#### STAFF REPORT

**DATE:** September 7, 2021

**TO:** Bicycling, Transportation, and Street Safety Commission

FROM: Kevin Fong, Senior Civil Engineer

**SUBJECT:** Richards Boulevard Interchange Improvements, CIP No. 8730

#### **Recommendation**

Informational

#### **Background and Analysis**

City Council approved entering into a cooperative agreement with Caltrans, in which the City would not have to pay for review of Plan Approval and Environmental Documents (PA&ED). The City's consultant, Mark Thomas and Company (MT&Co.) is working on the geometric approval drawing (GAD), the initial study, and environmental assessment for Caltrans review, and approval. Fehr and Peers is working on the transportation analysis report (TAR), which will be incorporated into the environmental assessment.

The TAR highlights travel demand forecasting, traffic operations analysis of existing, construction, and future conditions, and takes into account the layout of the facilities, and developments. Fehr and Peers completed their initial TAR, and are revising it based on the traffic impacts of future developments, such as Lincoln 40, Nishi, and the Davis Archway.

A sample of the average daily traffic (ADT) for the existing conditions, construction year, and design year are shown below:

		I-80 east of Olive Dr		Richards Blvd at I-80	
Scenario	Year	Annual ADT	Peak Hour	Annual ADT	Peak Hour
Existing	2016	133,600	8,898	23,950	1,609
Construction Year	2022	144,350	9,620	27,920	1,890
Design Year	2042	180,180	12,000	41,160	2,800

Source: Fehr & Peers, 2018

**Table 1. Forecasted Average Daily Traffic** 

MT&Co. is completing the design drawings for Caltrans, and City review. The design focuses on intersection, and freeway onramp and off ramp layouts, and will be designed to align with freeway lanes should Caltrans proposed high occupancy vehicle lanes

(HOV) on Interstate 80 be constructed. A design exception exhibit for designs which do not meet Caltrans standards for items such as grade, or turn radiuses is also being drafted for Caltrans acceptance. One of the difficulties faced is the separate bicycle, and pedestrian path which will be adjacent to the freeway overcrossing due to grade and turn radii, as shown in Figure 1 below.

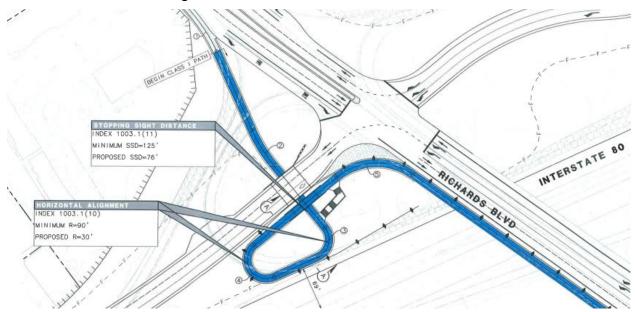


Figure 1. Design Exception Exhibit

The Richards Boulevard overpass will have a minimum 7 foot bike lanes, and a Class IV 12 foot wide multi use path based on input from the previous BTSSC meeting.

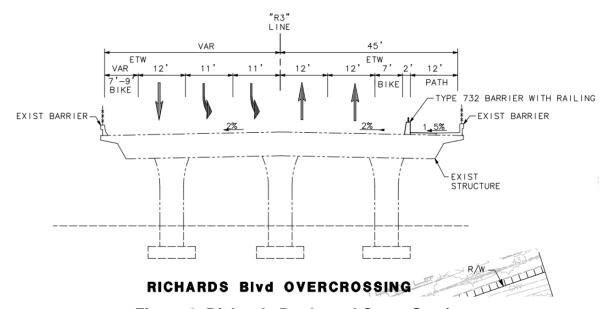


Figure 2. Richards Boulevard Cross Section

Environmental Science Associates (ESA) completed noise measurements at various locations around Interstate 80 to determine if a soundwall would need to be constructed to mitigate freeway noise. ESA documented the results of the noise measurements in their noise analysis report, part of the environmental documents for Caltrans approval, and City review. A figure showing the noise measurement sites is shown below.

