

# **INTERSTATE 80/ASHBY AVENUE (ROUTE 13) INTERCHANGE IMPROVEMENT PROJECT – (Ashby Avenue [SR-13]-Shellmound Street)**

ALAMEDA COUNTY, CALIFORNIA  
Interstate 80 and State Route 13  
04-ALA-80 PM 3.9/5.0  
04-ALA-13 PM 13.7/13.9  
EA 04-25620 / Project ID 04-1800-0225

## **Initial Study with Mitigated Negative Declaration and Environmental Assessment with Finding of No Significant Impact**



**Prepared by:**  
**State of California, Department of Transportation  
and the  
Alameda County Transportation Commission**



The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

**December 2023**

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## GENERAL INFORMATION ABOUT THIS DOCUMENT

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The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), in cooperation with the Alameda County Transportation Commission (Alameda CTC) has prepared this Initial Study with Mitigated Negative Declaration and Environmental Assessment (IS/EA). This IS/EA examines the potential environmental impacts of alternatives being considered for the project, which is in Alameda County, California. Caltrans is the lead agency for preparing the environmental document in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). This document tells you why the project is being proposed, alternatives considered, how the existing environment could be affected, the potential impacts of each of the alternatives, and the avoidance and/or minimization measures.

The IS/EA was circulated for public review between December 15, 2021 and January 31, 2022. Comments received during this period are included in Chapter 4.0, Comments and Coordination. Revisions to the IS/EA made after the public review period are indicated by a vertical line in the margin of this document.

Copies of this document are available online:

- Caltrans District 4 website at: <https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>
- Alameda CTC project website at: <https://www.alamedactc.org/programs-projects/>

### ALTERNATIVE FORMATS

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Wahida Rashid, P.O. Box 23660, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

SCH# 2021120340  
04-ALA-80 PM 3.9/5.0  
04-ALA-13 PM 13.7/13.9  
EA 04-25620; Project ID# 0418000225

Interchange and Local Road Improvements along Interstate (I)-80, at the Ashby Avenue  
Interchange in Emeryville and Berkeley, in Alameda County

**Initial Study with  
Mitigated Negative Declaration/Environmental Assessment with Finding of No  
Significant Impact**

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA  
Department of Transportation  
and Alameda County Transportation Commission

Responsible Agencies:  
City of Emeryville  
City of Berkeley  
San Francisco Bay Conservation and Development Commission  
San Francisco Bay Regional Water Quality Control Board

12/28/2023

*Dina El-Tawansy*

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Date of Approval

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Dina A. El-Tawansy  
District 4 Director  
California Department of Transportation  
NEPA/CEQA Lead Agency

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**Mitigated Negative Declaration**  
Pursuant to: Division 13, Public Resources Code

***Project Description***

The California Department of Transportation (Caltrans) District 4, in partnership with the Alameda County Transportation Commission (Alameda CTC), proposes to provide interchange and local road improvements along Interstate 80 (I-80) at the Ashby Avenue Interchange (interchange). The interchange is located between post miles (PM) 3.9 and 5.0 on I-80 and between 13.7 and 13.9 on State Route (SR) 13 in the cities of Emeryville and Berkeley in Alameda County. The project would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to West Frontage Road, and introduce a new bicycle and pedestrian overcrossing and connection from 65<sup>th</sup> Street/Shellmound Street to the San Francisco Bay Trail.

***Determination***

Caltrans has prepared an Initial Study for this project, and following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The project would have no impact on farmlands/timberlands, growth, mineral resources, population and housing, and recreation.
- In addition, the project would have less than significant impacts on land use, communities, greenhouse gas emissions, noise, and utilities and system services.
- With avoidance and minimization measures incorporated, the project would have less than significant impacts on visual resources and aesthetics, cultural and tribal cultural resources, air quality, hydrology and floodplains, geology and soils, hazards and hazardous materials, public services, and traffic and transportation.
- With mitigation measures incorporated, the project would have less than significant impacts to aquatic resources.

*Dina El-Tawansy*

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Dina A. El-Tawansy  
District 4 Director  
California Department of Transportation

12/28/2023

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Date

**California Department of Transportation  
Finding of No Significant Impact (FONSI)**

**For**

**INTERSTATE 80/ASHBY AVENUE (ROUTE 13)  
INTERCHANGE IMPROVEMENT PROJECT –  
(Ashby Avenue [SR-13]-Shellmound Street)**

The California Department of Transportation (Caltrans), in cooperation with Alameda CTC, has determined that the Preferred Alternative will have no significant impact on the human environment. This finding of no significant impact (FONSI) is based on the attached EA, and supporting technical reports, which have been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the project and appropriate avoidance and minimization measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA.

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

*Dina El-Tawansy*

12/28/2023

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Dina A. El-Tawansy  
District Director  
Caltrans District 4

Date

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## SUMMARY

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The Alameda County Transportation Commission (Alameda CTC), in partnership with the California Department of Transportation (Caltrans) and the cities of Emeryville and Berkeley, proposes to provide interchange and local road improvements along Interstate 80 (I-80) between post mile (PM) 3.9 and 5.0 and on Ashby Avenue (Route 13) between PMs 13.7 and 13.9 (see Figure 1.4-1 in Section 1.0). The I-80/Ashby Avenue Interchange Improvement Project (proposed project) would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to West Frontage Road, and introduce a new bicycle and pedestrian overcrossing and connection from 65<sup>th</sup> Street/Shellmound Street to the San Francisco Bay Trail. The proposed project would improve traffic, pedestrian, and bicycle operations in the cities of Emeryville and Berkeley.

Alameda CTC is the project sponsor, and Caltrans is the lead agency for the proposed project under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

California Department of Transportation (Caltrans) participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered a Memorandum of Understanding pursuant to (MOU) 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned, and Caltrans assumed all the United States Department of Transportation Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System (SHS) and Local Assistance Projects off of the SHS within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The purpose of the proposed project is to:

- Improve interchange access and circulation
- Provide a westbound I-80 connection to Shellmound Street
- Provide safe bicycle and pedestrian connectivity across I-80
- Improve circulation at I-80/Powell Street and 7<sup>th</sup> Street
- Alleviate local surface street congestion

The interchange, constructed in the 1950s, does not provide access to or from westbound I-80 or Shellmound Street in the City of Emeryville. Additionally, the area including the interchange lacks connectivity for different modes of transportation (e.g., vehicular, bicycle and pedestrian users). For these reasons, the interchange suffers from the following key operational issues:

- The existing interchange provides no access to Shellmound Street to/from westbound I-80 and no access from Shellmound Street to Frontage Road
- Access from westbound traffic to Emeryville is forced to use the Powell Street interchange
- There is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street/Shellmound Street area

The proposed project would alleviate congestion, improve multi-modal access, and support implementation of local and regional land use and transportation plans.

Two alternatives were considered as part of the draft environmental document (DED). The alternatives were the “Build Alternative” and the “No Build Alternative.” The Build Alternative would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign West Frontage Road, and introduce a new bicycle and pedestrian overcrossing connection from 65th Street/Shellmound Street to the San Francisco Bay Trail. Variations of the Build Alternative included structure types for the bicycle pedestrian overcrossing (butterfly arch, basket-handle arch, or box girder) and connection to the San Francisco Bay Trail and Point Emery (at-grade crosswalk or below-grade crossing under West Frontage Road).

Under the No Build Alternative, none of the improvements included under the proposed project would occur. The No Build Alternative is considered the environmental baseline against which potential environmental effects of the Build Alternative are evaluated.

The project development team (PDT) identified the Build Alternative with the basket handle arch structure type for the bicycle/pedestrian overcrossing (BPOC) and at-grade

crosswalk variations as the Preferred Alternative at the PDT meeting on May 2, 2022. The PDT selected the Build Alternative over the No Build Alternative for the following reasons.

- The Build Alternative would best meet the need and purpose of the project over the No Build Alternative
- Compared to the No Build Alternative, the Build Alternative would enhance traffic and pedestrian safety by creating more efficient traffic routes, and adding a BPOC within the project limits while minimizing environmental impacts
- The architectural style of the basket handle arch shares a similar visual character with the rest of the bicycle/pedestrian overcrossing structures in the I-80 corridor
- The vertical fence in the basket handle arch style would create a safer experience for the users compared to the angled fencing in the butterfly arch style
- The at-grade crossing was preferred by local stakeholders, who expressed concern that the below-grade crossing variation underneath West Frontage Road would pose safety risks for bicyclists and pedestrians

Table S-1 summarizes the adverse effects of the Build Alternative and the No Build Alternative. The proposed avoidance and minimization measures to reduce the effects of the Build Alternative are also presented. For a complete description of potential adverse effects and recommended measures, refer to the specific sections within Chapter 2.0 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures.

**Table S-1 Potential Environmental Impacts of the Proposed Project**

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
Land Use (2.1.1)	None	Temporary intersection closures and construction staging areas may cause traffic inconveniences to surrounding businesses.	None
Consistency with Regional and Local Plans and Programs (2.1.2)	The No Build Alternative would not support the implementation of local and regional plans related to transportation and bicycle/pedestrian connectivity improvements.	The Build Alternative would support implementation of the Regional Transportation Plan, Plan Bay Area, and local general plans that call for transportation and bicycle/pedestrian connectivity improvements.	None
Coastal Zone (2.1.3)	None	There would be no permanent effect on resources, views, or access to the San Francisco Bay. A temporary detour around the construction area would be constructed to ensure continuous public access and function of the San Francisco Bay Trail.	<b>AMM TRA-1:</b> (Public Access to the San Francisco Bay Trail) During construction of the new outfall area, a temporary detour around the construction area will be installed to ensure continuous access to the San Francisco Bay Trail is maintained.
Parks and Recreation Facilities (2.1.4)	None	The proposed project would not require permanent acquisition of parks or recreational facilities. Temporary construction effects would be minimized through the incorporation of standard Caltrans Best	<b>AMMs TRA-1 through TRA-5:</b> Impacts to traffic would be minimized by planning construction activities that require road closure and detours during nighttime hours, installing temporary access ramps, and informing the public well in

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
		Management Practices (BMPs) into the proposed project.	advance of any anticipated road closures and detours.
Community Impacts, including Community Character and Cohesion Relocations and (2.1.5)	None	The proposed project would not negatively affect the cohesion of existing communities surrounding the project area. The proposed project would not change the character of the area, as it is located in a mostly urbanized area that supports a I-80 and associated facilities.	<b>AMMs TRA-1</b> through <b>TRA-5</b> : Impacts on access to nearby homes and businesses would be minimized by planning construction activities that require road closure and detours during nighttime hours, installing temporary access ramps, and informing the public well in advance of any anticipated road closures and detours.
Real Property Acquisitions (2.1.6)	None	Relocation of homes and/or businesses would not be required. Partial acquisitions (“sliver takes”) would be required near the KRE Radio Station building. Operations and use of the KRE Radio Station would not be affected.	None
Environmental Justice (2.1.7)	None	No disproportionately high adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898.	None
Utilities/Emergency Services (2.1.8)	None	Early coordination with utility providers, removal or relocation of existing electric transmission lines and lights	<b>AMM UTL-1</b> : Detailed utility coordination and verification will be required during the final design



Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
		would minimize utility disruptions during construction. Short-term effects to police, fire, and emergency services during construction would occur but effects would be reduced with incorporation of AMMs.	phase of the proposed project to facilitate relocation of utilities. <b>AMM UTL-2:</b> Emergency service providers will be notified prior to construction of any temporary road closures and/or detours as part of the TMP.
Traffic and Transportation/Pedestrian and Bicycle Facilities (2.1.9)	None	Temporary road closures and detours would be required. AMMs TRA-1 through TRA-5 would be implemented for any anticipated road closures and traffic detours.	<b>AMMs TRA-1 through TRA-5:</b> Impacts to traffic would be minimized by planning construction activities that require road closure and detours during nighttime hours, installing temporary access ramps, and informing the public well in advance of any anticipated road closures and detours.
Visual/Aesthetics (2.1.10)	None	Changes to the visual environment would be noticeable, but would not substantially alter scenic vistas, scenic resources, or degrade the existing character and quality of the project area. The backdrop of the existing visual setting would continue to be the existing I-80 corridor. The overall visual impact under the Build Alternative would be moderate.	<b>AMM VIS-1:</b> To avoid the inadvertent creation of areas that appeal to human usage (e.g., open areas under bridge structures and isolated vacant lots), the final design will include measures to discourage the creation of encampments. <b>AMM VIS-2:</b> To reduce the visual impact of new retaining walls and bridge structures, aesthetic treatments consisting of color, texture and/or patterning will be applied to reduce visual impacts.

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<b>AMM VIS-3:</b> Caltrans will use additional standard construction equipment and protocol for the Build Alternative, such as replacement of damaged or removed vegetation and irrigation systems and providing highway replacement planting with efficient irrigation system.
Cultural Resources and Tribal Cultural Resources (2.1.11)	None	No known cultural or tribal cultural resources are present within the project area of potential effects (APE). Standard project features would ensure that any unrecorded resources are protected.	<p><b>AMM CUL-1:</b> If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.</p> <p><b>AMM CUL-2:</b> If Caltrans Professionally Qualified Staff determines that cultural materials contain human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans' Cultural Resources Studies Office will contact the Alameda County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are thought by the coroner to be Native</p>

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			American, the coroner will notify the NAHC, which will then notify the Most Likely Descendent. Caltrans, District 4, Cultural Resources Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable
Hydrology and Floodplain (2.2.1)	None	Drainage improvements and construction of a new outfall, in conjunction with stormwater best management practices (BMPs) application, would help minimize impacts due to surface runoff and/or sea level rise. The proposed project would not cause a significant or longitudinal encroachment on any floodplain.	None
Water Quality and Storm Water Run-Off (2.2.2)	None	Temporary effects related to stormwater runoff during construction would be minor and would be minimized through the implementation of best management practices (BMPs). Operational effects would be minimized. Project features would serve to reduce	<b>AMM WQ-1:</b> Pursuant to the Construction General Permit, a Stormwater Pollution Prevention Program would be developed.. <b>AMM WQ-2:</b> Treatment BMPs. Post-construction treatment BMPs shall be required to ensure the proposed project does not increase stormwater volumes in

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
		pollutants, in particular the release of gross solids. The proposed project would not significantly affect water quality.	existing stormwater conveyance channels. <b>AMM WQ-3:</b> Work within the San Francisco Bay will be limited to the smallest area possible. A cofferdam spanning planned in-water work areas will be implemented to avoid water quality impacts and potential impacts to aquatic wildlife habitat. <b>AMM WQ-4:</b> Implementation of standard operations and maintenance BMPs to prevent pollutants from being discharged to surface waters.
Geology/ Soils/ Seismic/ Topography (2.2.3)	None	Temporary effects associated with soil erosion and construction worker risk from seismicity minimized through the application of PF-GEO-1, GEO-2, GEO-3, and AMM-WQ-1 and WQ-2 measures. Operational risks from expansive soils, corrosive soils, erosion, and seismicity would similarly be avoided or minimized through implementation of project features.	None
Paleontology (2.2.4)	None	Construction activities may encounter paleontologically sensitive Pleistocene deposits. No adverse effects	<b>PF PAL-1:</b> In the event of unanticipated paleontological resource discoveries during project related activities, work in the

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
		are anticipated with implementation of a Paleontological Mitigation Plan (PMP).	immediate vicinity of the discovery shall be halted until it can be evaluated by a qualified paleontologist, consistent with Caltrans Standard Specifications Section 14-7.
Hazardous Waste/ Materials (2.2.5)	None	There are several potential hazardous materials sites near the project area. There is risk of encountering contaminated groundwater associated with these sites during project construction. Soil in and around the project area may contain naturally occurring asbestos, aerially deposited lead (ADL), pesticides from previous agricultural land uses and other heavy metals. Standard measures will be applied to minimize these risks.	<p><b>AMM HAZ-1:</b> During the design phase, a Preliminary Site Investigation (PSI) of the project area shall be performed to investigate hazardous materials concerns related to soil, groundwater, and construction materials identified in the Phase I ISA.</p> <p><b>AMM HAZ-2:</b> At a minimum, groundwater from dewatering of excavations, if any, would be stored in Baker tank(s) during construction activities and the water would be characterized prior to disposal or recycling.</p> <p><b>AMM HAZ-3:</b> In accordance with Caltrans' standards, a site safety plan shall be prepared and implemented prior to initiation of any construction/development activities to reduce health and safety hazards to workers and the public.</p> <p><b>AMM HAZ-4:</b> Hazardous building materials surveys shall be</p>

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<p>conducted by a qualified professional.</p> <p><b>AMM HAZ-5:</b> Asphalt concrete and Portland cement concrete grindings shall be reused in accordance with the San Francisco Bay RWQCB's guidance to protect water quality or transported offsite for recycling or disposal.</p>
Air Quality (2.2.6)	None	Criteria air pollutant emissions during construction would be below applicable thresholds and would be in conformity with state and federal air quality standards. Operation of the proposed project would be in conformity on a regional and project level. Operational criteria air pollutants would be below applicable thresholds.	None
Noise (2.2.7)	None	Construction activities associated with the proposed project would be relatively short in duration and intensity and would potentially result in temporary increases in noise levels. Construction noise levels would be reduced through the application of Project Features PF NOI-1	None

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
		through PF NOI-6. There would be no substantial increase in permanent noise levels over the future No Build Alternative conditions.	
Energy (2.2.8)	None	The proposed project would improve traffic flow during peak travel times, thereby reducing overall energy consumption in the form of gasoline.	None
Natural Communities (2.3.1)	None	No impacts to sensitive natural communities would occur within the project footprint. The proposed project would require removal of 149 trees.	<b>AMM BIO-1:</b> Removed or damaged trees will be replaced with replacement highway planting and irrigation (reclaimed water will be use when available), along with a three-year plant establishment period in all areas of highway planting consistent with the corridor's Classified Landscape Freeway status and where safety and maintenance requirements can be met. Trees and vegetation outside of the clearing and grubbing limits would be protected from the contractor's operations, equipment, and materials storage. Tree trimming and pruning, where required, would be conducted under the direction of a qualified biologist.

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
Wetlands and other Waters (2.3.2)	None	The proposed project would require fill within 0.012 acre of wetlands within USACE's jurisdiction and 0.007 acre of permanent impact to USACE jurisdictional non-wetland waters in the San Francisco Bay.	<b>AMM BIO-2:</b> Limits in-water work area to smallest area possible. <b>Compensatory Mitigation Measure BIO-1:</b> Caltrans will provide compensatory mitigation to offset the unavoidable loss of aquatic resources at the new outfall within the biological study area (BSA). Compensatory mitigation would occur at a minimum 1:1 in accordance with regulatory permit requirements.
Plant Species (2.3.3)	None	No special-status plant species were observed within the biological study area and no suitable habitat exists.	None
Animal Species (2.3.4)	None	Active nests of Cooper's Hawk ( <i>Accipiter cooperii</i> ), great egret ( <i>Ardea alba</i> ), and great blue heron ( <i>Ardea herodias</i> ) and nesting birds protected by the Migratory Bird Treaty Act could be indirectly affected by project construction noise.	<b>AMM BIO-3:</b> Caltrans would avoid initiating vegetation clearing, ground-disturbance and other construction activities during the nesting bird season (February 1 to September 30) to the extent feasible. <b>AMM BIO-5:</b> Prior to conducting work within Bay waters, a cofferdam will be constructed at low tide to create a dry work area. This will limit the potential for the project to result in water quality impacts and potential impacts to aquatic species habitat. <b>AMM BIO-7:</b> All construction personnel would attend a



Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<p>mandatory environmental education program delivered by an agency - approved biologist prior to working in the project construction area.</p> <p><b>AMM BIO-8:</b> Agency-Approved Biological Monitor – Caltrans would submit the names and qualifications of the biological monitor(s) for agency approval prior to initiating construction activities for the proposed project. Only agency approved biological monitors would implement the monitoring duties outlined in the biological opinion including delivery of the Worker Environmental Awareness Training Program. <b>AMM BIO-9:</b> The agency- approved biologist(s) would be on site during in-water work to fulfill the role of the approved biologist as specified in the document.</p> <p><b>AMM BIO-11:</b> Minimize Hydroacoustic Impacts During Vibratory Pile Driving – Vibratory driving may be necessary to install the temporary cofferdam. Measures will be implemented if pile driving is necessary to minimize hydroacoustic impact.</p>

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<b>AMM BIO-12:</b> The project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance.
Threatened and Endangered Species (2.3.5)	None	Construction of the new outfall would permanently impact 0.007 acre of critical habitat for Chinook salmon ( <i>Oncorhynchus tshawytscha</i> ), ( <i>Oncorhynchus mykiss irideus</i> ), and longfin smelt ( <i>Spirinchus thaleichthys</i> ). Impacts would occur in shallow water along the coastline where these fish are not expected to occur. The proposed project would have no effect on threatened and endangered animal species or habitat.	<p><b>AMM BIO-2:</b> Limit in-water work area to the smallest area possible.</p> <p><b>AMM BIO-3:</b> Caltrans would avoid initiating vegetation clearing, ground-disturbance and other construction activities during the nesting bird season (February 1 to September 30) to the extent feasible.</p> <p><b>AMM BIO-5:</b> Prior to conducting work within Bay waters, a cofferdam will be constructed at low tide to create a dry work area. This will limit the potential for the project to result in water quality impacts and potential impacts to aquatic species habitat.</p> <p><b>AMM BIO-6:</b> No water work during fish migration periods (November through June).</p> <p><b>AMM BIO-7:</b> All construction personnel would attend a mandatory environmental education program delivered by an agency-approved biologist prior to</p>

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<p>working in the project construction area.</p> <p><b>AMM BIO-8:</b> Agency-Approved Biological Monitor – Caltrans would submit the names and qualifications of the biological monitor(s) for agency approval prior to initiating construction activities for the proposed project. Only agency approved biological monitors would implement the monitoring duties outlined in the biological opinion including delivery of the Worker Environmental Awareness Training Program.</p> <p><b>AMM BIO-9:</b> The agency-approved biologist(s) would be on site during in-water work to fulfill the role of the approved biologist as specified in the document.</p> <p><b>AMM BIO-10:</b> An agency-approved biologist would be present during in-water work to monitor for listed fish, and other species during construction activities within suitable habitat.</p> <p><b>AMM BIO-11:</b> Minimize Hydroacoustic Impacts During Vibratory Pile Driving – Vibratory driving may be necessary to install the temporary cofferdam. Measures will be implemented if</p>

Affected Resource	Potential Effect		Avoidance, Minimization and or Mitigation Measures
	No Build Alternative	Build Alternative	
			<p>pile driving is necessary to minimize hydroacoustic impact.</p> <p><b>AMM BIO-12:</b> The project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance.</p>
Invasive Species (2.3.6)	None	Project activities would disturb invasive plants and soil within the BSA and could lead to the spread or introduction of invasive plants elsewhere. BMPs would be incorporated as part of the proposed project to minimize this impact.	None

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## 1.0 PROPOSED PROJECT

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### 1.1 INTRODUCTION

The California Department of Transportation (Caltrans) District 4, in partnership with the Alameda County Transportation Commission (Alameda CTC), proposes to provide interchange and local road improvements along Interstate 80 (I-80) at the Ashby Avenue Interchange. The project limits for the I-80/Ashby Avenue (State Route 13 [SR-13]) Interchange Improvement Project (proposed project) are depicted in Figure 1.1-1, and the project components are described in Section 1.4, Project Description. The project area overlaps with the jurisdictional boundaries of the City of Emeryville (Emeryville) and the City of Berkeley (Berkeley).

Caltrans, as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The Metropolitan Transportation Commission (MTC) is the regional transportation planning agency in the San Francisco Bay Area and is the Metropolitan Planning Organization for the nine county Bay Area. MTC is responsible for updating the Regional Transportation Plan (RTP), which is a comprehensive blueprint for the development of mass transit, highway, freight, and bicycle and pedestrian facilities. MTC and the Association of Bay Area Governments (ABAG) program San Francisco Bay Area projects in the RTP *Plan Bay Area 2050*. The proposed project is included in the RTP under reference number ID 17-01-0037.

The proposed project is also included in the MTC 2021 Transportation Improvement Program (TIP) under reference number ID ALA170002. MTC adopted the TIP on May 17, 2021. FHWA approved and incorporated the TIP into the Federal Statewide Transportation Improvement Program (FSTIP) on July 16, 2021.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Project Location Figure 1.1-1

Source: Google Earth, 2019; Circlepoint, 2020.

## 1.2 BACKGROUND

The existing interchange, which was constructed in the 1950s, was first proposed for modifications as early as 1980 by Caltrans. In early planning studies and by the year 2000, Caltrans concluded there was a need to upgrade the interchange. Conceptual plans were prepared for the upgrades and presented to Emeryville and Berkeley. Conceptual plans were developed with the local cities, but due to funding constraints, the proposal did not move forward.

In 1999, a preliminary alternatives analysis recommended two alternatives, and a subsequent value analysis study identified roundabouts as possible ramp terminal intersections. In 2006 a Supplemental Project Study Report (SPSR) evaluated roundabout intersections for one of the 1999 PSR alternatives.

In 2009, Emeryville initiated a PSR for a bicycle/pedestrian overcrossing (BPOC) across I-80. In partnership with Caltrans and the Alameda CTC, Emeryville proposed a BPOC over I-80 between Powell Street and Ashby Avenue. The slated purpose of the BPOC would be to provide connectivity between the San Francisco Bay Trail and the existing Class II bike path on the east side of I-80 at 65th Street. The BPOC would provide an additional safe crossing for pedestrians and bicyclists traveling over I-80. There is an existing pedestrian overcrossing at Powell Street, and a bicycle/pedestrian bridge adjacent to University Avenue in the City of Berkeley.

These past efforts have been combined and inform the currently proposed I-80/Ashby Avenue Interchange Improvement Project. The proposed project has been developed through a partnership effort among Caltrans, Alameda CTC, Emeryville, and Berkeley, and input from stakeholders, working groups, and local community members.

## 1.3 PURPOSE AND NEED

### 1.3.1 PURPOSE

The purpose of the proposed project is to:

- Improve interchange access and circulation
- Provide a westbound I-80 connection to Shellmound Street



- Provide safe bicycle and pedestrian connectivity across I-80 and Frontage Road to the Bay Trail
- Improve circulation at I-80/Powell Street and 7<sup>th</sup> Street
- Alleviate local surface street congestion.

### 1.3.2 NEED

A Traffic Operations Analysis Report (TOAR) was completed for the proposed project on March 12, 2021. As documented in the TOAR, the interchange, constructed in the 1950s, does not provide access to or from westbound I-80 or Shellmound Street in Emeryville. Additionally, the area including the interchange lacks connectivity for different modes of transportation (e.g., vehicular, bicycle and pedestrian users). For these reasons, the interchange suffers from the following key operational issues:

- The existing interchange provides no access to Shellmound Street to/from westbound I-80 and no access from Shellmound Street to Frontage Road.
- Access from westbound traffic to Emeryville is forced to use the Powell Street interchange.
- There is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street/Shellmound Street.

Related findings from the TOAR are summarized below.

## CAPACITY, TRANSPORTATION DEMAND, AND SAFETY

### Capacity

Level of Service (LOS) is a congestion rating that varies from LOS A to F. LOS A represents stable flow and very slight delays. LOS E represents unstable flow, poor progression, and long cycle lengths or delays. LOS F represents forced flow or jammed conditions and is considered over capacity. LOS was used to evaluate the existing operating capacity of I-80 and intersections within the project study area.

#### *I-80 Mainline*

I-80 is a divided freeway consisting of four mixed-flow lanes in each direction and a high occupancy vehicle (HOV) center lane that operates on weekdays from 5 to 10 AM and 3 to 7 PM. The westbound freeway segments operate worse than LOS D during the AM and PM peak hours, and the eastbound freeway segments operate at LOS F during the PM peak hours.

### *Intersections*

Eight intersections were analyzed in proximity to the project area to understand the volumes and patterns of traffic. None of the intersections operate at LOS E or LOS F. The proposed project would improve travel times and operational conditions of I-80. With respect to mobility on local streets, the proposed project would maintain operating conditions at LOS D or better.

### **Transportation Demand**

Based on data projections from ABAG, Emeryville and Berkeley within Alameda County will continue to see population, housing, and employment growth over the next 20 years. Alameda County is projected to grow by 23 percent from 2020 to 2040. Likewise, vehicle miles traveled (VMT) in the project area is expected to grow from 2,239,684 in 2025 to 2,585,791 by 2045 (*Traffic Operations Analysis Report [TOAR] March 2021*).

### **Safety**

#### *State Highways*

Collision data were collected over a 36-month period for the I-80 mainline and the I-80 at Ashby Avenue ramp and ramp terminal intersections. As summarized in Table 1.3-1, the I-80/Ashby Avenue interchange ramps generally have more “fatal + injury” and “total” collision rates compared to the statewide average.

#### *Local Streets*

As part of the TOAR, a collision history analysis was performed for state highways and local streets for a 36-month period. The collision history includes the total number of vehicular collisions, collisions with injuries, and collisions involving bicyclists and pedestrians. The intersections with the highest total collision rates and the highest pedestrian-involved collision rates on local streets are shown in Table 1.3-2. As summarized in the table below, I-80/Ashby Avenue interchange ramps generally have higher “fatal + injury” and “total” collision rates compared to the statewide average.

**Table 1.3-1 Summary of Collision Data and Rates for I-80 Mainline (1/1/2017 – 12/31/2019)**

Facility	Number of Collisions			Collision Rate (collisions/million vehicle miles)					
	Fatal	Fatal + Injury	Total	Actual			State Average		
				Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
<i>I-80 Mainline</i>									
Eastbound between Ashby Avenue and University Avenue	2	46	193	0.012	0.28	1.16	0.003	0.29	0.92
Eastbound between Powell Street and Ashby Avenue	-	26	134	-	0.34	1.77	0.003	0.29	0.92
Westbound between Ashby Avenue and Powell Street	0	93	384	0	1.23	5.07	0.003	0.29	0.92
Westbound between University Avenue and Ashby Avenue	0	82	341	0	0.49	2.05	0.003	0.29	0.92

*Note: Cells highlighted in grey represent collision rates that are greater than the state-wide average for similar facility types.*

*Source: Caltrans Traffic Accident Surveillance and Analysis System (TASAS Data January 1, 2017, to December 31, 2019)*

**Table 1.3-2 Summary of Collision Data and Rates for I-80 at Ashby Avenue (1/1/2017 – 12/31/2019)**

Facility	Number of Collisions			Collision Rate (collisions/million vehicle miles)					
	Fatal	Fatal + Injury	Total	Actual			State Average		
				Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
<i>I-80 at Ashby Avenue Ramp and Ramp Terminal Intersection</i>									
Eastbound 80 off to Southbound Route 13-Shellmound Street	-	-	-	-	-	-	-	-	-
Eastbound 80 on from W Frontage Road-Northbound Route 13	0	2	20	0	0.17	1.72	0.004	0.13	0.40
Eastbound 80 off to Southbound Route 13	0	1	2	0	0.09	0.19	0.001	0.07	0.25
Eastbound 80 off to Shellmound Street	0	1	2	0	0.29	0.59	0.008	0.39	1.03
Westbound 80 off to Southbound Route 13	0	0	3	0	0	0.10	0.004	0.17	0.51
Westbound 80 on from Northbound Route 13	0	2	7	0	0.20	0.69	0.005	0.15	0.48
Westbound 80 off to W Frontage Road-Southbound Route 13	0	1	4	0	0.07	0.28	0.004	0.17	0.51
Westbound 80 on from Northbound Route 13-Frontage Road	0	0	7	0	0	1.65	0.005	0.15	0.48

*Note: Cells highlighted in grey represent collision rates that are greater than the state-wide average for similar facility types.*

*Source: Caltrans Traffic Accident Surveillance and Analysis System (TASAS Data January 1, 2017, to December 31, 2019)*

## ROADWAY DEFICIENCIES

### **Existing Roadway Conditions**

Based on a field evaluation and a desktop review of the roadways in the project vicinity, most existing roadway conditions, including ramps and surface streets, appear to be in good condition with limited signs of deterioration (cracking, patching, and/or potholing). Currently, cracking and potholing can be seen in the north and southbound directions before the overcrossing at Ashby Avenue, and at the overcrossing on I-80 heading eastbound. Ashby Avenue is constrained to 4 lanes with no shoulder as it proceeds under the Union Pacific Railroad (UPRR) right of way at a grade separation.

### **Existing Pedestrian and Bicycle Facility Conditions**

As noted in the project's Purpose and Need statement, there is a notable gap in both pedestrian and bicycle access from Ashby Avenue to the San Francisco Bay Trail. Existing bicycle and multi-use paths are shown in Figure 1.3-1. Current design and connectivity issues that impede bicycle and pedestrian travel in the project study area include:

- No sidewalk facilities that to connect Ashby Avenue with the San Francisco Bay Trail west of where the sidewalk ends east of the UPRR grade separation.
- No immediate pedestrian connection between the sidewalk facilities on the Shellmound Street overpass and Ashby Avenue.
- No immediate connection over I-80 from Ashby Avenue to the San Francisco Bay Trail, except in traffic lanes from the westbound I-80 on-ramp. Off-street connections to the San Francisco Bay Trail are available at University Avenue (via the San Francisco Bay Trail Pedestrian Overcrossing on I-80) and at the Powell Street I-80 undercrossing.

The Build Alternative would include a new BPOC and new connections with the San Francisco Bay Trail through the Ashby Avenue area. The creation of these safety improvements would further prioritize bicycle and pedestrian movements and improve safety by reducing or eliminating potential conflicts with vehicular traffic.

INTERSTATE 80/ ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Project Connection to Existing and Planned Networks **Figure 1.3-1**

Source: Kittelson & Associates, Inc, 2020

### 1.3.3 FUNDING

The proposed project is eligible for federal-aid funding. However, early project development activities are funded by state and local fund sources. In July 2021, the California Transportation Commission (CTC) programmed \$0.05 million in State Transportation Improvement Program (STIP) funds for design expenditures. The proposed project is a named project in the Alameda County voter approved 2014 Measure BB Transportation Expenditure Plan for a total local sales tax revenue of \$52 million. Currently \$12.6 million of the \$52 million in Measure BB funds have been authorized for scoping, environmental, and final design phase expenditures. Alameda CTC is expected to allocate the remaining Measure BB funds for the right of way phase and construction. The total project cost is currently estimated at \$157 million, and \$105 million is needed to complete the project. Alameda CTC is working closely with funding partners to secure federal, state, regional and other local funds for project construction.

### 1.3.4 MODAL INTERRELATIONSHIPS AND SYSTEM LINKAGES

#### INTERSTATE

The Build Alternative would be connected to the broader I-80 corridor, which extends in a northwest/southwest direction on the east side of the San Francisco Bay, connecting Richmond and Oakland. It is the principal east-west route through northern California and the sole freeway crossing the Sierra Nevada range. I-80 terminates at US 101 in San Francisco.

#### ARTERIAL ROADS

##### **Ashby Avenue (SR-13)**

The project area is connected to Berkeley and Emeryville via SR 13 (known locally as Ashby Avenue), a state highway that connects to I-80 at the east shoreline of San Francisco Bay and runs eastward into Berkeley. Ashby Avenue is a two-lane roadway in each direction and provides a vital connection to I-80. It is generally a 4-lane facility with occasional landscaped medians and on-street parking. Ashby Avenue does not have any striped or dedicated bike lanes.

##### **West Frontage Road**

West Frontage Road runs parallel to I-80 between Gilman Street and Powell Street. The roadway enhances access to the San Francisco Bay Trail, which is a multi-use pathway used by pedestrians and bicyclists. The trail also provides access points to various shoreline amenities and attractions.

## MASS TRANSIT

There are various transit service providers that operate within the 0.5-mile study area, including Bay Area Regional Transit (BART), Amtrak, and Alameda-Contra Costa Transit District (AC Transit). The closest BART station to the study area is the Ashby Station located 1.4 miles east of the project area. AC Transit is the third largest public bus system in California, serving 13 cities and adjacent unincorporated areas in Alameda and Contra Costa counties. Amtrak currently runs trains on the UPRR rail line north and south adjacent to the project area. The Amtrak stations nearest to the proposed project include the Emeryville Station 0.5 mile south of the project area, and Berkeley Station under the University Avenue overpass approximately 1 mile north of the project area.

## MULTIMODAL ACCESSIBILITY

### **Bicycle and Pedestrian Trails**

The San Francisco Bay Trail is a planned 500-mile walking and cycling path around the entire San Francisco Bay running through all nine Bay Area counties, 47 cities, and across the San Francisco Bay region's seven toll bridges. The San Francisco Bay Trail is an active transportation corridor that connects communities to parks, open spaces, schools, and transit. In the project area, the trail is an important connection with several amenities along the San Francisco Bay shoreline and other multimodal facilities around the project area, such as Berkeley Aquatic Park, Point Emery, and marinas in Emeryville. The proposed BPOC would improve access to the San Francisco Bay Trail from the east side of the I-80/Ashby Avenue interchange. The creation of these trails would enhance existing modal interrelationships and system linkages.

## 1.3.5 AIR QUALITY IMPROVEMENTS

### PLAN BAY AREA

Senate Bill (SB) 375 requires that regional planning agencies in California include "sustainable community strategies" in their RTP updates to describe how greenhouse gas (GHG) emission reductions set by the California Air Resources Board (CARB) would be met through land use and transportation planning. The Build Alternative, included in the 2021 TIP, is part of the Plan Bay Area 2050 transportation network, and it would provide a more direct vehicular route from Oakland to Alameda and improve bicycle and pedestrian facilities. Air quality improvements would be expected from more efficient vehicular travel and increased non-motorized travel.

California has enacted aggressive GHG reduction targets. Assembly Bill (AB) 32 set the goal of reducing statewide GHG emissions to 1990 levels by 2020. It required CARB to develop a scoping plan detailing the approach California will take to achieve that goal



and update the plan every five years. SB 743 requires vehicle miles traveled (VMT) to be used to assess the impacts of capacity-increasing projects with the potential to increase VMT, effective July 1, 2020.

### BAY AREA 2017 CLEAN AIR PLAN

The Bay Area 2017 Clean Air Plan (CAP) is a multi-pollutant plan prepared by the Bay Area Air Quality Management District (BAAQMD) that addresses GHG emissions along with other air emissions in the San Francisco Bay Area Air Basin. This basin includes the nine counties that surround the San Francisco Bay, including Alameda County. The Build Alternative would be consistent with the CAP.

### 1.3.6 INDEPENDENT UTILITY AND LOGICAL TERMINI

Logical termini for a project area is defined as rational end points for transportation improvements within the proposed project area. A project with independent utility is defined as improvements that are usable and provide a reasonable expenditure of funds even if no additional transportation improvements are made in the area.

Several operational improvements were evaluated to determine the project configuration that most effectively addressed the project's need. In addition to identifying beginning and end points for the interchange improvements, the evaluation also considered the identification of an initial construction phase that would provide benefit to the study area at a lower cost than the full project given limited project funding. Based on the findings of the evaluation, the start and end points for the project were defined.

The proposed project is considered a single and complete project because it is not dependent on other capacity-increasing or operational improvements to realize mobility benefits. Further, individual project components also demonstrate independent utility for the same reason and may move forward as phased improvements. The proposed changes to the I-80/Ashby interchange would provide the intended mobility benefits without any additional improvements.

## 1.4 PROJECT DESCRIPTION

The interchange is located at post miles (PM) 3.95/4.93 on I-80 and 13.67/13.96 on SR-13 in the cities of Emeryville and Berkeley, Alameda County. Two Alternatives are under consideration: the Build Alternative and the No-Build Alternative. The Build Alternative would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to West Frontage Road, and introduce a new BPOC connection over I-80 from 65<sup>th</sup> Street/Shellmound Street to the San Francisco Bay Trail. Figure 1.4-1 shows the specific project area and Environmental Study Limits (ESL) for the proposed project. The ESL is defined as the area in which direct and indirect environmental effects may occur. It is the boundary in which the potential environmental impacts of the proposed project were evaluated. The ESL is larger than the anticipated disturbance area.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Environmental Study Limit

Figure 1.4-1

Source: Google Earth; Circlepoint, 2020.

## 1.5 PROJECT ALTERNATIVES

Two Alternatives are under consideration: the Build Alternative and the No-Build Alternative. The Build Alternative would comprise the following three improvements: (1) redesign of the elevated interchange, (2) realignment of West Frontage Road to intersect with Ashby Avenue, and (3) introduction of a new bicycle and pedestrian connection from the east side of I-80 to the Point Emery area and the San Francisco Bay Trail on the west side of the interchange. Caltrans and the project development team considered various alternatives and screened them for their ability to meet the proposed project's purpose, need, and operational standards. Early designs using simple signals or roundabouts and diamond interchange configurations were evaluated using six criteria:

1. Traffic operations
2. Pedestrian and bicycle treatment
3. Safety performance
4. Footprint
5. Design/service life
6. Level of interference with future projects

A detailed discussion of the alternatives that were evaluated is included under Section 1.5.4, Alternatives Considered but Eliminated from Further Discussion Prior to the Draft IS/EA.

### 1.5.1 PROPOSED BUILD ALTERNATIVE

#### TIGHT DIAMOND CONFIGURATION WITH T-INTERSECTION

##### **Interchange Design**

The Build Alternative (Figure 1.5-1) would demolish the existing I-80/Ashby Avenue connector ramps and replace them with a tight diamond interchange. The tight diamond form is a compressed diamond interchange used in urban and suburban areas where there is limited right of way. This configuration has two closely-spaced signalized intersections at the crossing of the ramp terminals and side street.

The bridge structure associated with the Build Alternative would be approximately 118 feet wide by 164 feet long and would have a closed face on both abutments. The bridge would provide access to and from I-80, Ashby Avenue, Shellmound Street, Bay Street, and West Frontage Road. The overcrossing, which would accommodate 6 traffic lanes, would remove existing interference with truck traffic by raising vertical clearance of the structure above its current height of 15 feet, 4 inches. Traffic within the interchange would be controlled by two traffic signals, one at the westbound on- and off- and one at

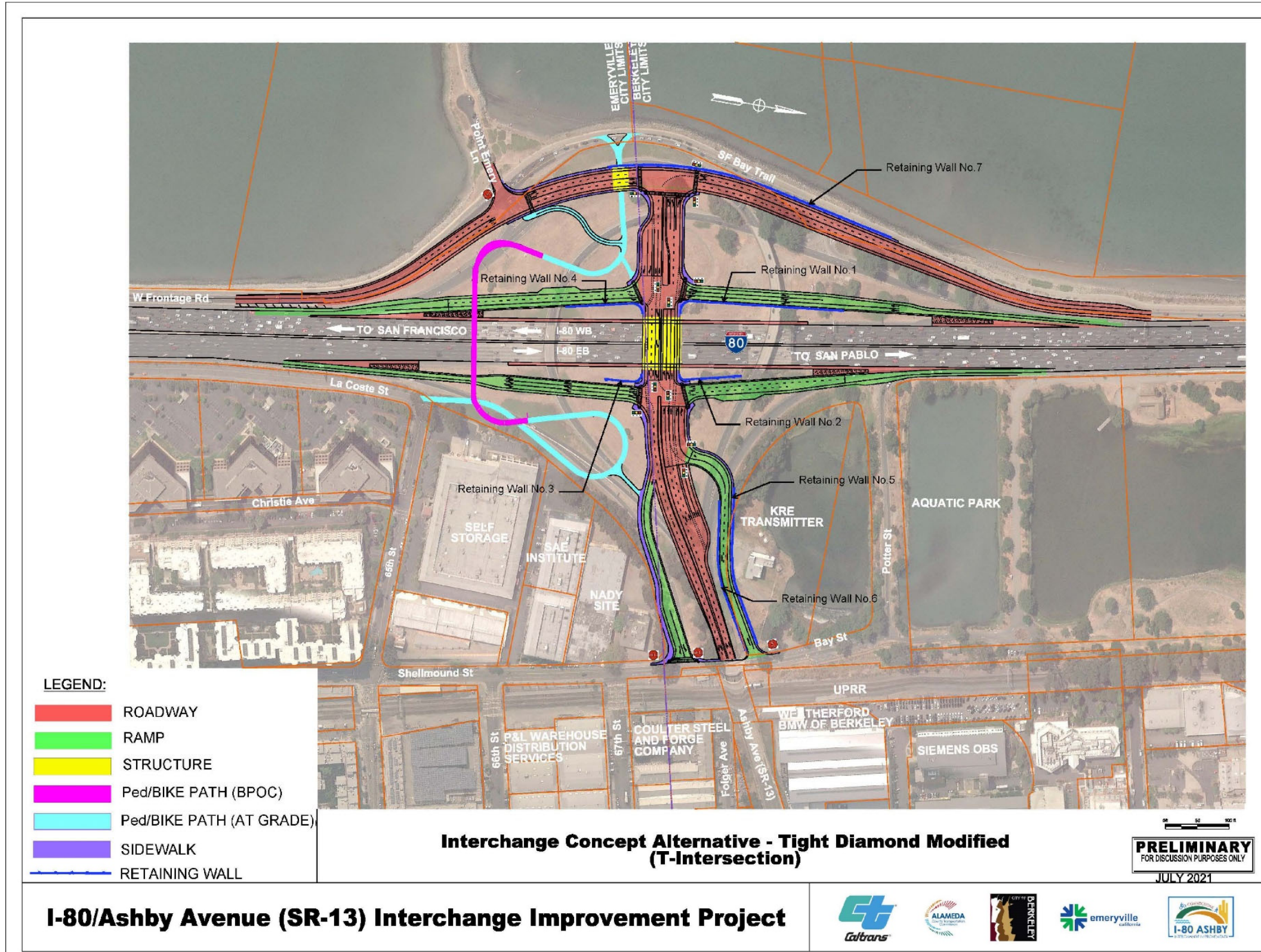
the eastbound on and off-ramps. East of the eastbound on and off-ramp locations there would be a traffic signal for the Bay Street connector ramp and Ashby Avenue. A traffic signal would be located at the intersection of the Ashby Avenue and West Frontage Road. Both eastbound and westbound on-ramps would be metered.

As shown in Figure 1.5-1, Ashby Avenue would connect to the realigned West Frontage Road using a simple T-Intersection. West Frontage Road would be required to meet geometric and safety specifications for the three-way intersection along its new alignment. This realignment to the east would create greater separation between the realigned West Frontage Road and the San Francisco Bay Trail.

East of I-80, the Build Alternative would realign the existing eastbound off-ramp parallel to the existing East Bay Municipal Utility District 66-inch sanitary sewer main. The off-ramp would intersect Ashby Avenue. The existing connection from the eastbound off-ramp to Shellmound Street would also be modified. A new connection from Bay Street to Ashby Avenue would provide a connection to both the interchange and across the bridge to West Frontage Road on the west side of the interchange.

This connection would require installation of retaining walls between 8 and 32 feet in height (Figure 1.5-1). The current eastbound ramp at Potter Street would be replaced with a diagonal onramp and it would provide two general purpose lanes, maintenance vehicle pullouts (MVP), and California Highway Patrol (CHP) enforcement areas. These proposed improvements would also allow direct a ramp-to-ramp connection.

Proposed improvements along Bay Street would require relocation of one of the three guy wires (i.e., tensioned cables that add stability to a free-standing structure) for the transmitting tower. The project team will work with the property owner in making the appropriate modifications.



T:\Nokleind\Projects\320162\10\600\_CAD\005\_ Exhibits\033d\_ Interchange Concept Alternative - Tight Diamond Modified Current.dgn

Build Alternative Figure 1.5-1

Source: TYLIN 2021

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## **Landscaping and Irrigation**

Mature existing highway planting would be removed as a result of the Build Alternative. All trees removed for the project would be replaced onsite and in-kind as much as practicable. Limitations may include setback requirements, such as needing to leave space for the “clear recovery zone” which limits Caltrans’ legal ability to plant fixed objects near the edge of roadway. All replanted trees and shrubs would be monitored during a three-year plant establishment period which would be funded by the proposed project.

Replacement highway planting will be context sensitive, responsive to microclimate conditions, and easily and safely maintained. Any irrigation system required for the project would use “smart” irrigation controllers to minimize watering. In addition, the system will have a master control valve that will alert the controller to shut down the system if a loss of pressure is detected in a line. Such controllers can be operated remotely, including from a cellphone. Safety of maintenance workers and considerations will be a key component in the irrigation design. For instance, all equipment will be placed in areas away from traffic where it can be safely accessed by maintenance personnel, or where the maintenance vehicles can act as a protective barrier between highway traffic and maintenance personnel.

## **Bicycle/Pedestrian Connections**

### *Access on the East Side of I-80*

At-grade sidewalks and signalized crossings on the east side of I-80 at the ramps and adjacent to the Ashby Avenue would be included as part of the bridge structure. Bicyclists and pedestrians would access this connection via Ashby Avenue, Shellmound Street/Bay Street, and 65<sup>th</sup> Street on the east side of the proposed project.

### *Access to the San Francisco Bay Trail and Point Emery on the West Side of I-80*

The San Francisco Bay Trail and Point Emery would be accessed by pedestrians and bicyclists from either the BPOC or the sidewalks on the Ashby Avenue bridge. Crossing West Frontage Road to these facilities would be accomplished at the at-grade crosswalk aligning with the Point Emery parking lot, or at a below-grade crossing under West Frontage Road just east of the T-intersection.

### *Bicycle/Pedestrian Overcrossing*

A separate BPOC would be constructed south of the new interchange. The length of the BPOC, including its approaches, would be 836 feet long and 16 feet wide. This structure would include Americans with Disability Act (ADA) compliant switchbacks on the east and west sides of I-80 approaching the separate BPOC structure. Like the proposed bicycle/pedestrian improvements, the structure would be publicly accessible from 65<sup>th</sup> Street to the east and West Frontage Road to the west.



The new BPOC has multiple design options that would be considered during final design, once additional detail and information is available regarding cost and maintenance of the structures. The final design of the BPOC will be selected by Caltrans, Alameda CTC, and the cities of Emeryville and Berkeley. The following three designs are under consideration:

- Butterfly arch
- Basket-handle arch
- Box girder

These designs are depicted in Figure 1.5-2. In previous discussions with Caltrans and stakeholders, a preference for the butterfly arch was expressed. In addition, the cabled arch theme (butterfly and basket handle) is also consistent with the design theme of the I-80 corridor along this section of east San Francisco Bay.

Table 1.5-2 shows a comparison of the three BPOC design options under consideration and the pros and cons associated with each option. See Figure 1.5-2 for simulations of the design options. A truss design was considered as a fourth design option. However, it was eliminated from further consideration due to its inconsistency with the cabled arch theme throughout the I-80 corridor segment. The industrial appearance of the truss design is not used along this section of the I-80 corridor nor is it consistent with the fence design on the Ashby bridge structure which also reflects the arch design. For additional discussion about the truss design option and why it was eliminated, please see Section 1.5.4 Alternatives Considered but Eliminated from Further Discussion.

**Table 1.5-2 Bicycle/Pedestrian Overcrossing Design Options Comparison**

BPOC Design Option	Pros	Cons
Butterfly Arch	<ul style="list-style-type: none"> <li>• Consistent with cable arch theme throughout I-80 corridor</li> <li>• Aesthetically preferred option</li> <li>• No freeway structural support required</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance costs (cleaning, graffiti removal, painting, repair, etc.) believed to be moderate</li> </ul>
Basket Handle Arch	<ul style="list-style-type: none"> <li>• Also consistent with cable arch theme throughout I-80 corridor</li> <li>• No freeway structural support required</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of structure needs to be negotiated</li> <li>• Maintenance costs believed to be moderate</li> </ul>
Box Girder	<ul style="list-style-type: none"> <li>• Believed to have lower maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of structure needs to be negotiated</li> <li>• Not consistent with I-80 corridor cable arch theme</li> <li>• Structural support required on freeway</li> <li>• Least preferred aesthetic design</li> </ul>

**BOX GIRDER DESIGN**



**BASKET HANDLE DESIGN**



**BUTTERFLY ARCH DESIGN**



## CONSTRUCTION

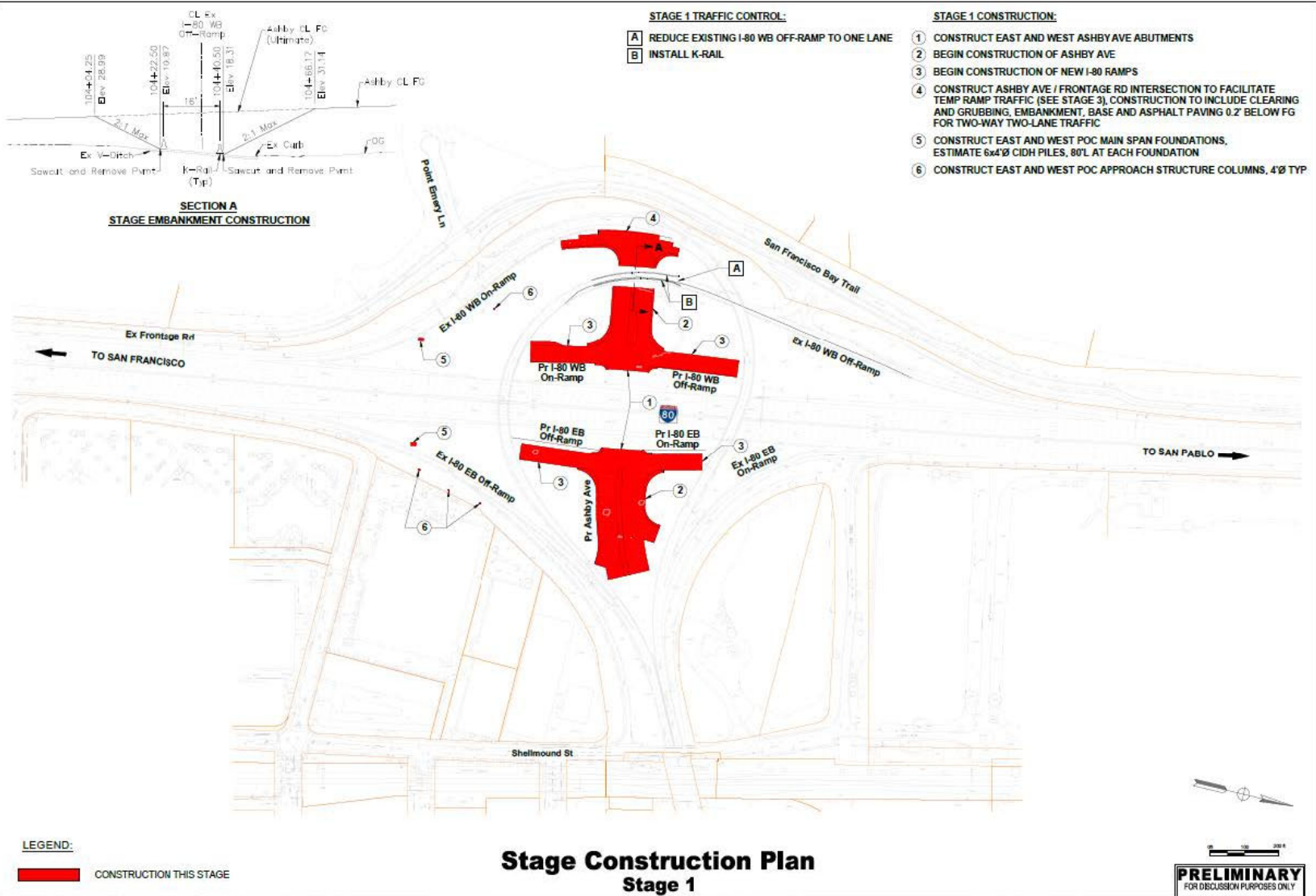
Construction of the proposed project would take an estimated 30 months to complete. Construction work for the Build Alternative would be done primarily during daylight hours from 7:00 a.m. to 6:00 p.m. However, night-time work and temporary closures would be necessary to avoid major disruption for tasks that could interfere with traffic or create safety hazards such as demolition of the existing connectors.

Construction activities would include excavation, drilling, dewatering, pavement demolition, bridge demolition, mass grading, concrete form work, pavement installation, storm system installation, landscaping and irrigation, sign installation, striping operations, and traffic control. Such activities would require the use of the following types of equipment: drill rig, forklift, scissor lift, backhoe, track excavator, compactor, concrete pump, crane, bulldozer, grader, front-end loader, dump trucks, jackhammer, and vibratory roller. These activities would require lane and ramp closures with detours.

Construction staging areas (i.e., the storage of materials and equipment) are anticipated to be accommodated within the existing Caltrans right of way. The largest potential construction staging area would be on the west side of the interchange. Caltrans would finalize construction staging area locations during the design phase of the proposed project, in conjunction with potential contractors. These areas would be carefully reviewed to ensure that the staging areas are sufficient and within the ESL evaluated in this environmental document.

Locations with anticipated night work and use of right lane closures are likely to be at the westbound and eastbound ramp connections to I-80. These operations may involve excavation, base compaction, and asphalt concrete paving.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT

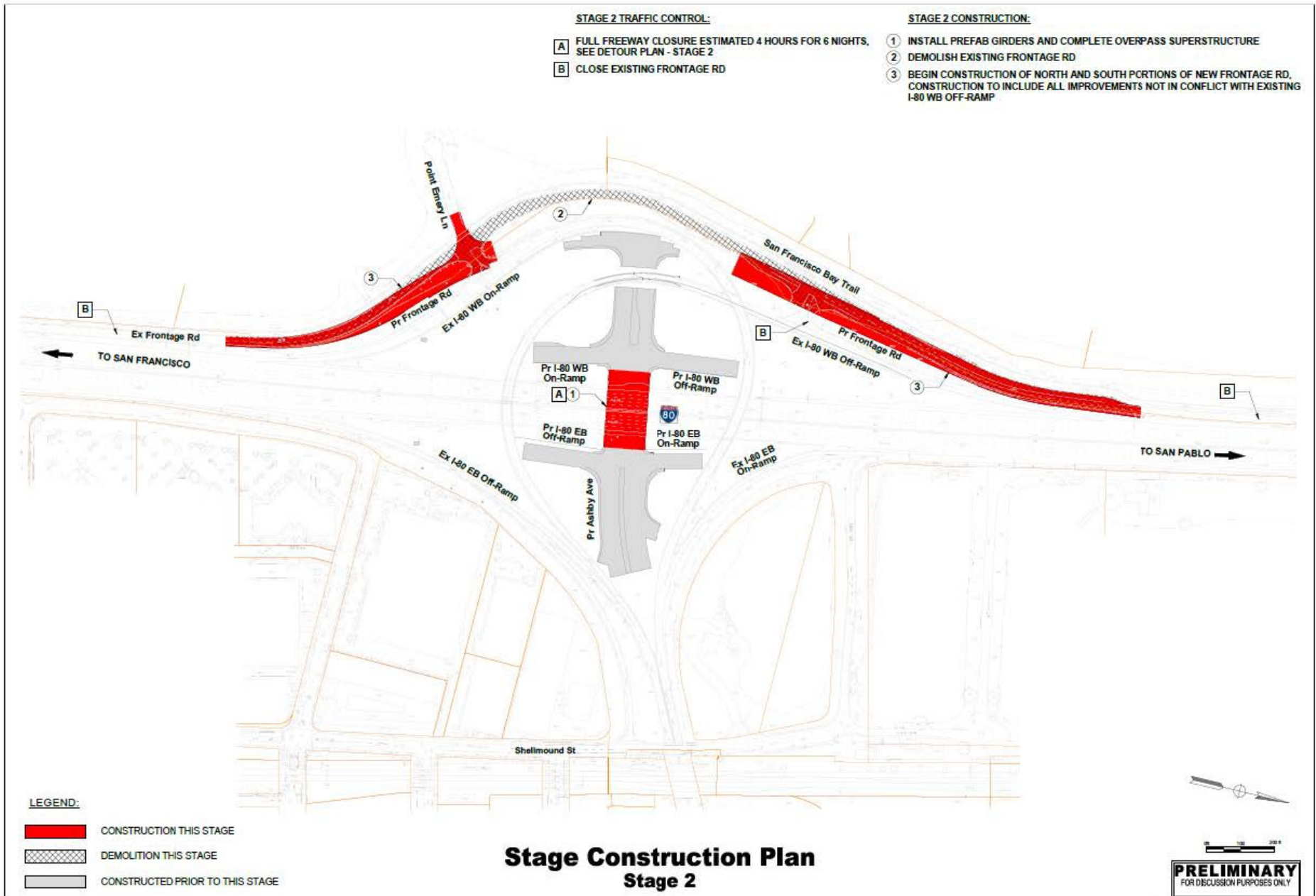


Ashby Staging Concept Plans (Stage 1)

Figure

1.5-3

# INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Ashby Staging Concept Plans (Stage 2)

Figure

1.5-4

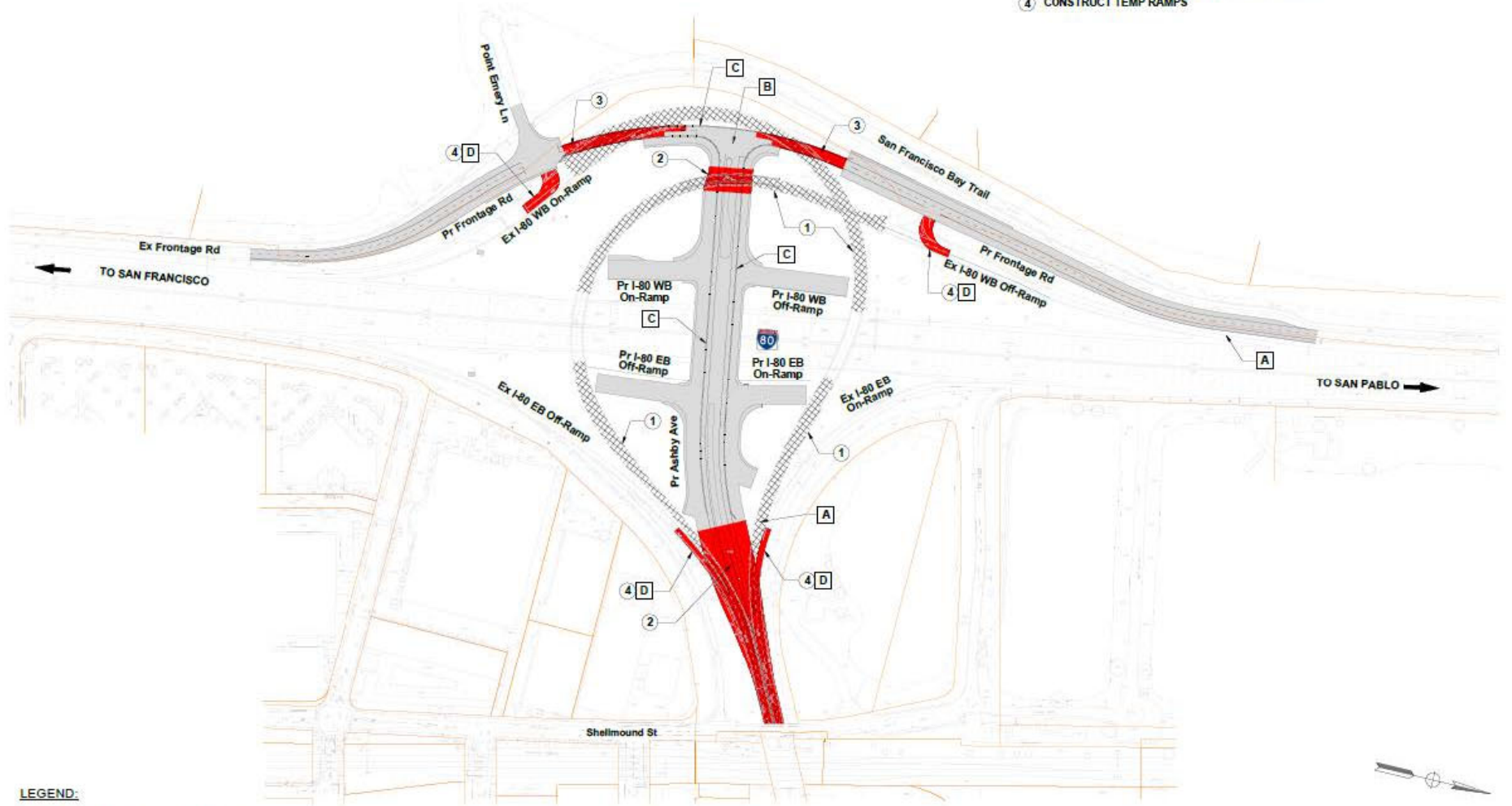
# INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT

## STAGE 3 TRAFFIC CONTROL:

- A CLOSE EXISTING WB I-80 ON/OFF RAMP
- B INSTALL TEMP TRAFFIC CONTROL FOR RAMP TRAFFIC
- C INSTALL K-RAIL
- D OPEN TEMP RAMP

## STAGE 3 CONSTRUCTION:

- 1 BEGIN DEMOLITION OF EXISTING I-80 WB ON/OFF RAMP, PORTIONS OF THE STRUCTURES OVER I-80 TO REMAIN IN PLACE UNTIL STAGE 5
- 2 COMPLETE CONSTRUCTION OF ASHBY AVE AND OVERPASS
- 3 CONSTRUCT FRONTAGE RD TO FACILITATE TEMP RAMP TRAFFIC, CONSTRUCTION TO INCLUDE CLEARING AND GRUBBING, EMBANKMENT, BASE AND ASPHALT PAVING 0.2' BELOW FG FOR TWO-WAY TWO-LANE TRAFFIC
- 4 CONSTRUCT TEMP RAMP



### LEGEND:

- CONSTRUCTION THIS STAGE
- DEMOLITION THIS STAGE
- CONSTRUCTED PRIOR TO THIS STAGE

## Stage Construction Plan Stage 3

### Ashby Staging Concept Plans (Stage 3)



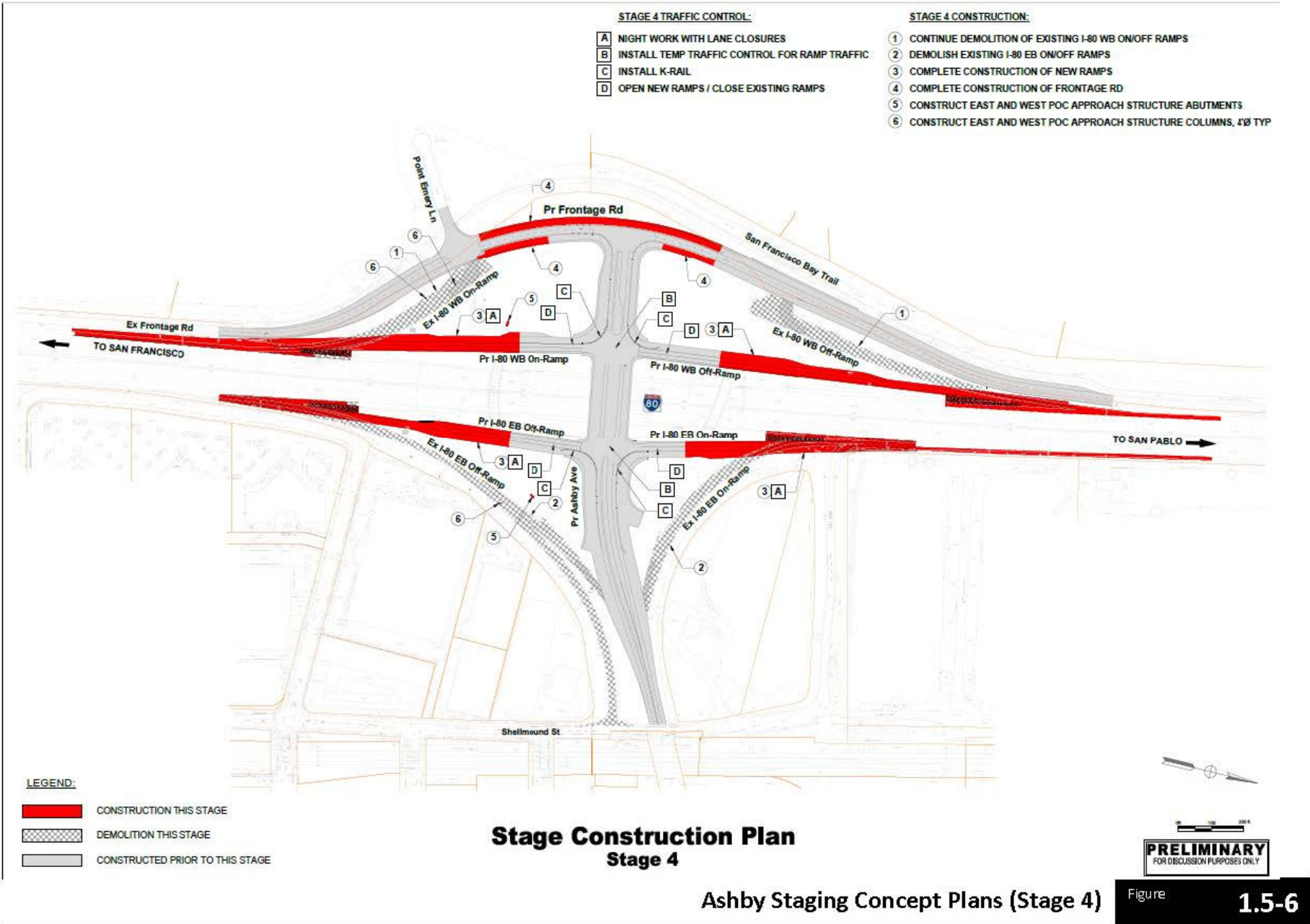
0 100 200'

**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY

Figure

**1.5-5**

# INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Source: Circlepoint, 2021



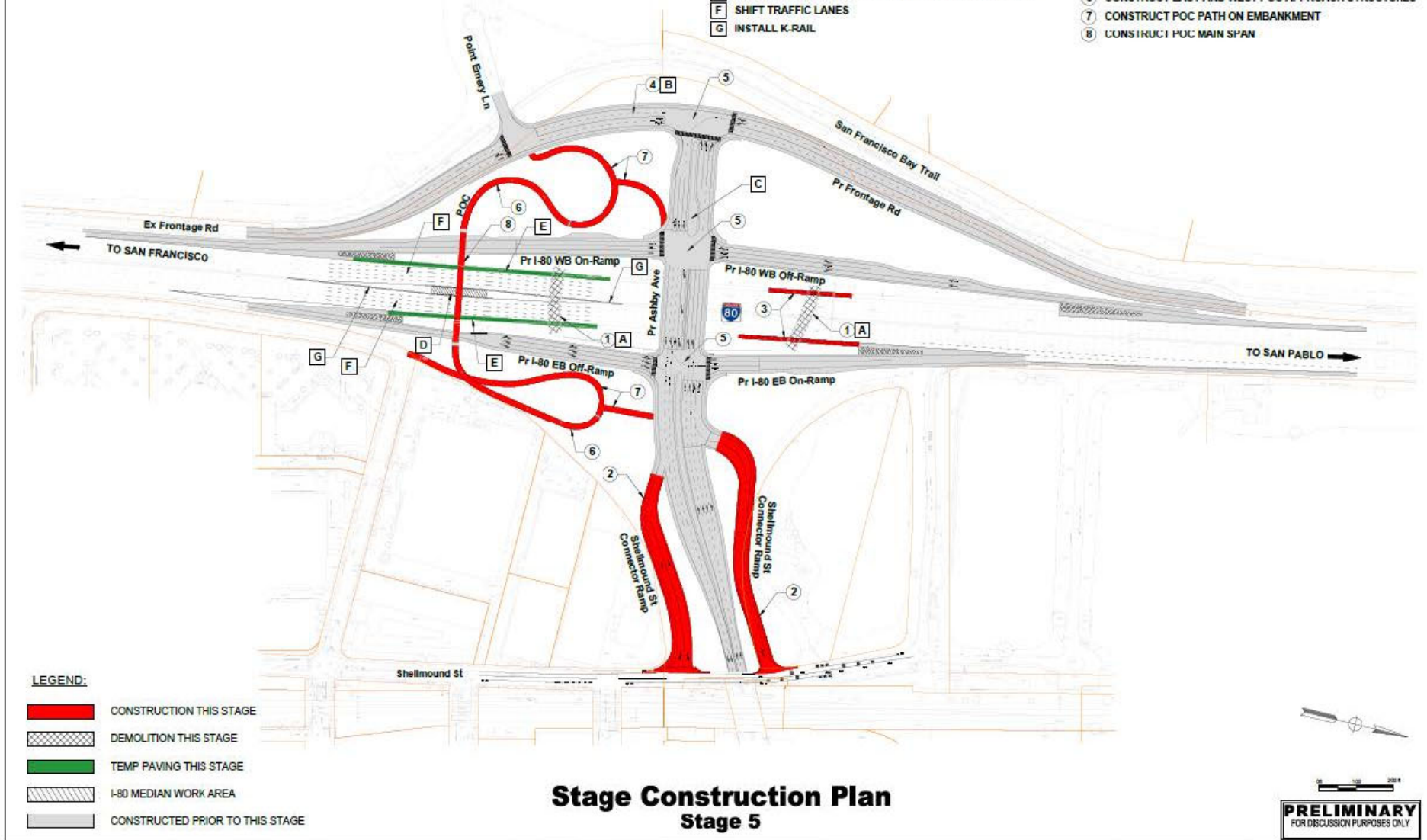
# INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT

## STAGE 5 TRAFFIC CONTROL:

- A FULL FREEWAY CLOSURE ESTIMATED 4 HOURS FOR 2 NIGHTS, SEE DETOUR PLAN - STAGE 5
- B NIGHT WORK WITH LANE CLOSURES
- C OPEN ASHBY AVE, I-80 ON/OFF RAMP, AND FRONTAGE RD
- D ESTABLISH 20'W x 150'L MEDIAN WORK AREA ON I-80
- E PLACE TEMP PAVEMENT ON SHOULDERS FOR LANE SHIFT
- F SHIFT TRAFFIC LANES
- G INSTALL K-RAIL

## STAGE 5 CONSTRUCTION:

- 1 COMPLETE DEMOLITION OF EXISTING I-80 WB ON/OFF RAMP
- 2 CONSTRUCT SHELLMOUND ST CONNECTOR RAMPS
- 3 CONSTRUCT I-80 SHOULDERS
- 4 PLACE FINAL LIFT OF ASPHALT PAVEMENT (ENTIRE PROJECT)
- 5 INSTALL TRAFFIC SIGNALS AND FINAL LANE CONFIGURATIONS
- 6 CONSTRUCT EAST AND WEST POC APPROACH STRUCTURES
- 7 CONSTRUCT POC PATH ON EMBANKMENT
- 8 CONSTRUCT I-80 POC MAIN SPAN



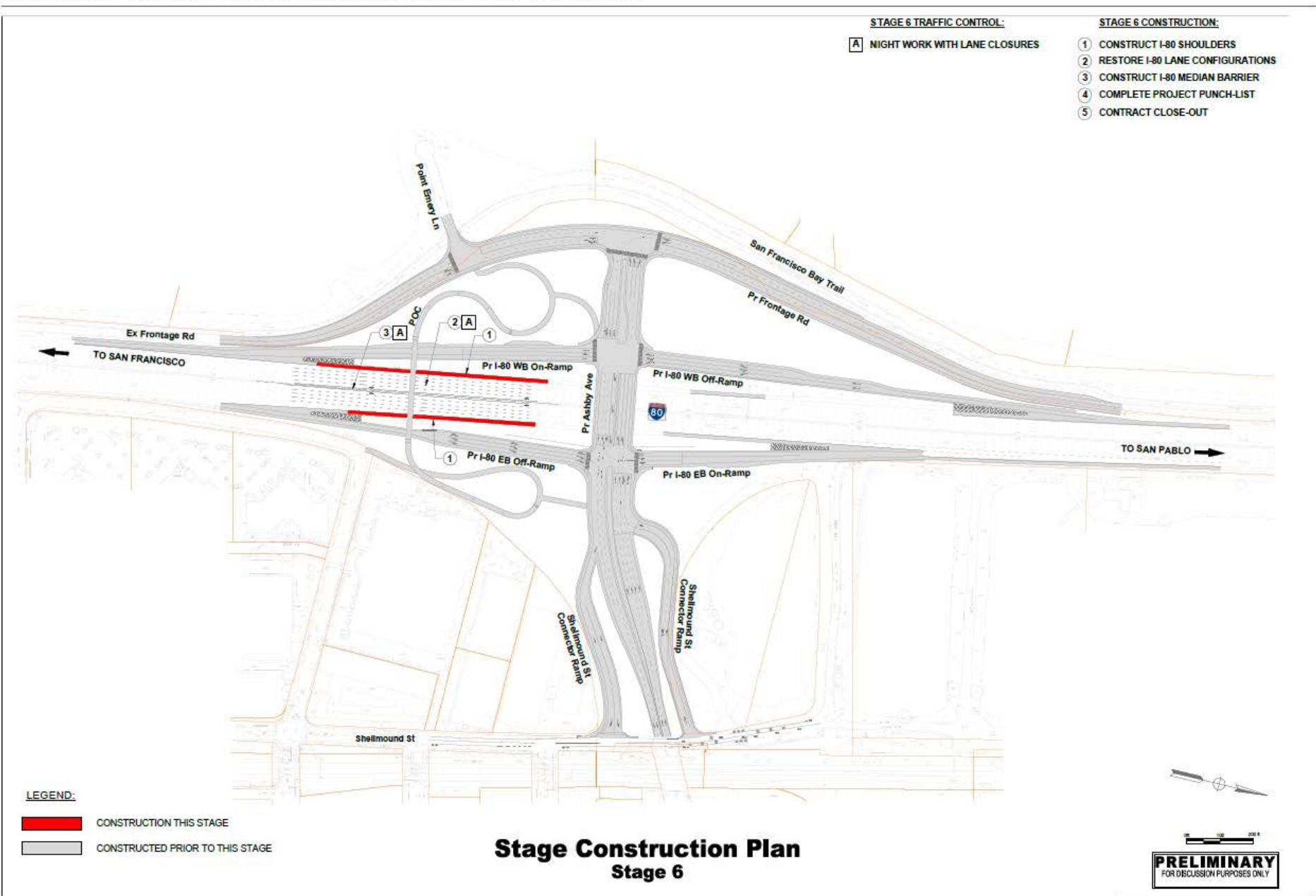
- LEGEND:**
- CONSTRUCTION THIS STAGE
  - DEMOLITION THIS STAGE
  - TEMP PAVING THIS STAGE
  - I-80 MEDIAN WORK AREA
  - CONSTRUCTED PRIOR TO THIS STAGE

**Stage Construction Plan  
Stage 5**



0 100 200 FT  
**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY

# INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Ashby Staging Concept Plans (Stage 6)

Figure

1.5-8

## **Construction Methods**

### *Grading*

The existing slopes at the connector ramp abutments would be re-graded using smooth, flowing contours to help integrate highway improvements with the surrounding environment. Grading would reduce erosion and maintain water quality by breaking the slope into smaller tributary areas that disperse runoff. Grading would be limited to slopes of 1V:4H (1 foot of vertical gain for every 4 feet distance). However, steeper slopes (1V: 2H) may be used at the proposed bridge abutments.

### *Demolition*

Demolition would occur in stages over the course of approximately 20 months, allowing for construction of proposed project improvements prior to demolition of existing structures to minimize detours and delays to the extent feasible. Demolition work would include removal of existing connector ramp structures, abutments, columns, overhead sign foundations, retaining wall/barrier removal, clearing and grubbing, tree removal, pavement removal, and drainage systems removal.

### *Drainage and Water Quality*

Existing drainage systems would be abandoned due to their poor integrity. New drainage pipe and inlet systems would be introduced to accommodate tributary areas within the ESL. Multiple pipes would be installed under I-80 through bore and jack installation. A new outfall would also be constructed, just south of Point Emery to replace the existing outfall north of Point Emery that is buried by the sediment accumulated in the area. The proposed outfall is shown on Figure 1.5-2. No work would be conducted at the UPRR/Ashby Avenue underpass just east of the area at the portal undercrossing, near the existing Caltrans pump station.

### *Right-of-Way Requirements*

The Build Alternative would require acquisition of a single parcel in the northeast quadrant of the interchange near the KRE radio station building. The acquisition would be necessary for construction of the Bay Street connector to Ashby Avenue. Proposed improvements along Bay Street would require relocation of one of the three guy wires for the transmitting tower. Relocation of an existing driveway adjacent to Bay Road that provides access to the KRE property, may be required. The project team will work with the property owner in making the appropriate modifications. The right of way acquisition process would take place after completion of the project design. A permanent construction easement would also be required for maintenance of the retaining walls shown in Figure 1.5-2.

### *Vehicular Detours and Closures*

Temporary mainline and ramp closures would be required during demolition and construction. In addition, West Frontage Road will also be temporarily closed between University Avenue and Powell Street while the new alignment is under construction. The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the BPOC. All closures and detours will be advertised well in advance as part of the public information campaign and emergency/law enforcement will also be notified. The planned duration and staging of roadway closures and implementation of detours are discussed in Section 2.1.8, Traffic and Transportation/Pedestrian and Bicycle Facilities. The preliminary detour plans are shown in Figure 1.5-9, Figure 1.5-10, and Figure 1.5-11. These plans are subject to change during the final design phase.

### *San Francisco Bay Trail Detour*

During the construction of the new outfall area, a temporary detour around the construction area will be implemented to ensure the continuous access and function of the San Francisco Bay Trail. The West Frontage Road closure would not interfere with the use of the San Francisco Bay Trail. However, it would limit access to Point Emery via automobile and any waterborne vehicle launching at Point Emery during the temporary closure.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



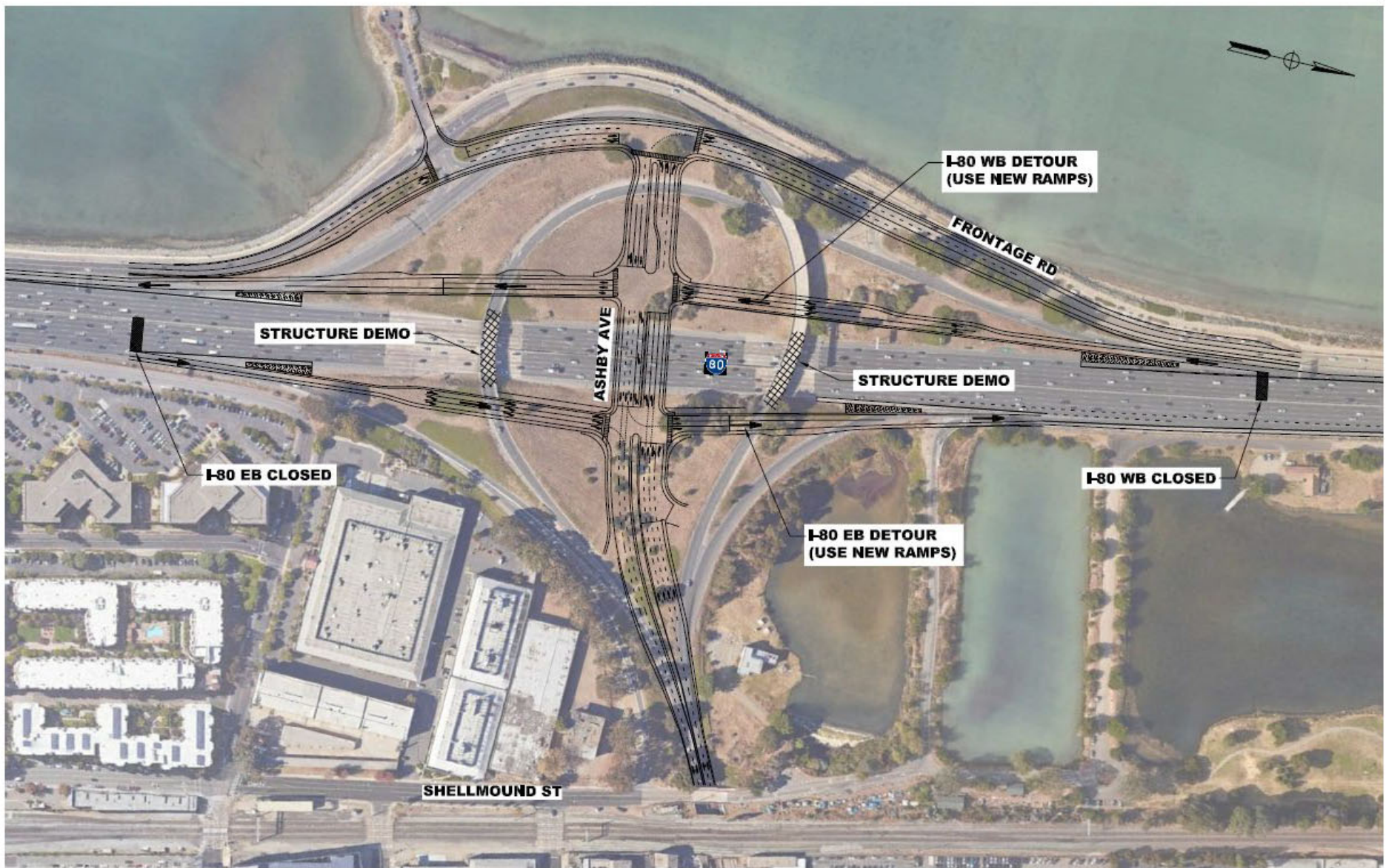
DETOUR PLAN - I-80 CLOSED FOR PRE-CAST GIRDER PLACEMENT

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



DETOUR PLAN - I-80 WB ON/OFF RAMPS CLOSED AT ASHBY AVE

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



DETOUR PLAN - I-80 CLOSED FOR RAMP DEMO

## PROJECT FEATURES

This proposed project would include implementation of several standardized project measures that are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. The project features in Table 1.5-3 would be included in this proposed project. The descriptions provided in Table 1.5-3 are summaries. For the full text of these project features, refer to Appendix C.

**Table 1.5-3 Project Features**

<b>Project Feature Number</b>	<b>Description</b>
<b>Standard Construction Specifications (CON)</b>	
CON-1	Adherence to Caltrans' standard specifications for noise control, dust abatement, demolition, hazardous materials, and other good housekeeping measures and best management practices (BMPs) for the construction site.
CON-2	The contractor will be responsible for securing all work zones in and around the construction sites until completion of construction.
<b>Communities and Community Facilities (COM)</b>	
COM-1	Access to all properties for property owners and users will be maintained by the contractor during construction.
COM-2	Caltrans will coordinate relocation work with the affected utility companies to minimize disruption of services to customers in the area during construction.
COM-3	Caltrans will coordinate with emergency service providers and the public information office to avoid emergency service delays by ensuring that all providers are aware well in advance of lane closures.
COM-4	During the design phase of the project, prepare a TMP in accordance with Caltrans requirements and guidelines and in coordination with local agencies, service providers, local communities, business associations, and affected drivers.
COM-5	A public outreach program will be implemented throughout construction to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.



