion.

In addition, incomplete sidewalks (including sections that are not ADA compliant), and current pavement conditions are not conducive for pedestrians or bicyclists. The project will improve pedestrian and bicycle facilities along both Whipple Road and Industrial Parkway to better connect both sides of the I-880 freeway for all users. These improvements will enhance pedestrian and bicycle safety, and encourage alternative modes of transportation consistent with the City's General Plan, Bicycle and Pedestrian Master Plan, and Complete Streets initiatives.

The project is currently in the initial scoping phases of the Caltrans Project Development process, and the Project Initiation Document (PID) is being developed. The purpose of the PID

is to document need and purpose, and develop and narrow alternatives to be carried forward to subsequent project phases. The PID for this project is expected to be completed in fall 2018.

Prior to preparing the draft PID, Alameda CTC provided informational background to the City and solicited initial/preliminary feedback. Alameda CTC committed to actively partnering with City staff throughout the project process. Staff requests that Council review this item and provide comments.

BACKGROUND

In 2014, Alameda County voters approved Measure BB, which is expected to generate approximately \$8 billion over 30 years for transportation improvements county-wide. Measure BB funds Alameda CTC's 2014 Transportation Expenditure Plan, which allocated approximately 9% of total funding for Traffic Relief on Alameda County Highways, including improvements at the I-880/Whipple Road and I-880/Industrial Parkway interchanges.

The Plan identified needed improvements at both the I-880/Whipple Road interchange, and the I-880/Industrial Parkway interchange for vehicular and truck traffic, and for pedestrians and bicyclists.

The I-880/Whipple Road interchange currently exceeds capacity, with vehicle queues frequently spilling back onto the freeway and onto local streets in both Hayward and Union City. Congestion in the project area is exacerbated because there is no northbound off-ramp to Industrial Parkway. Northbound traffic heading to Industrial Parkway must exit at the I-880/Whipple Road interchange and use local streets.

This diverted regional traffic negatively impacts the local community. It results in increased traffic delay for local commuters, economic loss for local businesses, and reduction in air quality because of increased vehicle miles traveled. The proposed improvements include the addition of a northbound off-ramp at the I-880/Industrial Parkway interchange. This is expected to alleviate demand at the I-880/Whipple Road interchange, and subsequently reduce congestion. In addition to traffic congestion, both the Whipple Road and Industrial Parkway interchanges need pavement and structural improvements, and improvements for pedestrians and bicyclists.

Pavement along Whipple Road within the Caltrans right-of-way needs major rehabilitation. Additionally, the large pot holes and uneven roadway surfaces hinder multi-modal connections, particularly for bicyclists. There are currently no striped bike lanes at either interchange, with incomplete sidewalks, and sections of sidewalk that are not ADA compliant. Moreover, the high speed free-flowing ramps are not conducive to providing easy bicycle or pedestrian connections on either side of the freeway.

At the I-880/Industrial Parkway interchange, safety improvements are needed to address non-standard vertical clearances, structural degradation, and to accommodate existing and future truck traffic.

To address these needs, Alameda CTC conducted a pre-scoping study for this project between December 2015 and March 2016. The project kick-off meeting was held on December 16, 2015, and included City staff. Participants discussed objectives, reviewed the project scope, and identified City priorities. On January 27, 2016, a subsequent workshop review of draft alternatives was held.

Based on comments received from Alameda CTC and the cities, the pre-scoping study was finalized.

The draft report for the feasibility study (Attachment III) was reviewed by staff from both the cities of Hayward and Union City in a meeting on April 13, 2016. Three alternatives for each interchange were discussed in terms of cost, functionality, and impacts.

Improvements to both interchanges were coupled to fully address congestion and connectivity in the area as well as the proximity of the interchanges. The lack of a northbound off-ramp at Industrial Parkway negatively impacts the I-880/Whipple Road interchange as northbound traffic wishing to access Industrial Parkway and the City's West Industrial Area must exit at Whipple Road. The project will provide congestion relief by coupling the improvements, and balance traffic demand between the two interchanges by providing a direct off-ramp from northbound I-880 to Industrial Parkway.

The project is expected to consider a No-Build alternative, one alternative at the I-880/Whipple Road interchange, and three alternatives at the I-880/Industrial Parkway interchange. During the feasibility stage of the project, numerous configurations were explored at both interchanges. Due to the constraints of the existing roadway network and right-of-way, three alternatives were deemed feasible at each of the interchanges. All three alternatives identified during the feasibility stage at the I-880/Industrial Parkway interchange were carried forward. At the I-880/Whipple Road interchange, one alternative was dropped after City of Hayward and Caltrans staff expressed concerns that the reconfigured roadway alignment resulted in a design that would confuse drivers, pedestrians, and bicyclists. The remaining two alternatives at I-880/Whipple Road were carried forward. These two alternatives were identical, with the exception that one alternative would build a new structure, and the other alternative would preserve the existing structures. Based on Caltrans guidelines, these could not be defined as full alternatives. As such, the second alternative was re-designated as a "Design Variation."

DISCUSSION

The conceptual alternatives presented with this report include one at the I-880/Whipple Road interchange and three at the I-880/Industrial Parkway interchange. The alternative at I-880/Whipple will either replace the existing undercrossing structures with one new undercrossing (Alternative "W"), or make improvements while preserving the three

existing under-crossings (Alternative “W”, Design Variation 1). Plans for the conceptual alternatives are attached to this report (Attachment II) and described as follows:

I-880/Whipple Road:

1) **Alternative “W”:** Replace three existing undercrossing structures with one new undercrossing, improve bicycle and pedestrian connectivity, and increase capacity at ramp intersections; or

2) **Alternative “W” (Design Variation 1):** Preserve the three existing undercrossing structures, improve bicycle and pedestrian connectivity, and make improvements to the interchange and ramp intersections within the constraints of the existing structures.