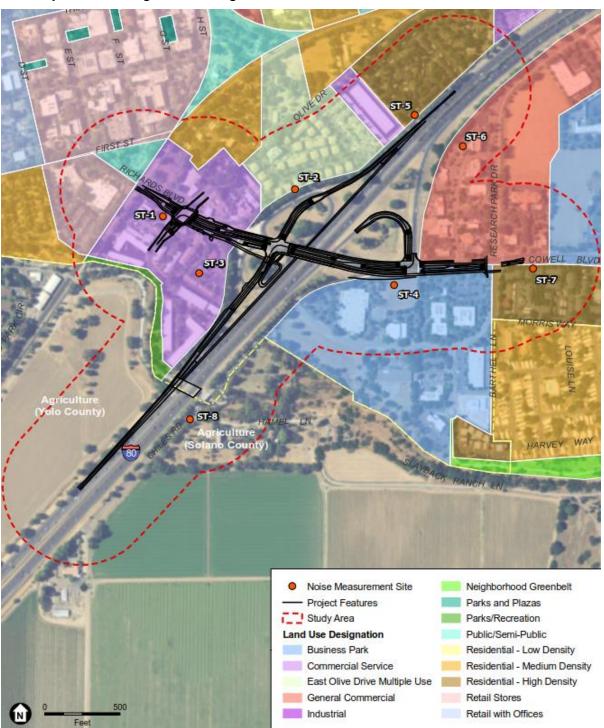


Figure 3. Noise Measurement Sites

#### **Next Steps / Timeline**

Staff anticipates the initial study/ mitigated negative declaration (IS/MND) environmental documents to be circulated later in September for public comment.

The 95% structure design plans are anticipated to be completed by the end of October 2021, and the 95% designs for the roadway/ traffic design is anticipated to be completed by the end of November 2021. The project is anticipated to be ready for bid in June 2022.