Project Feature Number	Description
<b>Aesthetics and Visual Resources (VIS)</b>	
VIS-1	Existing vegetation will be preserved in place as much as possible by protecting existing vegetation outside the clearing and grubbing limits, placing high visibility temporary fencing around vegetation to be protected, and providing truck watering of vegetation when automated irrigation is interrupted by construction.
VIS-2	Fund required replacement planting through the parent roadway contract to be completed as a separate contract, (within 2 years of roadway completion,) with a three-year plant establishment period (PEP), unless the estimated cost is below \$300,000 (then only one-year PEP).
VIS-3	Revegetation Planting Measures. All disturbed areas shall receive hydroseeded treatment of erosion control grasses, and if appropriate, locally native grasses.
VIS-4	Landscape Plantings. Use drought-tolerant plants, including California native species, as part of the planting palette where regionally appropriate.
VIS-5	Landscape Plantings. Plantings within the state right of way will follow the 1997 Caltrans Plant Setback and Spacing Guide.
VIS-6	Light and Glare. As directed by Caltrans, appropriate light and glare screening measures will be used at the construction staging areas including the use of downward cast lighting. Shielding will be used to the extent feasible for new lighting apparatuses within the project area. Lighting of the transportation facilities would be shielded and directed to only areas that required for operations and safety, to the maximum extent feasible.
VIS-7	Construction Impact Measure. Caltrans will use standard construction equipment and protocols for the Build Alternative, such as placing unsightly materials and equipment so that they are not visible within the forefront of highway corridor and local streets where feasible.
<b>Cultural Resources (CUL)</b>	
CUL-1	If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.
CUL-2	If Caltrans Professionally Qualified Staff determines that cultural materials contain human remains, State Health and Safety Code

Project Feature Number	Description
	Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans' Cultural Resources Studies Office will contact the Alameda County Coroner.
<b>Geology and Soil (GEO)</b>	
GEO-1	With respect to worker safety during construction, OSHA requires employers to comply with hazard-specific safety and health standards. Pursuant to Section 5(a) (1) of OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Potential seismic-related hazards to workers during construction are expected to be less than substantial with compliance with the OSHA and Caltrans standard design and construction guidelines.
GEO-2	As part of final design, expansive soils shall be addressed through treatment or removal as designated on construction plans, to reduce the potential for structural damage.
GEO-3	Preparation of structure foundation reports and geotechnical design reports that incorporate the results of subsurface field work and laboratory testing to inform the final design of project structures.
<b>Water Quality (WQ)</b>	
WQ-1	Temporary construction site BMPs will be implemented during construction to prevent any construction materials or debris from entering storm drains or drainage ditches within the project vicinity.
WQ-2	Compliance with Caltrans MS4 permit, municipal regional permit (MRP), construction general permit (CGP), and other regulatory agency requirements.
WQ-3	The CGP, Caltrans, and local standards require the project's contractor to implement a Stormwater Pollution Prevention Program (SWPPP) to comply with the conditions of the CGP.
WQ-4	Prior to any soil disturbance, a Notice of Intent will be filed with the State Water Resources Control Board's (SWRCB) Storm Water Multiple Application and Report Tracking System.
WQ-5	Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs.

<b>Project Feature Number</b>	<b>Description</b>
WQ-6	Dewatering activities and the clean water diversion will comply with Caltrans Standard Specifications and Field Guide to Construction Site Dewatering.
WQ-7	Compliance with California Office of Emergency Services Hazardous Materials Incident Contingency Plan.
WQ-8	Drainage features, such as energy dissipation devices (e.g., flared end sections and tee dissipaters), will be considered at drainage outfalls to reduce the velocity and dissipate flows as they discharge from the culvert.
WQ-9	Rock slope protection will be placed at culvert outfalls and within drainage ditches and swales where velocities may result in drilling or scouring.
WQ-10	Permanent erosion control measures will be applied to all exposed areas once grading or soil disturbance work is completed as a permanent measure to achieve final slope stabilization.
WQ-11	Implementation of low-impact development measures for stormwater treatment controls. These measures include harvesting and use, infiltration, evapotranspiration, and biotreatment. Other conventional treatment measures (e.g., basins and vaults) are allowable under special conditions outlined in the permit.
WQ-12	Inclusion of nonstandard treatment measures such as the use of low flow pumps to convey runoff to a treatment facility where necessary. The final drainage design, selection of treatment BMP types and locations, and determination of impervious area treated will be refined during the design phase when detailed design information is developed.
<b>Hazardous Wastes and Materials (HW)</b>	
HW-1	Caltrans Standard Specifications section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue, would be included in the contract specifications and implemented during construction for the handling and management of any potential lead-containing debris produced from the removal of yellow traffic stripe and pavement marking.
<b>Air Quality (AQ)</b>	
AQ-1	Water or dust palliative shall be applied to the site and equipment as often as necessary to control fugitive dust emissions.

<b>Project Feature Number</b>	<b>Description</b>
AQ-2	Measures to reduce PM <sub>10</sub> , PM <sub>2.5</sub> , and diesel particulate matter from construction including watering exposed surfaces, covering haul trucks, and reducing vehicle speeds on unpaved roads.
<b>Noise and Vibration (NOI)</b>	
NOI-1	Standard Caltrans construction noise BMPs including use of mufflers, prohibiting unnecessary idling, and avoiding staging of construction equipment within 100 feet of residences.
NOI-2	Inspection of equipment by the contractor to ensure that all equipment onsite is working properly, in good condition, and effectively muffled.
NOI-3	Construction activities shall be minimized in the study area during evening, nighttime, weekend, and holiday periods.
NOI-4	Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to study area users are minimal.
NOI-5	The Resident Engineer will be responsible to collect and respond to any complaints related to construction noise.
NOI-6	Truck loading, unloading, and hauling operations will be minimized so that noise and vibration are kept to a minimum through the study area to the greatest possible extent.
<b>Biological Resources (BIO)</b>	
BIO-1	The project limits near all environmentally sensitive areas (riparian area of Radio Tower Pond and the San Francisco Bay) will be delineated with high visibility fencing to prevent contractors from entering sensitive areas.
BIO-2	Standard water quality protection BMPs to prevent any off-site movement of construction materials, sediment, or debris.
BIO-3	Development of and adherence to a Stormwater Pollution Prevention Program (SWPPP).
BIO-4	Wetlands Protection: A water quality inspector will inspect the site after a rain event to ensure that stormwater BMPs are adequate.
BIO-5	Before commencing construction, a qualified Caltrans-approved biologist will conduct a nesting birds education program for all project personnel.

<b>Project Feature Number</b>	<b>Description</b>
BIO-6	Trees, shrubs, and native vegetation will be preserved in place to the extent practicable.
BIO-7	The work in San Francisco Bay will be limited to the smallest area possible.
BIO-8	The names and qualifications of biological monitors will be submitted for agency approval prior to initiating construction.
BIO-9	Before construction of the new outfall, a qualified Caltrans-approved biologist will conduct an educational program for all relevant project personnel. Species to be covered will include green sturgeon and special-status salmonids.
BIO-10	<b>Invasive Species:</b> If species ranked by the California Invasive Plant Council as moderate- or high-priority invasive weeds are disturbed or removed during construction-related activities, the contractor will contain the plant material and dispose of it in a manner that will not promote the spread of the species.
BIO-11	<b>Invasive Species:</b> The landscaping included in the project will not use species listed on the California list of invasive species.
<b>Traffic and Transportation (TRA)</b>	
TRA-1	A Transportation Management Plan (TMP) would be developed as part of the project construction planning phase.

### COMPATIBILITY WITH PLANNED AND PROGRAMMED PROJECTS

The proposed project has been developed in close coordination with other programmed projects within the I-80 corridor. The proposed project would not preclude other planned improvements within the project area, such as the conceptually planned Vista Park. The proposed project does not preclude future planned improvements within the corridor and is compatible with other improvements within the corridor.

## 1.5.2 NO BUILD (NO ACTION) ALTERNATIVE

Under the No Build Alternative, the existing I-80/Ashby Avenue connector ramps would not be demolished and none of the proposed project features described under the Build Alternative would be constructed. The existing transportation facilities within the project area would remain unchanged except for planned and programmed improvements and the existing deficiencies described under Section 1.3.2, Need, would persist.

The No Build Alternative is the baseline for comparing environmental impacts under NEPA.

## 1.5.3 IDENTIFICATION OF A PREFERRED ALTERNATIVE

Following circulation of the Draft IS/EA and careful consideration of all comments received from the public, the project development team (PDT) identified the Build Alternative with the basket handle arch structure type for the BPOC and at-grade crosswalk variations as the Preferred Alternative at the PDT meeting on May 2, 2022 in consideration of the whole record. The PDT selected the Build Alternative over the No Build Alternative for the following reasons.

- The Build Alternative would best meet the need and purpose of the project over the No Build Alternative
- Compared to the No Build Alternative, the Build Alternative would enhance traffic, bicyclist, and pedestrian safety by creating more efficient traffic routes, and adding a BPOC within the project limits while minimizing environmental impacts
- The architectural style of the basket handle arch shares a similar visual character with the rest of the bicycle/pedestrian overcrossing structures in the I-80 corridor
- The vertical fence in the basket handle arch style would create a safer experience for the users compared to the angled fencing in the butterfly arch style
- The at-grade crossing was preferred by local stakeholders, who expressed concern that the below-grade crossing variation underneath West Frontage Road would pose safety risks for bicyclists and pedestrians

The Build Alternative with the basket handle arch structure and at-grade crosswalk variations is also the locally Preferred Alternative, as agreed on by Alameda CTC, Berkeley, and Emeryville at the same May 2, 2022 PDT meeting.

Caltrans selected the Preferred Alternative and made the final determination of the project's effect on the environment. Under CEQA, no significant impacts were identified, and Caltrans has prepared a Negative Declaration (ND) for the approval of the

Preferred Alternative. Caltrans, as assigned by the FHWA, has issued a FONSI in accordance with NEPA.

#### 1.5.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION PRIOR TO THE DRAFT IS/EA

As previously discussed, the proposed project has been contemplated since the 1980s in some form. As a result of its lengthy history, many alternatives have been considered. This section discusses the previously considered alternatives for both the interchange design and BPOC design. Table 1.5-3 summarizes all alternatives that have been considered but eliminated from further discussion.

**Table 1.5-3 Summary of Eliminated Alternatives**

<b>Alternative</b>	<b>Reason for Elimination</b>
<i>Interchange Design Concepts</i>	
Single Point Diamond (Alt. 1)	<ul style="list-style-type: none"> <li>• More costly than project without any added benefit or advantage of proposed project</li> </ul>
Diverging Diamond (Alt. 2)	<ul style="list-style-type: none"> <li>• Traffic operations</li> <li>• Traffic safety</li> <li>• Large development footprint</li> </ul>
Signal Only (Alt. 3)	<ul style="list-style-type: none"> <li>• Large footprint of the loop onramp connecting to westbound I-80</li> <li>• Limited flexibility and tight fit of the roundabout connection at West Frontage Road</li> </ul>
2006 SPSR Single Roundabout (Alt. 4)	<ul style="list-style-type: none"> <li>• Did not meet design year projected traffic operations</li> <li>• Provided no safety performance benefits</li> </ul>
1999 PSR Modified Partial Cloverleaf plus La Coste St. On-ramp (Alt. 5)	<ul style="list-style-type: none"> <li>• Eliminated due to infeasibility of La Coste on-ramp</li> </ul>
1999 PSR Ramps Only (Alt. 6)	<ul style="list-style-type: none"> <li>• Did not meet purpose and need regarding Shellmound St.</li> <li>• Did not address connectivity for bicyclists and pedestrians</li> </ul>
1999 PSR Modified Partial Cloverleaf (Alt.7)	<ul style="list-style-type: none"> <li>• Value Analysis determined that the 1999 PSR alternatives should be further evaluated and that a roundabout design should be considered</li> </ul>
<i>West Frontage Road Connection</i>	
Frontage Road Roundabout Options A and B	<ul style="list-style-type: none"> <li>• Less functional than proposed project</li> <li>• Larger footprint</li> </ul>
Frontage Road Roundabout Options C, D, and E	<ul style="list-style-type: none"> <li>• Tight turning radii</li> <li>• Substantial walls</li> </ul>
<i>I-80 Bicycle/Pedestrian Crossing Designs</i>	
Zero Conflict Undercrossing Options A and B (Alt. 1)	<ul style="list-style-type: none"> <li>• Very limited design area and tight fit</li> </ul>
BPOC Truss Design Option (Alt. 2)	<ul style="list-style-type: none"> <li>• Industrial appearance does not match with design theme of crossings along this section of I-80</li> </ul>



Alternative	Reason for Elimination
<i>Interchange Design Concepts</i>	
2009 BPOC Alternatives 2E, 1D and 1E (Alt. 3)	<ul style="list-style-type: none"> <li>• New interchange design was not considered</li> </ul>

The I-80/Ashby Interchange has been evaluated for improvements on two occasions before the proposed project, in 1999, and again in 2006. The purpose and need for the proposed project has not changed much over the years and has always included a direct connection to Shellmound Street in order to balance the traffic at both Ashby Avenue and Powell Street interchanges. An additional purpose of improving bicycle and pedestrian access across I-80 in the cities of Emeryville and Berkeley had also been previously included.

#### SINGLE POINT DIAMOND ALTERNATIVE

While the intersection control evaluation showed a single point diamond interchange would function very similarly to the proposed project (Tight Diamond, as shown in Figure 1.5-13), the drawbacks of the alternative were that it took up more space, limited the design of the connection with West Frontage Road and was considerably more costly without any added benefit or advantage of the Tight Diamond. As a result, it was dropped from further consideration with concurrence from the project development team.

#### DIVERGING DIAMOND ALTERNATIVE

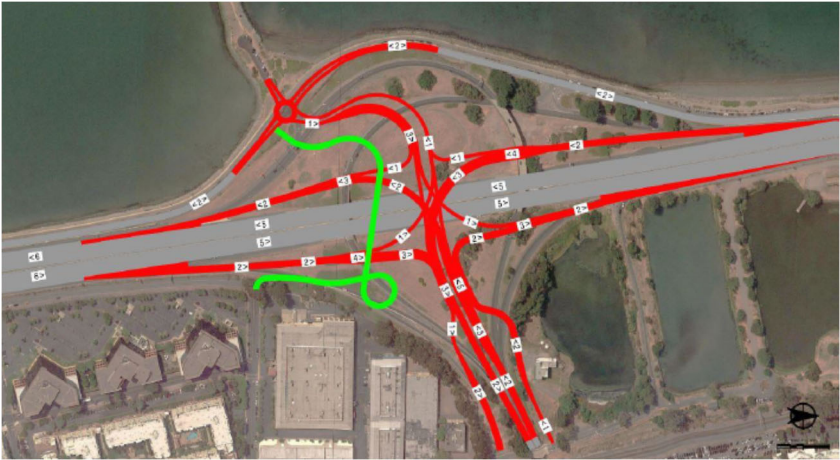
While the Intersection Control Evaluation analysis showed that the Diverging Diamond Alternative met the desired intersection controls, it was dropped from further consideration based on traffic operational, safety and footprint considerations (shown in Figure 1.5-12).

**Figure 1.5-12 Diverging Diamond Alternative**



Source: Value Analysis, 2020

**Figure 1.5-13 Single Point Diamond Alternative**



Source: Value Analysis, 2020

**SIGNAL ONLY ALTERNATIVE**

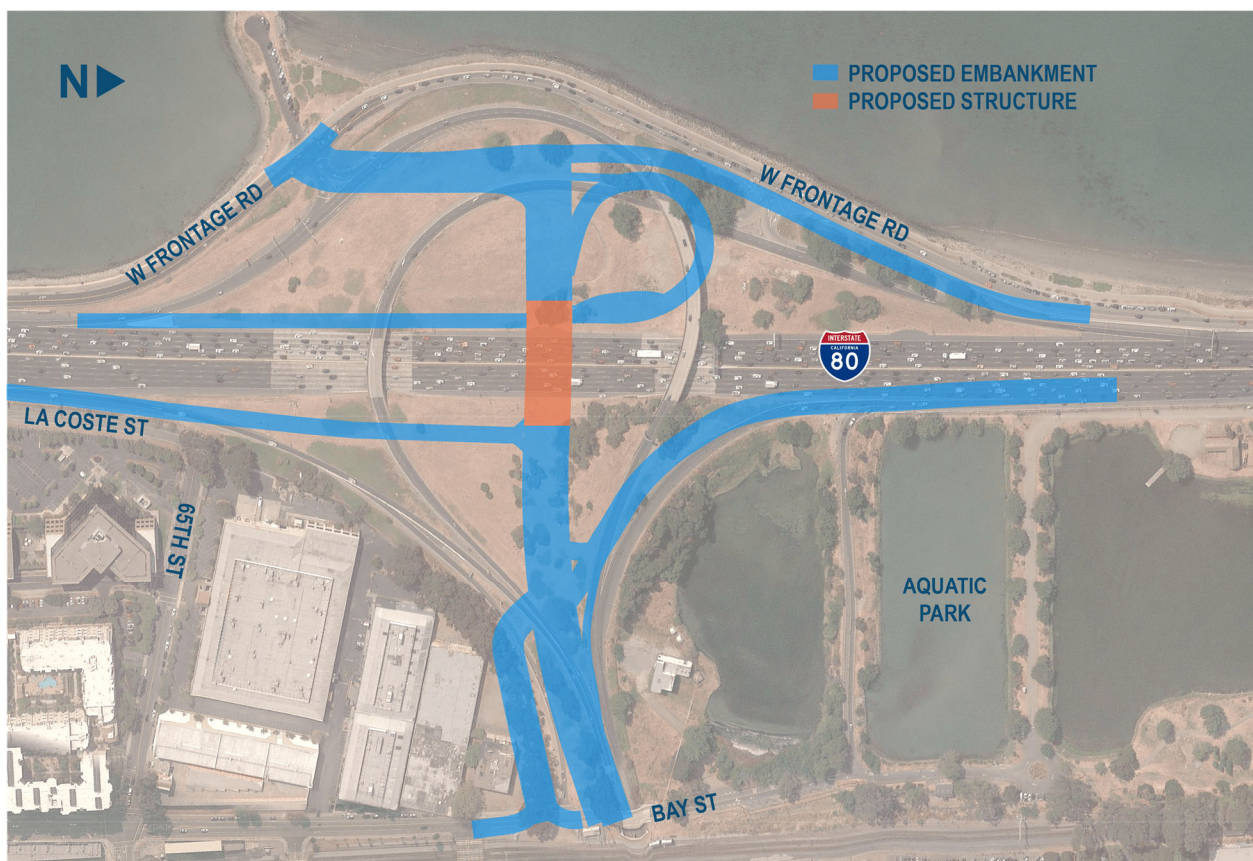
The Signal Only Alternative is a variant of the original 1999 Alternative 2 with a roundabout at West Frontage Road. The Signal Only Alternative was dropped due to the large footprint of the loop onramp connecting to westbound I-80 and the limited flexibility and tight fit of the roundabout connection at West Frontage Road.

## OLDER ALTERNATIVES

In 1999, three build alternatives were included in the SPSR. Alternative 1 entailed only adding ramps and was dropped because it did not meet the purpose and need or address the connectivity gaps between I-80 and Shellmound Street. It also did not address the bicycle/pedestrian access from the east side of I-80 to the San Francisco Bay Trail and Point Emery on the west side of I-80. Therefore, it was eliminated from further evaluation.

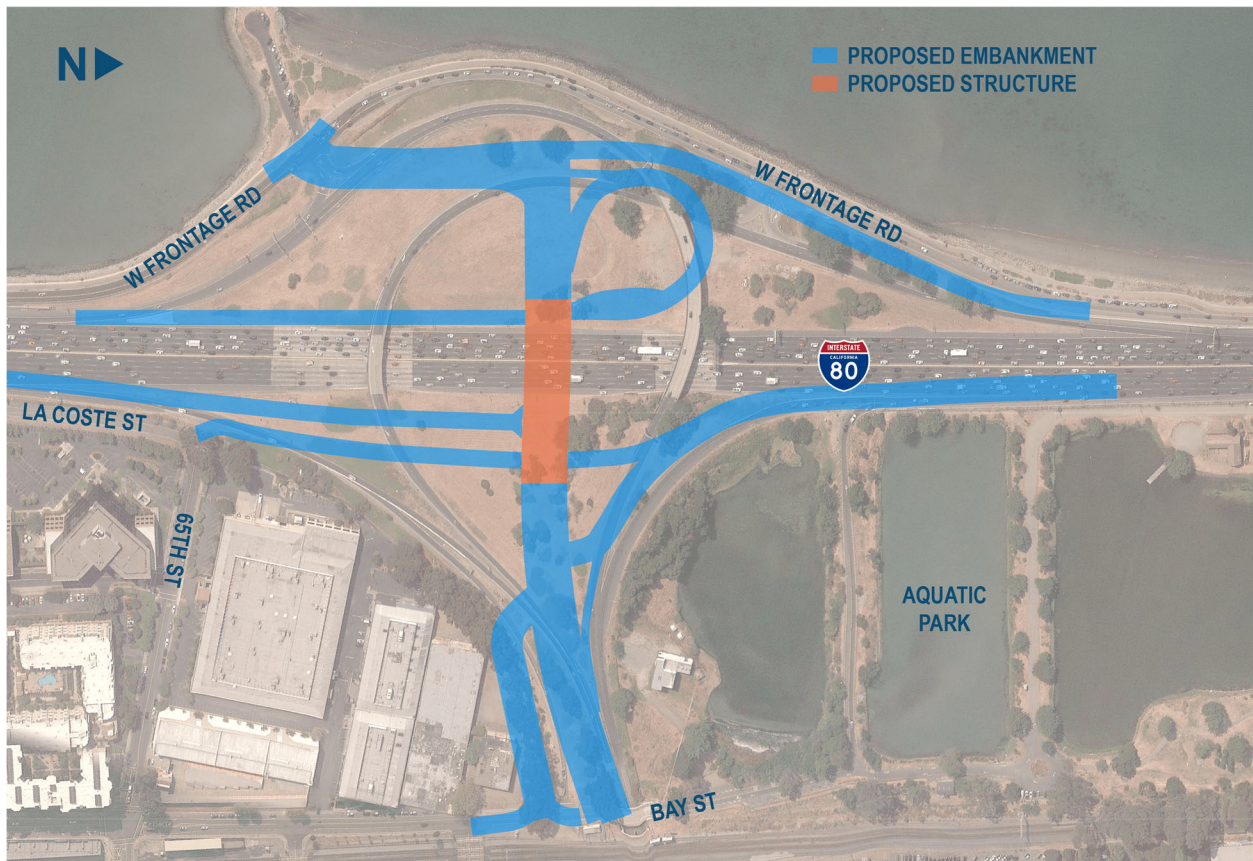
Alternative 2 entailed the reconstruction of the interchange to a modified partial cloverleaf and diamond interchange and is shown in Figure 1.5-14.

**Figure 1.5-14 1999 PSR Alternative 2**



*Source: 1999 I-80 Ashby PSR*

Alternative 3 was the same as Alternative 2 but with the added separate northbound onramp from 65<sup>th</sup> Street. Given the similarities between Alternative 2 and 3, the Value Analysis recommended that Alternative 3 be replaced by an alternative featuring roundabouts, as shown in Figure 1.5-15.

**Figure 1.5-15 1995 PSR Alternative 3**

Source: 1999 I-80 Ashby PSR

Alternative 2 and a new roundabout alternative were included in the 2006 Supplemental PSR. The 2006 roundabout alternative included three roundabouts, as shown in Figure 1.5-16.

The Roundabout Alternative included the following major modifications to the existing 1-80/Ashby Interchange:

- A new connection at Shellmound Street and the eastern roundabout. This connection would provide the access to both EB and WB I-80 on-ramps from Shellmound Street.
- A new bridge over 1-80 with barrier separated pedestrian-bike path
- An eastbound 1-80 diagonal on- and off-ramp modifications with a CHP enforcement area and ramp metering at the on-ramp. No HOV bypass lane would be provided.
- A two-lane roundabout on the east side of I-80 (northbound)
- A single lane roundabout on the west side of 1-80 (southbound)

- A loop on-ramp with a CHP enforcement area and ramp metering serving NB Ashby to WB 1-80. No HOV bypass lane would be provided.
- A WB I-80 diagonal off-ramp
- A single lane roundabout serving West Frontage Road access to/from 1-80 and Ashby.
- The demolition and removal of existing I-80/Ashby ramps and structures

**Figure 1.5-16 2006 Roundabout Alternative/Signal Only Roundabout Alternative**

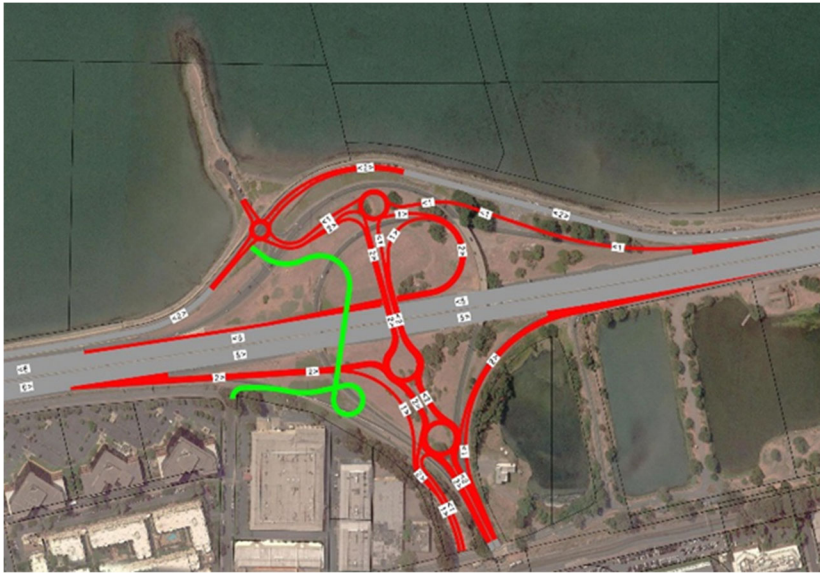


*Source: Value Analysis, 2020*

The proposed project was delayed due to funding availability. When the proposed project was re-initiated additional designs for the interchange were considered and screened for functionality and efficiency.

### **2006 Roundabout Alternative**

The 2006 Roundabout Alternative (shown in Figure 1.5-16) was dropped from further consideration because the 2045 forecast traffic volumes require at least 4 circulating roundabout lanes, it did not meet design year projected traffic operations, and it provided no safety performance benefits.

**Figure 1.5-17 Signal as Roundabout Alternative**

Source: Value Analysis, 2020

The Signal as Roundabout Alternative (Figure 1.5-17) was dropped from further consideration for the same reasons as the 2006 Roundabout Alternative: the 2045 forecast traffic volumes require at least 4 circulating roundabout lanes, it did not meet design year projected traffic operations, and it would not have provided safety performance benefits.

The intersection control analysis (Kittelson 2020) concluded that three alternatives should be considered: 1) the tight diamond, 2) single point diamond, and 3) the diverging diamond configurations. These were further evaluated and are discussed below.

### **Intersection Control Evaluation Screening**

An intersection control evaluation was conducted in support of this project (Kittelson 2020). The purpose of the analysis was to test the validity of interchange concepts presented in the 2006 SPSR and to consider other potential interchange designs. In addition, the original barrier separated design for the BPOC would not meet modern Americans with Disabilities Act (ADA) compliance standards, so the design approach for the BPOC was also revisited by Emeryville in 2009 as a separate BPOC project, and by Alameda CTC and Caltrans as part of the current project. The additional designs for the interchange configuration and BPOC are discussed separately below. The green line represents the approximate BPOC alignment.

## CONNECTIONS WITH WEST FRONTAGE ROAD DESIGN OPTIONS

### **Frontage Road Design Variations (for Alternatives 1 and 2)**

For the project design, variations of the Ashby Avenue connection with the Frontage Road to the west of the interchange have been developed. The variations are shown below as Options A through E. Options A and B both connect to a roundabout and connect with the existing Frontage Road. Option C connects with the existing Frontage Road through an S-curve ramp. Options D and E propose realignment of the Frontage Road parallel and adjacent to the southbound I-80 on and off-ramps.

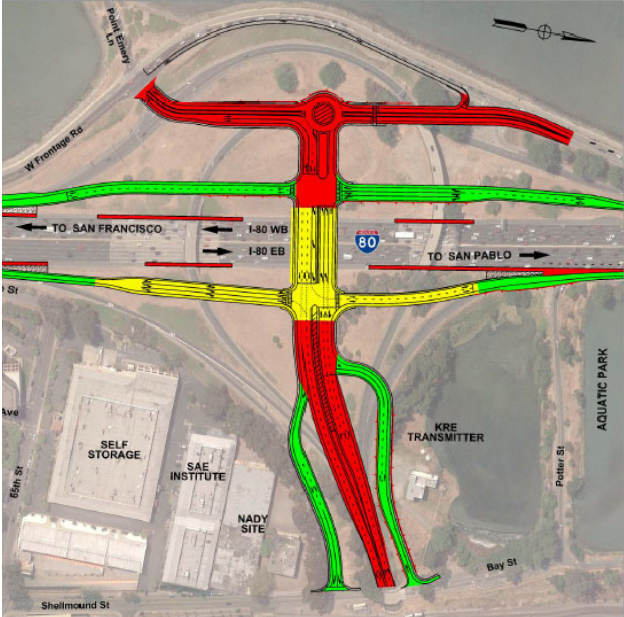
The realignment allows for more usable open space on the west side of the interchange but requires additional walls to support the Frontage Road and ramp. The Frontage Road Variation Options A through E are described and shown below. All design variations are identical on the east side of the of the interchange with the connections to Shellmound Street, Bay Street, and the connection of Ashby Avenue at the UPRR undercrossing. Design Options A and B were eliminated because the T-intersection option functioned just as well and required far less space. Design Options C through E were dropped due to turning design requirements and turning radii and the substantial walls needed for Option D and E.

#### *Roundabout Options*

##### Roundabout Option A

The Option A Frontage Road design variation includes a western extension of Ashby Avenue to a roundabout that has two intersections with the existing Frontage Road on the north and south sides of the roundabout. Option A is shown below in Figure 1.5-18.

**Figure 1.5-18 Roundabout Option A**

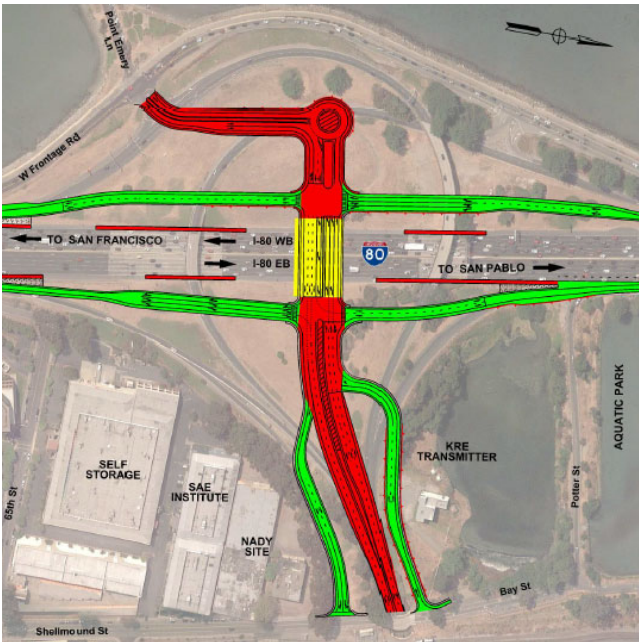


Source: TY Lin, 2021

**Roundabout Option B**

The Option B Frontage Road design variation is similar to Option A and also includes a roundabout. However, this variation has only one access point to the existing Frontage Road on the south side of the roundabout. Option B is shown below in Figure 1.5-19.

**Figure 1.5-19 Roundabout Option B**



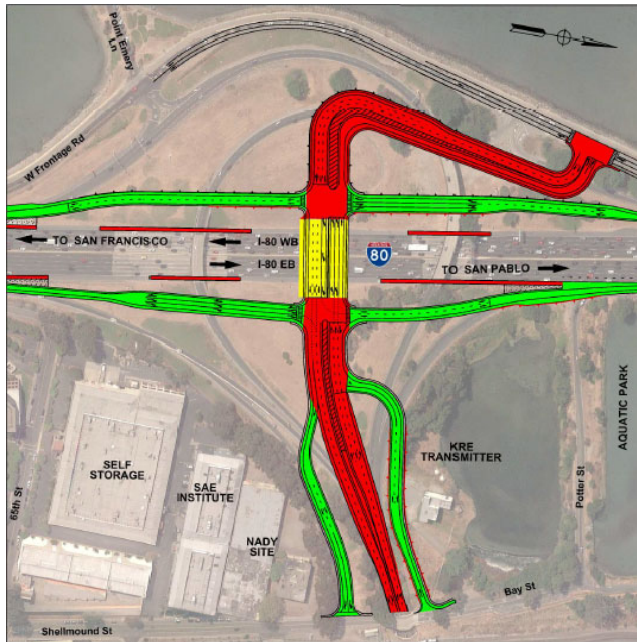
Source: TY Lin, 2021



### S-Curve Ramp Option

The Option C Frontage Road design variation includes an S-curve ramp which connects to the existing Frontage Road on the north side of the Ashby Avenue extension. Option C is shown below in Figure 1.5-20.

**Figure 1.5-20 S-Curve Ramp Option**



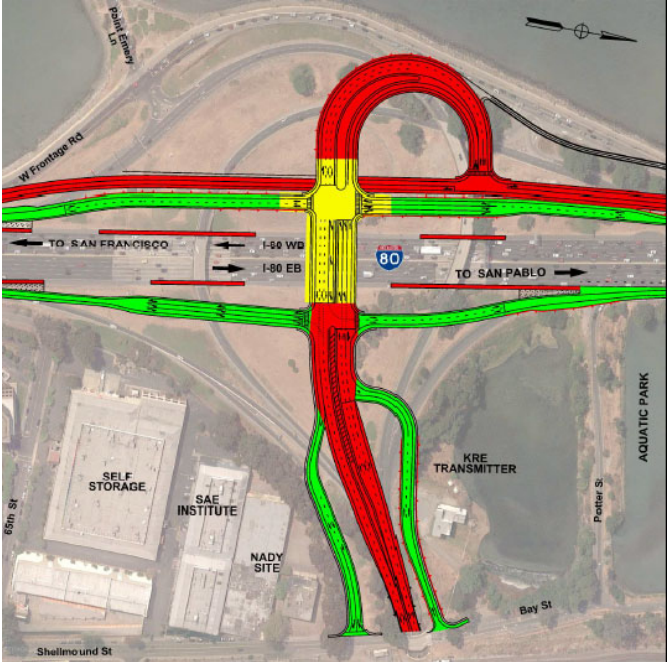
Source: TY Lin, 2021

### *Frontage Road Realignment Options*

#### Loop Ramp

The Option D Frontage Road design variation includes the complete realignment of the Frontage Road to the east to be adjacent to the southbound on and off-ramps. The realignment includes a loop ramp to connect with the realignment of the Frontage Road and an undercrossing of the extension of Ashby Avenue. Option D is shown below in Figure 1.5-21.

Figure 1.5-21 Loop Ramp Option

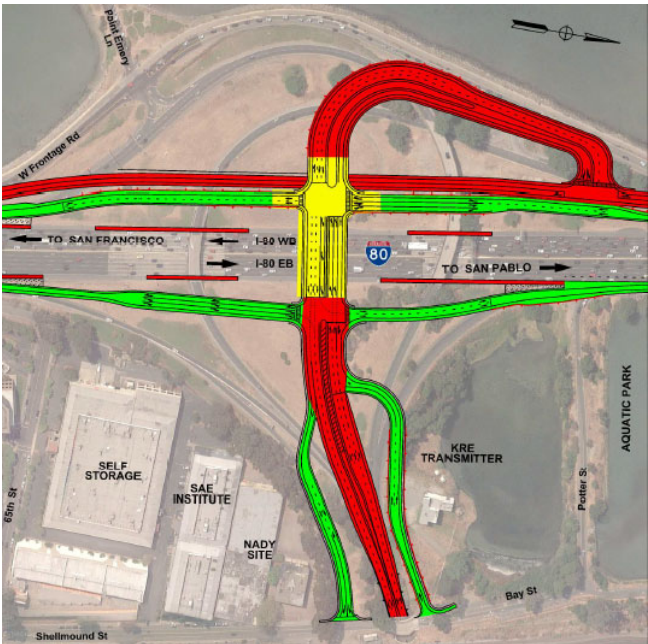


Source: TY Lin, 2021

Extended Loop Ramp

The Option E Frontage Road design variation is similar to Option D, but instead of a tight loop connection with Frontage Road, it is an elongate connection meeting the realigned Frontage Road much further north. Option E is shown below in Figure 1.5-22.

Figure 1.5-22 Extended Loop Ramp



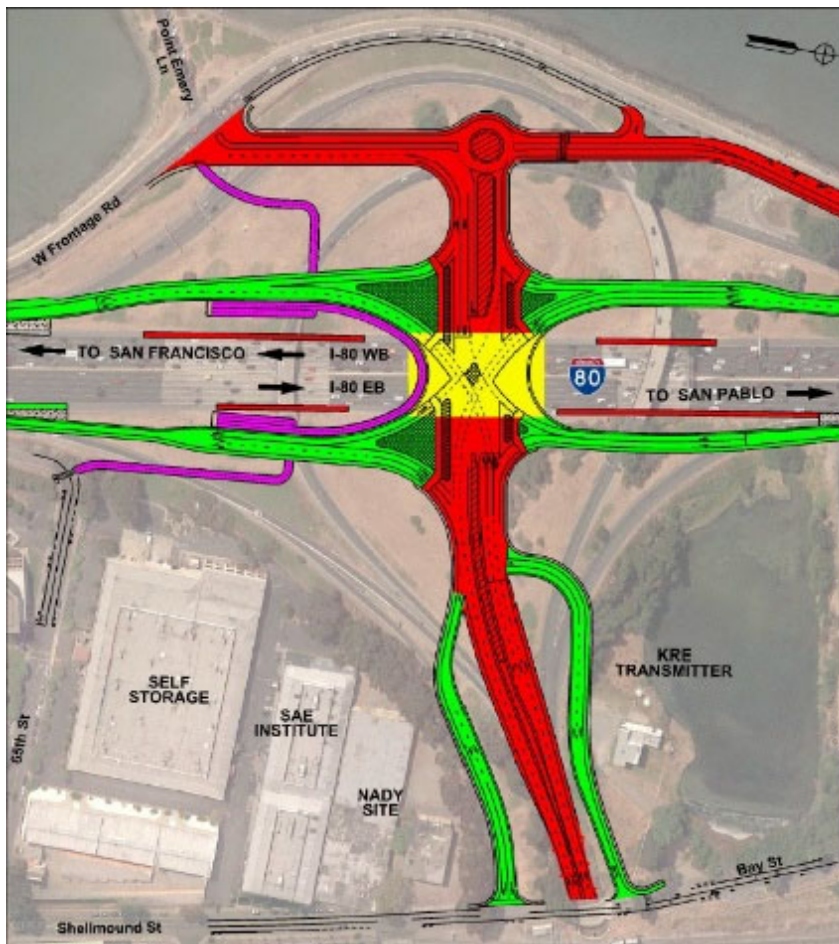
Source: TY Lin, 2021

## BICYCLE/PEDESTRIAN OVERCROSSING

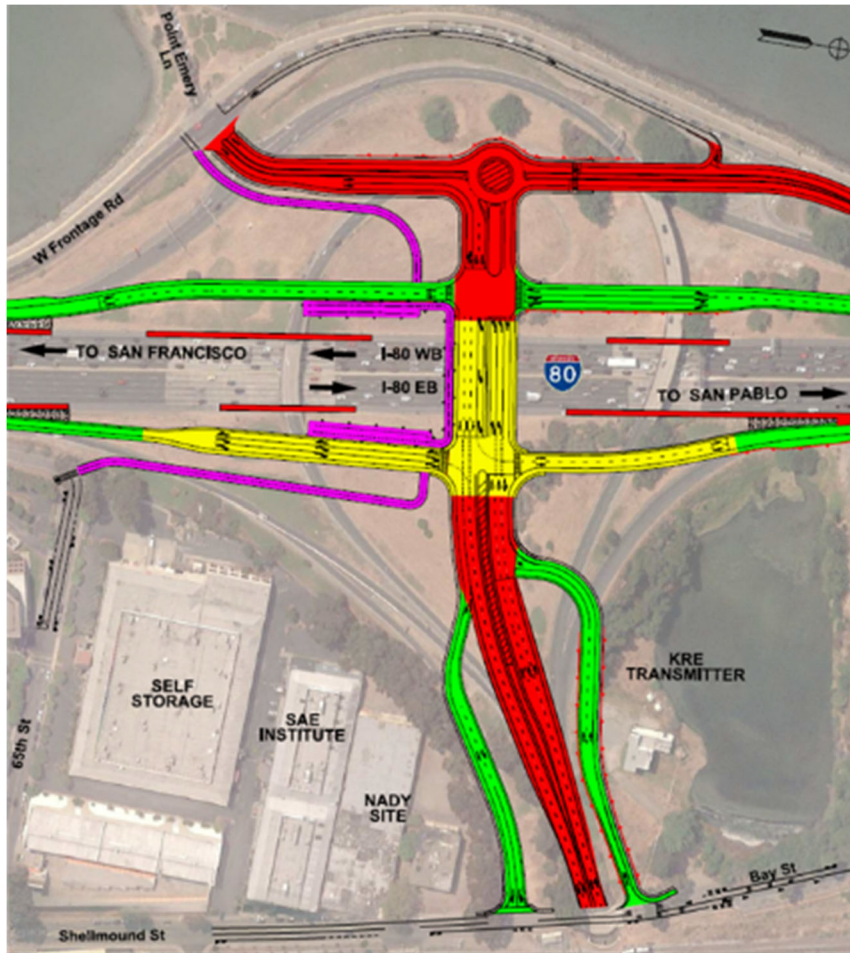
### ZERO CONFLICT SWITCHBACK/RAMP UNDERCROSSINGS

This variation includes switchbacks (to meet ADA grade requirements) on the east and west sides of I-80 approaching the south side of the Ashby Avenue bridge structure, as shown in Figure 1.5-23 and Figure 1.5-24. The access points are from 65<sup>th</sup> Street and the Frontage Road. The alignment of the zero conflict concept for the interchange alternatives is shown below in purple. The undercrossing variations were dropped from further consideration because the BPOC structure provided a more efficient route while still providing zero conflicts between motorists and bicyclists/pedestrians.

**Figure 1.5-23 Zero Conflict Option A**



Source: TY Lin, 2021

**Figure 1.5-24 Zero Conflict Option B**

Source: TY Lin, 2021

### Current Bicycle/Pedestrian Overcrossing Design - Truss Design Option

As part of the current design process, a truss design option was considered for the BPOC. As previously discussed, it was eliminated due to its inconsistency with the more graceful cabled-arch theme that is characteristic of the bridges and overcrossings of the Emeryville and Berkeley area. The industrial appearance of the truss did not match the more context sensitive design options of the butterfly and basket-handles arches, nor did it accomplish the neutral and unassuming appearance of the box girder. Therefore, it was dropped from further consideration due to its inconsistent aesthetics. The truss design option is shown below in Figure 1.5-25.

**Figure 1.5-25 Truss Design Option****2009 Emeryville BPOC Design Effort**

In 2009, Emeryville independently commenced a project to examine BPOC design. A PSR was developed showing three build alternatives with three different alignments, as shown in Figure 1.5-26, Figure 1.5-27, and Figure 1.5-28. All the BPOC alignments were located south of the I-80 Interchange and the alignment of the interchange assumed a bridge and roundabout design at the interchange, and the southbound I-80 onramp and West Frontage Road were assumed to remain in their existing locations. These assumptions were used so the BPOC design could move forward independently of the interchange design. The three designs were evaluated and were used to inform the currently proposed design of the BPOC. Alternative 2E was most like the current design. However, the current design is being proposed along with the interchange design. The realignment of the ramps and frontage road have been considered in the current BPOC design. Therefore, the BPOC is much closer to the proposed bridge connection to Ashby Avenue and I-80.

Figure 1.5-26 BPOC Alternative 2E



Source: 2009 Emeryville BPOC PSR

Figure 1.5-27 BPOC Alternative 1D



Source: 2009 Emeryville BPOC PSR

Figure 1.5-28 BPOC Alternative 1E



Source: 2009 Emeryville BPOC PSR

## 1.6 PERMITS AND APPROVALS NEEDED

Table 1.6-1 identifies the permits and approvals that would be required for project construction.

**Table 1.6-1 Permits and Approvals Needed**

<b>Agency</b>	<b>Permit/Approval</b>	<b>Status</b>
Regional Water Quality Control Board	Section 401 water quality certification	Issued during the final design phase
United States Army Corps of Engineers	Section 404, Clean Water Act, Permit – Nationwide	Issued during the final design phase
National Marine Fisheries Service (NMFS)	Informal consultation	NMFS issued a letter of concurrence regarding the findings of the Biological Assessment on August 17, 2022.
State Historic Preservation Officer (SHPO)	Concurrence on Eligibility Determinations	SHPO Letter of Concurrence received on November 3, 2020. No Register-eligible resources present.
Metropolitan Transportation Commission Air Quality Conformity Task Force	Regional air quality conformity	MTC Task Force reviewed the proposed project on July 23, 2020, and found that the proposed project is not a Project of Air Quality Concern.
Federal Highway Administration	Concurrence on air quality conformity determination	FHWA provided a letter of concurrence with the MTC Task Force's air quality conformity determination on October 21, 2022.
San Francisco Bay Conservation and Development Commission	Permit	Permit application to be filed during final design phase
United States Coast Guard	Notification	During the final design phase



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## 2.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

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As part of the scoping and environmental analysis carried out for the proposed project, the following environmental issues were considered but either found not to be present in the study area or the Build Alternative would have no adverse impact. As a result, there is no further discussion about these issues in this document (see Table 2.0-1).

**Table 2.0-1 Topics Considered But Determined Not to be Relevant**

Environmental Issue	Description
Farmlands/Timberlands	The study area is not located near any prime farmland, unique farmland, or land of statewide or local importance according to the California Department of Conservation's Farmland Mapping and Monitoring Program. The study area is not located near any land protected under the Williamson Act.
Growth	Project improvements proposed under the Build Alternative are freeway operational improvements that would not increase capacity of Interstate 80, create new access to local communities, or directly or indirectly induce growth. Improvements would indirectly support improved access to Emeryville and Berkeley where population growth is expected.
State Scenic Highways	There are no officially designated state scenic highways or eligible highways within the visual study area (VSA).
Wild and Scenic Rivers	The project area is not located near any wild and scenic rivers according to the National Wild and Scenic Rivers System.

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## 2.1 HUMAN ENVIRONMENT

### 2.1.1 EXISTING AND FUTURE LAND USE

This section evaluates impacts associated with land use and planning that could occur as a result of the proposed project. Sources of information used to prepare the analysis include:

- City of Emeryville General Plan (2019)
- City of Berkeley General Plan (2001)
- City of Emeryville Zoning Ordinance
- City of Berkeley Zoning Ordinance
- Plan Bay Area (2050)
- Alameda County General Plan (2019)
- *Community Impact Assessment* (October 2021) prepared for the proposed project

#### AFFECTED ENVIRONMENT

##### **Existing Land Uses and Zoning**

Aside from transportation uses associated with the interchange itself, there are two primary land use classifications within the land use study area: parks/open space and commercial (Figure 2.1-1 and Figure 2.1-2). Park lands are located on the west side of the interchange (San Francisco Bay Trail and Point Emery) and to the northeast (Aquatic Park in Berkeley). Commercial uses are located to the southeast of the interchange in Emeryville. This portion of the project area is zoned as “Mixed Use with Residential” and “Mixed Use with Non-Residential.” Other land uses within the land use study area include a private college and an apartment complex. The apartment complex is located at 6400 Christie Avenue, less than 100 feet southeast of the interchange in Emeryville. There are no farmlands present in the area.

##### **Planned Developments**

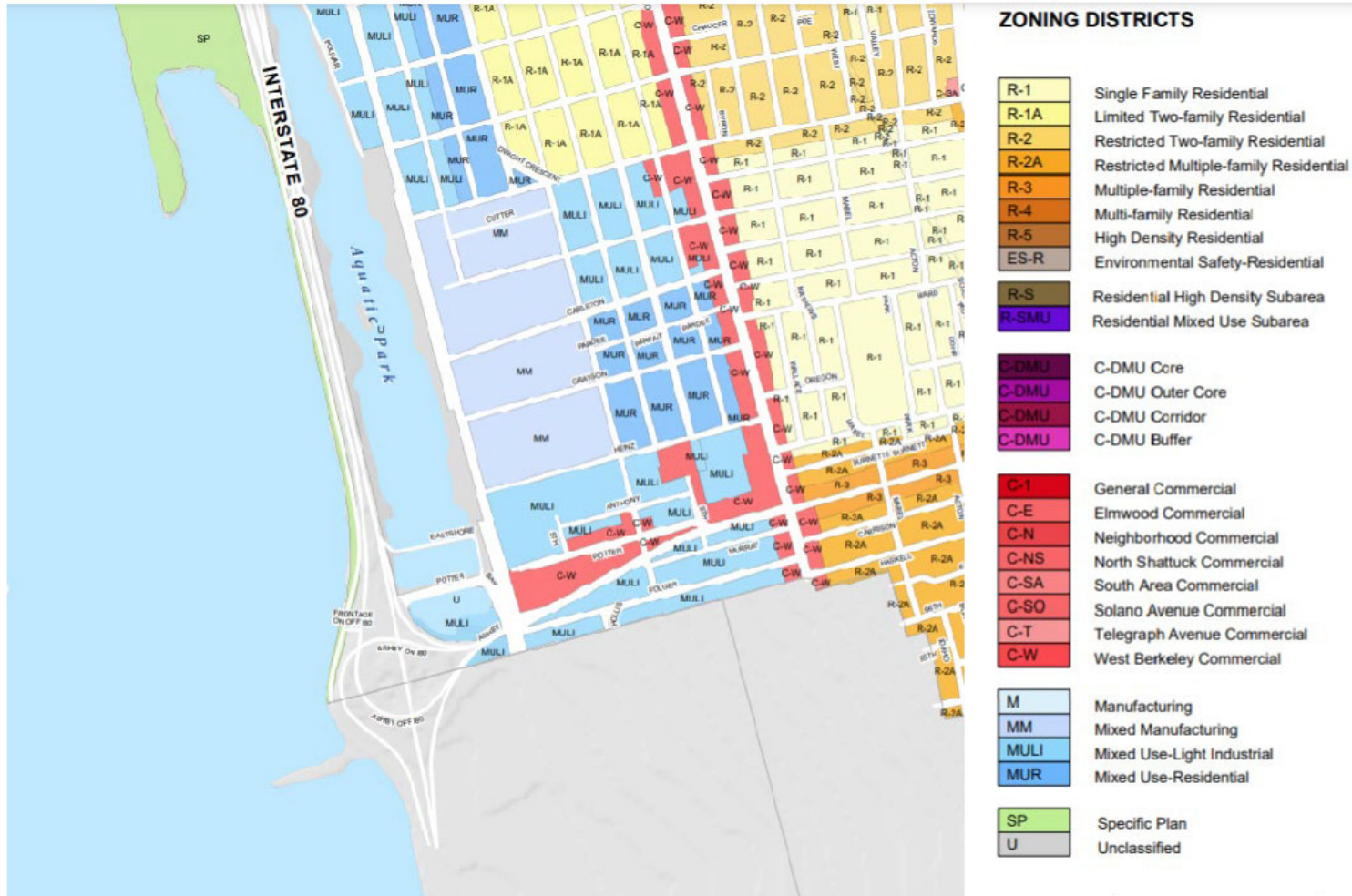
A majority of Berkeley’s planning area is currently built out; however, the areas of Berkeley near the interchange are primarily parkland and open space. Berkeley Aquatic Park borders the northeast side of the project area. Similarly, the area west of the interchange including the San Francisco Bay Trail and Point Emery is characterized by

park and trail uses, as well as sensitive bay lands. None of these areas are available for development.

According to the Emeryville General Plan, land use goals include redevelopment of existing underutilized sites due to the scarcity of vacant land. The majority of planned infill development projects in Emeryville are residential (single-family, multifamily, mixed-use and live/work). This includes the planned development of approximately 186 residential units at 6701 Shellmound Street (the “Nady Site”), located 250 feet east of the project area in Emeryville. Other planned projects near the project area include the redesign and expansion of Christie Park, located approximately 0.3 mile to the south on Christie Avenue.

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
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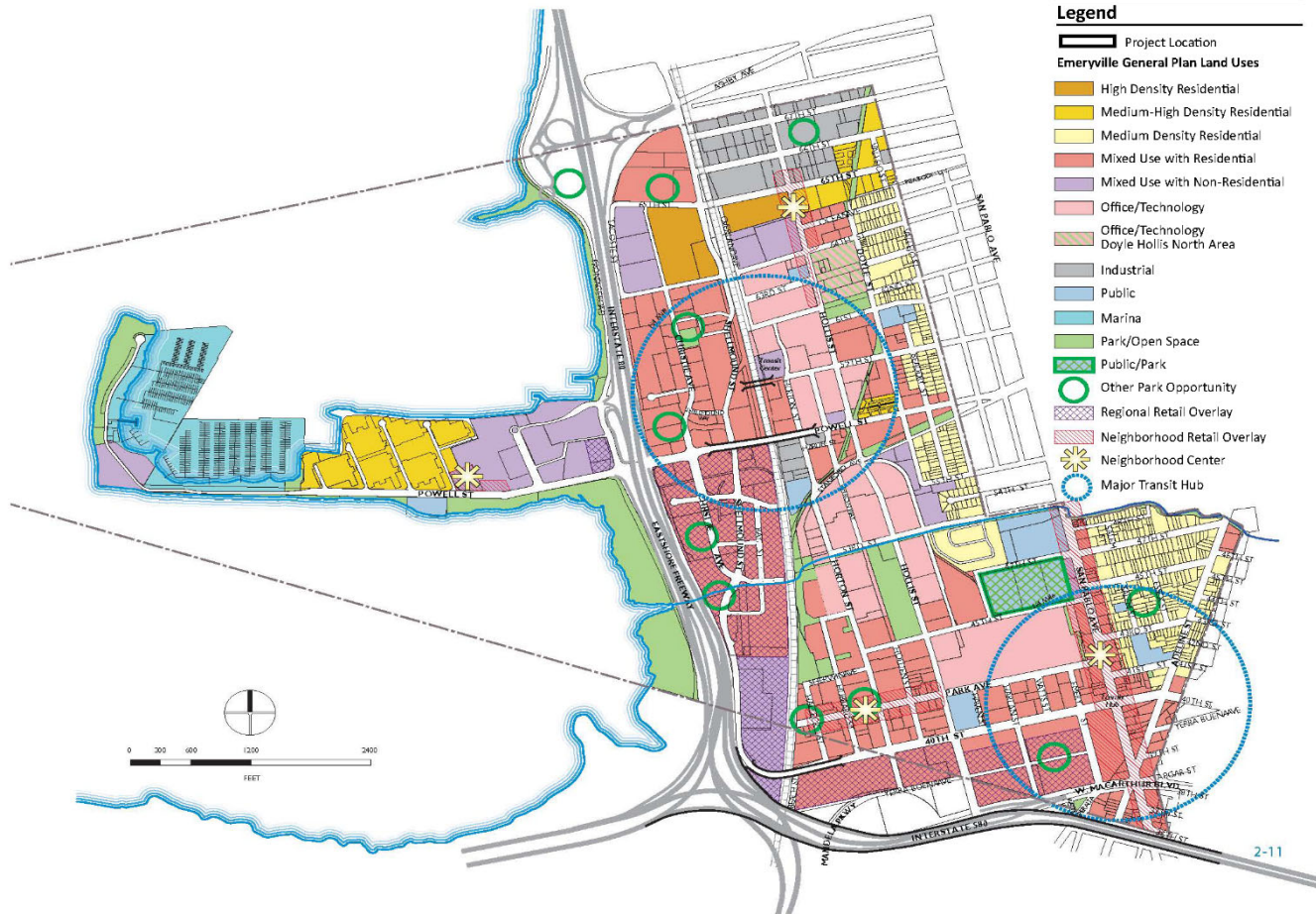
INTERSTATE 80/ASHBY AVNUE INTERCHANGE IMPROVEMENT PROJECT



Berkeley Land Use Map Figure 2.1-1

Source: Circlepoint 2020, City of Berkeley 2019

I-80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Emeryville Land Use Map Figure 2.1-2

Source: Circlepoint 2020; City of Emeryville 2019.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, no changes would be made to the interchange within the project area. The No Build Alternative would not conflict with existing or proposed land uses. Therefore, the No Build Alternative would have no effect on land use.

### **Build Alternative**

#### *Permanent Operational Impact*

The Build Alternative would alleviate congestion, improve multi-modal access, and support implementation of local and regional land use and transportation plans. The Emeryville and Berkeley general plans identify the interchange as an area that could benefit from improved circulation and enhanced mobility. Additionally, the Emeryville General Plan identifies the need for a bicycle/pedestrian overcrossing (BPOC) on the south side of the interchange. The Metropolitan Transportation Commission (MTC) has also included the proposed project in the Regional Transportation Plan (RTP).

The project would promote the implementation of local general plans and regional plans. The proposed project would not require or result in changes in existing land use patterns in the surrounding area. The proposed project would require acquisition of portions of a disused parking lot associated with the KRE radio station building for the construction of the Bay Street connector to Ashby Avenue and relocation of the driveway. The operation of the KRE radio station would not be affected by the property acquisitions. Based on the above, the Build Alternative would not result in an adverse effect related to existing or future land use.

#### *Temporary Construction Impact*

Construction activities and construction staging areas may result in traffic inconveniences for local roadway users and surrounding businesses. Temporary intersection closures would be required during construction, and detour routes would be provided within each jurisdiction (refer to AMM TRA-1 through AMM TRA-5 in Appendix C for a full description of these detours). Given that closures would be temporary and detour routes would be provided, construction of the Build Alternative would not result in an adverse effect related to land use.

### **Cumulative Impacts**

Cumulative impacts arise due to the combination of impacts from past, present, and foreseeable future projects in the region. Past and future development within Emeryville and Berkeley consists of mostly commercial and residential projects. As previously



discussed, none of the areas directly west or northeast of the project area in Berkeley are proposed for development. Projects proposed within Emeryville to the southeast of the interchange would be redevelopment or infill development consistent with local land use patterns. The proposed project is accounted for in applicable plans and regulatory documents locally and within the region. The proposed project would be consistent with applicable land use goals, policies, and objectives of each jurisdiction's General Plan, as demonstrated in 0. Therefore, the proposed project would not result in a considerable contribution to a significant cumulative impact related to land use.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

No project features would be required to help minimize impacts.

### **Avoidance and Minimization**

No avoidance, minimization, or mitigation measures would be required.

### **Mitigation Measures**

No mitigation would be required.

## 2.1.2 CONSISTENCY WITH REGIONAL AND LOCAL PLANS AND PROGRAMS

### AFFECTED ENVIRONMENT

This section identifies existing regional, local, and area plans and policies that apply to the study area. Future growth and development in the study area are guided by land use policies and programs set forth in the following planning documents. The proposed project's consistency with these planning documents and the policies therein is addressed in Table 2.1-1.

### **Local Regulations**

#### *Plan Bay Area*

Plan Bay Area 2050 is an updated long-range RTP and Sustainable Communities Strategy for the nine-county San Francisco Bay Area. This document discusses how the Bay Area will grow over the next two decades and identifies transportation and land use strategies to enable a more sustainable, equitable and economically vibrant future.

### *Alameda County General Plan*

The Alameda County General Plan is a long-range policy document approved by the Board of Supervisors to guide physical, economic, and environmental growth. State law requires the County to have a General Plan which contains seven elements: Land Use; Circulation; Housing; Open Space; Conservation; Safety and Noise. The plan expresses the County's vision for the future and is the roadmap for achieving the community's desired quality of life.

### **City of Berkeley**

#### *City of Berkeley General Plan*

The portion of the project area north of Ashby Avenue, is within the City of Berkeley. Land uses in this area are governed by the City of Berkeley's General Plan. The Berkeley General Plan is the comprehensive planning document which governs development within the City. The plan sets forth goals, policies, and programs for the growth and development of Berkeley.

#### *City of Berkeley Zoning Ordinance*

The Berkeley Zoning Ordinance is an evolving set of regulations that define how property in specific zones within Berkeley can be used. The purpose is to divide a municipality into residential, commercial, and industrial districts or zones.

### **Emeryville**

#### *Emeryville General Plan*

Most of the project is in Emeryville. In these areas, the surrounding land uses are governed by the City's General Plan. The Emeryville General Plan is the comprehensive planning document that governs development within Emeryville

#### *Emeryville Zoning Ordinance*

The City of Emeryville Zoning Ordinance is an evolving set of regulations that define how property in specific zones within Emeryville can be used. The purpose is to divide a municipality into residential, commercial, and industrial districts or zones.

## ENVIRONMENTAL CONSEQUENCES

The Build Alternative's consistency with relevant local plans and policies is discussed in Table 2.1-1. The No Build Alternative's consistency is also discussed for comparison.

**Table 2.1-1 Consistency with State, Regional, and Local Plans and Programs**

General Plan Policy	Build Alternative	No Build Alternative
Regional Transportation Plan	Consistent. The proposed project is listed in the Regional Transportation Plan (RTP).	Not Consistent. Under the No Build Alternative, the planned project in the RTP would not be implemented.
Plan Bay Area	Consistent. The proposed project is listed in Plan Bay Area's assumptions for planned roadway improvements.	Not Consistent. Under the No Build Alternative, this anticipated road improvement project would not be implemented.
<b>Caltrans Complete Streets</b>		
To ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets.	Consistent. The Build Alternative includes enhancements that would provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists.	Not Consistent. Under the No Build Alternative, planned improvements to the existing interchanges would not occur.
<b>Berkeley Pedestrian Master Plan</b>		
Goal 1: Plan, Build, and Maintain Pedestrian Supportive Infrastructure.	Consistent. The Build Alternative includes a bicycle/pedestrian overcrossing (BPOC), which would provide a safer way for pedestrians to travel through the interchange. Sidewalk improvements, shared-use path, and pedestrian-friendly signal improvements would be included throughout the project area.	Not Consistent. Under the No Build Alternative, no additional pedestrian facilities would be implemented.
Policy 2.1: Disabled Access: Improve pedestrian access for the entire disabled community.	Consistent. The BPOC, intersections, and sidewalks would be designed to be American with Disabilities Act (ADA) compliant, which would improve access for people with disabilities.	Not Consistent. Under the No Build Alternative, no pedestrian facilities would be implemented, which would not improve access for the disabled community.

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
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General Plan Policy	Build Alternative	No Build Alternative
<p>Policy 2.2: Pedestrian Safety and Accessibility: Provide safe and convenient pedestrian crossings throughout the city.</p>	<p>Consistent. The Build Alternative includes a BPOC, which would provide a safer way for pedestrians to travel through the interchange. Sidewalk improvements, a shared-use path, shortened intersection crossings, and pedestrian-friendly signal improvements would be included throughout the project area.</p>	<p>Not Consistent. Under the No Build Alternative, no additional pedestrian facilities would be implemented. Currently, the project area lacks ADA curb ramps and other pedestrian safety features.</p>
<p>Policy 2.3: Intersection with Severe or High Collision Rates: Reduce pedestrian and bicycle collisions, injuries, and fatalities.</p>	<p>Consistent. Under the Build Alternative, a BPOC would be implemented and provide a safer way for pedestrians to travel through the interchange. Sidewalk improvements, a shared-use path, shortened intersection crossings, and pedestrian-friendly signal improvements would be included throughout the project area. This would help reduce the occurrence of accidents.</p>	<p>Not Consistent. Under the No Build Alternative, no additional pedestrian facilities would be implemented, which would not improve safety in the study area.</p>
<b>Berkeley Bicycle Plan</b>		
<p>Policy D-1: Design a Low Stress Bikeway Network: Design a Low Stress Bikeway Network suitable for the “Interested but Concerned” cyclists, which would include people of all ages and ability levels riding bicycles in Berkeley. Policy D-1 Action: Design a network of continuous Low Stress Bikeways as identified in the Berkeley Bicycle Plan.</p>	<p>Consistent. The Build Alternative includes implementation of a BPOC, which would provide a safer way for bicyclists to travel through the interchange.</p>	<p>Not Consistent. The No Build Alternative does not include any improvements to bicycle facilities in the study area. Under the No Build Alternative, the bikeway network would not connect to existing bike paths.</p>

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES

General Plan Policy	Build Alternative	No Build Alternative
<p>Policy PD-1: Construct projects within the Bicycle Plan: Utilizing all available internal and external resources.</p>	<p>Consistent. The bicycle improvements included under the Build Alternative are fully funded from available resources.</p>	<p>Not Consistent. The No Build Alternative does not include any improvements to bicycle facilities in the study area.</p>
<b>Berkeley General Plan Consistency</b>		
<p>Policy LU-9: Non-Residential Traffic: Minimize or eliminate traffic impacts on residential areas from institutional and commercial uses through careful land use decisions.</p>	<p>Consistent. The proposed project would minimize traffic impacts on residential areas surrounding the interchange by providing a new off-ramp towards Emeryville.</p>	<p>Not Consistent. Under the No Build Alternative, existing conditions would remain.</p>
<p>Policy LU-11: Pedestrian- and Bicycle-Friendly Neighborhoods: Ensure that neighborhoods are pedestrian- and bicycle-friendly with well-maintained streets, street trees, sidewalks, and pathways.</p>	<p>Consistent. The Build Alternative includes the implementation of a BPOC, which would provide a safer way for pedestrians and bicyclists to travel through the interchange.</p>	<p>Not Consistent. The No Build Alternative would not ensure neighborhoods are pedestrian- and bicycle-friendly because there would remain no pedestrian/bicycle access from Ashby Avenue to the west side of I-80.</p>
<p>Transportation Objective 6: Create a model bicycle- and pedestrian-friendly city where bicycling and walking are safe, attractive, easy, and convenient forms of transportation and recreation for people of all ages and abilities.</p>	<p>Consistent. The Build Alternative includes the implementation of a BPOC, which would provide a safer way for pedestrians and bicyclists to travel through the interchange.</p>	<p>Not Consistent. The No Build Alternative does not include any improvements to pedestrian or bicycle facilities in the study area.</p>

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES

General Plan Policy	Build Alternative	No Build Alternative
<p>Policy T-22: Traffic Circles and Roundabouts: Encourage the use of landscaped traffic circles to calm traffic in residential areas. Action: A. Consider roundabouts as a viable traffic-calming device, especially at the Shattuck and Adeline intersection, the Gilman Street Freeway on- and off-ramps, and at other appropriate intersections in the city.</p>	<p>Slightly Inconsistent. The Build Alternative considered a roundabout alternative but did not believe it was feasible because it did not satisfy the purpose, need and operational requirements of the proposed project.</p>	<p>Not Consistent. Under the No Build Alternative, roundabouts would not be implemented at the interchange.</p>
<p>Policy T-29 Infrastructure Improvements: Facilitate mobility and the flow of traffic on major and collector streets (shown on the Vehicular Circulation Network map at the end of the Element), reduce the air quality impacts of congestion, improve pedestrian and bicycle access, and speed public transportation throughout the city by making improvements to the existing physical infrastructure. F: Improve freeway approaches and interchanges at Ashby Avenue (including removal of Potter Street ramp) and Gilman Street (to improve pedestrian and bicycle circulation to the waterfront and facilitate truck access to West Berkeley).</p>	<p>Consistent. The Build Alternative includes a westbound off-ramp at I-80/Ashby Avenue to improve mobility and the flow of traffic, which also helps reduce air quality impacts from idling vehicles.</p> <p>The Build Alternative also includes a BPOC, which would provide a safer way for pedestrians and bicyclists to travel through the interchange which creates a direct path to the San Francisco Bay Trail. These pedestrian and bicycle improvements improve pedestrian and bicycle access in the area.</p>	<p>Not Consistent. Under the No Build Alternative, new on- and off- ramps would not be implemented at the interchange, and congestion, delay, and air quality would continue to worsen. In addition, no pedestrian or bicycle facilities would be implemented, which would hinder access in the area.</p>

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES

General Plan Policy	Build Alternative	No Build Alternative
<p>Policy OS-10 Access Improvements: Improve transit, bicycle, disabled, and pedestrian access to and between open space and recreation facilities, including regional facilities such as the Berkeley Marina, UCB open space, EBRPD lands, the McLaughlin Eastshore State Park, and recreational facilities in other cities.</p>	<p>Consistent. The Build Alternative includes a BPOC, which would provide a safer way for pedestrians and bicyclists to travel through the interchange. This pedestrian and bicycle improvement will improve access to the San Francisco Bay Trail.</p>	<p>Not Consistent. Under the No Build Alternative, no pedestrian or bicycle facilities would be implemented, which would not improve access to recreational facilities in the area.</p>
<b>Emeryville General Plan</b>		
<p>T-G-1: A Comprehensive Transportation System: A transportation system that is efficient, safe, removes barriers, (e.g., accessibility near freeways and rail lines), and optimizes travel by all modes.</p>	<p>Consistent. The Build Alternative includes a BPOC, which would provide a safer way for pedestrians to travel through the interchange. Sidewalk improvements, a shared-use path, and pedestrian-friendly signal improvements would be included throughout the project area.</p>	<p>Not Consistent. The No Build-Alternative does not include any improvements that would optimize travel by all modes.</p>
<p>T-G-2: Universally accessible—A transportation system that meets the needs of all segments of the population, including youth, seniors, persons with disabilities, and low-income households.</p>	<p>Consistent. The Build Alternative includes the implementation of an ADA-compliant BPOC, which would provide a safer way for pedestrians and bicyclists to travel through the interchange.</p>	<p>Not Consistent. The No Build-Alternative does not include any improvements that would benefit all segments of the population.</p>

General Plan Policy	Build Alternative	No Build Alternative
<p>T-G-4 A walkable city—A universally accessible, safe, pleasant, convenient, and integrated pedestrian system that provides links within the city and to surrounding communities and reduces vehicular conflicts.</p>	<p>Consistent. The Build Alternative includes the implementation of a BPOC, which would create a more pleasant and convenient route to the San Francisco Bay rather than crossing I-80 on- and off-ramps.</p>	<p>Not Consistent. The No Build-Alternative does not include any improvements that would create a more walkable city.</p>
<p>T-G-5 A safe, comprehensive, and integrated bicycle system—A system and support facilities throughout the city that encourage accessible bicycling for all community members.</p>	<p>Consistent. The Build Alternative would provide a safer way for bicyclists to travel through the interchange.</p>	<p>Not Consistent. The No Build-Alternative does not include any improvements that would support bicycles facilities around the interchange.</p>
<p>T-P-5 The City encourages development that minimizes Vehicle Miles Traveled (VMT).</p>	<p>Consistent. The Build Alternative would contribute to regional reductions in VMT by improving access to the San Francisco Bay shoreline and enhancing active transportation opportunities. It would also decrease VMT by allowing vehicles to exit the freeway closer to their destination.</p>	<p>Not Consistent. The No Build-Alternative does not include any improvements that would minimize VMTs.</p>
<p>T-P-20 Safe and direct pedestrian access to Aquatic Park and the peninsula will be provided and maintained.</p>	<p>Consistent. The Build Alternative includes implementation of a BPOC that would provide improved access to the Aquatic Park via the Ashby Avenue overcrossing.</p>	<p>Not Consistent. The No Build Alternative does not include any improvements including access to the Aquatic Park.</p>

Source: City of Emeryville 2019, City of Berkeley 2001

### 2.1.3 COASTAL ZONE

This section evaluates effects associated with costal zones that occur within the Project area. The Sea Level Rise Memorandum (November 2021) prepared for the proposed project was used to prepare the analysis in this section.



## REGULATORY SETTING

The proposed project has the potential to affect resources protected by the Coastal Zone Management Act (CZMA) of 1972. The CZMA is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan have authority to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA. They include the protection and expansion of public access and recreation, the protection, enhancement, and restoration of environmentally sensitive areas, the protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs. This proposed project is subject to the Bay Conservation and Development Commission (BCDC) local coastal program. Local Coastal Programs contain the ground rules for development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. BCDC also oversees implementation of the San Francisco Bay Plan. A Federal Consistency Certification will be needed as well. The Federal Consistency Certification process will be initiated prior to final environmental document and will be completed during the NEPA process.

BCDC, created prior to the California Coastal Act, retains oversight and planning responsibilities for developed and conservation of coastal resources in the Bay Area. The regulatory authority for BCDC is the McAteer-Petris Act and the Suisun Marsh Protection Act.

## AFFECTED ENVIRONMENT

The proposed project is situated within the coastal zone. The entire western portion of the proposed project is located within BCDC jurisdiction. However, most construction would be located within Caltrans' right of way (ROW) along I-80.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

The No Build Alternative would not affect San Francisco Bay resources because none of the improvements of the proposed project would be implemented. Only scheduled routine maintenance of the area would occur along with other planned and programmed projects and would not result in any impacts to the San Francisco Bay.

### **Build Alternative**

#### *Permanent Operational Impacts*

The proposed project would not adversely affect resources, views, or access to the San Francisco Bay (along the San Francisco Bay Trail). Meanwhile, public access to the San Francisco Bay Trail and other bay resources would improve as a result of the proposed project.

#### *Temporary Construction Impacts*

The proposed project comprises the following three improvements: (1) redesign of the elevated interchange, (2) realignment of West Frontage Road to intersect with Ashby Avenue, and (3) introduction of a new bicycle and pedestrian connection from the east side of I-80 to the Point Emery area and the San Francisco Bay Trail on the west side of the interchange. Portions of the project area that fall within BCDC's jurisdiction include the San Francisco Bay, West Frontage Road, the San Francisco Bay Trail, and the Radio Tower Pond. The following activities would be required within BCDC jurisdiction: clearing of vegetation and conflicting structures utility relocation; demolishing the existing I-80/Ashby Avenue connector ramps and replacing them with a tight diamond interchange, and road improvements. Construction activities include clearing, demolition, grading, excavation, grubbing of vegetation, and increasing impervious surfaces adjacent to the San Francisco Bay shoreline. As a result, sedimentation and pollutants could enter neighboring bodies of water, tidal flats, and marsh areas including Berkeley Aquatic Park and San Francisco Bay.

There would be temporary impacts to shoreline access next to the San Francisco Bay Trail. Vehicular detours and closures are anticipated during construction activities along West Frontage Road as described in Section 1.5.1, Proposed Project. During this time, West Frontage Road will be temporarily closed to traffic between University Avenue and Powell Street while the new alignment is under construction. The West Frontage Road closure would not interfere with the use of the San Francisco Bay Trail. However, it would limit vehicular and water vessel launching access to Emery Point during the temporary closure.

Under the McAteer-Petris Act, BCDC has regulatory responsibility over development in the San Francisco Bay and shoreline margins within its jurisdiction. In more recent years, BCDC has adopted policies to require projects to be resilient to rising sea level based on a project's expected life. BCDC issues permits for project activities in the San Francisco Bay or within 100 feet of the shoreline, including filling, dredging, dredged sediment disposal, shoreline development and other work. In addition to its permit authority under state law, BCDC exercises authority under Section 307 of the federal Coastal Zone Management Act (CZMA)(16 U.S.C. section 1456) over federal activities and development projects and non-federal projects that require a federal permit or license or are supported by federal funding.

Caltrans has begun early consultation with BCDC regarding the required permit for temporary work within BCDC jurisdiction. As part of the permitting process, BCDC requires a Sea Level Rise Assessment and a comprehensive construction closure, detour, and signage plan. A Sea Level Rise Memorandum was prepared for the project, and approved November 1, 2021. As discussed in the Sea Level Rise Memorandum, the proposed project is currently evaluating the addition of a tidal flap gate or a duck bill valve at the proposed new outfall structure as a near-term mitigation measure to prevent backwater flow conditions. This may be the first step to add resiliency to the project and to aid in incorporating other management strategies to be considered in the future as part of other regional projects.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

There are no applicable project features associated with coastal zone resources.

### **Avoidance and Minimization**

AMM TRA-1: (Public Access to the San Francisco Bay Trail) During construction of the new outfall area, a temporary detour around the construction area will be installed to ensure continuous access to the San Francisco Bay Trail is maintained.

See Appendix C for the full text of AMM TRA-1.

### **Mitigation Measures**

No mitigation would be required.

## 2.1.4 PARKS AND RECREATIONAL FACILITIES

### REGULATORY SETTING

#### **Federal**

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project “...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

“There is no prudent and feasible alternative to using that land; and  
The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

Section 4(f) further requires coordination with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

#### **State**

##### *Park Preservation Act*

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

## AFFECTED ENVIRONMENT

### Section 4(f)

There are no historic or archaeological resources subject to the provisions of Section 4(f) in the project area. There are four recreational facilities present within the project area that are subject to Section 4(f) provisions: Berkeley Aquatic Park, the San Francisco Bay Trail, Point Emery Park, and Christie Park.

### Public Parks

Emeryville and Berkeley have extensive park systems offering a diverse range of outdoor facilities to meet the needs of both communities. Table 2.1-2 lists the three public parks and recreational facilities located within 0.5-mile of the project area: Christie Park, Point Emery, and Aquatic Park. These parks are public parks and subject to the provisions of the Park Preservation Act.

**Table 2.1-2 Parks and Recreational Facilities**

Name	Size	Status	Distance from Project area (within 0.5 mile)	Jurisdiction	Featured Activities
Christie Park	N/A	Under renovation	0.5 mile south	Emeryville	Children's playground, dog park.
Point Emery	1.37 acres	Built	0.1 mile west	Emeryville	Walking, hiking, watercraft activities
Aquatic Park	32.76 land acres, 67.7 water acres	Built	Adjacent to the northside of the proposed project	Berkeley	Boating, hiking, playground, bird watching.

## Trails and Bikeways

The existing bike and trail system in Emeryville and Berkeley consists of on- and off-street facilities. Off-street bike paths include the Neighborhood Convergence Trail, San Francisco Bay Trail, Shellmound Trail, and the Amtrak Bike Path. These trails are protected under the provisions of Section 4(f), because they are publicly owned and designated or functioning primarily for recreational purposes. The San Francisco Bay Trail and the Neighborhood Convergence Trail are located within 0.5 mile of the proposed project, to the west and south, respectively.

On-street bike paths provide vital connections throughout Emeryville and Berkeley, including connections to regional parks and schools. However, the existing bikeways in both cities are often incomplete, leaving cyclists with sections of road that are difficult and dangerous to ride. Bicycle facilities include the following general types:

- Class I: Shared Use Path – These facilities provide a separate ROW and are designated for the exclusive use of bicycles and pedestrians with vehicle cross-flow minimized.
- Class II: Bicycle Lane – Bicycle lanes provide a restricted ROW and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. Bicycle lanes are generally a minimum of 5 feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- Class III: Bicycle route with “sharrows” – These bikeways provide ROW designated by signs or pavement markings for shared use with motor vehicles. These include “sharrows” or shared lane markings to highlight the presence of bicyclists.

### *I-80 Ashby Avenue Interchange*

The Berkeley Bicycle Master Plan of 2017 shows an existing Class III bikeway that runs along Bay Street, including Shellmound Street. However, this bikeway has signage only, and shares a lane with vehicular traffic. This bikeway is not protected under Section 4(f).

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, none of the project features described under the Build Alternative would be constructed. The existing transportation facilities within the project area would remain unchanged except for the planned and programmed improvements. No other projects are planned within the project area. The No Build Alternative would not result in an adverse effect to parks or recreation resources.

## **Build Alternative**

### *Section 4(f)*

The following analysis is a summary of the findings detailed in Appendix A: Section 4(f). Potential increases in construction emissions and noise attributable to the proposed project would be temporary and would not substantially impair features or attributes of Berkeley Aquatic Park, the San Francisco Bay Trail, Point Emery, or Christie Park. Detours during construction periods would be temporary and would be managed as part of PF TRA-1, and AMM TRA-1 through AMM TRA-5 (see Appendix C for the full text of these features and measures). PF TRA-1 requires a TMP to be prepared to ensure efficient movement of local and regional traffic during construction. The TMP will provide outreach to inform community agencies, such as the fire department, and the public of the times and locations of upcoming construction, signage in and approaching the project area, and incident management for traffic control in the vicinity of the construction activities. Therefore, the proposed project would not result in any direct use or temporary occupancy of recreational resources. The proposed project would not result in a constructive use of the described Section 4(f) resources.

### *Parks and Recreational Resources*

#### Permanent Operational Impacts

The Build Alternative would not require permanent acquisition of parks or recreational facilities. Once operational, the Build Alternative would not reduce access to parks or recreational facilities or increases in ambient noise levels. The Build Alternative would include a Class I shared pedestrian and bicycle path along Shellmound Street and Bay Street, which would extend over I-80 via the proposed BPOC. This would improve bicycle and pedestrian connectivity across the interchange. Proposed improvements to the local and regional bicycle and pedestrian network are consistent with local and regional plans. Additionally, as a roadway project, the Build Alternative would not have growth-inducing effects that would increase demands for parks or recreational facilities such that expansion of existing facilities or creation of new parks and recreation facilities would be required. Therefore, operation of the Build Alternative would not result in adverse effects to parks or recreation resources.

#### Temporary Construction Impacts

Construction work has the potential to affect Aquatic Park and Point Emery. Potential increases in ambient noise levels during construction could result in noise impacts in the areas where parks and recreational facilities are located, due to the relative distance between the project area and both parks (less than 1,000 feet, respectively). However, the noise levels during construction would be temporary, and limited to daytime

construction hours. Incorporation of project features PF NOI-1 through PF NOI-6 would ensure that adverse effects would not occur (refer to Appendix C for the full text of these project features). Additionally, construction of the Build Alternative would require a temporary detour for the San Francisco Bay Trail during the construction of the new outfall (AMM TRA-5). Disruptions related to this detour would be minimized through the incorporation of a TMP during construction (PF TRA-1).

Construction work would not occur within Christie Park identified in Table 2.1-2. Potential increases in ambient noise levels during construction would not result in noise impacts in the areas where parks and recreational facilities are located, because of the relative distance between the project area and nearby parks (0.3 mile) and the presence of intervening multistory commercial and residential buildings. Therefore, construction of the Build Alternative would not result in an adverse effect related to this resource.

### **Cumulative Impacts**

The Build Alternative would not affect parks, recreational resources, or Section 4(f) resources. Construction of the Build Alternative would require a temporary detour for the San Francisco Bay Trail during the construction of the new outfall. Additionally, West Frontage Road would be closed to traffic from University Avenue to Powell Street during construction, which would limit access to Point Emery for automobiles and waterborne vehicle launching (AMM TRA-2). However, disruptions related to these closures would be temporary and would be minimized through incorporation of the TMP (PF TRA-1). Therefore, the proposed project would not contribute to cumulative effects on these resources.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF-TRA-1: A TMP will be prepared to ensure efficient movement of local and regional traffic during construction.

PF NOI-1: Caltrans Standard Noise Control BMPs such as limiting paving and demolition activities to between 7:00 a.m. and 7:00 p.m.

PF NOI-2: Inspection of equipment by the contractor will ensure that all equipment onsite is working properly, in good condition, and effectively muffled. All equipment will have sound-control devices no less effective than those provided on the original equipment.

PF NOI-3: Construction activities shall be minimized in the study area during evening, nighttime, weekend, and holiday periods.



PF NOI-4: Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to study area users are minimal (e.g., restrict the hours to weekdays during daytime hours).

PF NOI-5: The Resident Engineer will be responsible to collect and respond to any complaints related to construction noise.

PF NOI-6: Truck loading, unloading, and hauling operations will be minimized so that noise and vibration are kept to a minimum through the study area to the greatest possible extent.

(Refer to Appendix C for the full text of these project features).

### **Avoidance and Minimization**

AMM TRA-1: The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the bike and pedestrian overcrossing.

AMM TRA-2: During the construction of West Frontage Road, vehicular detours and closure would be anticipated. West Frontage Road would be closed to traffic from University Avenue to Powell Street. Once the construction of West Frontage Road is completed in Stage 3, temporary access ramps would be put in place and vehicular access would be restored.

AMM TRA-3: Mainline traffic would be transitioned temporarily onto the right shoulder to accommodate the median falsework support structure for BPOC. This temporary lane shift would be striped and signed accordingly. Nighttime work is anticipated for the following construction activities; k-rail installation and removal, installation of precast girders, existing ramp and abutment demolition, falsework erection and removal, temporary striping for the lane shifts during BPOC construction and permanent striping activities. Lane closure plans would be developed for nighttime closures at each construction stage.

AMM TRA-4: The Potter Street eastbound I-80 On-Ramp would remain open until the construction of the new on-ramp and then it would be permanently closed and replaced by the new on-ramp. In the interval between the closure of the Potter Street on-ramp and the opening of the new eastbound on-ramp, detours would be established to direct traffic to use either University Avenue or Powell Street to access eastbound I-80.

AMM TRA-5: During construction of the new outfall area, a temporary detour around the construction area will be implemented. The West Frontage Road closure would not interfere with the use of the San Francisco Bay Trail. However, it would limit access to

Point Emery and Barkley Beach via automobile and any waterborne vehicle launching at Point Emery and Barkley Beach during the temporary closure.

See Appendix C for the full text of AMM TRA-1 through AMM TRA-5.

### **Mitigation Measures**

No mitigation would be required.

## **2.1.5 COMMUNITY CHARACTER AND COHESION**

### **REGULATORY SETTING**

#### **Federal**

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs those final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

#### **State**

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this proposed project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the project (October 2021). The CIA considered and analyzed impacts to the communities within Emeryville and Berkeley. As described in the CIA, a 0.5-mile buffer was established for the study area for addressing indirect effects such as community character and population and housing. For indirect effects that could encompass larger areas, such as economic conditions, the jurisdictions are evaluated as a whole (Emeryville, Berkeley, and Alameda County).

## **Land Use**

The area southeast of the interchange primarily consists of commercial businesses with some high-density residential housing. The west and northeast sides are bordered by the San Francisco Bay Trail and Berkeley Aquatic Park, respectively. For more detail on existing and planned land uses in the project area, refer to Section 2.1.1, Existing and Future Land Use.

## **Neighborhoods/Communities/Community Character**

The values and issues that are important to a community set the character and baseline context for how the proposed project would fit into the community's ideologies. The community character of each city is described below, including key community and activity centers.

### *Emeryville*

There are several parks and recreational facilities within 2 miles of the project area that contribute to the community, such as Christie Park and the Emeryville Center of Community Life. Point Emery is located 100 feet west of the existing interchange and provides scenic views of the San Francisco Bay as well as recreational fishing opportunities.

### *Berkeley*

Berkeley provides a variety of community recreational activities and facilities. Recreational resources located within 2 miles of the project area include Frances Albrier Community Center, Malcolm X School Park, Martin Luther King Jr. Center, South Berkeley Senior Center and more. Berkeley Aquatic Park is located 800 feet north of the existing interchange.

## **Population and Housing**

The following population data was compiled from the 2017 American Communities Survey (ACS), which is the most recent U.S. Census data available after the U.S. Census in 2010.

Alameda County is part of the nine counties that make up the San Francisco Bay Area. It is the second most populous county in the region and the seventh most populous county in the state. Alameda County has a population of approximately 1.6 million people. According to the Association of Bay Area Governments (ABAG), the County saw an increase of 3.6 percent in employed residents between 2000 and 2011, increasing to 718,035 employed residents ages 16 and over.