I-880/Industrial Parkway:

1) **Alternative “I-1”:** Replace the existing overcrossing with three new structures, separating the eastbound and westbound traffic from pedestrians and bicyclists. The new northbound and existing southbound ramps will be reconfigured to accommodate a diverging diamond interchange; and

2) **Alternative “I-2”:** Replace the existing overcrossing with a new structure to the north. The new northbound and existing southbound ramps to Industrial Parkway will be reconfigured to a tight diamond interchange; and

3) **Alternative “I-3A”:** Replace the existing I-880/Industrial Parkway overcrossing with a new structure to the north. Both the new northbound and existing southbound ramps will be reconfigured into a combination tight diamond and partial clover leaf interchange.

The selected alternative at the I-880/Whipple Road interchange will be paired with the selected one from the I-880/Industrial Parkway interchange and implemented as a single project. However, based on the selected alternatives, it may be determined that the I-880/Whipple Road interchange improvements and the I-880/Industrial Parkway interchange improvements should be separated into standalone projects. Similarly, elements of each alternative may be combined or modified as the project progresses through the Caltrans Project Development process.

ECONOMIC IMPACT

Both interchanges serve the primary industrial areas of the City, as well as key retail areas. The project would improve access and reduce congestion-related delays both on I-880 and on local streets, and include a new northbound ramp for easier access to the west industrial area. By improving access and reducing delay, the project is expected to have positive impacts on local businesses and retail areas.

FISCAL IMPACT

The project is in initial stages and cost estimates are preliminary. The project is currently not expected to have a direct fiscal impact on the City. The project utilizes Measure BB funding through Alameda CTC's Transportation Expenditure Plan.

Preliminary cost estimates for the project as a whole range from \$112 million to \$158 million as follows:

I-880/Whipple Road:

- 1) The range for capital costs (roadway, structures, right-of-way, and escalation) is between \$16 million to \$39 million; and
- 2) Support costs range from \$5 million to \$13 million; and
- 3) A total project range of approximately \$22 million to \$51 million.

I-880/Industrial Parkway:

- 1) Capital costs range from \$61 million to \$82 million; and
- 2) Support costs range from \$22 million to \$25 million; and
- 3) A total project range of approximately \$90 million to \$107 million.

The Alameda CTC Transportation Expenditure Plan shows \$104 million in Measure BB funding as a line item for this project. Approximately \$11.25 million in Measure BB funds were allocated for the pre-scoping, PID, Project Approval and the Environmental Document (PA&ED) phase. Depending on the preferred alternative, there may be a shortfall in funding. Funding sources to cover the shortfall have not been identified and will need to be determined before starting the detailed design and right of way acquisition process.

STRATEGIC INITIATIVES

This agenda item supports the Complete Streets Strategic Initiative. The purpose of the Complete Streets Initiative is to build streets that are safe, comfortable, and convenient for travel for everyone, regardless of age or ability, including motorists, pedestrians, bicyclists, and public transportation riders. This item supports the following goals and objectives:

Goal 1: Prioritize safety for all modes of travel.

Objective 3: Ensure that roadway construction and retrofit programs and projects include complete streets elements.

Goal 2: Provide Complete Streets that balance the diverse needs of users of the public right-of-way.

Objective 1: Increase walking biking, transit usage, carpooling, and other sustainable modes of transportation by designing and retrofitting streets to accommodate all modes.

SUSTAINABILITY FEATURES

The project will reduce regional traffic diversions to City streets, and therefore reduce carbon and greenhouse gas emissions and vehicle miles travelled within the City. The project will also improve bicycle and pedestrian facilities and connections through both interchanges, and is consistent with the City's 2007 Bicycle Master Plan.

The City is currently in the process of updating its Bicycle and Pedestrian Master Plan. A primary goal of the update is to close gaps in the existing bicycle and pedestrian network. Due to the lack of bike lanes and incomplete sidewalks, gaps currently exist along both Whipple Road and Industrial Parkway at I-880. The project will fill these gaps by improving bicycle facilities and sidewalks along both sides of the freeway at both interchanges, and connect them to existing bicycle and pedestrian facilities. These improvements will be consistent with the goals and objectives of the Bicycle and Pedestrian Master Plan Update, including any design guidelines that are developed as part of the update process.

PUBLIC CONTACT

A notice of this Council work session was sent to residents and businesses in neighborhoods adjacent to the Project via social media apps and the City's email list.

Formal public outreach efforts have not yet been conducted as the project is starting the PID phase. Public outreach is normally conducted in the PA&ED phase, which will commence in fall 2018. Early public involvement is expected between late 2018 to early 2019 to obtain initial input. Additional public involvement will occur during the public review of the Draft environmental documents in fall 2019.

NEXT STEPS

The Project is currently in the early stages of the Project Initiation Document (PID) phase. As part of this phase, Alameda CTC is soliciting feedback and identifying preferred alternatives from stakeholders, including the City. Public outreach meetings and a subsequent follow-up presentation to Council will be held during the PA&ED phase. The tentative project schedule is as follows:

Completion of PID	Fall 2018
Completion of PA&ED/Public Outreach/2 nd Council Presentation	Fall 2019
Begin Design Work	Spring 2020
Begin Construction	Spring 2023
Project Completion	Late 2025

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