### Richards I-80 Project Update

CIP 8730



# Richards Blvd an Olive Drive Intersection Layout



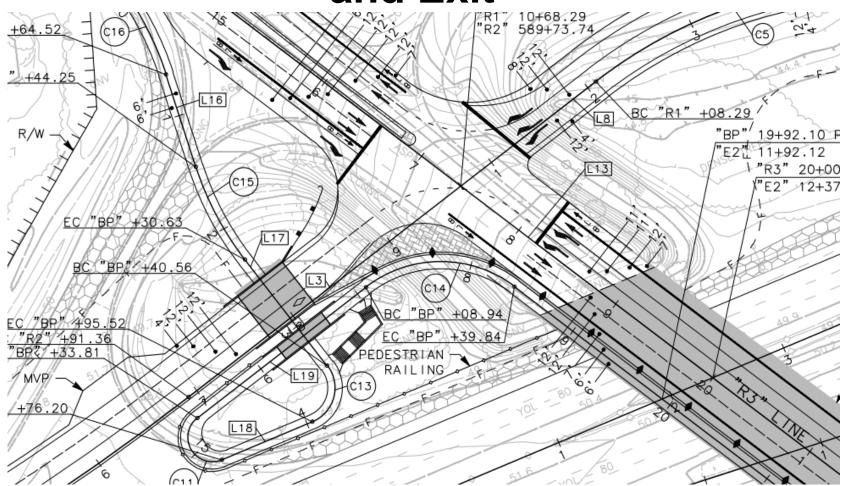


# Existing West Bound I-80 On Ramp and Exit



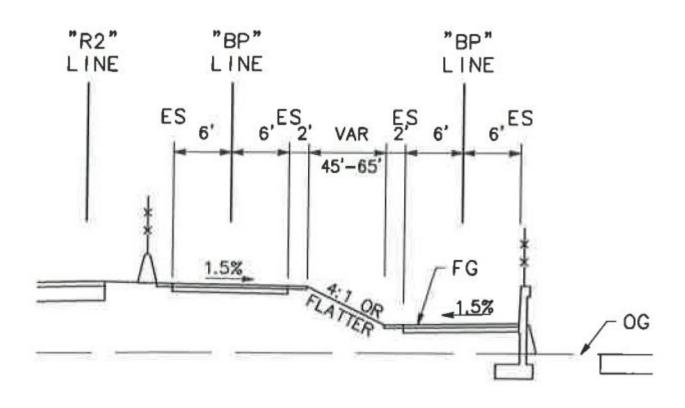


### Proposed West Bound I-80 On Ramp and Exit



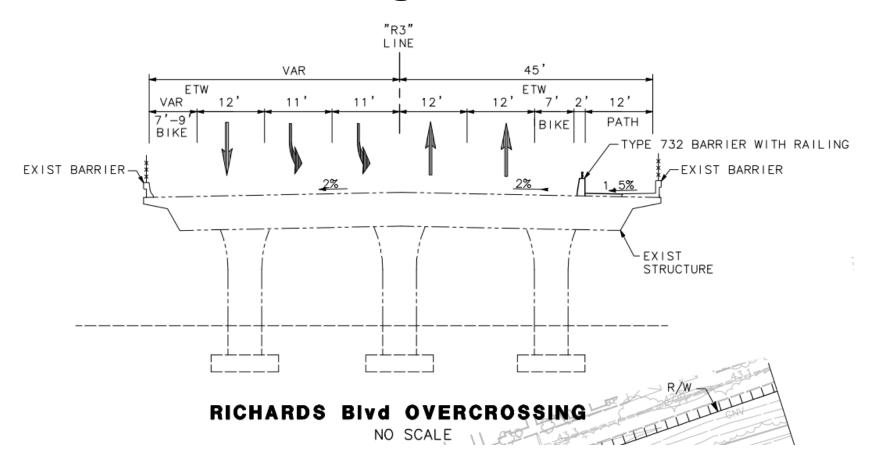


### **Multi Use Path Cross Section**





### Proposed Richards Boulevard Overcrossing Cross Section



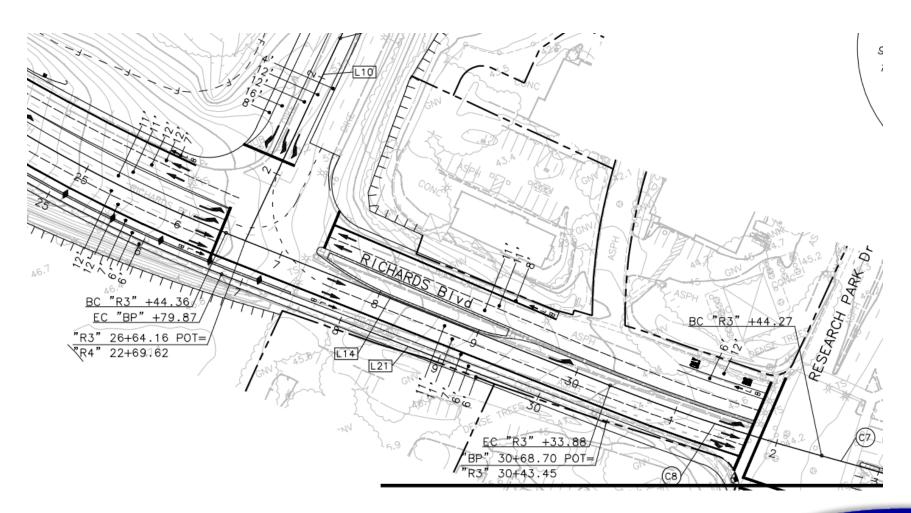


## **Existing East Bound I-80 Ramp and Exit**





## Proposed East Bound I-80 Ramp and Exit





#### **Timeline**

- Circulation of Public Draft IS/MND September 2021
- 95% Structure Design October 2021
- 95% Roadway/Traffic Design November 2021