The population in Emeryville is projected to experience significant growth, from 10,105 people in 2010 to 34,310 people by 2040 (209 percent) (ABAG and MTC, 2018). Growth in Emeryville is anticipated to outpace growth in nearby cities and in Alameda County as a whole. The population in Berkeley is projected to increase from 112,660 people in 2010 to 140,935 people in 2040 (ABAG and MTC, 2018). Most of this population growth would occur in commercial corridors (San Pablo Avenue, University Avenue) due to the availability of housing and additional housing development.

According to ABAG and MTC, Alameda County had 545,105 households in 2010, while Berkeley had 46,030 households and Emeryville had 5,695 households. Based on ABAG and MTC's 2018 projections, Alameda County would have 734,710 households by 2040, an increase of 35 percent, while Berkeley would have 55,370 households, an increase of 20 percent, and Emeryville would have 11,616 households, an increase of 204 percent.

MTC and ABAG (2018) provide population, housing, and employment projections for Bay Area counties and cities in the Plan Bay Area reports. Using ABAG data, Emeryville is expected to increase in population by 209 percent and Berkeley by 25 percent.

### *Income*

As reported by the 2018 ACS, Emeryville and Berkeley's employment rate is 70.5 percent and 58.1 percent respectively. Unemployment in Emeryville is roughly 3.8 percent, and 4.2 percent in Berkeley.

### *Housing*

As described in Section 2.1.1, Existing and Future Land Use, land uses surrounding the interchange are primarily parkland/open space and commercial development. The closest housing to the project area is an apartment complex located at 6400 Christie Avenue, less than 100 feet southeast of the interchange in Emeryville.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, no improvements would occur, and the programmed and planned interchange improvements would not be met. The existing transportation facilities within the project area would remain unchanged. The No Build Alternative would have no effect on the existing community character or cohesion, regional population characteristics, housing, or other community impacts.

## **Build Alternative**

### *Neighborhoods/Community/Community Character and Population*

#### Permanent Operational Impacts

The Build Alternative would not change the character of the area because it is already a heavily urbanized area that supports a major interstate (I-80) and associated facilities. Rather, the proposed improvements would enhance access and connectivity of the communities on the east side of the interchange with park and trail resources on the west side of the interchange, thereby increasing community cohesion in the area.

#### Temporary Construction Impacts

During construction, temporary roadway closures might inconvenience community members for a short period but would not affect general travel routines with incorporation of AMM TRA-1 through AMM TRA-5. Additionally, during the construction period, standard project features PF COM-1 through PF COM-5 would avoid effects on the community during the construction period by maintaining access to local residences and business and ensuring the continued provision of utilities and services.

The Build Alternative would not displace residences or otherwise divide an existing neighborhood. Construction activities would not occur in proximity to any community facilities where people congregate for festivals, farmer's markets, or other community events. For these reasons, construction of the Build Alternative would not negatively affect community cohesion.

### *Housing*

The Build Alternative would not displace residences or residents, necessitating the construction of replacement housing elsewhere. The Build Alternative would not introduce any population growth requiring the construction of additional housing.

There are some people experiencing homelessness within and surrounding the project area, specifically under the I-80 overcrossing and around Aquatic Park. It should be noted that persons experiencing homelessness are not, by definition, an environmental justice population. Caltrans District Maintenance Procedures will be followed if needed before construction.

## **Cumulative Impacts**

The Build Alternative would improve traffic circulation and mobility in a built-out urban area. Improvements to the interchange would improve or replace existing infrastructure and would not encroach on existing communities. The Build Alternative would support identified growth projections and would not negatively affect the cohesion of existing

communities surrounding the project area. The Build Alternative would not change the character of the area because it is already a mostly urbanized area that supports a major interstate (I-80) and associated facilities. The proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact related to community character and cohesion.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF-COM-1: Access to all properties for property owners and users will be maintained by the contractor during construction.

PF-COM-2: Caltrans will coordinate relocation work with the affected utility companies to minimize disruption of services to customers in the area during construction.

PF-COM-3: Caltrans will coordinate with emergency service providers and the public information office to avoid emergency service delays by ensuring that all providers are aware well in advance of lane closures.

PF-COM-4: During the design phase of the project, prepare a TMP in accordance with Caltrans requirements and guidelines and in coordination with local agencies, service providers, local communities, business association, and affected drivers.

PF-COM-5: A public outreach program will be implemented throughout the construction period to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.

### **Avoidance and Minimization**

AMM TRA-1: The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the bike and pedestrian overcrossing.

AMM TRA-2: During the construction of West Frontage Road, vehicular detours and closure would be anticipated. West Frontage Road would be closed to traffic from University Avenue to Powell Street. Once the construction of West Frontage Road is completed in Stage 3, temporary access ramps would be put in place and vehicular access would be restored.

AMM TRA-3: Mainline traffic would be transitioned temporarily onto the right shoulder to accommodate the median falsework support structure for BPOC. This temporary lane shift would be striped and signed accordingly. Nighttime work is anticipated for the

following construction activities; k-rail installation and removal, installation of precast girders, existing ramp and abutment demolition, falsework erection and removal, temporary striping for the lane shifts during BPOC construction and permanent striping activities. Lane closure plans would be developed for nighttime closures at each construction stage.

AMM TRA-4: The Potter Street eastbound I-80 On-Ramp would remain open until the construction of the new on-ramp and then it would be permanently closed and replaced by the new on-ramp. In the interval between the closure of the Potter Street on-ramp and the opening of the new eastbound on-ramp, detours would be established to direct traffic to use either University Avenue or Powell Street to access eastbound I-80.

AMM TRA-5: During construction of the new outfall area, a temporary detour around the construction area will be implemented. The West Frontage Road closure would not interfere with the use of the San Francisco Bay Trail. However, it would limit access to Point Emery and Barkley Beach via automobile and any waterborne vehicle launching at Point Emery and Barkley Beach during the temporary closure.

See Appendix C for the full text of AMM TRA-1 through AMM TRA-5.

### **Mitigation Measures**

No mitigation would be required.

## **2.1.6 RELOCATIONS AND REAL PROPERTY ACQUISITION**

### **REGULATORY SETTING**

#### **Federal**

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix C for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Refer to Appendix B for a copy of the Department's Title VI Policy Statement.

## AFFECTED ENVIRONMENT

Land uses surrounding the existing interchange are generally either parks and open space, or commercial uses. The San Francisco Bay Trail and Berkeley Aquatic Park border the project area to the west and northeast, respectively. Commercial uses border the project area to the southeast. The closest residential building is located at 6400 Christie Avenue, less than 100 feet southeast of the interchange in Emeryville. No housing is located within the area of disturbance for the Build Alternative. However, the Build Alternative would require the relocation of the KRE radio tower located next to the pond at Ashby Avenue and Bay Street at the Aquatic Park just northwest of its current location.

## ENVIRONMENTAL CONSEQUENCES

The Build Alternative would not require relocation of any households or businesses, nor does it require the acquisition of entire properties. The Build Alternative would also not affect any residential properties within the project area.

### **KRE Property**

Proposed improvements along Bay Street would require relocation of one of the three guy wires for the KRE radio transmitting tower. In addition, some partial takes along the edge of the KRE property adjacent to the proposed Bay Street would be required. This area was once part of a parking lot for the KRE building that is no longer in use. The implementing agency will work with the property owner in making these modifications to avoid effects on operation of the KRE Radio Station.

The KRE Radio Station building is a historic property eligible for listing on the NRHP. For a discussion of cultural resources impacts related to the KRE Radio Station, refer to Section 2.1.11, Cultural Resources and Tribal Cultural Resources.

## 2.1.7 ENVIRONMENTAL JUSTICE

### REGULATORY SETTING

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on



the Department of Health and Human Services poverty guidelines. For 2021, this was \$26,500 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this proposed project. The Department's commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

## AFFECTED ENVIRONMENT

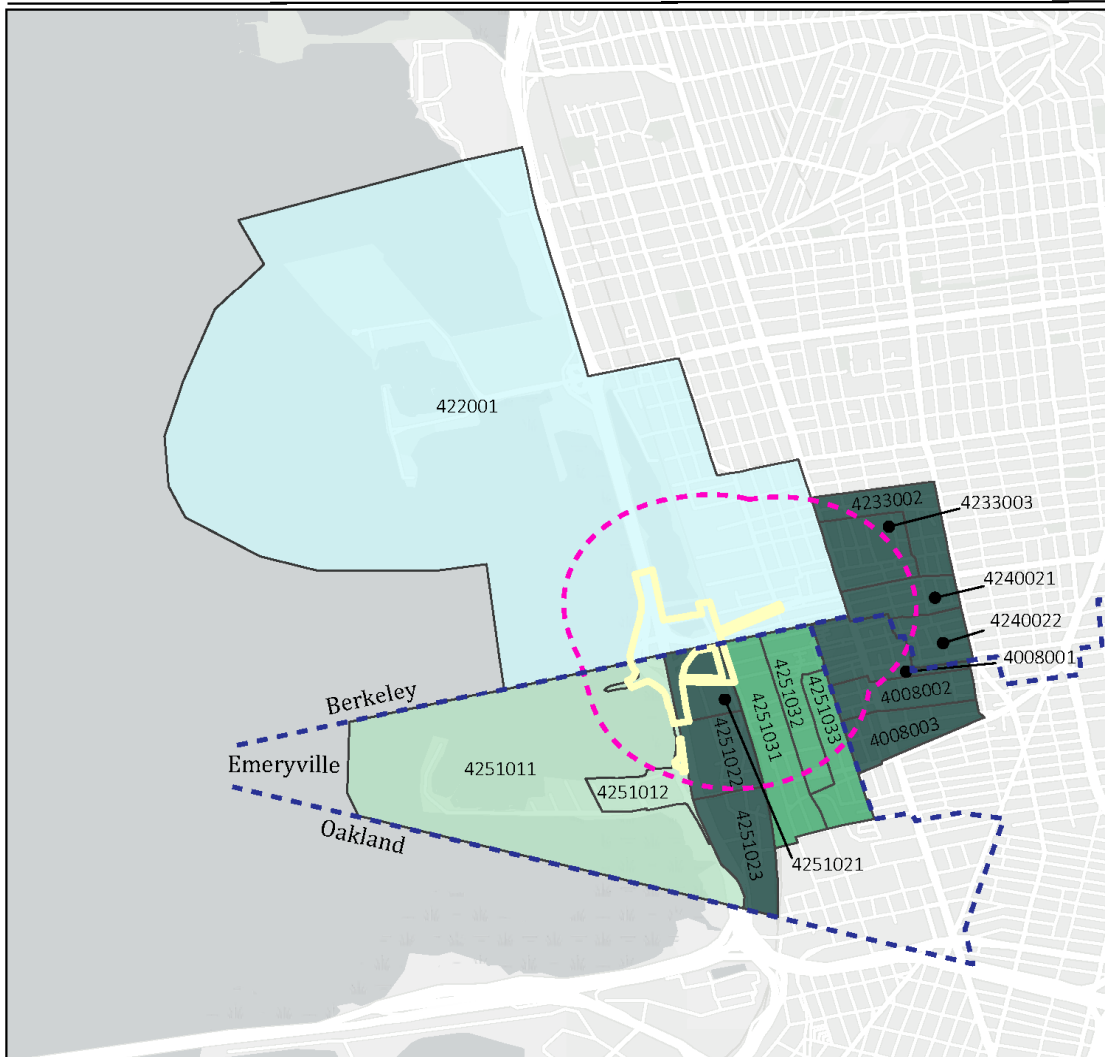
Information in this section is based on the CIA (October 2021) prepared for the proposed project. This section determines the presence of environmental justice communities to analyze whether indirect impacts borne from the proposed project would be disproportionately felt by low income and/or minority communities. Per EO 12898, a population, as evaluated by U.S. census block groups, is subject to environmental justice analysis if it meets at least one of the following criteria:

- A low-income population that is greater than 25 percent of the total population of the community, or a minority population that is greater than 50 percent of the total population of the community
- A low-income and/or minority population that is more than 10 percentage points higher than the City or County average

### **Race**

Alameda County is home to a diverse population, representing many races and ethnicities. Minority groups comprise 67.8 percent of the County, 56.5 percent of Emeryville, 45.4 percent of Berkeley, and 56.4 percent of the study area population. Figure 2.1-3 illustrates the minority populations for Alameda County, Emeryville, Berkeley, and the 0.5-mile study area. Table 2.1-3 describes the population distribution in Alameda County, Emeryville, Berkeley, and the overall study area. As shown in Figure 2.1-3, block groups within the southern and eastern portions of the study area would be environmental justice communities based on minority status.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT

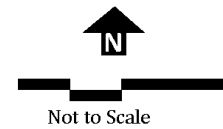


Legend

- 0.5-Mile Study Area
- Project Location
- 2017 Census Tracts
- City Boundary

Minority Population

- Less than 40%
- 40-50%
- 50-60%
- Greater than 60%



Minority Population

Figure 2.1-3

Source: American Community Survey 2018

**Table 2.1-3 Ethnic and Race Composition of the Study Area**

Category	Study Area		Emeryville		Berkeley		Alameda County	
	Number of Residents	%	Number of Residents	%	Number of Residents	%	Number of Residents	%
White	7,820	43.6	5,018	43.5	65,656	54.6	524,881	32.2
Black or African American	3,822	21.3	1,698	14.7	10,019	8.3	175,063	10.7
American Indian and Alaska Native	58	0.32	13	0.11	295	0.25	5,008	0.31
Asian	3,565	19.9	3,179	27.6	23,528	19.6	468,356	28.7
Native Hawaiian and Other Pacific Islander	68	0.38	49	0.43	567	.47	13,000	0.80
Other Race	34	0.19	22	0.19	323	.27	4,489	.028
Two or More Races	848	4.7	501	4.3	6,611	5.5	71,777	4.4
Hispanic	1,713	9.6	1,044	9.1	13,180	11.1	367,041	22.5
<b>Total Minority</b>	<b>10,108</b>	<b>56.4</b>	<b>6,506</b>	<b>56.5</b>	<b>54,523</b>	<b>45.4</b>	<b>1,104,734</b>	<b>67.8</b>

Source: ACS 2018 (2013-2017 American Community Survey Five-year Estimates); U.S. Census Bureau 2010.

<sup>1</sup> Minority refers to every person who is not of White Race and Non-Hispanic or Latino Ethnicity categories. The percentages were calculated by finding the numerical difference between the total population of all races and total, White, Non-Hispanic population. That number was then divided by the total population of all races.

**Income**

Table 2.1-4 summarizes 2018 ACS per capita and median household income levels for the County, Emeryville, Berkeley, and the 0.5-mile study area. Emeryville has the highest median household and per capita income out of the two cities. Both cities have a median income higher than the County overall. The study area’s median household income level is slightly higher than the County overall.

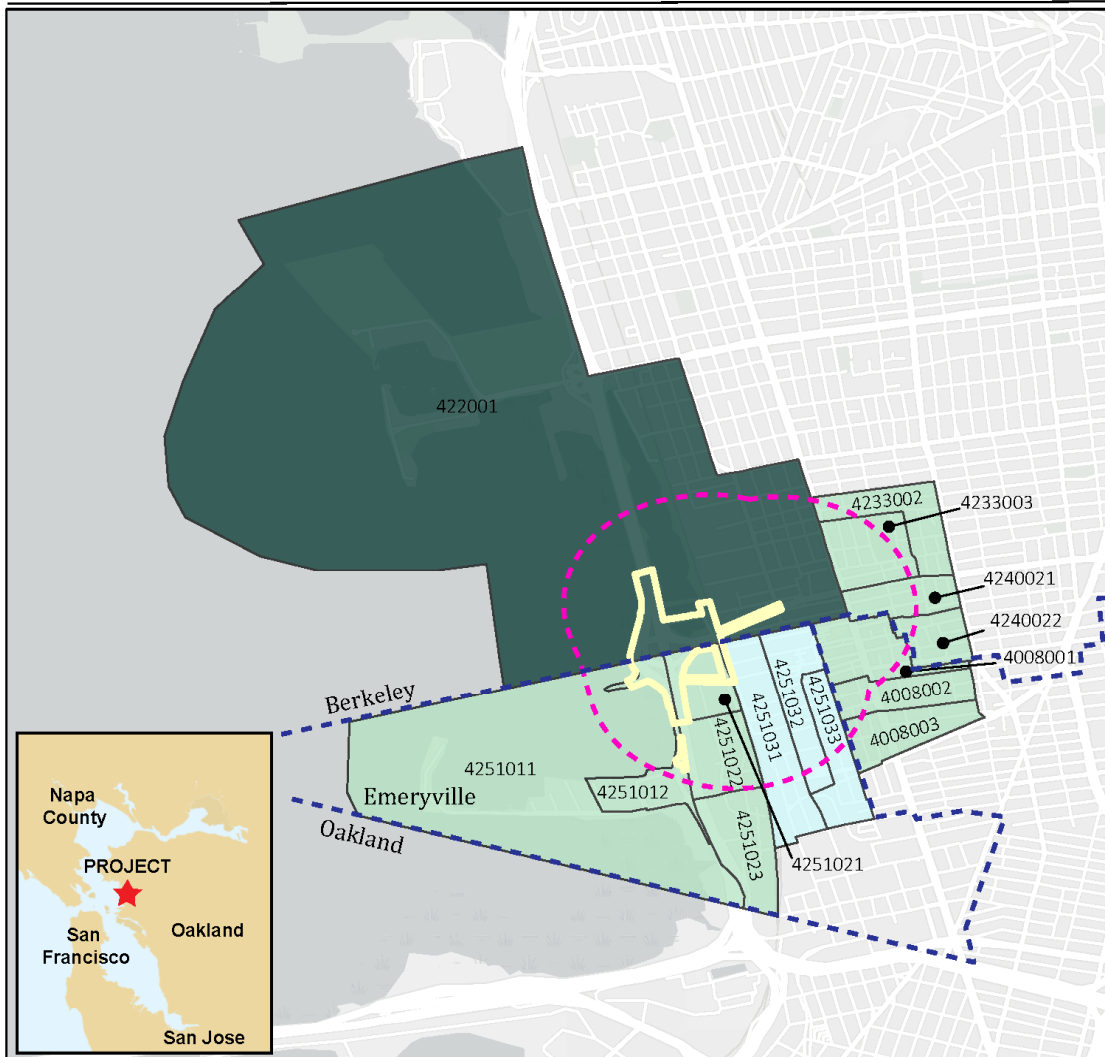
None of the census block groups in the study area have a low-income population of 25 percent or higher. Within the study area, 13 percent of households are considered low-income, compared to 11 percent county-wide. Therefore, the study area does not have a concentration of low-income households greater than 10 percentage points higher than the county average. None of the census block groups in the study area qualify as environmental justice communities based on income. Figure 2.1-4 shows the distribution of households below the poverty level in the study area.

**Table 2.1-4 Household Income and Poverty**

<b>Geographic Area</b>	<b>Median Household Income</b>	<b>Percent Individuals below Poverty Threshold</b>
Study Area	\$86,010	13.4
Emeryville	\$88,661	11.7
Berkeley	\$75,709	19.8
Alameda County	\$85,743	11.3

*Source: ACS 2018 (2013-2017 American Community Survey Five-year Estimates).*

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT

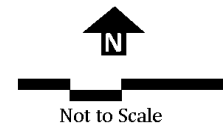


Legend

- 0.5-Mile Study Area
- Project Location
- 2017 Census Block Groups
- City Boundary

Poverty Population

- Less than 10%
- 10-15%
- 15-20%
- Greater than 20%



Low-Income Population

Figure 2.1-4

Source: American Community Survey 2018

## ENVIRONMENTAL CONSEQUENCES

### **Build Alternative**

The Build Alternative would be constructed partially within Census Block Groups that meet the environmental justice community criteria based on minority status. However, these environmental Block Groups extend beyond the project area (up to 1 mile) and encompass the residents of the larger housing developments in Emeryville and Berkeley. In looking at the regional context for community impacts, the proposed project's purpose as an improvement to east-west local roadway connectivity and congestion relief would benefit both environmental justice and non-environmental justice communities by providing improved access to jobs and better safety for multimodal transportation.

#### *Noise*

Construction noise for all receptors would be short-term and intermittent. Temporary construction impacts would be lessened through incorporation of Caltrans' standard noise control measures (PF NOI-1), discussed in Section 2.2.7, Noise.

Operation of the Build Alternative would result in increased noise levels for the 2045 design year in a range of 0 to 10 dBA over the existing condition. However, this increase would be similar to anticipated increases under the No Build Alternative. Furthermore, permanent increases in noise levels would affect both environmental justice and non-environmental justice communities given the demographics of the project area depicted in Figure 2.1-3 and Figure 2.1-4. As such, noise associated with the proposed project would not result in a disproportionately high and adverse effect on environmental justice communities.

#### *Air Quality*

The proposed project would improve local traffic circulation and reduce regional VMT by providing more pedestrian and bicycle connectivity. Daily emissions of criteria air pollutants would generally decrease for the Build Alternative compared to the No Build Alternative. As discussed in Section 2.2.6, Air Quality and the Air Quality Technical Report (October 2021), modeling results show that the Build Alternative would not result in an increase in criteria air pollutant emissions compared to the existing year conditions or the future No Build Alternative. Because emissions of criteria pollutants from project related traffic are not anticipated to cause or contribute to, or worsen air quality, or result in violations, air quality impacts associated with the proposed project would not result in an adverse effect to either environmental justice or non-environmental justice communities.

### *Aesthetic Character*

Implementation of the Build Alternative would moderately change the visual character and alter the visual quality of the project area. Viewers would experience an increased level of roadway dominance where new on- and off- ramps, replacement bridge structures, and local roadway improvements are proposed. At night, new street lighting would introduce a minor new source of glare. Together, these visual changes would be moderate. The avoidance and minimization measures listed in Section 2.1.9 would minimize these visual changes. While implementation of the Build Alternative would result in the addition of new manmade features, the I-80 corridor would continue to be the dominant visual feature in the study area. As a result, the Build Alternative would not result in an adverse effect on environmental justice or non-environmental justice communities.

### **Cumulative Impacts**

The proposed project is located within an environmental justice community which extends well beyond the project area. The proposed project would reduce congestion, improve traffic operation, and safety at the interchange, which would benefit the surrounding environmental justice communities. The proposed project would not result in adverse effects to either environmental justice or non-environmental justice communities but would instead provide a net benefit to both communities.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF NOI-1: Caltrans Standard Noise Control BMPs such as limiting paving and demolition activities to between 7:00 a.m. and 7:00 p.m.

### **Avoidance and Minimization**

No avoidance or minimization measures specific to environmental justice would be required.

### **Mitigation Measures**

No mitigation would be required.

## 2.1.8 UTILITIES AND EMERGENCY SERVICES

This section evaluates impacts to public utilities that may occur from implementation of the proposed project. The study area includes the cities of Emeryville and Berkeley, as well as utility service districts that would serve the proposed project. Information in this section draws upon multiple sources, including:

- City of Emeryville General Plan (Amended 2019)
- City of Berkeley General Plan (2003)

### AFFECTED ENVIRONMENT

Emeryville and Berkeley are served by a variety of local and regional utilities. Table 2.1-5 summarizes utilities that are present within the study area.

**Table 2.1-5 Public Utility Providers Serving Emeryville and Berkeley**

Utility Type	Provider	Description
Water	East Bay Municipal Utility District (EBMUD)	Both Emeryville and Berkeley purchase its water from EBMUD. EBMUD captures the water from public and private watersheds in the Mokelumne River and collects it at Pardee Reservoir. About 325 million gallons daily come from the Mokelumne River watershed.
Wastewater	East Bay Municipal Utility District (EBMUD)  And  City of Berkeley	EBMUD operates the wastewater treatment plant that services both Emeryville and Berkeley and cleans the wastewater before discharging it into the San Francisco Bay. The wastewater solids are removed, treated, and beneficially reused.  The City of Berkeley is responsible for maintaining City-owned sewer mains and lower sewer laterals. The lower sewer lateral connects the sewer main in the street to the cleanout, usually located behind the street curb.
Stormwater Management	City of Berkeley	The City of Berkeley operates stormwater drainage management that services the Project area.



Utility Type	Provider	Description
Gas and Electricity	Pacific Gas and Electric (PG&E)	Provides electricity service and natural gas
Waste Management	Waste Management of Alameda County (WMAC)  And  City of Berkeley	Community-based provider of waste, recycling and composting services.
Communication Services	Comcast and AT&T	Cable, high-speed internet, voice

Source: City of Emeryville 2020. City of Berkeley 2020. Available: [https://www.cityofberkeley.info/Public\\_Works/Sidewalks-Streets-Utility/Utility\\_Service\\_Information.aspx](https://www.cityofberkeley.info/Public_Works/Sidewalks-Streets-Utility/Utility_Service_Information.aspx). City of Emeryville, 2020. Available: [https://www.ci.emeryville.ca.us/Environmental\\_Consequences](https://www.ci.emeryville.ca.us/Environmental_Consequences)

## ENVIRONMENTAL CONSEQUENCES

### Build Alternative

#### *Permanent Operational Impacts*

Operation of the Build Alternative would not require expanded utility services. As a roadway and highway improvement project, the Build Alternative would not add demand to local utility providers. The existing I-80 corridor and local roadway network utilizes electrical utilities for nighttime lighting and signage. Once the Build Alternative is operational, it would require similar electrical power for nighttime lighting and support for electrical signage such as changeable message boards. Operation of the Build Alternative would not result in adverse effects to utilities, as the improved transportation facility would not generate a substantial demand for increased utility services.

#### *Temporary Construction Impacts*

Under the Build Alternative, construction activities have the potential to temporarily affect existing utilities in the project area. Demolition and excavation activities along the I-80 corridor, at interchange on- and off-ramps, bridge structures, and local roadway

realignments would require the removal and replacement or relocation of existing utilities. Along I-80 and on the interchange ramps, utilities are typically limited to electrical conduit that provides power to lights and roadway signage. Improvements to I-80 and new ramp configurations would include appropriate utilities within the ROW to provide nighttime lighting and power for signage. Additionally, stormwater conveyance facilities such as drainage lines and inlets would be removed and replaced in-kind.

The Build Alternative would include relocation of existing utilities along local roadways in coordination with affected utility owners. Local roadways are anticipated to contain a broader array of utilities within the ROW, including telecommunication lines, water, sewer, stormwater, and gas and electric lines. Construction of the Build Alternative would require temporary shutoffs of existing utilities to allow for local roadway improvements.

As a part of AMM UTL-1, utilities would be relocated to acceptable locations within the existing or new ROW and affected utility customers would be notified prior to any service interruption. Effects related to utilities would be temporary and would cease at the end of the construction period.

The closest fire station to the project area is Alameda County Fire Station No. 35, approximately 1 mile to the southeast. No property owned or used by emergency service providers would be acquired or otherwise used as part of the Build Alternative. However, construction activities would have the potential to temporarily disrupt roadway access within the project area, potentially affecting emergency access during construction. AMM UTL-2 would ensure that emergency service providers are notified in advance of any roadway closure or change in local access, as a part of the TMP. This would allow emergency service providers to be aware of detours in advance and plan alternate routes where needed.

Emeryville Police Department office is located 1.1 miles north of the interchange. Construction of the Build Alternative may temporarily disrupt roadway access within the project area. AMM UTL-2 would ensure that emergency service providers are notified in advance of any roadway closure or change in local access, as a part of the TMP. This would allow emergency service providers to be aware of detours in advance and plan alternate routes where needed.

### **Cumulative Impacts**

Cumulative impacts arise due to the linking of impacts from past, present, and foreseeable future projects in the region. As discussed, the proposed project would not result in adverse effects to utilities or emergency services. Therefore, the proposed project would not contribute to any potential cumulative effects to these resources.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

There are no project features associated with utilities or emergency services.

### **Avoidance and Minimization**

AMM-UTL-1: Relocation of Utilities. Detailed utility coordination and verification will be required during the final design phase of the proposed project to facilitate relocation of utilities.

AMM-UTL-2: Emergency Service Coordination. Emergency service providers will be notified prior to construction of any temporary road closures and/or detours as part of the TMP.

See Appendix C for the full text of AMMs UTL-1 through UTL-2.

### **Mitigation Measures**

No mitigation would be required.

## 2.1.9 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

This section summarizes impacts to traffic and transportation facilities that may occur from implementation of the proposed project based on the Traffic Operations Analysis Report (TOAR) prepared in March 2021, and updated in August 2022 (Kittelson 2022). The TOAR was updated to account for operational changes resulting from an updated lane configuration. This design change is limited to lane striping and does not change the footprint or any other physical characteristics of the Build Alternative. As a result, this design change would not result in additional impacts to environmental resources.

The traffic study area includes the I-80 interchange at Ashby Avenue in the cities of Emeryville and Berkeley and the intersection of 7th Street and Ashby Avenue. The freeway mainline was not included in the analysis because the proposed project does not propose any changes to the freeway mainline capacity.

## REGULATORY SETTING

### **Federal**

#### *Federal Highway Administration*

The Department, as assigned by the FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

#### *Americans with Disabilities Act*

In July 1999, the U.S. Department of Transportation issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the U.S. Department of Transportation regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

## AFFECTED ENVIRONMENT

This section describes the existing and planned transportation system within the project area, including the roadway network, transit services, and bicycle and pedestrian facilities, as discussed in the TOAR (March 2021).

### **Access, and Circulation**

#### *Interstate Route*

The I-80 freeway extends in a northwest/southwest direction on the east side of the San Francisco Bay, connecting Richmond and Oakland. It is the principal east-west route through northern California and the sole freeway crossing of the Sierra Nevada range. I-80 terminates at its intersection with U.S. 101 in San Francisco.

### *Arterial Roads*

Ashby Avenue connects to I-80 to the west and runs eastward into Berkeley. Ashby Avenue is a two-lane roadway in each direction and provides a vital connection to I-80. It is generally a 4-lane facility with occasional landscape medians and on-street parking. Ashby Avenue currently does not have striped or dedicated bike lanes.

West Frontage Road runs parallel to I-80 on the west side between San Francisco Bay and I-80. The street is part of the route that links pedestrians and bicyclist to create multimodal connectivity in the area. The road starts at Gilman Street and terminates at Powell Street.

Shellmound Street and Bay Street run parallel to I-80 on east side of the proposed project. Shellmound Street is called Bay Street north of Ashby Avenue. Bay Street is the primary access to the south end of the Aquatic Park and Bolivar Drive. Shellmound Street is currently not directly accessible from Ashby Avenue. Ashby Avenue runs under Shellmound Street, which must be accessed by backtracking through side streets at using 7<sup>th</sup> Street. Shellmound Street extends south from Ashby Avenue and terminates at 40<sup>th</sup> Street adjacent to the confluence of I-80, I-580, and I-880.

### *Study Area*

The traffic study area includes the interchange in the cities of Emeryville and Berkeley.

### *Existing Traffic Operations*

Level of service (LOS) describes the operating conditions experienced by users of a facility. LOS is a qualitative measure of the effect of various factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated A through F from best to worst, which cover the range of potential traffic operations. LOS A through E generally represents traffic volumes at less than roadway capacity, while LOS F represents over capacity and/or forced flow conditions. Detailed methodologies for determining LOS for freeway and intersection operations is provided in the TOAR.

### **Freeway Operations**

Operation of freeway segments were not analyzed because the proposed project does not include any changes to the freeway mainline that would affect freeway capacity. As such, freeway operations are not discussed further.

### **Intersection Operations**

Traffic analysis models incorporated signal timing plans provided by the City of Berkeley for the 7th Street and Ashby Avenue intersection. The other three intersections are

unsignalized. Results of the intersection LOS analysis for the existing condition AM and PM peak hours are shown in Table 2.1-6. As shown, none of the intersections analyzed operate below LOS D under existing conditions.

### *Transit*

#### Alameda-Contra Costa Transit District (AC Transit)

AC Transit is the third-largest public bus system in California, serving 13 cities and adjacent unincorporated areas in Alameda and Contra Costa counties. AC Transit ridership includes approximately 14,500 transbay commuters. Bus lines that run on or near the project area include the following transbay service line:

- Transbay Line J: Sacramento – Christie Transbay

### *Pedestrian and Bicycle Facilities*

Bicycle lanes around the study area are depicted in Figure 1.3-1 in Section 1.3, Purpose and Need. Existing facilities include the San Francisco Bay Trail, and a Class I multi-use path on the west side of the project area. Shellmound Street, on the east side of the project area, is also connected to the San Francisco Bay Trail, providing Class II bicycle lanes. The study area including the interchange lacks connectivity for different modes of transportation (i.e., vehicular, bicycle and pedestrian users). Additionally, there is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street/Shellmound Street area. .

**Table 2.1-6 Existing AM and PM Peak Hour Intersection Operations**

Study Intersection	Control Type	Worst Movement	V/C	Delay (sec)	LOS
Weekday AM Peak Hour (7:50-8:50 AM)					
Frontage Road and I-80 SB off-ramp	All-way stop	SB Left	0.74	24.4	C
Frontage Road and I-80 SB on-ramp	All-way stop	SEB Thru	0.86	22.8	C
Shellmound Street and I-80 NB off-ramp	Two-way stop	EB Left	0.01	12.6	B
7 <sup>th</sup> Street and Ashby Avenue	Signalized	SB Right	0.83	49.4	D
Weekday PM Peak Hour (5:15-6:15)					
Frontage Road and I-80 SB off-ramp	All-way stop	NB Thru	0.82	18.7	C
Frontage Road and I-80 SB on-ramp	All-way stop	NWB Thru	0.89	24	C
Shellmound Street and I-80 NB off-ramp	Two-way stop	EB Left	0.01	11.9	B
7 <sup>th</sup> Street and Ashby Avenue	Signalized	SB Right	0.79	48.8	D

Source: Kittleson 2020

## ENVIRONMENTAL CONSEQUENCES

As discussed in the TOAR, future traffic forecasts were developed for the following scenarios:

- Opening Year (2025) No Project
- Opening Year (2025) Plus Project
- Future Year (2045) No Project
- Future Year (2045) Plus Project

### **Permanent Operational Impacts**

#### *Intersection Analysis*

To determine the project's impact on intersection operations, opening year (2025) projections of intersection performance and future year (2045) projections of performance were both compared to No Build Alternative conditions in these years. Opening year projections are shown in Table 2.1-7 (AM peak hour) and Table 2.1-8 (PM peak hour) while future year projections are shown in Table 2.1-9 (AM peak hour) and Table 2.1-10 (PM peak hour). All tables include both No Build Alternative and Build Alternative projections

In both No Build Alternative scenarios, three of four existing intersections (numbers 7-10) would operate below LOS D. Intersections built as part of the Build Alternative (numbers 1-6) would all operate at LOS C or better. The intersection of 7th Street and Ashby Avenue is anticipated to have an increase in the average vehicle delay under 2045 AM Build Alternative conditions compared to the No Build. However, the overall volume to capacity ratio in the AM peak hour will decrease with the Build Alternative. The PM peak hour shows the intersection of 7th Street and Ashby Avenue reducing the delay and volume to capacity ratio.



**Table 2.1-7 2025 AM Peak Hour Intersection Operations**

ID	Segment	2025 No Build Alternative			2025 Build Alternative		
		V/C	Delay	LOS	V/C	Delay	LOS
1	Frontage Road and Ashby Avenue	-	-	-	0.65	9.6	A
2	I-80 WB Ramps and Ashby Avenue	-	-	-	0.72	32.1	C
3	I-80 EB Ramps and Ashby Avenue	-	-	-	0.67	22.8	C
4	Shellmound Connectors and Ashby Avenue	-	-	-	0.81	16.0	B
5	Shellmound Connector WB and Shellmound Street	-	-	-	0.19	7.8	A
6	Shellmound Connector EB and Shellmound Street	-	-	-	0.51	12.0	B
7	7 <sup>th</sup> Street and Ashby Avenue	0.93	61	E	0.92	58.4	E
8	Frontage Road and I-80 WB Off-ramp	0.95	36.8	E	-	-	-
9	Frontage Road and I-80 WB On-ramp	1.01	37.5	E	-	-	-
10	Shellmound Street and I-80 EB Off-ramp	0.01	12.9	B	-	-	-

Source: Kittleson 2022

Note: Grey highlighted cells indicate intersections operating at below LOS D.

**Table 2.1-8 2025 PM Peak Hour Intersection Operations**

ID	Segment	2025 No Build Alternative			2025 Build Alternative		
		V/C	Delay	LOS	V/C	Density	LOS
1	Frontage Road and Ashby Avenue (Tight Diamond)	-	-	-	0.64	13.4	B
2	I-80 WB Ramps and Ashby Avenue	-	-	-	0.77	32.0	C
3	I-80 EB Ramps and Ashby Avenue	-	-	-	0.99	10.2	B
4	Shellmound Connectors and Ashby Avenue	-	-	-	0.50	21.1	C
5	Shellmound Connector WB and Shellmound Street	-	-	-	0.38	8.7	A
6	Shellmound Connector EB and Shellmound Street	-	-	-	0.01	13.8	B
7	7 <sup>th</sup> Street and Ashby Avenue	1.14	124.9	F	0.99	73.9	E
8	Frontage Road and I-80 WB Off-ramp	1.44	118.9	F	-	-	-
9	Frontage Road and I-80 WB On-ramp	1.65	168.3	F	-	-	-
10	Shellmound Street and I-80 EB Off-ramp	0.02	18.7	C	-	-	-

Source: Kittleson 2022

Note: Grey highlighted cells indicate intersections operating at below LOS D.

**Table 2.1-9 2045 AM Peak Hour Intersection Operations**

ID	Segment	2045 No Build Alternative			2045 Build Alternative		
		V/C	Delay	LOS	V/C	Density	LOS
1	Frontage Road and Ashby Avenue	-			0.78	21.6	C
2	I-80 WB Ramps and Ashby Avenue	-			0.85	50.9	D
3	I-80 EB Ramps and Ashby Avenue	-			0.61	39.1	D
4	Shellmound Connectors and Ashby Avenue	-			0.98	22.3	C
5	Shellmound Connector WB and Shellmound Street	-			0.38	8.7	A
6	Shellmound Connector EB and Shellmound Street	-			0.71	16.7	C
7	7 <sup>th</sup> Street and Ashby Avenue	1.20	146.2	F	1.15	149.5	F
8	Frontage Road and I-80 WB Off-ramp	1.28	128.7	F	-		
9	Frontage Road and I-80 WB On-ramp	1.57	180.5	F	-		
10	Shellmound Street and I-80 EB Off-ramp	0.01	13.6	B	-		

Source: Kittleson 2022

Note: Grey highlighted cells indicate intersections operating at below LOS D.

**Table 2.1-10 2045 PM Peak Hour Intersection Operations**

ID	Segment	2045 No Build Alternative			2045 Build Alternative		
		V/C	Delay	LOS	V/C	Density	LOS
1	Frontage Road and Ashby Avenue (Tight Diamond)	-			0.84	33.1	C
2	I-80 WB Ramps and Ashby Avenue	-			0.83	53.8	D
3	I-80 EB Ramps and Ashby Avenue	-			0.79	35.0	C
4	Shellmound Connectors and Ashby Avenue	-			0.73	26.7	C
5	Shellmound North and Shellmound Street	-			0.43	9.3	A
6	Shellmound South and Shellmound Street	-			0.71	17.7	C
7	7 <sup>th</sup> Street and Ashby Avenue	1.41	236.7	F	1.26	174.6	F
8	Frontage Road and I-80 WB Off-ramp	1.88	201.6	F	-		
9	Frontage Road and I-80 WB On-ramp	1.82	282.7	F	-		
10	Shellmound Street and I-80 EB Off-ramp	0.03	24.1	C	-		

Source: Kittleson 2022

Note: Grey highlighted cells indicate intersections operating at below LOS D.

### *Queue Analysis*

Queueing at intersections in the study area would cause traffic backups that extend onto other nearby roadways if adequate storage is not provided. The TOAR evaluated the maximum (95<sup>th</sup> percentile probability) queues on individual intersection approaches. As discussed in detail in that report, the intersection within the Build Alternative would be timed to manage queues and prevent queue spillback between the two ramp terminal intersections. Therefore, queueing would be contained within the new vehicle storage areas included in the redesigned interchange, and queues on the off-ramps would not affect the freeway mainline or other surface streets in the project area.

### *Transit*

Long term impacts of the proposed project on bus travel would generally be positive because of the reduction of delay and congestion at the study intersections. The proposed project is not anticipated to require the modification of existing bus stops or routes.

### *Pedestrian and Bicycle Access*

The proposed project would provide a new connection between the east and west sides of I-80 via a separated BPOC structure stretching from 65<sup>th</sup> Street to the east to West Frontage Road to the west. This new structure would improve access to Point Emery and the San Francisco Bay Trail. This improvement would be a net benefit of the proposed project.

## **Temporary Construction Impacts**

Under the No Build Alternative, there would be no construction impacts to circulation and access, private parking, traffic operations, transit system, and bicycle and pedestrian facilities. However, public parking (approximately 14 on-street spaces) would temporarily not be available during the closure of West Frontage Road during construction. Bicycle and pedestrian access via the San Francisco Bay Trail would be maintained during the closure of West Frontage Road and throughout the construction period. In addition, a temporary detour around the outfall construction area would be implemented to ensure the continual availability of the San Francisco Bay Trail Figure 2.1-5 (AMM TRA-5).

Under the Build Alternative, vehicular, bicycle and pedestrian circulation would be maintained using detours and temporary signs, as required (AMM TRA-1 through AMM TRA-4). Temporary lane and ramp closures would occur to construct specific items of work. Work would be conducted along the roadways, sidewalk, and pedestrian crossings. Incorporation of PF TRA-1, requiring the preparation and implementation of a

TMP, would reduce temporary construction-related impacts on traffic, transit users, bicycles, and pedestrians.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### Project Features

PF-TRA-1: A TMP will be prepared and implemented to reduce the construction-related traffic impacts to local and regional traffic.

### Avoidance and Minimization

AMM TRA-1: The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the bike and pedestrian overcrossing.

AMM TRA-2: During the construction of West Frontage Road, vehicular detours and closure would be anticipated. West Frontage Road would be closed to traffic from University Avenue to Powell Street. Once the construction of West Frontage Road is completed in Stage 3, temporary access ramps would be put in place and vehicular access would be restored.

AMM TRA-3: Mainline traffic would be transitioned temporarily onto the right shoulder to accommodate the median falsework support structure for BPOC. This temporary lane shift would be striped and signed accordingly. Nighttime work is anticipated for the following construction activities; k-rail installation and removal, installation of precast girders, existing ramp and abutment demolition, falsework erection and removal, temporary striping for the lane shifts during BPOC construction and permanent striping activities. Lane closure plans would be developed for nighttime closures at each construction stage.

AMM TRA-4: The Potter Street eastbound I-80 On-Ramp would remain open until the construction of the new on-ramp and then it would be permanently closed and replaced by the new on-ramp. In the interval between the closure of the Potter Street on-ramp and the opening of the new eastbound on-ramp, detours would be established to direct traffic to use either University Avenue or Powell Street to access eastbound I-80.

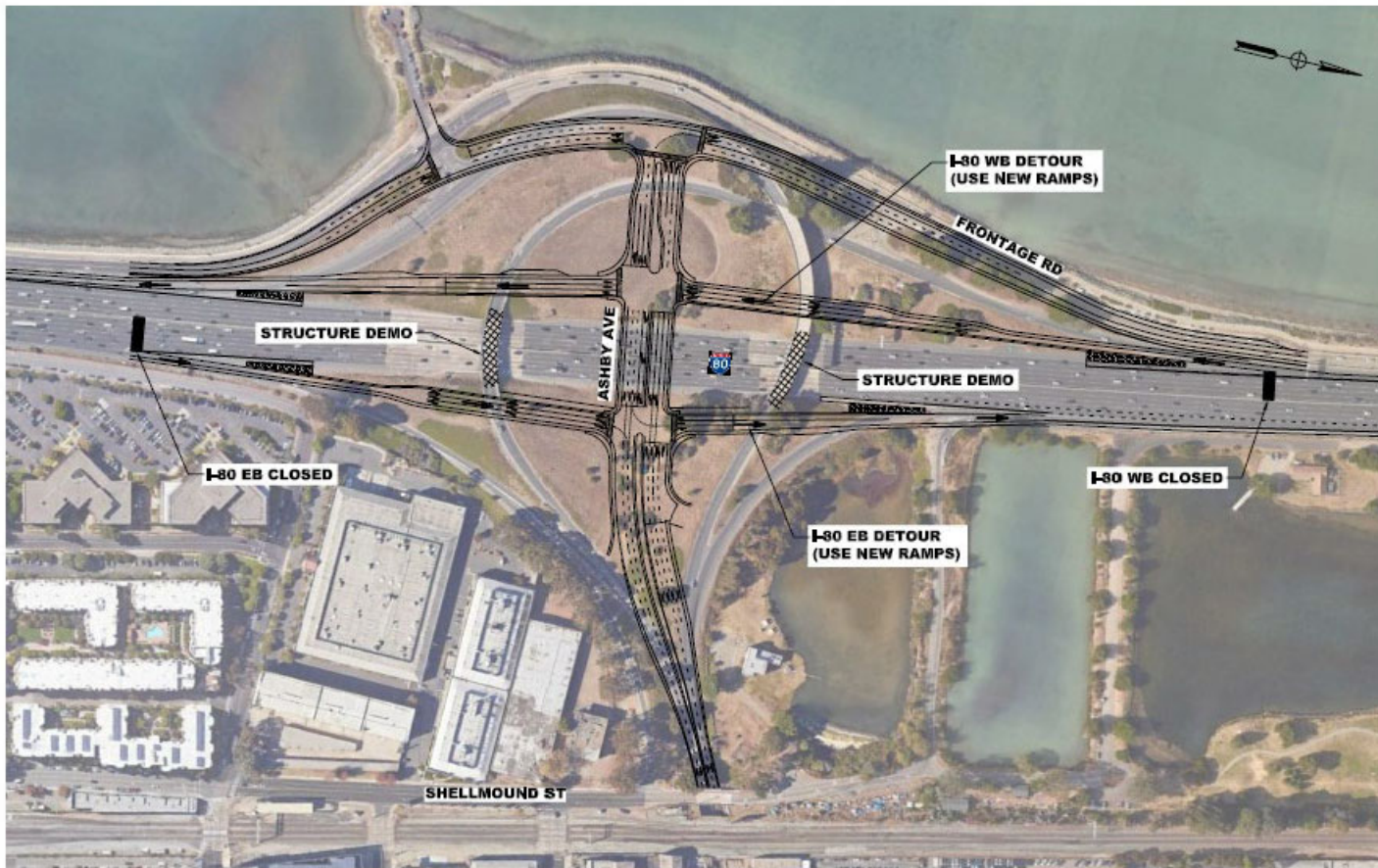
AMM TRA-5: During construction of the new outfall area, a temporary detour around the construction area will be implemented. The West Frontage Road closure would not interfere with the use of the San Francisco Bay Trail. However, it would limit access to Point Emery and Barkley Beach via automobile and any waterborne vehicle launching at Point Emery and Barkley Beach during the temporary closure.

See Appendix C for the full text of AMMs TRA-1 through TRA-5.

**Mitigation Measures**

No mitigation would be required.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Detour Plan – I 80 Closed for Ramp Demo

Figure

2.1-5

Source: Circlepoint 2020; City of Emeryville, 2019



## 2.1.10 VISUAL/AESTHETICS

This section evaluates the proposed project's effect on the visual environment. Information in this section is primarily drawn from the Visual Impact Assessment (VIA) prepared for the proposed project. The visual study area (VSA) is shown on Figure 2.1-6.

### REGULATORY SETTING

#### **Federal**

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

#### **State**

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Visual Study Area

Figure 2.1-6

Source: Google Earth, Circlepoint 2020.

### *Classified Landscaped Freeways*

Within the proposed project limits, I-80 is a Classified Landscaped Freeway. The classification assists in the regulation and control of the placement of outdoor advertising displays. The criteria states that plantings within the state right-of-way must be continuous (no gaps greater than 200 feet), ornamental (not functional), at least 1,000 feet long, on at least one side of the freeway, and require reasonable maintenance.

## AFFECTED ENVIRONMENT

This section presents information regarding identification of scenic resources, character, and quality of existing views within the visual study area (VSA) and selection of key viewpoints (KVPs). Scenic resources were evaluated at local, municipal, county, and state levels through review of general plans, policies, designations by the State, and on-site reviews. I-80 and SR 13 are not listed as Eligible or Officially Designated State Scenic Highways. However, the Alameda County General Plan, Scenic Route Element, states the importance of conserving, enhancing, and protecting scenic views observable from scenic routes and I-80 within the project area is an Alameda County Scenic Route.

The BCDC identifies the views of the San Francisco Bay as one of its most highly valued aspects and has designated I-80 through the project area as a scenic drive. Scenic resources visible within the project area have been identified in public documents. Emeryville's Visual Resources Element in the city's general plan (2019) identifies the San Francisco Bay to the west and the East Bay Hills to the east as two major natural elements. Berkeley's Urban Design and Visual Quality Element (2001) of its draft general plan identifies, "Views from Berkeley toward the San Francisco Bay, the skyline of San Francisco, the Bay Bridge, the Golden Gate Bridge, and the East Bay Hills have long been identified as being among Berkeley's greatest assets."

### **Visual Assessment Units**

The VSA was divided into three visual assessment units to best characterize the area's unique characteristics.

Each visual assessment unit has unique land uses, users, and perspectives of existing visual resources and how the project features would affect them. The general character and quality of the visual environment was analyzed within each visual assessment unit. The three visual assessment units and the locations of KVPs within those units are shown in Figure 2.1-7 and described below.

### *Visual Assessment Unit 1 – West Side of Interchange*

This Visual Assessment Unit includes the areas between the western edge of I-80 to the San Francisco Bay shoreline. The border to the east is the western edge of I-80, to the south it aligns with 64th Street, to the west is the shoreline, and to the north it aligns with Grayson Street. The unit was selected because of its cohesive character as open space, and a place where people come to enjoy views of San Francisco Bay, marine wildlife, and marine-related activities such as boating and sailboarding. Two KVPs were selected within this Visual Assessment Unit:

- KVP 1.1: (Figure 2.1-8) Vantage point on West Frontage Road at the entrance to the parking lot at Point Emery. View looking east from a public road, serving access to the San Francisco Bay shoreline and local communities, will illustrate the proposed Ashby Avenue Interchange with the addition of a BPOC.
- KVP 1.2: (Figure 2.1-10) Vantage point on San Francisco Bay Trail approximately 560 feet north of Point Emery. View looks east of the portal/tunnel under West Frontage Road. This alternative would provide pedestrian access from the BPOC to the shoreline without having to cross West Frontage Road.

### *Visual Assessment Unit 2 – I-80 Corridor*

This Visual Assessment Unit includes the I-80 highway corridor with the eastern border at the eastern edge of highway shoulder, the south border aligning with 64th street, the west border at the west edge of highway shoulder, and the north border aligning approximately with Grayson Street. The common use of this land is vehicular transportation of motorists, goods, and services in transit from points of origin to destination. Motorists may be passing through the project limits, and they may be accessing the other visual assessment units by entering and exiting the I-80/Ashby Avenue interchange and adjacent interchanges at Powell Street in Emeryville and University Avenue in Berkeley. Four KVPs were selected within this Visual Assessment Unit.

- KVP 2.1: (Figure 2.1-12) Vantage point on eastbound I-80, east of Powell Street. View looks east of San Francisco Bay and the proposed BPOC.
- KVP 2.2: (Figure 2.1-14) Vantage point on eastbound I-80, approximately 419-feet west of 65th Street. View looks east at the proposed BPOC.
- KVP 2.3: (Figure 2.1-16) Vantage point on westbound I-80, east of the westbound I-80 elevated off-ramp to Ashby Avenue. View looking west of medium-rise commercial buildings and high-rise multi-family residential

complex on the east side of the highway. View would illustrate the east side of the proposed BPOC at I-80.

- KVP 2.4: (Figure 2.1-18) Vantage point on westbound I-80 to the west of W. Bolivar Drive. View looking west would illustrate the proposed Ashby Avenue vehicular bridge over I-80.

### *Visual Assessment Unit 3 – East Side of Interchange*

This Visual Assessment Unit includes the areas within the environmental study limits that are to the east of I-80. It is bordered to the east by the Ashby Avenue ROW to Seventh Street, and the east edge of the (Union Pacific Railroad) UPRR ROW. To the south it is bordered by 65th Street. To the west, the border is the east edge of I-80. To the north it is bordered by Potter Street and West Bolivar Drive. This Visual Assessment Unit includes mixed-use land uses including recreation at Aquatic Park, the east half of the Ashby Avenue interchange, which is transportation, a school, multi-family housing, health care facilities, and commercial businesses. In contrast to Visual Assessment Units 1 and 2 that are singular in focus and land use, Visual Assessment Unit 3 is diverse and mixed-use. One common feature is that many views from the medium- to high-rise buildings in this Visual Assessment Unit are toward San Francisco Bay.

Three KVPs were selected within this Visual Assessment Unit:

- KVP 3.1: (Figure 2.1-20) Vantage point at the intersection of 65th Street and Christie Avenue. View looking west of a local street, the horizon, tall evergreen screening trees at the end of the street, small ornamental trees within private property, vehicles on the highway, and a screened view of the San Francisco Bay to the west. View looks at the southwest quadrant of the I-80/Ashby Avenue interchange, and would illustrate the BPOC.
- KVP 3.2: (Figure 2.1-22) Vantage point on the Bay Street bridge over Ashby Avenue. View looks west of Ashby Avenue, the east side of the interchange, Aquatic Park to the north, the KRE Radio building and tower, mature trees and shrubs adjacent to Ashby Avenue, the San Francisco Bay, and the horizon. View looking west would illustrate the proposed Ashby Avenue with retaining walls, barriers, and proposed trees and grass.
- KVP 3.3: (Figure 2.1-24) Vantage point at the boathouse at Aquatic Park. View looks west of the inland waters of the park, groves of trees adjacent to West Bolivar Drive, the high-rise multi-family housing complex in the distance, and views of I-80 including the concrete barrier, lights, and vehicles. View looking west would illustrate the proposed features of the Ashby Avenue interchange project.

## **Viewer Exposure and Sensitivity**

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. *Location* relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. *Quantity* refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. *Duration* refers to how long a viewer can keep an object in view. The longer an object can be kept in view, the more exposure. High viewer exposure helps predict that viewers will have a response to a visual change. Viewer exposure and sensitivity for the primary viewer groups in the VSA are summarized below. Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values. Activity relates to the preoccupation of viewers—are they preoccupied, thinking of something else, or are they truly engaged in observing their surroundings. The more they are observing their surroundings, the more sensitivity viewers will have of changes to visual resources. Awareness relates to the focus of view—the focus is wide and the view general or the focus is narrow and the view specific. The more specific the awareness, the more sensitive a viewer is to change. Local values and attitudes also affect viewer sensitivity. If the viewer group values aesthetics in general or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers will be more sensitive to visible changes. High viewer sensitivity helps predict that viewers will have a high concern for any visual change.

### *Community Residents*

While most of the land surrounding the interchange consists of either park or commercial uses, there are multi-family residences on local streets such as 65th Street and Christie Avenue to the southeast of the project area in Emeryville, where residents would have long-duration exposure to views of project features. Residents are the viewer group considered to be the most sensitive to changes within their viewshed because they are exposed to views the longest from their residential and neighborhood vantage points.



Visual Assessment Units and Key Views

Figure

2.1-7

Source: Circlepoint, 2020

### *Recreation Areas*

Bicyclists, pedestrians, and other users of Aquatic Park to the northeast of the project area and the San Francisco Bay Trail to the west of the project area would have moderate durations of exposure to views toward the project features. Their exposure levels would range from moderate-low to moderate-high depending on their distance from project features, intervening elements such as fences and vegetation and their levels of interest. Park users would have moderate to high levels of sensitivity to project features placed within their viewshed. Their sensitivity would depend upon their distance from the feature, intervening vegetation, topography, and structures, and how focused they are on their recreation activity.

### *Commercial Areas*

Commercial business in both Berkeley and Emeryville are located on the east side of the existing interchange. An estimated total of several hundred viewers a day visit these sites and have short- to moderate-duration views of the project features. Commercial employees and patrons would likely have moderate to low levels of exposure to the project features. Employees and patrons would have moderate to low levels of sensitivity to project features depending on the location and type of business and the individual's purpose for being there. Business owners with properties facing I-80 and the San Francisco Bay would have moderate-high levels of sensitivity to project changes near their establishments. Employees and patrons are focused on their business and purpose for being in the commercial area.

### *Local Streets*

In the cities of Berkeley and Emeryville, several hundred motorists, a few bicyclists and many persons using motorized scooters using the four local cross streets and three parallel streets at I-80 each day have short to moderate durations of exposure to views of the highway and project features at local streets (refer to the TOAR for data regarding travel in and near the project area). There is one Ashby Avenue overpass at Bay Street with pedestrian sidewalks west of Aquatic Park. Pedestrians would have moderate durations of exposure to views of Ashby Avenue and project features. Pedestrians and bicyclists on local streets would have moderate durations of exposure to any project feature placed within their viewshed depending upon traffic speeds and day of travel.

Motorists, bicyclists, and persons using motorized scooters using local streets at West Frontage Road would have moderate to high levels of sensitivity to project features added to West Frontage Road, the San Francisco Bay Trail, and to the west side of the interchange. Motorists, bicyclists, and persons on motorized scooters using SR 13 (Ashby Avenue) would have moderate-high levels of sensitivity to project features added to Ashby Avenue and the interchange. Pedestrians on local streets would have



moderate to moderate-high levels of sensitivity to project features depending on the changes made to the character and quality of the viewshed.

### *Motorist on I-80 and SR 13*

Daily commuters may have an increased exposure to views from the road due to the amount of time spent on the highway each day. Those who experience congested traffic conditions would tend to focus views toward the highway itself. Drivers travelling at normal highway speeds usually focus attention on long-range, non-peripheral views. Durations of exposure to views from the highway would vary from moderate to moderate-high. Passengers are anticipated to have a high duration of exposure to views. Daily commuters have moderate-high awareness and sensitivity to views from the road due to the amount of time spent on the highway each day. Those who experience congested traffic conditions would tend to focus views toward the highway itself. Drivers traveling at normal highway speeds usually focus attention on long range non-peripheral views. Passengers are anticipated to have a higher level of awareness and sensitivity to a wide range of views.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, none of the proposed project features described above would be constructed. If the proposed project were not constructed, no immediate changes would be made to I-80, Ashby Avenue, West Frontage Road, or the surrounding roads within the overall VSA. No construction activities would occur, and there would be no change to the operation of I-80 or local roadways. The No Build Alternative would have no effect related to aesthetics or the visual environment.

### **Build Alternative**

Nine KVPs have been identified for the Build Alternative. The overall locations within the study area for the KVPs are shown in Figure 2.1-8. KVPs and their specific locations, along with descriptions for these, follow below. Note that all existing photos used as part of this assessment were taken in 2020.

#### *Visual Assessment Unit 1: West Side of Interchange*

Two viewpoints (KVP 1.1 and KVP 1.2) were selected within Visual Assessment Unit 1 to best represent views from the San Francisco Bay Trail and West Frontage Road, both located west of I-80.

KVP 1.1 – Near Point Emery Looking Northeast

**Existing Visual Character/Quality:** This viewpoint is located near Point Emery looking east towards the project area. Viewer groups experiencing the proposed project from this KVP would include bicyclists and pedestrians traveling on the San Francisco Bay Trail, or motorists travelling on West Frontage Road. As shown in Figure 2.1-8, West Frontage Road is in the immediate foreground from this vantage point, with westbound on- and off-ramps associated with I-80 visible to the right and left, respectively. Views of I-80 are partially obscured by existing embankments on the west side of I-80. Screened views are afforded of the ridge lines of the East Bay Hills beyond the embankments, vegetation, signage, and existing buildings to the southeast.

**Figure 2.1-8: KVP 1.1(Existing Conditions)**



**Figure 2.1-9: KVP 1.1 (Simulation)**



**Proposed Project:** Within this view, the new BPOC and associated ramp would be visible to the viewer, as shown in Figure 2.1-9.

**Changes to Visual Character and Quality:** The addition of the BPOC structure and its associated ramp would change the overall visual character and quality of the view. West Frontage Road would be shifted to the east approximately 25 feet in this location, and approximately 4 feet higher than the existing elevation of the road. A curved BPOC on columns would be added to the view. A pedestrian path to the right of the grass area would provide access from the BPOC to Point Emery. A vehicle connection shown to the right of the path would provide access from West Frontage Road to the Point Emery parking lot adjacent to the San Francisco Bay Trail. The lights and trees shown at the highest point of the interchange to the left is the location of the proposed signalized intersection at Ashby Avenue and the I-80 on- and off-ramps.

Vividness or memorability of the view would be increased to moderate-high with the addition of the sculptural forms of the BPOC in the view. Intactness would be increased to moderate. That both of these values would be increased is directly related to the removal of disjointed and textured man-built features that intrude on the view of the natural environment and are replaced by one large permeable sculptural feature in the

BPOC that organizes and simplifies the view. Scenic views of the East Bay Hills would be diminished but not totally blocked from view because of the permeability of the forms in the BPOC that would provide some views to the east of the hills

**Resource Change:** The overall resource change would be moderate.

**Anticipated Viewer Response:** Viewers including bicyclists and pedestrians travelling along the San Francisco Bay Trail or motorists on West Frontage Road are anticipated to have a moderate response level to the addition of the proposed project.

**Resulting Visual Impact:** The new BPOC would result in moderate levels of visual impact with the addition of the proposed project.

#### KVP 1.2 – From San Francisco Bay Trail North of Point Emery Looking East

**Existing Visual Character/Quality:** This viewpoint is located along the San Francisco Bay Trail north of Point Emery looking east towards the project area. Viewer groups at this KVP would include bicyclists and pedestrians traveling on the San Francisco Bay Trail. As shown in Figure 2.1-10, West Frontage Road and the embankment west of the I-80 westbound on-ramp are in the immediate foreground of this KVP. In the foreground is West Frontage Road. The intersection of West Frontage Road and the I-80 westbound on-ramp (with the line of vehicles) is to the right in the view. I-80 is beyond the ramp. The I-80/Ashby Avenue interchange mound with ice plant vegetation and mature trees is in the mid-range view. A row of mature trees is visible to the east of I-80, and the ridgelines of the East Bay Hills are visible in the distance. Commercial buildings are visible to the east of I-80.

**Figure 2.1-10: KVP 1.2 (Existing Conditions)**



**Figure 2.1-11: KVP 1.2 (Simulation)**



**Proposed Project:** Within this view, the realigned West Frontage Road, the bicycle/pedestrian undercrossing and additional pedestrian and bicycle paths and undercrossing would change the overall visual character and quality of the view, as shown in Figure 2.1-11.

**Changes to Visual Character:** West Frontage Road would be shifted to the east approximately 65 feet and elevated 10.5 feet in this location. Two options for crossing West Frontage Road are proposed. One would be an at-grade crossing, and the other would be the portal option illustrated in the simulated view above. A new BPOC would be added with the Build Alternative as shown to the right in the photo with the arched steel shapes. Terraced seating would be added to the slope facing the San Francisco Bay. The East Bay Hills would not be visible. Existing mature trees within the interchange would be removed.

Vividness or memorability of the proposed project would be moderate-high. Intactness would remain moderate. There would be more man-built structures encroaching on views of the natural features in the view. The level of unity would increase from moderate to high. The composition of the proposed features would create a harmonious balance between the natural and man-built elements in the view.

**Resource Change:** The overall resource change with the addition of the proposed project would be moderate-high.

**Anticipated Viewer Response:** Viewers along the San Francisco Bay Trail are anticipated to have a moderate response level.

**Resulting Visual Impact:** The new BPOC would result in moderate-high levels of visual impact.

#### *Visual Assessment Unit 2 – I-80 Corridor*

Four viewpoints (KVP 2.1 through KVP 2.4) were selected within Visual Assessment Unit 2 to capture views from east- and westbound I-80.

#### KVP 2.1: Eastbound I-80 South of Ashby Avenue Exit

**Existing Visual Character/Quality:** As shown in Figure 2.1-12, KVP 2.1 is at a vantage point on the shoulder of the eastbound lanes of I-80. The Ashby westbound off-ramp bridge over I-80 is visible in the distance beyond the truss sign bridge. Vehicles are on the 150-foot wide twelve-lane highway with shoulders. Highway structures are visible including signs, truss sign bridge, lights, posts, and barriers. Mature trees are visible to the east and west of the highway. The multi-family high-rise residential complex is to the right in the photo. The East Bay Hills are visible in the distance through the corridor.

The memorability (vividness) of the view is low. The level of intactness is low. Highway structures and views of vehicles encroach on views of the natural environment. There is not a harmonious balance between the natural and man-built environment. The level of unity is low. The overall level of quality in the existing condition is low.

**Figure 2.1-12: KVP 2.1 (Existing Conditions)**



**Figure 2.1-13: KVP 2.1 (Simulation)**



**Proposed Project:** As shown in Figure 2.1-13, the BPOC and interchange would change the overall visual character and quality of the view.

**Changes to Visual Character and Quality:** The BPOC structure would be added to the view. It would be similar in character and quality to the existing University Avenue BPOC, and to a similar structure that will be added to the I-80/Gilman Street interchange. A vehicular bridge at Ashby Avenue would be added to the east of the BPOC that would not have an arched superstructure but would include rounded forms that would be complementary with the BPOC. Existing mature trees in the Ashby Avenue interchange would be removed.

Vividness or memorability of the proposed project would be moderate-high. Intactness would remain low. There would be additional man-built structures encroaching on views of the natural environment in the view. The level of unity would increase from low to moderate. The form and line of the proposed BPOC features would draw focus toward those features and away from the highly textured and disjointed features within the highway environment. A more harmonious condition would be created with the BPOC in the view.



**Anticipated Viewer Response:** Eastbound motorists on I-80 would generally experience this KVP while traveling at high speeds, especially during off-peak hours. Because motorists are likely to keep their focus directed in front of them, views of the project area would be visible but would be experienced for a relatively short duration of time depending on speed of travel. Therefore, viewers are anticipated to have a moderate response to the addition of the proposed project.

**Resource Change:** The overall resource change would be moderate.

**Resulting Visual Impact:** Visual impacts would be moderate.

#### KVP 2.2 – Eastbound I-80 at Ashby Avenue Exist

**Existing Visual Character/Quality:** As shown in Figure 2.1-14, KVP 2.2 is a vantage point at the intersection of the eastbound I-80 shoulder and the eastbound I-80 to Ashby Avenue off-ramp. The Ashby westbound off-ramp bridge over I-80 is visible in the distance. Vehicles are on the approximately 80-foot-wide eastbound lanes with shoulders. Westbound vehicles are visible beyond a concrete median barrier with a glare shield attached to the top surface. Highway structures are visible including signs, and lights. Mature trees are visible to the east and west of the highway. Mount Tamalpais and the coastal mountains are visible to the west.

The memorability (vividness) of the view is moderate. The level of intactness is low. Highway structures and views of vehicles encroach on views of the natural environment. There is a moderate level of unity in the view. Distant views of the coastal mountains, the horizon, and the natural environment within the interchange are moderately in balance with views of the highway environment in the center of the view. The level of unity is moderate. The overall level of quality in the existing condition is moderate.

**Figure 2.1-14: KVP 2.2(Existing Conditions)**



**Figure 2.1-15: KVP 2.2 (Simulation)**



**Proposed Project:** Within this view, the BPOC and associated ramp would be visible, as shown in Figure 2.1-15. In the background the new Ashby Avenue vehicular bridge is shown.

**Changes to Visual Character and Quality:** The BPOC would be added to the view. It would be similar in character and quality to the existing University Avenue BPOC, and to a similar structure that will be added to the I-80/Gilman Street interchange. Existing mature trees in the Ashby Avenue interchange would be removed. There would be a new Ashby Avenue bridge added at the center of the interchange, illustrated to the east of the BPOC. On- and off-ramps would be added parallel to I-80 as illustrated to the right in the simulated view. Signalized intersections with signs and lights would be at the intersection of the ramps and Ashby Avenue. Views of Mount Tamalpais and the coastal mountains would be blocked or screened by the BPOC and ramp to the west. From westbound lanes of travel, views of the East Bay Hills would be similarly blocked by the BPOC and vehicular bridge structures. The duration of blockage of views of these two scenic mountain ranges would depend on the speed of traffic on I-80. At 65 miles per hour the duration of blockage would be approximately 39 seconds. The proposed project would add a new vehicular bridge at the Ashby Avenue overcrossing of I-80. For an analysis of the bridge, refer to the Build Alternative condition for KVP 2.4.

Vividness or memorability of the proposed project would be high. Intactness would remain low. There would be more man-built structures encroaching on views of the natural environment in the view with the arches, deck and ramps encroaching on views of the horizon. Ramps would encroach on views of the scenic coastal mountains and the East Bay Hills for brief periods of travel time. The level of unity would remain moderate.

**Resource Change:** Resource change would be moderate-high.

**Anticipated Viewer Response:** Viewer response to the proposed project would be moderate.

**Resulting Visual Impact:** The visual impacts would be moderate-high.

#### KVP 2.3 – Westbound I-80 at Ashby Avenue On-Ramp

**Existing Visual Character/Quality:** As shown in Figure 2.1-16, this KVP is located on westbound I-80 north of the Ashby Avenue on-ramp. Viewer groups at this KVP include westbound motorists between the existing overcrossings structures, with the southernmost overcrossing visible in the foreground.

KVP 2.3 is a vantage point on the shoulder of the westbound lanes of I-80. The I-80 westbound to Ashby Avenue off-ramp bridge is visible in the foreground. Vehicles are

on the approximately 70-foot wide five-lane westbound lanes with shoulder. Vehicles on I-80 eastbound lanes are visible beyond a concrete median barrier with glare shield attached to the top surface. Highway structures in the view include a concrete bridge, columns and permeable rail, concrete barrier, glare shield, signs, crash barriers and pavement. Medium-rise commercial buildings, and medium- and high-rise multi-family residential buildings are visible to the east of the highway beyond the bridge. Features visible in the natural environment include mature trees at the abutment to the east, a row of mature trees adjacent to the east edge of the highway beyond the bridge, and views of the horizon.

The memorability (vividness) of the view is low. The level of intactness is low. Highway structures and views of vehicles encroach on views of the natural environment. There is not a harmonious balance between the natural and man-built environments. The level of unity is low. The overall level of quality in the existing condition is low.

**Figure 2.1-16: KVP 2.3 (Existing Conditions)**



**Figure 2.1-17: KVP 2.3 (Simulation)**



**Proposed Project:** Within this view, the new BPOC and associated ramp would be visible, as shown in Figure 2.1-17.

**Changes to Visual Character and Quality:** The BPOC would be added to the view. It would be similar in character and quality to the existing University Avenue BPOC, and to a similar structure that will be added to the I-80/Gilman Street interchange. Existing mature trees in the Ashby Avenue interchange would be removed. On- and off-ramps would be added parallel to I-80. The BPOC would be permeable between the arches and the deck of the bridge affording views of the horizon and buildings of highway neighbors to the east.

Vividness or memorability of the proposed project would be high. Intactness would be increased from low in the existing condition to moderate in the proposed project in the view. The thin profile of the structure would encroach on the natural environment to a lesser degree. The level of unity would be high. The balance between the natural environment and man-built structures would be harmonious.

**Resource Change:** The overall resource change would be moderate-high.

**Anticipated Viewer Response:** The overall viewer response to the proposed project would be moderate.

**Resulting Visual Impact:** Visual impacts would be moderate-high.

KVP 2.4 – Westbound I-80 near Ashby Avenue Off-Ramp

**Existing Visual Character/Quality:** As shown in Figure 2.1-18, KVP 2.4 is at a vantage point in I-80 westbound travel lanes, located to the east of the Ashby Avenue to westbound I-80 on-ramp bridge visible in the distance. Vehicles are visible on I-80 westbound lanes, and on the eastbound lanes beyond a concrete median barrier with glare shield attached to the top surface. Highway structures in the view include a concrete bridge and columns, a truss sign bridge to the south of the on-ramp bridge, variable message and static highway signs, metal utility boxes, and pavement. The high-rise multi-family residential building is visible in the distance to the east. Features visible in the natural environment include groves of mature trees to the east and west within the interchange, and views of the horizon.

The memorability (vividness) of the view is moderate-low. The level of intactness is low. Highway structures and views of vehicles encroach on views of the natural environment. There is a moderate level of unity or balance between the natural and man-built environments. The level of unity is moderate. The overall level of quality in the existing condition is moderate-low.

**Figure 2.1-18: KVP 2.4(Existing Conditions)**



**Figure 2.1-19: KVP 2.4(Simulation)**



**Proposed Project:** Within this view, the proposed Ashby Avenue vehicular bridge is visible in the foreground and the upper part of the new BPOC structure would be in view, as shown in Figure 2.1-19.

**Changes to Visual Character and Quality:** The proposed Ashby Avenue vehicular bridge would be in the foreground from this KVP, and the BPOC beyond the vehicular bridge would be added to the view. The two structures would be complementary in design, each having curved forms and permeable railings. The vehicular bridge would not have arched superstructure elements like the BPOC but would have arched forms in the shaping of the horizontal bridge structure and railings. Retaining walls at the vehicular bridge would be added. One end of each wall would be in contact with the bridge abutment and would extend to the east and west to retain the earth slopes at the highest points of the ramps near the bridge and at the ramps. The BPOC would be similar in character and quality to the existing University Avenue BPOC, and to a similar structure that will be added to the I-80/Gilman Street interchange. On- and off-ramps for the Ashby Avenue vehicular bridge would be parallel to I-80. Other highway features that would be included with the proposed project would be signs, lights, and highway median barrier with glare shield. Existing mature trees in the Ashby Avenue interchange would be removed by the proposed project. Replacement planting would be replaced within the project area as part of a follow-on contract, as specified in PF VIS-2.

Vividness or memorability of the proposed project would be high. Intactness would remain low. There would be more man-built structures encroaching on views of the natural environment. The level of unity would increase from moderate to high. The proposed bridge design elements and the proposed BPOC features would draw focus toward those features and away from the disjointed and diverse man-built features within the highway environment. A high-level harmonious balance would be created between the natural environment and man-built structures with the bridge and BPOC in the view.

**Resource Change:** The resource change would be moderate-high.

**Anticipated Viewer Response:** Viewer response to the proposed project would be moderate.

**Resulting Visual Impact:** The visual impacts would be moderate-high.

#### *Visual Assessment Unit 3: East Side of Interchange*

Three viewpoints (KVP 3.1 through 3.3) were selected within Visual Assessment Unit 3 to assess views within an area comprising a mix of commercial, school, health care, multi-family residential, and park land uses.



KVP 3.1 – 65th Street and Christie Avenue

**Existing Visual Character/Quality:** As shown in Figure 2.1-20, KVP 3.1 is at a vantage point on 65th Street just east of Christie Avenue. Land uses in the area are mixed use commercial, health care, and multi-family residential. A public storage facility is to the right in the photo. Medium- and high-rise office buildings are to the left. Multi-family residential is to the east of the vantage point in a medium-rise building. The healthcare clinic and commercial buildings to the left have west-facing offices with views of the San Francisco Bay. The medium-rise residential building has few units with views to the west. Those views face the I-80 westbound Ashby Avenue off-ramp and the upper views of the coastal mountains and Mount Tamalpais. The medical clinic building blocks most of the residential views to the west. Manmade features in the view include road pavement, low-, medium-, and high-rise buildings, fences, streetlights, and vehicles. The natural environment includes views of mature evergreen trees within Caltrans' ROW that partially screen views of the San Francisco Bay and the horizon.

Views are memorable and with high levels of vividness in the view. Intactness is low. Man-built structures intrude on the natural environment. The man-built structures and natural environment are in a harmonious balance. The level of unity is high.

**Figure 2.1-20: KVP 3.1 (Existing Conditions)**



**Figure 2.1-21: KVP 3.1 (Simulation)**



**Proposed Project:** As shown in Figure 2.1-21, the existing manmade structures would remain in view. The proposed BPOC would be added to the view. The screening trees within the interchange would be removed.

**Changes to Visual Character and Quality:** Vividness or memorability of the proposed project would be high. Intactness would be moderate. The existing mature trees partially screen views to the San Francisco Bay and the horizon. The BPOC with its solid steel arches, bridge deck, approach ramps, and permeable panels of cables between the arches and the bridge deck would block or partially screen views to the west depending on the vantage point of the viewer. Some commercial and health care office views of the San Francisco Bay that are screened in the existing condition would be opened up to views of the interchange due to the removal of existing mature trees. The level of unity would be moderate. The proposed BPOC is large in scale compared to the smaller scale streetscape elements within the 65th street corridor. Existing mature trees would partially screen the BPOC. If there were no intervening trees and buildings blocking views of the full sculptural form, then the BPOC would be in a setting where the forms could be appreciated more fully by neighbors in vantage points in this area. There would be a more harmonious balance between the natural and man-built environments. As

proposed, there would be a moderately harmonious balance with the character of the street from this vantage point.

**Resource Change:** Resource change would be moderate-high.

**Anticipated Viewer Response:** Viewer response to the proposed project would be moderate.

**Resulting Visual Impact:** Visual impacts would be moderate-high.

#### KVP 3.2 – Ashby Avenue On-Ramp

**Existing Visual Character/Quality:** As shown in Figure 2.1-22, KVP 3.2 is at a vantage point on the Bay Street overcrossing looking west on Ashby Avenue. The approximately 48-foot wide, four-lane road with shoulders includes highway features such as pavement, a metal-beam guardrail in the median, and retaining walls with steel railings at the side of the road. Also visible are highway lights, signs, and vehicles. The KRE building and radio tower and utility lines are to the east (right) in the photo. Natural environment features include views of Mount Tamalpais and the horizon to the west, and mature trees and shrubs at the edges of the highway.

Views are memorable and with high levels of vividness in the view. Intactness is moderate. Manmade structures intrude on the natural environment. However, the many mature trees and shrubs in the view draw attention to the natural environment and offset the awareness of man-built features in the view. There is a harmonious balance between the man-built structures and the natural environment. The level of unity is high.

**Figure 2.1-22: KVP 3.2 (Existing Conditions)**



**Figure 2.1-23: KVP 3.2 (Simulation)**



**Proposed Project:** As shown in Figure 2.1-23, the proposed project would add a new Ashby Avenue extension with four travel lanes, extending to the middle of the interchange at intersections connecting with east- and westbound on- and off-ramps to I-80. Ashby Avenue would extend beyond the interchange and connect with West Frontage Road.

**Changes to Visual Character:** With the proposed project there would be the same four lanes of travel. A concrete barrier would be in the median instead of a permeable metal-beam guardrail. Retaining walls would be at the sides of the road varying in height from approximately one foot to eight feet. A second retaining wall would be visible to the east at the edge of a new Bay Street connector to Ashby Avenue. The 453-foot-long wall would vary in height from 9 feet to 14 feet. To the west (left) beyond the grove of trees, there would be a connector between Ashby Avenue and Shellmound Street.

Views would be memorable with the proposed project. Although the vegetation and trees would be different in appearance, they would be visible and provide an abundance of natural diversity in the environment. Vividness would be high. Intactness would be moderate-low. The retaining wall at the west side of the Bay Street to Ashby Avenue connector would contrast with the diversity visible in the natural environment. The level of unity would be moderate. The Bay Street connector retaining wall would diminish the sense of balance in the view between the natural and man-built environments. The level of unity would be moderate. Replacement planting would be replaced within the project area as part of a follow-on contract, as specified in PF VIS-2.

**Resource Change:** Resource change would be moderate.

**Anticipated Viewer Response:** Viewer response to the proposed project would be moderate-high.

**Resulting Visual Impact:** Visual impacts would be moderate-high.

#### KVP 3.3 – Aquatic Park (West)

**Existing Visual Character/Quality:** As shown in Figure 2.1-24, KVP 3.3 is at a vantage point within Aquatic Park adjacent to the Kenneth A. Hayes Boat House. The park is located to the east of I-80. Man-built features in the view include vehicles on eastbound lanes of I-80, highway lights and the high-rise multi-family building to the east in the distance. Natural environment features in the view include a lagoon, grassy slopes, groves of mature trees and the horizon. Views are memorable and have a high level of vividness. Man-built features encroach on views of the natural environment but to a minimal degree. The level of intactness is moderate-high. The balance between the man-built features and natural environment is harmonious. The level of unity is high in the view.

**Figure 2.1-24: KVP 3.3 (Existing Conditions)**



**Figure 2.1-25: KVP 3.3 (Simulation)**



**Proposed Project:** The proposed project would remove some trees from the project area but would otherwise not cause any discernable visual resource changes from KVP 3.3, as illustrated in Figure 2.1-25.

**Changes to Visual Character and Quality:** With the proposed project, there would be no noticeable change in the from this KVP. The levels of vividness, intactness, and unity would remain the same.

**Resource Change:** Resource change would be low.

**Anticipated Viewer Response:** Viewer response to the proposed project would be low.

**Resulting Visual Impact:** Visual impacts would be low.

## Summary of Visual Impacts

The proposed project would result in moderate to moderate-high levels of visual impacts from the perspective of motorists on I-80. Highway motorists on I-80 would be moderately exposed to the proposed project and the duration of exposure would be brief, limited to only the brief time it would take to drive past these features depending on traffic speeds. Motorists on Ashby Avenue would be traveling at slower speeds and would have slightly longer durations of exposure to project features. Viewer response to the proposed project would be moderate-high adjacent to Ashby Avenue and would result in moderate-high levels of visual impacts.

Motorists, bicyclists, and persons on motorized scooters on local streets would have somewhat longer durations of exposure to project features than motorists on the highways. Their exposure would be limited to the duration of time it would take to drive past these features. The proposed project would result in moderate levels of visual impacts. Users of the San Francisco Bay Trail would have moderate levels of exposure to the proposed project while walking and bicycling along the shoreline. Project features would result in moderate to moderate-high visual impacts. Multi-family residential neighbors numbering in the hundreds would have views of the project. The multi-family residences on 65th Street with views of San Francisco Bay, the coastal mountains and Mount Tamalpais would experience moderate-high levels of visual impact with the proposed project. Commercial and health clinic neighbors and patrons of these establishments numbering in the thousands would have moderate to moderate-high levels of exposure to the proposed project. Moderate-high levels of visual impacts would occur.

The overall resource change, viewer response and visual impacts with the Build Alternative project features would range from moderate to moderate-high. Table 2.1-11 summarizes the visual impacts for the Build Alternative and the No Build Alternative and compares the narrative ratings for visual resource change and viewer response for each Visual Assessment Unit.

**Table 2.1-11 Visual Impact Summary**

Visual Assessment Unit	Key Viewpoint	Resource Change	Viewer Response	Visual Impact
Visual Assessment Unit 1:	1.1: West Frontage Road facing east toward Ashby Avenue Interchange	Moderate	Moderate	Moderate

<b>Visual Assessment Unit</b>	<b>Key Viewpoint</b>	<b>Resource Change</b>	<b>Viewer Response</b>	<b>Visual Impact</b>
Shoreline	1.2: San Francisco Bay Trail facing east toward Ashby Avenue Interchange	<b>Moderate-High</b>	<b>Moderate</b>	<b>Moderate-High</b>
Visual Assessment Unit 2: I-80 Corridor	2.1: Eastbound I-80 facing east toward Ashby Avenue Interchange	<b>Moderate</b>	<b>Moderate</b>	<b>Moderate</b>
	2.2: Eastbound I-80 facing east toward Ashby Avenue Interchange	<b>Moderate-High</b>	<b>Moderate</b>	<b>Moderate-High</b>
	2.3: Westbound I-80 facing westbound I-80	<b>Moderate-High</b>	<b>Moderate</b>	<b>Moderate-High</b>
	2.4: Westbound I-80 facing Ashby Avenue Interchange	<b>Moderate-High</b>	<b>Moderate</b>	<b>Moderate-High</b>
Visual Assessment Unit 3: Neighbors East of I-80	3.1: 65th Street facing northeast quadrant of Ashby Avenue interchange	<b>Moderate-High</b>	<b>Moderate</b>	<b>Moderate-High</b>
	3.2: Bay Street Overcrossing facing east- and westbound Ashby Avenue	<b>Moderate</b>	<b>Moderate-High</b>	<b>Moderate-High</b>
	2.3 Aquatic Park facing Northeast quadrant of Ashby Avenue interchange	<b>Low</b>	<b>Low</b>	<b>Low</b>

### Temporary Construction Impacts

Construction of the proposed project would occur over an 18- to 24-month period. Viewers would see materials, equipment, workers, construction operations, including trenching, excavations, dust, placement of temporary roadside barriers, construction signage, night lighting, contractor yards, new pavement, and new structures being constructed. Impacts of construction are unavoidable but are temporary. Motorists and pedestrians would be exposed to construction activities while passing through the construction zone. Residents of adjacent multi-family residences would be exposed to construction activities on a more continuous basis. Short-term impacts would include removal of some highway screening vegetation that would be replaced according to



Caltrans policy. Long-term impacts would occur where insufficient right-of-way and/or sight distance requirements would not allow for planting trees that were removed during construction.

### **Cumulative Impacts**

Cumulative impacts are those resulting from past, present, and reasonably foreseeable future actions, combined with the potential visual impacts of this proposed project. Other projects currently planned or under construction within two miles of the project area include the I-80/Gilman Street Interchange Improvements Project, installation of median safety lighting, replacement of median concrete barriers, and new landscaping at the I-80/University Avenue interchange. These projects are anticipated to introduce additional pavement, lighting, signage, traffic signals, ramp metering systems, and retaining walls as well as remove mature trees and vegetation along I-80. However, standard Caltrans project features including replanting vegetation as well as aesthetic treatments for new project elements such as retaining walls would ensure that negative cumulative impacts within the corridor would not occur.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF VIS-1: Vegetation Removal Measures. The removal of groundcover, shrubs, and matures will be minimized to the maximum extent possible by utilizing open areas for contractor staging/storage areas.

PF VIS-2: Tree Surveys. Survey exact locations for trees and include in plan set.

PF VIS-3: Replacement Planting. Replacement plantings would occur near the areas of impact where feasible per Caltrans policy and in consultation with the Office of Landscape Architecture and the Resident Engineer.

PF VIS-4: Use of Drought-Tolerant Plants. Use drought-tolerant plants, including California native species, as part of the planting palette where regionally appropriate.

PF VIS-5: Caltrans Plant Setback and Spacing Requirements. Plantings within the state right of way will follow the 1997 Caltrans Plant Setback and Spacing Guide.

PF VIS-6: Light and Glare Minimization. As directed by Caltrans, appropriate light and glare screening measures will be used at the construction staging areas including the use of downward cast lighting.

PF VIS-7: Use of standard construction equipment and protocol. Caltrans will use standard construction equipment and protocols for the Build Alternative, such as placing unsightly materials and equipment so that they are not visible within the forefront of highway corridor and local streets where feasible.

For the full text of these project features, refer to Appendix C.

### **Avoidance and Minimization**

Caltrans and FHWA mandate that a qualitative/aesthetic approach be taken to address visual quality loss in the study area. This approach fulfills the letter and the spirit of FHWA requirements because it addresses the actual cumulative loss of visual quality due to a project. This approach also results in avoidance, minimization, and/or mitigation measures that can lessen or compensate for a loss in visual quality. The inclusion of aesthetic features in the project design can help generate public acceptance of a project. This section describes additional avoidance, minimization, and/or mitigation measures to address specific visual impacts. These will be designed and implemented as part of the Build Alternative with the concurrence of the Caltrans District Landscape Architect.

The following measures to avoid or minimize visual impacts will be incorporated into the Build Alternative. See Appendix C for the full text of AMMs VIS-1 through VIS-3.

AMM VIS 1: In order to avoid the inadvertent creation of areas that appeal to illegal encampments (e.g., open areas under bridge structures and isolated vacant lots), the final design will include measures to discourage illegal encampments.

AMM VIS-2: To reduce the visual impact of new retaining walls and bridge structures, aesthetic treatments consisting of color, texture and/or patterning will be applied to such structures.

AMM VIS-3: Additional Construction Impact Measures.

- Any roadside vegetation and irrigation systems that are damaged or removed during project construction shall be replaced according to Caltrans policy and the requirements of the cities of Emeryville and Berkeley.
- When trenching for utilities, avoid trenching within drip lines of trees and screening shrubs. Directional drilling that would avoid damaging root systems of established plant material shall be used, when reasonable, as opposed to open trenching to install new conduit in places where work within the drip line would be required. Trees and screening shrubs shall be protected from damage during construction.
- Provide highway plantings where feasible. Caltrans safety setback requirements would apply for all plantings within Caltrans' ROW. Provide street trees, shrubs, and groundcover on local streets where feasible.

## **Mitigation Measures**

No mitigation would be required.

### **2.1.11 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES**

This section describes the proposed project's effects on cultural resources and tribal cultural resources. Information used to prepare this includes the Historic Property Survey Report (HPSR) (August 2020) and Supplemental HPSR (May 2021).

#### **REGULATORY SETTING**

The term "cultural resources" as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

#### **Federal**

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the NRHP. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The Archaeological Resources Protection Act (ARPA) applies when a project may involve archaeological resources located on federal or tribal land. The ARPA requires that a permit be obtained before excavation of an archaeological resource on such land can take place.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties (in Section 4(f) terminology—historic sites).

### **State**

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j).

In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between the Department and SHPO, effective January 1, 2015. For most federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

## **AFFECTED ENVIRONMENT**

The Area of Potential Effects (APE) was established in consultation with Caltrans staff and approved on July 6, 2021. The APE includes all areas where potential direct and indirect impacts to historic resources could occur as a result of project construction, operation, and maintenance for the Build Alternative. Consistent with Caltrans policies and general cultural resource practices, the APE for potential direct impacts was established as the horizontal and vertical project footprint. The vertical APE extends to a maximum of feet below existing ground surface to accommodate CIDH pile foundations.

### **Archaeological Resources**

A Northwest Information Center (NWIC) record search was completed for the proposed project on March 8, 2018, and included a 0.5-mile radius surrounding the project area. The entire APE has been previously surveyed for archaeological resources and no previously recorded archaeological sites were identified within the APE or record search buffer.

Although no archaeological sites have been identified in the APE, unrecorded archaeological sites may be deeply buried with no surface manifestation. The APE contains both artificial fill and marine deposits along the San Francisco Bay that may have culturally sensitive landforms or archaeological deposits. Thus, soils that underlie the historic era fill at the project area also have the potential to contain buried archaeological remains. Given the maximum depths of construction proposed for the project, at 80 feet below the existing ground surface, it is possible that buried archaeological deposits could be present in the APE.

### **Tribal Cultural Resources**

On August 22, 2019, Horizon contacted the Native American Heritage Commission (NAHC) by email to request a search of the Sacred Lands File. The Sacred Lands File contains information on known Native American traditional or cultural properties. The NAHC responded stating that no significant resources have previously been identified in the APE. A list of interested Native American Tribal representatives with traditional lands or cultural places within Alameda County was included in the NAHC response. In November 2019, certified letters were sent to all Native American contacts provided by the NAHC under Section 106 consultation, pursuant to the National Historic Preservation Act, and as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52), describing the proposed project, providing a location map, and requesting any information and concerns the Tribes may have regarding the proposed project or study area. A list of Tribal representatives contacted in November 2019 is provided below.

- Amah Mutsun Tribal Band – Valentin Lopez, Representative
- Costanoan Rumsen Carmel Tribe, Tony Cerda, Chairperson
- Indian Canyon Mutsun Band of Coastanoan, Ann Marie Sayers, Chairperson
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Charlene Nijmeh, Chairperson
- North Valley Yokuts Tribe, Katherine Erolinda Perez, Chairperson

- The Confederated Villages of Lisjan, Corrina Gould, Chairperson
- Ohlone Indian Tribe, Andrew Galvin, Chairperson

One response was received via email from Chairperson Katherine Perez of the Northern Valley Yokuts Tribe. A field review of the project area was conducted on February 13, 2020, by Chairperson Perez and two other tribal representatives, along with Caltrans District 4 archaeology personnel, Kathryn Rose and Katie Jorgensen and members of the project design team. Chairperson Perez expressed concern for the potential of deeply buried cultural resources beneath the fill on which I-80 and the interchange have been constructed. Native American consultation is ongoing throughout the life of the project.

### **Architectural Resources**

Based on the results of the NWIC records search, a review of historic and current maps, research in archival records, and field surveys, it has been determined that there are two historic resources within the historic APE, the KRE Radio Station and state-owned bridge #33-0060 which are both located in the APE. The KRE Radio Station has been recorded and evaluated numerous times, has been re-evaluated under the current study, and is eligible for inclusion in the NRHP and CRHR under Criterion 1/A. The second resource in the APE, state-owned Bridge #33-0060, was also recorded and evaluated and is not eligible.

Built environment resources 45 years or older were evaluated to accommodate the long duration of the planning and design process for transportation projects. The other properties investigated during the HRER study were determined not eligible for listing on the NRHP or CRHR and the HPSR study includes a proposed finding of No Historic Properties Affected. The State Office of Historic Preservation concurred with that finding in a letter dated November 3, 2020 (FHWA\_2020\_0914\_001/CATRA\_2020 0914\_001). Therefore, the APE does not contain any buildings or structures that qualify as historical resources.

## **ENVIRONMENTAL CONSEQUENCES**

### **No Build Alternative**

The No Build Alternative would not change existing conditions; therefore, it would not affect any cultural resources.

### **Build Alternative**

As discussed in Affected Environment, there are no known archaeological sites within the archaeological APE. Therefore, no known archaeological sites would be affected by the Build Alternative. Given the level of previous disturbance within the I-80 corridor,

existing interchange ramps, and local roadways, and the lack of previously identified resources during the construction of the existing infrastructure, no additional archaeological resources identification efforts are considered necessary.

While no archaeological or Native American cultural resources have been recorded in the APE, there is the possibility that an unrecorded resource, such as cultural materials or human remains, could be unearthed during construction. This could result in damage to the resource and would be considered an adverse effect. Therefore, mitigation measures are proposed to protect resources in the event of unexpected discovery during construction. Effects would be minimized in part by halting work until the resource can be evaluated by a qualified archaeologist (PF CUL-1) and notifying the Most Likely Descendent of human remains (PF CUL-2). These project features would minimize potential effects to archaeological resources.

Two properties were evaluated for NRHP and CRHR eligibility. Bridge #33-0060 was evaluated and was determined to be not eligible for listing on the NRHP or CRHR as the result of this study. KRE Radio Station is eligible for NRHP and CRHR. However, Caltrans pursuant to Section 106 PA Stipulation IX.A and as applicable PRC 5024 MOU Stipulation IX.A.2, a finding of No Historic Properties Affect is appropriate. The boundaries of the historic property are limited to the KRE Radio Station building and does not include the transmitting tower which will have a guy wire relocated, or any other portions of the subject parcel.

### **Cumulative Impacts**

The cumulative setting for cultural resources includes the areas within and surrounding the project area which have documented cultural resource sites and/or high sensitivities for unrecorded artifacts. Cumulative effects to cultural resources would occur if planned and foreseeable development results in the removal of a substantial number of historic structures or archaeological sites that, when taken in combination with the proposed project, and could degrade the physical historical record of the larger project region. The proposed project would not result in adverse effects to known cultural resources, and project features are in place if potentially unknown archaeological resources are discovered during construction. Therefore, the proposed project would not contribute to any potential cumulative effects to these resources.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF CUL-1: If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.

PF CUL-2: If Caltrans Professionally Qualified Staff determines that cultural materials contain human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains.

Refer to Appendix C for the full text of project features PF CUL-1 and PF CUL-2.

### **Avoidance and Minimization**

Because PF-CUL-1 and CUL-2 would minimize potential effects, additional avoidance and minimization measures are not required (refer to Appendix C for the full text of all project features, and avoidance, minimization, and mitigation measures).

### **Mitigation Measures**

No mitigation would be required.



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## 2.2 PHYSICAL ENVIRONMENT

### 2.2.1 HYDROLOGY AND FLOODPLAIN

This section evaluates effects associated with hydrology and floodplains that could occur from implementation of the proposed project. Sources of information used to prepare the analysis include:

- Location Hydraulic Study (October 2021)
- Preliminary Drainage Impact Study (October 2021)
- Water Quality Assessment Report (October 2021)
- Sea Level Rise Memorandum (October 2021)

#### REGULATORY SETTING

##### **Federal**

##### *Executive Order 11988*

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the proposed project

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” This is often referred to as the “100-year floodplain.” An encroachment is defined as “an action within the limits of the base floodplain.”

## AFFECTED ENVIRONMENT

The Water Quality Assessment Report (October 2021) incorporates information from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Alameda County. The Location Hydraulic Study (October 2021) provides information on existing floodplains in the study area, existing watershed and floodplain management programs, and how the proposed project would affect floodplains and floodplain management. The hydrological study area encompasses both the project area and the regional watershed. The project area includes Interstate 80 ([I-80], an interstate highway), bridged crossings, on- and off-ramps, and state-owned right-of-way (ROW).

### **Watershed and Hydrology**

The San Francisco Bay is the principal receiving water for streams and sediment from the East Bay hills. The existing I-80/Ashby interchange drains to the San Francisco Bay. The main waterways in and around the project area are the San Francisco Bay, and waters associated with Aquatic Park in Berkeley. Aquatic Park comprises three manmade lagoons: Main Lagoon, Model Yacht Basin, and Radio Tower Pond.

The project is within a watershed encompassing 3.8 square miles in the cities of Berkeley, Oakland, and Emeryville (see Figure 2.2-1). The watershed includes the 102-acre Aquatic Park located along the east shore of the San Francisco Bay between I-80 and west Berkeley. Eight culverts under I-80 connect the Aquatic Park lagoons with the Bay. These connections allow inflows from the San Francisco Bay to enter the Main Lagoon through the Potter storm drain system. In general, Aquatic Park receives inflows from the Strawberry Creek network in the north and Potter/Derby Creeks in the south, tidal inflows from the Bay, as well as surface water runoff and overland flows from adjacent roads. Tidal flows in Aquatic Park are partially controlled by tide gates.

The hydrology of the study area is dominated by the I-80 corridor, freeway interchanges, and infrastructure for conveying stormwater runoff under the freeway. The major focus of hydrology management in this area is to direct and convey stormwater in the most efficient way possible, to minimize the risk of flooding.

The project area storm drain network outfalls to the San Francisco Bay through a storm drain located between the Radio Tower Pond and Model Yacht Basin lagoons of the Aquatic Park near Potter Street, and a storm drain at the south end of the interchange near 65<sup>th</sup> Street (WRECO, 2020a). Storm drains are further discussed in the Preliminary Drainage Impact Study (October 2021).

## Floodplains

FEMA FIRM maps were reviewed to determine whether the project site is within a 100-year flood zone. A majority of the project improvements would occur within an area identified on the FIRM as lying in Zone X. Zone X is defined as areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. Adjacent areas include Radio Tower Pond, Aquatic Park, and the Model Yacht Basin. The area is primarily designated as a Special Flood Hazard Area (SFHA) Zone AE and has a Base Flood Elevation (BFE) of 10 feet North American Vertical Datum (NAVD) 88, with the exception of a western segment of Potter Street, which is designated as shaded Zone X. Areas designated as Zone AE are subject to inundation by a 100-year base flood, typically by stillwater flooding with minimal wave hazard effects. A portion of Point Emery located west of Point Emery Lane, is also designated as shaded Zone X. The area directly adjacent to the existing westbound lane of Ashby Avenue, between Bay Street and I-80 northbound on-ramp, encroaches upon Zone AE, with a BFE of 10 feet NAVD 88, and the new drainage outfall south of Point Emery would encroach upon Zone AE, with BFE 12 feet NAVD 88 associated with San Francisco Bay.

The northern portion of the project area is characterized as Zone VE, a coastal area subject to inundation by a 100-year base flood and hazards due to velocity wave action. The southern portion is characterized as Zone AE, an area that is subject to inundation by the 1-percent-annual-chance flood event. Flood zones are shown on Figure 2.2-2.

As discussed in the Sea Level Rise Memorandum (October 2021), the water levels of San Francisco Bay have the potential to increase in elevation (sea level rise). Sea level rise by the year 2070 has the potential to impact a significant portion of the project area. High tides and storm surges, in conjunction with sea level rise, is anticipated to cause backflows into the reinforced concrete pipe storm drain inlet near Point Emery and into the storm drainage system within the project area.

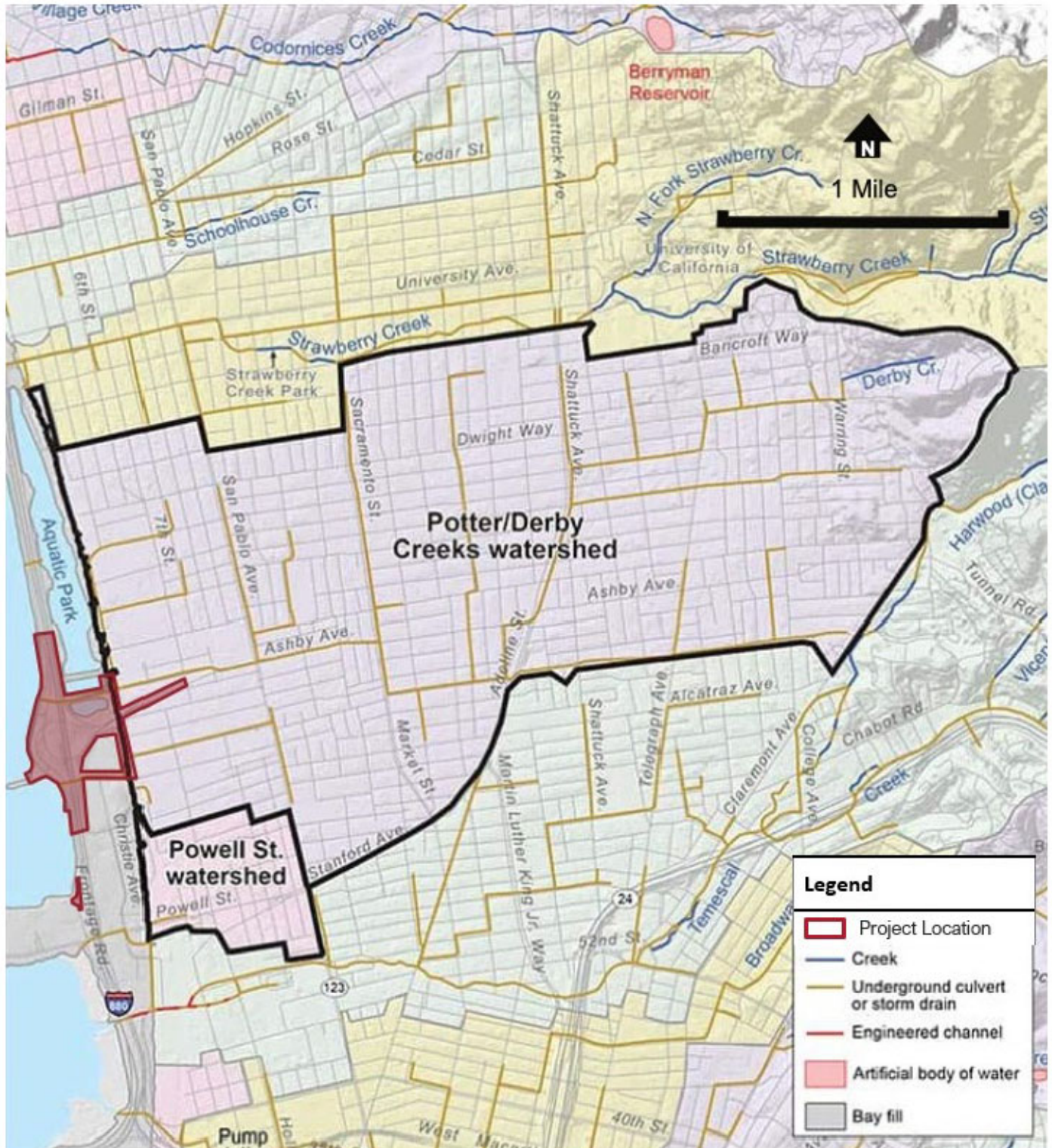
There are local low points within the project area that are particularly susceptible to sea level rise. The existing drainage inlets within the project limits, especially those along the Aquatic Park Lagoons, Point Emery, Potter Street, West Bolivar Drive, and Ashby Avenue at the Sag (north of railroad tracks). Caltrans is coordinating with the San Francisco Bay Conservation and Development Commission (BCDC) to develop feasible adaptive measures to reduce the risk of exposure to sea level rise. These measures are discussed below under Environmental Consequences.

No coordination with other local, state, or federal water resources and floodplain management agencies is anticipated because the proposed project is expected to have a minimal impact on existing floodplains, and there are no existing flood control channels within the project area.

### **Floodplain Natural and Beneficial Values**

Natural and beneficial floodplain values include, but are not limited to fish, wildlife, plants, open space, natural beauty, outdoor recreation, scientific study, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and ground water recharge. Within the project area, portions of Aquatic Park Lagoons and Point Emery are within the environmental study limit (ESL). The Aquatic Park Lagoons and Point Emery provide open space uses and outdoor recreation activities. Existing beneficial floodplain values and potential project impacts to those values are documented in the Natural Environment Study (NES) (May 2021).

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Watershed Map

Figure

2.2-1



FEMA FLOODPLAIN ZONES AND BUILD ALTERNATIVE 1 (SPUI)

1000 FT

**Legend**

- Zone AE
- Proposed Project Area

**Flood Insurance Rate Map**

Figure

**2.2-2**

Source: FEMA, 2021

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

The No Build Alternative would preserve existing conditions in the project area. No changes to hydrology, impervious surfaces, or alterations within the floodplain would occur. Planned improvements for managing flood levels would still be carried out by the Alameda County Flood Control District (ACFCD) as planned, separate from the proposed project. The No Build Alternative would have no effect on hydrology or floodplains.

### **Build Alternative**

#### *Floodplain Encroachment*

Most changes in impervious surface area would occur in unshaded Zone X, which is designed as an area with minimal flood hazard that is outside of the 500-year floodplain (in contrast, shaded Zone X represents areas of moderate flood hazard, usually depicted on FIRMs as the area between the limits of the 100 and the 500-year floodplains). Construction of the proposed Bay Street connector to Ashby Avenue would add approximately 0.28 acres of additional impervious surfaces within the Zone AE just north of Ashby Avenue, near the KRE Radio Station building (see Figure 2.2-2). This encroachment area is relatively small compared to that of the Aquatic Park, which includes approximately 33 land acres and 68 water acres. Additionally, because Radio Tower Pond is primarily tidally influenced and not connected to the Potter Street Storm Drain system or adjacent Model Yacht Basin, the increase in impervious area is expected to have minimal impacts to flooding in the area.

Construction of the new drainage outfall in the San Francisco Bay would slightly encroach upon Zone AE associated with San Francisco Bay. A total of 223 square feet (0.007 acres) of new impervious surface would be created as a part of the footprint of the new outfall. There are no anticipated changes in impervious surface within Zone VE associated with the San Francisco Bay. Radio Tower Pond is tidally influenced and is connected to the San Francisco Bay by a culvert, while flooding in the Zone VE coastal floodplain is caused by tidal influence and storm surges. Therefore, the proposed project would have a minimal or negligible effect on the Zone VE and AE coastal floodplains associated with San Francisco Bay.

#### *Longitudinal Encroachment*

As defined by FHWA, a longitudinal encroachment is an action within the limits of the base floodplain that is parallel to the direction of flow. The proposed project would only encroach into the embankments of Radio Tower Pond and would result in 0.012 acre of



permanent impacts to SFHA Zone AE in this area. In this location, flows are tidally influenced and connected to the San Francisco Bay by a partially collapsed culvert. However, because the encroachment is not parallel to the direction of flow, this action does not constitute a longitudinal encroachment into the floodplain.

#### *Risk of Action*

The potential risks associated with construction of the proposed project involve: 1) introduction of new impervious surfaces; 2) filling within FEMA delineated floodplains; and 3) changes in the 100-year flood water surface elevations.

Overall, the increase in impervious area would be relatively minor. The proposed project would add and/or replace more than one acre of impervious area; however, the encroachment on a FEMA designated floodplain would be minimal (0.012 acre). As such, the proposed project would not include any changes that would significantly affect the 100-year flood water surface elevations. Radio Tower Pond is tidally influenced and is connected to the San Francisco Bay by a culvert, while flooding in the FEMA designated coastal floodplain is caused by tidal influence and storm surges. Therefore, the proposed project will have a minimal or negligible effect on the floodplain.

Repair and routine maintenance of the partially collapsed culvert connection between Radio Tower Pond and the Bay would help regulate flows and minimize impacts on the FEMA designated floodplain. Construction of the proposed project would include existing culvert abandonment or removal coupled with installation of drainage improvements. Drainage improvements would include new drainage pipes and inlet systems and design of a new outfall south of Point Emery Lane. This would help minimize flooding risks associated with the proposed project. Therefore, the risk associated with the proposed project would be low.

#### *Floodplain Development*

Incompatible floodplain development is defined as development that would negatively affect the floodplain and/or put people or structures at risk. Examples of incompatible development can include commercial development or urban growth. The proposed project would improve an existing interchange and add a new BPOC. These improvements would be similar to existing infrastructure and would not introduce incompatible floodplain development.

#### *Floodplain Natural and Beneficial Values*

Natural and beneficial floodplain values include, but are not limited to, fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and

groundwater recharge. Coastal floodplains within the project area, particularly those to the west of the rock slope protection that lines the eastern shoreline of the San Francisco Bay, provides wildlife habitat for fish, waterfowl, and shorebirds. In addition, Aquatic Park is an estuarine habitat for various wildlife and plant species, including in the Model Yacht Basin and the Radio Tower Pond. Biological resources in Aquatic Park are generally limited by the steep side slopes, rocky shorelines, and rock terraces lining a portion of the banks near Model Yacht Basin.

The proposed project would permanently impact approximately 0.007 acre of open water within the San Francisco Bay for construction of the new outfall and 0.012 acre of palustrine emergent wetlands near Radio Tower Pond. The incorporation of standard Caltrans BMPs, such as Project Feature (PF) BIO-5 (construction worker education) and PF BIO-7 (limiting in-water work) would help to avoid impacts to beneficial uses of these resources. Additionally, avoidance and minimization measures such as avoidance and minimization measure (AMM) BIO-2 (minimization of ground disturbance near the San Francisco Bay and Radio Tower Pond); and AMM BIO-5 (no in-water work during the wet season) would further minimize any potential for impacts to beneficial uses. The proposed project would also promote outdoor recreation benefits of the San Francisco Bay by allowing more bicyclists and pedestrians to access the San Francisco Bay Trail via the proposed BPOC.

### *Sea Level Rise*

As discussed in the Sea Level Rise Memorandum (October 2021), the existing sea level is projected to rise by approximately 3.5 feet by 2070, assuming a moderately-high risk scenario. Under this scenario, the majority of the project area would be susceptible to inundation, including the I-80 corridor, Point Emery, the San Francisco Bay Trail, and West Frontage Road. Inundation would be caused by backflow through the drainage system or from overland tidal inundation. The proposed project would not exacerbate the likelihood of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation. Therefore, the potential for sea level rise to impact the project area would be the same for the No Build Alternative and Build Alternative.

Regional approaches to addressing sea level rise are occurring concurrently with the proposed project. Such adaptive measures include constructing a sea wall/flood wall, and installing a tidal flap gates at all out-fall structures along the I-80 corridor to reduce the risk of the exposure. Caltrans is evaluating the addition of a tidal flap gate or a duck bill valve at the proposed new outfall structure as a near-term measure to prevent backwater flow conditions for the proposed project. A decision on this measure will be made during the final design phase.

Caltrans, in partnership with local and regional stakeholders, including BCDC and others, is developing local and regional responses to sea-level rise impacts. This effort is separate from but concurrent with the proposed project. Multi-agency collaboration will help Caltrans and partner agencies achieve a multi-benefit approach to protecting bayfront development, infrastructure, and assets, and distribute potential mitigation costs, as well as balancing environmental justice concerns to achieve equitable adaptive solutions. Caltrans cannot act alone in developing individual adaptation responses on a project-by-project basis, as sea level rise presents a regional problem demanding coordinated, consistent regional solutions. As such, Caltrans is working to do that through its participation in efforts such as BCDC's Bay Adapt Initiative and similar efforts with counties and local jurisdictions throughout the region. Any potential long-term adaptation strategies identified through these multi-agency partnerships would be implemented under future, separate projects.

### **Cumulative Effects**

Under the Build Alternative, impacts to FEMA-delineated floodplains, natural and beneficial floodplains, and increases in impervious surface area would be negligible. Given this, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact to hydrology and floodplains.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

There are no project features associated with hydrology and floodplain resources.

### **Avoidance and Minimization**

Construction of the proposed project would result in a low potential for flood risk. As such, no avoidance, minimization, or mitigation measures are proposed related to flooding hazards.

The proposed project is required to prevent flooding from surface runoff from the design storm as defined by the Highway Design Manual (Caltrans 2020). To meet this requirement, the proposed drainage system would be designed to capture and convey stormwater runoff from the design storm in the project area. The drainage improvements, construction of a new outfall, in conjunction with stormwater BMPs application, would help minimize stormwater impacts due to surface runoff and/or sea level rise. The proposed project would not cause a significant or longitudinal encroachment. Therefore, alternatives to significant and longitudinal encroachments were not analyzed.

## **Mitigation Measures**

No mitigation would be required.

### **2.2.2 WATER QUALITY AND STORM WATER RUNOFF**

This section evaluates the project's potential effects on water quality and storm water runoff. Information in this section draws upon multiple sources, including:

- Water Quality Assessment Report (October 2021)
- Stormwater Data Report (October 2021)
- Stormwater Drainage Report (October 2021)

## **REGULATORY SETTING**

### **Federal**

#### *Clean Water Act*

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. A point source is any discrete conveyance such as a pipe or a man-made ditch. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to Waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into Waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of storm

water from industrial/construction and municipal separate storm sewer systems (MS4s).

- Section 404 establishes a permitting program for the discharge of dredge or fill material into Waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: general and individual. There are two types of general permits: regional and nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a regional or nationwide permit may be permitted under one of the USACE’s individual permits. There are two types of Individual permits: standard permits and letters of permission. For individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s (U.S. EPA) Section 404 (b)(1) Guidelines (40 CFR Part 230), and whether the permit approval is in the public interest.

The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on Waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to Waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

## **State**

### *Porter-Cologne Water Quality Control Act*

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just Waters of the U.S., like groundwater and surface waters not considered Waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards within project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### *State Water Resources Control Board and Regional Water Quality Control Boards*

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

## *National Pollutant Discharge Elimination System Program*

### Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water.” The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans’s MS4 permit covers all Caltrans ROW, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department’s MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);
2. The Department must implement a year-round program in all parts of the state to effectively control storm water and non-storm water discharges; and
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, The Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within The Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices The Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and

implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

### *Construction General Permit*

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a disturbed soil area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activities where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the Construction General Permit. Construction activities that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into risk levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a risk level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than 1 acre.

### *Section 401 Permitting*

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will comply with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project area, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as



WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

## AFFECTED ENVIRONMENT

Information in this section is based on the *Water Quality Assessment Report* (October 2021). The analysis below provides data on surface water and groundwater resources within the study area, describes water quality impairments and beneficial uses, and identifies potential water quality impacts or benefits associated with the project. The study area for this topic is the Cerrito Creek-Frontal San Francisco Estuaries, Angel Island-San Francisco Estuaries, and Richardson Bay-San Francisco Bay watersheds, shown on Figure 2.2-2.

### Regional Hydrology

The project area is entirely within an undefined hydrologic sub-area of the Berkeley Hydrologic Area and Bay Bridges Hydrologic unit (Figure 2.2-1). The project is associated with the Potter/Derby Creeks Watershed, which spans 3.8 square miles primarily within the City of Berkeley, as well as along the borders of Oakland on the east and southeast, and Emeryville on the southwest.

### Groundwater Resources

The project area is within the East Bay Plain (EBP) Groundwater Basin. The EBP basin supplies approximately 4,700 existing wells. Backyard and commercial irrigation account for 91 percent of groundwater use, industrial processes 8.6 percent, and municipal drinking water 0.4 percent. Beneficial uses of the EBP are defined in the San Francisco Bay Basin Plan and include Municipal and Domestic Water Supply, Industrial/Process Water Supply, and Agricultural Water Supply. Agricultural use of groundwater in the EBP includes irrigation at two golf courses, three cemeteries, several high schools, colleges, parks, and plant nurseries. Groundwater use in the EBP subbasin is limited by several factors: the availability of high-quality imported surface water, high salinities in shallow groundwater approaching the San Francisco Bay margin, the potential for saltwater intrusion, and contamination of shallow aquifers.

### Surface Water Resources

As stated in Section 2.2.1, Hydrology and Floodplains, the main waterways in and around the project area are the San Francisco Bay, and waters associated with Aquatic Park (Main Lagoon, Model Yacht Basin, and Radio Tower Pond). All surface channels within the project area are covered.

The existing I-80/Ashby interchange drains to the San Francisco Bay. Encompassing the western edge of the project area is the San Francisco Bay, which is listed as an impaired water body under Section 303(d) of the CWA. Pollutants that have been identified in the San Francisco Bay include trash, diazinon, dichlorodiphenyltrichloroethane (DDT), and chlordane. Diazinon is commonly found in chemicals used for landscaping and is released into water bodies as runoff from the irrigation of lawns and landscaped areas in developed neighborhoods. Caltrans does not use diazinon or DDT. Region 2 of the San Francisco Bay RWQCB has adopted TMDLs for diazinon and pesticide-related toxicity for all urban creeks that drain into San Francisco Bay. TMDLs have also been enacted for mercury and PCBs.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

The No Build Alternative would preserve the existing mix of impervious surface and pervious areas and would not include grading or modifications to existing drainage systems. Thus, the No Build Alternative would have no effect on water quality.

### **Build Alternative**

#### *Permanent Operational Impacts*

The project would include permanent stormwater treatment facilities onsite, as well as one offsite stormwater treatment facility at the I-80/Powell Street Interchange. The stormwater treatment facilities would include permanent stormwater treatment best management practices (BMPs) consistent with the recommendations in the stormwater drainage report (SWDR) (October 2021). However, with the increase in impervious surfaces in the project area, the proposed project may result in a permanent increase in pollutant loading. This could potentially impact water quality in the San Francisco Bay. Further, impervious areas prevent runoff from naturally dispersing and infiltrating into the ground. This results in an increased concentration of water flow into stormwater conveyance channels. The increased velocity and volume of runoff in these channels could increase erosion and affect water quality.

Impervious area values for the Build Alternative are shown in Table 2.2-1. Impervious area grouped under the “added” category represents the net new impervious area for the Build Alternative. The “reworked” impervious area figures refer to existing roadway and highway surfaces that would be removed and replaced, such as ramp reconfigurations. The total for the Build Alternative represents the net total additional acreage of impervious surface after project completion.

**Table 2.2-1 Existing and Proposed Impervious Surface Area**

	<b>Build Alternative</b>
Total New Impervious Surface (acres)	13.37
Replaced Impervious surface (acres)	7.39
<b>Net New Impervious Area of the Proposed Project (acres)</b>	<b>5.98</b>

Source: WRECO 2020

Under the Build Alternative, net new impervious surface would be 5.98 acres. Because the Build Alternative would create more than 1 acre of new impervious surface, post-construction treatment BMPs would be required. These measures would be applied through AMM WQ-2, detailed in Appendix C, Avoidance, Minimization, and Mitigation Measures.

The SWDR identified treatment BMPs that have been studied and verified to remove general pollutants. BMPs such as biofiltration devices designed for bioretention has been identified as the most feasible treatment option for the project. The SWDR identified five conceptual locations for treatment BMPs at the project site. As described in the SWDR, the total area of suitable onsite locations for treatment BMPs is insufficient to meet the treatment requirements for the project. One offsite treatment BMP is proposed at the I-80/Powell Street interchange in Emeryville. The offsite stormwater facility would be constructed within an existing unutilized area between the I-80 mainline and a ramp at the Powell Street interchange.

With the incorporation of AMM WQ-2, Treatment BMPs, secondary effects due to erosion and downstream impacts to water quality would be minimized. AMM WQ-4, Maintenance BMPs, would ensure that minimal pollutants are discharged to surface waters via Caltrans' storm water drainage systems. See Appendix C for specific details about AMMs.

#### Oil, Grease, and Chemical Pollutants

The increased impervious surface area for the Build Alternative would generate minor increases in stormwater peak flow rates and runoff volumes. The amount of dissolved contaminants, automotive oil, and grease contained in stormwater runoff would also increase. However, increases in loading rates are proportional to the percent increase in impervious area within the watershed. Therefore, increases in stormwater runoff volumes and contaminants would slightly increase. PF WQ-12 and PF WQ-13 would minimize adverse effects to water quality from oil, grease, and other chemical pollutants.

### Trash and Litter

In addition to the proposed biofiltration/bioretenion devices, trash capture devices are included in the project. Travelers on I-80 and local roadways produce trash and litter, which is often swept up in stormwater flows and conveyed into surface waters. The presence of trash and litter can result in oxygen depletion in surface waters. Certain forms of trash, particularly plastic, are harmful to aquatic life and accumulate in the food chain, ultimately affecting human health. The 303(d) list of impaired waterbodies lists central San Francisco Bay as impaired for trash. Ongoing trash removal in these water bodies and throughout Alameda County is a substantial aspect of Caltrans' operations and maintenance activities.

As part of the proposed project, a separation device (i.e., a filter that separates sediment, debris, and trash from stormwater runoff) would be installed underground along the southwest quadrant of the interchange to separate trash, mercury, and PCBs within the project limits; and five full trash capture trash nets (that are affixed to pipe outlets) are proposed. As described in the SWDR, during the design phase, gross solid removal devices (GSRDs) would also be considered for centralized trash capture. Separation devices and trash inserts would be used within local ROWs.

Both avoidance and minimization measures and project features have been identified to reduce pollutants in receiving waters. Caltrans would employ trash and litter control activities through implementation of operations and maintenance BMPs, described under AMM WQ-4 (see Appendix C for full text). These BMPs are included as a standard preventative measure to ensure that increases in trash and litter would not negatively affect receiving waters. Additionally, the project would include the implementation of a SWPPP to address construction period impacts and implementation of stormwater treatment measures and trash capture devices (PF WQ-3; refer to Section 1.5.1 for further information regarding project features). With the incorporation of these project features and avoidance and minimization measures, the project would not violate water quality standards or affect the beneficial uses of a water body.

### *Temporary Construction Impacts*

#### Effects to Receiving Waters

Construction of the Build Alternative would involve ground disturbing activities such as excavation, trenching, grading, demolition, and vegetation removal. The estimated area of disturbed soil for the Build Alternative is 34.15 acres. Construction activities could result in runoff that contains sediment and other pollutants. Sources of sediment include uncovered or improperly covered stockpiles, unstable slopes, bare soil, construction staging areas, and construction equipment not properly maintained or cleaned. Polluted

runoff could degrade water quality if not properly controlled. Therefore, PF WQ-1 through PF WQ-6, would be incorporated into the proposed project to protect receiving waters from sediments or other pollutants entering waters. Additionally, AMM WQ-1, AMM WQ-2, and AMM WQ-3 would be implemented to prevent pollution during construction of the proposed project.

### Effects to Groundwater

Based on the geotechnical study conducted for the proposed project, groundwater is expected to be encountered at elevation ranges between 4 feet below sea level and 9 feet below ground surface. This means new subgrade construction would likely require dewatering. Construction activities that contact the groundwater table or require dewatering could create loose soils and introduce pollutants to the groundwater. PF WQ-1, Temporary Construction BMPs, and PF WQ-6, and compliance with Caltrans Standard Specifications and Field Guide to Construction Site Dewatering, would be required to protect any groundwater from sediments or other pollutants.

### **Cumulative Effects**

The Build Alternative would result in 5.98 acres of net new impervious surfaces within the 3.8-square-mile (approximately 2432 acres) watershed. With implementation of the measures outlined in this section, the Build Alternative would not have an adverse effect on water quality. Several BMPs would be implemented to mitigate peak flow rates, minimize site erosion, and minimize downstream sedimentation. Post-construction treatment BMPs would be implemented to maximize stormwater infiltration rates (pervious surfaces), increase the time that stormwater is detained on-site, and filter and remove sediment. With fulfillment of AMM WQ-2, the proposed project would not violate any water quality standards, deplete groundwater supplies, alter drainage patterns, or create runoff that exceeds the capacity of existing stormwater infrastructure. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative water quality impact.

The proposed project has the potential to degrade water quality in the Cerrito Creek-Frontal San Francisco Bay estuaries, Angel Island-San Francisco Bay estuaries, and Richardson Bay-San Francisco Bay watersheds, which could lead to cumulative impacts over time if appropriate AMMs are not applied. However, the proposed project would address permanent impacts by incorporating stormwater treatment facilities. The proposed project's temporary impacts would be addressed with construction BMPs. These factors indicate that the incremental contribution of the proposed project to the cumulative stormwater and water quality impact would not be considerable.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF WQ-1: Temporary construction site BMPs will be implemented during construction to prevent any construction materials or debris from entering storm drains or drainage ditches within the project vicinity.

PF WQ-2: Compliance with Caltrans MS4 permit, municipal regional permit (MRP), construction general permit (CGP), and other regulatory agency requirements.

PF WQ-3: The CGP, Caltrans, and local standards require the project's contractor to implement a Stormwater Pollution Prevention Program (SWPPP) to comply with the conditions of the CGP.

PF WQ-4: Prior to any soil disturbance, a Notice of Intent will be filed with the State Water Resources Control Board's (SWRCB) Storm Water Multiple Application and Report Tracking System.

PF WQ-5: Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs.

PF WQ-6: Dewatering activities and the clean water diversion will comply with Caltrans Standard Specifications and Field Guide to Construction Site Dewatering.

PF WQ-7: Compliance with California Office of Emergency Services Hazardous Materials Incident Contingency Plan.

PF WQ-8: Drainage features, such as energy dissipation devices (e.g., flared end sections and tee dissipaters), will be considered at drainage outfalls to reduce the velocity and dissipate flows as they discharge from the culvert.

PF WQ-9: Rock slope protection will be placed at culvert outfalls and within drainage ditches and swales where velocities may result in drilling or scouring.

PF WQ-10: Permanent erosion control measures will be applied to all exposed areas once grading or soil disturbance work is completed as a permanent measure to achieve final slope stabilization.

PF WQ-11: Treatment of sediment laden flows.

PF WQ-12: Nonstandard treatment measures.

See Appendix C for the full text of these project features.

## **Avoidance and Minimization**

Short term effects to water quality would be avoided or minimized using construction site BMPs, while long term effects due to operation and maintenance of the proposed project would be avoided or minimized through the use of design pollution prevention BMPs, treatment BMPs and maintenance BMPs. See Appendix C for the full text of AMMs WQ-1 through WQ-4.

AMM WQ-1: Temporary Construction BMPs. a SWPPP would be developed, which includes guidance for design staff to incorporate special provisions into construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.

AMM WQ-2: Treatment BMPs. Post-construction treatment BMPs would reduce stormwater runoff and incorporating stormwater controls to reduce stormwater pollutants over the life of completed project.

AMM WQ-3: Minimize Impacts to Aquatic Resources. Work within the San Francisco Bay will be limited to the smallest area possible to complete the proposed construction activities. Prior to conducting work within San Francisco Bay, Caltrans will implement a cofferdam spanning planned in-water work areas to avoid water quality impacts and potential impacts to aquatic habitat for wildlife.

AMM WQ-4: Operations and Maintenance BMPs. Maintenance BMPs are preventative measures to ensure that minimal pollutants are discharged to surface waters via Caltrans' storm water drainage systems. Maintenance BMPs are preventative measures to ensure that minimal pollutants are discharged to surface waters via Caltrans' storm water drainage systems. Maintenance activities involve the use of a variety of products.

## **Mitigation Measures**

Mitigation Measure BIO-1: Mitigation will be required for the unavoidable impacts to aquatic resources (i.e., new outfall). Mitigation would occur at a minimum one-to-one ratio for permanent impacts (impact area to compensation area) to assure a no net loss of waters of the U.S., and the final mitigation ratio will ultimately be determined through Caltrans' coordination with the USACE during the Section 404 permitting process.

See Appendix C for the full text of this mitigation measure.

### 2.2.3 GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY

This section describes effects on geology and soils that would result from completion of the proposed project, along with seismic risks. Sources of information used to prepare the analysis include:

- Preliminary Geotechnical Report (March 2021)

#### REGULATORY SETTING

##### **Federal**

##### *Historic Sites Act of 1935*

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification would determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department’s Division of Engineering Services, Office of Earthquake Engineering, SDC.

##### **Local Regulations**

Both the City of Emeryville and the City of Berkeley respective general plans provide comprehensive planning guidelines for development within the respective cities. The City of Emeryville requires a geotechnical investigation for areas of proposed development to demonstrate that all proposed projects conform to the City’s guidelines.

#### AFFECTED ENVIRONMENT

Information in this section is based on the *Preliminary Geotechnical Report* approved in March 2021. The geologic study area encompasses all areas that fall within the physical footprint of the project area and areas that may either be directly or indirectly affected by project-related construction activities. The geologic study area includes various geologic features such as topography, hydrogeology, subsurface soils, geologic hazards, and seismic hazards.



## **Topography and Hydrogeology**

The project area is situated on the east San Francisco Bay plain within the complex and seismically active California Coast Ranges Geomorphic Province. The regional topography of the project area encompasses the San Francisco Bay side of the Diablo Range – which forms the eastern watershed boundary – intervening alluvial fan and lowland zones, and the San Francisco Bay. The project area topography is varied due to the presence of I-80 and associated interchange components. The study area has an elevation of approximately 15 feet above mean sea level.

The average total annual precipitation is around 22.9-26.7 inches in the study area. Most of the rainfall is recorded in February with the average total monthly precipitation of 6 inches. Groundwater elevation ranges between 4 and 9 feet below ground surface. Groundwater levels vary with the passage of time due to seasonal groundwater fluctuation, surface and subsurface flows into nearby water courses, runoff, and other environmental factors.

## **Geology and Subsurface Conditions**

The geologic study area is predominately underlain by marine and nonmarine sedimentary rocks, which are alluvial gravel, sand, and clay soils of the Pleistocene-Holocene era. No natural landmarks or other examples of major geologic features such as scenic rock outcroppings occur in the study area. Because no effects to natural landmarks or landforms would occur, as these resources are not located within the geologic study area, these are not discussed further.

## **Geologic Hazards**

The project area is situated within the Coast Ranges geomorphic province. The Coast Ranges is characterized by a series of northwest trending mountain ridges and valleys, running generally parallel to the San Andreas Fault. The mountain ranges and valleys have been formed by tectonic forces that compressed ancient sedimentary deposits over the course of millions of years. Geologic hazards include soil erosion, subsidence, expansive soils, and corrosive soils. These hazards and their relationship to the proposed project are explained below.

### *Embankment Stability*

Project improvements would occur mostly in areas previously disturbed and that consist of impervious asphalt. Embankments are primarily composed of fill. Subsoils consist of loose to medium dense granular fill, medium to very stiff lean clay, dense sand, and stiff to very stiff lean clay (old Bay clay). Steep slopes constructed on these soils could potentially result in destabilized slopes.

### *Subsidence*

Subsidence is the settlement of low-density organic and saturated mineral soils after water drains out of those soils. According to the U.S. Geological Survey (USGS), the study area is not susceptible to subsidence. Therefore, subsidence is not discussed further.

### *Expansive Soils*

Expansive soils are fine-grained soils that can undergo a significant increase in volume when their water content increases, as well as a significant decrease in volume when the soils dry out. Changes in the water content of highly expansive soils can result in severe stress on structures constructed in these soils. Based on the as-built boring data, expansive clays were not encountered near the surface.

### *Mineral Resources*

According to the Mineral Land Classification Map provided by the Department of Conservation, the project area is within an MRZ-1 zone. This indicates there are no significant mineral deposits present or that there is little likelihood for the presence of mineral deposits. Therefore, mineral resources are not discussed further.

## **Seismic Hazards**

### *Surface Fault Rupture*

During an earthquake, surface rupture occurs when the ground surface is broken because of fault movement. Surface rupture mostly occurs along active faults. The project area is not within the Alquist-Priolo Special Study Zone and no known or mapped active faults pass through the project area. Therefore, the potential for ground surface rupture due to faulting is extremely low to non-existent and is not discussed further.

### *Seismic Ground Shaking*

Regional context is an important consideration for seismicity because the potential seismic forces affecting the study area are regional in nature. Seismic events off-site within the San Francisco Bay Area may be felt at the project area. Measured by the Caltrans Acceleration Response System (ARS), peak ground accelerations (PGA) of 0.71 acceleration of gravity (g) were estimated for the project area. There is a high possibility for the project area to experience strong seismic ground shaking.

### *Liquefaction*

Liquefaction is a phenomenon in which saturated soils are subject to a loss of shear strength and stiffness as a response to seismic shaking. Shear strength can be defined as an earth material's resistance to deformation. Clay soils are generally not susceptible to liquefaction. Low-density soils that are generally sandy and/or silty are commonly susceptible to liquefaction.

The project area is in a relatively high seismicity area and adopted a PGA of 0.71 g for the liquefaction analyses. Based on the boring data and the analysis results, liquefaction potential exists and should be expected for design.

When liquefaction occurs, the engineering consequences could be the temporary loss of strength in structures (due to the development of excess pore pressure) and post-liquefaction settlements of structures (after the dissipation of the excess pore pressure), which would affect the foundation capacity. Permanent ground deformation of the approach embankments, and lateral spreading of the new embankment may be anticipated. Liquefaction is a critical design consideration for the proposed improvement.

### *Landslides*

Landslides occur when the shear stress placed on a soil or rock slope exceeds its shear strength. Generally, steep slopes are prone to landslides and relatively gentle slopes are not. Loading or saturation can increase the weight of soil or rock, adding to the shear stress. The shear strength of a slope can be reduced by erosion or by grading at the toe of a slide mass. The project area is relatively flat and there are no significant slopes in the vicinity. Therefore, the risk of landslide is low to very low.

### **Coastal Zone**

The proposed project is situated within the coastal zone. The entire western portion of the proposed project as well as Radio Tower Pond are located within the Bay Conservation and Development Commission (BCDC)'s jurisdiction. BCDC was created prior to the California Coastal Act and retains oversight and planning responsibilities for development and conservation of coastal resources in the San Francisco Bay Area. The regulatory authority for BCDC is the McAteer-Petris Act and the Suisun Marsh Protection Act.

### *Volcanic Hazards*

The closest volcano to the study area is Clear Lake Volcanic Field, located nearly 110 miles away from the project area. As such, this feature is too distant to create a hazard at the proposed project.

### *Tsunamis*

Tsunamis are large sea waves caused by earthquakes in the ocean, landslides, or volcanic eruptions. There is a potential for tsunamis to occur within the study area because the proposed project is adjacent to the San Francisco Bay.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, none of the project features described under the Build Alternative would be constructed. No change to the existing interchange structures would occur. Therefore, the No Build Alternative would not result in adverse effects related to geologic, seismic, topographic, or soils-related risks.

### **Build Alternative**

#### *Permanent Operational Impacts*

The project area is in a seismically active region. Without proper engineering, the Build Alternative could pose safety risks to roadway users because of soil erosion, expansive soils, liquefaction, and seismic shaking. If corrosive soils are identified at locations where new subsurface facilities are proposed (e.g., bridge foundations, culverts, etc.) specially coated rebar, or alternative pipe culverts would be specified in the contract documents.

As previously discussed, there is a low probability of expansive soils within the project area. Implementation of PF-GEO-2 would minimize adverse effects related to expansive soils, if found during the PS&E phase, by requiring the treatment of expansive soils with lime or other additives to reduce the soil's expansion potential.

Liquefaction has the potential to exist from loose granular fill, which could contribute to lateral spreading in the project area. Based on the information provided by the designer, the proposed retaining walls are "fill walls" with a maximum design wall height up to 24 to 26 feet. The liquefaction potential and the slope stability of the proposed embankment will be analyzed during the PS&E phase when additional site-specific data become available.

Seismic shaking could result in damage to or collapse of bridges; rupturing of underground pipelines; and cracking and distortion of pavement, walls, and foundations. Proposed bridge structures and new and modified on- and off-ramps could increase the risk of structural damage if not properly designed. The Build Alternative would be designed and constructed in accordance with applicable Caltrans SDC to minimize seismic risks.

### *Temporary Construction Impacts*

Construction activities, such as grading and excavation, could potentially affect the stability of existing soils and increase the overall potential for soil erosion. Highway and roadway projects that increase natural slopes can increase the rate of soil erosion. During construction, erosion could cause sedimentation problems in storm drains, remove topsoil, create deeply incised gullies on slopes, and undermine engineered fills beneath foundations or roadways.

As described above, the soil types present in the project area generally have a low susceptibility to erosion. Therefore, erosion control BMPs such as temporary silt fences, temporary environmentally sensitive area fencing, fiber rolls, temporary soil stabilizer, stockpile covers, and drainage inlet protection would be sufficient to reduce the risk associated with construction-period erosion (PF WQ-10). Further, natural areas would be revegetated after construction to minimize soil erosion, and ongoing maintenance of new or modified slopes should be completed to ensure slopes remain stable (AMM WQ-2).

The proposed project is in a seismically active region. Given this, construction workers could be exposed to seismic hazards. PF-GEO-1 would ensure worker safety by requiring employers to adhere to Occupational Health and Safety Administration (OSHA) and Caltrans' hazard-specific standards (Code of Safe Practices), as well as standard design and construction guidelines.

### **Cumulative Effects**

Cumulative impacts arise due to the linking of impacts from past, present, and foreseeable future projects in the region. Other projects in the study area include residential, commercial, and infrastructure development projects in Emeryville, Berkeley, and within Alameda County. Because geologic impacts are site-specific and highly dependent upon the structural characteristics of individual projects, cumulative geologic hazard and soils impacts are generally confined to the project area and immediate vicinity. With implementation of project features and AMMs, the proposed project would not have an adverse effect related to geology, soils, seismicity, or topography. There is no additive effect of the geological/seismic hazards associated with other approved or foreseeable development and the project, and there would be no cumulative impacts.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF-GEO-1: Pursuant to Section 5(a) (1) of OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

PF-GEO-2: As part of design phase, expansive soils shall be addressed through treatment or removal as designated on construction plans, to reduce the potential for structural damage.

PF-GEO-3: As part of the final design phase, Caltrans requires preparation of structure foundation reports and geotechnical design reports that incorporate the results of subsurface field work and laboratory testing.

### **Avoidance and Minimization**

All new or modified structures would be constructed in compliance with Caltrans seismic design standards and construction guidelines, and no additional avoidance, minimization, or mitigation measures are required.

### **Mitigation Measures**

No mitigation would be required.

## 2.2.4 PALEONTOLOGY

This section evaluates the proposed project's effects of paleontological resources. Sources of information used to prepare the analysis in this section include:

- Paleontological Evaluation Report (October 2021)
- City of Emeryville General Plan
- City of Berkeley General Plan

## REGULATORY SETTING

### **Federal**

Paleontology is a natural science focused on the study of ancient animal and plant life preserved in the geologic record as fossils. Several federal statutes address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

### *The National Environmental Policy Act of 1969 (NEPA)*

The National Environmental Policy Act of 1969, [NEPA] as amended (Public Law [Pub. L.] 91-190, 42 United States Code [USC] 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258 § 4(b), Sept. 13, 1982) recognizes the continuing responsibility of the Federal Government to "preserve important historic, cultural, and natural aspects of our national heritage." (Sec. 101 [42 USC § 4321]) (#382). With the passage of the Paleontological Resources Preservation Act (PRPA) (2009), paleontological resources are considered to be a significant resource and it is therefore now standard practice to include paleontological resources in NEPA studies in all instances where there is a possible impact.

### *Other Applicable Federal Codes*

23 USC Section 1.9(a) requires that the use of Federal-aid funds must be in conformity with all federal and state laws.

23 USC Section 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC Sections 431-433 above and state law.

## **State**

### *State of California Public Resource Code*

The PRC Chapter 1.7, Sections 5097 and 30244, include state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands. The statutes also define the excavation, destruction, or removal of paleontological "sites" or "features" from public lands without the express permission of the jurisdictional agency as a misdemeanor. As used in Section 5097, "state lands" refers to lands owned by, or under the jurisdiction of, the state or any state agency. "Public lands" is defined as lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

## **AFFECTED ENVIRONMENT**

Information in this section is based on the Paleontological Evaluation Report approved in August 2020. The paleontological study area encompasses all areas of the project area that would be affected by ground disturbing activities of the Build Alternative. This section discusses the study area's sensitivity for paleontological resources (i.e., vertebrate, invertebrate, and plant fossils). The types, distribution, and age of sediments in the study area determine the probability of encountering significant fossils during project construction. General excavation would be up to 10 feet. However, cast-in-

drilled-hole (CIDH) pile foundations are proposed in several locations and would require drilled excavations depths of approximately 80 feet.

The paleontological study area is primarily comprised of low paleontological sensitivity Historic-age fill (af). A lesser amount of low paleontological sensitivity Holocene-age alluvial fan and fluvial deposits (Qhaf) and Holocene-age basin deposits (Qhb) and natural levee deposits (Qhl) are present within a half mile of the project area (see Figure 2.2-3). Pleistocene-aged alluvial deposits have not been mapped in the project area; however, it is possible that unrecorded Pleistocene-aged alluvial deposits could be discovered during deep excavation activities.

Table 2.2-2 presents a summary of the geological units within the study area, and their respective paleontological sensitivities.

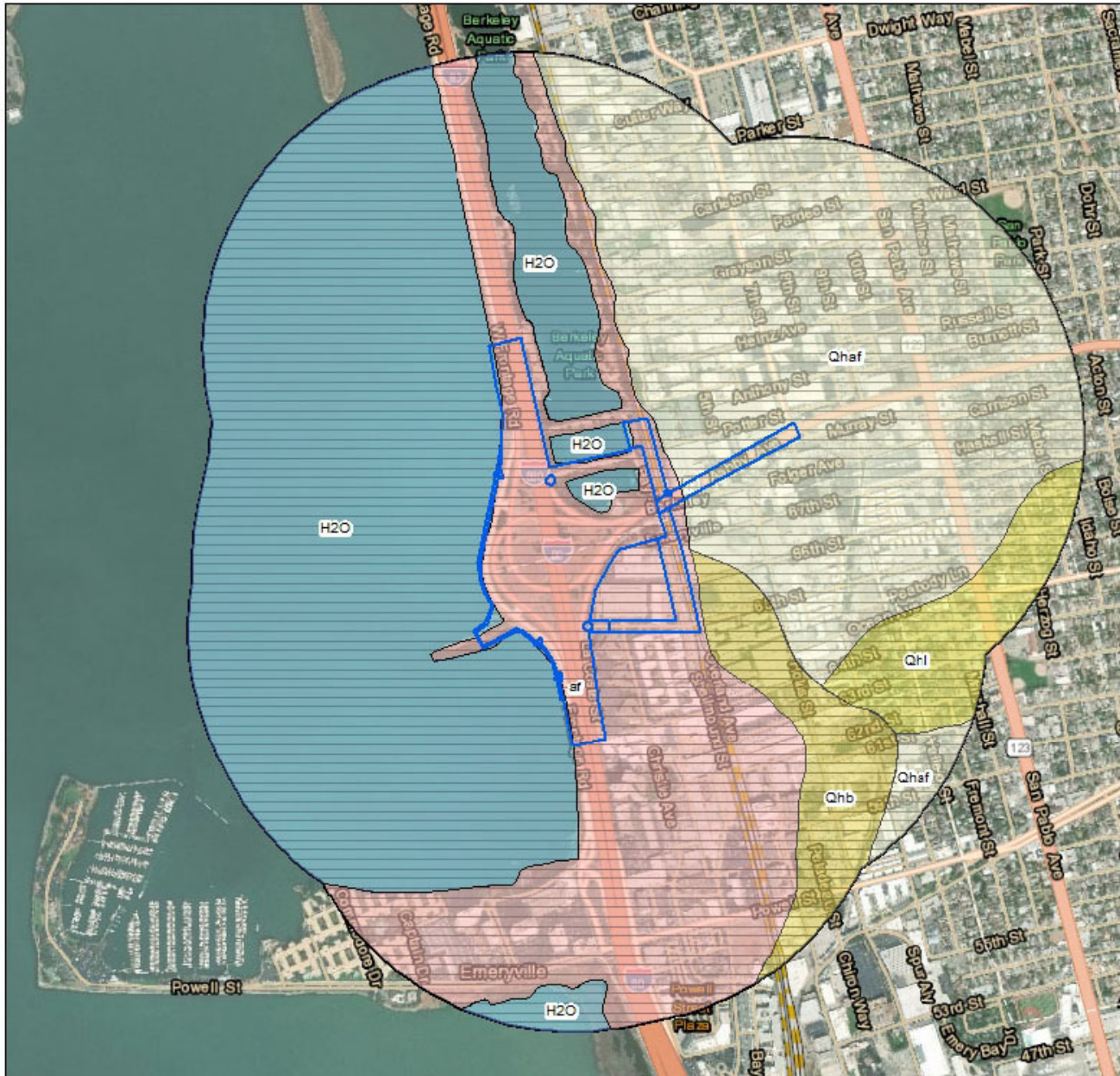
**Table 2.2-2 Paleontological Sensitivities for Geological Units within Project Area**

<b>Map Symbol</b>	<b>Age</b>	<b>Formation</b>	<b>Physical Characteristics</b>	<b>Typical Occurrence of Paleontological Resources</b>
af	Historic	Historic Age Artificial Fill	Previously disturbed sediment that has been transported by humans.	Lay is 10.5 feet thick where mapped at the surface of the existing interchange
Qhaf, Qhb and Qhl	Holocene	Holocene Alluvial deposits	Alluvial gravel, sand, and clay of valley areas and sand of major stream channels.	Mapped within half-mile radius of project area

*Source: Paleontological Evaluation Report*



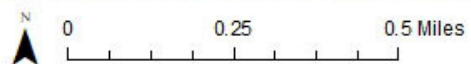
INTERSTATE-80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



**I-80 Ashby Avenue Interchange Improvement**

- Project area
- Geology Description**
- H2O: Water
- af: Artificial fill(Historic)
- Qhaf: Alluvial fan and fluvial deposits (Holocene)
- Qhb: Basin deposits (Holocene)
- Qhl: Natural levee deposits (Holocene)
- Half mile buffer

- DOT Sensitivity**
- Low Potential



04-ALA-80/13-PM 4.58/13.90  
EA 04-256200  
Project ID 04-18000225

Sources:  
Base map from Esri ArcGIS Online World Imagery  
Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California by Graymer, R.W. (2000), 1:50,000 scale

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, the new interchange or BPOC would not be constructed. No change to the existing interchange structures would occur, and there would be no excavation or other ground-disturbing activity. The No Build Alternative would not result in adverse effects to paleontological resources.

### **Build Alternative**

Under the Build Alternative, earthmoving and ground disturbing activities could adversely affect buried paleontological resources. Pleistocene-aged alluvial deposits have not been mapped in the project area, however during deep excavation activities, unrecorded Pleistocene-aged alluvial deposits could be discovered. Since the depth of Pleistocene soils is not known, it is conservatively assumed that construction activities could encounter this soil type. If present, subsurface paleontological resources could be unintentionally destroyed through breakage and/or crushing as the result of excavation and foundation/pile work.

PF PAL-1 would be implemented to avoid damage to or destruction of paleontological resources through adherence to Section 14-7 of Caltrans' Standard Specifications.

Excavations for roadway widening are anticipated to be shallow (approximately 3 feet deep) and would occur entirely within Holocene-aged alluvial sediments that are unlikely to contain paleontological resources.

Ground disturbing activities would only occur during the construction period, and there would be no impact to paleontological resources during operation of the project.

### **Cumulative Effects**

The cumulative setting for paleontological resources includes the areas within and surrounding the project area which have documented paleontological resource sites or a high sensitivity for unrecorded fossils. Cumulative effects on paleontological resources would occur if planned and foreseeable projects, when taken in combination with the proposed project, would result in the removal of a substantial number of paleontological resources resulting in overall damage to the physical historical record of the larger region.

As described above, with Measure PAL-1, the Build Alternative would not result in an adverse effect to paleontological resources. Paleontological resources – both known and unknown – are protected by several federal, state, and local regulations. If paleontological resources are encountered, a qualified paleontologist shall evaluate the

fossils and take steps necessary to photo-document or recover the fossils. This level of preventative measure is also included in Caltrans' standard specifications. Application of existing regulations and NEPA and/or CEQA evaluation on a project-by-project basis would avoid cumulative effects to paleontological resources in the region. Therefore, no cumulative effect would occur.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF PAL-1: In the event of unanticipated paleontological resource discoveries during project related activities, work in the immediate vicinity of the discovery shall be halted until it can be evaluated by a qualified paleontologist, consistent with Caltrans Standard Specifications Section 14-7.

See Appendix C for full text of PF PAL-1.

### **Avoidance and Minimization**

There are no avoidance and minimization measures associated with paleontological resources.

### **Mitigation Measures**

No mitigation measures would be required.

## 2.2.5 HAZARDOUS WASTE/MATERIALS

This section evaluates effects associated with hazards and hazardous materials that could occur with fulfillment of the proposed project. Sources of information used to prepare the analysis in this section include:

- Phase I Initial Site Assessment (October 2021)

### REGULATORY SETTING

#### **Federal**

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976. The purpose of CERCLA, often referred to as “Superfund,” is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control Standards, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

## State

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addressed specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts the disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of containment include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

In California, the U.S. EPA has granted the California Environmental Protection Agency (CAL/EPA) most enforcement authority over federal hazardous materials regulations in the state. The mission of CAL/EPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality. Under the authority of CAL/EPA, the Department of Toxic Substances Control (DTSC) and the San Francisco Bay RWQCB is responsible for overseeing the cleanup of contaminated soil and groundwater sites in the state, including the San Francisco Bay Area. RWQCB regulations applicable to hazardous materials are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in CCR Title 22. CCR Title 26 is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

## AFFECTED ENVIRONMENT

Information for this section is based on the Phase I Initial Site Assessment (ISA) prepared for the proposed project (October 2021). The hazardous materials study area includes the project area and the area within one mile of the project area. The ISA includes a review of the physical setting, site history, and environmental records. Site reconnaissance was completed as a part of the ISA in September and October 2019. Hazardous materials storage areas were identified in advance of the site reconnaissance based on the review of environmental records. Evidence of potentially undocumented hazardous materials releases or future threats of hazardous materials releases was not observed within or adjacent to the study limits. However, it should be

noted that conditions that may represent a hazard within the study limits may not be visible from public roadways.

Environmental records reviewed in the ISA were derived from the U.S. EPA *Enforcement and Compliance History Online* database, *GeoTracker* database, and the DTSC *EnviroStor* database.

### **Summary of Hazardous Release Sites**

The review of environmental records identified 141 hazardous materials release sites within one mile of the project area. There were no documented hazardous material releases within the project area. Hazardous materials released near the project area could potentially migrate to the project area either over the ground surface, through groundwater, or in soils.

Common types of hazardous releases are diesel fuel, gasoline, and oil spills, as well as pesticide use and aerially deposited lead (ADL) from historic gasoline use. Leaking underground storage tanks (LUST) are one of the most common types.

Based on these screening criteria, 27 of the 141 release sites were identified as having potential to contaminate the project area. The other 114 release sites are not expected to affect environmental conditions at the project area due to their distance, the type of contamination, the status of the site as closed (remediated), or a combination of these factors. The 27 sites of potential concern are described in detail in the Phase I ISA and shown in Figure 2.2-4.

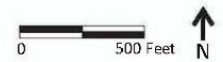


**Legend**

- Study Limits
- Underground Petroleum Pipeline
- Railroad Corridor
- Active Release Site
- Closed Release Site

Notes:  
 ADL = aerially-deposited lead.  
 Information about release site records (e.g., Site IDs, address, status) summarized in Appendix C.

**Figure 2.2-4 Hazardous Materials Release Sites**



**I-80/Ashby Avenue (Route 13) Interchange Improvement Project**

17312 00 (Circlepict) ACTCI 80 Ashby Avenue Interchange Improvement Project(04\_initial Site Assessment)Figures\17312\_00-02669 Figures.cdr 07/30/20

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### **Historic Land Uses in the Study Area**

The project area has previously been used for activities with the potential to contaminate soils and groundwater, including slaughterhouses, lumber yards, tanning, and industrial uses including plastic and steel manufacturing, as well as machine shops. Potentially contaminating uses began in 1911 and began to wane in 1982 with the conversion of some industrial areas to residential uses.

Common contaminants of concern in soil and/or groundwater associated with fill materials and past industrial land uses include heavy metals (e.g., lead and arsenic), petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and asbestos.

### **Aerially Deposited Lead**

Based on a review of historical aerial photographs, the I-80 corridor within the study limits was constructed in the late 1930s, which was before leaded gasoline was phased out. Project construction activities that disturb exposed shallow soils along the highway corridor could encounter ADL contamination.

In addition, between 1994 and 1996, soils contaminated with ADL from other Caltrans projects were used as fill materials to create an embankment between the I-80 westbound off-ramp and the highway. In accordance with guidance from DTSC, up to about 15 vertical feet of ADL-contaminated soil was placed as fill over an area of approximately 2 acres and covered with about 2 feet of clean fill materials. Project construction activities that disturb the soil embankment between the I-80 westbound off-ramp and the highway could encounter ADL contamination.

### **Contamination from Railroad Corridors**

A railroad corridor that has historically supported adjacent industrial land uses crosses the study limits east of and parallel to Shellmound Street and Bay Street. The most reported soil contamination along railroad corridors are metals and petroleum products from railroad operations. Other sources of contaminants associated with historical railroad operations may include coal ash from engines and polynuclear aromatic hydrocarbons (PAHs) from diesel exhaust. The risk of soil contamination is generally greater along railroad corridors that are adjacent to industrial land use areas, because historical loading practices, leaks during material transfers or storage, and repair activities may have contaminated the soil. Project improvements that encroach on the railroad corridor (if any) could potentially encounter undocumented soil contamination from past railroad operations.

### **Petroleum Contamination from Utility Pipelines**

Underground petroleum pipelines owned and operated by Kinder Morgan cross the study limits east of and parallel to Shellmound Street and Bay Street (PHMSA, 2019). Petroleum pipelines have been subject to pipeline safety and maintenance regulations since 1979, including the Federal Hazardous Liquid Pipeline Safety Act (Title 49, C FR, Part 195.412) and state regulations (California Government Code Section 51010-51019.1). These regulations require that petroleum pipelines be designed with equipment, such as low-pressure alarms and safety shut-down devices, to minimize spill volume in the event of a leak.

Project improvements near the petroleum pipelines could potentially encounter undocumented soil contamination from the pipelines. Furthermore, groundwater within the project study limits could potentially be contaminated by undocumented releases of petroleum from the pipelines.

### **Naturally-Occurring Asbestos in Bedrock**

Geologic mapping from the USGS does not show any areas of rock likely to contain naturally-occurring asbestos (ultramafic rock) within the study limits. Therefore, project construction is not expected to encounter asbestos in bedrock.

### **Contaminated Bay Sediments**

The proposed project includes construction of a drainage outfall in the southwest portion of the interchange that would require excavation into the San Francisco Bay sediments. Elevated concentrations of PCBs, organochlorine pesticides (OCPs), PAHs, and mercury are common in Bay sediments due to discharges from historical mining and industrial activities, runoff from the Central Valley, and dredging and erosion of previously contaminated sediments. Project construction activities for the proposed drainage outfall could encounter contaminated Bay sediments.

### **Hazardous Building Materials**

The disturbance of hazardous building materials, such as asbestos and lead paint, during construction of the proposed project could pose a health risk to construction workers and the public if not handled and disposed of properly. As described below, existing bridge, wall, and roadway structures located within the study limits may contain hazardous building materials. Hazardous Building Materials are further discussed in the Environmental Consequences section below.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, existing I-80/Ashby Avenue connector ramps would not be demolished and the Build Alternative would not be constructed. The existing transportation facilities within the project area would remain unchanged except for planned and programmed improvements. The existing transportation facilities within the project area would remain unchanged except for planned and programmed improvements. Therefore, the No Build Alternative would not result in increased risks associated with hazardous materials or hazardous waste. The No Build Alternative would have no effect related to this topic.

### **Build Alternative**

As a transportation infrastructure project, hazardous wastes or materials would not be needed or used during operation of the Build Alternative. The Build Alternative would not place roadway users near hazardous facilities or hazardous material sites, or otherwise change the existing overall location of transportation facilities within the study area. Therefore, only construction-related effects are discussed below.

#### *Hazardous Material Release Sites*

As previously discussed, in Affected Environment, 27 of the 141 release sites were closely evaluated to determine whether migrated contaminants could be encountered at the project area. Based on the characteristics of each release, all are considered a potential risk for on-site contamination. Based on the type of hazardous materials release, all 27 sites could contain residual contaminated groundwater. If contaminated groundwater is encountered during construction, it could pose a risk to construction workers. Further, the exposure of contaminated groundwater to the surface creates the potential for further contamination.

Risks associated with encountering contaminated groundwater during construction would be avoided or minimized through implementation of AMM HAZ-1 and AMM HAZ-2. These measures would ensure that additional on-site groundwater testing is completed prior to construction, would provide project-specific worker safety measures, and would require detention of contaminated groundwater on-site during construction to avoid further spread of contaminants.

#### *Aerially Deposited Lead*

Based on a review of historical aerial photographs of the study area, I-80 was constructed in the late 1930s before the phase-out of leaded gasoline. Therefore, ADL may be present in roadside soils at the project area. Ground disturbing construction

activities could expose construction workers to ADL. This represents a potential health risk. AMM HAZ-1 and AMM HAZ-3 would avoid this potentially adverse effect. AMM HAZ-1 would require testing and evaluation of ADL and a determination on whether ADL-contaminated soils could be reused on site. AMM HAZ-3 requires the preparation of a site safety plan. The plan would address site-specific risks including ADL and ensure risks to construction workers and the public are minimized.

#### *Contaminated Soil in Fill Materials*

Fill materials used for embankments within the study limits come from a variety of sources and contain contaminants. Common contaminants in fill materials include asbestos, heavy metals, pesticides, and petroleum hydrocarbons. Therefore, construction of the Build Alternative could potentially encounter contaminated soils in fill embankments. This represents a potential health risk to construction workers. AMM HAZ-3 would avoid this potentially adverse effect by requiring the preparation of a Site Safety Plan. The plan would address site-specific risks and ensure risks to construction workers and the public are minimized.

#### *Hazardous Building Materials*

##### Lead-Based Paint and Asbestos-Containing Materials

Building materials such as thermal system insulation, surfacing materials, and asphalt and vinyl flooring materials installed prior to 1981 may contain asbestos. Lead compounds may also be present in interior or exterior paints regardless of construction date. Lead and asbestos are state-recognized carcinogens, and lead is a reproductive toxicant. Bridges and wall structures could contain asbestos materials and may have surfaces coated with lead-based paint. Demolition or modification of these structures could release lead particles and asbestos fibers (if present) into the environment. This presents a potential health risk to construction workers. AMM HAZ-4 would avoid this potentially adverse effect by requiring preconstruction survey of all structures that would be removed or modified under the Build Alternative. Any hazardous building materials identified would be removed prior to construction.

##### Yellow Traffic Striping and Pavement Markers

Caltrans has historically used paints containing high levels of lead chromate for yellow traffic striping and pavement markings along roadways. Yellow traffic paints and yellow thermoplastic materials applied to roadways prior to 1997 and 2007, respectively, may contain lead concentrations above hazardous waste thresholds. Modification of the roadways with yellow traffic striping and pavement markings during construction could release lead chromate particles (if present) into the environment. This would pose a potential health risk to construction workers. PF HW-1 would avoid this potentially

adverse effect by requiring testing of yellow thermoplastics and paint prior to construction. Yellow markings would be treated as hazardous and removed in accordance with Caltrans Standard Special Provision 14 001 to ensure workers are not exposed to toxic substances.

#### Asphalt and Portland-Cement Concrete

Grindings of asphalt concrete and Portland cement concrete have a relatively high pH and may contain metals and petroleum hydrocarbons that can impact stormwater runoff and threaten surface water bodies. Generation of asphalt concrete and Portland-cement concrete grindings during construction of the Build Alternative pose a risk of releasing metals and petroleum hydrocarbons into the environment. AMM HAZ-5 would avoid this potentially adverse effect by ensuring grindings are reused and transported in accordance with RWQCCB guidelines to avoid contamination of stormwater or other surface waters.

#### **Cumulative Impacts**

Cumulative impacts arise due to the linking of impacts from past, present, and foreseeable future projects in the region. Effects from hazardous waste and materials related to future development in areas surrounding the project area are site specific and relate to the type and location of construction proposed, as well as the environmental concerns associated with known hazardous material release sites within the project area. With incorporation of PF HW-1 and AMM HAZ-1 through AMM HAZ-5, there would be no additive effect of the hazardous or waste materials associated with other approved or foreseeable development and the proposed project, and therefore no cumulative effect.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

#### **Project Features**

PF HW-1: Caltrans Standard Specifications section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue, would be included in the contract specifications and implemented during construction for the handling and management of any potential lead-containing debris produced from the removal of yellow traffic stripe and pavement marking.

#### **Avoidance and Minimization**

AMM-HAZ-1: During the final design phase, a Preliminary Site Investigation (PSI) of the project area shall be performed to investigate hazardous materials concerns related to soil, groundwater, and construction materials identified in the Phase I ISA.

AMM-HAZ-2: At a minimum, groundwater from dewatering of excavations, if any, would be stored in Baker tank(s) during construction activities and the water would be characterized prior to disposal or recycling.

AMM-HAZ-3: Lead compliance plans for ADL-contaminated soils and pavement markings containing lead shall be prepared in accordance with the appropriate Caltrans Standard Special Provisions

AMM-HAZ-4: Hazardous building materials surveys shall be conducted by a qualified professional.

AMM-HAZ-5: Asphalt concrete and Portland cement concrete grindings shall be reused in accordance with the San Francisco Bay RWQCB's guidance to protect water quality or transported offsite for recycling or disposal.

See Appendix C for full text of AMM HAZ-1 through AMM HAZ-5.

### **Mitigation Measures**

No mitigation would be required.

## 2.2.6 AIR QUALITY

This section discusses temporary and long-term effects to air quality that could result from the project. Information in this section is primarily drawn from the Air Quality Report (AQR) (August 2020) prepared for the proposed project.

### REGULATORY SETTING

#### **Federal and State**

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the U.S. EPA and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers and smaller (PM<sub>2.5</sub>)—and sulfur dioxide (SO<sub>2</sub>). In addition, national and state standards exist for lead (Pb), and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

#### *Conformity*

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were

violated. U.S. EPA regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub>, NO<sub>x</sub> and PM<sub>2.5</sub>), and in some areas (although not in California), sulfur dioxide (SO<sub>2</sub>). California has nonattainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO<sub>2</sub>, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis.

Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met.

If a conformity analysis is successful, the Metropolitan Planning Organization (MPO), FHWA, and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in carbon monoxide (CO) and PM nonattainment or maintenance areas to examine localized air quality impacts.



## **Local Regulations**

### *San Francisco Bay Area Air Basin*

The San Francisco Bay Area Air Basin (SFBAAB) encompasses approximately 5,600 square miles and includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, and San Mateo counties, and portions of Solano and Sonoma counties. The San Francisco Bay Area Air Quality Management District (BAAQMD) and the CARB have joint responsibility for developing and enforcing regulations needed to achieve and maintain NAAQS and California Ambient Air Quality Standards (CAAQS) in the SFBAAB.

### *Bay Area Air Quality Management District*

BAAQMD has a range of responsibilities for monitoring, maintaining, and improving air quality. BAAQMD prepares and administers attainment and maintenance plans for ambient air quality, creates and enforces rules and regulations, issues permits for stationary sources of air pollution, inspects stationary sources, monitors ambient air quality and meteorological conditions, awards grants to reduce motor vehicle emissions, and conducts public education campaigns.

BAAQMD developed the 2017 Bay Area Clean Air Plan (2017 CAP) in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). MTC and ABAG estimate future population and transportation trends which are used to develop and evaluate CAP strategies. The overall goal of these strategies is to bring the SFBAAB into compliance with NAAQS and CAAQS. The 2017 CAP addresses four categories of pollutants: ground-level ozone and its key precursors, reactive organic gasses (ROG) and NO<sub>x</sub>; particulate matter, primarily PM<sub>2.5</sub>; key air toxics such as diesel particulate matter and benzene; and key greenhouse gasses (GHGs).

### *Senate Bill 656*

In 2003, the California Legislature enacted Senate Bill 656 (SB 656) to reduce public exposure to PM<sub>10</sub> and PM<sub>2.5</sub>. To comply with SB 656, BAAQMD reviewed the list of 103 potential particulate matter control measures prepared by CARB and developed a Particulate Matter Implementation Schedule. This schedule which was adopted by BAAQMD on November 16, 2005. To fulfill federal air quality planning requirements, BAAQMD adopted a PM<sub>2.5</sub> emissions inventory for the year 2010 on November 7, 2012. BAAQMD transmitted the inventory to the CARB for inclusion in the SIP. In addition, to complement this SIP submittal, BAAQMD prepared a detailed informational report entitled Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area as well as a concise summary of the particulate matter report. The particulate

matter report will help to guide the BAAQMD's on-going efforts to analyze and reduce particulate matter in the SFBAAB in order to better protect public health.

## AFFECTED ENVIRONMENT

Information in this section is based on the AQR (August 2020). The project area is in the southwestern Alameda County climatological subregion of the SFBAAB, which is overseen by BAAQMD. The air quality study area for long-term effects includes the entirety of the Southwestern Alameda County subregion. The regional air quality study area includes the freeway mainline segments for the I-80 interchange.

### **Climate and Topography**

Air basins have physical characteristics that determine the ability of natural processes to dilute or transport air pollutants. Climatic and topographic factors such as wind, atmospheric stability, terrain that influences air movement, and sunshine all play a role in concentration of air pollutants within an air basin.

The climate within the air quality study area is affected by proximity to the Pacific Ocean and the San Francisco Bay, which has a moderating influence. The San Francisco Bay Area has a Mediterranean climate characterized by wet winters and dry summers. During the summer, a high-pressure cell over the northeastern Pacific Ocean results in stable meteorological conditions and a steady northwesterly wind flow that keep storms from affecting the California coast. Southwestern Alameda County is indirectly affected by marine air flow. Marine air entering through the Golden Gate is blocked by the East Bay hills, forcing the air to diverge into northerly and southerly paths. The southern flow is directed down the San Francisco Bay, parallel to the hills, where it eventually passes over southwestern Alameda County. During the summer months, average temperatures range from the mid-50s to mid-70s (Fahrenheit). During the winter months, average temperatures range from the low 40s to low 60s (Fahrenheit).

Pollution potential is relatively high in southwestern Alameda County during the summer and fall. When high pressure dominates, low mixing depths and Bay and ocean wind patterns can concentrate and carry pollutants from other cities to this area, adding to the locally-generated pollutant mix. The polluted air is then pushed up against the East Bay hills. In the wintertime, the air pollution potential in southwestern Alameda County is moderate. Air pollution sources include light and heavy industry and motor vehicles.

### **Air Pollutants**

The primary air pollutants of concern from motor vehicles are ground-level ozone formed through reactions of nitrogen oxide (NO<sub>x</sub>), reactive organic gases (ROG), particulate matter (PM)<sub>10</sub>, and PM<sub>2.5</sub>. In addition to criteria air pollutants, local Mobile

Source Air Toxics (MSAT) emissions are a concern for nearby receptors, and GHG emissions are a regional concern for climate change. These primary air pollutants of concern are discussed further below.

### *Ozone*

Motor vehicles do not emit ozone directly into the environment, but tailpipe emissions undergo complex chemical reactions in the presence of sunlight, which result in the formation of ozone. The primary chemicals involved in these reactions are NO<sub>x</sub> and ROG, often referred to as ozone precursors. Ozone precursors may come from sources other than motor vehicles, but the largest manmade source in the SFBAAB is motor vehicle exhaust. Ozone exposure causes eye irritation and damage to lung tissue in humans. Ozone also harms vegetation, reduces crop yields, and accelerates deterioration of paints, finishes, rubber products, plastics, and fabrics.

### *Carbon Monoxide*

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthy levels that adversely affect local sensitive receptors. Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce chest pain in persons with serious heart disease. Very high levels of CO can be fatal.

### *Nitrogen Dioxide*

NO<sub>2</sub> is a byproduct of fossil fuel combustion. Automobiles and industrial operations are the main sources of NO<sub>2</sub>. Aside from its contribution to ozone formation, NO<sub>2</sub> also contributes to other pollution problems including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO<sub>2</sub> may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO<sub>2</sub> decreases lung function and may reduce resistance to infection.

### *Sulfur Dioxide*

SO<sub>2</sub> is a colorless, irritating gas formed primarily from incomplete combustion of fossil fuels containing sulfur. Industrial facilities also contribute to SO<sub>2</sub> levels in the region.

SO<sub>2</sub> irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

### *Particulate Matter*

PM<sub>10</sub> and PM<sub>2.5</sub> consist of extremely small, suspended particles or droplets that are 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen, forest fires, and windblown dust, are naturally occurring. In populated areas, most particulate matter is caused by road dust, combustion products, abrasion of tires and brakes, and construction activities. Secondary particulate matter can also be formed in the atmosphere through condensation and chemical reactions of inorganic gases and ROG.

Particulate matter exposure can affect breathing, aggravate existing respiratory and cardiovascular disease, alter the body's defense systems against foreign materials, and damage lung tissue, contributing to cancer and premature death. Individuals with chronic obstructive pulmonary or cardiovascular disease, asthmatics, the elderly, and children are most sensitive to the effects of particulate matter.

### *Lead*

Lead is a metal found naturally in the natural environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The U.S. EPA banned the use of leaded gasoline in highway vehicles in 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Metal processing is currently the primary source of lead emissions, with the highest levels of lead in the air generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufactures.

### *Mobile Source Air Toxics*

MSATs include a diverse group of air pollutants that can adversely affect human health. Unlike criteria air pollutants, which generally affect regional air quality, MSAT emissions are evaluated based on estimations of localized concentrations and risk assessments. The adverse health effects a person may experience following exposure to any chemical depend on several factors, including the amount, duration, chemical form, and any simultaneous exposure to other chemicals.

The EPA's Integrated Risk Information System (IRIS) includes 93 hazardous air pollutants emitted from mobile sources. Based on the EPA's 2011 national-scale Air Toxics Assessment, nine of these compounds are considered significant national and regional-scale cancer risk drivers or contributors and/or non-cancer hazard contributors. These are acetaldehyde, acrolein, benzene, 1,3-butadiene, diesel particulate matter, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While the FHWA considers these nine compounds the priority MSATs, the list is subject to change and may be adjusted in consideration of future EPA rules.

The I-80 corridor, Ashby Avenue, 65th Street, San Pablo Avenue, and Stanford Avenue are the primary sources of MSATs within the project area with traffic volumes that currently exceed 10,000 annual average daily traffic (AADT). The existing and forecasted traffic conditions in the project area are summarized in the AQR.

### **Sensitive Receptors**

Some groups of people are more affected by air pollution than others. These groups are known as sensitive receptors. The state has identified the following groups of people who are most likely to be affected by air pollution: children under 16, the elderly over 65, people conducting athletic activities, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, outdoor athletic fields, and elementary schools.

No schools, hospitals, or convalescent homes are located within 500 feet of the project area. The surrounding area to the north is mostly occupied by Berkeley Aquatic Park. High-density residential buildings are adjacent to the southern edge of the project area in Emeryville.

The BAAQMD's Community Air Risk Evaluation (CARE) program identifies areas with high concentrations of air pollution and populations most vulnerable to air pollution's health impacts. According to the BAAQMD's CARE program, the proposed project is within a 24-hour PM<sub>2.5</sub> exceedance area and a 2013 cumulative impact area. In response to AB 617, CARB established the Community Air Protection Program (CAPP) to reduce exposure in communities most impacted by air pollution. According to the CARB's CAPP, the proposed project is not in a community that is disproportionately impacted by emissions from existing transportation and stationary sources, and is not subject to community action plan to reduce local air pollution.

### **Regional Air Quality Attainment Status**

The proposed project is included in the regional air quality conformity analysis for the current RTP, Plan Bay Area 2050 (MTC and ABAG 2017, RTP ID 17-01-0037). MTC

found that regionally significant projects in the San Francisco Bay Area will conform to the purpose of the SIP and not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS as provided in Section 176(c) of the FCAA. The proposed project is also included in the MTC's financially constrained 2021 TIP (MTC 2016, TIP ID ALA170002). MTC adopted the 2021 TIP on May 17, 2021. The TIP gives priority to eligible Transportation Control Measures (TCMs) identified in the SIP and provides sufficient funds to provide for their implementation. FHWA provided written concurrence with the SIP in accordance with 40 CFR Part 93 on November 16, 2022.

**Table 2.2-3 State and Federal Attainment Status in the San Francisco Bay Area Air Basin**

<b>Pollutant</b>	<b>State Attainment Status</b>	<b>Federal Attainment Status</b>
Ozone (O <sub>3</sub> )	Nonattainment	Nonattainment (Marginal)
Respirable Particulate Matter (PM <sub>10</sub> )	Nonattainment	Unclassifiable/Attainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Nonattainment	Nonattainment (Moderate)
Carbon Monoxide (CO)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Unclassifiable/Attainment
Lead (Pb)	Attainment	Unclassifiable/Attainment
Visibility-Reducing Particles	Unclassified	NA
Sulfates	Attainment	NA
Hydrogen Sulfide	Unclassified	NA
Vinyl Chloride	No Information Available	NA

Source: Baseline Environmental Consulting, 2020

Notes: NA = not applicable

## ENVIRONMENTAL CONSEQUENCES

### Build Alternative

The Build Alternative is discussed holistically for operational air quality analysis. Conversely, construction-period emissions would vary based on the differences in ramps and other structures. Therefore, where appropriate, construction-period emissions have been calculated for the Build Alternative.

The proposed project is listed in the Plan Bay Area 2050 financially constrained Regional Transportation Plan (RTP) (ID 17-01-0037) which was found to conform by MTC, and FHWA and FTA made a regional conformity determination finding on May 7, 2021. The proposed project is also included in MTC's financially constrained 2021 Regional Transportation Improvement Program (TIP) (ID ALA170002). The MTC 2021 Regional Transportation Improvement Program was determined to conform by FHWA and FTA on July 16, 2021. The design concept and scope of the proposed project is consistent with the project description in the 2021 RTP and RTIP, and the "open to traffic assumptions of the MTC's regional emissions analysis.

### *Permanent Operational Impacts*

#### Project Level-Conformity

The proposed project is in a federal nonattainment area for ozone and PM<sub>2.5</sub> and, therefore, a project-level conformity analysis of operational emissions is required to address these pollutants under 40 CFR 93. As of June 1, 2018, the transportation conformity requirements under FCAA Section 176(c) for CO maintenance areas in SFBAAB no longer apply for CO NAAQS.

#### Ozone Emissions Analysis

The SFBAAB is currently designated as a federal nonattainment area for ozone. Because ozone impacts are regional in nature, projects that are included in an RTP and TIP have already undergone regional conformity analysis and do not require further analysis for a project-level conformity determination. As described above, this proposed project is included in a conforming RTP and TIP, and therefore emissions of ozone precursors from project-related traffic are not anticipated to cause or contribute to, or worsen, any violations of the federal air quality standards for ozone.

In addition, BAAQMD adopted the 2017 CAP to achieve compliance with federal and state ozone standards. The Build Alternative would not interfere with the control measures described in the 2017 CAP. Furthermore, the Build Alternative would provide transportation benefits that reduce pollutant emissions, including ozone precursors, by improving traffic operations and efficiency and by providing bicycle and pedestrian amenities to promote active transportation.

#### PM<sub>2.5</sub> Emissions Analysis

A quantitative particulate matter hot-spot analysis is required for transportation projects in a federal nonattainment or maintenance area for PM<sub>2.5</sub> if the proposed project is determined to be a Project of Air Quality Concern (POAQC) as defined in Title 40 CFR Part 93. The SFBAAB is currently designated as a federal nonattainment area for PM<sub>2.5</sub>; therefore, a PM<sub>2.5</sub> hot-spot analysis is required if the project is determined to be a POAQC.

On July 30, 2020, The San Francisco Bay Area Air Quality Conformity Task Force determined that the proposed project is not a POAQC, and a detailed PM<sub>2.5</sub> hot-spot analysis is not required for a project-level conformity determination. Therefore, the proposed project would not be expected to cause or contribute to, or worsen, any violations of the federal air quality standards for PM<sub>2.5</sub>. The Project Assessment Form for PM<sub>2.5</sub> Interagency Consultation and the Air Quality Conformity Task Force determination are included in the AQR.

The San Francisco Bay Area Air Quality Conformity Task Force's findings were circulated publicly from June 1, 2022 to June 30, 2022 and no comments were received. On October 21, 2022 FHWA issued a letter of concurrence with the San Francisco Bay Area Air Quality Conformity Task Force's findings. FHWA's conformity determination is included as Appendix G.

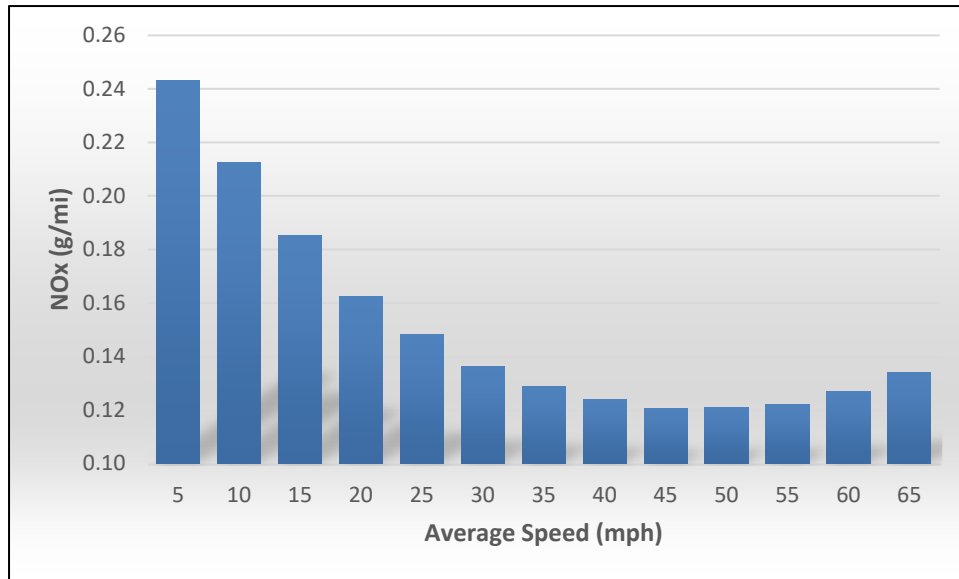
#### Operational Criteria Air Pollutant Emissions

Operation of the Build Alternative would generate criteria air pollutant emissions and precursors that could potentially affect regional air quality. Operational emission calculations provided in this section consider long-term changes in emissions that would result from the Build Alternative. According to BAAQMD, the primary criteria air pollutant emissions of concern during project operation would be ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from the exhaust of on-road vehicles. Criteria air pollutant emissions from operation of the Build Alternative were estimated for the existing conditions (2018), and the No-Build and Build Alternative during the opening year (2025), horizon year (2040), and design year (2045).

The proposed project includes improvement of traffic operations in a populated area with nearby sensitive receptors. Traffic volumes along the I-80 mainline of the project exceed about 236,000 under existing conditions (2018). According to FHWA guidance, the proposed project has a high potential for MSAT effects because it is in proximity to populated areas and exceeds the FHWA's AADT threshold. Therefore, FHWA guidance recommends a quantitative analysis to forecast and compare local-specific emission trends of the priority MSAT for each alternative.



**Figure 2.2-5 NO<sub>x</sub> Emissions Based on Vehicle Speed**



Notes: g/mi = grams per mile; mph = mile per hour  
Emission factors based on gasoline light-duty trucks for 2018.  
Source: EMFAC 2017.

As discussed in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, the Build Alternative would improve local traffic circulation and reduce regional VMT. Therefore, daily emissions of criteria air pollutants would generally decrease for the Build Alternative compared to the No Build Alternative. As shown in Table 2.2-4, the estimated daily ROG, NO<sub>x</sub>, and exhaust PM<sub>10</sub> and PM<sub>2.5</sub> emissions for the Build Alternative during the opening year (2025), horizon year (2040), and design year (2045) scenarios would be equal to or lower than the emissions for the No Build Alternative, which is primarily attributed to the reduction in regional VMT under the Build Alternative. Emissions for both the Build and No Build Alternatives would also be lower in the opening year (2025), horizon year (2040), and design year (2045) compared to the existing year (2018), because federal and state vehicle emissions standards are expected to reduce pollutant emissions over time. Therefore, the Build Alternative would not result in an increase in criteria air pollutant emissions compared to the existing year conditions or the future No Build Alternative. Therefore, emissions of criteria pollutants from project-related traffic are not anticipated to cause, contribute to, or worsen, any air quality violations.

**Table 2.2-4 Operational Ozone Precursors Emissions (Pounds per Day)**

Pollutant	2018	2025	2025	2040	2040	2045	2045
	Existing	No Build	Build Alternative	No Build	Build Alternative	No Build	Build Alternative
ROG	539	434	434	378	377	365	365
NO <sub>x</sub>	1,335	866	865	1,051	1,049	1,089	1,087
PM <sub>10</sub> Exhaust	21	11	11	8	8	7	7
PM <sub>2.5</sub> Exhaust	20	10	10	7	7	7	7

Source: Baseline Environmental Consulting, 2020

Notes: Emissions would be the same for each build scenario. Traffic data for the design year (2045) was used to conservatively estimate emissions during the horizon year (2040).

### Mobile Source Air Toxics Analysis

The AQR evaluated potential in accordance with FHWA’s (2016) Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (40 CFR 1502.22).

The proposed project would include improvements to traffic operations in a populated area with nearby sensitive receptors. Traffic volumes along the I-80 mainline of the project exceed 236,000 vehicles per day under existing 2018 conditions. According to FHWA guidance, the proposed project has a high potential for MSAT effects because it is near populated areas and exceeds the FHWA’s AADT threshold.

As shown in Table 2.2-5, the estimated daily MSAT emissions for the Build Alternative during the opening year (2025), horizon year (2040), and design year (2045) scenarios would be approximately equal to or lower than the emissions for the No Build Alternative, which is primarily attributed to the reduction in regional VMT under the Build Alternative. Emissions for both the Build and No Build Alternatives would also be lower in the opening year (2025), horizon year (2040), and design year (2045) compared to the existing year (2018), because federal and state vehicle emissions standards are expected to reduce pollutant emissions over time. The modeling results show that the Build Alternative would not result in an increase in MSAT emissions compared to the existing year conditions or the future No Build Alternative.

**Table 2.2-5 Operational MSAT Emissions (grams per day)**

<b>Pollutant</b>	<b>2018 Existing</b>	<b>2025 No Build</b>	<b>2025 Build Alternative</b>	<b>2040 No Build</b>	<b>2040 Build Alternative</b>	<b>2045 No Build</b>	<b>2045 Build Alternative</b>
1,3-Butadiene	699	482	482	507	497	515	514
Acetaldehyde	1,946	648	647	804	789	827	825
Acrolein	151	109	109	113	113	115	114
Benzene	4,690	3,451	3,444	3,296	3,289	3,270	3,263
Diesel Particulate Matter	5,872	826	824	723	723	730	729
Ethylbenzene	3,612	6,068	3,062	2,696	2,691	2,612	2,607
Formaldehyde	4,996	2,061	2,057	2,375	2,370	2,428	2,423
Naphthalene	289	247	247	223	223	216	216
Polycyclic Organic Matter	142	77	77	72	72	72	72

Source: Baseline Environmental Consulting, 2020

Notes: Emissions would be the same for each build scenario. Traffic data for the design year (2045) was used to conservatively estimate emissions during the horizon year (2040).

### *Temporary Construction Impacts*

#### Emissions for Project-Level Conformity

For conformity purposes, 40 CFR 93.123(c)(5) states:

“CO, PM<sub>10</sub>, and PM<sub>2.5</sub> hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established ‘Guideline’ methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.”

Because construction of the Build Alternative is expected to last less than five years, temporary emissions of CO, PM<sub>10</sub>, and PM<sub>2.5</sub> are not expected to cause or contribute to, or worsen, any federal air quality violations and an evaluation of these emissions is not required for a project-level conformity determination.

#### Criteria Air Pollutant Emissions

Project construction activities would generate emissions of criteria air pollutants and precursors that could potentially affect regional air quality. According to BAAQMD, the primary pollutant emissions of concern during project construction would be ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from the exhaust of off-road construction equipment and on-road construction vehicles (worker vehicles, vendor trucks, and haul trucks). Construction emissions for the Build Alternative was quantified using the Sacramento Metropolitan Air Quality Management District’s Roadway Construction Emissions Model (RCEM Version 9.0). The Build Alternative would involve standard construction techniques and require large-scale construction equipment and labor-intensive activities. Construction is anticipated to begin in Fall 2023 and would take approximately 30 months.

The estimated average daily emissions from construction of the Build Alternative are summarized in Table 2.2-6 and detailed model outputs are included in the AQR.

**Table 2.2-6 Construction Criteria Air Pollutant Emissions (Average Pounds per Day)**

<b>Emissions Scenario</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>Exhaust PM<sub>10</sub></b>	<b>Exhaust PM<sub>2.5</sub></b>	<b>Fugitive Dust PM<sub>10</sub></b>	<b>Fugitive Dust PM<sub>2.5</sub></b>
Build Alternative	4.8	47	2.0	1.8	82	17
<b>BAAQMD Recommended Thresholds<sup>1</sup></b>	<b>54</b>	<b>54</b>	<b>82</b>	<b>54</b>	<b>BMP</b>	<b>BMP</b>

*Source: Baseline Environmental Consulting 2020*

*1BAAQMD's thresholds have not been adopted by Caltrans and are only shown for informational purposes.*

*BMP = best management practices; NA= not available*

*Fugitive dust emissions include a 50 percent reduction from the use of watering trucks. However, additional reductions from implementation of dust-control measures listed under Section 5 cannot be readily quantified.*

Refer to the AQR for details regarding specific methodology used to generate construction period criteria pollutants. Air pollutants of primary concern, including ozone and particulate matter, are discussed further below.

#### Ozone

As shown in in Table 2.2-6, average daily emissions for each Build Alternative would be below BAAQMD's recommended thresholds for ROG and NO<sub>x</sub>. Since the average daily emissions of ozone precursors from equipment and vehicle exhaust would be below the recommended thresholds, construction would not be expected to cause or contribute to, or worsen, any state air quality violations.

#### Particulate Matter

As shown in Table 2.2-6, average daily emissions for the Build Alternative would be below BAAQMD's recommended thresholds for Exhaust PM<sub>10</sub> and PM<sub>2.5</sub>. Since the average daily emissions of criteria pollutants from equipment and vehicle exhaust would be below the recommended thresholds, construction would not be expected to cause or contribute to, or worsen, any state air quality violations.

Neither Caltrans nor BAAQMD have a quantitative threshold for fugitive dust emissions; however, BAAQMD considers implementation of BMPs to control fugitive dust, PM<sub>10</sub>, and PM<sub>2.5</sub> during construction sufficient to avoid an adverse effect. Caltrans' Special Provisions and Standard Specifications would include the requirement to minimize or eliminate dust through the application of water or dust palliatives, as described in below under Avoidance, Minimization, and/or Mitigation Measures.

## **Climate Change**

Climate change is discussed in Section 3, California Environmental Quality Act Evaluation. Neither the U.S. EPA nor the FHWA has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the CEQA chapter of this document. The CEQA analysis may be used to inform the NEPA determination for the proposed project.

## **Cumulative Effects**

The cumulative setting for air quality includes the SFBAAB and the jurisdictional boundaries of BAAQMD. Improved freeway operations and projected future development in the region would result in an increase in vehicle miles traveled within the SFBAAB and related increases in vehicle emissions. Therefore, air quality effects associated with transportation and other development projects in the SFBAAB would result in cumulative effects to air quality for permanent operational pollutant emissions.

As previously discussed, transportation plans that have been found to conform with the SIP are not considered to cause or contribute to violations of ambient air quality standards. Furthermore, a project included in a conforming plan would not result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard. Conforming transportation plans are subject to a threshold of no net increase in emissions. Because the proposed project is included in Plan Bay Area and 2021 TIP, which conform to the SIP, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF AQ-1: Water or dust palliative shall be applied to the site and equipment as often as necessary to control fugitive dust emissions.

PF AQ-2: Measures to reduce PM<sub>10</sub>, PM<sub>2.5</sub>, and diesel particulate matter from construction shall be incorporated to the extent feasible to ensure that short-term health impacts to nearby sensitive receptors are avoided.

See Appendix C for the full text of these project features.

### **Avoidance and Minimization**

With application of the aforementioned project features, no avoidance or minimization measures would be required.

### **Mitigation Measures**

No mitigation measures would be required.

## **2.2.7 NOISE AND VIBRATION**

This section evaluates noise and vibration associated with the proposed project. Information in this section is primarily drawn from the Noise Study Report (NSR) (November 2020) prepared for the proposed project.

### **REGULATORY SETTING**

NEPA and CEQA provide a broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

### **Federal**

#### *National Environmental Policy Act and 23 CFR 772*

For highway transportation projects with FHWA involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). The following table, Table 2.2-7, lists the NAC for use in the NEPA/23 CFR 772 analysis.

**Table 2.2-7 Noise Abatement Criteria**

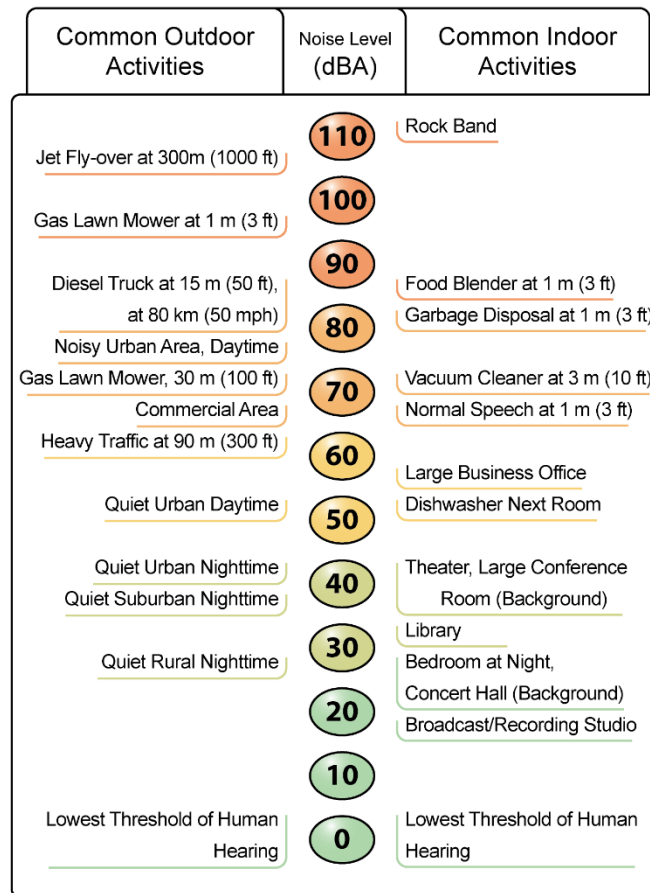
<b>Activity Category</b>	<b>NAC, Hourly A-Weighted Noise Level, dBA L<sub>eq</sub>(h)</b>	<b>Description of Activities</b>
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>1</sup>	67 Exterior	Residential.
C <sup>1</sup>	67 (Exterior)	Active sporting areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.

Source: Caltrans 2011. *Traffic Noise Analysis Protocol (TNAP) - For New Highway Construction, Reconstruction, and Retrofit Barrier Projects.*

<sup>1</sup> Includes undeveloped lands permitted for this activity category.



Figure 2.2-6 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.



Source: Caltrans 2020

**Figure 2.2-6 Noise Levels of Common Activities**

According to the Department’s Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the proposed project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of the final design phase are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the proposed project.

The Department's Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 dB at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

## **State**

### *California Environmental Quality Act*

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA/23 C FR Part 772 (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

## AFFECTED ENVIRONMENT

Information in this section is based on the NSR (November 2020) prepared for the proposed project. The noise study area includes residential, commercial, and industrial land uses within 1,000 feet of the project area. Please refer to the NSR for a detailed description of the principals of acoustics, including sound measurement, the mathematics of sound, and human response.

A logarithmic scale is used to describe sound in terms of decibels (dB). However, the decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives sound. In general, people are most sensitive to the frequency range of 1,000–

8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of dBA) can be computed based on this information. Table 2.2-8 describes typical A-weighted noise levels for various noise sources.

**Table 2.2-8            Typical A-Weighted Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: TeNS 2013.

### Existing Land Uses

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise effects from the proposed project. The following land uses were identified in the study area:



- Activity Category B: Multi-family residences
- Active Category C: Recreational areas, parks, and trails
- Active Category D: Radio studios and schools
- Activity Category F: Industrial uses
- Activity Category G: Undeveloped lands that are not permitted for development

Within the noise study area, most of the receptors fall into Category B (residential), and Category C (recreational). The location of individual sensitive receptors is mapped in the NSR. A maximum peak-hour noise level criteria of 67 dBA  $L_{eq}$  applies at the exterior use area of residences. Primary consideration for noise abatement is given to exterior areas where frequent human use occurs that would benefit from a lowered noise level. In general, an area of frequent human use is an area where people are exposed to traffic noise for an extended time on a regular basis.

Although all developed land uses are evaluated in this section, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, this section focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas at multi-family residences.



**Legend**

-  Planned Development
-  Receptor Locations

**Receptors and Noise Analysis Area**

Figure **2.2-7**

Source: Wilson Ihrig, 2020

## Existing Noise Environment

The existing noise environment varies by location, depending on site characteristics such as proximity to other roadways or noise sources, the relative elevation of roadways and receptors, and intervening structures or topography.

The study areas are shown in Figure 2.2-7. The existing noise environment at the area was evaluated by collecting based on short- and long-term noise measurements. Noise measurement locations are mapped in the NSR, which also includes site photographs of noise measurement locations. Land uses adjacent to the interchange include light industrial and commercial. Currently, there are no existing noise barriers (sound walls) in the study area.

The noise sensitive areas around the project area are shown in Figure 2.2-7. South of the interchange, land uses are industrial and commercial, with some high-density housing present. North of the interchange, noise-sensitive land uses consist of KRE Radio Transmitter, Aquatic Park, and Point Emery alongside of commercial properties.

Short-term measurements were conducted at seven locations (ST-1 through ST-7), as shown in Figure 2.2-7. Short-term digital recordings were made simultaneously with traffic counts on Wednesday September 18, 2019. The results of the short-term noise surveys are summarized in Table 2.2-9, which shows the typical peak hour ( $L_{eq}$ ) noise level at each of the seven short-term locations. Weekday noise level patterns tend to increase during morning commute hours, remain somewhat elevated throughout the day, taper off at night, and are lowest in the early morning hours. Long-term measurements were conducted at one location from Wednesday, September 18, 2019 to Tuesday, September 24, 2019 (LT-1, LT-2, LT-3).

## ENVIRONMENTAL CONSEQUENCES

This section discusses the predicted traffic noise levels under existing and design-year conditions (with and without the proposed project), identifies traffic noise impacts, and considers noise abatement. The CFR (23 CFR 772) “Procedures for Abatement of Highway Traffic Noise” provides procedures for preparing operational and construction noise studies and evaluating noise abatement options. Under 23 CFR 772, projects are categorized as Type I or Type II projects.

FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway on a new location, the physical alteration of an existing highway where there is either a substantial horizontal or substantial vertical alteration, or other specifically listed activities in 23 CFR 772.7. Type I projects include the addition of an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway, or the widening of an existing ramp by a full lane for its entire length. As the project would

modify the existing I-80/Ashby Avenue interchange configuration it is considered a Type I project. FHWA noise regulations require noise analysis for all Type I projects.

Predicted design-year traffic noise levels with the project (Build Alternative) are compared to modeled existing conditions and to design-year no-project conditions (No Build Alternative). In this and the following sections “existing conditions” refers to modeled results. The comparison to existing conditions is included in the analysis to identify traffic noise impacts as defined under 23 CFR 772. The comparison to no-project conditions indicates the direct effect of the proposed project.

Noise projections have been made for the outdoor areas of homes closest to the proposed project. The results of the projections are provided below in Table 2.2-12. A “receiver” is a modeled location that can represent one or more dwelling units; a “receptor” corresponds to one specific dwelling unit. The number of receptors that correspond to each modeled receiver is also provided.

### **Permanent Operational Impact**

#### *No Build Alternative*

The No Build Alternative (2045 with no project) assumes the current road geometry would remain unchanged. In 2045, increases in traffic are expected to increase overall noise levels for the No Build Alternative by 0 to 5 dBA over existing conditions. The predicted noise levels for the No Build Alternative are show in Table 2.2-10.

#### *Build Alternative*

Modeling of the future condition with the Build Alternative (2045 with proposed project) predicts increases in noise levels in a range of 0 to 9 dBA over the existing condition. Table 2.2-10 provides a detailed overview of projected noise increases under each Build Alternative. As shown in Table 2.2-12, each Build Alternative would have the same or similar effect on operational noise levels. A noise impact would occur at these receiver locations shown in Figure 2.2-7. Noise abatement is considered under Preliminary Noise Abatement Measures below.

### **Preliminary Noise Abatement Measures**

As documented in the Noise Abatement Decision Report (NADR) (February 2021), an analysis was conducted to determine if sound walls would be both feasible and reasonable. For a full discussion of the methodology behind this analysis, refer to the NADR. Table 2.2-11 summarizes the barriers considered and conclusions for each barrier. Barriers that were considered are also shown in Figure 2.2-7. However, as documented in the NADR, the cost of these sound walls was determined not to be reasonable. Therefore, none of the sound walls are recommended for the proposed project. These measures may change based on input received from the public. The final decision on noise abatement will be made upon completion of the project design.



**Table 2.2-9 Short-term and Long-term Noise Measurements**

Location	Site Description <sup>b</sup>	Land Use	Meas. Dates <sup>c</sup> and Start Time	Duration (minutes)	Meas. L <sub>eq</sub> <sup>d</sup>	Observed Vehicle Mix <sup>e</sup>				
						Road /Direction	Autos	Medium and Heavy Trucks	Bus	Motorcycles
ST-1	KRE	D	9/19	15	61.4	I-80 North	5574	1167	8	6
			10:45 AM			I-80 South	1422	240	0	13
ST-2	Aquatic Park	C	9/19	15	66.4	I-80 North	5574	1167	8	6
			10:45 AM			I-80 South	1422	240	0	13
ST-3	San Francisco Bay Trail	C	9/19	15	68.1	I-80 North	5574	1167	8	6
			10:45 AM			I-80 South	1422	240	0	13
ST-4	Point Emery	C	9/19	15	54.0	I-80 North	7630	182	7	5
			10:00 AM			I-80 South	1901	254	2	1
ST-5	SAE/Expressions College	D	9/19	15	59.5	I-80 North	7630	182	7	5
			10:00 AM			I-80 South	1901	254	2	1
ST-6	Bridgewater Apartments	B	9/19	15	59.3	I-80 North	7630	182	7	5
			10:00 AM			I-80 South	1901	254	2	1
ST-7	Avenue 64 Apartments	B	9/19	15	72.6	I-80 North	7630	182	7	5
			10:00 AM			I-80 South	1901	254	2	1
LT-1	Avenue 64 Apartments	B	9/18-9/24	6 days	Peak Hour Levels 75 – 77 (7 AM – 11 AM)					
LT-2	Bridgewater Apartments	B	9/18-9/24	6 days	Peak Hour Levels 66 – 72 (8 AM – 10 AM)					
LT-3	Youth Musical Theater	C	9/18-9/24	6 days	Peak Hour Levels 68 – 71 (7 AM – 9 AM)					

Source: Noise Study Report, Wilson Ihrig, December 2020.

a Sub-area segments are shown in Figure 2.2-7.

b Short-term sound level meter on tripod set to 5 feet. Long-term monitor attached to pole at 10 feet in height. Photos provided in Appendix L.

c In some cases, two measurements were conducted on different days with different sound level results and different traffic mixes; the results providing the best fit to the traffic model are listed here, and, where applicable, the other measurement date and sound level result are listed in the Noise Study Report.

d Fifteen-minute measured L<sub>eq</sub> sound level

e The specific directional volumes extrapolated to a full hour are listed in the Noise Study Report.

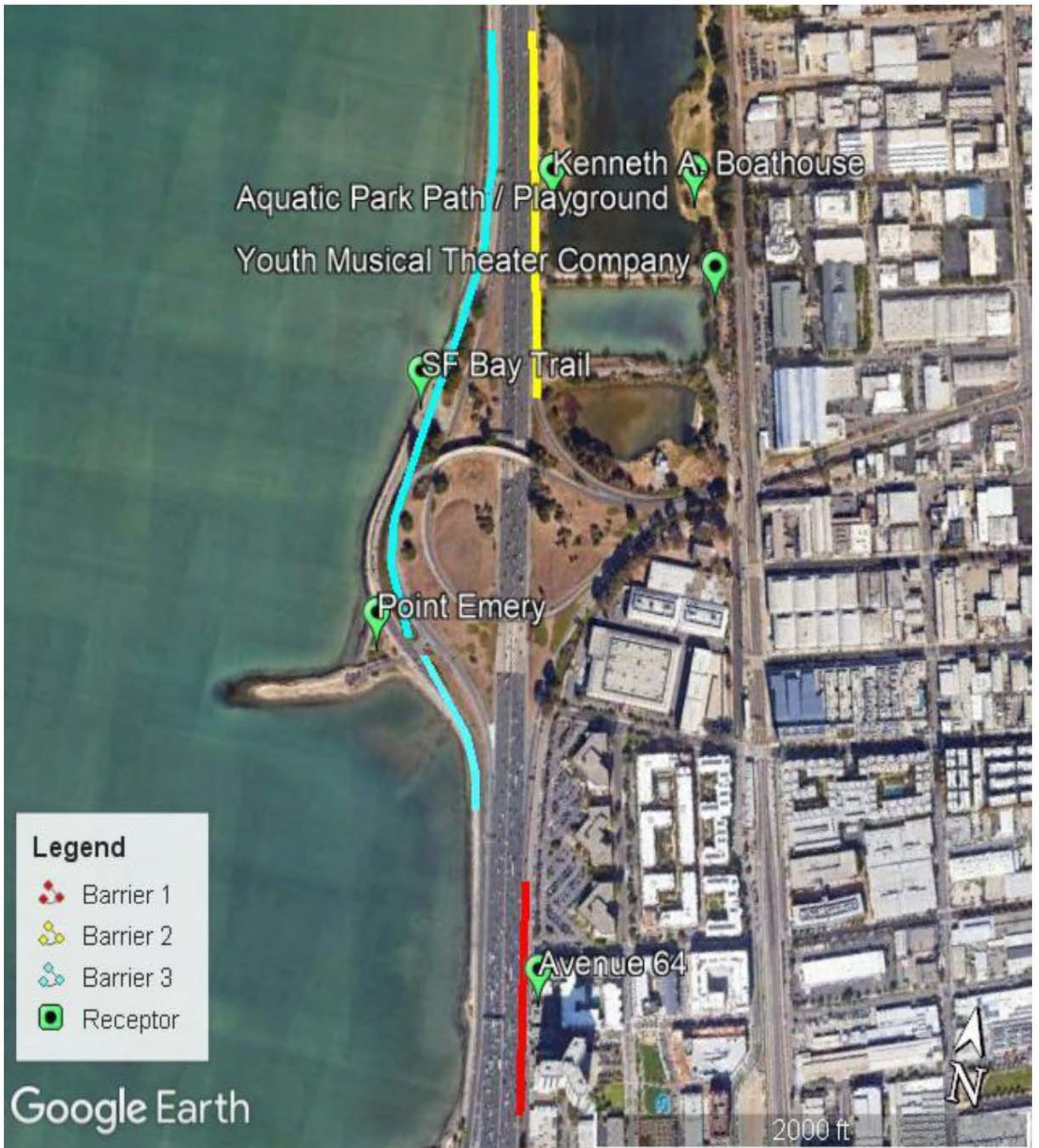
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**Table 2.2-10 Modeled Results for 2045 Design Year – Comparison of Existing to Year 2045**

Study Area		Noise Abatement Criteria	Worst Hourly Noise Level (Leq dBA)		
Receiver ID (Number of Represented Receptors)	Location		2018 (Existing)	2045 No Build	2045 Build
R-1 (4)	Avenue 64 Apartments	67, exterior	73	78	78
R-2 (100)	Bridgewater Apartments	67, exterior	58	63	63
ST-5 (1)	SAE/Expression College	52, interior	36	39	39
ST-1 (1)	KRE Radio Transmitter	52, interior	41	43	42
R-3 (1)	Youth Musical Theater Company	67, exterior	63	66	67
ST-2 (1)	Kenneth A. Boathouse	67, exterior	68	72	77
R-4 (2)	Aquatic Park Path/Playground	67, exterior	63	67	68
ST-4 (1)	Point Emery	67, exterior	59	62	64
R-5 (1)	San Francisco Bay Trail	67, exterior	72	75	70
R-6 (1)	NADY Residential Project - Proposed	N/A	N/A	N/A	62
R-7 (1)	Vista Park Project – Proposed	N/A	N/A	N/A	67

Source: Wilson Ihrig 2020

Table Notes: The results are shown in whole integers, which sometimes results in discrepancies due to rounding.



Sound Walls Under Consideration

Figure

2.2-8

**Table 2.2-11 Summary of Barriers Considered and Recommendations**

<b>Barrier</b>	<b>Length</b>	<b>Corresponding Noise Receptors</b>	<b>Existing/New</b>	<b>Estimated Cost</b>	<b>Recommendation</b>
Barrier 1	700 feet	R-1	New	\$707,520	The design is feasible, but the cost is not reasonable. Therefore, this sound wall is not recommended.
Barrier 2	1700 feet	ST-2, R-3, R-4	New	\$1,828,800	The design is feasible, but the cost is not reasonable. Therefore, this sound wall is not recommended.
Barrier 3	1800 feet	R-5	New	\$2,382,624	The design is feasible, but the cost is not reasonable. Therefore, this sound wall is not recommended.

Source: Wilson Ihrig 2020

## Temporary Construction Impacts

### *Construction Phases*

Construction phases would include concrete pavement construction, excavation, and grading; construction of bridge structures, miscellaneous concrete work; relocation of utilities; paving; and installation of overhead signs and lighting.

Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. The highest maximum instantaneous noise levels would result from paving and demolition equipment. Overhead signs would be supported on cast-in-drilled-hole piles in the median of I-80. Some areas of the project area would require only re-striping, and some areas would include new concrete median barriers. Construction noise for all receptors would be short-term and intermittent.

*Equipment Noise*

Table 2.2-12 summarizes typical noise levels produced by construction equipment commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dBA at 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dBA per doubling of distance, as outlined in FHWA’s 2006 *Roadway Construction Noise Model User’s Guide* and Caltrans’ 2013 *Technical Supplement to the Caltrans Traffic Noise Analysis Protocol*.

**Table 2.2-12 Construction Equipment Noise**

<b>Equipment</b>	<b>Maximum Noise Level (dBA at 50 feet)</b>
Scrapers, bulldozer, graders, cranes	85
Excavators	85
Heavy Trucks, tractors	84
Compactors, wheeled loader	80
Scarifier	85
Pneumatic Tools	85
Concrete Pumps	82
Pavers	85
Hoe Ram	90
Street Sweeper	80
Auger Drill Rig (CIPH)	85

*Source: Wilson Ihrig 2020*

*Daytime Construction*

Predicted roadway construction noise levels are listed in Table 2.2-14 and are based on typical equipment and activity levels for roadway construction projects. See the NSR for the list of equipment used for each activity and reference noise levels and activity usage factors from the FHWA Roadway Construction Noise Model (FHWA 2006) and Caltrans Technical Noise Supplement (TeNS 2013). To obtain the values shown in Table 2.2-14, the reference noise levels were adjusted to a 100-foot distance assuming basic geometric spreading for a point source (e.g., 6 dBA per doubling distance). The hourly average noise level was estimated by summing together the three loudest pieces of equipment. Table 2.2-13 discusses the estimated daytime construction noise levels.

**Table 2.2-13 Estimated Daytime Construction Noise Levels at Closest Receptors**

Receptor	Location	Existing Typical Hourly $L_{eq}$ <sup>a</sup>	Construction Noise Source	Distance to construction (highway)	Construction Sound Level (9 AM-6 PM) $L_{eq}(h)$	Construction Sound Level $L_{max}$ at Receptor
R-2	Bridgewater Apartments	63 (ST-6)	Grading/Excavation	475 feet (NO off-ramp)	66	65
			Paving	475 feet (NB off-ramp)	65	70
			Demolition	750 feet (existing ramp)	63	66
			Bridge Work	1000 feet (bridge)	61	64
ST-5	SAE/ Expression College	60 (ST-5)	Grading/Excavation	200 feet (NB off-ramp)	74	73
			Paving	200 feet (NB off-ramp)	72	78
			Demolition	350 feet (existing ramp)	70	73
			Bridge Work	400 feet (bridge)	68	72
			Retaining Walls	200 feet (NB off-ramp)	68	73

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES

Receptor	Location	Existing Typical Hourly $L_{eq}^a$	Construction Noise Source	Distance to construction (highway)	Construction Sound Level (9 AM-6 PM) $L_{eq(h)}$	Construction Sound Level $L_{max}$ at Receptor
ST-1	KRE Radio Transmitter	61 (ST-1)	Grading/Excavation	15 feet (NB on-ramp)	96	95
			Paving	15 feet (NB on-ramp)	95	100
			Demolition	500 feet (existing ramp)	67	70
			Bridge Work	500 feet (bridge)	67	70
			Retaining Walls	15 feet (NB on-ramp)	90	95
ST-2	Kenneth A. Boathouse	66 (ST - 2_)	Grading/Excavation	300 feet (I-80)	70	69
			Paving	300 feet (I-80)	69	74
			Demolition	1075 feet (existing ramp)	60	63
			Bridge Work	1300 feet (bridge)	58	62
			Restriping	75 feet (I-80)	74	81
ST - 4	Point Emery	54 (ST - 4)	Grading/Excavation	100 feet (Frontage Road)	80	79



CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES

Receptor	Location	Existing Typical Hourly $L_{eq}$ <sup>a</sup>	Construction Noise Source	Distance to construction (highway)	Construction Sound Level (9 AM-6 PM) $L_{eq}(h)$	Construction Sound Level $L_{max}$ at Receptor
			Paving	100 feet (Frontage Road)	78	84
			Demolition	450 feet (existing ramp)	68	71
			Bridge Work	550 feet (bridge)	66	69
			Retaining Walls	150 feet (Frontage Road)	70	75
R-5	San Francisco Bay Trail	68 (ST – 3)	Grading/Excavation	30 feet (Frontage Road)	90	89
			Paving	30 feet (Frontage Road)	89	94
			Demolition	200 feet (existing ramp)	75	78
			Bridge Work	550 feet (structure)	66	69
			Retaining Walls	30 feet (Frontage Road)	84	89

Source: Wilson Ihrig 2020

<sup>a</sup> Measured peak hour values during traffic counts reported previously in Table 2.2-9; <sup>b</sup> R-15 located behind 16-foot highway barrier Modeled Results for 2045 Design Year – Comparison of Existing to Year 2045

Table 2.2-14 provides the estimated daytime construction sound levels at the nearest receptors. Many of the activities associated with daytime construction would exceed existing noise levels at the existing project area. Therefore, Caltrans BMPs would be applied during construction, and are detailed under Avoidance, Minimization, and/or Mitigation Measures.

**Table 2.2-14            Typical Construction Noise at 100 Feet Distance by Phase**

<b>Construction Phase</b>	<b>Maximum Noise Level (L<sub>max</sub>, dBA)</b>	<b>Hourly Average Noise Level (L<sub>eq[h]</sub>, dBA)</b>
Grubbing/Land Clearing	79	78
Grading/Excavation	79	80
Drainage/Utilities/Subgrade	84	81
Paving	84	78
Demolition	84	81
Bridge Work	84	81
Retaining Walls	79	74
Restriping	79	72

Source: Wilson Ihrig 2020

*Nighttime Construction*

Demolition, placement of the precast girder, and construction of new foundations are anticipated to require nighttime work. Concrete saws can generate maximum noise levels of 90 dB and an hourly L<sub>eq</sub> of 83 dB at 50 feet. The nighttime activity would be close to noise-sensitive land uses which include multi-family homes with exterior areas, recreational areas such as Aquatic Park, and the San Francisco Bay Trail. This is in violation of Caltrans Standard Specification, Section 14-08.02. The proposed project would require an exception from this requirement for this activity. Noise levels produced by saws would be reduced to ambient 63 dB at 475 feet. Auger drilling for installation of cast-in-drilled-hole piles can generate maximum noise levels of 85 dBA and an hourly L<sub>eq</sub> of 78 dBA at 50 feet. Noise levels produced by CIDH pile installation would be reduced with distance to ambient 63 dBA at 275 feet. Therefore, Caltrans BMPs would

be applied during construction, and are detailed under Avoidance, Minimization, and/or Mitigation Measures.

### **Cumulative Effects**

The cumulative setting for noise is equivalent to the noise study area evaluated above. For cumulative impacts, operational (permanent) impacts are considered. Noise-sensitive land uses in the study area include multi-family residences, and the SAE Expression College. Most of the areas adjacent to the study area are built-out, and there are no projects planned or programmed in the immediate vicinity of the project area except for the NADY Residential Project. The NADY Residential Project site is included in the noise evaluation as receptor R-6 and no noise impacts from the proposed project are shown to occur on the NADY Residential Project. Therefore, the proposed project would not make a substantial contribution to a cumulative noise impact.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

The following standard project features would also be implemented to minimize or reduce the potential for noise impacts from project construction:

PF NOI-1: Caltrans Standard Noise Control BMPs such as limiting paving and demolition activities to between 7:00 a.m. and 7:00 p.m.

PF NOI-2: Inspection of equipment by the contractor will ensure that all equipment onsite is working properly, in good condition, and effectively muffled. All equipment will have sound-control devices no less effective than those provided on the original equipment.

PF NOI-3: Construction activities shall be minimized in the study area during evening, nighttime, weekend, and holiday periods.

PF NOI-4: Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to study area users are minimal (e.g., restrict the hours to weekdays during daytime hours).

PF NOI-5: The Resident Engineer will be responsible to collect and respond to any complaints related to construction noise.

PF NOI-6: Truck loading, unloading, and hauling operations will be minimized so that noise and vibration are kept to a minimum through the study area to the greatest possible extent.

## **Avoidance and Minimization**

With application of the aforementioned project features, no avoidance, minimization, or mitigation measures are required for noise abatement.

## **Mitigation**

There are no mitigation measures associated with noise.

## **2.2.8 ENERGY**

This section evaluates energy usage associated with the proposed project. Sources of information used to prepare the analysis in this section include:

- 2020 Traffic Operations Analysis Report (December 2020)
- Energy Conservation Report (October 2021)
- City of Emeryville General Plan
- City of Berkeley General Plan

## **REGULATORY SETTING**

NEPA 42 USC Part 4332 requires the identification of all potentially significant impacts to the environment, including energy impacts.

CEQA Guidelines section 15126.2(b) and the Energy Conservation Report require an analysis of a project's energy use to determine if the proposed project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

## **AFFECTED ENVIRONMENT**

### **Traffic Conditions**

Existing traffic conditions along I-80 were evaluated using vehicles miles traveled (VMT) calculations. VMT was estimated in the Traffic Operational Analysis Report (Caltrans 2020) for I-80 for the opening year condition (2025), and the horizon year condition (2045). Traffic operations were evaluated using the procedures outlined in the *Traffic Operation Methodology Memorandum* (Caltrans 2018). The Build Alternative and design variations were evaluated for the opening and horizon years in the AM and PM peak hours.

As noted in the Traffic Operational Analysis Report, and Section Traffic and Transportation/Pedestrian and Bicycle Facilities, local streets in the project area are

also affected by traffic congestion and travel delays. Currently, local streets are congested during morning and evening peak commute hours. Motorists traveling between I-80, and local streets are subjected to long queue lines, and stop-and-go traffic patterns. Inefficient travel conditions contribute to increased energy consumption as vehicles use extra fuel when moving at slow speeds, or while in stop-and-go traffic conditions.

### **Transportation Safety Management Elements**

In the project area, there are limited transportation safety management (TSM) elements. The elements include transit, ridesharing programs, and existing bicycle/pedestrian infrastructure. These elements help decrease energy consumption.

There are existing gaps in the bicycle and pedestrian facilities within the project area. There are no existing or planned bicycle facilities on Ashby Avenue within the immediate vicinity of the I-80/Ashby Avenue interchange. Bicyclists wishing to access the San Francisco Bay Trail would either need to divert to the University Avenue or Powell Street interchanges or travel through the Ashby connectors which are not designated for bicycle travel, causing deficiencies. Both Shellmound Street and Frontage Road have Class 2 and Class 1 Bicycle lanes, respectively. However, during peak travel times, the bike lanes have high levels of traffic stress, and the possibility of the bicycle lane blocked due to long traffic queues.

### **Pavement Conditions**

Poor pavement-vehicle interaction could account for one percent of the overall fuel consumption on California highways (Caltrans and the MIT Concrete Sustainability Hub 2016). Based on a field evaluation and a desktop review of the roadways in the project area, most roadways, ramps, and surface streets appear to be in good condition with limited deterioration (cracking, patching, and/or potholing). Currently, cracking and potholing can be seen both north and southbound before the undercrossing at Ashby Avenue, and at the undercrossing on the I-80 heading eastbound.

### **Lighting and Traffic Signals**

Based on a field evaluation, lighting is present throughout the project area. Highway lighting is provided along the I-80 corridor, and the subsequent ramps. Pedestrian-scale streetlighting is present along Bay Street, Shellmound Street, Ashby Avenue, and Frontage Road. Existing pedestrian-scale streetlights are assumed to be low- to high-pressure sodium lamps.

Traffic within the interchange would be controlled by two traffic signals, one at the westbound on and off ramps and one at the eastbound on and off ramps. East of the

eastbound on and off ramp locations there would be a traffic signal for the Bay Street connector ramp. A traffic signal would be constructed at the intersection of the Ashby Avenue and West Frontage Road. Both eastbound and westbound on ramps would be metered.

## ENVIRONMENTAL CONSEQUENCES

### Planning Strategies

The proposed project is included in MTC's RTP, 2021 TIP, and *Plan Bay Area 2050*. Therefore, the proposed project would not obstruct or conflict with statewide or regional planning strategies, including the requirements regarding energy usage and efficiency.

CEQA guidelines require an analysis of a project's potential for significant environmental effects resulting from wasteful, inefficient, or unnecessary use of energy. A quantitative analysis is required for projects that increase capacity or provide congestion relief, both of which would affect the ability of a transportation facility to accommodate existing and future traffic demands.

The proposed project was not classified as a capacity increasing project and is not expected to change the existing vehicle mix. Examples of capacity increasing projects include new highways, added travel or auxiliary lanes, and new or reconfigured interchanges. However, the proposed project would relieve congestion on local roadways. An assessment of the proposed project's potential direct and indirect energy consumption was performed. Direct energy includes operational energy use and the one-time energy expenditure from project construction. Indirect energy includes maintenance activities required to operate or maintain the proposed project.

### Direct Energy Usage

#### *Permanent Operational Impacts*

#### Roadway Improvements

Traffic congestion and stop-and-go conditions produce a higher demand for fossil fuels and energy. The proposed project would improve traffic flow during peak travel times and thereby improve vehicle fuel economies. Under the Build Alternative, traffic operations would substantially improve traffic conditions thus reducing the overall energy consumption.

#### Additional Improvements

The Build Alternative would include several TSM elements. Existing bicycle and pedestrian networks would be expanded within the project area. At-grade sidewalks and

signalized crossings on the east and west sides of the I-80 at the ramps and adjacent to the Ashby Avenue would be included as part of the Build Alternative. Bicyclists and pedestrians would access this connection via 65<sup>th</sup> street on the east side of the proposed project and West Frontage Road. A separated BPOC would also be constructed south of the new interchange. This structure would include ADA compliant switchbacks on the east and west sides of the I-80 approaching the separate BPOC. Like the proposed at-grade bicycle/pedestrian improvements, the structure would be publicly accessible from 65<sup>th</sup> Street to the east and West Frontage Road to the west.

Improvements to bicycle and pedestrian networks would help reduce VMT by encouraging walking and bicycling within the project area. These alternative modes of transportation consume no energy; therefore, the proposed project's overall energy consumption would be reduced.

### *Temporary Construction Impacts*

Under the No Build Alternative, the proposed project would not be constructed, and would not have the one-time consumption of direct energy that would under the Build Alternative.

Energy consumed during construction of the proposed project would be temporary and would not result in permanent increases in statewide annual energy consumption. Compared to California's annual energy consumption in the transportation sector, the energy expended to construct the proposed project would represent a negligible increase of the annual statewide energy consumption. Additionally, the construction window for the proposed project would span a 36-month window. This would result in even smaller annual energy expenditures, representing a smaller proportion of the statewide annual energy consumption per year.

Direct energy consumption during construction would result from materials processing, operation of on-site construction equipment, and traffic delays or detours. Energy consumption would vary by construction phase but could be reduced through implementation of a Transportation Management Plan. BMPs would also be implemented to reduce energy consumption including limiting equipment idling, maintaining proper tire pressures on equipment, using local sources for materials, and using local sources for disposal.

### **Indirect Energy Usage**

#### *Maintenance*

Long-term maintenance of the I-80 corridor, and surrounding roads within the proposed project area would occur under the Build Alternative or the No Build Alternative. Under

the No Build Alternative, traffic congestion and deficiencies in bicycle/pedestrian infrastructure would persist. Under the Build Alternative, both on- and off-ramps would be metered with a high-occupancy vehicle bypass lane in the westbound direction only, consistent with existing conditions. Under the No Build Alternative, the flow of traffic onto I-80 would continue to be metered with a high-occupancy vehicle bypass lane in the westbound direction only. Pavement conditions would continue to deteriorate, and less efficient technology would continue to be used for the pedestrian-scale streetlights for a long period of time.

The Build Alternative would address these deficiencies by alleviating local traffic congestion, controlling the flow of traffic onto I-80, and promoting zero-energy alternative modes of transportation such as walking and biking. Operationally, the Build Alternative would have increased energy saving potential over the No Build Alternative.

#### AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

##### **Project Features**

There are no project features associated with energy resources.

##### **Avoidance and Minimization**

No avoidance and/or minimization measures would be required.

##### **Mitigation Measures**

No mitigation measures would be required.



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## 2.3 BIOLOGICAL ENVIRONMENT

### AFFECTED ENVIRONMENT

Unless otherwise noted, information in this section is based on the *Natural Environment Study* (NES) prepared for the proposed project (October 2021).

#### **Biological Study Area**

The Biological Study Area (BSA) includes all areas that could potentially be impacted, temporarily or permanently, by the proposed project within the maximum footprint of the project area (see Figure 2.3-1). The BSA includes the project footprint, including staging and access areas, plus an additional buffer to account for potential indirect effects.

Direct effects are impacts that occur at the same time and place, while indirect effects are those impacts that are reasonably foreseeable but occur at a different time or place such as construction noise, dust, or vibration.

The BSA is in a highly developed urban area that is fragmented by existing surface streets; Interstate 80 (I-80) and associated interchanges; and isolated by residential, commercial, and industrial development. As shown in Figure 2.3-1, a total of 14 land cover types were delineated within the BSA: acacia, arroyo willow thickets, cattail marsh, developed, eucalyptus groves, gumplant patches, ice plant mats, landscaped, Monterey cypress stands, open water, pickleweed marsh, ruderal vegetation, and saltgrass flats. The developed non-critical habitat type includes all paved surfaces of I-80, Ashby Avenue, the UPRR Pacific Railroad tracks, adjacent surface streets, and commercial and industrial buildings in the BSA. The landscaped cover type includes unpaved areas and roadside plantings adjacent to I-80, ramps and interchanges, and surface streets. All these features are constructed. Historical natural communities within the BSA have been altered and continue to be subject to regular disturbance from human activities.

Figure 2.3-1 Biological Study Area (BSA)

INTERSTATE-80/ASHBY AVENUE INTERCHANGE IMPROVEMENT PROJECT



Biological Study Area: BSA

Figure

2.3-1

Source: Horizon, 2021

### 2.3.1 NATURAL COMMUNITIES

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Section 2.3.5, Threatened and Endangered Species. Wetlands and other waters are also discussed in Section 2.3.2, Wetlands and Other Waters.

#### **Non-Critical Habitat Types**

Non-critical habitat types present within the BSA are depicted in Figure 2.3-1. Of all the non-critical habitat types shown, only the open water areas within the San Francisco Bay are federally designated critical habitat under the Federal Endangered Species Act. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed further in Section 2.3.5, Threatened and Endangered Species. No sensitive natural communities (e.g., natural communities that have limited distribution) exist within the BSA. Each non-critical habitat type present within the BSA is briefly described below.

#### *Acacia*

Areas dominated by acacia (*Acacia* spp.) are present in several portions of the BSA. The most common species in these areas is blackwood acacia (*A. melanoxylon*). The stand of acacia between the EB on-ramp and Radio Tower Pond is a historical night heron rookery.

#### *Arroyo Willow Thickets*

Areas dominated by arroyo willow (*Salix lasiolepis*) are present on the east shore of the Radio Tower Pond. Other tree species present in this habitat include red willow (*Salix laevigata*) and ash (*Fraxinus* sp.).

#### *California Annual Grassland*

Dominant species include wild oat (*Avena fatua*) and ripgut brome (*Bromus diandrus*). This community is patchily distributed within undeveloped areas of the Ashby Avenue Interchange (interchange).

#### *Cattail Marsh*

Cattail (*Typha* sp.) marshes are dominated by cattails, with other hydrophytic vegetation also

present. These marshes are located along the margins of the Radio Tower Pond. Cattail marsh habitat is found in semi-permanently flooded conditions (Sawyer et al. 2009).

### *Developed*

Areas mapped as developed include roads and anthropogenic features such as buildings and parking lots. Vegetation in these areas is usually sparse and dominated by weedy herbaceous species. Developed landcover includes all paved surfaces of I-80, Ashby Avenue, adjacent roads, and commercial and residential buildings adjacent to the freeway. Wildlife species typically associated with developed areas include striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*). Wildlife observed in developed areas include domestic cat (*Felis catus*), mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), and European starling (*Sturnus vulgaris*).

### *Eucalyptus Groves*

Various stands of eucalyptus (*Eucalyptus spp.*) are located along the I-80 off-ramps within the BSA. This habitat has sparse to intermittent herbaceous layers.

### *Gumplant Patches*

Oregon gumweed (*Grindelia stricta*) is the dominant species in this habitat. This habitat was found along the pond margins of the Model Yacht Basin.

### *Ice Plant Mats*

This habitat consists almost exclusively of ice plant (*Carpobrotus sp.*), which is an invasive species, and is found within unpaved areas of the interchange. No wildlife was observed in this land cover type, and this land cover type generally provides little value to native wildlife species.

### *Landscaped*

Landscaped areas of the BSA are characterized by ornamental vegetation and are in close proximity to the more expansive developed areas. Wildlife species typically associated with landscaped areas include striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*). Wildlife observed in developed areas include domestic cat (*Felis catus*), mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), and European starling (*Sturnus vulgaris*).

### *Monterey Cypress Stands*

Planted stands of Monterey cypress (*Hesperocyparis macrocarpa*) are present within the interchange. The understory in these areas ranges from sparse herbaceous to bare ground. Protected naturally occurring Monterey cypress stands that are present in California and are considered a sensitive natural community, however the species has also been widely cultivated. The BSA is not within the native range of this vegetation community. Therefore, this vegetation type is not considered a sensitive natural community within the BSA.

### *Open Water*

Open water habitats are present in the San Francisco Bay, Radio Tower Pond, and the Model Yacht Basin...These open water and estuaries are highly productive ecosystems and typically support large numbers of fish, birds, and invertebrates. Wildlife observed in open water areas include snowy egret (*Egretta thula*), American coot (*Fulica americana*), and American white pelican (*Pelecanus erythrorhynchos*).

### *Pickleweed Marsh*

Pickleweed (*Sarcocornia pacifica*) is the dominant species in this habitat, with marsh jaumea (*Jaumea carnosa*) also dominant in some areas. This habitat was found along the pond margins of the Radio Tower Pond and Model Yacht Basin.

### *Ruderal*

Ruderal habitat is the most abundant natural community within the BSA. Ruderal vegetation is characterized by non-native forbs and grasses in disturbed areas typically along the edges of developed areas. This habitat can be found on the western half of the BSA.

### *Salt Grass Flats*

Salt grass (*Distichlis spicata*) is the dominant species in this habitat. This habitat can be found along the pond margins of the Radio Tower Pond and Model Yacht Basin (Berkeley Aquatic Park) and at the edge of the Radio Tower parking lot at elevations above the pickleweed mats and gumplant patches.

**Table 2.3-1 Temporary and Permanent Impacts To Land Cover Types within the BSA**

Land Cover Type	Temporary Impact Area (Acres)	Permanent Impact Area (Acres)
Acacia	0.079	0.001
Arroyo Willow Thickets	0.000	0.001
California Annual Grassland	1.697	2.319
Cattail Marsh	0.000	0.000
Developed	4.794	8.179
Eucalyptus Groves	0.339	0.340
Gumplant Patches	0.000	0.000
Ice Plant Mats	2.003	1.472
Landscaped	1.049	1.053
Monterey Cypress Stands	0.727	0.715
Open Water	0.000	0.000
Pickleweed Marsh	0.000	0.000
Ruderal	6.571	3.355
Salt Grass Flats	0.000	0.012
<b>Total</b>	<b>17.259</b>	<b>17.447</b>

Source: Horizon Water & Environmental 2021

### Wildlife Corridors and Wildlife Fragmentation

Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration, including the pacific flyway. The pacific flyway is a crucial migratory corridor for many waterfowl and stretches from Alaska to Mexico, with the San Francisco Bay serving as a critical stopover for food and cover. The terrestrial habitat within and near the BSA is isolated, and connectivity is substantially restricted within the BSA due to the highly developed nature of the I-80 corridor. The terrestrial portions of the BSA are highly urbanized and primarily developed, with only small, undeveloped (e.g., unpaved) areas occurring in discontinuous, fragmented patches between developed areas. No impacts on wildlife connectivity are anticipated. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

## ENVIRONMENTAL CONSEQUENCES

### Non-Critical Habitat Types

#### *No Build Alternative*

The No Build Alternative assumes that the I-80/Ashby interchange would remain in its existing condition and no further action or improvements would occur. Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. Therefore, the No Build Alternative would not affect habitat types present within the BSA.

#### *Build Alternative*

Table 2.3-1 provides a summary of temporary and permanent impacts in acres to habitat types for the Build Alternative within the BSA. All temporary and permanent impacts of the Build Alternative would be considered direct impacts. Any potential temporary impacts to natural communities would be minimized with the incorporation of PFs and AMMS (refer to Appendix C for further detail regarding project features). None of the habitat types within the BSA (listed in Table 2.3-1) are considered natural communities of concern.

### Trees

There are 445 trees regulated by local ordinances within the BSA. Regulated trees meet specific size and species requirements and are protected by local ordinances. These trees are primarily located along surface streets and landscaped areas and include native and non-native species. Of the 445 regulated trees, 301 are in Berkeley and 144 are within Emeryville. Trees in the BSA include native and non-native species, predominantly blackwood acacia, Monterey cypress, sheoak (*Casuarina* sp.), and Ngaio tree (*Myoporum laetum*).

Construction and operation of the proposed project would result in the removal of protected trees. The cities of Emeryville and Berkeley have local tree ordinances that protect trees. In Emeryville, there are no specific species of trees that are classified as protected trees. The City of Berkeley, places restrictions on the removal of coast live oak (*Quercus agrifolia*); no other restrictions apply. Caltrans and Alameda CTC are exempt from local tree protection ordinances. Landscaping and ornamental trees provide aesthetic value and can provide habitat and food sources for local wildlife including nesting habitat for common bird species.

#### *No Build Alternative*

The No Build Alternative assumes that the I-80/Ashby interchange would remain in the existing condition and no further action or improvements would occur. Under the No



Build Alternative, its existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. The No Build Alternative would not result in removal of regulated trees within the BSA.

### *Build Alternative*

The Build Alternative would remove up to 149 trees within the BSA, up to 127 trees would be removed in Berkeley, and up to 22 trees would be removed in Emeryville.

### **Cumulative Impacts**

The cumulative impacts setting includes sensitive habitat types within and surrounding the BSA. Cumulative effects to natural communities would occur if planned and foreseeable development, when taken in combination with the proposed project, would result in the removal of sensitive habitat types and could reduce sensitive habitat types on a regional level. The BSA is relatively developed and fragmented and experiences a high level of human disturbance. The BSA does not contain sensitive natural communities. As the project vicinity is either urbanized or reserved for park land, surrounding natural areas are not likely to be developed. Development of the project in combination with other planned development is therefore unlikely to substantially affect valuable natural communities. Therefore, no cumulative effect related to natural communities is anticipated.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

PF BIO-3 Avoid Regulated Trees and Replace Where Unavoidable: The project proponent or their contractor will avoid the removal of trees by minimizing the area of disturbance where practicable. The project proponent or their contractor will retain an arborist to direct tree pruning activities when feasible and removal is not necessary. Trees to be removed or damaged during the project, will be replaced within the BSA to the extent feasible. Trees will be replaced at a 1:1 ratio with native trees.

Replacement trees will be irrigated for a period of no less than three years.

### **Avoidance and Minimization**

#### **No applicable AMMs. Mitigation Measures**

No mitigation would be required.

## 2.3.2 WETLANDS AND OTHER WATERS

### REGULATORY SETTING

#### **Federal**

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States [U.S.] Code 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into Waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high-water mark, in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the ordinary high-water mark to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation and inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The purpose of the USACE and Section 404 program is to ensure that the physical, biological, and chemical quality of our nation's water is protected from irresponsible and unregulated discharges of dredged or fill material that could permanently alter or destroy these valuable resources. The USACE Regulatory Program administers and enforces Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the CWA. Under the Rivers and Harbors Act, Section 10, a permit is required for work or structures in, over or under navigable waters of the U.S. Under CWA, Section 404, a permit is required for the discharge of dredged or fill material into waters of the U.S. Many water bodies in the nation are waters of the U.S, as described in Section 3-3, and are subject to the USACE regulatory authority.

The USACE issues two types of 404 permits: general and individual. There are two types of general permits: regional and nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal

environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a regional or nationwide permit may be permitted under one of USACE's individual permits. There are two types of individual permits: standard permits and letters of permission. For individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" to the proposed discharge that would have lesser effects on Waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order (EO) for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as Federal Highway Administration (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

### **State**

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board, the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Bay Conservation and Development Commission may have jurisdiction if the project is within the 100-foot shoreline band.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to Waters of the U.S. This is most frequently required in tandem with a Section 404 / Section 10 permit request. Please see Section 2.2.2, Water Quality and Stormwater Runoff for more details.

## AFFECTED ENVIRONMENT

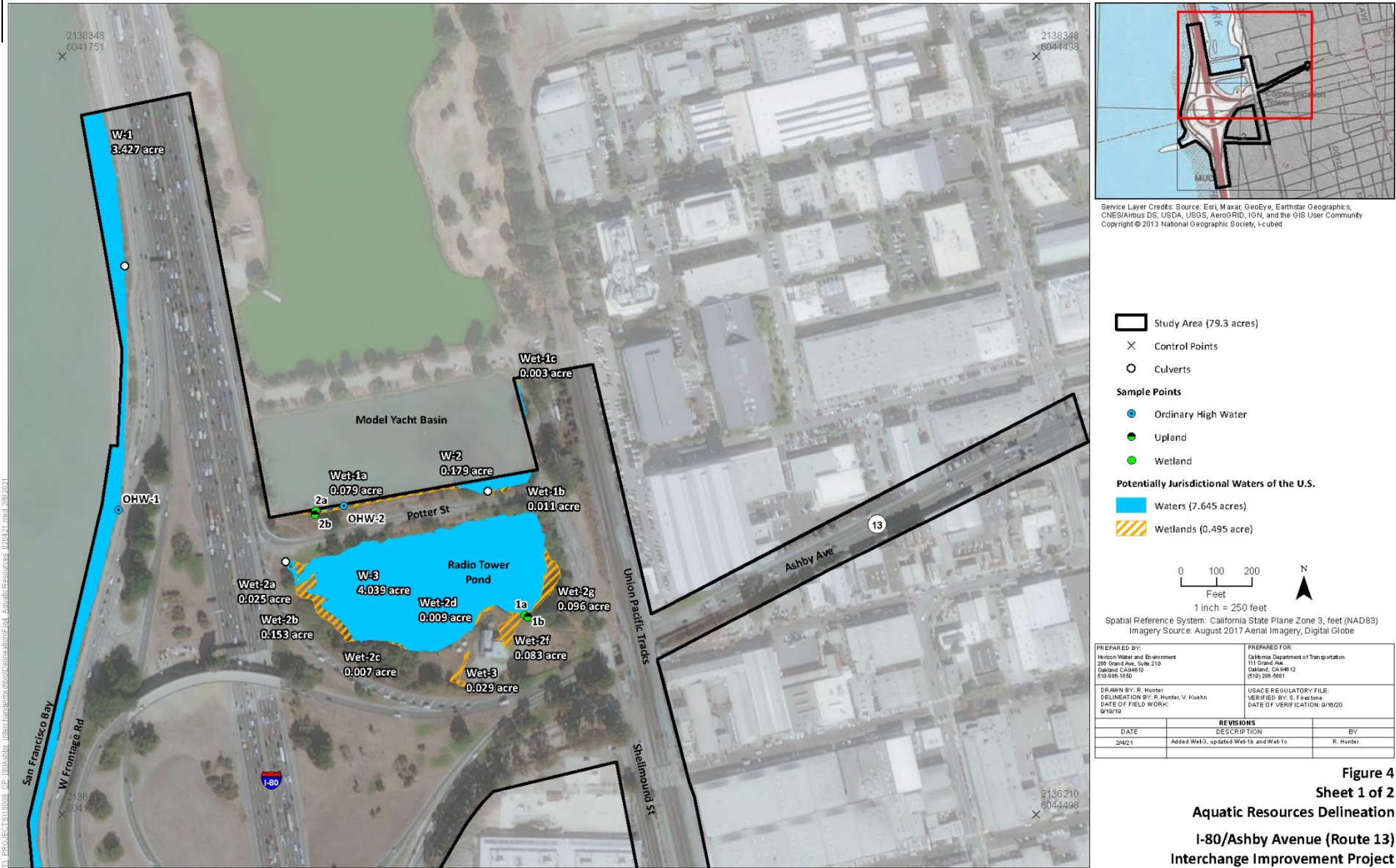
Jurisdictional waters within the BSA are summarized in the *Aquatic Resources Delineation Report* (ARDR) (February 2021) and the NES (October 2021). An approved preliminary jurisdictional determination (PJD) was obtained on April 20, 2021.

The study area for wetlands and other waters includes water bodies within the BSA that could be affected by erosion or fill during project construction. There are 8.14 acres of wetlands and waters within the BSA (see Figure 2.3-2 and Figure 2.3-3 for wetlands adjacent to the project area).

Palustrine wetlands are inland freshwater areas dominated by vegetation that serve as breeding areas, habitats, and water filters for a variety of species. Estuarine areas, such as Radio Tower Pond and the Model Yacht Basin (Berkeley Aquatic Park), are partially enclosed coastal water bodies that contain a mix of freshwater from rivers and streams with salt water from the ocean. This unique habitat type is critical for many birds, mammals, fish, and other wildlife species. Estuarine areas can also help function as buffers between the land and ocean by absorbing flood waters and dissipating storm surges.

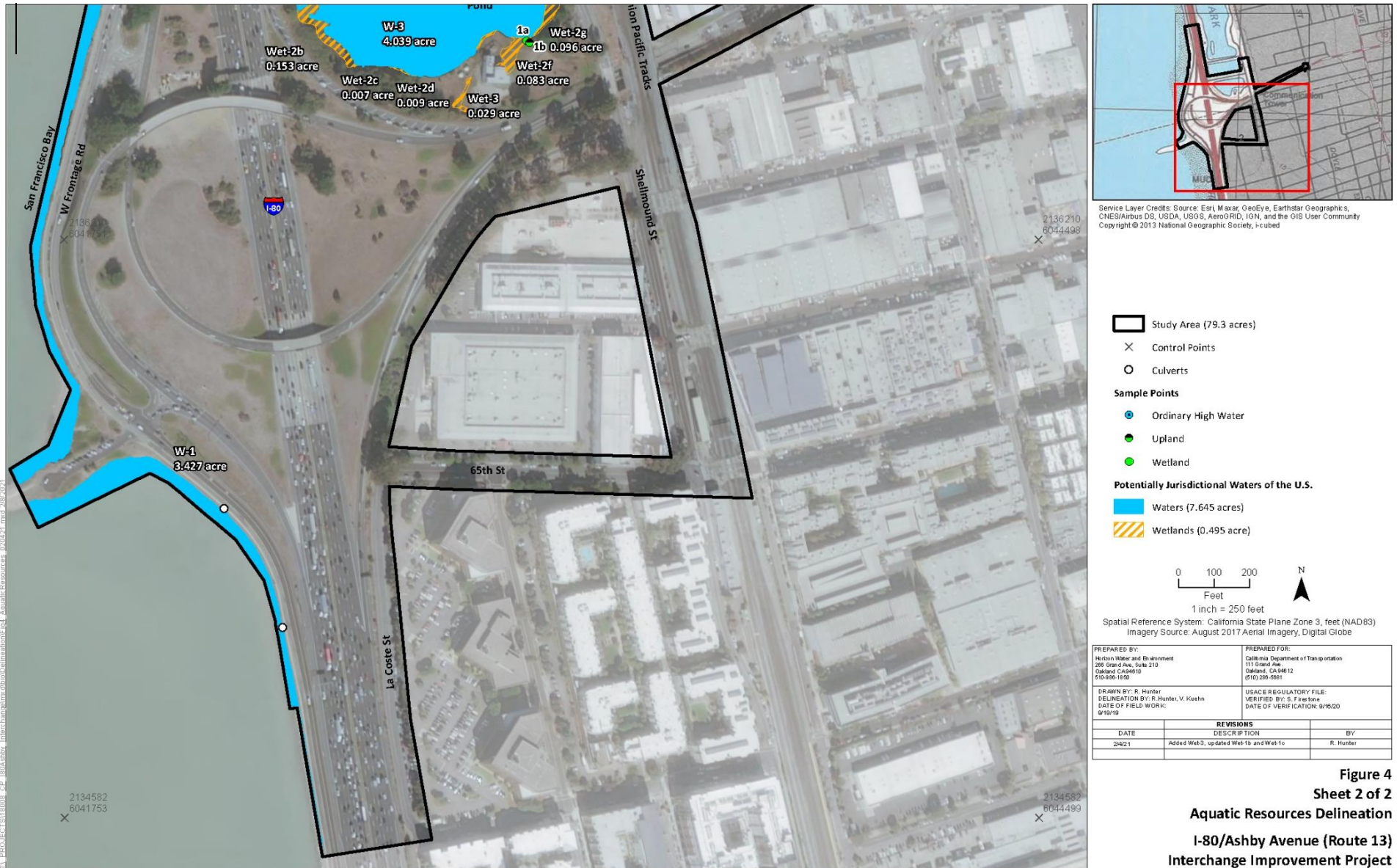
As documented in the ARDR and PJD, the BSA contains 7.645 acres of jurisdictional other waters of the U.S., and 0.495 acres of jurisdictional wetlands, totaling 8.14 acres. These waters include the San Francisco Bay, as well as in Radio Tower Pond and Model Yacht Basin, located to the east of I-80. Wetlands are found in narrow bands around the ponds. No wetlands are present along the shore of the San Francisco Bay within in the BSA, as these areas are typically armored with rock-slope protection. These aquatic features are subject to USACE and RWQCB jurisdiction due to their proximity and hydrologic connectivity to the San Francisco Bay, which is considered a traditionally navigable water.

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES



**Figure 4**  
**Sheet 1 of 2**  
**Aquatic Resources Delineation**  
**I-80/Ashby Avenue (Route 13)**  
**Interchange Improvement Project**

CHAPTER 2 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,  
AND AVOIDANCE MINIMIZATION AND/OR MITIGATION MEASURES



**Figure 4**  
**Sheet 2 of 2**  
**Aquatic Resources Delineation**  
**I-80/Ashby Avenue (Route 13)**  
**Interchange Improvement Project**

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

The No Build Alternative assumes that existing conditions would remain the same and no further action or improvements would occur. Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. Therefore, no impacts to wetlands and other waters would occur under the No Build Alternative.

### **Build Alternative**

The Build Alternative would require the construction of a new drainage outfall at an outlet leading into the San Francisco Bay. This activity would result in the placement of permanent and temporary fill material within San Francisco Bay, a water of the U.S. A hydrologic analysis was used in the design of the new drainage outfall to inform the development of avoidance and minimization measures that would reduce adverse impacts due to changes in potential flows or stormwater discharge.

The Build Alternative would result in fill within 0.012 acres of wetlands within the USACE's jurisdiction near Radio Tower Pond. Additionally, construction of the outfall would result in 0.007 acres of permanent impacts to other waters of the U.S. in San Francisco Bay. The Build Alternative would be constructed within jurisdictional waters, and there is no practicable alternative that would avoid impacts to these resources.

Impacts to waters of the U.S. are summarized in Table 2.3-2. Construction of the Build Alternative would require the following permits relating to wetlands and other waters:

- USACE, Nationwide Permit 7 Section 404 of the CWA
- USACE, Section 10 of the Rivers and Harbors Act
- RWQCB, Section 401 Certification of the CWA

**Table 2.3-2 Summary of Aquatic Resources Impacts**

	Temporary Impacts		Permanent Impacts	
Feature Type	Acres	Square Feet	Acres	Square Feet
Jurisdictional Wetlands Subject to 404 Jurisdiction				
Estuarine Emergent	--	--	--	--
Palustrine Emergent	0	0	0.012	507
Other Waters of the U.S. Subject to 404 and Section 10 Jurisdiction				
Estuarine	0.019	831	0.007	301
Total Impacts to Waters of the U.S.	0.019	831	0.019	808

Source: Horizon Water & Environmental 2020

### Temporary Impacts

As shown in Figure 2.3-2, construction of the outfall would result in temporary impacts to 0.019 acres of other waters in the San Francisco Bay, within jurisdiction of the USACE. Project-related construction activities have the potential to impact water quality from erosion and sedimentation, and from jack and bore-related boring fluid/mud storage pits that could leak into the San Francisco Bay. This could affect the health of wildlife species within the area and cause a loss or degradation of aquatic habitat within the BSA and downstream. However, the implementation of standard Caltrans construction BMPs would reduce the likelihood of this project resulting in adverse impacts to water quality outside the project footprint.

### Cumulative Impacts

The proposed project would permanently impact 0.007 acres of other waters of the U.S. and 0.012 acres of palustrine emergent wetland. The overall scale of estuarine waters within the San Francisco Bay would not be substantially affected by the proposed project. Additionally, Caltrans would coordinate with USACE to purchase mitigation credits at an approved bank or provide onsite restoration to offset project-related impacts to waters of the U.S. These factors indicate that the contribution of the proposed project in comparison to the cumulative impact of past, present, and reasonably foreseeable future projects in the San Francisco Bay would not be considerable. The proposed project would not substantially contribute to the cumulative loss of wetlands or other waters in the region.



### **Least Environmentally Damaging Practicable Alternative**

The Build Alternative represents the best possible design, based on current and planned land uses and impacts to biological resources. Design variations such as the BPOC structure type (butterfly arch, basket handle arch, or box girder) and connection to the San Francisco Bay Trail and Point Emery (at-grade crosswalk or below-grade crossing under West Frontage Road) would result in the same impacts to jurisdictional waters and wetlands. The No Build Alternative is not considered practicable because it does not meet the purpose and need of the project, as defined in Chapter 1.0, Proposed Project. Therefore, the Build Alternative qualifies as the Least Environmentally Damaging Practicable Alternative (LEDPA).

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

#### **Project Features**

Incorporation of PF WQ-3 will protect water quality within jurisdictional wetlands through implementation of a Stormwater Pollution Prevention Program and utilization of a water quality inspector during construction activities. See Appendix C for the full text of these project features.

#### **Avoidance and Minimization**

AMM BIO-2: No In-Water Work During Fish Migration Periods: The Project proponent or their contractor will not conduct in-water work within SF Bay between November 1 and June 1 to avoid potential impacts on protected fish (steelhead, Chinook salmon, green sturgeon, and longfin smelt) during peak migration periods to suitable spawning habitat

AMM BIO-3: No In-Water Work During the Wet Season – Caltrans would avoid conducting in-water work during the typical wet season, between November 1 and March 31.

AMM BIO-12: High-Visibility Fencing: The Project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance.

#### **Mitigation Measures**

Compensatory Mitigation Measure (MM) BIO-1: Mitigation will be required for the unavoidable impacts to aquatic resources at the new outfall area within the BSA. Compensatory mitigation would occur at a minimum 1:1 ratio for permanent impacts (impact area to compensation area) to assure no-net-loss of waters of the U.S., and the final mitigation ratio will ultimately be determined through Caltrans' coordination with the

USACE during the Section 404 / Section 10 permitting process. Mitigation may occur through one or a combination of onsite or offsite habitat creation or restoration, the purchase of offsite mitigation bank credits, and/or payment of an in-lieu fee. Onsite and offsite mitigation options include preservation, enhancement, and restoration of the values and functions of wetlands and other waters of the U.S.

### WETLANDS ONLY PRACTICABLE ALTERNATIVE FINDING

As discussed in the Regulatory Setting above, EO 11990 states that a federal agency cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to the construction and (2) that the proposed project includes all practicable measures to minimize harm.

As discussed in Section 1.5, Identification of a Preferred Alternative, the Build Alternative was selected for its ability to meet the purpose and need, and provide the best and most efficient traffic routes while minimizing environmental impacts. As demonstrated in Section 1.5.4, Alternatives Considered but Eliminated from Further Discussion Prior to the Draft IS/EA, the Build Alternative was selected out of at least 12 other options. None of these alternatives were able to fully eliminate impacts to wetlands; therefore, it was determined that there was no practicable alternative to construction within the wetlands.

In addition to minimizing the area of impact through design, the Build Alternative would incorporate a Stormwater Pollution Prevention Program and utilization of a water quality inspector during construction activities (PF WQ-3) and delineate sensitive areas during construction to avoid unnecessary ground disturbance (AMM BIO-12). Together, these represent all practicable measures to minimize harm to wetlands on the project site.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

### 2.3.3 PLANT SPECIES

#### REGULATORY SETTING

##### **Federal and State**

The U.S. Fish and Wildlife Service (USFWS) and CDFW have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines.

Special-status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see Section 2.3.5, Threatened and Endangered Species in this document for detailed information about these species. This section of the document discusses all other special-status plant species, including CDFW Species of Special Concern (SCC), USFWS candidate species, and the California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 U.S. Code Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code (CFG), Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at CFG, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

## AFFECTED ENVIRONMENT

Unless otherwise noted, information in this section is based on the NES prepared for the proposed project (October 2021).

The BSA for plant species includes all areas of ground disturbance and aquatic disturbance that would occur under the proposed project. Searches of the California Natural Diversity Database (CNDDB), CNPS, and USFWS databases were used to determine those plant species that have a potential to occur in the BSA. A total of 88 special-status species were found as having some potential to occur in the BSA. None were encountered during reconnaissance-level biological surveys, and these plants are unlikely to occur in the BSA due to poor habitat quality from the urbanized and developed condition of the project area.

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. The No Build Alternative would have no effect on special-status plant species.

### **Build Alternative**

No special-status plant species were observed within the BSA, and such plants are unlikely to occur in the BSA due to the developed nature of the project area and lack of physical and biological features to support them. The area is extremely fragmented from

natural areas that could serve to recolonize species within the BSA, and receives regular maintenance in the form of mowing, clearing, and grubbing. Therefore, Caltrans does not anticipate this project will affect special-status plant species.

### **Temporary Construction Impacts**

No construction impacts to special-status species would occur as none are present within the BSA.

### **Cumulative Impacts**

As discussed, special-status species are unlikely to occur within the BSA; therefore, the proposed project would not contribute to a cumulative effect on plant species.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

No applicable project features.

### **Avoidance and Minimization**

No applicable AMMs.

### **Compensatory Mitigation**

No compensatory mitigation would be required.

## **2.3.4 ANIMAL SPECIES**

### **REGULATORY SETTING**

#### **Federal and State**

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service or NMFS), and the CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under FESA or CESA. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5, Threatened and Endangered Species below. All other special-status animal species are discussed here, including CDFW fully protected species and SSC.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act (NEPA)
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act (CEQA)
- Sections 4150 and 4152 of the CFG
- Sections 3503 and 3505.5 of the CFG

## AFFECTED ENVIRONMENT

Unless otherwise noted, information in this section is based on the NES prepared for the proposed project (October 2021).

The BSA includes all areas of ground disturbance and aquatic disturbance that would occur under the proposed Project. The identification of special-status animal species with the potential to occur in the BSA is based on a search of USFWS, CNDDDB, and NMFS databases. These searches identified a total of 55 special-status animal species with potential to occur in the region. Based on biological field surveys, suitable habitat exists within the BSA for three of these species: Northern harrier (*Circus hudsonius* [formerly *cyaneus*]), white-tailed kite (*Elanus leucurus*), western pond turtle (*Emys* [= *Actinemys*] *marmorata*). Although these species have the potential to occur within the BSA, none were observed during biological surveys.

Migratory bird species protected by MBTA and/or CFGC may utilize the BSA for foraging and nesting activities, though the potential for this remains low due to the developed nature of the project area. There are only small, isolated patches of habitat within the BSA. Suitable nesting substrate for Cooper's hawk (*Accipiter cooperii*), great egret (*Ardea alba*), and great blue heron (*Ardea herodias*) occurs in limited portions of the BSA and adjacent areas. Several other bird species, such as cliff swallow (*Petrochelidon pyrrhonota*) and black phoebe (*Sayornis nigricans*), could nest on structures and vegetation within and adjacent to the BSA.

### **Animal Species in the BSA**

Animal species vary between habitat types within the BSA. Animal species with potential to occur in the BSA are described below.

### *Northern Harrier*

The Northern harrier is a SCC. The Northern harrier nests in marshes and moist fields, and forages over open areas. The Northern harrier could translocate through the BSA and has the potential to breed in marginally suitable nesting habitat present outside of and adjacent to the BSA, but habitat is absent from the BSA itself due to frequent human activity, traffic, night lighting, and road noise.

### *White-Tailed Kite*

The White-tailed kite is a federally protected species. The species typically resides in ungrazed or minimally grazed grasslands, agricultural areas, and grass dominated wetlands. The White-tailed kite has a potential to occur near the BSA due to the presence of marginally suitable nesting habitat. The species could translocate through the BSA, but is unlikely to nest in the BSA because of its developed nature and lack of mature trees suitable for nesting.

### *The Western Pond Turtle*

The Western pond turtle is an SSC and is a predominantly aquatic turtle. Residing in ponds, marshes, rivers, and streams within the region, the Western pond turtle has the potential to occur within open waters and stormwater basins within the BSA. Marginal brackish to marine aquatic habitat is present in the Aquatic Park lagoon, Model Yacht Basin, and Radio Tower Pond, but this would only provide temporary refuge for the species. Suitable permanent aquatic habitat is present in the freshwater wetland east of the lagoon.

## **Fish Species**

As discussed in Section 2.3.1, Natural Communities, the San Francisco Bay provides suitable habitat for a variety of special-status fish species such as southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, Central California Coast steelhead, Central Valley steelhead, and longfin smelt. Spawning habitat is absent from the BSA. These fish species are discussed further in Section 2.3.5, Threatened and Endangered Species.

## **Other Common Species within the BSA**

Wildlife species typically associated with developed areas include; Striped skunk (*Mephitis mephitis*), Raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*). Wildlife observed in developed cover includes domestic cat (*Felis catus*), mourning dove (*Zenaida macroura*), Rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), Turkey vulture (*Cathartes aura*), Canada goose (*Branta hutchinsii leucopareia*).

Wildlife observed in ruderal and California annual grassland includes Mourning dove (*Zenaida macroura*), Black phoebe (*Sayornis nigricans*), and Dark-eyed junco (*Junco hyemalis*), Wild oat (*Avena fatua*), and Ripgut brome (*Bromus diandrus*).

## ENVIRONMENTAL CONSEQUENCES

### **White-Tailed Kite and Northern Harrier**

#### *No Build Alternative*

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. Thus, the No Build Alternative would have no effect on White-tailed kite or Northern harrier.

#### *Build Alternative*

Marginally suitable nesting habitat for Northern harrier and White-tailed kite is present within grasslands and trees outside of and adjacent to the BSA, but not within the BSA itself. Therefore, direct permanent effects on the white-tailed kite and northern harrier are not anticipated.

#### *Temporary Construction Impacts*

Caltrans does not anticipate direct impacts to the white-tailed kite or northern harrier from construction of the proposed project. Project-related noise and vibration generated from construction activities could indirectly impact active nests of both bird species, if present near the BSA. Avoidance and Minimization such as AMM BIO-3 (Nesting Bird Avoidance) will help minimize indirect effects on both species during construction.

### **Western Pond Turtle**

#### *No Build Alternative*

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside the BSA. Thus, the No Build Alternative would have no effect on the western pond turtle.

#### *Build Alternative*

The Western pond turtle could be indirectly impacted by project activities that affect water quality under the Build Alternative. Project features such as PF WQ-2 (compliance with water quality regulations) would ensure proper adherence to the requirements of the Caltrans MS4 permit and other regulatory agency requirements, which would avoid and/or minimize permanent effects on water quality. Furthermore, the project would not affect suitable western pond turtle habitat within the BSA, which is present in the Aquatic Park lagoon.

### *Temporary Construction Impacts*

No construction activities would occur within potential aquatic habitat for western pond turtle. Potential indirect impacts include aquatic habitat degradation from erosion and sedimentation during construction. Any water quality impacts would only affect a small fraction of suitable habitat for this species in the region, with better quality habitat present nearby in the Aquatic Park lagoon.

### **Nesting Birds**

#### *No Build Alternative*

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside the BSA. The No Build Alternative would have no effect on nesting birds.

#### *Build Alternative*

There is a potential for this project to affect migratory birds nesting on structures and vegetation within or adjacent to the BSA.

### *Temporary Construction Impacts*

Active bird nests could be impacted by construction-related noise, which could disrupt the behavior of birds and cause them to abandon their nest.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF BIO-1: Nesting Bird Avoidance: will protect bird species by avoiding initiating vegetation clearing, ground-disturbance, and other construction activities during the nesting bird season (February 1 to September 30) to the extent feasible. If work during nesting season must occur, the BSA and appropriate adjacent areas will be surveyed by a department-approved Biologist no more than three days prior to the start of construction activities. If active nests are discovered the Department-approved Biologist will establish a no work buffer will be established that is appropriate to the species and conditions

### **Avoidance and Minimization**

AMM BIO-1 No In-Water Work During Fish Migration Periods: The Project proponent or their contractor will not conduct in-water work within SF Bay between November 1 and June 1 to avoid potential impacts on protected fish (steelhead, Chinook salmon, green sturgeon, and longfin smelt) during peak migration periods to suitable spawning habitat



AMM BIO-4: Worker Environmental Awareness Training: All construction personnel would attend a mandatory environmental education program delivered by an Department-approved biologist prior to working in the BSA.

AMM BIO-5: Department-Approved Biological Monitor: Caltrans would submit the names and qualifications of the biological monitor(s) for approval prior to initiating construction activities for the proposed Project.

AMM BIO-6 Role of Biological Monitor – The department-approved biologist(s) would be on site during in-water work to fulfill the role of the approved biologist as specified in the BA.

AMM BIO-7 Construction Monitoring During In-Water Work: A department-approved biologist would be present during in-water work to monitor for listed fish, and other species during construction activities within suitable habitat.

AMM BIO-8: Cofferdam Construction at Low Tide - Prior to conducting work within San Francisco Bay waters, the cofferdam will be constructed at low tide to create a dry work area. This will limit the potential for the project to result in water quality impacts and potential impacts to aquatic species or their habitats.

AMM BIO-9: Minimize Hydroacoustic Impacts During Vibratory Pile Driving: Vibratory driving may be necessary to install the temporary cofferdam. To lessen impacts all vibratory pile driving will be conducted between June 1 and October 31, within 3 hours on either side of low tide, and the contractor will use the smallest pile driver and minimum force necessary to complete the work.

AMM- BIO 10: High-Visibility Fencing: The Project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance

### **Mitigation Measures**

No compensatory mitigation would be required.

## 2.3.5 THREATENED AND ENDANGERED SPECIES

### REGULATORY SETTING

#### **Federal and State**

The primary federal law protecting threatened and endangered species is FESA: 16 Code of Federal Regulations Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the FHWA (and Caltrans, as assigned), are required to consult with the USFWS and the NOAA Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement or a Letter of Concurrence. Section 3 (19) of FESA defines the term ‘take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”.

California has enacted a similar law at the state level, CESA, CFG Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFW is the agency responsible for implementing CESA. Section 2080 of the CFG prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the CFG as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the CFG.

### AFFECTED ENVIRONMENT

Unless otherwise noted, information in this section is based on the NES prepared for the proposed project (October 2021).

#### **Federally Listed Species**

The study area for animal species includes all areas of ground disturbance and aquatic disturbance that would occur under the proposed project. An official species list from

USFWS and NMFS was queried on December 21, 2022 and March 26, 2020, respectively. Lists of federally listed species were obtained prior to the biological surveys that were conducted as part of the NES.

Based on the results of these lists, NMFS and USFWS confirmation, and results from field surveys, Caltrans determined the following five threatened or endangered species could potentially occur in the study area:

- Green sturgeon (*Acipenser medirostris*), southern Distinct Population Segment (DPS), Federally Threatened
- Steelhead (*Oncorhynchus mykiss irideus*), Central California Coast (CCC) DPS, Federally Threatened
- Steelhead, Central Valley (CV) DPS, Federally Threatened
- Chinook salmon (*Oncorhynchus tshawytscha*), Sacramento River winter-run Evolutionarily Significant Unit (ESU), Federally Endangered
- Longfin smelt (*Spirinchus thaleichthys*)

On July 8, 2022, a Biological Assessment was sent to NMFS requesting concurrence that the project 'may affect, not likely adversely affect (NLAA) the threatened or endangered fish species listed above. During informal consultation with NMFS, the effects determination for the proposed project was down scoped from a NLAA to a No Effects determination. NMFS agreed that the project will have no effect on listed fish species if Caltrans follows all the AMMs described in the Biological Assessment (limiting the in-water work area, work window restrictions, having a biological monitor on site during in-water work, cofferdam construction at low tide, minimizing hydroacoustic impacts during vibratory pile driving).

Evaluations of federally listed species resulted in a total of 29 species with "no effect" determination. This is due to marginally suitable sensitive species habitat within the BSA, minor temporary and permanent impacts from the project and implementation of the AMMs. Caltrans conducted Section 7 consultation with NMFS and Table 2.3-3 summarizes the proposed project's determinations on federally listed species.

**Table 2.3-3 Federally Listed Species Potentially Present In the BSA**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status</b>	<b>Effect Finding</b>
Green sturgeon – southern DPS	<i>Acipenser medirostris</i>	Threatened	No Effect
Steelhead – Central California Coast DPS	<i>Oncorhynchus mykiss</i>	Threatened	No Effect
Steelhead – Central Valley DPS	<i>Oncorhynchus mykiss</i>	Threatened	No Effect
Chinook salmon - Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i>	Endangered	No Effect
Longfin smelt	<i>Spirinchus thaleichthys</i>	Candidate	No Effect
Tidewater goby	<i>Eucyclogobius newberryi</i>	Endangered	No Effect
Delta smelt	<i>Hypomesus transpacificus</i>	Threatened	No Effect
Chinook salmon - Central Valley spring-run ESU	<i>Oncorhynchus tshawytscha</i>	Threatened	No Effect
Eulachon	<i>Thaleichthys pacificus</i>	Threatened	No Effect
San Bruno elfin butterfly	<i>Callophrys mossii bayensis</i>	Endangered	No Effect
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	Threatened	No Effect
Mission blue butterfly	<i>Plebejus icarioides missionensis</i>	Endangered	No Effect
Callippe silverspot butterfly	<i>Speyeria callippe</i>	Endangered	No Effect
California tiger salamander	<i>Ambystoma californiense</i>	Threatened	No Effect
California red-legged frog	<i>Rana draytonii</i>	Threatened	No Effect
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	Threatened	No Effect
San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	Endangered	No Effect
western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened	No Effect

Common Name	Scientific Name	Federal Status	Effect Finding
California Ridgway's rail	<i>Rallus obsoletus</i>	Endangered	No Effect
California least tern	<i>Sternula antillarum browni</i>	Endangered	No Effect
southern sea otter	<i>Enhydra lutris nereis</i>	Threatened	No Effect
salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	Endangered	No Effect

Note: District Population Segment (DPS); evolutionarily significant unit (ESU); Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FC), State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Species of Special Concern (SSC).  
Source: Horizon Water & Environmental 2020

### State Listed Species

Based on a review of the CNDDDB and CNPS lists of special-status species occurrences in the BSA, three threatened, or endangered species have potential to occur within the BSA (Table 2.3-4). However, Caltrans determined the project will not impact any state-listed species.

**Table 2.3-4 State Listed Species**

Common Name	Scientific Name	State Status	Occurrence in the BSA
Mammals			
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	Endangered	No impacts: Suitable saline wetland habitat is absent from the BSA.
Fish			
Chinook salmon-Sacramento River winter-run	<i>Oncorhynchus tshawytscha</i>	Endangered	No impacts: The BSA is not within the known current range of this species.
Longfin smelt	<i>Spirinchus thaleichthys</i>	Threatened	No impacts: The BSA is upstream of a tide gate which would prevent passage of longfin smelt into the BSA.

Source: Horizon Water & Environmental 2020

### **Critical Habitat (CH)**

Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. USFWS and NMFS designated critical habitat to protect areas that are essential to the survival of federally listed species of plants and wildlife. The portion of the San Francisco Bay within the BSA is critical habitat for green sturgeon, Central Valley steelhead, Central California Coast steelhead, and Sacramento River winter-run Chinook salmon.

The Radio Tower Pond and the Model Yacht Basin (Berkeley Aquatic Park) are estuarine habitats, but neither water body represents critical habitat for federally listed species

### **ENVIRONMENTAL CONSEQUENCES**

#### **No Build Alternative**

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside the BSA. Thus, the No Build Alternative would have no effect on state or federally-listed species.

#### **Build Alternative**

##### *Federally Listed Species*

Evaluations of federally listed species resulted in a total of 29 species with “no effect” determination due the marginal area of temporary and permanent impacts the proposed project. There is no upstream spawning habitat and low-quality habitat for listed species exists in the BSA. The following NMFS protected species have a low likelihood of occurring and required agency consultation: southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, Central California Coast steelhead, and Central Valley steelhead. While construction would permanently impact 0.007 acre of critical habitat within the San Francisco Bay, the outfall structure would be in shallow water along the shoreline where none of the fish listed above are expected to occur except southern DPS green sturgeon, which are accustomed to high levels of turbidity.

##### *State Listed Species*

Based on a review of the CNDDDB and CNPS lists of special-status species and results of biological surveys, no state-threatened or endangered species or their habitat are expected to occur within the BSA. Therefore, the Build Alternative would have no impact on state-listed species.

### **Temporary Construction Impacts**

Project construction activities in San Francisco Bay (namely construction of the drainage outfall) have the potential to affect critical habitat for the southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, Central California Coast steelhead, and Central Valley steelhead. The project is unlikely to directly affect listed fish species. In-water work would be limited to the proposed outfall and placement of associated riprap. This work would be conducted in shallow-water areas where fish species are unlikely to be present. Cofferdams will be utilized to create a dry work area and to avoid potential impacts to aquatic habitat (AMM BIO-8). Project-related noise from installation of the temporary cofferdams could directly impact species, if present, through injury and/or behavioral shift. Furthermore, in-water work would be conducted outside the migratory period for listed fish species (AMM BIO-2). For steelhead, Chinook salmon, and green sturgeon, the migratory period occurs between November and June. Avoiding in-water work between November and June would reduce the likelihood project activities would adversely affect listed fish species. Water quality related BMPs would further minimize the potential for adverse effects from occurring.

### **Essential Fish Habitat (EFH)**

The San Francisco Bay is Essential Fish Habitat (EFH) for Pacific salmonids (Coho and Chinook salmon). The tidal estuaries, seagrass and other submerged aquatic vegetation, and mudflats within the open water habitat is designated as habitat areas of particular concern (HAPC) within Groundfish EFH. EFH helps improve the nation's main fisheries law—the Magnuson-Stevens Fishery Conservation and Management Act of 1976 — which highlights the importance of healthy habitat for commercial and recreational fisheries.

This law was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the U.S., by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

#### *No Build Alternative*

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside the BSA. Thus, the No Build Alternative would have no effect on the EFH.

### *Build Alternative*

EFH could be indirectly impacted by project activities that affect water quality under the Build Alternative. Project features such as PF WQ-2 (compliance with water quality regulations) would ensure proper adherence to the requirements of the Caltrans MS4 permit and other regulatory agency requirements, which would avoid and/or minimize permanent effects on water quality.

### *Temporary Construction Impacts*

Project construction activities in San Francisco Bay (namely construction of the drainage outfall) have the potential to affect EFH. The in-water work would be limited to the proposed outfall and placement of associated riprap. This work would be conducted in shallow-water areas where minimal EFH is present. Cofferdams will be utilized to create a dry work area and to avoid potential impacts to aquatic habitat (AMM BIO-8). To further lessen the impact, in-water work would be conducted outside the migratory period for listed fish species (AMM BIO-2). Avoiding in-water work between November and June would reduce the likelihood project activities would adversely affect EFH.

### **Cumulative Impacts**

The Build Alternative would not adversely affect threatened and endangered animal species or EFH with incorporation of the AMMs. Therefore, the Build Alternative would not contribute to cumulative effects on listed species.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

### **Project Features**

No applicable project features.

### **Avoidance and Minimization**

The protection measures for CH and EFH are listed below:

AMM BIO-1: Limit In-Water Work Area to Smallest Area Possible: Work within SF Bay and wetlands will be limited to the smallest area possible to complete construction activities. Additionally, along SF Bay and in the vicinity of the Radio Tower Pond and the Model Yacht Basin.

AMM BIO-2: No In-Water Work During Fish Migration Periods: The Project proponent or their contractor will not conduct in-water work within SF Bay between November 1 and June 1 to avoid potential impacts on protected fish (steelhead, Chinook salmon, green sturgeon, and longfin smelt) during peak migration periods to suitable spawning habitat.

AMM BIO-3: No In-Water Work During the Wet Season.



AMM BIO-4: Worker Environmental Awareness Training All construction personnel would attend a mandatory environmental education program delivered by an department approved biologist prior to working in the BSA.

AMM BIO-5: A department Approved Biological Monitor – Caltrans would submit the names and qualifications of the biological monitor(s) for Department approval prior to initiating construction activities for the proposed project. Only Department-approved biological monitors would implement the monitoring duties outlined in the biological opinion including delivery of the Worker Environmental Awareness Training Program.

AMM BIO-6: Role of Biological Monitor – The department-approved biologist(s) would be on site during in-water work to fulfill the role of the approved biologist as specified in the document.

AMM BIO-7: Construction Monitoring During In-Water Work – An department-approved biologist would be present during in-water work to monitor for listed fish, and other species during construction activities within suitable habitat. The biological monitor would have the authority to stop work if deemed necessary for any reason to protect the species.

AMM BIO-8: Cofferdam Construction at Low Tide: Prior to conducting work within SF Bay, the Project proponent or their contractor will construct a cofferdam to isolate in water work areas from open waters and avoid and minimize potential impacts to water quality and aquatic wildlife.

AMM BIO-9: Minimize Hydroacoustic Impacts During Vibratory Pile Driving – Vibratory driving may be necessary to install the temporary cofferdam. Measures will be implemented if pile driving is necessary to minimize hydroacoustic impact.

AMM BIO-10: Delineation of Environmentally Sensitive Areas – The project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance.

### **Mitigation Measures**

No mitigation would be required.

## **2.3.6 INVASIVE SPECIES**

### **REGULATORY SETTING**

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the U.S. The order

defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance issued August 10, 1999, directs the use of the state’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

## AFFECTED ENVIRONMENT

Unless otherwise noted, information in this section is based on the NES prepared for the proposed project (October 2021).

The study area for invasive species includes all areas of ground disturbance and aquatic disturbance that would occur under the proposed project. The invasive plant species listed in Table 2.3-5 were identified in numerous locations within the landscaped and ruderal areas and along surface roads within the BSA. Invasive plants observed include a broad range of species ranging from trees (such as Brazilian pepper trees and Ngaio trees) to grasses and weeds (such as yellow star thistle, veldt grass, and smilgrass), and aquatic species (such as sea figs). Invasive birds, mammals, amphibians, reptiles, or fish were not observed in the BSA.

**Table 2.3-5 Invasive Species Observed in the BSA**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Acacia melanoxylon</i>	blackwood acacia
<i>Avena fatua</i>	wild oat
<i>Bromus diandrus</i>	ripgut brome
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Carpobrotus chilensis</i>	sea fig
<i>Centaurea solstitialis</i>	yellow star thistle
<i>Conium maculatum</i>	poison hemlock
<i>Convolvulus arvensis</i>	field bindweed
<i>Ehrharta erecta</i>	veldt grass
<i>Eucalyptus camaldulensis</i>	river red gum
<i>Eucalyptus globulus</i>	blue gum eucalyptus
<i>Festuca perennis</i>	Italian ryegrass
<i>Foeniculum vulgare</i>	fennel
<i>Hirschfeldia incana</i>	short-podded mustard
<i>Lactuca serriola</i>	prickly lettuce
<i>Lepidium latifolium</i>	broad-leaf pepperwort
<i>Malva parviflora</i>	cheeseweed mallow
<i>Myoporum laetum</i>	Ngaio tree
<i>Piptatherum miliaceum (Stipamiliacea var. miliacea)</i>	smilgrass
<i>Plantago lanceolate</i>	English plantain
<i>Polypogon monspeliensis</i>	rabbitsfoot grass
<i>Raphanus sativus</i>	wild radish
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rumex crispus</i>	curly dock
<i>Schinus terebinthifolia</i>	Brazilian pepper tree

Source: Horizon Water & Environmental 2020

## ENVIRONMENTAL CONSEQUENCES

### **No Build Alternative**

Under the No Build Alternative, the existing roadways would remain unchanged except for planned and programmed improvements outside of the BSA. Disturbance of invasive plants and soil within the BSA would not occur. The No Build Alternative would have no effect on the spread or introduction of invasive species.

### **Build Alternative**

The Build Alternative would disturb invasive plants and soil within the BSA. The BSA is known to contain several invasive plant species, construction activities could lead to the spread or introduction of invasive plants elsewhere. Since no invasive animal species were observed within the BSA, the Build Alternative would be unlikely to result in the spread of invasive animals.

### **Temporary Construction Impacts**

Construction of the Build Alternative could spread invasive plant species to areas where they are absent outside of the BSA if invasive plants are removed during clearing, grubbing, and construction and are not disposed of or transported correctly.

### **Cumulative Impacts**

Cumulative effects from invasive species would occur if planned and foreseeable development in the area, when taken in combination with the proposed project, would result in the spread or distribution of invasive species. Caltrans does not anticipate this project would appreciably contribute to the spread of invasive species in the region above and beyond what is likely to occur due to urbanization. Caltrans will take measures to avoid and reduce the further spread of invasive species within the project area. Given this, there would be no cumulative effect related to invasive species.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

### **Project Features**

PF BIO-2: Invasive Species: The landscaping included in the project will not use species listed on the California list of invasive species.

PF VIS-3: Revegetation Planting Measures. All disturbed areas shall receive hydroseeded treatment of erosion control grasses, and if appropriate, locally native grasses.

**Avoidance and Minimization**

No avoidance and/or minimization measures would be required.

**Mitigation Measures**

No mitigation would be required.

## 3.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) EVALUATION

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### 3.1 DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project between the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for the proposed project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the proposed project and ways to mitigate each significant effect. If the proposed project may have a significant effect on any environmental resource, then an EIR must be prepared. Every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list several "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of the proposed project and CEQA significance.

### 3.2 CEQA ENVIRONMENTAL CHECKLIST

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the proposed project will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the proposed project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the proposed project and have been considered prior to any significance determinations documented below. The annotations to this checklist are summaries of information contained in Sections 2.1, Human Environment through 2.3, Biological Environment.

#### 3.2.1 AESTHETICS

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
from publicly accessible vantage point). If the proposed project is in an urbanized area, would the proposed project conflict with applicable zoning and other regulations governing scenic quality?				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Have a substantial adverse effect on a scenic vista?**

**Less than Significant Impact.** From the west side of the interchange, viewers have unrestricted scenic vistas of San Francisco Bay, Angel Island, Golden Gate Bridge, the San Francisco skyline, and Mount Tamalpais. These resources are also visible from within the interchange, but the views are intermittently obstructed by existing transportation infrastructure and signage. Views from the east side of the interchange are also intermittently obstructed by transportation infrastructure as well as nearby commercial and residential buildings in Emeryville.

The proposed project would replace the existing overcrossing structures with new overcrossing structures of a similar mass and scale. Additionally, a bicycle/pedestrian overcrossing (BPOC) structure would be constructed across I-80 on the south side of the interchange. Refer to Figure 2.1-3 through Figure 2.1-20 in Section 2.1.10, Visual/Aesthetics for a comparison of existing conditions photographs to simulated views of the proposed project.

These changes would not affect unrestricted views on the west side of the interchange. While the new BPOC would be taller than existing structures within the interchange, views of distant vistas from the I-80 corridor would still be visible through the BPOC structure. Existing partially obstructed views of scenic vistas would not change substantially and the impact would be less than significant.



**b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**Less Than Significant Impact.** There are no state scenic highways or highways eligible for such designation located within the visual study area (VSA). No rock outcroppings or other similar features would be altered. The proposed project would require tree removal; however, all removed trees would be replaced or replanted within the project limits on site according to standard Caltrans processes outlined in project features (PF) PF VIS-3 through PF VIS-5 (see Appendix C for the full text of these project features). Therefore, the impact would be less than significant.

**c) Substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less than Significant Impact.** The proposed project would result in temporary and permanent changes to the visual environment within the VSA. Temporary visual impacts from short-term construction activities are anticipated. Construction activities required for the proposed project would include excavation, drilling, dewatering, pavement demolition, bridge demolition, mass grading, concrete form work, pavement installation, storm system installation, highway planting and irrigation, sign installation, striping operations, and traffic control.

Construction of the proposed project would comply with all applicable construction regulations, standards, and procedures including BMPs. Project construction would be completed with standard construction equipment and protocols as described in Section 1.0, Proposed Project. These protocols and equipment are required for all Caltrans projects and are not considered mitigation. Visual impacts during construction would be temporary in nature and would not substantially degrade the existing visual character or quality of the VSA. Therefore, construction impacts would be less than significant.

Once operational, the proposed project would moderately alter existing views within the VSA. The proposed project would replace existing overcrossing and ramp structures on I-80 and add a new BPOC structure. While the BPOC would be taller than existing infrastructure within the interchange, it would be consistent with similar structures along I-80, particularly the existing BPOC at University Avenue.

While changes under the proposed project would result in more manmade features and less vegetation, the I-80 corridor would continue to be the dominant visual feature in the area. Incorporation of PF VIS-1 (preservations of existing vegetation) and PF VIS-4 (landscape plantings) would ensure that any removed highway plantings would be replaced within the existing interchange, and new structures such as retaining walls or bridges, would undergo aesthetic treatments consisting of color, texture, and/or patterning to ensure consistency within the existing transportation corridor (refer to

Appendix C for the full text of all project features). Additionally, the replacement of all removed trees at a 1:1 ratio within the existing interchange per avoidance and minimization measure PF VIS-3 through PF VIS-5 would avoid impacts related to tree removal. With incorporation of PF VIS-1 and PF VIS-4, negative visual changes from the proposed project would be minimized and would not substantially degrade the existing visual character and visual quality of the VSA. Therefore, this impact would be less than significant.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less than Significant Impact.** During construction, new sources of light or glare would be installed within construction staging areas and along new on-and off-ramps throughout the VSA. This incremental increase in nighttime lighting would be temporary in nature. Adherence to appropriate light and glare screening measures as required by Caltrans, such as downward cast lighting would be employed at construction staging areas. With adherence to standard measures as described in PF VIS-6 (light and glare minimization), construction impacts would be less than significant.

Once operational, the proposed project would result in more man-made features and a change in vegetation and would include new lighting fixtures that would introduce a new source of light and glare at night. The incremental increase in nighttime lighting would not be noticeable in the context of existing nighttime lighting in the area. Therefore, the proposed project would continue to be consistent with the existing transportation corridor setting and would not adversely affect the key elements of visual character within the visual impact study area. This impact would be less than significant, and no mitigation would be required.

3.2.2 AGRICULTURE AND FOREST RESOURCES

<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p>				
Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**And**

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact.** According to the California Department of Conservation’s California Important Farmland Finder, there is no Prime, Unique, or Statewide Importance Farmland located within proximity to the project area.<sup>1</sup> In addition, there is no land protected under a Williamson Act within the vicinity of the project area and the proposed

<sup>1</sup> California Department of Conservation, 2016. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed: March 2020.

project would not conflict with existing zoning for agricultural use. Therefore, no impact would occur.

**c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**And**

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** The urbanized project area does not contain any forest land as defined in Public Resources Code section 12220(g), timberland as defined by the Public Resources Code section 4526, or property zoned for Timberland Production as defined by Government Code section 51104(g). There are no forest lands adjacent to the project area. Therefore, the proposed project would not conflict with existing zoning for forest land or timberland. No impact would occur.

**e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

**No Impact.** No farming operations or forest lands exist on or near the project area, therefore, the proposed project would not result in the loss of farmland or conversion of forest land. No impact would occur.

3.2.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the Air Quality Report (October 2021).

**a) Conflict with or obstruct implementation of the applicable air quality plan?**

**No Impact.** The proposed project is included in the Plan Bay Area 2050 financially constrained Regional Transportation Plan (RTP) (ID 17-01-0037) which was found to conform by the Metropolitan Transportation Commission (MTC), and FHWA and Federal Transit Administration made a regional conformity determination finding on December 17, 2018. The proposed project is also included in MTC's financially constrained 2019 Regional Transportation Improvement Program (TIP) (ID ALA170002). The MTC determined that the 2019 Regional TIP conformed with FHWA and Federal Transit Administration on December 17, 2018. The design concept and scope of the proposed project is consistent with the project description in the 2019 RTP and Regional TIP, and the "open to traffic" assumptions of the MTC's regional emissions analysis. The proposed project was found to be in regional conformance with the State Implementation Plan and would not conflict with implementation of applicable local air quality plans. Therefore, there would be no impact.

**b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

**And**

**c) Expose sensitive receptors to substantial pollutant concentrations?**

**Less than Significant Impact.** The project area is in the San Francisco Bay Area Air Basin, under jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The Basin is designated nonattainment for ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) for state standards and nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> for federal standards. Because the proposed project is included in a conforming RTP and TIP, emissions of ozone precursors from project-related traffic are not anticipated to cause or contribute to, or worsen, any violations of the federal air quality standards for ozone.

Because construction of the Build Alternative is expected to last less than five years, temporary emissions of CO, PM<sub>10</sub>, and PM<sub>2.5</sub> are not expected to cause or contribute to, or worsen, any federal air quality violations.

Furthermore, the proposed project would be expected to improve traffic flow and relieve congestion in the I-80/Ashby Avenue Interchange (interchange), which would be expected to reduce vehicle idling and associated emissions. The direct access to Shellmound Street from westbound I-80 along with the proposed project's enhanced

bicycle and pedestrian access would result in a reduction in local traffic. The impact would be less than significant.

**d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**No Impact.** The proposed project would replace the existing interchange with a redesigned interchange and a new BPOC structure. The new improvements would be a similar use to existing conditions and would not include any new sources of emissions, including any that would create objectionable odors. Therefore, there would be no impact, and no mitigation is required.

**3.2.4 BIOLOGICAL RESOURCES**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the Natural Environment Study (NES) prepared for the proposed project (November 2021).

**a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**And**

**b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

**Less than Significant Impact.** The proposed project could affect eight special-status species, which are identified below, along with their listing status:

- *Acipenser medirostris* (green sturgeon – southern DPS), federally threatened
- *Oncorhynchus mykiss* (steelhead – Central California Coast DPS), federally threatened
- *Oncorhynchus mykiss* (steelhead – Central Valley DPS), federally threatened
- *Oncorhynchus tshawytscha* (Chinook salmon – Sacramento River winter-run ESU), federally endangered/state Endangered
- *Spirinchus thaleichthys* (longfin smelt), federal candidate/state threatened
- *Emys* (= *Actinemys*) *marmorata* (western pond turtle), State Species of Special Concern
- *Circus hudsonius* (formerly *cyaneus*) (northern harrier), State Species of Special Concern
- *Elanus leucurus* (white-tailed kite), state fully protected

Construction of the new outfall would permanently impact up to 0.007 acre within the San Francisco Bay, which is federally-designated critical habitat for the southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, central California coast steelhead, and Central Valley steelhead. However, the outfall structure would be located in shallow water along the shoreline where the fish listed above are not expected to occur. Furthermore, impacts to green sturgeon, Central Valley and Central California Coast steelhead DPS, Chinook salmon, and longfin smelt would be avoided and/or minimized with implementation of standard BMPs as outlined in AMM BIO-1 (Limit In-Water Work Area to Smallest Area Possible), AMM BIO-2 (avoid in-water work fish migration periods), and AMM BIO-8 (Cofferdam Construction at Low Tide), AMM BIO-5 (Agency-approved biological monitor monitoring during construction), AMM BIO 9 (Minimize Hydroacoustic Impacts During Vibratory Pile Driving), and AMM BIO-10

(high-visibility fencing). With incorporation of these avoidance and minimization measures into the proposed project, the loss of critical habitat for green sturgeon, Central Valley and Central California Coast steelhead DPS, Chinook salmon, and longfin smelt would be less than significant and no mitigation would be required for the purposes of CEQA.

Western pond turtle could be indirectly impacted by project activities that affect water quality. Project features such as PF WQ-2 (compliance with water quality regulations) would ensure proper adherence to the requirements of the Caltrans MS4 permit and other regulatory agency requirements, which would avoid and/or minimize permanent effects on water quality. Furthermore, the proposed project would not affect the primary western pond turtle habitat within the BSA, which is present in the Aquatic Park lagoon. Therefore, impacts to the western pond turtle would be less than significant and no mitigation would be required.

Construction of the proposed project could result in indirect noise and vibration impacts to nesting northern harrier and white-tailed kite. Nesting birds protected by the Migratory Bird Treaty Act potentially occurring throughout the project area could also be impacted by construction and noise impacts. In both cases, the proposed project could result in indirect impacts on active nests if present near the project area. Implementation of standard BMPs as outlined in NES AMM BIO-6, (nesting bird avoidance) would avoid impacts to active nests of northern harrier and white-tailed kite near the project area. Therefore, impacts would be less than significant, and no mitigation would be required.

**c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**Less than Significant with Mitigation.** The proposed project would result in fill within 0.012 acre of palustrine emergent wetlands within the USACE's jurisdiction near Radio Tower Pond. This wetland area is separated from the Radio Tower Pond by a berm dominated by upland vegetation and is underlain by asphalt associated with the Radio Tower parking lot. Additionally, construction of the outfall would result in 0.007 acre of permanent impacts to other waters of the US in the San Francisco Bay. Work within the San Francisco Bay will be limited to the smallest area possible to complete proposed construction of the outfall. Implementation of a cofferdam, as outlined in AMM WQ-3 (minimization of impacts to aquatic resources) and AMM BIO-1 (Limit In-Water Work Area to Smallest Area Possible), would further avoid water quality impacts on federally and State protected or wetlands. Construction within the San Francisco Bay will last approximately 35 working days.

Mitigation Measure

Mitigation Measure BIO-1 would be required pursuant to Section 404 of the Clean Water Act for unavoidable impacts to aquatic resources within the BSA. This measure would require that impacted aquatic resources be replaced at a minimum 1:1 ratio for permanent impacts (impact area to compensation area) to assure there is a no net loss of waters of the U.S., and the final mitigation ratio will ultimately be determined through Caltrans' coordination with USACE during the permitting phase of this project (for the full text of this measure, refer to Appendix C). With implementation of Mitigation Measure BIO-1, and adherence to AMM WQ-3 and AMM BIO-2, impacts to wetlands and waters would be less than significant with mitigation.

**d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**No Impact.** The Model Yacht Basin and Radio Tower Pond are muted tidal features and have connection to the San Francisco Bay via existing culverts. They are not considered migratory corridors nor expected to be routinely used by migratory or anadromous aquatic species. The ponds do not provide connections to stream habitats, and so would not be considered part of migratory corridors for anadromous fish. Work within the San Francisco Bay would be limited to shallow coastal areas where migratory fish are not expected to occur.

The area within the BSA is highly urbanized and developed leaving only small, disconnected patches of habitat. Given this, construction and operation of the proposed project would not impact wildlife or fish movement through the project area. No impact would occur.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**Less than Significant Impact.** A total of 445 trees are present within the BSA. Some of these trees are subject to regulation under local tree ordinances in Emeryville and Berkeley. Trees within the BSA provide aesthetic value and other benefits to the community and could provide habitat and food sources for local wildlife. A maximum of 149 trees would be removed by the proposed. All replacement planting would be accommodated within the existing interchange. Therefore, this impact would be less than significant, and no mitigation would be required.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** The project footprint does not overlap with an adopted conservation plan, natural community conservation plan or other approved local, regional, or state habitat conservation plan. Construction and operation of the proposed project would not conflict with any such plans and no impact would occur.

**3.2.5 CULTURAL RESOURCES**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the Historic Property Survey Report (HPSR) prepared for the proposed project (August 2020).

**a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

**No Impact.** The Area of Potential Effects (APE) contains the KRE Radio Station that qualifies for listing on the National Register of Historic Places and California Register of Historical Resources. However, the boundaries of the historic property are limited to the KRE Radio Station building and do not include the area where proposed improvements along Bay Street would modify guy wires supporting the radio tower. No other listed or

potentially eligible resources are present within the project area. Therefore, no impact would occur.

**b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?**

**Less than Significant Impact.** While no archaeological or Native American cultural resources have been recorded in the APE, it is possible that an unrecorded resource, such as cultural materials or human remains, could be unearthed during construction. This could result in damage to the resource and would be considered an adverse effect.

As discussed in Section 4.0, Comments and Coordination, a field review of the project area was conducted on February 13, 2020, by Chairperson Perez and two other tribal representatives, along with Caltrans District 4 archaeology personnel, Kathryn Rose and Katie Jorgensen. Chairperson Perez expressed concern for the potential of deeply buried cultural resources beneath the fill on which I-80 and the interchange has been constructed. Project team members shared the general excavation would only be up to 10 feet, while cast-in-drilled-hole (CIDH) pile foundations would require drilled excavations of approximately 80 feet. Thus, while possible, the likelihood of discovering deeply buried cultural resources is low.

Furthermore, potential impacts would be minimized by halting work until the resource can be evaluated by a qualified archaeologist (PF CUL-1) and notifying the Most Likely Descendent of human remains (PF CUL-2). With incorporation of these project features, impacts to archaeological resources are expected to be less than significant.

**c) Disturb any human remains, including those interred outside of dedicated cemeteries?**

**No Impact.** No previously recorded archaeological or Native American cultural resources are within the APE. Implementation of PF CUL-2 would require the halting of construction should human remains be discovered within the project footprint and would adhere to State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 regarding the treatment of discovered remains. With incorporation of PF CUL-2 into the project, there would be no impacts to human remains.

3.2.6 ENERGY

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**And**

**b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**Less than Significant Impact.** The proposed project is not a capacity increasing project. The proposed project would result in direct energy use during construction. However, the energy expenditure would be offset by the long-term operational energy savings associated with reduced local traffic congestion. The proposed project would increase alternative modes of transportation, thereby reducing direct energy consumption through bicycle and pedestrian infrastructure improvements. The impact would be less than significant.

3.2.7 GEOLOGY AND SOILS

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the Preliminary Geotechnical Report prepared for the proposed project.

**a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

**i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?**

**No Impact.** During an earthquake, surface rupture occurs when the ground surface is broken as a result of fault movement. Surface rupture mostly occurs along active faults. The project area is not within the Alquist-Priolo Special Study Zone and no known or mapped active faults pass through the project area. Therefore, the potential for ground surface rupture due to faulting is extremely low to non-existent. There would be no impact.

**ii) Strong seismic ground shaking?**

*or*

**iii) Seismic-related ground failure, including liquefaction?**

**Less than Significant Impact.** The project area is in a liquefaction zone. Regional faults could result in strong seismic groundshaking. The project area is susceptible to liquefaction due to the presence of loose, saturated and cohesionless soils present in the project area. During construction, groundshaking could pose a risk to workers through the collapse of structures. Adherence to PF GEO-1 would ensure construction worker safety in the event of groundshaking by requiring employers to adhere to the Occupational Safety and Health Act and Caltrans's hazard-specific standards, as well as standard design and construction guidelines.

Strong groundshaking could also occur during project operation, threatening the collapse of structures and impacts to motorists travelling through the project area. Adherence to PF GEO-3 would require incorporation of findings from structure foundation reports and geotechnical design reports, as well as standard Caltrans design features that would ensure the project design would accommodate the risks of groundshaking. All project components including the foundations would be designed to meet current Caltrans design standards for structures. Caltrans seismic design procedures would ensure structural integrity, including addressing risks from liquefaction.

With incorporation of PF GEO-1, PF GEO-3, and all standard Caltrans seismic design procedures, impacts from groundshaking and liquefaction during construction and operation would be less than significant.

**iv) Landslides?**

**No Impact.** The project area and its surroundings are flat and highly urbanized. The project area does not have any steep slopes or hillsides that would be susceptible to landslides. Further, the project area is not located in a landslide hazard zone. Landslides would not pose a risk during project construction or operation. There would be no impact.

**b) Result in substantial soil erosion or the loss of topsoil?**

**No Impact.** Soil erosion related to the project would be avoided with the incorporation of standard Caltrans BMPs included in PF WQ-1 and PF WQ-10. Such BMPs would prevent erosion and the loss of topsoil by ensuring appropriate drainage on-site during construction and permanently stabilizing slopes with vegetation, netting, blankets, and/or paving where necessary. No impact would occur.

**c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Less than Significant Impact.** The proposed project would not result in settlement, subsidence, collapse, lateral spreading, or landslide on- or off-site. As the project area is characterized by flat topography, landslide and lateral spreading would not pose a risk to the proposed project or the surrounding area. Furthermore, all project components including the foundations would be designed to meet current Caltrans design standards for structures. Caltrans seismic design procedures would ensure structural integrity including potential for subsidence and liquefaction. This impact would be less than significant.

**d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

**No Impact.** Based on available as-built boring data, expansive clays were not encountered near the surface. The proposed project would not create substantial risk to life or property due to being located on expansive soil and no impact would occur.

**e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** The proposed project would not require the use of septic tanks during project construction or operation. There would be no impact.

**f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?**

**No Impact.** There are no documented paleontological resources in or near the project area. However, fossiliferous Pleistocene-age deposits may be present within the study area beneath the Holocene-age sediments starting at depths of 25 to 40 feet below the existing ground surface. Excavation for CIDH pile foundations would extend approximately 80 feet below the existing ground surface and could therefore encounter unrecorded paleontological resources, potentially resulting in direct damage to or destruction of unique paleontological resources or unique geologic features.

Implementation of PF PAL-1 would require that work in the immediate vicinity of a discovery would be halted until it can be evaluated by a qualified paleontologist, consistent with Caltrans Standard Specifications Section 14-7. See Appendix C for specific details about PFs. With incorporation of PF PAL-1, no the impact would be less than significant.

### 3.2.8 GREENHOUSE GAS EMISSIONS

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less than Significant Impact.** Construction-related GHG emissions were calculated using the Sacramento Metropolitan Air Quality Management District’s Roadway Construction Emissions Model (RCEM Version 9.0) with project-specific assumptions regarding the duration and scope of project construction. Construction duration would total 30 months, and the total amount of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) produced during construction of the project would be 1,420 tons. While the project would result in GHG emissions during construction, no increase in vehicle miles traveled (VMT) would occur because the project would not increase the number of travel lanes. With the implementation of construction emissions reduction measures, construction-related impacts would be less than significant.

As shown in Table 3.2-1, the estimated annual CO<sub>2</sub> emissions for the Build Alternative during the opening year (2025), horizon year (2040), and design year (2045) of the proposed project would be lower than the emissions for the No Build Alternative. This difference is due to the reduction in regional VMT under the Build Alternative, which would result from improved connectivity and circulation within the intersection. The estimated annual CO<sub>2</sub> emissions for the Build and No Build Alternative would be lower in the opening year (2025) compared to the existing year (2018) because federal and state fuel economy standards are expected to reduce greenhouse gas (GHG) emissions over time; however, the CO<sub>2</sub> emissions for the Build and No Build Alternative would be

higher in the horizon year (2040) and design year (2045) compared to the existing year (2018). This is because regional VMT is expected to increase about 20 and 25 percent with or without the proposed project by the horizon year (2040) and design year (2045), respectively. This would exceed the rate of GHG emission reductions currently expected through federal and state regulatory programs.

Because the proposed project would reduce GHG emissions below levels anticipated under the No-Build Alternative, this impact would be less than significant.

**Table 3.2-1 Operational CO<sub>2</sub> Emissions**

	Existing Conditions (2018)	Opening Year (2025)		Horizon Year (2040)		Design Year (2045)	
		No Build	Build	No Build	Build	No Build	Build
Daily VMT	2,071,480	2,239,684	2,235,317	2,499,264	2,494,434	2,585,791	2,580,806
CO <sub>2</sub> (metric tons/year)	273,500	270,600	270,100	274,400	273,800	278,900	278,400

Source: Baseline Environmental Consulting, 2020

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** The proposed project is included in the current RTP and TIP, both of which contain regional strategies for reducing GHG emissions from transportation sources. One of the main strategies to reduce GHG emissions is to make transportation systems more efficient by reducing congestion. The proposed project would improve travel within the I-80/Ashby Avenue interchange by reconfiguring the I-80/Ashby Avenue connector ramps, providing multimodal transportation options, and increasing bicycle and pedestrian connectivity and safety. No impact would occur.

**3.2.9 HAZARDS AND HAZARDOUS MATERIALS**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the routine transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project result in a safety hazard for people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
residing or working in the project area?				
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Less than Significant Impact.** Project construction would require the transport, use, and disposal of products and excavated material that may contain contaminants such as petroleum hydrocarbons, metals, and asbestos. With the incorporation of AMM HAZ-1 and AMM HAZ-3, project construction would not create a significant hazard to the public or the environment through the transport, use, or disposal of, hazardous materials. See Appendix C for specific information about AMMs.

As a transportation infrastructure project, project operations would not directly involve the routine use, disposal, or transportation of hazardous materials and would not have a significant impact on the public or the environment. With implementation of AMM HAZ-1 and AMM HAZ-3, this impact would be less than significant, and no mitigation would be required.

**b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Less than Significant Impact.** Excavation could encounter contaminated groundwater as well as other potential risks from existing contaminated sites. Refer to Figure 2.2-4 for a map of contaminated sites near the project area. Construction would entail large areas of grading, installation of road surfaces, drainage improvements and cut/fill embankments. Project construction would also require vehicles trips to deliver materials and remove waste products or excavated soil. Excavation and grading could encounter residual contamination associated with previous residential and commercial uses on the project area. There is the potential for the release of hazardous materials into the environment. Adherence to AMM HAZ-1 (perform a Preliminary Site Investigation during the final design phase), AMM HAZ-2 (store and characterize groundwater from dewatering), and AMM HAZ-3 (prepare and implement a site safety plan) would require additional site testing prior to construction, development of a site safety plan, and retention of contaminated groundwater in temporary on-site tanks to avoid exposure of construction workers or further spread of contamination.

During operation, automobile traffic could result in collisions that result in the accidental release of substances such as fuel, lubricants, or hazardous freight. In order to account for these potential hazards, the proposed project would be designed and engineered to standard Caltrans engineering requirements for roadway slopes, curvature, speeds, storm water treatment, lane orientation, and other standard roadway design criteria. Compliance with these standards would minimize the potential for hazardous material or waste release under accident conditions. The proposed project would be designed and operated consistent with all applicable standards and regulations for safety and would not present a unique or above-average risk for accidents involving hazardous materials. With implementation of AMM HAZ-1, AMM HAZ-2, and AMM HAZ-3, this impact would be less than significant, and no mitigation would be required.

**c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No Impact.** There are no schools within one-quarter mile of the project limits. As a transportation network, the proposed project would not result in the use or frequent handling of hazardous materials. Due to the distance between the project area and the nearest school, it is unlikely that the proposed project would result in impacts associated with hazardous emissions or hazardous materials. No impact would occur.



**d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**No Impact.** The project area is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 6596.5. No impact would occur.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** There are no airports within a 2-mile radius of the project area that could result in a safety hazard or excessive noise for people residing near or working within the project area. Therefore, no impact would occur.

**f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less than Significant Impact.** The closest fire station to the project area is the Alameda County Fire Station No. 35, approximately 1 mile to the southeast. The Emeryville Police Department is located 1 mile southwest of the interchange. Although no property owned or used by emergency service providers would be acquired, construction activities have the potential to temporarily disrupt roadway access, potentially affecting emergency access. Adherence to PF UTL-2 would require emergency responders be notified prior to temporary road closures or detours. Refer to Appendix C for the full text of this project feature. With implementation of PF UTL-2, this impact would be less than significant.

**g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

**No Impact.** The project area is not located within a Fire Hazard Severity Zone (FHSZ), demonstrating a low susceptibility to fire hazards. Construction and operation of the proposed project would represent little to no threat of exposing people or structures to fire hazards. Therefore, no impact would occur.

3.2.10 HYDROLOGY AND WATER QUALITY

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				
i) result in a substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity or planned stormwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

drainage systems or provide substantial additional sources of polluted runoff;				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Violate any water quality standards or waste discharge requirements?**

**Less than Significant Impact.** Construction of the proposed project would involve ground disturbing activities such as excavation, trenching, grading, demolition, and shrub removal. Construction activities could result in runoff that contains sediment and other pollutants. Sources of sediment include uncovered or improperly covered stockpiles, unstable slopes, bare soil, construction staging areas, and construction equipment not properly maintained or cleaned. Polluted runoff could degrade water quality if not properly controlled. Therefore, the proposed project would have the potential to temporarily affect water quality. The estimated area of disturbed soil for the proposed project is 34.15 acres.

Potential effects to water quality would be minimized in accordance with the 2016 Caltrans Statewide SWMP through the application of AMM WQ-1. This measure includes construction erosion and sediment control BMPs, storm monitoring, and maintenance activities to prevent any construction materials or debris from entering storm drains or drainage ditches within the project area. This measure includes full revegetation of all graded and disturbed areas. See Appendix C for the full text of these AMMs.

During construction, construction vehicles would be stored, refueled, and repaired/maintained at the project area. This presents a risk of accidental spills or releases of fuels, oils, or other potentially toxic materials. An accidental release could pose a threat to water quality if contaminants enter storm drains, open channels, or surface water receiving bodies. Waste management and materials pollution control measures would be applied through PF WQ-5 to avoid accidental spills or accidental releases that could affect water quality. See Section 1.0 for specific details about project features. This impact would be less than significant.

**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-**

**existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

**Less than Significant Impact.** Groundwater conditions would be verified during the final design phase, but groundwater is expected to occur between 5 to 10 feet below ground surface. As such, some dewatering would be required during construction. However, dewatering activities would comply with the Caltrans Standard Specifications and Field Guide to Construction Site Dewatering. The proposed project would not use groundwater during operation. Therefore, this impact would be less than significant.

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

- i) Result in a substantial erosion or siltation on- or off-site;**
- ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**
- iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;**

**And**

**d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

**No Impact.** The increased impervious surface area for the proposed project would generate minor increases in stormwater peak flow rates and runoff volumes. The proposed project would not result in substantial erosion or siltation and increases in surface runoff would be minimized because Caltrans would require the contractor to prepare and comply with a stormwater pollution prevention plan (SWPPP) (PF WQ-3). Existing drainage systems in the project area have poor integrity and would therefore be replaced by new pipes installed under I-80. Additionally, a new outfall would be added to replace the existing outfall north of Point Emery that is buried by accumulated sediment. Therefore, the project would improve drainage within the project area and there would be no impact.

**e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

**Less than Significant Impact.** The proposed project would avoid and/or minimize permanent impacts related to stormwater pollution and capacity by incorporating new stormwater treatment facilities and replacing existing drainage systems that have poor integrity. The proposed project's temporary impacts would be addressed with construction BMPs included in AMM WQ-1 and AMM WQ-2. Refer to Appendix C for the full text of these avoidance and minimization measures. With incorporation of these avoidance and minimization measures, the impact would be less than significant, and no mitigation would be required.

**f) Otherwise substantially degrade water quality?**

**Less than Significant Impact.** The number of dissolved contaminants, automotive oil, and grease contained in stormwater runoff would also increase. Adherence to standard protocols and regulation described in AMM WQ-1 would avoid adverse effects to water quality from oil, grease, and other chemical pollutants.

The proposed project would comply with Caltrans' guidelines on the application and use of chlorpyrifos-based pesticides for control of weeds and invasive plants for maintenance of vegetated areas. Diazinon or DDT would not be used. Caltrans' Vegetation Control Policy mandates preparation of a Vegetation Control Plan, which regulates the use and application of pesticides by trained personnel. The policy requires the use of the least toxic chemical that is available and effective to control the target plan species. Caltrans maintains a current listing of state-approved pesticides for use. Therefore, this impact would be less than significant.

**g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

**No Impact.** The proposed project is a transportation infrastructure project and does not propose housing. Therefore, no impact would occur.

**h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

**Less than Significant Impact.** The proposed project would not add any structures to a 100-year flood hazard area. A small (less than one acre) area of fill in a portion of a 100-year flood hazard area associated with the KRE Radio Station property would be required. However, the new BPOC and interchange would not redirect or impede flood

flows as the area is already paved with a vacant parking lot, and the proposed project would not change the topography of this area. Therefore, this impact would be less than significant.

**i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

**And**

**j) Inundation by seiche, tsunami, or mudflow?**

**No Impact.** The Highway Design Manual (Caltrans, 2020) requires the proposed project design include appropriate measures to prevent flooding from surface runoff. In order to meet this requirement, the proposed drainage system would be designed to capture and convey stormwater runoff from the design storm in the project area. The drainage improvements, construction of a new outfall, in conjunction with stormwater BMPs application, would help minimize stormwater impacts due to surface runoff and/or sea level rise. The proposed project would not cause a significant or longitudinal encroachment. Therefore, no impact would occur.

**3.2.11 LAND USE AND PLANNING**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Physically divide an established community?**

**No Impact.** The proposed project includes modifying existing transportation infrastructure within an existing interchange to improve overall efficiency of the local transportation network and add bicycle. The proposed project also features pedestrian and bicycle safety improvements increasing mobility within the project area. Construction and operation of the proposed project would not physically divide an established community. No impact would occur.

**b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.** The land use study area surrounding the interchange consists of flat terrain developed with urban and commercial land uses interspersed with residential neighborhoods.

The Emeryville and Berkeley’s general plans identify the interchange as an area that could benefit from improved circulation and enhanced mobility. MTC, as the regional transportation planning agency in the San Francisco Bay Area, has also included the proposed project in the RTP. Therefore, the project changes are accounted for in both local general plans and overarching, regional plans. Moreover, the proposed project would not require or result in changes to existing land uses or zoning in the project area. Although some property acquisitions would be required, such acquisition would be minimal and would not conflict with local plans (see Section 2.1.3, Community Impacts). The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction of the proposed project. Therefore, no impact would occur.

**3.2.12 MINERAL RESOURCES**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



region and the residents of the state?				
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**And**

**b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

**No Impact.** The project area is located 9.8 miles away from the nearest known mineral resource of statewide, regional, or local value. The proposed project would not disturb protected mineral resources and no impact would occur.

### 3.2.13 NOISE

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted within two miles of a public airport of public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the Noise Study Report (October 2021) prepared for the proposed project.

**a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**And**

**b) Generation of excessive ground borne vibration or ground borne noise levels?**

**Less than Significant Impact.** As presented in the discussion below, the proposed project would have a less than significant impact related to these topics.

**Operation**

FHWA Traffic Noise Model Version 2.5 (TNM 2.5) was used to provide representative predictions of future traffic noise levels at sensitive land uses in the project area, assuming the worst-case (loudest) traffic speeds and maximum lane capacities. At each modeled receptor, predictions were made for future worst-case traffic noise levels with and without the proposed project, and for the maximum noise level change with respect to existing conditions. Traffic noise impacts occur at a noise-sensitive land use if predicted design year noise levels exceed or approach the noise abatement criteria

(NAC) of 67 A-weighted dB equivalent sound level (dBA Leq[h]) or if predicted design year noise levels increase substantially (by 12 dBA or more) over existing levels.

The existing noise environment throughout the project area varies by location, depending on site characteristics such as proximity to other roadways or noise sources, the relative elevation of roadways and receptors, and any intervening structures or topography.

As shown in Table 2.2-10 in Section 2.2.7, Noise and Vibration, both the No Build Alternative and the Build Alternative are expected result in increased noise levels over existing conditions by 0 to 10 dBA at most receivers. This is because traffic on I-80 is the primary source of noise in the project area. Because the proposed project would not add capacity to I-80, future noise levels would be similar under both the Build and No Build scenarios.

As noise impacts are expected to occur at these receiver locations, noise abatement was considered for the proposed project. Noise abatement in the form of sound walls was considered in the Noise Study Report prepared for the proposed project. There is no existing sound wall. As described in detail in Section 2.2.7, Noise, the cost of adding suggested sound walls was determined not to be reasonable. Therefore, none of the new sound walls are recommended.

Though the future condition with the proposed project (2045 with project) would approach or exceed the NAC of 67 dBA, future noise levels with the no-project condition (2045 No Project) are also expected to exceed this threshold as increased traffic on existing roads would increase NAC in both scenarios. Additionally, no uses are proposed that would generate substantial ground borne vibration. Therefore, this impact would be less than significant, and no mitigation would be required.

### **Construction**

The Emeryville and Berkeley Municipal Codes contain policies that regulate construction related noise for development. These policies require that:

- General construction noise on private and public projects shall be limited to weekdays from 7:00 am to 6:00 pm. Pile driving, and similarly loud activities shall be limited to weekdays from 8:00 am to 5:00 pm.
- Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7 pm and 7 am, or 8 pm and 9 am on weekends or holidays such that the sound therefrom creates a noise disturbance across a residential or commercial property line.

- Vibration. Operating or permitting the operation of any device that creates a vibration, which annoys or disturbs at least two or more reasonable persons of normal sensitiveness who reside in separate residences at or beyond the property boundary of the source, or at least 150 feet (46 meters) from the source, if on a public space or right-of-way is prohibited.

Construction phases would include excavation and grading, construction of bridge structures; miscellaneous concrete work; relocation of utilities; paving, and installation of overhead signs and lighting. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. The highest maximum instantaneous noise levels would result from paving and demolition activities. No pile driving would be required for the proposed project, so the generation of substantial ground borne noise and vibration is not anticipated.

For the purpose of the Noise Study Report (October 2021) prepared for the proposed project, general roadway construction noise levels were projected based on typical equipment and activity levels related to roadway construction activities. Typical construction noise levels at 100 feet and daytime noise level estimates for construction of the proposed project are shown in Tables 15 and 16 of the Noise Study Report (October 2021).

Incorporation of PF NOI-1 through PF NOI-6 referenced in Section 2.2.7, Noise and Vibration, would reduce construction-period noise below 86 dBA and minimize the potential for noise impacts from project construction. Therefore, construction impacts would be less than significant, and no mitigation would be required.

**c) For a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted within two miles of a public airport of public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The proposed project is not within two miles of a private airstrip or airport land use plan. Therefore, no impact would occur.

**3.2.14 POPULATION AND HOUSING**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**And**

**b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**No Impact.** The proposed project would improve traffic movement throughout the project area, but it would not increase the capacity of I-80 or the local roadway network. The proposed project is not anticipated to be growth inducing. The proposed project would not include right of way relocations or the purchase and displacement of housing or people. There would be no impact.

**3.2.15 PUBLIC SERVICES**

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

**Fire Protection and Police Protection**

**Less than Significant Impact.** The closest fire station to the project area is Alameda County Fire Station Number 35, located approximately 0.3 mile to the east of the project area. The closest police station is the Emeryville Police Department located approximately one mile south of the project area. Although no property owned or used by emergency service providers would be acquired, construction activities would have the potential to temporarily disrupt roadway access within the project area, potentially affecting emergency response times. Adherence to AMM UTL-2 would ensure that emergency service providers are notified in advance of any roadway closure or change in local access. This would allow emergency service providers to be aware of detours in advance and plan alternate routes where needed. Additionally, the proposed project would not cause growth that would increase demand for fire or police services. Therefore, with implementation of AMM UTL-2, this impact would be less than significant.

**Schools**

**No Impact.** The proposed project does not have the potential to directly or indirectly induce population growth in the project area. Given this, the proposed project would not result in increased demand for schools or result in impacts related to new or expanded school facilities. Therefore, no impact would occur.

**Parks and Other Public Facilities**

**No Impact.** Open space and other public facilities such as libraries and community centers are typically provided to serve the residents of their respective jurisdictions. The proposed project would not directly or indirectly induce population growth. Given this,

the proposed project would not increase demand for open space or other public facilities. Additionally, a temporary detour along the San Francisco Bay Trail would not impact access to public recreational resources including Point Emery, as pedestrian and bicycle access would be maintained. Therefore, no impact would occur.

3.2.16 RECREATION

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**And**

**b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

**No Impact.** The proposed project would not include residential, recreational, or business uses and does not have the potential to induce population growth in the project area. The proposed project would not increase the use of existing neighborhood and regional parks such that substantial physical deterioration or expansion would occur. Temporary vehicular detours along the San Francisco Bay Trail would not impact access to recreational resources, including Point Emery, as pedestrian and bicycle access would be maintained. No impact would occur.



3.2.17 TRANSPORTATION/TRAFFIC

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, or ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Conflict with a program, plan, or ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**No Impact.** The proposed project is sponsored by Alameda County Transportation Commission and Caltrans as a project identified to improve connectivity, accessibility, safety, traffic flow, and bicycle and pedestrian facilities. Therefore, no impact would occur.

**b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?**

**No Impact.** Construction of the Build Alternative would be anticipated to reduce total VMT by about 4,000 to 5,000 miles per day when compared to the No Build Alternative (see Table 3.2-2). This reduction is the result of the new connections between I-80 southbound and Shellmound Street and the replacement of the existing interchange with a more efficient form. The existing interchange also has larger free flowing ramps

and when they are replaced with a tight diamond form, the overall VMT decreases. Therefore, there would be no impact.

**Table 3.2-2 2025 and 2045 VMT**

Scenario	Daily Vehicle Miles Travelled		
	No Build Alternative	Build Alternative	Difference
Opening Year (2025)	2,239,684	2,235,317	-4,367
Design Year (2045)	2,585,791	2,580,806	-4,984

Source: Kittleson & Associates, Inc., 2020

**c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**No Impact.** The proposed project would not increase hazards due to a design feature. Common design features to the Build Alternative would include upgrades such as new on- and off- ramps, intersection signalization, and a new bridge structure. In addition, the new BPOC would reduce automobile/bicycle conflicts at the ramps. None of the additional features mentioned would increase the risk of hazards in the existing area. Therefore, no impact would occur.

**d) Result in inadequate emergency access?**

**Less than Significant Impact.** Long term impacts of the proposed project on emergency access would generally be positive because of reductions in traffic delays and congestion at the study intersections. Temporary lane closures during construction would be required, which could result in short-term temporary impacts to emergency access. This impact would be minimized by the incorporation of PF TRA-1, and AMM ULT-2. Therefore, this impact would be less than significant.

As required by PF TRA-1, a TMP will be prepared to ensure efficient movement of local and regional traffic during construction. The TMP will provide for public outreach to inform community agencies, such as the fire department, and the public of the times and locations of upcoming construction, signage in and approaching the project area, and incident management for traffic control in the vicinity of construction activities. Creation and implementation of a TMP is a standard requirement for all Caltrans projects. Additionally, AMM ULT-2, would require that emergency Services will be notified prior to construction of any temporary road closures and/or detours as part of the TMP established in PF TRA-1. Therefore, this impact would be less than significant.

3.2.18 TRIBAL CULTURAL RESOURCES

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Information in this section is based in part on the Historic Property Survey Report (HPSR) prepared for the proposed project (August 2020).

**a) Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code**

**section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

**i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)**

**No Impact.** As discussed in Section 2.1.7, Cultural Resources and Tribal Cultural Resources, the proposed project would not result in a substantial adverse change to any properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution (as defined in PRC section 5020.1(k)). The project area contains the KRE Radio Station that qualifies for listing on the National Register of Historic Places and California Register of Historical Resources. However, the boundaries of the historic property are limited to the KRE Radio Station building and do not include the area where proposed improvements along Bay Street would modify guy wires supporting the radio tower. No other listed or potentially eligible resources are present within the project area. Therefore, no impact would occur.

**ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

**Less than Significant Impact.** A Sacred Lands File Search was conducted on behalf of the proposed project by the Native American Heritage Commission (NAHC) in 2019. Although the NAHC determined that no Tribal Cultural Resources have been previously identified within the APE, a list of interested Native American tribal representatives with traditional lands or cultural places within Alameda County was included in the NAHC response.

In November 2019 certified Assembly Bill 52 (AB 52) letters were sent to all Native American contacts provided by the NAHC describing the proposed project, providing a location map, and requesting any information and concerns the Tribes may have reading the proposed project or study area. Chairperson Perez of the North Valley Yakuts Tribe requested consultation on the proposed project and a site visit. A field review of the project area was conducted on February 13, 2020, by Chairperson Perez and two other tribal representatives, along with Caltrans District 4 archaeology personnel, Kathryn Rose and Katie Jorgensen, and other members of the project team. Chairperson Perez expressed concern for the potential of deeply buried cultural

resources beneath the fill on which I-80 and the interchange has been constructed. Project team members shared the general excavation would only be up to 10 feet, while cast-in-drilled-hole (CIDH) pile foundations would require drilled excavations of approximately 80 feet. Thus, while possible, the likelihood of discovering deeply buried cultural resources is low. Caltrans will continue Native American consultation throughout the life of the proposed project.

While no tribal cultural resources have been recorded in the APE, there is the possibility that unrecorded resources could be unearthed during construction. Adherence to PF CUL-1 would ensure the if tribal resources are discovered during construction, all earth-moving activity would cease until a qualified archaeologist can assess the nature and significance of the find, thus avoiding impacts to such resources.

Once construction is complete, the proposed project would not entail earth-moving activities with the potential to damage or discover previously unrecorded tribal cultural resources. Given this, the proposed project would not endanger the integrity of tribal cultural resources long term. With incorporation of PF CUL-1, the impacts to tribal cultural resources would be less than significant, and no mitigation would be required.

### 3.2.19 UTILITIES AND SERVICE SYSTEMS

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
normal, dry and multiple dry years?				
c) Result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**And**

**b) Have sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**Less than Significant Impact.** As a roadway project, operation would not include the regular use of water or recycled water services other than minor use for irrigation of highway plantings. No natural gas or telecommunications facilities and minimal electric

power would be required. Although water may be used intermittently at the project area for maintenance purposes such as street sweeping, this use would be similar to existing conditions and adequate water supplies would be available. Similarly, operation of the proposed project would not generate wastewater, as no habitable structures or other facilities such as restrooms are proposed. Furthermore, the proposed project would replace existing stormwater drainage systems that lack integrity. Therefore, this impact would be less than significant.

**c) Result in a determination by the wastewater treatment provider, which serves or may serve the proposed project that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments?**

**No Impact.** The proposed project would not require additional capacity for wastewater treatment, as project construction and operation would not generate wastewater or otherwise increase the volume of wastewater requiring treatment by a provider. Therefore, there would be no impact, and no mitigation would be required.

**d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**No Impact.** Proposed project operation would not result in the regular generation of solid waste. Therefore, there would be no impact, and no mitigation would be required.

**e) Comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact.** As a transportation improvement project, the proposed project would not require landfill capacity or solid waste disposal. Operation of the proposed project would not generate solid waste and municipal waste collection would not be needed. Therefore, regulations related to solid waste would not apply and no impact would occur.

3.2.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



**a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

**And**

**b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**And**

**c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**And**

**d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** The California Department of Forestry and Fire Protection (CAL FIRE) FHSZ Maps include proposed FHSZ Maps for State Responsibility Area lands. CAL FIRE allows those reviewing local responsibility area hazard zone maps to verify any adopted ordinances that may affect communities' hazard mapping and building code requirements. The project area is located within a local responsibility area. Due to the project being within an urbanized area and well-maintained parks with surface water features surrounding the project area, the risk for wildfire is considered very low. The project area is not located within a FHSZ, and no wildfire impacts would occur.<sup>2</sup>

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<sup>2</sup> Cal Fire Database. 2020. *Fire Hazard Severity Zones Maps*. Available here: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed: March 17, 2020.

3.2.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the proposed project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>a) Does the proposed project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Does the proposed project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>c) Does the proposed project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Does the proposed project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

**No Significant Impact.** The project area is in a developed area and contains no sensitive wildlife communities. The project would result in a small (0.007 acre) loss of federally-designated critical habitat for southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, central California coast steelhead, and Central Valley steelhead within the San Francisco Bay. However, this loss would occur in a shallow area near the coastline where these species are not expected to occur. Therefore, the proposed project would not substantially reduce the habitat of any fish or wildlife species. Furthermore, adherence to AMM BIO-1 through BIO-10, described in Section 3.2.4, Biological Resources, would further minimize impacts to fish and wildlife species. This impact would be less than significant, and no mitigation would be required.

**b) Does the proposed project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Less than Significant Impact.** The proposed project would involve the redesign of an existing interchange and the addition of a new BPOC. No other projects are proposed within the area of disturbance that would combine with the proposed project to cause cumulatively considerable direct impacts on the environment. Within the broader project area, the proposed project would contribute to reductions in VMT and associated pollutant emissions, and improve bicycle/pedestrian access across I-80. Therefore, with incorporation of avoidance, minimization, and mitigation measures discussed in this section, the proposed project would not make a substantial contribution to a cumulatively considerable impact.

**c) Does the proposed project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less than Significant.** With incorporation of project features and avoidance and minimization measures identified herein, all potential impacts would be less than significant. The proposed project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, these impacts would be less than significant, and no mitigation would be required.

### 3.3 CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most abundant GHG; while it is a naturally occurring and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO<sub>2</sub> that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO<sub>2</sub>.

The impacts of climate change are already being observed in the form of sea level rise, drought, more intense heat, extended and severe fire seasons, and historic flooding from changing storm patterns. Both mitigation and adaptation strategies are necessary to address these impacts. The most important mitigation strategy is to reduce GHG emissions. In the context of climate change (as distinct from CEQA and NEPA), "mitigation" involves actions to reduce GHG emissions or to enhance the "sinks" that store them (such as forests and soils) to lessen adverse impacts. "Adaptation" is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

#### 3.3.1 REGULATORY SETTING

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

##### FEDERAL

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The NEPA (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The FHWA recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2022). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

The federal government has taken steps to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) as amended by the Energy Independence and Security Act (EISA) of 2007; and Corporate Average Fuel Economy (CAFE) Standards. This act established fuel economy standards for on-road motor vehicles sold in the United States. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces the CAFE standards based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation’s energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014).

U.S. EPA published a final rulemaking on December 30, 2021, that raised federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, increasing in stringency each year. The updated GHG emissions standards will avoid more than 3 billion tons of GHG emissions through 2050. In April 2022, NHTSA announced corresponding new fuel economy standards for model years 2024 through 2026, which will reduce fuel use by more than 200 billion gallons through 2050 compared to the old standards and reduce fuel costs for drivers (U.S. EPA 2022a; NHTSA 2022).

## STATE

California has been innovative and proactive in addressing GHG emission and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this executive order (EO) is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and SB 32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to

update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO<sub>2e</sub>). Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

Senate Bill 32, (SB 32) Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

Senate Bill 1386, (SB1386), Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emission and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill required ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

AB 1279, Chapter 337, 2022, The California Climate Crisis Act: This bill mandates carbon neutrality by 2045 and establishes an emissions reduction target of 85 percent below 1990 level as part of that goal. This bill solidifies a goal included in EO B-55-18. It requires ARB to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California, as specified.

### 3.3.2 ENVIRONMENTAL SETTING

The proposed project is in an urban area of Alameda County with a well-developed road and street network. Aside from the transportation uses associated with the existing interchange, there are two primary land uses within the project area: park/open space uses located on the west and northeast sides of the interchange, and commercial uses located to the southeast in Emeryville. Other land uses within the project area include a private college and an apartment complex located at 6400 Christie Avenue, less than 100 feet southeast of the interchange. The route in the project area is heavily used during peak hours. A regional transportation plan (RTP)/sustainable communities strategy (SCS) by the Metropolitan Transportation Commission (MTC) guides transportation and housing development in the project area. The Alameda County General Plan Sustainability element addresses GHGs in the project area.

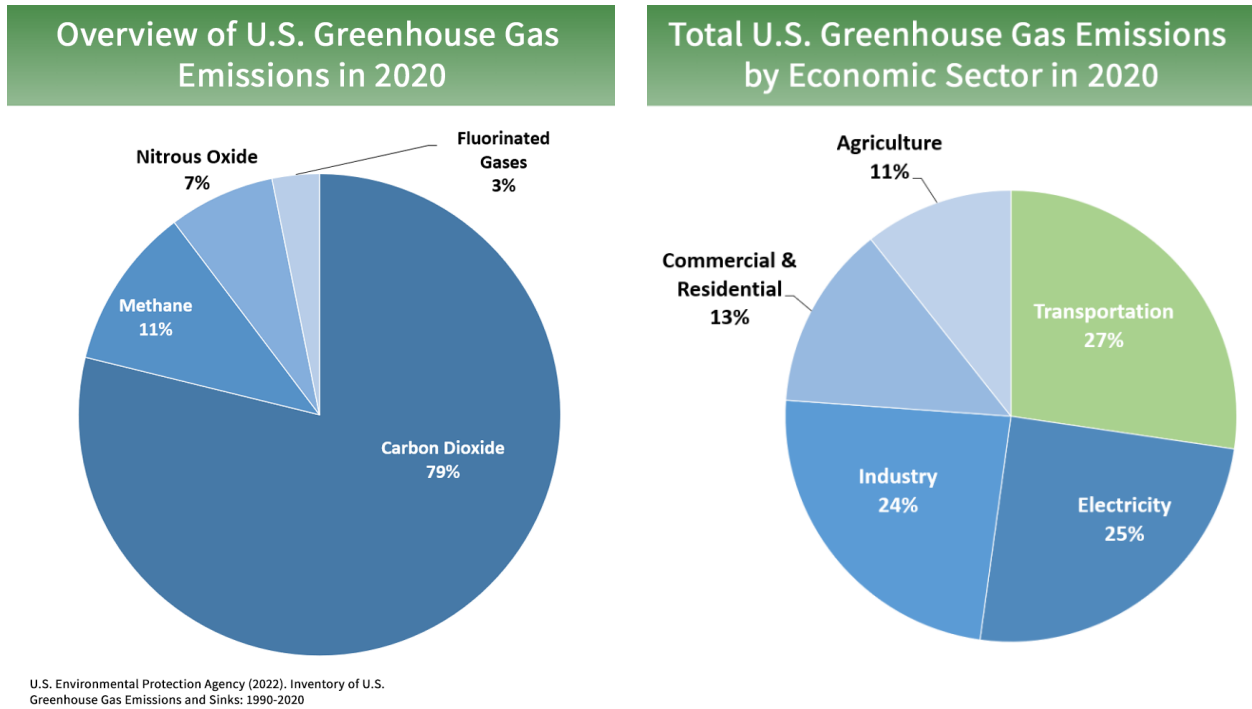
#### **GHG Inventories**

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

#### **National GHG Inventory**

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total GHG emissions from all sectors in 2020 were 5,222 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. Of these, 79 percent were CO<sub>2</sub>, 11 percent were CH<sub>4</sub>, and 7 percent were N<sub>2</sub>O; the balance consisted of fluorinated gases. Total GHGs in 2020 decreased by 21 percent from 2005 levels and 11 percent from 2019. The change from 2019 resulted primarily from less demand in the transportation sector during the COVID-19 pandemic. The transportation sector was responsible for 27 percent of total U.S. GHG emissions in 2020, more than any other sector (Figure 3.3-1), and for 36 percent of all CO<sub>2</sub> emissions from fossil fuel combustion. Transportation CO<sub>2</sub> emissions for 2020 decreased 13 percent from 2019 to 2020, but were 7 percent higher than transportation CO<sub>2</sub> emissions in 1990 (Figure 3.3-1) (U.S. EPA 2022b).



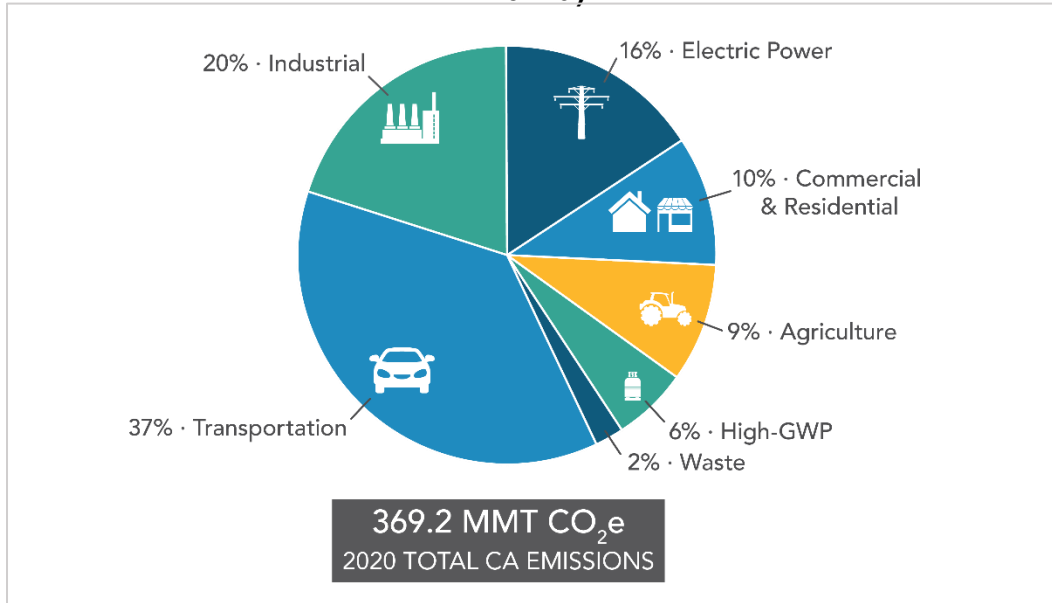


**Figure 3.3-1 U.S. 2020 Greenhouse Gas Emissions (Source: U.S. EPA 2022)**

### State GHG Inventory

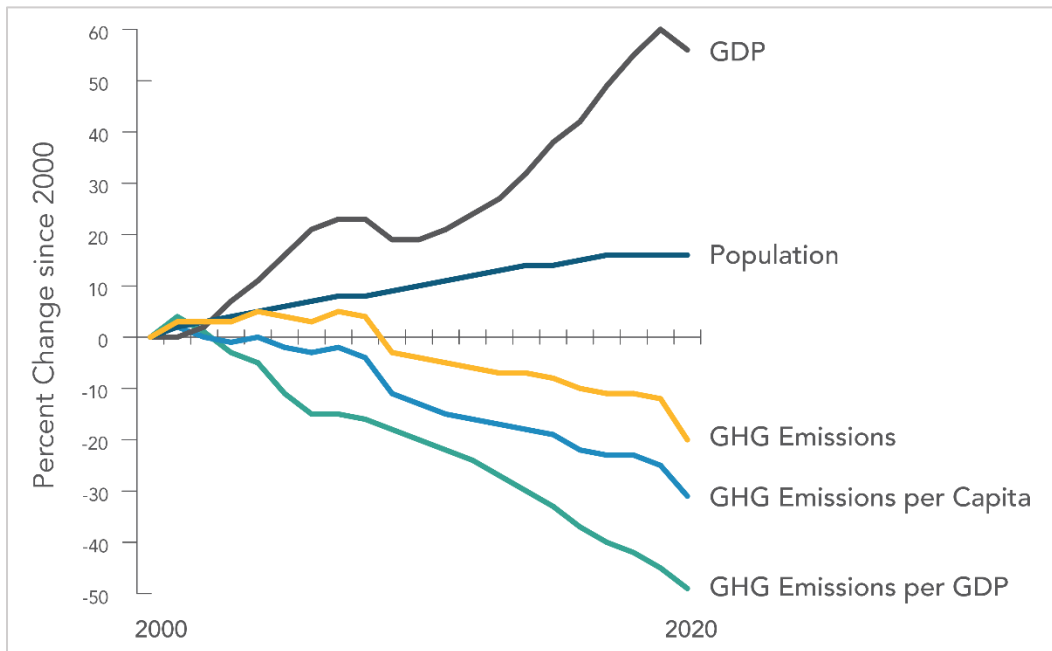
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its GHG reduction goals. The 2022 edition of the GHG emissions inventory reported emissions trends from 2000 to 2020. Total California GHG emissions in 2020 were 369.2 MMT CO<sub>2</sub>e, a reduction of 35.3 MMT CO<sub>2</sub>e from 2019 and 61.8 MMT CO<sub>2</sub>e below the 2020 statewide limit of 431 MMT CO<sub>2</sub>e. Much of the decrease from 2019 to 2020, however, is likely due to the effects of the COVID-19 pandemic on the transportation sector, during which vehicle miles traveled declined under stay-at-home orders and reductions in goods movement. Nevertheless, transportation remained the largest source of GHG emissions, accounting for 37 percent of statewide emissions (Figure 3.3-2). (Including upstream emissions from oil extraction, petroleum refining, and oil pipelines in California, transportation was responsible for about 47 percent of statewide emissions in 2020; however, those emissions are accounted for in the industrial sector.) California’s gross domestic product (GDP) and GHG intensity (GHG emissions per unit of GDP) both declined from 2019 to 2020 (Figure 3.3-3). It is expected that total GHG emissions will increase as the economy recovers over the next few years (ARB 2022a).

**Figure 3.3-2. California 2020 Greenhouse Gas Emissions by Scoping Plan Category (Source: ARB 2022a)**



**Figure 3.3-2 California 2020 Greenhouse Gas Emissions by Scoping Plan Category (Source: ARB 2022a)**

*Figure 3.3-2 Change in California GDP, Population, and GHG Emissions since 2000 (Source: ARB 2022a)*



**Figure 3.3-3 Change in California GDP, Population, and GHG Emissions since 2000 (Source: ARB 2022a)**

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California’s 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The draft 2022 Scoping Plan Update additionally lays out a path to achieving carbon neutrality by 2045 (ARB 2022b).

**Regional Plans**

ARB sets regional GHG reduction targets for California’s 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the RTP/SCS. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for the Metropolitan Transportation Commission (MTC), *Plan Bay Area 2050*. The regional reduction target for MTC is 10 percent by 2020 and 19 percent by 2035 (ARB 2022c). Policies from the MTP RTP/SCS and other local greenhouse reduction plans are shown in Table 3.3-3.

**Table 3.3-3 Regional and Local Greenhouse Gas Reduction Plans**

Title	GHG Reduction Policies or Strategies
Plan Bay Area 2050 (adopted 2021)	<ul style="list-style-type: none"> <li>• T1 : Restore, operate and maintain the existing system</li> <li>• T3: Enable a seamless mobility experience</li> <li>• T6: Improve interchanges and address highway bottlenecks</li> </ul>
City of Berkeley Climate Action Plan (adopted 2009)	<ul style="list-style-type: none"> <li>• Accelerate Implementation of the City’s Bicycle and Pedestrian Plans</li> <li>• Encourage the use of low-carbon vehicles and fuels</li> </ul>
City of Emeryville Climate Action Plan 2.0 (adopted 2016)	<ul style="list-style-type: none"> <li>• Reduce the total VMT on local roads by 30 percent</li> </ul>

*Sources: ABAG 2021; City of Berkeley 2009; City of Emeryville 2016*

### 3.3.3 PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512). In assessing cumulative impacts, it must be determined if a project's incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

### 3.3.4 OPERATIONAL EMISSIONS

The purpose of the proposed project is to improve interchange access and circulation, provide multimodal connectivity, provide a westbound I-80 connection to Shellmound Street, provide safe bicycle and pedestrian connectivity across I-80, improve circulation at I-80/Powell Street and 7<sup>th</sup> Street, and alleviate local surface street congestion. The proposed project will not increase the vehicle capacity of these roadways. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on I-80 or Ashby Ave, no increase in Vehicle Miles Traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

As shown in Table 3.2-1 in Section 3.2.8, Greenhouse Gas Emissions, the estimated annual CO<sub>2</sub> emissions for the Build Alternative during the opening year (2025), horizon year (2040), and design year (2045) scenarios would be lower than the emissions for the No-Build Alternative, which is primarily attributed to the reduction in regional VMT under the Build Alternative, which is shown in Table 3.2-2. The estimated annual CO<sub>2</sub> emissions for the Build and No Build Alternative would be lower in the opening year (2025) compared to the existing year (2018) because federal and state fuel economy

standards are expected to reduce GHG emissions over time; however, the CO<sub>2</sub> emissions for the Build and No Build Alternatives would be higher in the horizon year (2040) and design year (2045) compared to the existing year (2018). This is because regional VMT is expected to increase about 20 and 25 percent with or without the proposed project by the horizon year (2040) and design year (2045), respectively, which would exceed the rate of GHG emission reductions currently expected through federal and state regulatory programs.

### 3.3.5 CONSTRUCTION EMISSIONS

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

As discussed in Section 3.2.8, Greenhouse Gas Emissions, construction-related GHG emissions were calculated using the Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model (RCEM Version 9.0) with project-specific assumptions regarding the duration and scope of project construction.

Construction duration would total 30 months, and the total amount of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) produced during construction of the project would be 1,420 tons. While the project would result in GHG emissions during construction, no increase in vehicle miles traveled (VMT) would occur because the project would not increase the number of travel lanes.

Use of long-life pavement, improved traffic management plans, and changes in materials, can also help offset emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7-1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

### 3.3.6 CEQA CONCLUSION

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions compared to future No Build Alternative conditions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of

reducing the emissions of GHGs. With implementation of construction GHG reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

### 3.3.7 GREENHOUSE GAS REDUCTION STRATEGIES

#### STATEWIDE EFFORTS

In response to AB 32, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors, to take California into a sustainable, low-carbon and cleaner future, while maintaining a robust economy (ARB 2022d).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) reducing petroleum use by up to 50 percent by 2030; (3) increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) reducing emissions of short-lived climate pollutants; and (5) stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015). OPR later added strategies related to achieving statewide carbon neutrality by 2045 in accordance with EO B-55-18 and AB 1279 (OPR 2022).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks by 50 percent is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to

accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency (2022a) released *Natural and Working Lands Climate Smart Strategy*, with a focus on nature-based solutions.

## CALTRANS ACTIVITIES

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set a new interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### **Climate Action Plan for Transportation Infrastructure**

*The California Action Plan for Transportation Infrastructure (CAPTI)* builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

### **California Transportation Plan**

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

### **Caltrans Strategic Plan**

The *Caltrans 2020-2024 Strategic Plan* includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and

outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

### **Caltrans Policy Directives and Other Initiatives**

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a Department policy to ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions. The report documents and evaluates current Caltrans procedures and activities that track and reduce GHG emissions and identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Departmental and State goals.

### **PROJECT-LEVEL GHG REDUCTION STRATEGIES**

The following measures will also be implemented in the proposed project to reduce GHG emissions and potential climate change impacts from the proposed project.

- Construction contractors will comply with Caltrans Standard Specifications to comply with all federal, state, and local air quality requirements, such as proper construction vehicle maintenance and idling instructions. Measures that reduce vehicle emissions also help reduce GHGs.
- A TMP will be developed to alleviate and minimize delays to the traveling public and potentially emissions from idling traffic.

### **3.3.8 ADAPTATION**

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.



## FEDERAL EFFORTS

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.”

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (U.S. DOT 2011). The U.S. DOT Climate Action Plan of August 2021 followed up with a statement of policy to “accelerate reductions in greenhouse gas emissions from the transportation sector and make our transportation infrastructure more climate change resilient now and in the future,” following this set of guiding principles (U.S. DOT 2021):

- Use best-available science
- Prioritize the most vulnerable
- Preserve ecosystems
- Build community relationships
- Engage globally

U.S. DOT developed its climate action plan pursuant to the federal EO 14008, *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021). EO 14008 recognized the threats of climate change to national security and ordered federal government agencies to prioritize actions on climate adaptation and resilience in their programs and investments (White House 2021).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

## STATE EFFORTS

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

*California's Fourth Climate Change Assessment* (Fourth Assessment) (2018) is the state's effort to "translate the state of climate science into useful information for action." It provides information that will help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The State's approach recognizes that the consequences of climate change occur at the intersections of people, nature, and infrastructure. The Fourth Assessment reports that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience a 2.7 to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures, with impacts on agriculture, energy demand, natural systems, and public health; a two-thirds decline in water supply from snowpack and water shortages that will impact agricultural production; a 77 percent increase in average area burned by wildfire, with consequences for forest health and communities; and large-scale erosion of up to 67 percent of Southern California beaches and inundation of billions of dollars' worth of residential and commercial buildings due to sea level rise (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

In 2008, then-governor Arnold Schwarzenegger recognized the need when he issued EO S-13-08, focused on sea level rise. Technical reports on the latest sea level rise science were first published in 2010 and updated in 2013 and 2017. The 2017 projections of sea level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018. This EO also gave rise to the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan), which addressed the full range of climate change impacts and recommended adaptation strategies. The Safeguarding California Plan was updated in 2018 and again in 2021 as the *California Climate Adaptation Strategy*, incorporating key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio*, and the CAPTI (described above). Priorities in the 2021 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, nature-based climate solutions, use of best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2022b).

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change in addition to sea level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and*

*Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group to help actors throughout the state address the findings of California's Fourth Climate Change Assessment. It released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*, in 2018. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts (Climate Change Infrastructure Working Group 2018).

## CALTRANS ADAPTATION EFFORTS

### **Caltrans Vulnerability Assessments**

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

### **Project Adaptation Analysis**

#### **Sea Level Rise**

The project is in a portion of the Coastal Zone that is managed by the San Francisco Bay Conservation and Development Commission (BCDC) and has been analyzed for potential vulnerabilities to the effects of global sea level rise.

The *State of California 2018 Sea-Level Rise Guidance* provides probabilistic projections for the height of sea level rise along the California Coast using the most current data from the Ocean Protection Council. The guidance document outlines a five-step approach for evaluating the risks associated with sea level rise at a given location. The first step is identifying the nearest tide gauge, which is at station 9414290 in the City of San Francisco. The second and third steps involve estimating the projection year that should be used in the analysis, which is year 2066 for the project given an estimated 40-year life-cycle of concrete sidewalks and roadway base and subbase pavement layers with a project completion year of 2026. Given that sea-level rise estimates are provided at 10-year intervals, the closest interval (2070) was used for this analysis. The fourth and fifth steps involve assigning the risk and tolerance for the site. The adopted

policies of Caltrans are to use the high emissions scenario and a 1-in-200 chance (0.5 percent probability), referenced as the Medium-to-High Risk Assessment scenario.

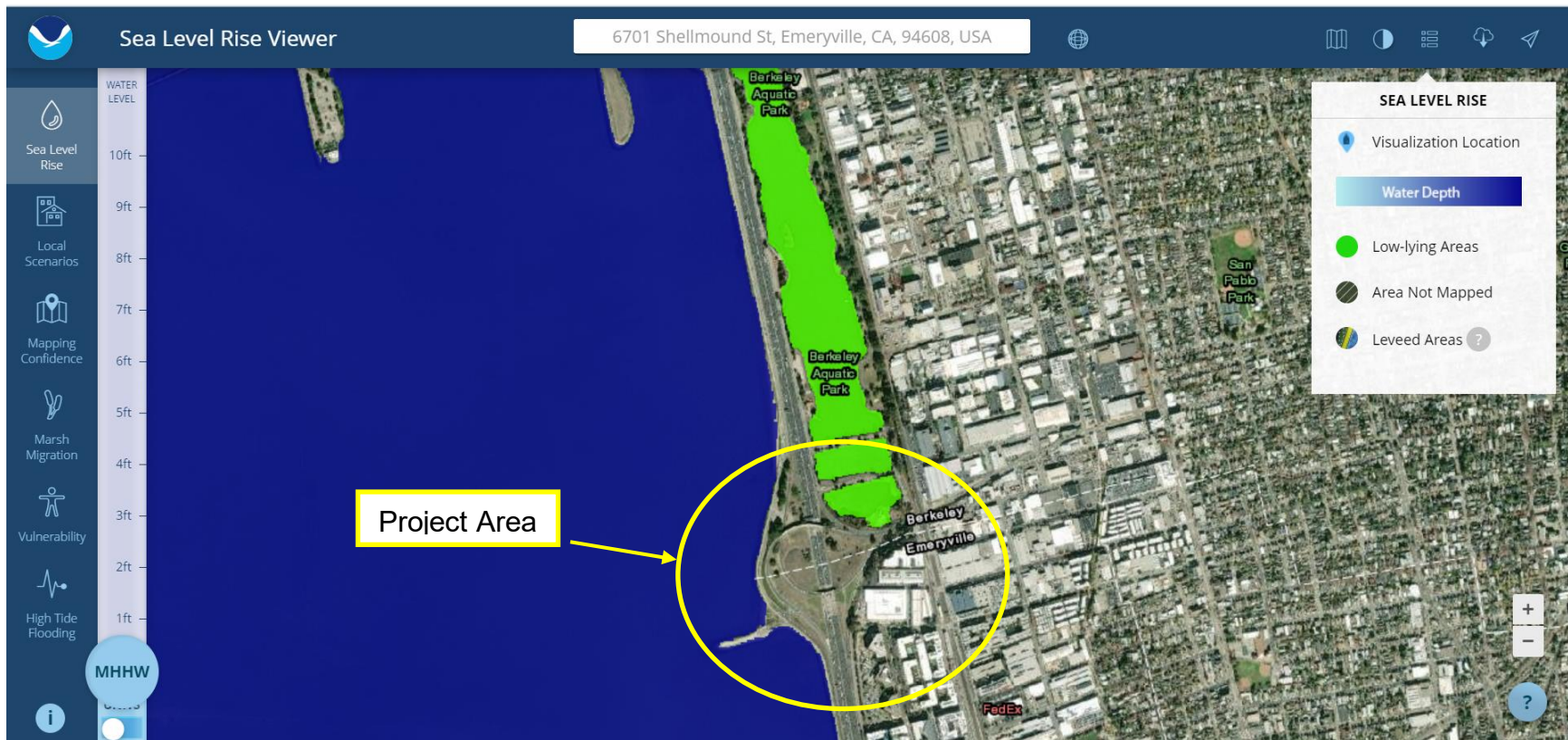
At the San Francisco tide gauge under a high-emissions scenario, there is a 0.5 percent probability that sea level rise will meet or exceed 3.5 feet by the year 2070. Also considered is the H++ sea-level rise scenario, an extreme scenario that has no associated probability. Under the H++ scenario, sea level rise could reach 5.2 feet at the San Francisco tide gauge. Sea level rise projections for the San Francisco tide gauge are shown in Table 3.3-4.

**Table 3.3-4 Projected Sea Level Rise (in feet): San Francisco Tide Gauge**

<b>Year</b>	<b>Low Risk Aversion</b> Upper limit of “likely range” (~17 percent probability SLR exceeds...)	<b>Medium-High Risk Aversion</b> 1 in 200 chance (0.5 percent probability SLR exceeds...)	<b>H++ Scenario</b> Single Scenario (no associated probability)
2070	1.9	3.5	5.2

Source: CCC 2018

As modeled by the National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise Viewer (NOAA 2021), sea level rise under both the Medium-High Risk Aversion scenario and the H++ scenario would cause the tidally-influenced Berkeley Aquatic Park and its associated ponds to expand. Figure 3.3-4, below, shows the existing conditions as modeled by NOAA, while Figure 3.3-6 and Figure 3.3-6 show the approximate Medium-High Risk Aversion and H++ scenarios. Under the H++ scenario, portions of Ashby Avenue within the project area would be inundated.



**Figure 3.3-4 NOAA Sea Level Rise Viewer: Existing Conditions**

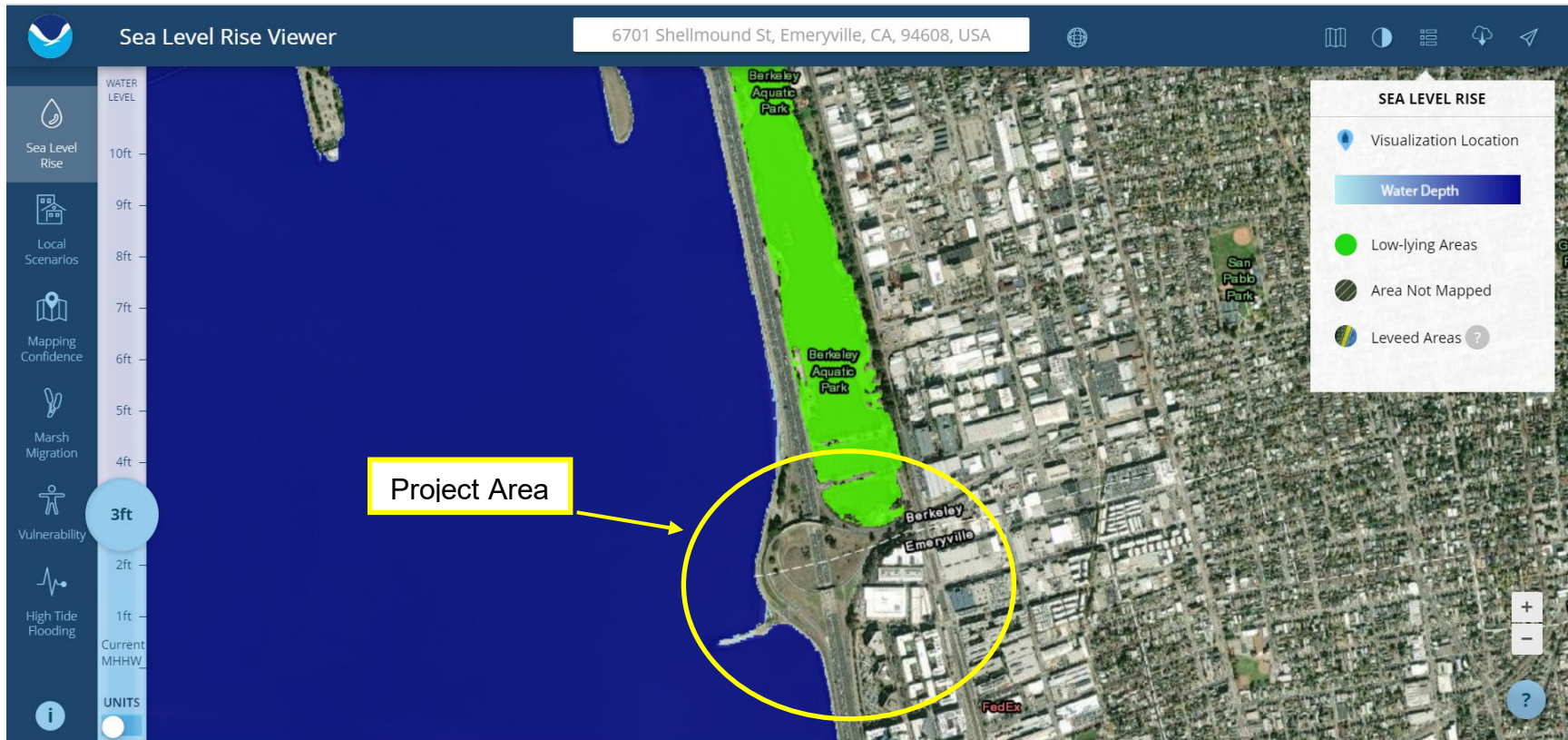


Figure 3.3-5 NOAA Sea Level Rise Viewer: Medium-High Risk Aversion (3 feet)

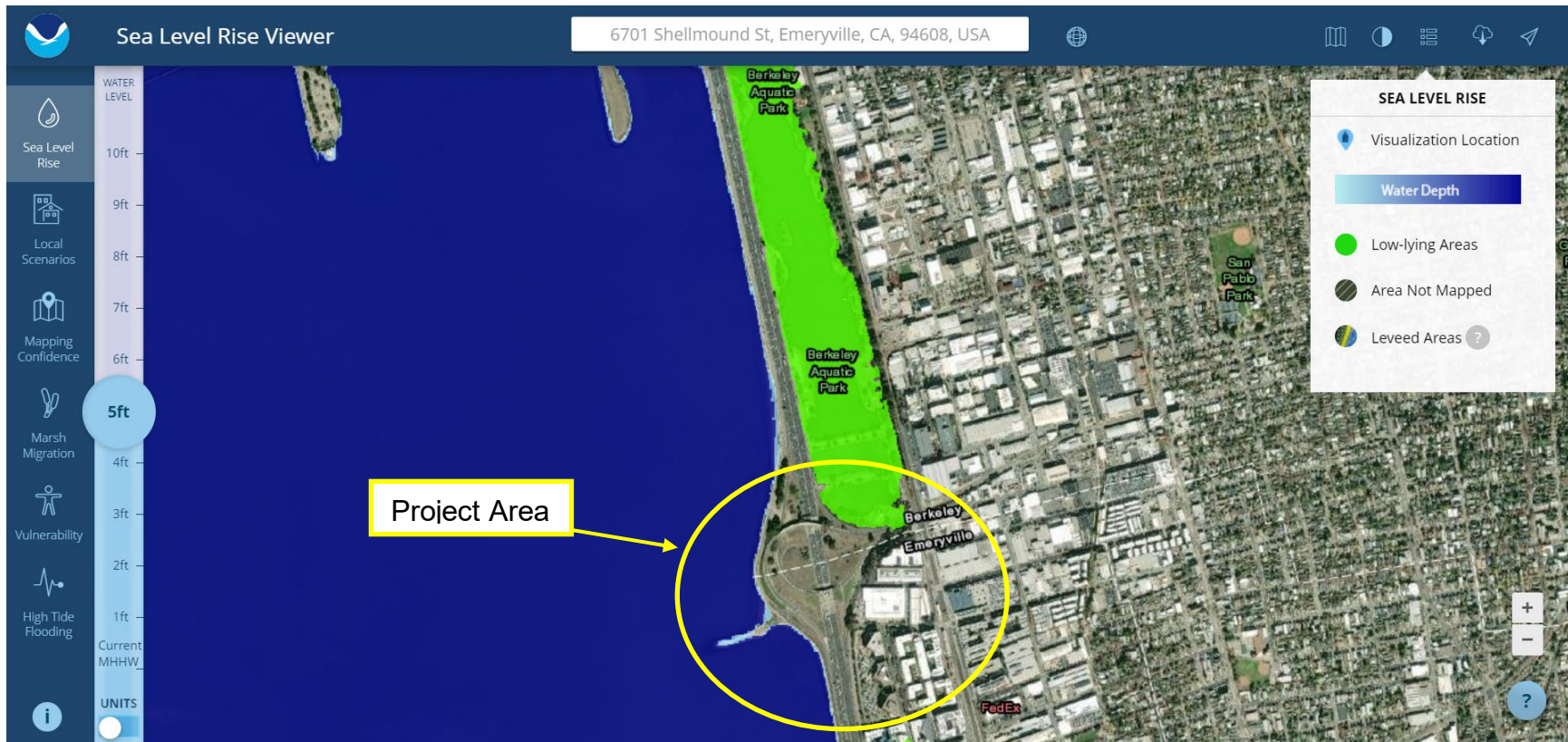


Figure 3.3-6 NOAA Sea Level Rise Viewer: H++ Scenario (5 feet)

Caltrans is currently evaluating the addition of a tidal flap gate or a duck bill valve at the proposed new outfall structure to prevent backwater from the San Francisco Bay into the drainage system. Caltrans, in collaboration with local and regional stakeholders, including BCDC and others, is also developing local and regional responses to sea-level rise impacts. Multi-agency collaboration will help Caltrans and partner agencies achieve a multi-benefit approach to protecting bayfront development, infrastructure, and assets, and distribute potential mitigation costs, as well as balancing environmental justice concerns to achieve equitable adaptation solutions.

Caltrans cannot act alone in developing individual adaptation responses on a project by project basis, as sea level rise presents a regional problem demanding coordinated, consistent regional solutions. Regional approaches to addressing sea level rise are occurring concurrently with the proposed project. Such adaptive measures include constructing a sea wall/flood wall, and installing tidal flap gates at all out-fall structures along the I-80 corridor to reduce the risk of exposure. A decision on the addition of a tidal flap gate or a duck bill valve at the proposed new outfall structure as a near-term measure to prevent backwater flow conditions for the proposed project will be made during the final design phase.

### **Precipitation and Flooding**

FEMA FIRM maps were reviewed to determine whether the project site is within a 100-year flood zone. A majority of the project improvements would occur within an area identified on the FIRM as lying in Zone X. Zone X is defined as areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. Adjacent areas include Radio Tower Pond, Aquatic Park, and the Model Yacht Basin. The area is primarily designated as a Special Flood Hazard Area (SFHA) Zone AE and has a Base Flood Elevation (BFE) of 10 feet North American Vertical Datum (NAVD) 88, with the exception of a western segment of Potter Street, which is designated as shaded Zone X. Areas designated as Zone AE are subject to inundation by a 100-year base flood, typically by stillwater flooding with minimal wave hazard effects. A portion of Point Emery located west of Point Emery Lane, is also designated as shaded Zone X. The area directly adjacent to the existing westbound lane of Ashby Avenue, between Bay Street and I-80 northbound on-ramp, encroaches upon Zone AE, with a BFE of 10 feet NAVD 88, and the new drainage outfall south of Point Emery would encroach upon Zone AE, with BFE 12 feet NAVD 88 associated with San Francisco Bay.

The northern portion of the project area is characterized as Zone VE, a coastal area subject to inundation by a 100-year base flood and hazards due to velocity wave action. The southern portion is characterized as Zone AE, an area that is subject to inundation by the 1-percent-annual-chance flood event.



The proposed project would result in an increase of more than one acre of impervious surface area. The project does not propose to change land use within the project area. The amount of additional fill in the floodplain and change in the 100-year water surface elevation is expected to be minimal.

If flooding increases in frequency or severity as a result of climate change, floodplains may need to be remapped. The reduction in water surface elevation and design adjustments based on further hydraulic analysis will ensure the proposed project's resilience to potential changes in precipitation and flooding under climate change.

**Wildfire**

The project area is located within a local responsibility area, as designated by the California Department of Forestry and Fire Protection. Due to the project being within an urbanized area and well-maintained parks with surface water features surrounding the project area, the risk for wildfire is considered very low. The project area is not located within a FHSZ, and no wildfire impacts would occur. The project will apply standard specifications 7.1.02M(2) for fire prevention during construction.

## 4.0 COMMENTS AND COORDINATION

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### 4.1 EARLY COORDINATION AND CONSULTATION

Early and continuing coordination with local, state, and regional agencies is an essential part of the environmental process. It helps California Department of Transportation (Caltrans) determine the necessary scope of environmental documentation and the level of analysis required, and identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for the proposed project have been accomplished through a variety of formal and informal methods, including project development team (PDT) meetings, interagency coordination meetings, and public meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

#### 4.1.1 PUBLIC PARTICIPATION

##### PUBLIC AND AGENCY SCOPING PROCESS

Alameda County Transportation Commission (Alameda CTC), Caltrans, and the project design team held a public open house meeting on May 22, 2019, at the South Berkeley Senior Center in Berkeley, CA. The purpose of the meeting was to solicit input on the preliminary Build Alternatives from local agencies and the community. The location was chosen due to its accessibility and proximity to the project.

The meeting featured an overview of the proposed project, including key take-aways such as funding sponsors, working groups, history, and the schedule of the proposed project. Information on the proposed project alternatives, with the accompanying data and statistics of the traffic patterns was also presented. After the presentation, members of the public were able to ask questions and submit written comments and concerns about the proposed project.

Outreach ahead of the May 2019 meeting included several channels of outreach:

- Mailer invitations to the public open house meeting were sent to approximately 1,400 addresses within a 0.25-mile radius of the I-80/Ashby Avenue interchange
- Postcards were distributed at nearby bike-to-work energizer stations at Parker Street and Seventh Street, 2234 9<sup>th</sup> Street, Berkeley Bowl West, and Greenway and 65<sup>th</sup> Street

- Invitation letters to the open house meeting were sent to approximately 60 elected officials and select staff in the cities of Emeryville and Berkeley
- Email invitations to the public open house meeting were sent to approximately 160 recipients, including businesses near the interchange, project work group participants, transit agencies within a 0.5-mile radius of the interchange, and key stakeholders
- Digital advertisements were placed on Berkelyside (<https://www.berkeleyside.org>), E'ville Eye (<https://evilleeye.com>), and Facebook
- Invitation posts to the open house meeting were shared via Alameda CTC's Facebook and Twitter feeds, Caltrans District 4 Facebook and Twitter feeds, and Nextdoor Emeryville
- Website postings on the Alameda CTC home page (<https://www.alamedactc.org>) and I-80/Ashby Avenue Interchange Improvement Project page (<https://www.alamedactc.org/programs-projects/highway-improvement/i-80-ashby-avenue-sr-13-interchange-improvements>).

## COMMUNITY BASED ORGANIZATIONS INVOLVEMENT

Stakeholder outreach began in 2018 and has included a variety of community events. Key stakeholder groups near the project area were identified collaboratively with local agencies. Each of the stakeholder groups were contacted via email in early Spring 2018. Follow-up email and phone messages were sent four to eight days prior to each stakeholder meeting, and a reminder message was sent the day-of.

Stakeholder groups were selected based on their interest and proximity to the project area. These events gave the outreach team opportunities to connect with stakeholder members at established community activities. A detailed description of each stakeholder meeting is provided below.

### **Bicycle and Pedestrian Meetings**

#### *Meeting #1: Bicycle and Pedestrian*

Bicycle and Pedestrian Meeting #1 was held at 125 12<sup>th</sup> Suite #400 on Thursday, February 14, 2019, at 3 pm. The purpose of this meeting was to convene key stakeholders, specifically those who focus on bicycle and pedestrian infrastructure. The meeting attendees shared their concerns and comments regarding the proposed project. Topics of discussion fell into the following categories: project vehicle and bicycle infrastructure; level of service and safety; access to and from Shellmound Street; and financial resources.

Participants raised questions about the types of connections proposed; the demand for the proposed bicycle/pedestrian overcrossing (BPOC) structure, connectivity with other existing and planned projects in the area, and the need to consider future bicycle and pedestrian trip origins.

Participants expressed a desire for the proposed project to improve the Level of Service of the interchange. Participants also raised questions about the relationship between the project's Level of Service and safety for future bicyclists and pedestrians and indicated that safety should be the top priority.

Participants asked how the project would affect bicycle traffic on Shellmound Street and suggested that additional bicycle/pedestrian infrastructure on that roadway might be necessary to accommodate increased demand.

Caltrans and Alameda CTC participants shared information regarding the use of Measure B funding and the possibility of future funding opportunities.

#### *Meeting #2: Bicycle and Pedestrian*

Bicycle and Pedestrian Meeting #2 was held at 1111 Broadway on Wednesday, April 10, 2019, from 3:00 pm to 4:30pm. The purpose of the meeting was to reconvene with the group that participated in the Meeting #1 (February 14, 2019), and present them with project updates in relation to pedestrian and bicycle safety. There were nine participants.

Participants raised questions about the types of connections proposed; the demand for the proposed BPOC structure; signalized and stop controlled ramp termini; connectivity with other existing and planned projects in the area; and the need to consider how the proposed 22-foot width can be allocated for bicycle and pedestrian pathways.

#### *Meeting #3: Bicycle and Pedestrian*

Bicycle and Pedestrian Meeting #3 was held at 1111 Broadway on Wednesday, November 6, 2019, at 5 pm. This meeting was held to provide updates about project alternatives and solicited input from the various stakeholder groups. Representatives from 12 local agencies and cities were in attendance, including Emeryville, Berkeley, Caltrans, and Alameda CTC.

Participants raised questions regarding types of connections proposed, the demand for the proposed BPOC structure, and the proposed Build Alternative.

Participants requested updates on the proposed bicycle-pedestrian connections to Shellmound/Bay Street, Berkeley, and Aquatic Park in Berkeley.

Caltrans and Alameda CTC participants shared information regarding the use of Measure BB and ATP funding and the possibility of future funding opportunities.

#### *Meeting #4: Bicycle and Pedestrian*

Bicycle and Pedestrian Meeting #4 was a virtual meeting held on Microsoft Teams on October 7, 2020, from 5:00 pm to 7:00 pm. The purpose of the meeting was to provide project updates, status of action items from Meeting #3, status of Shellmound Street, Vista Park concept and the West Frontage Road/San Francisco Bay Trail connection. In addition, the aesthetics of the project design and BPOC concepts were discussed. The meeting had 34 participants.

Participants showed concerns regarding the project's cost and how the project would be funded. The current projected cost of \$100 million dollars, which would be supplied by Measure BB funds, ATP Grants, and other sources was discussed. For additional details regarding funding for the proposed project, see Chapter 1.0, Proposed Project.

Participants expressed a desire for the proposed project to improve the Level of Service of the interchange. Participants also raised questions about the relationship between the project's Level of Service and safety for future bicyclists and pedestrians and indicated that safety should be the top priority.

### **Work Group Meetings**

#### *Meeting #1: Work Group Meeting*

Work Group Meeting #1 was held at 1111 Broadway on Wednesday October 10, 2018, from 4:00 pm to 6:00 pm. The purpose of this meeting was to convene key stakeholders in a collaborative "work group" to interface directly with the Project Development Team as well as share valuable input. The inaugural work group meeting was attended by 15 participants from various stakeholder groups including Bike East Bay and the East Bay Regional Park District.

The primary concern was around adding a new vehicular connection to Shellmound and potentially increasing vehicular traffic as a result. Shellmound Street is currently a Class III facility providing access to Aquatic Park; it is used by members of the community for its connection to Aquatic Park. A secondary concern was making sure the design on Ashby west of the Union Pacific Railroad crossing is designed for separated bicycle and walking facilities with connections to Aquatic Park.

Participants relayed concerns regarding sea level rise within the project area, specifically around West Frontage Road. Given the Ashby Interchange's proximity to the San Francisco Bay, participants discussed the potential for sea level rise effects and flooding in the project area.

Participants discussed ensuring that the proposed project also does not simply displace congestion onto neighboring roadways, inadvertently giving rise to other traffic and/or safety issues.

*Meeting #2: Work Group Meeting*

Work Group Meeting #2 was held at 1111 Broadway on Tuesday, April 16, 2019, from 3:00 pm to 4:00 pm. This meeting was to reconvene key stakeholders from Work Group Meeting #1 in order to ensure there was sufficient representation from the broadest possible cross-section of the proposed project's key stakeholder groups.

Representatives from responsible agencies, Caltrans, and Alameda CTC responded to questions and comments. The work group meeting was attended by 16 participants, 8 of whom were members of the public.

Primary concerns discussed during the meeting included features to enhance pedestrian and bicycle safety (e.g., signals and crosswalks), and limiting interactions between bicycles, pedestrians, and vehicles.

*Meeting #3: Work Group Meeting*

Work Group Meeting #3 was a virtual meeting held on Zoom on May 13, 2021, from 5:00 p.m. to 6:30 p.m. This meeting was held to reconvene the key stakeholders in the work group and update them on the project status and discuss the single build alternative; BPOC design concepts; and the project schedule. Representatives from responsible agencies, Alameda CTC, and the City of Emeryville responded to questions and comments mainly concerning project costs and funding gaps, and a bicycle/pedestrian bridge connection at Ashby Avenue. A total of 19 people attended the meeting.

Participants raised questions regarding types of connections proposed, the demand for the proposed BPOC structure, and the proposed Build Alternatives.

Caltrans and Alameda CTC participants shared information regarding the use of Measure B funding and the possibility of future funding opportunities.

## NOTICE OF AVAILABILITY OF THE ENVIRONMENTAL DOCUMENT

The Draft IS/EA was circulated for public review from December 15, 2021 to January 31, 2022. Outreach methods included compliance with CEQA and NEPA requirements, and notification to the local community and stakeholders in the project area. A Notice of Completion (NOC) was developed for submittal to the State Clearinghouse (see Chapter 6.0, Distribution List for more details).

The Notice of Availability (NOA) was circulated to the project mailing list and to parties listed on the distribution list (see Chapter 6.0, Distribution List) on December 13, 2021. All property owners/occupants within a 500-foot radius of the project area received a project mailer informing them of the availability of the Draft IS/EA and information regarding the public hearing. Additionally, the PDT completed the following:

- Published the NOA in the format of newspaper ads
  - East Bay Express, published December 13 (print ad)
  - East Bay Express, published December 15 through December 22 (digital ad)
- Maintained the project website up-to-date with the latest project information, including the NOA on December 15, 2021.

## PUBLIC MEETING

Information on the proposed project and the Draft IS/EA was presented during an online public meeting on January 11, 2022 from 5:30 p.m. to 7:00 p.m. In consideration of the COVID-19 pandemic, an online meeting was held in lieu of an in-person meeting. A dial-in option was also made available for those who did not have access to a computer or internet. Spanish and Cantonese interpretation were available during the meeting.

The purpose of the open forum hearing was to update the public, announce the availability of the Draft IS/EA, and to solicit comments from the public regarding the proposed project and the alternatives under consideration in the environmental planning phase. The meeting was held in a virtual format, with a formal presentation. The presentation featured exhibits depicting the project area and Build Alternative analyzed in the Draft IS/EA, information regarding the project development process, the range of technical studies that were performed, the proposed project schedule (including environmental, design and construction milestones), current project status, and the estimated cost of the Build Alternative. An informal question-and-answer segment took place after the formal presentation and served as an opportunity for interested parties to pose questions to the PDT. The virtual meeting was attended by 178 individuals, and 106 questions were posed and discussed. Attendees were informed that all formal comments on the Draft IS/EA should be submitted via postal mail or email. The question-and-answer segment of the online public meeting was for informational purposes only. Additionally, the public meeting was recorded and uploaded to the project website for Alameda CTC.

Comment responses can be found in Appendix E. Multiple comments received on the Draft IS/EA raised concerns regarding grade separation crossing underneath West Frontage Road (portal), unsheltered populations, flooding, and bicycle-pedestrian group

concerns. Rather than repeat responses to such comments, Caltrans has provided a comprehensive response, Master Response 1-4, respectively. Individual, point-by-point responses to each comment are also provided where comments are not entirely addressed by the relevant Master Response.

#### 4.1.2 NATIVE AMERICAN CONSULTATION

On August 22, 2019, archeologists contacted the Native American Heritage Commission (NAHC) requesting a search of the Sacred Lands File on behalf of the proposed project. The NAHC responded stating that no significant resources have previously been identified in the area of potential effect. A list of interested Native American Tribal representatives with traditional lands or cultural places within Alameda County was included in the NAHC response.

The NAHC provided a list of seven tribal contacts that may have information pertinent to the project area or have concerns regarding the proposed project. In November 2019, letters initiating consultation under Section 106 of the National Historic Preservation Act (NHPA) and Assembly Bill 52 (AB 52), as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014, were sent via certified mail to the following seven contacts provided by the NAHC:

- The Amah Mutsun Tribal Band, Valentin Lopez, Representative
- Costanoan Rumsen Carmel Tribe, Tony Cerda, Chairperson
- Indian Canyon Mutsun Band of Coastanoan, Ann Marie Sayers, Chairperson
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Charlene Nijmeh, Chairperson
- North Valley Yokuts Tribe, Katherine Erolinda Perez, Chairperson
- The Confederated Villages of Lisjan, Corrina Gould, Chairperson
- Ohlone Indian Tribe, Andrew Galvin, Chairperson

One response was received via email from Chairperson Katherine Perez of the Northern Valley Yokuts Tribe. A field review of the project area was conducted on February 13, 2020, by Chairperson Perez and two other tribal representatives, along with Caltrans District 4 archaeology personnel, Kathryn Rose and Katie Jorgensen, and a design engineer from TY Lin and consultants from Horizon Water and Environment. Chairperson Perez expressed concern for the potential of deeply buried cultural resources beneath the fill on which I-80 and the interchange has been constructed. Project team members shared the general excavation would only be up to 10 feet, while



cast-in-drilled-hole (CIDH) pile foundations would require drilled excavations of approximately 80 feet. Thus, while possible, the likelihood of discovering deeply buried cultural resources is low. Additionally, with adherence to PF-CUL-1 and PF-CUL-2, the potential effects would be minimized. Native American consultation is ongoing throughout the life of the project. For additional information about consultation with Native American tribes, see Section 2.1, Human Environment.

### 4.1.3 CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES

#### PROJECT DEVELOPMENT TEAM

Regular PDT meetings have provided a forum for coordination, issue resolution, and information feedback between Caltrans, Alameda CTC, the cities of Emeryville and Berkeley, and project consultants.

PDT meetings have occurred since 2017 and will continue to occur throughout the remainder of the environmental and project approval process. The PDT represents various fields of expertise, including design, environmental, traffic operations, right-of-way, and project management. Accordingly, the PDT convenes to review the project status, address issues as they arise, and provide overall direction throughout the project development process.

#### AGENCY CONSULTATION

There are several public agencies involved in environmental clearance and permitting of the proposed project. These agencies include the State Historic Preservation Officer, San Francisco Bay Conservation and Development Commission (BCDC), and the Metropolitan Transportation Commission (MTC) Air Quality Conformity Task Force.

MTC is responsible for updating the Regional Transportation Plan (RTP), which is a comprehensive blueprint for the development of mass transit, highway, freight, bicycle and pedestrian facilities. MTC and the Association of Bay Area Governments (ABAG) program San Francisco Bay Area projects in the RTP *Plan Bay Area 2050*. The I-80/Ashby Avenue Interchange improvement is included in the RTP under reference number ID 17-01-0037. The proposed project is also included in the MTC Transportation Improvement Program (TIP) under reference numbers ID ALA170002. The proposed project is also included in the MTC adopted the TIP on May 17, 2021. Federal Highway Administration (FHWA) approved and incorporated the TIP into the Federal Statewide Transportation Improvement Program (FSTIP) on July 16, 2021.

A quantitative particulate matter (PM) analysis is required under the U.S. EPA Transportation Conformity rule for projects of air quality concern (POAQC). On March 10, 2006, the U.S. EPA published a final rule that establishes the transportation

conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts. MTC's Air Quality Conformity Task Force met on July 23, 2020, as part of interagency consultation for the Build Alternatives and took action to conclude that the proposed project is not a POAQC.

Caltrans has begun early consultation with BCDC regarding the required permit for temporary work within BCDC jurisdiction. As part of the permitting process, BCDC requires a Sea Level Rise Assessment and a comprehensive construction closure, detour, and signage plan. A Sea Level Rise Memorandum was prepared for the project, and approved by Caltrans November 1, 2021. A virtual BCDC Focus meeting for the proposed project was held on August 18, 2021. The purpose of the coordination meeting is to present the project to the BCDC staff and collect their initial feedback. Caltrans will continue to coordinate with BCDC throughout project design and construction.

Permits and approvals from various agencies, such as the MTC, San Francisco Bay Regional Water Quality Control Board, BCDC, FHWA, and the U.S. Army Corps of Engineers would be required for project construction. Table 1.6-1 in Chapter 1 provides a list of all anticipated permits and approvals needed for this project.

## 4.2 COMMENT PERIOD

The public comment period for the Draft IS/EA began on December 15, 2021 and ended on January 31, 2022. A total of 113 comment letters were received during this time. These formal public comments and responses to public comments can be found in Appendix E of this document.

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## 5.0 LIST OF PREPARERS

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Vincent Zhao, Paleontologist

Andrew Hernandez, Operations Manager

**Haygood & Associates**

Leah Haygood, Principal

**Field of Vision**

Richard Tsai, Founder and Owner

**Kittelson & Associates, Inc.**

Aaron Elias, Senior Engineer

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## 6.0 DISTRIBUTION LIST

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This Initial Study and Environmental Assessment (IS/EA) was distributed to the following responsible and trustee agencies and elected officials. Distribution of this IS/EA included hard copies, electronic media, reference to the web site in which the document is available, or a combination of these. Agency names marked with an asterisk (\*) received copies through the State Clearinghouse.

In addition to the following list, local officials, stakeholders, community groups, businesses, and interested persons on the project mailing list were notified of the availability of this document and public meetings as described in Chapter 4.0, Comments and Coordination. Furthermore, all property owners/occupants within a 500-foot radius of the project area received a project mailer informing them of the availability of the Draft IS/EA.

### FEDERAL AGENCIES

Environmental Protection Agency, Region IX, Federal Activities Office, CMD-2 75 Hawthorne Street #11 San Francisco, CA 94105-3901	U.S. Fish and Wildlife Service 2800 Cottage Way W-2605 Sacramento, CA 95825
US Army Corps of Engineers, San Francisco District 450 Golden Gate Avenue, 4 <sup>th</sup> Floor San Francisco, CA 94102	Director, Office of Protected Resources NOAA Fisheries, National Marine Fisheries Service 650 Capitol Mall Suite 5-100 Sacramento, CA 95814

### STATE AGENCIES

*California Air Resources Board Executive Officer Richard Corey 1001 I Street P.O. Box 2815 Sacramento, CA 95814	*California Department of Fish & Wildlife Bay Delta Region Regional Manager Gregg Erickson 650 Capitol Mall Suite 8-300 Sacramento, CA 95814
California Department of Conservation* Director David Shabazian 801 K Street, MS 24-01 Sacramento, CA 95814	*Office of Planning and Research State Clearinghouse 1400 Tenth Street Sacramento, CA 95814 P.O. Box 3044 Sacramento, CA 95812-3044



*California Highway Patrol 3601 Telegraph Avenue Oakland, CA 94609	*California Office of Historic Preservation* State Historic Preservation Officer Julianne Polanco 1725 23 <sup>rd</sup> Street #100 Sacramento, CA 95816
*California Public Utilities Commission Executive Director Rachel Peterson 505 N Van Ness Avenue San Francisco, CA 94102	*California Department of Toxic Substances Control 1001 I Street Sacramento, CA 95814-2828 P.O. Box 806 Sacramento, CA 95812
*Native American Heritage Commission Executive Secretary Christina Snider 1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691	*California Department of Housing and Community Development 2020 West El Camino Avenue Sacramento, CA 95833
Regional Water Quality Control Board, Region 2 1515 Clay Street, Suite 1400 Oakland, CA 94612	San Francisco Bay Conservation and Development Commission 375 Beale Street, Suite 510 San Francisco, CA 94105
*State Water Resources Control Board Water Quality Division Executive Director Eileen Sobeck 1001 "I" Street Sacramento, CA 95814	

## REGIONAL AGENCIES

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Metropolitan Transportation Commission Therese Watkins McMillan Executive Director 375 Beale Street, Suite 800 San Francisco, CA 94105	

## ELECTED/LOCAL OFFICIALS

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Courtney Welch City of Emeryville 1333 Park Avenue Emeryville, CA 94608	Mayor Jesse Arreguin City of Berkeley 2180 Milvia Street Berkeley, CA 94704
Rashi Kesarwani City of Berkeley 2180 Milvia Street Berkeley, CA 94704	Terry Taplin City of Berkeley 2180 Milvia Street Berkeley, CA 94704
The Honorable Alex Padilla United States Senate 333 Bush Street, Suite 3225 San Francisco, CA 94104	The Honorable Diane Feinstein United States Senate One Post Street, Suite 2450 San Francisco, CA 94104
The Honorable Barbara Lee United States House of Representatives, 13 <sup>th</sup> District 1 Kaiser Plaza, Suite 1010 Oakland, CA 94612	The Honorable Nancy Skinner California State Senate, 9 <sup>th</sup> District 1515 Clay Street, Suite 2202, Oakland, CA 94612
The Honorable Buffy Wicks Assemblymember, 15th District 1515 Clay Street, Suite 2201, Oakland, CA 94612	Keith Carson Board of Supervisor, District 5 1221 Oak Street, Suite 536 Oakland, CA 94612

## TRIBAL CONTACTS

Katherine Erolinda Perez, Chairperson North Valley Yokuts Tribe P.O. Box 717 Linden, CA 95236	Corrina Gould, Chairperson The Confederated Villages of Lisjan 10926 Edes Avenue Oakland, CA 94603
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<p>Tony Cerda, Chairperson  Costanoan Rumsen Carmel Tribe  244 E. 1<sup>st</sup> Street  Pomona, CA 91766</p>	<p>Charlene Nijmeh, Chairperson  Muwekma Ohlone Indian Tribe of the San Francisco Bay Area  20885 Redwood Road, Suite 232  Castro Valley, CA 94546</p>
<p>Andrew Galvan  Ohlone Indian Tribe  P.O. Box 3152  Fremont, CA 94539</p>	<p>Ann Marie Sayers, Chairperson  Indian Canyon Mutsun Band of Costanoan  P.O. Box 28  Hollister, CA 95024</p>
<p>Irenne Zwierlein, Chairperson  Amah Mutsun Tribal Band of Mission San Juan Bautista  789 Canada Road  Woodside, CA 94062</p>	

## OTHER

<p>California Transportation Commission  Executive Director Mitch Weiss  1120 N Street  Sacramento, CA 95814</p>	<p>Kevin Johnston  2288 Buena Vista Avenue  Livermore, CA 94550</p>
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Appendix A Section 4(f) Resource Evaluation

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To: Ron Kiaaina, P.E.  
Project Manager  
California Department of Transportation, District 4

Date: October 26, 2021

From: Kanda Raj  
Project Manager  
Alameda County Transportation Commission

**(1) SUBJECT: I-80/ASHBY AVENUE INTERCHANGE (STATE ROUTE 13 [SR-13]) IMPROVEMENT PROJECT – SECTION 4(F) RESOURCE EVALUATION**

**(2) PROJECT DESCRIPTION**

The Interstate 80 (I-80)/Ashby Avenue Interchange (interchange) is located on I-80 between post miles (PM) 4.58 on I-80 and 13.90 on State Route (SR) 13 in the cities of Berkeley and Emeryville, in Alameda County. The I-80/Ashby Avenue Interchange Improvement Project (proposed project) would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to the West Frontage Road, and introduce a new bicycle and pedestrian overcrossing (BPOC) and connection from 65<sup>th</sup> Street/Shellmound Street to the San Francisco Bay Trail. The proposed project consists of one Build Alternative which would improve safety, traffic, pedestrian, and bicycle operations. **Figure 1** shows the project location. **Figure 2** shows the proposed improvements.

**(3) REGULATORY BACKGROUND**

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law as 49 United States Code (USC) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly-owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

there is no prudent and feasible alternative to using that land; and

the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this proposed project is being, or has been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to NEPA Assignment by the Federal Highway Administration (23 USC 327). To determine impacts of transportation projects on Section 4(f) properties, there are three main types of use: direct use, temporary use, and constructive use. A project may result in a *de minimis* impact under direct or temporary use, but not constructive use. Direct, temporary, and constructive use are defined below, as well as *de minimis* findings.



Project Location

Figure

1

Source: Google Earth, 2019; Circlepoint, 2020.



**LEGEND:**

- ROADWAY
- RAMP
- STRUCTURE
- Ped/BIKE PATH (POC)
- Ped/BIKE PATH (AT GRADE)
- SIDEWALK

**Interchange Concept Alternative - Tight Diamond Modified (T-Intersection)**

**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY

APRIL 2021

**I-80/Ashby Avenue (SR-13) Interchange Improvement Project**

Figure

2



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**(9) Direct Use**

A direct use of a Section 4(f) resource occurs when the property is permanently incorporated into a transportation facility. This may occur as a result of a full or partial acquisition of the property, permanent easement, or temporary easements that exceed regulatory requirements noted under temporary use, below.

**(10) Temporary Use**

A temporary use of a Section 4(f) resource occurs when there is a temporary occupancy of property that is considered adverse in terms of the preservationist purpose of the Section 4(f) statute. Under the Federal Highway Administration/Federal Transit Administration (FHWA/FTA) regulations (23 CFR 774.13), a temporary occupancy of property does not constitute a use of a Section 4(f) resource when all the following conditions are satisfied:

Duration is temporary (i.e., less than the time needed for construction of the project) and there should be no change in ownership of the land.

Scope of work is minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).

There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.

The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).

There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

**(11) Constructive Use**

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate land from the resource, but the proximity of the project results in impacts (e.g., noise, vibration, visual, and property access) that are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. For example, a constructive use can occur under one of the following conditions:

The projected increase in noise attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility protected by Section 4(f).

The project substantially impairs aesthetic features of a resource protected by Section 4(f), where such features are considered important contributing elements to the value of the resource. An example of such an effect would be locating a proposed transportation facility in such proximity that it obstructs or eliminates views considered part of a National Register of Historic Places (NRHP) eligible, architecturally significant, or historical building's Section 4(f) eligibility. Another example would be locating a proposed transportation facility in such proximity that it detracts from the setting of a park or historic site which derives its value in substantial part due to its setting.

The project results in access restrictions that substantially diminishes the utility of a significant publicly-owned park, recreation area, or historic site.

**(12) De Minimis Findings**

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. 109-59, amended existing Section 4(f) legislation at 23 USC 138 and 49 USC 303, to simplify the processing and approval of projects that would result in *de minimis* impacts (minor impacts)

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on lands protected by Section 4(f). The requirements of Section 4(f) would be considered satisfied if the project would have only a “*de minimis* impact” on the Section 4(f) resource. The provision allows avoidance, minimization, and mitigation measures to be considered in making a *de minimis* determination. A *de minimis* impact is defined in 23 CFR 774.17 as follows:

For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). For historic sites, a *de minimis* impact means that, in accordance with 36 CFR 800, no historic property is affected by the project or the project would have “no adverse effect” on the property in question. Officials with jurisdiction over a 4(f) resource must concur in writing with a *de minimis* determination. For recreational or refuges properties, concurrence from the officials having jurisdiction over the properties is required. For historical sites, concurrence from the State Historic Preservation Officer is required.

### **(13) CONSTRUCTION ACTIVITIES**

Construction activities for the proposed project would include excavation, drilling, dewatering, pavement demolition, bridge demolition, mass grading, concrete form work, pavement installation, storm system installation, landscaping and irrigation, sign installation, striping operations, and traffic control. Construction work would be done primarily during daylight hours from 7:00 a.m. to 6:00 p.m. However, nighttime work and temporary street closures would be necessary for some project elements, to avoid major disruption to traffic and to avoid safety hazards such as demolition of the existing connectors. The most notable street closure relating to 4(f) resources is the temporary closure of West Frontage Road which will limit vehicular access to two public parks. Nighttime construction activities are anticipated to avoid disruption to traffic along I-80. Temporary construction easements would be required for construction equipment storage, staging, and laydown from Berkeley near Aquatic Park and from Emeryville along Shellmound Street.

### **(14) OPERATIONAL ACTIVITIES**

Operation of the new bridge, pedestrian overcrossing and realigned West Frontage Road could include constructive use impacts such as noise impacts to parks. The potential for operational impacts will also be analyzed.

### **(15) SECTION 4(F) ANALYSIS**

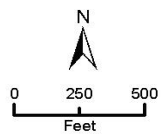
For the purposes of this evaluation, two terms describing the study area will be used in order to be consistent with standard conventions. When evaluating potential historic and archaeological resources, the term Area of Potential Effects (APE) will be used. The APE is defined as the geographical area(s) within which an undertaking may cause changes in the character or use of historic and archaeological properties (see **Figure 3**). The term Environmental Study Limits (ESL) will be used to discuss the area where recreational resources are located. **Figure 4** shows the locations of the Section 4(f) resources discussed below.



<i>Parkin</i>	7/6/2021
Caltrans Project Manager	Date
<i>Charles C. Palmer</i>	07/02/2021
Caltrans PQS, Architectural History	Date
<i>[Signature]</i>	07/02/21
Caltrans PQS, Archaeology	Date

Service Layer Credits: HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, DeLorme, GeoEye, Earthstar Geographics, CNES/Airbus

**Supplemental Area of Potential Effects**  
 Interstate 80/Ashby Avenue (Route 13)  
 Interchange Improvement Project



- Archaeological APE
- Architectural APE
- Alameda County Parcels
- Existing Caltrans ROW

Note: Where the APE is identical for both resource areas, the lines are offset to depict both.

04-ALA-80/13-PM 4.58/13.90  
 EA 04-18000225  
 Project ID 04-1800-0025

Figure 3



Section 4(f) Resources

Figure

Source: Google Earth; Cirdepoint, 2021.

The resources in this Section 4(f) analysis include: one historic resource, the KRE Radio Station building and four public recreational resources. Christie Park in Emeryville would be defined as a 4(f) resource, but is too far away from the project location to be subject to an impact or use during operation or construction of the proposed project. Therefore they are not included in the analysis below.

**(19) CULTURAL RESOURCES**

*(20) KRE Radio Station Building*

The KRE Radio Station building, located 200 feet north of the I-80 onramp, is the only NRHP eligible historic property present within the APE. Other resources evaluated for historical significance included a State-owned bridge, three bridge overcrossings, four buildings, and Berkeley Aquatic Park, which overlaps with the proposed project's APE. These resources were found to have no historical significance.

**Construction Impacts**

Project construction would not directly or indirectly impact the KRE Radio Station Building. The boundaries of the historic property are limited to the KRE radio station building and do not include the transmitting tower scheduled for removal and replacement, or any other portions of the subject parcel. As such, the proposed project would not have any effects on historic properties/historical resources pursuant to 36 CFR 800.4(d)(1). Therefore, there would be no use of the Section 4(f) resource.

**Operational Impacts**

Portions of ROW would be acquired from the northeast quadrant of the interchange near the KRE radio station building. The acquisition would be necessary for the construction of the Bay Street connector to Ashby Avenue. A permanent construction easement would also be required for future wall maintenance. The project team will work with the property owner in making the appropriate modifications. This acquisition would not impact the KRE Radio Building and would not affect its eligibility status.

*(21) Archeological Resources*

No known archaeological sites are located within the APE. Therefore, no known archaeological sites would be affected by the proposed project.

**(22) PUBLIC RECREATIONAL RESOURCES**

The following public recreational resources are present in the project area and are discussed in detail below: Berkeley Aquatic Park, San Francisco Bay Trail, Point Emery, and Christie Park.

*(23) Berkeley Aquatic Park*

The Berkeley Aquatic Park provides a wide range of recreational opportunities, including bird-watching, boating, hiking, and a "Dream Land for Kids" play area, as well as a habitat for bird and aquatic life. The park is located north of the Ashby Avenue Interchange and overlaps with the ESL.

**Construction Impacts**

**Access**

The proposed relocation of one guy wire for the KRE transmitting tower would require construction activity along Bay Street. However, Bay Street and the southern access point to Berkeley Aquatic Park will be maintained during construction. No interruptions to access are anticipated in the Berkeley Aquatic Park area.

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**Noise**

Construction noise has the potential to affect Berkeley Aquatic Park due to the relative distance between the project location and the park (less than 1,000 feet). The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

The proposed project would be subject to construction noise provisions listed in the Berkeley Municipal Code, (Section 5.13.05). Noise levels during construction would be temporary and the majority of construction activities would be limited to daytime construction hours: 7:00 a.m. to 6:00 p.m. However, there would be several intervals where construction activities would occur at night (outside of the limitations imposed by the municipal codes) along the mainline of I-80 and along the San Francisco Bay Trail. Nighttime activities would be necessary to avoid major disruption for tasks that could interfere with traffic or create safety hazards such as demolition of the existing connectors.

Nighttime work would include demolition, placement of the precast girder, and construction of new foundations. The proposed project would require an exception from Caltrans Standard Specification, Section 14-08.02 for this use of concrete saws. Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on Berkeley Aquatic Park Section 4(f) resources. Therefore, no constructive use of Berkeley Aquatic Park would occur.

**Operational Impacts****Access**

Once the proposed project is constructed, bicyclists and pedestrians at the Berkeley Aquatic Park can utilize the pedestrian overcrossing at 65<sup>th</sup> Street to access the regional San Francisco Bay Trail on the other side of I-80. This is a noted gap closure and part of the stated purpose of the proposed project. Therefore, no use or operational impacts are anticipated.

**Noise**

Once the proposed project is constructed, traffic and operations will resume with the new interchange configuration. Berkeley Aquatic Park would not be subject to additional operational noise impacts from the interchange, because the volume of traffic along the closest segment (new eastbound I-80 onramp) would be similar to existing conditions. Therefore, no constructive use or operation impacts are anticipated.

**(24) San Francisco Bay Trail**

The San Francisco Bay Trail is a planned 500-mile walking and cycling path that connects 47 cities across 9 counties all along the San Francisco Bay shoreline. Besides amenities along the San Francisco Bay Shoreline, the San Francisco Bay Trail provides connection to other multimodal facilities, such as Berkeley Aquatic Park, Point Emery, and marinas in Emeryville. It also provides an active transportation corridor.<sup>1</sup> The San Francisco Bay Trail passes through the ESL west of the Ashby Avenue Interchange.

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<sup>1</sup> The San Francisco Bay Trail “The Bay Trail Plan,” 2021. Available here: <https://baytrail.org/about-the-trail/welcome-to-the-san-francisco-bay-trail/>. Last accessed: June 29, 2021.

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## **Construction Impacts**

### ***Access***

During construction of the proposed outfall south of Point Emery, for approximately 4 weeks, a temporary bicycle detour around the outfall construction area would be implemented to maintain full access to the San Francisco Bay Trail. However, public access along the San Francisco Bay Trail would be maintained at all times. All temporarily disturbed areas would be fully restored to pre-project conditions once temporary impacts are complete. Therefore, no use or impacts to the San Francisco Bay Trail would occur during construction.

### ***Noise***

As with Berkeley Aquatic Park, the San Francisco Bay Trail is close enough to the construction area that it will be subject to noise impacts during construction. The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

Noise levels during construction would be temporary and the majority of construction activities would be limited to daytime construction hours: 7:00 a.m. to 6:00 p.m. However, there would be several intervals where construction activities would occur at night (outside of the limitations imposed by the municipal codes) along the mainline of I-80 and along the San Francisco Bay Trail. Nighttime activities would be necessary to avoid major disruption for tasks that could interfere with traffic or create safety hazards such as demolition of the existing connectors.

Nighttime work would include demolition, placement of the precast girder, and construction of new foundations. The proposed project would require an exception from Caltrans Standard Specification, Section 14-08.02 for this use of concrete saws. Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on the San Francisco Bay Trail. Therefore, no constructive use of the San Francisco Bay Trail would occur.

## **Operational Impacts**

### ***Access***

Once the proposed project is constructed, more users would have access to the San Francisco Bay Trail from the connection provided by the pedestrian overcrossing over I-80 at 65<sup>th</sup> Street. Public access to the trail would not be reduced as a result of operation of the proposed project, and any minor effects on the resource would be minimized, mitigated, and avoided. No operational uses of or impacts to the San Francisco Bay Trail are anticipated.

### ***Noise***

Once the proposed project is constructed, traffic and operations will resume with the new interchange configuration. The San Francisco Bay Trail would not be subject to operational noise impacts from the interchange because the volume of traffic along the West Frontage Road would be similar to existing conditions. Therefore, no constructive use or operation impacts are anticipated.



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(25) *Point Emery*

Point Emery is a small peninsular beach-front park featuring unobstructed views of the San Francisco Bay maintained by the City of Emeryville. The park features a driveway access at Point Emery Lane and also has a beach access path, and a small hiking path that connects to the San Francisco Bay Trail. Point Emery also has several launch points to San Francisco Bay for small sport watercraft and is popular destination for kayakers, stand-up paddlers, kiteboarders and windsurfers. Point Emery has a surface parking lot with 13 standard parking spaces and one handicapped parking space, and is located west of the I-80 Ashby Avenue Interchange within the ESL.

**Construction Impacts**

***Access***

The temporary closure of West Frontage Road from University Avenue would prohibit vehicular access to Point Emery located west of the interchange and approximately 14 associated parking spaces. Point Emery can be accessed during the temporary closure of West Frontage Road via the San Francisco Bay Trail, thus maintaining pedestrian access during construction. However, vehicular access and small watercraft launching would not be available during the temporary street closure. Signage and notification of alternate facilities would be included as part of the TMP. Once the West Frontage Road realignment is complete, vehicular access to Point Emery as well the parking lot would be fully restored. The TMP would minimize impacts to access to Point Emery during construction.

***Noise***

Point Emery is close enough to the construction area that it will be subject to noise impacts during construction. The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on the San Francisco Bay Trail. Therefore, no constructive use of Point Emery would occur.

**Operational Impacts**

***Access***

The pedestrian overcrossing would enhance recreational access to Point Emery. Therefore, the proposed project would have no operational or use impacts to Point Emery.

***Noise***

Once construction of the proposed project has been completed, Point Emery will resume its normal operations and all access and on-street parking will be restored. The alignment of West Frontage Road would occur further away from Point Emery after construction. Therefore, the proposed project would have no operational or use impacts to Point Emery related to noise.

(26) *Christie Park*

Christie Park is a small neighborhood park located approximately 0.5 mile south of the project location and includes an ocean-themed children's playground and a dog park. However, Christie Park is located

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too far away from the project location to be impacted by the construction or operation of the proposed project.

**(27) SUMMARY OF FINDINGS**

The proposed project would not result in any direct use or temporary occupancy of historic or recreational resources. Potential increases in noise attributable to the proposed project would be temporary and would not substantially impair features or attributes of Berkeley Aquatic Park, San Francisco Bay Trail, Point Emery, or Christie Park. Detours during construction periods would be temporary and only during the construction period and would be managed as part of the TMP. The proposed project would not result in a constructive use of the described Section 4(f) resources. The proposed project would not result in a use of any other Section 4(f) resources.

**PREPARED BY:**  **DATE:** 12/2/2021  
Andrew Metzger  
Project Manager, Circlepoint

**APPROVED BY:** Wahida Rashid **DATE:** 12/2/2021  
Wahida Rashid  
Caltrans Branch Chief, Environmental Planning

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Appendix B Title VI Policy Statement

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## California Department of Transportation

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September 2022

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: <https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

A handwritten signature in black ink, appearing to read 'Tony Tavares'.

TONY TAVARES  
Director

## California Department of Transportation

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Septiembre de 2022

### DECLARACIÓN DE POLÍTICA DE NO DISCRIMINACIÓN

El Departamento de Transporte de California, bajo el Título VI de la Ley de Derechos Civiles de 1964, asegura que *“Ninguna persona en los Estados Unidos, debido a su raza, color u origen nacional, será excluída de participar, ni se le negarán los beneficios, o será objeto de discriminación, en ningún programa o actividad que reciba ayuda financiera federal.”*

Caltrans hará todos los esfuerzos para asegurar que no exista discriminación en ninguno de sus servicios, programas y actividades, ya sea que reciban fondos del gobierno federal o no, y que los servicios y beneficios sean justamente distribuidos a todas las personas sin importar su raza, color, u origen nacional. Adicionalmente, Caltrans facilitará la participación significativa en el proceso de planeación de los programas de transporte de manera no discriminatoria.

Los estatutos federales relacionados, los remedios, y la ley estatal refuerzan estas protecciones para incluir el sexo, la discapacidad, la religión, la orientación sexual y la edad.

Para información u orientación sobre cómo presentar una queja o para obtener más información relacionada con el Título VI, por favor comuníquese con el Gerente del Título VI al teléfono (916) 324-8379 o visite la siguiente página de Internet:  
<https://dot.ca.gov/programs/civil-rights/title-vi>.

Para obtener esta información en un formato alternativo como el Braille o en un lenguaje diferente al inglés, por favor póngase en contacto con la Oficina de Derechos Civiles del Departamento de Transporte de California, al PO Box 942874, MS-79, Sacramento, CA 94274-0001; al teléfono (916) 324-8379 (Teléfono de Texto TTY: 711); o al email: [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

A handwritten signature in black ink, appearing to read 'Tony Tavares'.

TONY TAVARES  
Director

## **Appendix C Environmental Commitments Record**

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### Appendix C Environmental Commitment Record (ECR)

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF CON-1	Adhere to Caltrans's standard specifications for noise control, dust abatement, demolition, hazardous materials, and other good housekeeping measures and best management practices (BMPs) for the construction site.	Draft IS/EA Section 1.0	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF CON-2	The contractor will be responsible for securing all work zones in and around the construction sites, including staging areas within Caltrans, City of Emeryville, and City of Berkeley ROW. Security of the project work zones will be the responsibility of the contractor until completion of construction.	Draft IS/EA Section 1.0	Construction	Contractor
PF COM-1	Access to all private properties will be maintained by the contractor during construction.	Draft IS/EA Section 1.0	Construction	Contractor
PF COM-2	Caltrans will coordinate relocation work with the affected utility companies to minimize disruption of services to customers in the area during construction. If previously unknown underground utilities are encountered, Caltrans will coordinate with the utility provider to develop plans to address the utility conflict, protect the utility if needed, and limit service interruptions. Any short-term, limited service interruptions of known utilities will be scheduled well in advance, and appropriate notification will be provided to users.	Draft IS/EA Section 1.0	Design through Construction	Caltrans, Alameda CTC

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF COM-3	Caltrans will coordinate with emergency service providers to avoid emergency service delays by ensuring that all providers are aware well in advance of lane closures. Proactive public information systems, such as changeable message signs, would notify travelers of pending construction activities. A TMP will also be developed as part of the project to address traffic impacts from staged construction, lane closures, and specific traffic handling concerns such as emergency access during project construction.	Draft IS/EA Section 1.0	Design through Construction	Traffic Operations

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF COM-4	<p>During the design phase, prepare a TMP that includes plans for traffic rerouting, a detour plan (if required), and public information procedures with participation from local agencies, transit services, local communities, business associations, and affected drivers. Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion. If detours are required, detour routes will be planned in coordination with Caltrans and the cities of Berkeley and Emeryville traffic departments and will be noticed to emergency service providers, transit operators, and I-80 users in advance.</p>	Draft IS/EA Section 1.0	Design through Construction	Caltrans, Alameda CTC, and Traffic Operations.
PF COM-5	<p>During construction of the project, some on-street parking restrictions may be required on a temporary basis. A public outreach program will be implemented throughout the construction period to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.</p>	Draft IS/EA Section 1.0	Final Design and Construction	Caltrans, Alameda CTC

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM UTL-1	<p>Detailed utility coordination and verification will be required during the project's design phase project. The locations of the utilities will not be positively identified until final design, in coordination with the affected utility owners. Any potential utility conflicts identified during the design phase will be avoided if possible. If relocation is necessary, such utilities would be relocated to locations acceptable to the utility provider within the right-of-way. If utilities cannot be relocated within Caltrans' ROW, additional detailed screening of the relocation areas will be required. Coordination with all utility owners within the project location will continue during the design and construction phases of the proposed project.</p>	Draft IS/EA Section 0.1/ Section 2.1.8	Final Design through Construction	Caltrans, Alameda CTC

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM UTL-2	Emergency service providers will be notified prior to construction of any temporary road closures and/or detours as part of the Transportation Management Plan (TMP). Caltrans would prepare and implement a TMP as a part of PF TRA-1, described in Section 2.1.5, Traffic and Transportation. The TMP will specify all timeframes for all lane closures and detours. Implementation of the TMP will reduce short-term operational effects to police, fire, and emergency service providers that may result from construction of the proposed project.	Draft IS/EA Section 0.1/ Section 2.1.8	Design through Construction	Caltrans, Alameda CTC

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF TRA-1	<p>A Transportation Management Plan (TMP) would be developed as part of the project construction planning phase. The TMP would address potential impacts to circulation of all modes of travel (i.e., transit, bicycles, pedestrians, and vehicles). Roadway and/or pedestrian access to all occupied businesses and respective parking lots would be maintained during project construction. The TMP would include an evaluation of potential detour impacts and would also include measures to minimize, avoid, and/or mitigate impacts to alternate routes. The TMP would address coordination with local agencies for traffic through or near the construction zone. Staging areas would be located within the existing Caltrans ROW.</p>	Draft IS/EA Section 2.1.9	Design through Construction	Caltrans, Alameda CTC



ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM TRA-1	The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the bike and pedestrian overcrossing. All closures and detours will be advertised well in advance as part of the public information campaign and emergency/law enforcement will also be notified.	Draft IS/EA 2.1.9	Construction	Contractor
AMM TRA-2	During the construction of West Frontage Road, vehicular detours and closure would be anticipated in Stages 1, 2, and 3.	Draft IS/EA Section 2.1.9	Construction	Contractor
AMM TRA-3	Mainline traffic would be transitioned temporarily onto the right shoulder to accommodate the median falsework support structure for BPOC. Lane closure plans would be developed for nighttime closures at each construction stage.	Draft IS/EA Section 2.1.9	Construction	Contractor
AMM TRA-4	The Potter Street eastbound I-80 on-ramp would remain open until the construction of the new on-ramp and then it would be permanently closed and replaced by the new on-ramp.	Draft IS/EA Section 2.1.9	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM TRA-5	During the construction of the new outfall area, a temporary detour around the construction area will be implemented to ensure the continuous access and function of the San Francisco Bay Trail.	Draft IS/EA Section 2.1.9	Construction	Contractor
PF VIS-1	<p>Vegetation Removal Measures. Includes the following:</p> <ul style="list-style-type: none"> <li>• Minimize the removal of groundcover, shrubs, and mature trees to the maximum extent possible, utilizing open areas for contractor staging/storage areas.</li> <li>• Protect existing vegetation outside the clearing and grubbing limits from the contractor's operations, equipment, and materials storage.</li> <li>• Place high visibility temporary fencing around vegetation to be protected before roadway work begins.</li> <li>• Provide truck watering of vegetation when automated irrigation is interrupted by construction.</li> </ul>	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC, Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-2	Fund required replacement planting through the parent roadway contract to be completed as a separate contract, (within 2 years of roadway completion,) with a three-year plant establishment period (PEP), unless the estimated cost is below \$300,000 (then only one-year PEP).	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-3	Revegetation Planting Measures. All disturbed areas shall receive hydroseeded treatment of erosion control grasses, and if appropriate, locally native grasses.	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-4	Landscape Plantings. Use drought-tolerant plants, including California native species, as part of the planting palette where regionally appropriate. Planting must be maintainable, low maintenance, durable, and site appropriate.	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-5	Landscape Plantings. Plantings within the State right-of-way will follow the 1997 Caltrans Plant Setback and Spacing Guide. Use of turf is prohibited within the State right-of-way	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-6	Light and Glare. As directed by Caltrans, appropriate light and glare screening measures will be used at the construction staging areas including the use of downward cast lighting. Shielding will be used to the extent feasible for new lighting apparatuses within the project area. Lighting of the transportation facilities would be shielded and directed to only areas that required for operations and safety, to the maximum extent feasible.	Draft IS/EA Section 1.0	Design	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-7	<p>Construction Impact Measures. Caltrans will use standard construction equipment and protocol for the Build Alternative.</p> <ul style="list-style-type: none"> <li>▪ Place unsightly materials, equipment storage and staging so that they are not visible within the foreground of the highway corridor and local streets to the maximum extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened to minimize visibility from the roadway and nearby sensitive off-road receptors.</li> <li>▪ Revegetate all areas disturbed by construction, staging and storage per PF VIS-1 through PF VIS-7</li> </ul> <p>Limit all construction lighting to within the area of work and avoid light trespass through the use of directional lighting and shielding as needed.</p>	Draft IS/EA Section 2.1.10	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM VIS-1	<p>To avoid the inadvertent creation of areas that appeal to human usage (e.g., open areas under bridge structures and isolated vacant lots), the final design will include measures to discourage the creation of encampments. Vacant areas under new ramp bridges will be fenced off. Other measures such as brush removal and placement of larger landscaping space fillers, such as boulders, undulating landforms, mixed size cobbled paving, etc., may also be considered in the final design.</p>	Draft IS/EA Section 2.1.10	Final Design	Caltrans, Alameda CTC
AMM VIS-2	<p>Aesthetic Treatments. To reduce the visual impact of new retaining walls and bridge structures, aesthetic treatments consisting of color, texture and/or patterning will be applied to reduce visual impacts.</p> <ul style="list-style-type: none"> <li>▪ New concrete retaining walls should receive architectural treatment that is context sensitive.</li> <li>▪ Treatments of color, pattern and/or texture are required in order to reduce visual impacts, glare, and the possible incidence of graffiti.</li> </ul>	Draft IS/EA Section 2.1.10	Design through Construction	Caltrans, Alameda CTC, Contractor

<p>AMM VIS-3</p>	<p>Additional Construction Impact Measures.</p> <ul style="list-style-type: none"> <li>• Any roadside vegetation and irrigation systems that are damaged or removed during project construction shall be replaced according to Caltrans policy and the requirements of the Cities of Berkeley and Emeryville.</li> <li>• When trenching for utilities, avoid trenching within drip lines of trees and screening shrubs. Directional drilling that would avoid damaging root systems of established plant material shall be used, when reasonable, as opposed to open trenching to install new conduit in places where work within the drip line would be required. Trees and screening shrubs shall be protected from damage during construction.</li> <li>• Provide highway planting within Caltrans right-of-way where feasible. Caltrans safety-setback requirements would apply for all plantings within State right-of-way. Provide street trees, shrubs, and groundcover on local streets where feasible.</li> </ul>	<p>Draft IS/EA Section 2.1.10</p>	<p>Construction</p>	<p>Contractor</p>
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APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF CUL-1	If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.	Draft IS/EA Section 2.1.11	Construction	Caltrans, Alameda CTC, Contractor
PF CUL-2	If Caltrans Professionally Qualified Staff determines that cultural materials contain human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans' Cultural Resources Studies Office will contact the Alameda County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, which will then notify the Most Likely Descendent. Caltrans, District 4, Cultural Resources Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable	Draft IS/EA Section 2.1.11	Construction	Contractor



ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-1	Temporary construction site BMPs will be implemented during construction to prevent any construction materials or debris from entering storm drains or drainage ditches within the project vicinity. Permanent erosion control BMPs will be implemented to prevent silt and sediment from entering drainage facilities and discharging into the Bay.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-2	The design features to address water quality impacts are a condition of the Caltrans MS4 Permit, MRP, CGP, and other regulatory agency requirements. Details of these features or BMPs will be developed and incorporated into the project design and operations prior to construction. With implementation of these design features or BMPs, short-term construction-related water quality impacts and permanent water quality impacts will be avoided or minimized.	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-3	<p>The CGP, Caltrans, and local standards require the project's contractor to implement an SWPPP to comply with the conditions of the CGP. The SWPPP will be submitted by the contractor and approved by Caltrans prior to the start of construction. The SWPPP will detail the measures needed to prevent temporary water quality impacts resulting from construction activities. The SWPPP will also include development of a Construction Site Monitoring Program that details procedures and methods related to the visual monitoring, sampling, and analysis plans.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-4	<p>Prior to any soil disturbance, a Notice of Intent will be filed with the SWRCB's Storm Water Multiple Application and Report Tracking System. In addition to filing a Notice of Intent, all dischargers must electronically file Permit Registration Documents, Notice of Termination, changes of information, sampling and monitoring information, annual reporting, and other required compliance documents through the SWRCB's Storm Water Multiple Application and Report Tracking System.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-5	<p>Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs. Typical construction site BMPs that shall be considered for this project include soil stabilization, sediment control, tracking control, non-stormwater management, and waste management and materials pollution control. These BMPs are discussed in greater detail in Chapter 2. The selected BMPs are consistent with the practices required under the CGP. The actual minimum temporary construction site BMPs necessary for the project to comply with the CGP, Caltrans, and local standards will be determined during the design phase.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-6	<p>Dewatering activities and the clean water diversion will comply with the Caltrans Standard Specifications and Field Guide to Construction Site Dewatering, and, if required, a separate dewatering permit will be obtained prior to the start of construction.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-7	A spill on the roadway will trigger immediate response actions to report, contain, and mitigate the incident. The California Office of Emergency Services has developed a Hazardous Materials Incident Contingency Plan, which provides a program for response to spills involving hazardous materials. The plan designates a chain of command for notification, evacuation, response, and cleanup of spills.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-8	Drainage features, such as energy dissipation devices (e.g., flared end sections and tee dissipaters), will be considered at drainage outfalls to reduce the velocity and dissipate flows as they discharge from the culvert.	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC
PF WQ-9	Rock slope protection will be placed at culvert outfalls and within drainage ditches and swales where water flow may cause erosion.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-10	<p>Permanent erosion control measures will be applied to all exposed areas once grading or soil disturbance work is completed as a permanent measure to achieve final slope stabilization. These measures may include hydraulically applying a combination of hydroseed, hydromulch, straw, tackifier, and compost to promote vegetation establishment and installing fiber rolls to prevent sheet flow from concentrating and causing gullies. For steeper slopes or areas that may be difficult for vegetation to establish, measures such as netting, blankets, or slope paving can be considered to provide permanent stabilization.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-11	<p>The proposed added impervious area is minimal; therefore, the potential increase in sediment-laden flows is expected to be minimal. Existing drainage facilities are expected to be modified or removed and new drainage features installed to convey runoff. The MRP prioritizes the use of low-impact development measures for stormwater treatment controls. These measures are harvesting and use, infiltration, evapotranspiration, and biotreatment. Other conventional treatment measures (e.g., basins and vaults) are allowable under special conditions outlined in the permit.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-12	<p>Given the site and design limitations, other conventional-type treatment measures that capture and treat stormwater runoff may need to be considered for this project; these devices can include basins, media filters, or tree well filters. In coordination with Caltrans, the City of Berkeley, and the City of Emeryville, nonstandard treatment measures will also be considered, such as the use of low flow pumps to convey runoff to a treatment facility. The final drainage design, selection of treatment BMP types and locations, and determination of impervious area treated will be refined during the design phase when detailed design information is developed.</p>	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC

<p>AMM WQ-1</p>	<p>Temporary Construction BMPs. Pursuant to the Construction General Permit, a SWPPP would be developed, which includes guidance for design staff to incorporate special provisions into construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges. The SWPPP would reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges. Temporary BMPs to be completed, at a minimum, are outlined below. Construction Site BMPs would minimize temporary effects that could occur during construction by carrying out the following measures:</p> <ul style="list-style-type: none"> <li>▪ Temporary soil stabilization, such as the use of plastic covers for stockpiles and high visibility fences to designated areas of off-limits to the contractor.</li> <li>▪ Temporary sediment control, which usually consists of using devices to physically block sediment runoff. Such devices include fiber rolls, silt fences, gravel bag berms, and hydraulic mulch. These devices can either divert, detain, or protect disturbed soil from erosion.</li> </ul> <p>Wind erosion control measures:</p>	<p>Draft IS/EA Section 2.2.2</p>	<p>Construction</p>	<p>Contractor</p>
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APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	<ul style="list-style-type: none"> <li>▪ Dust and soil tracking control to prevent construction equipment from tracking soil and dust around and outside of the construction area. Points of entrances and exits to the construction site would be stabilized to reduce the tracking of mud and dirt onto public roads.</li> <li>▪ Management of water used during construction to prevent further runoff and excess water use.</li> <li>▪ Waste management and materials pollution control, especially for concrete washout facilities. The contractor would specify vehicle washing areas to contain concrete waste materials.</li> </ul>			

<p>AMM WQ-2</p>	<p>Design Pollution Prevention BMPs. Design Pollution Prevention BMPs would be employed to minimize hydromodification impacts, and may include but are not limited to:</p> <ul style="list-style-type: none"> <li>▪ Attenuation of peak stormwater flow through passive or active measures to ensure peak flow volumes do not increase with project completion. Passive measures may include runoff detention and/or self-retaining areas), and active measures may include subsurface pipe arrays or vaults with metered discharge.</li> <li>▪ Soil modification to enhance local infiltration capacities.</li> <li>▪ Increased on-site pervious area. This would include planting additional areas of vegetation and/or laying mulch in place of concrete, where feasible.</li> <li>▪ Energy dissipation zones/devices to reduce erosion potential: Necessary erosion control would be applied to unlined ditches to minimize erosion downstream from potentially increased discharge.</li> <li>▪ Temporary or long-term preservation of existing vegetation which would avoid any disturbance beyond what would be necessary to widen</li> </ul>	<p>Draft IS/EA Section 2.2.2</p>	<p>Construction</p>	<p>Contractor</p>
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ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	<p>the existing transportation facilities.</p> <ul style="list-style-type: none"> <li>▪ Drainage measures to convey concentrated culvert/storm drain discharge- lined or reinforced drainage swales/ditches, appropriate culvert outfall and inlet structures for improved hydraulic performance</li> <li>▪ Revegetation and installation of temporary erosion protection measures (e.g., erosion control blankets, mulch, coir logs, straw wattles etc.). When practicable, slope stability and erosion concerns would be reduced by maintaining or matching existing slopes.</li> </ul>			

<p>AMM WQ-3</p>	<p>Treatment BMPs. Post-construction treatment BMPs would ensure the proposed project does not increase stormwater volumes in the existing stormwater conveyance channels. Treatment BMPs may include but are not limited to the following measures, with infiltration-based measures receiving higher priority, where feasible:</p> <p>Infiltration-Based BMPs:</p> <ul style="list-style-type: none"> <li>▪ Biofiltration (bioswales, infiltration trenches/galleries) to reduce sediment and other contaminant runoff</li> <li>▪ Bioretention facilities (flow-through) to manage stormwater volumes during precipitation</li> <li>▪ Earthen media filters to retain and filter runoff</li> <li>▪ Detention or retention (wet) basins to remove soluble pollutants</li> </ul> <p>Capture and Treatment BMPs:</p> <ul style="list-style-type: none"> <li>▪ Multi-chamber treatment trains to treat stormwater in areas with limited space</li> <li>▪ Media filters (vault type) to also treat stormwater in small sites that are highly urbanized and may be highly polluted</li> <li>▪ Dry weather flow diversion to stop or impede water flow during dry weather</li> </ul>	<p>Draft IS/EA Section 2.2.2</p>	<p>Construction</p>	<p>Contractor</p>
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ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	<ul style="list-style-type: none"> <li>▪ Lined detention devices to reduce the velocity of stormwater flow</li> <li>▪ Gross solids removal devices (in-line filters) to remove litter, debris, and vegetation from stormwater runoff</li> </ul>			
AMM WQ-4	<p>Minimize Impacts to Aquatic Resources. Work within the San Francisco Bay will be limited to the smallest area possible to complete the proposed construction activities. Prior to conducting work within San Francisco Bay, Caltrans will implement a cofferdam spanning planned in-water work areas to avoid water quality impacts and potential impacts to aquatic habitat for wildlife. Additionally, along San Francisco Bay and in the vicinity of the Radio Tower Pond and the Model Yacht Basin, Caltrans will delineate project limits with high-visibility fencing to avoid ground disturbance adjacent to work and access areas.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM WQ-5	<p>Operations and Maintenance BMPs. Maintenance BMPs are preventative measures to ensure that minimal pollutants are discharged to surface waters via Caltrans' storm water drainage systems. Maintenance activities involve the use of a variety of products. Under normal, intended conditions of use, these materials are not considered pollutants of concern. However, if these products are used, stored, spilled, or disposed of in a way that may cause them to contact storm water or enter storm water drainage systems, they may become a concern for water quality. Maintenance activities are performed in dry weather to minimize impacts to water quality; however, conditions may exist which require these activities be conducted in wet weather. Maintenance BMPs are outlined in the Caltrans Storm Water Quality Handbook, Maintenance Staff Guide.</p>	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF GEO-1	<p>With respect to worker safety during construction, OSHA requires employers to comply with hazard-specific safety and health standards. Pursuant to Section 5(a) (1) of OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Potential seismic-related hazards to workers during construction are expected to be less than substantial with compliance with the OSHA and Caltrans standard design and construction guidelines.</p>	Draft IS/EA Section 1.0/ Section 2.2.3	Construction	Contractor
PF GEO-2	<p>As part the design phase, expansive soils shall be addressed through treatment or removal as designated on construction plans, to reduce the potential for structural damage. Treatment of expansive soil may include lime or other additives to reduce expansion potential. Expansive soils may also be replaced with a non-expansive fill material to a depth where the seasonal moisture content variation becomes relatively insignificant. The appropriate depth shall be determined by a qualified structural engineer.</p>	Draft IS/EA Section 1.0/ Section 2.2.3	Final Design	Caltrans, Alameda CTC

<p>PF GEO-3</p>	<p>As part of the final design phase, Caltrans requires preparation of structure foundation reports and geotechnical design reports that incorporate the results of subsurface field work and laboratory testing. Site-specific subsurface soil conditions, slope stabilities, and groundwater conditions within the project location would be verified during the preparation of these reports. The identification of site-specific soil conditions within the project location would be used to determine the appropriate final design for foundations that would support the project's structures. If corrosive soils are identified at locations where new subsurface foundations and/or piles are proposed (e.g., bridge foundations, culverts, etc.), specially coated rebar or alternative pipe culverts would be specified in the contract documents.</p> <p>Caltrans' standard design and construction guidelines incorporate engineering standards that address seismic risks. Proposed structures, such as retaining walls and overhead ramp supports, constructed within the geologic study area, would consider seismically induced liquefaction and settlement during the final design phase.</p> <p>The final design phase would also include the evaluation of the Design Response Spectrum, which measures the ground motion or acceleration</p>	<p>Draft IS/EA Section 1.0/ Section 2.2.3</p>	<p>Final Design</p>	<p>Caltrans, Alameda CTC</p>
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ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	caused by the input of a vibration from an earthquake at a specific location and can help in understanding how structures would respond to earthquakes in a given place. This information would be used to inform the final design of project structures.			
PF PAL-1	In the event of unanticipated paleontological resource discoveries during project related activities, work in the immediate vicinity of the discovery shall be halted until it can be evaluated by a qualified paleontologist, consistent with Caltrans Standard Specifications Section 14-7.	Draft IS/EA Section 2.2.4	Construction	Contractor
PF HW-1	Caltrans Standard Specifications section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue, would be included in the contract specifications and implemented during construction for the handling and management of any potential lead-containing debris produced from the removal of yellow traffic stripe and pavement marking.	Draft IS/EA Section 1.0 and/or Section 2.2.5	Construction	Contractor

<p>AMM HAZ-1</p>	<p>During the final design phase, a Preliminary Site Investigation (PSI) of the project location shall be performed to investigate hazardous materials concerns related to soil, groundwater, and construction materials identified in the Phase I ISA.</p> <ul style="list-style-type: none"> <li>▪ A workplan for the PSI shall be submitted to Caltrans for review and approval. The workplan shall include Caltrans guidance for evaluating the potential reuse of ADL-contaminated soils in accordance with the Caltrans and DTSC’s Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils.</li> <li>▪ The completed PSI shall be submitted to Caltrans for review and approval.</li> <li>▪ All environmental investigations completed for the proposed project shall be provided to the project contractors to incorporate into their Health and Safety and Hazard Communication programs.</li> <li>▪ Based on the findings and recommendations of the PSI, special soil, groundwater, and construction materials management and disposal procedures for hazardous materials may be required. Additionally, detailed</li> </ul>	<p>Draft IS/EA Section 2.2.5</p>	<p>Final Design</p>	<p>Caltrans, Alameda CTC</p>
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	<p>construction worker health and safety measures may be required during construction.</p> <ul style="list-style-type: none"> <li>▪ The following components shall be included in the PSI:</li> <li>▪ Representative soil and/or groundwater sampling shall be conducted by a licensed professional to evaluate the potential presence of hazardous materials in soil and groundwater as a part of the PSI. Sampling shall be performed in accordance with the work plan approved by Caltrans and shall address the groundwater contamination concerns identified in Section 2.2-5.</li> <li>▪ "Soil samples collected to evaluate ADL shall be analyzed for total and soluble lead to evaluate whether the Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils (Agreement) between the Department of Toxic Substances Control and Caltrans could be applied. If applicable, regulated material containing aerially deposited lead could be reused as fill within the project limits under the terms of the Agreement."Soil and groundwater analytical</li> </ul>			
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	<p>results shall also be screened against the San Francisco Bay RWQCB's Environmental Screening Levels to determine appropriate actions to ensure construction worker protection and the protection of future site users and the environment. Samples shall also be screened against hazardous waste thresholds to determine soil management options.</p> <p>If soil and/or groundwater contaminants are found, the regulatory authorities (federal, state or local) may require that the soils be removed or specially managed through hazardous waste closure plans, contingency plans, remediation orders, permits, or other administrative actions. The responsible party (i.e., property owner of the contaminated area) would comply with the instructions in those plans, orders, permits, or actions. Based on the areas of groundwater concern identified in the IS/EA, implementation of special soil and/or groundwater remediation and handling efforts during construction is anticipated to cost approximately \$250,000.</p> <p>Implementation of subsurface sampling for the entire project location is anticipated to cost approximately \$200,000. The soil and groundwater sampling would likely be a three-month endeavor, assuming property access</p>			
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APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	and approval of the work plan is obtained in a timely fashion.			
AMM HAZ-2	At a minimum, groundwater from dewatering of excavations, if any, would be stored in Baker tank(s) during construction activities and the water would be characterized prior to disposal or recycling. Similarly, excavated soil would be stockpiled for waste characterization and testing. This would be in addition to the pre characterization of groundwater quality during the Preliminary Site Investigation.	Draft IS/EA Section 2.2.5	Construction	Contractor
AMM HAZ-3	Lead compliance plans for ADL-contaminated soils and pavement markings containing lead shall be prepared in accordance with the appropriate Caltrans Standard Special Provisions and implemented by the project construction contractor(s) to ensure compliance with OSHA and Cal/OSHA worker safety regulations.	Draft IS/EA Section 2.2.5	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM HAZ-4	Hazardous building materials surveys shall be conducted by a qualified professional. All structures that would be removed or modified shall be inspected. Lead-based paint and asbestos-containing material shall be included in the hazardous materials building surveys. All loose and peeling lead-based paint and asbestos-containing material shall be removed by a certified contractor(s) in accordance with local, state, and federal requirements. All other hazardous building materials shall be removed from structures in accordance with California OSHA regulations.	Draft IS/EA Section 2.2.5	Design	Caltrans-approved qualified professional
AMM HAZ-5	Asphalt concrete and Portland cement concrete grindings shall be reused in accordance with the San Francisco Bay RWQCB's guidance to protect water quality or transported offsite for recycling or disposal..	Draft IS/EA Section 2.2.5	Construction	Contractor
PF AQ-1	Water or dust palliative shall be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally shall meet a "no visible dust" criterion either at the point of emissions or at the right-of-way line depending on local regulations	Draft IS/EA Section 1.0 and Section 2.2.6	Construction	Contractor

<p>PF AQ-2</p>	<p>Measures to reduce PM10, PM2.5, and diesel particulate matter from construction shall be incorporated to the extent feasible to ensure that short-term health impacts to nearby sensitive receptors are avoided.</p> <p>Such measures may include:</p> <ul style="list-style-type: none"> <li>• All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>• All haul trucks transporting soil, sand, or other loose material offsite shall be covered.</li> <li>• All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>• All vehicle speeds on unpaved roads shall be limited to 15 mph.</li> <li>• All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.</li> <li>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of</li> </ul>	<p>Draft IS/EA Section 1.0 and Section 2.2.6</p>	<p>Construction</p>	<p>Contractor</p>
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ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	<p>Regulations). Clear signage shall be provided for construction workers at all access points.</p> <ul style="list-style-type: none"> <li>• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. At a minimum, all equipment should meet the current ARB fleet standards.</li> <li>▪ A publicly visible sign with the telephone number and person to contact with the contractor regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>			



ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-1	<ul style="list-style-type: none"> <li>▪ Limit paving and demolition activities to between 7:00 a.m. and 7:00 p.m., where feasible.</li> <li>▪ Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</li> <li>▪ Prohibit unnecessary idling (greater than 5 minutes in duration) of internal combustion engines within 100 feet of residences.</li> <li>▪ Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors, portable power generators, or self-powered lighting systems as far as practical from noise-sensitive receptors.</li> <li>▪ Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.</li> </ul>	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-2	<p>Inspection of equipment by the contractor will ensure that all equipment onsite is working properly, in good condition, and effectively muffled. All equipment will have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine should be operated on the jobsite without an appropriate muffler. Idling equipment will be turned off.</p>	<p>Draft IS/EA Section 1.0 and Section 2.2.7</p>	<p>Construction</p>	<p>Contractor</p>
PF NOI-3	<p>Construction activities shall be minimized in the study area during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption.</p>	<p>Draft IS/EA Section 1.0 and Section 2.2.7</p>	<p>Construction</p>	<p>Contractor</p>

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-4	Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to study area users are minimal (e.g., restrict the hours to weekdays during daytime hours).	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF NOI-5	The Resident Engineer will be responsible to collect and respond to any complaints related to construction noise.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Resident Engineer
PF NOI-6	Truck loading, unloading, and hauling operations will be minimized so that noise and vibration are kept to a minimum through the study area to the greatest possible extent.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF BIO-1	Adjacent to the riparian area along the Radio Tower Pond and San Francisco Bay, project limits will be delineated to avoid ground disturbance adjacent to work and access areas.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-2	<p>Implement project site BMPs as follows:</p> <ul style="list-style-type: none"> <li>• Access routes and the number and size of staging, access, and work areas will be limited to existing paved, gravel, or other previously compacted surfaces as identified in the project plans. Movement of heavy equipment to and from the site will be restricted to established roadways.</li> <li>• Routes and boundaries will be clearly marked prior to initiating ground disturbance.</li> </ul> <p>Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs. These will be implemented during construction to prevent any off-site movement of construction materials, sediment, or debris. Permanent erosion control BMPs will be implemented to prevent silt and sediment from entering drainage facilities and discharging to the Bay.</p>	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-3	Wetlands Protection: The potential for adverse effects to water quality will be avoided by implementing temporary and permanent BMPs outlined in the Caltrans' Stormwater Guide. An SWPPP will be developed for the project and will comply with the Caltrans SWMP. The SWPPP will reference the Caltrans Construction Site BMP Manual, which includes protection measures that are regularly incorporated into projects to prevent and minimize pollutant discharges.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-4	Water Quality Protection: A water quality inspector will inspect the site after a rain event to ensure that the stormwater BMPs are adequate. Corrective action will be taken per Caltrans Standard Specifications for any identified deficiencies	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor, Water quality inspector

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-5	Before commencing construction, a qualified Caltrans-approved biologist will conduct an education program for all project personnel. Species to be covered will include but not be limited to nesting birds. The program will also include information on the protected species and the habitats likely to be found within or adjacent to the BSA, requirements of federal and state laws pertaining to these species, identification of measures implemented to conserve the species and habitats within the study area, and distribution of a fact sheet conveying this information to the personnel who may enter the BSA.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans-approved biologist
PF BIO-6	Trees, shrubs, and native vegetation will be preserved in place to the extent practicable.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-7	The work in San Francisco Bay will be limited to the smallest area possible to complete the proposed construction activities.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-8	The names and qualifications of biological monitors will be submitted for agency approval prior to initiating construction activities. Caltrans- and agency-approved biologists will be onsite during work within San Francisco Bay, including installation and removal of the cofferdam, or as otherwise required by regulatory agency permits and approvals.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans- and agency-approved biologists
PF BIO-9	Before construction of the new outfall, a qualified Caltrans-approved biologist will conduct an education program for all project personnel. Species to be covered will include southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, Central California Coast steelhead, Central Valley steelhead, and longfin smelt. The program will include information on the protected species and the habitats likely to be found within the BSA, requirements of federal and state laws pertaining to these species, identification of measures implemented to conserve the species and habitats within the study area, and distribution of a fact sheet conveying this information to the personnel who may enter the BSA.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans- and agency-approved biologists

<p>PF BIO-10</p>	<p>Avoid Spread and Introduction of Invasive Plants            Caltrans will require the following practices to minimize the potential to introduce or spread invasive plant species:</p> <ul style="list-style-type: none"> <li>▪ Prior to initial disturbance, invasive plant locations will be identified, mapped, and cleared. All vegetation material removed will be adequately contained and disposed of in a landfill or incinerated off-site, with caution exercised to prevent seed dispersal.</li> <li>▪ Construction equipment shall be certified as “weed-free” by Caltrans before entering the construction site. If necessary, onsite wash stations shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area.</li> </ul> <p>After project fulfillment, areas where vegetation is removed will be hydroseeded with native seed from a local source or planted with landscape species that occur on neighboring areas and maintained per Caltrans standards to reduce the risk of non-native and invasive species establishment.            Drought-tolerate and/or native species</p>	<p>Draft IS/EA Section 1.0 and Section 2.3</p>	<p>Construction</p>	<p>Contractor</p>
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ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	should be planted in landscaped areas to the extent practicable.			
PF BIO-11	Invasive Species: The landscaping included in the project will not use species listed on the California list of invasive species.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
AMM BIO-1	Avoid Regulated Trees and Replace Where Tree Removal is Unavoidable - Caltrans will avoid the removal of trees by minimizing the area of disturbance where feasible. A Caltrans-approved arborist will be retained to identify areas where tree pruning activities can occur rather than tree removal. The removed or damaged trees will be replaced within the BSA to the extent possible. Trees will be replaced at a 1:1 ratio with native trees and will be irrigated for up to three years.	Draft IS/EA Section 2.3	Construction	Contractor
AMM BIO-2	Limit In-Water Work Area to Smallest Area Possible - Work within the San Francisco Bay, wetlands in the vicinity of the Radio Tower Pond and the Model Yacht Basin will be limited to the smallest area possible to complete the proposed construction activities.	Draft IS/EA Section 2.3	Construction	Contractor

<p>AMM BIO-3</p>	<p>Nesting Bird Avoidance would avoid initiating vegetation clearing, ground-disturbance, and other construction activities during the nesting bird season (February 1 to September 30) to the extent feasible. Caltrans will remove trees, inactive nests, and other nesting substrate (e.g., trees, shrubs, structures, emergent vegetation) and install nest exclusion measures (e.g., non-mono-filament netting, bird spikes, plastic sheeting, mesh, and fill cavities) during non-nesting season (October 1 to January 31) to the extent possible. Demolition of structures will be conducted during the non-nesting season to the extent feasible. If initiation of vegetation clearing, ground-disturbance, or other construction activities during the nesting bird season is unavoidable, Caltrans will retain a qualified biologist with experience conducting nesting bird surveys. The biologist will conduct a pre-construction survey for active bird nests no more than three days prior to the start of construction activities. The biologist will conduct a survey of suitable nesting habitat within the BSA and an immediately surrounding 250-foot area during the nesting season to ensure that no active bird nests (including those belonging to Alameda song sparrow or saltmarsh common yellowthroat) are present prior to</p>	<p>Draft IS/EA Section 2.3</p>	<p>Construction</p>	<p>Contractor, CDFW, Qualified biologist</p>
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	<p>vegetation removal or project-related disturbance, whichever occurs first.</p> <p>If an active nest is identified, a no-disturbance buffer will be established until the young are no longer dependent on the nest for survival as determined by the biologist. The no-disturbance buffer is generally 250 feet for raptors and 50 feet for other birds. The no-disturbance buffer shall be 100 feet around active nests of Alameda song sparrow and saltmarsh common yellowthroat.</p> <p>If construction activities stop for a period of five days or more during the nesting bird season within a portion of the proposed project (beyond 250 feet of ongoing construction activities), a subsequent nesting bird survey will be conducted by a biologist no more than three days prior to resumption of construction at that location.</p> <p>Should work within the no-disturbance buffer of an active nest be necessary, the biologist will monitor work occurring within no-disturbance buffer around an active nest to determine if the nest or nesting behavior is affected by construction activities. If the biologist determines that nesting behavior is affected by construction activities, then construction within the no-disturbance buffer will cease immediately and equipment and personnel will leave the buffer. No-disturbance buffer</p>			
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APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	modifications can be made based on the professional opinion and observations of the biologist, the degree of background noise, and the physical situation of the nest through coordination between the biologist and CDFW.			
AMM BIO-4	No In-Water Work During the Wet Season – Caltrans would avoid conducting in-water work during the typical wet season, between November 1 and March 31.	Draft IS/EA Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-5	<p>Cofferdams Construction at Low Tides – Prior to conducting work within SF Bay, the project proponent or their contractor will construct a cofferdam to isolate in-water work areas from open waters and avoid and minimize potential impacts to water quality and aquatic wildlife. During cofferdam installation, one side of the cofferdam will remain open until peak low tide to minimize potential for fish entrapment. The agency-approved biologist will coordinate with the contractor to remove fish within the partially installed cofferdam before completing the enclosure. In addition, under guidance of the agency-approved biologist, a ¼-inch mesh block net may be installed during low tide to prevent fish from entering the cofferdam enclosure during installation. If cofferdam installation spans multiple high tide cycles or requires more than one day, the agency-approved biologist shall inspect the cofferdam enclosure for stranded fish. If listed threatened or endangered fish species are identified, the agency-approved biologist will notify the Engineer to stop work and consult with NMFS. The Engineer will allow work to commence at the approval of the agency-approved biologist.</p>	Draft IS/EA Section 2.3	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-6	No In-water Work during Fish Migration Periods (November and June) – Caltrans will not conduct any in-water work within the San Francisco Bay between November and June to avoid potential impacts on protected fish (steelhead, Chinook salmon, green sturgeon, and longfin smelt) during peak migration periods to suitable spawning habitat. No pile driving activities will be conducted at night and any night lighting used will be shielded to prevent fugitive light from being cast into the San Francisco Bay or natural vegetation outside of the Project limits	Draft IS/EA Section 2.3	Construction	Contractor

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-7	<p>Worker Environmental Awareness Training – All construction personnel would attend a mandatory environmental education program delivered by an agency-approved biologist prior to working in the project construction area (PCA). The program would focus on the conservation measures that are relevant to employee’s personal responsibility and would include an explanation as how to best avoid take of sensitive species. Distributed materials would include a pamphlet with distinguishing photographs of sensitive species, species’ habitat requirements, compliance reminders, and relevant contact information. Documentation of the training, including sign-in sheets, would be kept on file and would be available on request.</p>	Draft IS/EA Section 2.3	Construction	Caltrans

APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-8	Agency-Approved Biological Monitor – Caltrans would submit the names and qualifications of the biological monitor(s) for USFWS approval prior to initiating construction activities for the proposed project. Only agency-approved biological monitors would implement the monitoring duties outlined in the biological opinion including delivery of the Worker Environmental Awareness Training Program.	Draft IS/EA Section 2.3	Construction	Caltrans



ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-9	<p>Role of Biological Monitor – The agency-approved biologist(s) would be on site during in-water work to fulfill the role of the approved biologist as specified in the document. The biologist(s) would keep copies of applicable permits in their possession when on site. Through the resident engineer or their designee, the agency-approved biologist(s) shall be given the authority to communicate either verbally or by telephone, email, or hardcopy with all project personnel to ensure that take of listed species is minimized and permit requirements are fully implemented. Through the resident engineer or their designee, the agency-approved biologist(s) shall have the authority to stop project activities to minimize take of listed species or if he/she/they determines that any permit requirements are not fully implemented. If the agency-approved biologist(s) exercises this authority, the agencies shall be notified by telephone and email.</p>	IS/EA Section 2.3	Construction	Caltrans

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-10	<p>Construction Monitoring During In-Water Work – An agency-approved biologist would be present during in-water work to monitor for listed fish, and other species during construction activities within suitable habitat. The biological monitor would have the authority to stop work if deemed necessary for any reason to protect the species. If a listed species is observed in the work area, work would be stopped immediately by the biological monitor until the individual(s) leaves the work area on its own volition. If the individual(s) does not leave the work area, work would not be reinitiated until after the USFWS have been contacted and a decision reached on how construction activities could proceed. The project resident engineer or construction inspector would consult with the biological monitor on how to proceed.</p>	IS/EA Section 2.3	Construction	Caltrans

<p>AMM BIO-11</p>	<p>Minimize Hydroacoustic Impacts During Vibratory Pile Driving – Vibratory driving may be necessary to install the temporary cofferdam. The following measures will be implemented if pile driving is necessary:</p> <ul style="list-style-type: none"> <li>• Conduct all vibratory pile driving between June 1 and October 31 to avoid peak fish migration periods. The contractor will conduct pile driving as early as possible during this window to avoid impacts to early migrating individuals.</li> <li>• The contractor will conduct pile driving within 3 hours on either side of low tide.</li> <li>• The contractor will use the smallest pile driver and minimum force necessary to complete the work.</li> <li>• Vibrate all piles to the maximum depth feasible before using an impact hammer to minimize underwater noise. Vibratory hammers generally reduce the potential for adverse hydroacoustic impacts on fish. While impact driving, the contractor will limit the number of strikes per day to the</li> </ul>	<p>IS/EA Section 2.3</p>	<p>Construction</p>	<p>Contractor</p>
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APPENDIX C AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	<p>minimum necessary to complete the work.</p> <ul style="list-style-type: none"> <li>If necessary, contractors may consider using a bubble ring, or similar device to minimize the extent to which the interim peak and cumulative sound exposure are exceeded.</li> </ul> <p>Pile driving activities at night are not allowed.</p>			
AMM BIO-12	High-Visibility Fencing – The project proponent or their contractor will delineate environmentally sensitive areas with high-visibility fencing, or alternative delineator as appropriate, to protect sensitive resources and avoid unnecessary ground disturbance.	IS/EA Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
Compensatory Mitigation Measure BIO-1	Caltrans will provide compensatory mitigation to offset the unavoidable impacts to aquatic resources (i.e., new outfall). Compensatory mitigation would occur at a minimum one-to-one ratio for permanent impacts (impact area to compensation area) to assure no-net-loss of waters of the U.S., and the final mitigation ratio will ultimately be determined through Caltrans' coordination with the USACE during the Section 404 permitting process in accordance with permit requirements. Compensatory mitigation may occur through one or a combination of: on- or off-site mitigation, the purchase of mitigation bank credits, and/or payment of an in-lieu fee. On- and off-site mitigation options include preservation, enhancement, and restoration of the values and functions of wetlands and other waters of the U.S.	Draft IS/EA Section 2.3	Construction	Contractor

Appendix D Species Lists

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# Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (San Francisco South (3712264) OR San Francisco North (3712274) OR Oakland East (3712272) OR Oakland West (3712273) OR Hunters Point (3712263) OR San Leandro (3712262) OR San Quentin (3712284) OR Richmond (3712283) OR Briones Valley (3712282))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
<i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
<i>Allium peninsulare var. franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G4G5T2	S2	1B.2
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
<i>Amorpha californica var. napensis</i> Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G1	S1	SSC
<i>Arctostaphylos franciscana</i> Franciscan manzanita	PDERI040J3	Endangered	None	GHC	S1	1B.1
<i>Arctostaphylos imbricata</i> San Bruno Mountain manzanita	PDERI040L0	None	Endangered	G1	S1	1B.1
<i>Arctostaphylos montana ssp. ravenii</i> Presidio manzanita	PDERI040J2	Endangered	Endangered	G3T1	S1	1B.1
<i>Arctostaphylos montaraensis</i> Montara manzanita	PDERI042W0	None	None	G1	S1	1B.2
<i>Arctostaphylos pacifica</i> Pacific manzanita	PDERI040Z0	None	Endangered	G1	S1	1B.1
<i>Arctostaphylos pallida</i> pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	





**Selected Elements by Scientific Name**  
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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Arenaria paludicola</i></b> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
<b><i>Asio flammeus</i></b> short-eared owl	ABNSB13040	None	None	G5	S2	SSC
<b><i>Astragalus tener var. tener</i></b> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<b><i>Athene cunicularia</i></b> burrowing owl	ABNSB10010	None	None	G4	S2	SSC
<b><i>Banksula incredula</i></b> incredible harvestman	ILARA14100	None	None	G1	S1	
<b><i>Bombus caliginosus</i></b> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<b><i>Bombus crotchii</i></b> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<b><i>Bombus occidentalis</i></b> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<b><i>Branta hutchinsii leucopareia</i></b> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	WL
<b><i>Caecidotea tomalensis</i></b> Tomales isopod	ICMAL01220	None	None	G2	S2S3	
<b><i>Callophrys mossii bayensis</i></b> San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T2	S2	
<b><i>Calochortus pulchellus</i></b> Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
<b><i>Calochortus tiburonensis</i></b> Tiburon mariposa-lily	PMLIL0D1C0	Threatened	Threatened	G1	S1	1B.1
<b><i>Calystegia purpurata ssp. saxicola</i></b> coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
<b><i>Carex comosa</i></b> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<b><i>Carex praticola</i></b> northern meadow sedge	PMCYP03B20	None	None	G5	S2	2B.2
<b><i>Castilleja affinis var. neglecta</i></b> Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
<b><i>Centromadia parryi ssp. congdonii</i></b> Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
<b><i>Centromadia parryi ssp. parryi</i></b> pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<b><i>Charadrius nivosus nivosus</i></b> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<b><i>Chloropyron maritimum ssp. palustre</i></b> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2



**Selected Elements by Scientific Name**  
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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Chorizanthe cuspidata</i> var. <i>cuspidata</i></b> San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
<b><i>Chorizanthe robusta</i> var. <i>robusta</i></b> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<b><i>Cicindela hirticollis</i> <i>gravida</i></b> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<b><i>Cicuta maculata</i> var. <i>bolanderi</i></b> Bolander's water-hemlock	PDAP10M051	None	None	G5T4T5	S2?	2B.1
<b><i>Circus hudsonius</i></b> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<b><i>Cirsium andrewsii</i></b> Franciscan thistle	PDAST2E050	None	None	G3	S3	1B.2
<b><i>Cirsium hydrophilum</i> var. <i>vaseyi</i></b> Mt. Tamalpais thistle	PDAST2E1G2	None	None	G2T1	S1	1B.2
<b><i>Cirsium occidentale</i> var. <i>compactum</i></b> compact cobwebby thistle	PDAST2E1Z1	None	None	G3G4T2	S2	1B.2
<b><i>Clarkia concinna</i> ssp. <i>automixa</i></b> Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
<b><i>Clarkia franciscana</i></b> Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
<b><i>Coastal Terrace Prairie</i></b> Coastal Terrace Prairie	CTT41100CA	None	None	G2	S2.1	
<b><i>Collinsia corymbosa</i></b> round-headed collinsia	PDSCR0H060	None	None	G1	S1	1B.2
<b><i>Collinsia multicolor</i></b> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<b><i>Corynorhinus townsendii</i></b> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<b><i>Coturnicops noveboracensis</i></b> yellow rail	ABNME01010	None	None	G4	S2	SSC
<b><i>Danaus plexippus plexippus</i> pop. 1</b> monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2Q	S2	
<b><i>Dicamptodon ensatus</i></b> California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
<b><i>Dipodomys heermanni berkeleyensis</i></b> Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S2	
<b><i>Dirca occidentalis</i></b> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<b><i>Dufourea stagei</i></b> Stage's dufourine bee	IIHYM22010	None	None	G1G2	S1	
<b><i>Egretta thula</i></b> snowy egret	ABNGA06030	None	None	G5	S4	



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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Enhydra lutris nereis</i> southern sea otter	AMAJF09012	Threatened	None	G4T2	S3	FP
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eriogonum luteolum var. caninum</i> Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	
<i>Eumetopias jubatus</i> Steller sea lion	AMAJC03010	Delisted	None	G3	S2	
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S3	
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Fissidens pauperculus</i> minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Gilia capitata ssp. chamissonis</i> blue coast gilia	PDPLM040B3	None	None	G5T2	S2	1B.1
<i>Gilia millefoliata</i> dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Grindelia hirsutula var. maritima</i> San Francisco gumplant	PDAST470D3	None	None	G5T1Q	S1	3.2
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	



**Selected Elements by Scientific Name**  
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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Hemizonia congesta ssp. congesta</i> congested-headed hayfield tarplant	PDAST4R0W1	None	None	G5T2	S2	1B.2
<i>Hesperervax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S3	1B.2
<i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1
<i>Heteranthera dubia</i> water star-grass	PMPON03010	None	None	G5	S2	2B.2
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Hydroporus leechi</i> Leech's skyline diving beetle	IICOL55040	None	None	G1?	S2S3	
<i>Hydroprogne caspia</i> Caspian tern	ABNNM08020	None	None	G5	S4	
<i>Hypogymnia schizidiata</i> island tube lichen	NLT0032640	None	None	G2G3	S2	1B.3
<i>Icaricia icarioides missionensis</i> Mission blue butterfly	IILEPG801A	Endangered	None	G5T2	S2	
<i>Icaricia icarioides pheres</i> Pheres blue butterfly	IILEPG8019	None	None	G5TX	SX	
<i>Ischnura gemina</i> San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
<i>Isocoma arguta</i> Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lasiurus frantzii</i> western red bat	AMACC05080	None	None	G4	S3	SSC
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Layia carnosa</i> beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1



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<b><i>Leptosiphon rosaceus</i></b> rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<b><i>Lessingia germanorum</i></b> San Francisco lessingia	PDAST5S010	Endangered	Endangered	G1	S1	1B.1
<b><i>Lichnanthe ursina</i></b> bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
<b><i>Malacothamnus arcuatus</i></b> arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<b><i>Masticophis lateralis euryxanthus</i></b> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<b><i>Meconella oregana</i></b> Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
<b><i>Melospiza melodia maxillaris</i></b> Suisun song sparrow	ABPBXA301K	None	None	G5T3	S2	SSC
<b><i>Melospiza melodia pusillula</i></b> Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
<b><i>Melospiza melodia samuelis</i></b> San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
<b><i>Microcina leei</i></b> Lee's micro-blind harvestman	ILARA47040	None	None	G1	S1	
<b><i>Microcina tiburona</i></b> Tiburon micro-blind harvestman	ILARA47060	None	None	G2	S2	
<b><i>Microseris paludosa</i></b> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<b><i>Microtus californicus sanpabloensis</i></b> San Pablo vole	AMAFF11034	None	None	G5T1T2	S1S2	SSC
<b><i>Monardella sinuata ssp. nigrescens</i></b> northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
<b><i>Monolopia gracilens</i></b> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<b><i>Mylopharodon conocephalus</i></b> hardhead	AFCJB25010	None	None	G3	S3	SSC
<b><i>Nannopterum auritum</i></b> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<b><i>Neotoma fuscipes annectens</i></b> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<b><i>Northern Coastal Salt Marsh</i></b> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<b><i>Northern Maritime Chaparral</i></b> Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	
<b><i>Nycticorax nycticorax</i></b> black-crowned night heron	ABNGA11010	None	None	G5	S4	



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<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	PDBOR0V080	None	Endangered	G1Q	S1	1B.1
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Polemonium carneum</i> Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
<i>Polygonum marinense</i> Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
<i>Pomatiopsis californica</i> Pacific walker	IMGASJ9020	None	None	G1	S1	
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
<i>Rana boylei</i> pop. 4 foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Rynchops niger</i> black skimmer	ABNNM14010	None	None	G5	S2	SSC
<i>Sanicula maritima</i> adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
<i>Scapanus latimanus insularis</i> Angel Island mole	AMABB02032	None	None	G5T1	S2?	
<i>Scapanus latimanus parvus</i> Alameda Island mole	AMABB02031	None	None	G5T1Q	SH	SSC
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
<i>Silene scouleri</i> ssp. <i>scouleri</i> Scouler's catchfly	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
<i>Silene verecunda</i> ssp. <i>verecunda</i> San Francisco campion	PDCAR0U213	None	None	G5T1	S1	1B.2



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<b><i>Sorex vagrans halicoetes</i></b> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<b><i>Spergularia macrotheca var. longistyla</i></b> long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
<b><i>Speyeria callippe callippe</i></b> callippe silverspot butterfly	IILEPJ6091	Endangered	None	G5T1	S1	
<b><i>Spirinchus thaleichthys</i></b> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<b><i>Stebbinsoseris decipiens</i></b> Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2
<b><i>Sternula antillarum browni</i></b> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<b><i>Streptanthus albidus ssp. peramoenus</i></b> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<b><i>Streptanthus glandulosus ssp. niger</i></b> Tiburon jewelflower	PDBRA2G0T0	Endangered	Endangered	G4T1	S1	1B.1
<b><i>Stuckenia filiformis ssp. alpina</i></b> northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<b><i>Suaeda californica</i></b> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
<b><i>Symphotrichum lentum</i></b> Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
<b><i>Taxidea taxus</i></b> American badger	AMAJF04010	None	None	G5	S3	SSC
<b><i>Thaleichthys pacificus</i></b> eulachon	AFCHB04010	Threatened	None	G5	S1	
<b><i>Thamnophis sirtalis tetrataenia</i></b> San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP
<b><i>Trachusa gummifera</i></b> San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
<b><i>Trifolium amoenum</i></b> two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
<b><i>Trifolium hydrophilum</i></b> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<b><i>Triphysaria floribunda</i></b> San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
<b><i>Triquetrella californica</i></b> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
<b><i>Tryonia imitator</i></b> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
<b>Valley Needlegrass Grassland</b> Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	



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<b><i>Vespericola marinensis</i></b> Marin hesperian	IMGASA4140	None	None	G2	S2	
<b><i>Viburnum ellipticum</i></b> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<b><i>Xanthocephalus xanthocephalus</i></b> yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC
<b><i>Zapus trinotatus orarius</i></b> Point Reyes jumping mouse	AMAFH01031	None	None	G5T2	S2	SSC

**Record Count: 169**







## CNPS Rare Plant Inventory










### Search Results









57 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3712273:3712283:3712282:3712272:3712262:3712263]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<a href="#"><i>Amsinckia lunaris</i></a>	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
<a href="#"><i>Androsace elongata</i> ssp. <i>acuta</i></a>	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01	 © 2008 Aaron Schusteff
<a href="#"><i>Arctostaphylos pallida</i></a>	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	FT	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<a href="#"><i>Astragalus tener</i> var. <i>tener</i></a>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
<a href="#"><i>Calochortus pulchellus</i></a>	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<a href="#"><i>Calochortus umbellatus</i></a>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3?	S3?	4.2	Yes	1980-01-01	No Photo Available
<a href="#"><i>Calystegia purpurata</i> ssp. <i>saxicola</i></a>	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	None	None	G4T2T3	S2S3	1B.2	Yes	2001-01-01	No Photo Available
<a href="#"><i>Carex comosa</i></a>	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01	 Dean Wm. Taylor 1997
<a href="#"><i>Castilleja ambigua</i> var. <i>ambigua</i></a>	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G4T4	S3S4	4.2		2009-02-04	 ©2011 Dylan Neubauer

<a href="#"><u>Centromadia parryi ssp. congdonii</u></a>	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
<a href="#"><u>Chloropyron maritimum ssp. palustre</u></a>	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	G4?T2	S2	1B.2		1974-01-01	 ©2017 John Doyen
<a href="#"><u>Chloropyron molle ssp. molle</u></a>	soft salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Nov	FE	CR	G2T1	S1	1B.2	Yes	1974-01-01	No Photo Available
<a href="#"><u>Chorizanthe cuspidata var. cuspidata</u></a>	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul(Aug)	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
<a href="#"><u>Chorizanthe robusta var. robusta</u></a>	robust spineflower	Polygonaceae	annual herb	Apr-Sep	FE	None	G2T1	S1	1B.1	Yes	1980-01-01	No Photo Available
<a href="#"><u>Cicuta maculata var. bolanderi</u></a>	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	None	None	G5T4T5	S2?	2B.1		1974-01-01	 © 2007 Doreen L Smith
<a href="#"><u>Cirsium andrewsii</u></a>	Franciscan thistle	Asteraceae	perennial herb	Mar-Jul	None	None	G3	S3	1B.2	Yes	1974-01-01	No Photo Available
<a href="#"><u>Clarkia concinna ssp. automixa</u></a>	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	None	None	G5?T3	S3	4.3	Yes	1994-01-01	No Photo Available
<a href="#"><u>Clarkia franciscana</u></a>	Presidio clarkia	Onagraceae	annual herb	May-Jul	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<a href="#"><u>Dirca occidentalis</u></a>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2017 Steve Matson
<a href="#"><u>Eriogonum luteolum var. caninum</u></a>	Tiburon buckwheat	Polygonaceae	annual herb	May-Sep	None	None	G5T2	S2	1B.2	Yes	1974-01-01	No Photo Available
<a href="#"><u>Eryngium jepsonii</u></a>	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	2016-09-13	No Photo Available
<a href="#"><u>Erythranthe laciniata</u></a>	cut-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2017 Steven Perry
<a href="#"><u>Extriplex joaquinana</u></a>	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1988-01-01	No Photo Available

<u><i>Fissidens pauperculus</i></u>	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2		2001-01-01	 ©2021 Scot Loring
<u><i>Fritillaria liliacea</i></u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2004 Carol W. Witham
<u><i>Gilia capitata</i> ssp. <i>chamissonis</i></u>	blue coast gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G5T2	S2	1B.1	Yes	2001-01-01	 © 2017 John Doyen
<u><i>Gilia millefoliata</i></u>	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2		2001-01-01	 © 2017 John Doyen
<u><i>Helianthella castanea</i></u>	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2013 Christopher Bronny
<u><i>Hemizonia congesta</i> ssp. <i>congesta</i></u>	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	Yes	1988-01-01	 © 2015 Vernon Smith
<u><i>Hesperevax caulescens</i></u>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
<u><i>Heteranthera dubia</i></u>	water star-grass	Pontederiaceae	perennial herb (aquatic)	Jul-Oct	None	None	G5	S2	2B.2		2013-10-10	 ©2010 Louis-M. Landry
<u><i>Hoita strobilina</i></u>	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	None	None	G2?	S2?	1B.1	Yes	2001-01-01	 © 2004 Janell Hillman

<u><i>Holocarpa macradenia</i></u>	Santa Cruz tarplant	Asteraceae	annual herb	Jun-Oct	FT	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2011 Dylan Neubauer
<u><i>Horkelia cuneata</i></u> var. <u><i>sericea</i></u>	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G4T1?	S1?	1B.1	Yes	1988-01-01	 © 2018 Neal Kramer
<u><i>Iris longipetala</i></u>	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	Yes	2006-10-12	 © 2014 Aaron Schusteff
<u><i>Isocoma arguta</i></u>	Carquinez goldenbush	Asteraceae	perennial shrub	Aug-Dec	None	None	G1	S1	1B.1	Yes	1994-01-01	No Photo Available
<u><i>Juglans californica</i></u>	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2020 Zoya Akulova
<u><i>Lasthenia conjugens</i></u>	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	FE	None	G1	S1	1B.1	Yes	1974-01-01	 © 2013 Neal Kramer
<u><i>Layia carnosa</i></u>	beach layia	Asteraceae	annual herb	Mar-Jul	FT	CE	G2	S2	1B.1		1988-01-01	 © 2007 Aaron Schusteff
<u><i>Leptosiphon aureus</i></u>	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin
<u><i>Leptosiphon grandiflorus</i></u>	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	None	None	G3G4	S3S4	4.2	Yes	1994-01-01	 © 2003 Doreen L. Smith

<a href="#"><u>Leptosiphon rosaceus</u></a>	rose leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G1	S1	1B.1	Yes	2001-01-01	 © 2013 Aaron Schusteff
<a href="#"><u>Lessingia hololeuca</u></a>	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	None	None	G2G3	S2S3	3	Yes	1994-01-01	 © 2015 Aaron Schusteff
<a href="#"><u>Meconella oregana</u></a>	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	None	None	G2G3	S2	1B.1		1974-01-01	 © 2021 Scot Loring
<a href="#"><u>Monolopia gracilens</u></a>	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	None	None	G3	S3	1B.2	Yes	2010-04-06	 © 2016 Richard Spellenberg
<a href="#"><u>Plagiobothrys chorisianus</u></a> var. <a href="#"><u>chorisianus</u></a>	Choris' popcornflower	Boraginaceae	annual herb	Mar-Jun	None	None	G3T1Q	S1	1B.2	Yes	1984-01-01	No Photo Available
<a href="#"><u>Plagiobothrys diffusus</u></a>	San Francisco popcornflower	Boraginaceae	annual herb	Mar-Jun	None	CE	G1Q	S1	1B.1	Yes	1974-01-01	No Photo Available
<a href="#"><u>Polygonum marinense</u></a>	Marin knotweed	Polygonaceae	annual herb	(Apr)May-Aug(Oct)	None	None	G2Q	S2	3.1	Yes	1974-01-01	No Photo Available
<a href="#"><u>Ranunculus lobbii</u></a>	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	None	None	G4	S3	4.2		1974-01-01	No Photo Available
<a href="#"><u>Sanicula maritima</u></a>	adobe sanicle	Apiaceae	perennial herb	Feb-May	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
<a href="#"><u>Spergularia macrotheca</u></a> var. <a href="#"><u>longistyla</u></a>	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May	None	None	G5T2	S2	1B.2	Yes	2017-06-16	No Photo Available
<a href="#"><u>Streptanthus albidus</u></a> ssp. <a href="#"><u>peramoenus</u></a>	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	None	None	G2T2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.

<u><i>Stuckenia</i></u> <u><i>filiformis</i></u> ssp. <u><i>alpina</i></u>	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2			1994- 01-01	 Dana York (2016)
<u><i>Suaeda</i></u> <u><i>californica</i></u>	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	FE	None	G1	S1	1B.1	Yes		1988- 01-01	No Photo Available
<u><i>Trifolium</i></u> <u><i>hydrophilum</i></u>	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes		2001- 01-01	 © 2005 Dean Wm Taylor
<u><i>Triphysaria</i></u> <u><i>floribunda</i></u>	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	None	None	G2?	S2?	1B.2	Yes		1974- 01-01	No Photo Available
<u><i>Viburnum</i></u> <u><i>ellipticum</i></u>	oval-leaved viburnum	Viburnaceae	perennial deciduous shrub	May-Jun	None	None	G4G5	S3?	2B.3			1974- 01-01	 © 2006 Tom Engstrom

Showing 1 to 57 of 57 entries

#### Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 24 October 2023].



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
San Francisco Bay-Delta Fish And Wildlife  
650 Capitol Mall  
Suite 8-300  
Sacramento, CA 95814  
Phone: (916) 930-5603 Fax: (916) 930-5654

In Reply Refer To:  
Project Code: 2023-0020696  
Project Name: I-80/Ashby Avenue Interchange Improvement Project

October 24, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed, and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<https://www.fws.gov/program/eagle-management/working-around-eagles>). Additionally, wind energy projects should follow the wind energy guidelines (<https://www.fws.gov/node/266177>) for minimizing impacts to migratory birds and

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bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:<https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>; and <http://www.towerkill.com>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

**Note:** IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**San Francisco Bay-Delta Fish And Wildlife**

650 Capitol Mall

Suite 8-300

Sacramento, CA 95814

(916) 930-5603

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

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**Sacramento Fish And Wildlife Office**  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
(916) 414-6600

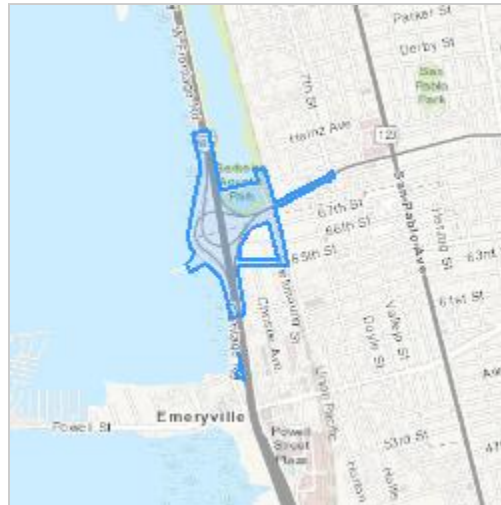
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## PROJECT SUMMARY

Project Code: 2023-0020696  
Project Name: I-80/Ashby Avenue Interchange Improvement Project  
Project Type: New Constr - Above Ground  
Project Description: The project proposes to reconstruct the existing I 80/Ashby Avenue interchange.

### Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.8482858,-122.2984681633215,14z>



Counties: Alameda County, California

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 13 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/613">https://ecos.fws.gov/ecp/species/613</a>	Endangered

### BIRDS

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4240">https://ecos.fws.gov/ecp/species/4240</a>	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8104">https://ecos.fws.gov/ecp/species/8104</a>	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8035">https://ecos.fws.gov/ecp/species/8035</a>	Threatened

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## REPTILES

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5524">https://ecos.fws.gov/ecp/species/5524</a>	Threatened
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a>	Threatened

## AMPHIBIANS

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> Population: Central Coast Distinct Population Segment (Central Coast DPS) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5133">https://ecos.fws.gov/ecp/species/5133</a>	Threatened

## FISHES

NAME	STATUS
Longfin Smelt <i>Spirinchus thaleichthys</i> Population: San Francisco Bay-Delta DPS No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9011">https://ecos.fws.gov/ecp/species/9011</a>	Proposed Endangered
Tidewater Goby <i>Eucyclogobius newberryi</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/57">https://ecos.fws.gov/ecp/species/57</a>	Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## FLOWERING PLANTS

NAME	STATUS
California Seablite <i>Suaeda californica</i> Population: No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6310">https://ecos.fws.gov/ecp/species/6310</a>	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6832">https://ecos.fws.gov/ecp/species/6832</a>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**There are bald and/or golden eagles in your project area.**

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE

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SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p><b>Bald Eagle <i>Haliaeetus leucocephalus</i></b>                      This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	<p>Breeds Jan 1 to Aug 31</p>
<p><b>Golden Eagle <i>Aquila chrysaetos</i></b>                      This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	<p>Breeds Jan 1 to Aug 31</p>

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

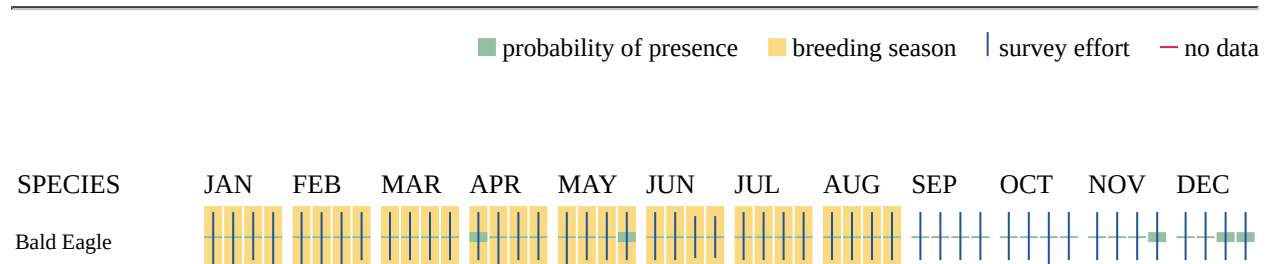
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

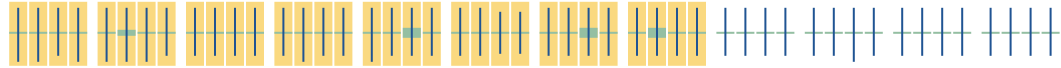
### No Data (—)

A week is marked as having no data if there were no survey events for that week.



Non-BCC  
Vulnerable

Golden Eagle  
Non-BCC  
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9637">https://ecos.fws.gov/ecp/species/9637</a>	Breeds Feb 1 to Jul 15



NAME	BREEDING SEASON
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	Breeds Jan 1 to Aug 31
<p><b>Belding's Savannah Sparrow</b> <i>Passerculus sandwichensis beldingi</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/8">https://ecos.fws.gov/ecp/species/8</a></p>	Breeds Apr 1 to Aug 15
<p><b>Black Oystercatcher</b> <i>Haematopus bachmani</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9591">https://ecos.fws.gov/ecp/species/9591</a></p>	Breeds Apr 15 to Oct 31
<p><b>Black Scoter</b> <i>Melanitta nigra</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10413">https://ecos.fws.gov/ecp/species/10413</a></p>	Breeds elsewhere
<p><b>Black Skimmer</b> <i>Rynchops niger</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/5234">https://ecos.fws.gov/ecp/species/5234</a></p>	Breeds May 20 to Sep 15
<p><b>Black Turnstone</b> <i>Arenaria melanocephala</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10557">https://ecos.fws.gov/ecp/species/10557</a></p>	Breeds elsewhere
<p><b>Black-legged Kittiwake</b> <i>Rissa tridactyla</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10459">https://ecos.fws.gov/ecp/species/10459</a></p>	Breeds elsewhere
<p><b>Brown Pelican</b> <i>Pelecanus occidentalis</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/6034">https://ecos.fws.gov/ecp/species/6034</a></p>	Breeds Jan 15 to Sep 30
<p><b>Bullock's Oriole</b> <i>Icterus bullockii</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9458">https://ecos.fws.gov/ecp/species/9458</a></p>	Breeds Mar 21 to Jul 25

NAME	BREEDING SEASON
<p>California Gull <i>Larus californicus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10955">https://ecos.fws.gov/ecp/species/10955</a></p>	Breeds Mar 1 to Jul 31
<p>California Thrasher <i>Toxostoma redivivum</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9436">https://ecos.fws.gov/ecp/species/9436</a></p>	Breeds Jan 1 to Jul 31
<p>Clark's Grebe <i>Aechmophorus clarkii</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10575">https://ecos.fws.gov/ecp/species/10575</a></p>	Breeds Jun 1 to Aug 31
<p>Common Loon <i>gavia immer</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/4464">https://ecos.fws.gov/ecp/species/4464</a></p>	Breeds Apr 15 to Oct 31
<p>Common Murre <i>Uria aalge</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10453">https://ecos.fws.gov/ecp/species/10453</a></p>	Breeds Apr 15 to Aug 15
<p>Common Yellowthroat <i>Geothlypis trichas sinuosa</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/2084">https://ecos.fws.gov/ecp/species/2084</a></p>	Breeds May 20 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Jan 1 to Aug 31
<p>Gull-billed Tern <i>Gelochelidon nilotica</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a></p>	Breeds May 1 to Jul 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9464">https://ecos.fws.gov/ecp/species/9464</a></p>	Breeds Mar 20 to Sep 20

NAME	BREEDING SEASON
<p>Long-tailed Duck <i>Clangula hyemalis</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/7238">https://ecos.fws.gov/ecp/species/7238</a></p>	Breeds elsewhere
<p>Marbled Godwit <i>Limosa fedoa</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a></p>	Breeds elsewhere
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a></p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a></p>	Breeds Mar 15 to Jul 15
<p>Olive-sided Flycatcher <i>Contopus cooperi</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a></p>	Breeds May 20 to Aug 31
<p>Pomarine Jaeger <i>Stercorarius pomarinus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10458">https://ecos.fws.gov/ecp/species/10458</a></p>	Breeds elsewhere
<p>Red-breasted Merganser <i>Mergus serrator</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10693">https://ecos.fws.gov/ecp/species/10693</a></p>	Breeds elsewhere
<p>Red-necked Phalarope <i>Phalaropus lobatus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10467">https://ecos.fws.gov/ecp/species/10467</a></p>	Breeds elsewhere
<p>Red-throated Loon <i>Gavia stellata</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/9589">https://ecos.fws.gov/ecp/species/9589</a></p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Ring-billed Gull <i>Larus delawarensis</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10468">https://ecos.fws.gov/ecp/species/10468</a></p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds elsewhere
<p>Surf Scoter <i>Melanitta perspicillata</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10463">https://ecos.fws.gov/ecp/species/10463</a></p>	Breeds elsewhere
<p>Tricolored Blackbird <i>Agelaius tricolor</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3910">https://ecos.fws.gov/ecp/species/3910</a></p>	Breeds Mar 15 to Aug 10
<p>Western Grebe <i>aechmophorus occidentalis</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a></p>	Breeds Jun 1 to Aug 31
<p>White-winged Scoter <i>Melanitta fusca</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/10462">https://ecos.fws.gov/ecp/species/10462</a></p>	Breeds elsewhere
<p>Willet <i>Tringa semipalmata</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10669">https://ecos.fws.gov/ecp/species/10669</a></p>	Breeds elsewhere
<p>Wrentit <i>Chamaea fasciata</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/10668">https://ecos.fws.gov/ecp/species/10668</a></p>	Breeds Mar 15 to Aug 10
<p>Yellow-billed Magpie <i>Pica nuttalli</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9726">https://ecos.fws.gov/ecp/species/9726</a></p>	Breeds Apr 1 to Jul 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

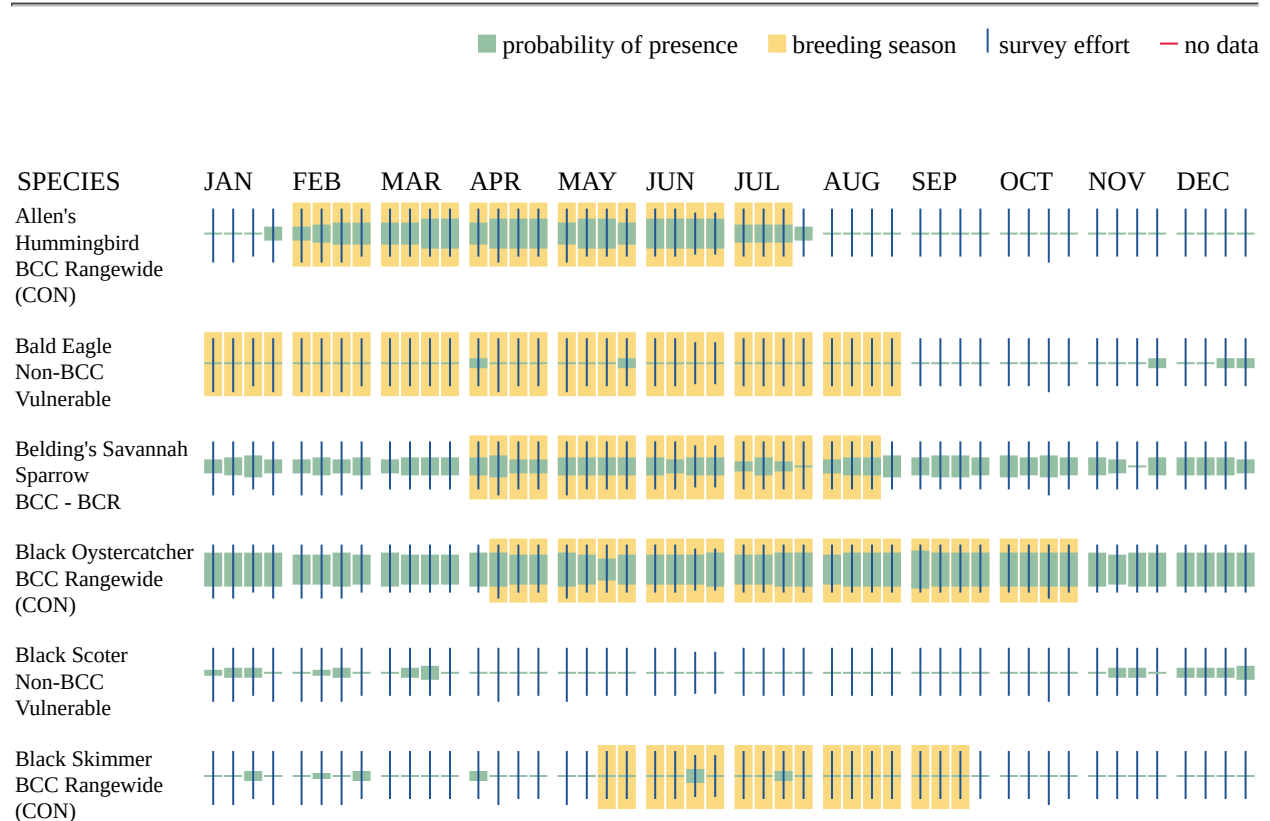
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

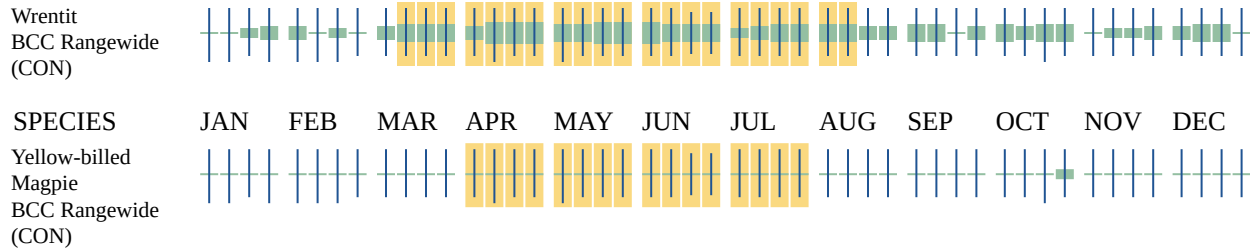
### No Data (-)

A week is marked as having no data if there were no survey events for that week.









Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER POND

- [PUBHh](#)

### ESTUARINE AND MARINE WETLAND

- [E2USN](#)

### ESTUARINE AND MARINE DEEPWATER

- [E1UBL](#)

### RIVERINE

- [R4SBA](#)



## **IPAC USER CONTACT INFORMATION**

Agency: Montrose Environmental  
Name: Robinson Hunter  
Address: 1 Kaiser Plaza, Suite 340  
City: OAKLAND  
State: CA  
Zip: 94612  
Email: r.bennett.hunter@gmail.com  
Phone: 2038489977

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: California Department of Transportation

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Appendix E Public Comments and Responses

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## 1.0 PUBLIC COMMENTS AND RESPONSES

Caltrans filed a Notice of Completion for the DED with the State Clearinghouse on December 15, 2021. The filing of the Notice of Completion began a public review and comment period that extended from December 15, 2021, through January 31, 2022. State and local agencies, organizations, and members of the public submitted comments. Each comment letter or email that was received was reviewed, and substantive comments were identified. This Appendix presents the comments that were received and the response to the comments.

### 1.1 INDEX TO COMMENTS

Comments are organized alphabetically (by last name for individual commenters) in the following order: agencies, cities, and members of the public (individuals). The alphabetical identifiers for each comment letter reflect this organization (i.e., A = agency, C = city and I = individual). Each individual comment within a comment letter is identified in the margins by an alpha-numeric code, which also corresponds to the responses prepared to address each comment. For example, Letter I-1, comment I-1.1 is addressed in Response I-1.1. All agencies, cities, and individuals who commented on the Draft Environmental Document (DED) are listed in Table 1.

**Table 1 Index to Comments**

Letter ID	Date of Comment	Commentor
A1	January 27, 2022	East Bay Municipal Utility District
A2	January 21, 2022	San Francisco Bay Regional Water Quality Control Board
C1	January 21, 2022	City of Emeryville
C2	January 31, 2022	City of Berkely
C3	January 31, 2022	Terry Taplin
C4	January 31, 2022	Daniel Akagi
I-1	December 22, 2021	Eric Jennings
I-2	December 22, 2021	Joseph Morris
I-3	December 22, 2021	Kevin Burke
I-4	December 22, 2021	Phyllis Orrick
I-5	December 22, 2021	Eric Jennings
I-6	December 22, 2021	Phyllis Orrick
I-7	December 22, 2021	Joseph Morris
I-8	December 22, 2021	Stephen Dalton
I-9	December 23, 2021	Alexandra Medina
I-10	December 23, 2021	Matthew Solomon
I-11	December 24, 2021	Samuel Maier

APPENDIX E PUBLIC COMMENTS AND RESPONSES

I-12	January 4, 2022	Dave Campbell
I-13	January 6, 2022	Jerry Yip
I-14	January 6, 2022	Jerry Yip
I-15	January 10, 2022	John Parr
I-16	January 10, 2022	John Parr
I-17	January 11, 2022	Denah Brookstein
I-18	January 11, 2022	Beverly
I-19	January 11, 2022	Denah Brookstein
I-20	January 11, 2022	Denah Brookstein
I-21	January 13, 2022	Howard Matis
I-22	January 13, 2022	John Scheuerman
I-23	January 13, 2022	Trey H.
I-24	January 13, 2022	Gregory Rozmarynowycz
I-25	January 13, 2022	Sarah
I-26	January 13, 2022	Evan Tschuy
I-27	January 13, 2022	Evan Tschuy
I-28	December 22, 2021	Eric Jennings
I-29	January 13, 2022	Daniel Tahara
I-30	January 13, 2022	Beaudry Kock
I-31	January 14, 2022	John Potis
I-32	January 14, 2022	Emily Crandall Fleischman
I-33	January 14, 2022	Ashley Elliott
I-34	January 14, 2022	Jake Jenzen
I-35	January 14, 2022	Andrew Judd
I-36	January 14, 2022	Ricardo Barron-Silva
I-37	January 14, 2022	Steven Dunbar
I-38	January 14, 2022	Lucas Woodward
I-39	January 14, 2022	David Hays
I-40	January 14, 2022	Zack Ludwig
I-41	January 15, 2022	Henry Coggins
I-42	January 15, 2022	Ryan McCormick
I-43	January 15, 2022	Peter Trio
I-44	January 15, 2022	S. Po
I-45	January 17, 2022	Joe
I-46	January 18, 2022	Bob Gomez
I-47	January 18, 2022	J. Anderson
I-48	January 18, 2022	Marianne Dresser
I-49	January 18, 2022	Chris Cassidy
I-50	January 18, 2022	Samuel Maier
I-51	January 18, 2022	David Mermin
I-52	January 18, 2022	Elliot
I-53	January 18, 2022	Rachel Katz
I-54	January 18, 2022	Gavin Platt
I-55	January 18, 2022	Arlo Armstrong
I-56	January 18, 2022	Lovett-Harris

APPENDIX E PUBLIC COMMENTS AND RESPONSES

I-57	January 19, 2022	Eric McKinley
I-58	January 19, 2022	Brit Harvey
I-59	January 20, 2022	Jackson Hurst
I-60	January 20, 2022	Dona Gomez
I-61	January 21, 2022	Jeff Watts
I-62	January 21, 2022	Chris Lee-egan
I-63	January 21, 2022	Andrew Carothers
I-64	January 22, 2022	Michael Howley
I-65	January 22, 2022	Jill Purdy
I-66	January 22, 2022	Jim Koman
I-67	January 22, 2022	Thomas Egan
I-68	January 22, 2022	David Maltzan
I-69	January 22, 2022	Will Freyman
I-70	January 22, 2022	JoAnn Brookes
I-71	January 22, 2022	Adam Lenz
I-72	January 22, 2022	Raul J Maldonado
I-73	January 22, 2022	Harry Chomsky
I-74	January 22, 2022	Arvi Sreenivasan
I-75	January 22, 2022	Nathan Golshan
I-76	January 23, 2022	Alex Applegate
I-77	January 23, 2022	Paula Kingsley
I-78	January 24, 2022	Perez
I-79	January 24, 2022	Jonathan Parry
I-80	January 25, 2022	Rachel Fenichel
I-81	January 26, 2022	Thomas Yamaguchi
I-82	January 10, 2022	Madeline Shwears
I-83	January 17, 2022	Carol Schwartz
I-84	February 7, 2022	Mark Trainer
I-85	March 24, 2022	Martha Birch
I-86	January 25, 2022	Ellen Schwartz
I-87	February 1, 2022	Dioni Rey
I-88	January 31, 2022	Jonathan Tyburski
I-89	January 21, 2022	Aaron Webber
I-90	January 31, 2022	Theodore Randolph
I-91	January 31, 2022	Aaron Priven
I-92	January 31, 2022	Veronika Coleman
I-93	January 28, 2022	Paul Bickmore
I-94	January 28, 2022	Elsie Wiley
I-95	January 25, 2022	Raul Maldonado
I-96	January 24, 2022	Tim Courtney
I-97	January 24, 2022	Tom Kunhardt
I-98	January 24, 2022	Ranjit Bharvirkar
I-99	January 24, 2022	Jordan Burns
I-100	January 24, 2022	Travis Close
I-101	January 24, 2022	Vanessa Boehm

I-102	January 24, 2022	Vanessa Boehm
I-103	January 22, 2022	Carter Lavin
I-104	January 22, 2022	Will Handsfield
I-105	January 20, 2022	Scott Amundson
I-106	January 21, 2022	Warren Wells
I-107	January 24, 2022	Maxime Baudette

## 1.2 RESPONSES TO COMMENTS

Substantive comments are those comments that are related to the facts of the project, environmental document, or associated technical studies. Comments that are only expressing support or opposition to the project are acknowledged as part of the public record.

A copy of each comment letter is provided followed by responses to individual comments. Any changes to the DED as a result of comments received are referenced in the response to comments, as well as marked in the margins of the document.

Multiple comments received on the DED raised concerns regarding general concerns about the proposed portal under the realigned West Frontage Road, existing unsheltered population in the area, flooding, and bicycle/pedestrian safety. Rather than repeat responses to such comments, Caltrans has provided a comprehensive response, Master Response 1 to 4. Individual, point-by-point responses to each comment are also provided where comments are not entirely addressed by the master response.

### MASTER COMMENT RESPONSES

#### **Master Response #1 (Grade-Separated Crossing Underneath West Frontage Road (Portal))**

Some commenters registered concern regarding the grade-separated crossing of the bicycle pedestrian pathway underneath the realigned West Frontage Road (i.e., the portal). Concerns generally fell into three categories: safety concerns, potential for unsheltered residents to settle in the portal, and flooding.

As described in Section 1.5.1, Proposed Build Alternative of the DED, the Build Alternative originally included two connection options between the bicycle pedestrian overcrossing and the San Francisco Bay Trail: either an at-grade crosswalk aligning with the Point Emery parking lot or a portal crossing underneath the realigned and elevated West Frontage Road. After thorough consideration of concerns regarding the portal crossing option, the project team has agreed to eliminate the portal crossing option. Instead, crossing West Frontage Road to San Francisco Bay Trail and Point Emery would be accomplished at the at-grade crosswalk aligning with the Point Emery

parking lot. The portal option is no longer under consideration. Further details on the Preferred Alternative can be found in Section 1.5.4, Identification of a Preferred Alternative, in the Final Environmental Document (FED).

### **Master Response #2 (Unsheltered Population)**

With regard to homeless encampments along the I-80 corridor, Caltrans has been working with local partners such as the Cities of Berkeley, Emeryville, and Oakland as well as local experts on homelessness to promote collaborative solutions and connect people experiencing homelessness to services and shelter, temporary/transitional housing, or permanent housing options. In Fall 2021, Caltrans implemented a “Litter Abatement Blitz” on the I-80 corridor from the MacArthur Maze to Highway 4. Caltrans crews removed trash and litter at multiple locations along I-80 and Highway 4 including the MacArthur Maze. Thereafter, Caltrans crews provided monthly trash and litter removal efforts along the I-80 corridor, particularly along the Ashby Avenue, University Avenue, and Gilman Street areas. During this time period, no homeless encampments were disturbed due to a court order. The court order expired at the end of April 2022. Notices were posted and Caltrans worked with our local partners to connect people experiencing homelessness with essential services. In early May 2022, Caltrans crews removed all homeless encampments along this same area, which included the Shellmound Street off-ramp and Ashby Interchange in particular. Caltrans has been monitoring the area and has taken steps to remove any encampments that have returned after providing proper notification and working with our local partners to connect people experiencing homelessness with essential services. Caltrans plans to continue with this approach from this point forward.

With regard to preventing homeless encampments from returning to the Ashby Avenue Interchange area, Caltrans plans to continue with monitoring and encampment removal as discussed above. When the Ashby Avenue Interchange project starts construction in 2024, temporary fencing will be placed to keep people out of the active construction area due to public safety concerns. Any homeless encampments that may appear during this period will be immediately removed. Post construction, permanent fencing will be placed within the interchange to prevent access to the freeway, on/off ramps, and areas not intended to be used by the public. Landscaping is proposed for the interchange, and strategies and designs to discourage homeless encampments from returning will be considered.



**Master Response #3 (Flooding)**

Some commenters asked whether the project would incorporate elements to improve existing flooding issues at the Ashby Avenue/UPRR tracks undercrossing. Commenters also expressed concerns about flooding of project elements from both storm events and future sea level rise.

The UPRR/Ashby Avenue underpass falls outside of the project limits depicted in Figure 1.5-1 and fixing the existing flooding issues was determined to be beyond the scope of this proposed project. However, Caltrans is aware of this issue and is working on separate projects to address it. The Build Alternative would not contribute additional flow to the pump station near the UPRR/Ashby Avenue underpass and would not make the existing deficiencies worse.

Caltrans also recognizes that there are existing local low points within the project area that are susceptible to sea level rise. The existing drainage inlets within the project area, especially those along the Aquatic Park Lagoons, Point Emery, Potter Street, West Bolivar Drive, and Ashby Avenue at the Sag (north of railroad tracks). Caltrans is coordinating with the San Francisco Bay Conservation and Development Commission (BCDC) to develop feasible adaptive measures to reduce the risk of exposure to sea level rise. This effort is separate from but moving forward concurrently with the proposed project. Caltrans is collaborating with multi-agency approach to protecting bayfront development, infrastructure, and assets, and distribute potential mitigation costs, as well as balancing environmental justice concerns to achieve equitable adaptive solutions. Any potential long-term adaptation strategies identified through these multi-agency partnerships would be implemented under future, separate projects.

Project impacts to FEMA designated floodplains are discussed in Section 2.2.1, Hydrology and Floodplain, of the DED. As discussed in that section, the increase in impervious area from the proposed project would be relatively minor. The proposed project would add and/or replace more than one acre of impervious area; however, the encroachment on a FEMA designated floodplain would be minimal (0.012 acre). As such, the proposed project would not include any changes that would significantly affect the 100-year flood water surface elevations. Radio Tower Pond is tidally influenced and is connected to the San Francisco Bay by a culvert, while flooding in the FEMA designated coastal floodplain is caused by tidal influence and storm surges. Therefore, the proposed project area will have minimal or negligible flooding effect. Furthermore, as discussed in Section 2.2.1, Hydrology and Floodplain of the DED, the proposed project is required to prevent flooding from surface runoff from the design storm as defined by the Highway Design Manual (Caltrans 2020). To meet this requirement, the proposed drainage system would be designed to capture and convey stormwater runoff from the design storm in the project area. The drainage improvements and construction

of a new outfall, in conjunction with application of standard Caltrans stormwater BMPs, would minimize stormwater impacts due to surface runoff and/or sea level rise.

#### **Master Response #4 (Bicycle-Pedestrian Concerns)**

Commenters expressed concerns about potential roadway widening in the project area and increased traffic volumes on Shellmound Street, and suggested that the proposed project would thereby increase VMT and associated greenhouse gas emissions. They requested that the Build Alternative be revised to include a new protected bicycle facility on Shellmound Street between 65th Street and Aquatic Park and better connections to other existing bicycle and pedestrian trail networks in the Cities of Emeryville and Berkeley. These concerns are addressed together below to provide as complete and cohesive a response as possible.

As described in Section 1.5.1, Proposed Build Alternative of the DED, the Build Alternative would not widen or otherwise increase capacity on the I-80 mainline or on local roadways approaching the interchange. Rather, the existing overcrossing structures would be demolished and replaced with a tight diamond interchange. Given that there are no capacity improvements proposed to the freeway or the local roads approaching/departing the interchange and the conversion of free-flowing ramps to signal controlled ramp intersections, the Build Alternative is not anticipated to increase vehicle capacity or VMT. Rather, the Build Alternative is anticipated to have a net benefit on air quality and Green House Gas reduction as it would encourage mode shift from automobile to bicycle and pedestrian travel per State's guidance on SB-743 and Caltrans policy of Complete Streets measures. This will also alleviate local traffic congestion, result in less truck traffic diverting onto the surrounding street network, and slightly reduce VMT. Furthermore, the proposed project was brought before the San Francisco Bay Area Air Quality Conformity Task Force, who determined that it was not a project of air quality concern (POAQC) on July 30, 2020.

Traffic on Shellmound Street would increase as a result of the new offramps shown in Figure 1.5-1 of the DED and traffic on other streets would decrease correspondingly such that there would be no net increase in VMT. Furthermore, additional automobile traffic on Shellmound Street would not impede operation of the existing bicycle facilities on Shellmound Street. Access to Aquatic Park will not be altered, either during construction or operation of the Build Alternative.

As documented in Section 4.1.1, Public Participation of the DED, the request for additional bicycle/pedestrian facilities including a new protected bicycle facility on Shellmound Street was also raised during the bicycle/pedestrian working group meetings held between February 2019 and October 2020. The project team agreed that additional improvements to bicycle facilities on Shellmound Street and other areas

surrounding the interchange are desirable and necessary based on existing safety and accessibility concerns, and explored several options for incorporating such connections. However, the team ultimately decided that the best way to realize these connections was through implementation of separate projects consistent with the general plans and active transportation plans of the Cities of Emeryville and Berkeley. In particular, there are plans for low-stress bicycle/pedestrian facilities on Shellmound Street and 65<sup>th</sup> Street which will be developed as capital improvement projects and analyzed as part of a separate project-level environmental review. Both cities will continue to evaluate options to integrate the Build Alternative with the regional bicycle and pedestrian trail network.

Alameda CTC is working closely with funding partners to secure federal, state, regional and other local funds to close the funding gap, required for project construction. It should be noted that existing funding for this project was approved by Alameda County voters in 2014 as part of Measure BB. Measure BB funds are dedicated to this project and would not be available to other bicycle/pedestrian improvement projects if this project were not to move forward.



January 24, 2022

Wahida Rashid  
Caltrans, District 4  
Office of Environmental Analysis  
P. O. Box 23660, MS: 8B  
Oakland, CA 94623

Re: Notice of Availability of an Initial Study with Proposed Mitigated Negative Declaration for the Interstate 80 / Ashby Avenue Interchange Improvement Project, Berkeley and Emeryville

Dear Ms. Rashid:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Mitigated Negative Declaration for the interchange and local road improvements located along Interstate 80 at the Ashby Avenue Interchange in the Cities of Berkeley and Emeryville. EBMUD has the following comments.

**WATER SERVICE**

Comment:  
A-1.1

Within the proposed project limits, EBMUD owns and operates a 4-inch and 6-inch water main in Ashby Avenue, an 8-inch and 12-inch main in 65th Street, and an 8-inch main in Potter Street and Bay Street. In addition, EBMUD owns and operates distribution pipelines in EBMUD rights-of-way (R/W 816, R/W 817) in La Costa Street and a 12-inch main that traverses Interstate 80 between 59th Street and Access Road. These pipelines provide continuous service to EBMUD's customers in the area. Any proposed construction activity in these streets and rights-of-ways would need to be coordinated with EBMUD so that the integrity of these water mains is maintained at all times. Any proposed construction activity in EBMUD rights-of-ways would be subject to the terms and conditions determined by EBMUD including relocation of the water mains and/or rights-of-way at the project sponsor's expense.

Comment:  
A-1.2

EBMUD's Standard Site Assessment Report and the project's Mitigated Negative Declaration indicate the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known

375 ELEVENTH STREET • OAKLAND, CA 94607-4240 • TOLL FREE 1-866-40-EBMUD

Wahida Rashid  
 January 24, 2022  
 Page 2

**Comment:**  
 A-1.2 Cont. information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater.

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation, or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

**WASTEWATER SERVICE**

**Comment:**  
 A-1.3 While no permanent wastewater flows are expected from this project, EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate any temporary construction-related wastewater flows from the project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance.

As stated in the Mitigated Negative Declaration, EBMUD owns and operates a 66-inch sanitary sewer pipeline in EBMUD rights-of-way (R/W 810) adjacent to Interstate 80, which provides continuous service to EBMUD customers in the area and traverse the proposed project. The integrity of this pipeline and access for maintenance must be maintained at all times. Any proposed construction activity in EBMUD rights-of-way would be subject to the terms and conditions determined by EBMUD. Relocation or modification of the sanitary sewer pipelines within the project area and/or rights-of-way would be at the project owner's expense.

**WATER RECYCLING**

**Comment:**  
 A-1.4 EBMUD's Policy 9.05 requires that customers use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish, and wildlife to offset demand on EBMUD's limited potable water supply. The proposed project is within the boundaries of EBMUD's East Bayshore Recycled Water Project and has a potential for significant recycled water demand. The nearest existing recycled water main within the project vicinity that the project can connect to terminates at 65th Street and Christie Avenue. EBMUD requests all plumbing for recycled water use to be planned, designed, and installed to accept recycled water for all landscape irrigation needs. The applicant would be responsible for installation and associated costs of all recycled water main

Wahida Rashid  
January 24, 2022  
Page 3

Comment:  
A-1.4 Cont.

extensions to and within the proposed project site per EBMUD current regulations and requirements. Engineering and installation of recycled water mains and services require substantial lead time, which should be accounted for in the project sponsor's development schedule. EBMUD also requests that an estimate of expected water irrigation demand be provided.

EBMUD's Recycled Water Master Plan identifies additional recycled water pipelines within and adjacent to the interchange area that are part of EBMUD's future expansion plans in the region. EBMUD would like the project sponsors to consider the opportunity for a joint cooperative effort and a cost sharing agreement with EBMUD to coordinate and construct this recycled water infrastructure which would potentially save all parties a significant initial cost and reduce the need for any future excavation and disruption of the new roads and structures after the project's completion.

The applicant should coordinate closely with EBMUD regarding specifications and infrastructure requirements for the recycled water system. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing recycled water service to the proposed project.

#### WATER CONSERVATION

Comment:  
A-1.5

The project presents an opportunity to incorporate water conservation measures. EBMUD requests that the lead agency includes in its conditions of approval a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,



David J. Rehnstrom  
Manager of Water Distribution Planning

DJR:KTL:grd  
sb21\_346.1-80 & Ashby Ave Interchange Improvement project MND Response.doc

cc: Kanda Raj

### **Response to Comment Letter A-1: East Bay Municipal Utilities District**

A-1.1 Caltrans is aware of EBMUD's existing water mains within the project area and will coordinate closely with EBMUD during final design, during which construction plans and schedule will be finalized.

A-1.2 Thank you for your comment. Caltrans is aware of EBMUD's requirements and they will be recorded as part of the Environmental Commitment Record and enforced during project construction. Additionally, Caltrans will continue to coordinate with EBMUD throughout the final design process.

A-1.3 Thank you for your comment. Caltrans is aware of EBMUD's requirements and they will be recorded as part of the Environmental Commitment Record and enforced during project construction. Additionally, Caltrans will continue to coordinate with EBMUD throughout the final design process.

A-1.4 Caltrans is aware of the EBUMD specifications and infrastructure requirements for the recycled water system. The proposed project would include plans to replace the existing uncharged 10" reclaimed line within the interchange. All design will be performed per EBMUD standards. Other agency capital asset projects are typically not constructed by project sponsors within the highway system. No cost share has been planned or anticipated with any utility providers within the project footprint. However, Caltrans will continue to coordinate with EBUMD regarding specifications and infrastructure requirements throughout the final design process.

A-1.5 Thank you for your comment. Caltrans is aware of the opportunity to incorporate conservation measures and will take into account all required conservation and landscape ordinances and measures while designing highway planting and irrigation system at this interchange. Additionally, Caltrans will continue to coordinate with EBMUD throughout the final design process.



San Francisco Bay Regional Water Quality Control Board

Sent via electronic mail: No hard copy to follow

January 31, 2022

California Department of Transportation  
Attn: Wahida Rashid  
Office of Environmental Analysis  
111 Grand Ave.  
Oakland, CA 94612

**Subject: Comments on the Interstate 80/Ashby Avenue (Route 13) Interchange Improvement Project – Draft Environmental Impact Report/Environmental Assessment**

Dear Ms. Rashid:

Comment:  
A-2.1

Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Assessment (DEIR) for the proposed Interstate 80/Ashby Avenue Interchange Improvement Project (Project) in the cities of Emeryville and Berkeley in Alameda County. The Project is proposed by the California Department of Transportation (Department) to improve vehicle circulation at the interchange and bicycle and pedestrian access to the Bay.

As directed by 14 CCR §15096, the Water Board is a Responsible Agency under the California Environmental Quality Act (CEQA) that must determine the adequacy of CEQA analysis. We therefore offer the following comments on the DEIR. These comments are meant to advise the Department and its partners of our policies and requirements, so they may be incorporated into the environmental documentation and design processes, and facilitate Water Board review and permitting.

**Potential Impacts to Aquatic Resources**

Comment:  
A-2.2

As stated in the DEIR, the Project will result in the placement of permanent and temporary fill material within jurisdictional waters, wetlands, and riparian habitat. Both a Clean Water Act (CWA) Section 401 water quality certification and a CWA Section 404 Permit from the U.S. Army Corps of Engineers are necessary for projects involving discharge of fill to waters of the U.S. Additionally, the Department may need to file a Report of Waste Discharge if the project may result in a discharge of waste to waters of

JIM McGRATH, CHAIR | MICHAEL MONTGOMERY, EXECUTIVE OFFICER

1515 Clay St., Suite 1400, Oakland, CA 94612 | [www.waterboards.ca.gov/sanfranciscobay](http://www.waterboards.ca.gov/sanfranciscobay)



Comment  
A-2.2  
Cont.

the State. The Water Board adopted U.S. EPA's Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams, or other waters of the State may be permitted.

Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States if there is a less environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the U.S. and that would achieve the basic project purpose.

The Guidelines sequence the order in which proposals shall be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and 3) Mitigate - once impacts have been fully minimized, compensate for unavoidable impacts to waters. Disturbance should be minimized when it is not possible to avoid impacts to water bodies. Mitigation for lost water body acreage, length, and functions through restoration or creation should only be considered after disturbance has been minimized. The creation, restoration, enhancement of adequate mitigation habitat to compensate for the loss of water body acreage and linear feet, and functions and values must be provided for any anticipated adverse impacts.

After the Department has demonstrated full avoidance and minimization of impacts to jurisdictional waters, all individual and cumulative impacts to jurisdictional waters or wetlands associated with the project must be mitigated. Mitigation is preferably in-kind and on-site, with no net destruction of habitat value. A proportionately greater amount of mitigation is required for projects that are out-of-kind and/or off-site. Mitigation should be completed prior to, or at least simultaneous to, the filling or other loss of existing waters or wetlands.

**Post Construction Stormwater Treatment and Trash Controls**

Comment:  
A-2.3

DEIR Table 2.2-1 notes that the Build Alternative would result in approximately 13.37 acres of new impervious area and 7.39 acres of replaced impervious area. Stormwater runoff from impervious areas may contain hydrocarbons, metals, volatile organic compounds, trash, sediment, and other pollutants that may significantly impacts water quality. Added impervious areas may result in alterations to existing hydrologic regimes, resulting in erosion and/or changes of sediment transport in receiving waters (hydromodification).

As required by Caltrans' Statewide Stormwater NPDES Permit provision E.2.d.2, the Department shall implement Low Impact Development (LID)-based stormwater treatment controls for all new development and/or redevelopment projects. Also, in order to obtain 401 water quality certification or waste discharge requirements from the Water Board, the Department will be required to provide stormwater treatment and hydromodification mitigation on-site, or if impracticable on-site, at an off-site location that treats an equivalent area of impervious surface with similar pollutant loading to the Project site. The total post-construction stormwater treatment requirement includes all

new and reworked impervious surface area associated with project activities, which appears to be 20.76 acres, or the total of new (13.37 acres) and replaced (7.39 acres) impervious surface identified in the DEIR. The DEIR notes *net* new impervious acreage of 5.98 acres, but this acreage should not be considered as the stormwater treatment requirement for this project because it is not consistent with Permit requirements to address new and reworked impervious surface. The Department is also required to characterize the extent project implementation will result in hydromodification impacts and propose mitigation for any significant impacts. These may be limited given the project's vicinity to the tidal zone.

Comment:  
A-2.4

The Project must also install trash controls to control trash from any significant trash generating areas within the Project limits, as required by Cease and Desist Order No. R2-2019-0007, issued to the Department on February 13, 2019. Current Department trash generation rate mapping shows I-80 and the Ashby interchange in the Project area to be a significant trash generating area. While the DEIR notes multiple trash capture devices will be installed, it but does not show the areas that will be controlled for trash. Structural trash controls must be installed within the Project's proposed storm drain system and/or stormwater treatment BMPs to the extent practicable to prevent trash from discharging to San Francisco Bay or other receiving waters through existing or proposed storm drain outfalls.

The interchange historically has been the site of encampments of residents experiencing unsheltered homelessness, which can result in discharges of trash and sewage to the storm drain and the Bay. The Project design should consider the future needs of those populations as well as measures to protect water quality near encampments, such as providing sanitary services, clean water, and trash collection, and coordinating, as appropriate, with the adjacent municipalities and the Alameda County Public Health Department.

Comment:  
A-2.5

The DEIR notes that a new storm drain outfall would be constructed south of Point Emery to replace the existing storm drain outfall north of Point Emery that is buried by sediment. The DEIR also notes that a number of storm drain inlets within the interchange are below the elevation of projected sea level rise in 2066 (40 years beyond expected construction completion). The Department should evaluate the long-term risk to the proposed storm drain system, stormwater treatment BMPs, and outfalls as it relates to projected sea level rise so that appropriate design measures are incorporated to ensure the storm drain system and stormwater treatment BMPs operate effectively under anticipated sea level rise scenarios. This may include considering the incorporation of pump stations, which could also provide additional flexibility in the project's post-construction stormwater BMP design.

**Closing**

Comment  
A-2.6

We look forward to working collaboratively with the Department and the Project's partners at an early stage to ensure avoidance and minimization measures are considered and stormwater and trash controls are appropriately assessed, designed, and implemented with the Project. We are available to meet to discuss the above

Wahida Rashid, Caltrans


- 4 -

January 31, 2022

Comment  
A-2.6  
Cont.

comments. If you have questions or would like to meet to discuss our comments, please contact Qi Yan of my staff at [qi.yan@waterboards.ca.gov](mailto:qi.yan@waterboards.ca.gov).

Sincerely,

  
Digitally signed by  
Keith H. Lichten  
Date: 2022.01.31  
09:55:53 -08'00'

Keith H. Lichten, Chief  
Watershed Management Division

cc: Caltrans:

Hardeep Takhar, [hardeep.s.takhar@dot.ca.gov](mailto:hardeep.s.takhar@dot.ca.gov)

Cyrus Vaifai, [cyrus.vafai@dot.ca.gov](mailto:cyrus.vafai@dot.ca.gov)

## **Response to Comment Letter A-2: San Francisco Bay Regional Water Quality Board**

A-2.1 Thank you for providing comments on the DED. Your comment letter has been recorded as part of the administrative record.

A-2.2 Caltrans is aware of the Section 401 and 404 Permit requirements and the proposed project has been designed with these requirements in mind. As discussed in Section 2.2.2, Water Quality and Storm Water Runoff avoidance and minimization measures AMM WQ-1 through AMM WQ-5 will be employed to minimize impacts to aquatic resources. Additionally, compensatory mitigation measure BIO-1 will be implemented to compensate for fill within the San Francisco Bay associated with the new outfall. Caltrans will continue to coordinate with the San Francisco Regional Water Quality Control Board throughout the final design process and will obtain Section 401 and 404 permits prior to construction.

A-2.3 As discussed in Section 2.2.2, Water Quality and Storm Water Runoff of the DED, the proposed project has been designed in accordance with Caltrans' MS4 permit, MRP, CGP and other regulatory requirements. Caltrans will continue to coordinate with the San Francisco Regional Water Quality Control Board throughout the final design process and will obtain Section 401 and 404 permits prior to construction.

A-2.4 As discussed in Section 2.2.2, as part of the proposed project, a separation device (i.e., a filter that separates sediment, debris, and trash from stormwater runoff) would be installed underground along the southwest quadrant of the interchange to separate trash, mercury, and PCBs within the project limits; and five full trash capture trash nets (that are affixed to pipe outlets) are proposed. As described in the SWDR, during the design phase, gross solid removal devices (GSRDs) would also be considered for centralized trash capture. Separation devices and trash inserts would be used within local ROWs. These BMPs are included as a standard preventative measure to ensure that increases in trash and litter would not negatively affect receiving waters. For further discussion of Caltrans' coordination with unsheltered residents, please refer to **Master Response #2**.

A-2.5 Caltrans is currently evaluating the addition of a tidal flap gate or a duck bill valve at the proposed new outfall structure to prevent backwater from the San Francisco Bay into the drainage system under future sea level rise conditions. Caltrans, in collaboration with local and regional stakeholders, including BCDC and others, is also developing local and regional responses to sea-level rise impacts. Such responses are being developed concurrently with, but separately from, the proposed project.

A-2.6 Thank you for providing comments on this draft environmental document. Your comment letter has been recorded as part of the administrative record.



City of Emeryville

INCORPORATED 1896

1333 Park Avenue, Emeryville, CA 94608-3517  
t (510) 596-4300 | f (510) 596-4389

January 21, 2022

VIA FIRST CLASS MAIL AND EMAIL ([comments@I80Ashby.com](mailto:comments@I80Ashby.com))

Dina A. El-Tawansy  
District 4 Director  
California Department of Transportation  
111 Grand Avenue  
Oakland, CA 94612

Wahida Rashid  
Office of Environmental Analysis  
California Department of Transportation, District 4 (Caltrans)  
P.O. Box 23660, MS 8B  
Oakland, CA 94623

Re: Interstate 80/Ashby Avenue (Route 13) Interchange Improvement Project  
("Project")

Dear I-80/Ashby Project team:

Comment:  
C-1.1

Congratulations on reaching this milestone stage of the Project. The Project has been included in City of Emeryville ("City") planning documents for many decades now, and we are excited to see this Project come to fruition. The City appreciates how the Project team has been engaging with the general public, City staff, and the bicycle and pedestrian advocacy groups during the project development and scoping throughout the current PA&ED phase.

The City will continue to work closely with and support Caltrans, Alameda CTC, and other stakeholders, in getting the Project to the finish line while also accommodating our local community/stakeholder needs.

The City is in full support of the Project's purpose, needs, expected outcomes, and expected benefits. We are also in support of the Mitigated Negative Declaration (MND) for the Project, its reasoning for the determination, and the Project team's use of avoidance and minimization measures.

The City Council of the City of Emeryville has the following comments to the Draft Environmental Document ("DED") for the Project:

**1. MND for the project (Page 6 of DED)**

The City is in support of the MND, reasoning for the determination, and use of avoidance and minimization measures. As part of the avoidance and minimization measures it's critical that thorough messaging and outreach efforts to the resident and business community are conducted. The City is also interested in creative ways that temporary bike and pedestrian detours could become leveraged into permanent facilities.

Comment:  
C-1.2

Comment:  
C-1.3

**2. Purpose of the proposed project (Pages 15-16 of DED)**

Revise the purpose bullet point as follows: "Provide safe bicycle and pedestrian connectivity across I-80 and Frontage Road to the Bay Trail"

Comment:  
C-1.4

**3. Regarding the Build / No-Build Alternative (Page 16 of DED)**

The City is in support of the "Build Alternative". The "No Build Alternative" is not consistent with the City of Emeryville General Plan, or ACTC regional goods and movement plans. The "No Build Alternative" would continue the lack of pedestrian and bike access from Shellmound to the Bay Trail.

Comment:  
C-1.5

**4. S-3 Parks and Rec Facilities (Page 17 of DED)**

Employ all practical measures to limit closure of Point Emery and Aquatic to vehicular access. Ensure bike and pedestrian access are available at all times.

Comment:  
C-1.6

**5. S-5 Traffic and Transportation/Pedestrian and Bicycle Facilities (Page 19 of DED)**

Bike and pedestrian diversions employed in traffic control plans shall not cause a significant or burdensome increase in travel distance.

Comment:  
C-1.7

**6. AMM VIS 1 Visual/Aesthetics (Page 19 of DED)**

Regarding: "The final design will include measures to discourage creation of encampments"  
The project should follow appropriate policies and regulations concerning unhoused residents during the course of Project construction. Furthermore, during the June 15, 2021 Council study session the majority of Council members did not support a portal design option for the western conform of the Project due to safety associated with that design.

Comment:  
C-1.8

**7. S-9 Air Quality (2.2.8) (Page 23 of DED)**

Consider including the impacts of a shift towards bike and pedestrian modes in the statement about air quality.

Comment:  
C-1.9

**8. Noise (Page 24 of DED)**

Comment: C-1.10 | During the construction phase of the project that the activities shall be complaint with the City of Emeryville Noise Ordinance, with particular sensitivity to the residents of 6701 Shellmound Avenue.

**9. S-10 Energy (2.2.8) (Page 24 of DED)**

Comment: C-1.11 | Consider the benefits of a mode shift to pedestrian and bicycle travel in the statement about energy consumption

**10. BIO-1 (Page 24 of DED)**

Comment: C-1.12 | As part of reducing the overall carbon footprint of the project, to help the livability of the community surrounding the site, and to help the natural habitat of migratory birds that lack a tree canopy, please consider a tree removal/replacement ratio of 1:4.

**11. TOAR summary (Pages 30-31 of DED)**

Comment: C-1.13 | Ensure the project is consistent and conforms with the latest plans from the Emeryville Rail Safety/Quiet Zone project in the existing conditions and lane configuration analyses.

**12. Interchange Build Alternative (Page 43 of DED)**

Comment: C-1.14 | Please add a crosswalk to the Bay Street/Shellmound on-ramp.

**13. BPOC build alternatives (Page 48 of DED)**

Comment: C-1.15 | In 2021, the Emeryville Transportation Committee and City Council supported the basket handle design since it mimicked the design of the recently opened South Bayfront Pedestrian Bridge. No discussions have yet taken place regarding maintenance responsibility for the various design alternatives. Maintenance remains an important concern of the City and needs to be weighed heavily as part of the design selection process.

**14. Temporary Construction and Phasing (Pages 50-55 of DED)**

Comment: C-1.16 | The City Council, Emeryville Transportation Committee, Bike and Pedestrian Stakeholders, and City staff request that the bike/ped bridge is scheduled to an early phase of construction. This would facilitate bike and pedestrian detours needed during the course of construction for the interchange and provide critical access where there is currently none.

**15. Construction Impacts and Design Variances:**

Staff requested that the ACTC project team provide a summary of construction impacts and design variances. The following response was received:

“Construction of the proposed Ashby Ave. interchange and bicycle/pedestrian overcrossing (BPOC) structure will require temporary night-time and weekend closures of I-80 during false work erection, temporary ramp closures, and temporary mainline traffic shifts onto the shoulders. Traffic detours are anticipated during these closure periods to direct motorists to the nearest interchanges at Powell Street and University Avenue. The realignment and reconstruction of West Frontage Road will also require temporary closure of West Frontage Road between University Ave. and Powell St. Efforts will be made to maintain existing connections and provide detours where possible during construction to minimize impacts to traffic.

Comment:  
C-1.17

Implementation of the new Bay Street connector and realigned West Frontage Road will require design variances related to non-standard intersection spacing with local intersections. The on-ramp lane drop tapers are also nonstandard to maximize queue storage capacity. Enhanced lighting, advanced warning signage, and enhanced thermoplastic striping will be implemented to offset the effect of these nonstandard features.”

The City is in support of the temporary construction detours needed to construct the Project. We ask that the Project team move the bike/ped bridge construction to an early phase of construction to help facilitate bike and pedestrian detours needed during the course of construction for the interchange and provide critical access where there is currently none.

The City also supports the reasoning behind requiring design variances and the additional treatments selected to be used in the nonstandard design areas.

16. **Transportation Committee comments from January 12, 2022 Meeting:**
  - a. **Connection of Bicycle/Pedestrian Overcrossing to the Point Emery/Bay Trail**



Comment: C-1.18 | On page 45 the report states: "Crossing West Frontage Road to these facilities would be accomplished at the at-grade crosswalk aligning with the Point Emery parking lot, or at a below-grade crossing under West Frontage Road just east of the T-intersection". The Emeryville City Council supports an at grade crosswalk with safety features such as a hawk signal, raised crosswalk, and speed mitigation. The Council opposes the construction of a below grade crossing. A below grade crossing would present challenges such as flooding, maintenance costs, and safety concerns. Pedestrians prefer at grade crossings and will go out of their way to avoid underpasses:

<https://www.sciencedirect.com/science/article/pii/S1369847816303369>

We support this project creating a complete, usable bike and pedestrian crossing to the bay trail, and an at-grade crossing with safety infrastructure. It is still preferred, if feasible, to have the BPOC land on the west side of Frontage Road creating a zero-conflict connection.

**b. Livability of Nearby Housing Units**

Comment: C-1.19 | Consider a sound wall or noise barriers to be included in the project along the parcel edges of the 6701 Shellmound Street development.

**c. Tight-Diamond Configuration (EB I-80 exit at Shellmound)**

Comment: C-1.20 | Consider alternative alignment of the EB I-80 exit's connection at Shellmound Street. Current design has a horizontal curve that has been designed in way that would support high-speed turns of vehicles as they drive towards Shellmound Street. Consider a design that has two 90-degree turns to connect to Shellmound Street, which will slow down vehicle turning speeds and encourage full stops. Tighter intersections and smaller curb radii should be used to reduce the crossing distances of any crosswalks on this connector and anywhere else in the new interchange.

**d. Complete Streets Infrastructure on Shellmound/Bay Street to Aquatic Park**

Comment:  
C-1.21

There is inadequate bicycle/pedestrian infrastructure to connect people on Shellmound Street/Bay Street to Aquatic Park. This connection is a gateway to the northside of our Emeryville Community. Caltrans' recently revamped complete streets approach should be applied to this project. Please add additional complete streets infrastructure on Shellmound Street and Bay Street to help support the connection to and from Aquatic Park.

In conclusion, the City of Emeryville is in full support of the Project's purpose, needs, expected outcomes, and expected benefits. The City also supports the MND for the Project, the reasoning for the determination, and the Project team's use of avoidance and minimization measures. We look forward to receiving Caltrans' response to this comment letter and to continuing to work with the agency on this and many other projects in and around Emeryville.

Very Truly Yours,



John Bauters  
Mayor of the City of Emeryville

**cc: via email only**

- Emeryville Mayor John Bauters, Vice Mayor Ally Medina, and City Council Members Courtney Welch, Dianne Martinez, and Scott Donahue
- Emeryville City Attorney Andrea Visveshwara
- Emeryville Transportation Management Association Director Roni Hatrup
- Alameda-Contra Costa County Transit General Manager Michael Hursh
- City of Berkeley Mayor Jesse Arreguin, City Manager Dee Williams-Ridley and Public Works Director Liam Garland
- Alameda County Transportation Commission Executive Director Tess Lengyel
- Metropolitan Transportation Commission Executive Director Therese McMillian
- Bay Area Air Quality Management District Executive Gregory Nudd
- Bike East Bay Advocacy Director Dave Campbell
- California Air Resource Board Executive Officer Richard Corey
- Alameda County Fire Department Chief Willie McDonald

**Response to Comment Letter C-1: City of Emeryville**

C-1.1 Thank you for providing comments on this draft environmental document. Your support for the proposed project, purpose and need, expected outcomes, benefits, MND, reasoning for the determination, and proposed avoidance and minimization measures has been recorded as part of the administrative record.

C-1.2 As noted in Section 2.1.5, Community Character and Cohesion of the DED a public outreach program will be implemented throughout the construction period to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.

C-1.3 As currently designed, temporary bicycle and pedestrian detours are anticipated to be returned to their existing conditions following construction of the proposed project. However, Caltrans will continue to coordinate with the City of Emeryville and evaluate options for future bicycle and pedestrian connections in the area. Such improvements would require separate environmental and design review and would not be considered part of this proposed project.

C-1.4 This sentence has been revised as suggested in Section 1.2, Purpose and Need.

C-1.5 The City's support of the Build Alternative and opposition to the No Build Alternative have been recorded as part of the administrative record. Please note that the stakeholders convened on May 2, 2022 and selected the Build Alternative as the preferred Project Alternative.

C-1.6 Construction of the project would not limit bicycle and pedestrian access to Point Emery. However, the West Frontage Road Closure would limit access to Point Emery via automobile and any waterborne vehicle launching at Point Emery during this temporary closure. Caltrans will coordinate with the project team during the final design phase to minimize temporary closure impacts to automobiles.

C-1.7 The preliminary detour plans shown in Figure 1.5-9, Figure 1.5-10, and Figure 1.5-11 are intended to cause the smallest feasible increase in travel distance for travelers. These preliminary plans are subject to change. Caltrans will continue to coordinate with the City of Emeryville and the City of Berkeley throughout the final design phase to ensure that all detour plans provide adequate and safe transportation routes.

C-1.8 Alameda CTC and Caltrans have established procedures in place to provide adequate notice prior to the start of construction activities for unsheltered encampments in the project area. Alameda CTC, Caltrans, the Cities of Berkeley and Emeryville will

continue to work with existing and potential unsheltered populations to address safety concerns.

Additionally, the project team has noted that the Council members opposition to a portal design option for the western conform of the Project for safety reasons. As described in Section 1.5.1, Proposed Build Alternative of the Draft Environmental Document (DED), the Build Alternative originally included two connection options between the bicycle pedestrian overcrossing and the San Francisco Bay Trail: either an at-grade crosswalk aligning with the Point Emery parking lot or a portal crossing underneath the realigned and elevated West Frontage Road. After thorough consideration of concerns regarding the portal crossing option, the stakeholders met on May 2, 2022, and have agreed to eliminate the portal crossing option. Instead, access between West Frontage Road and the San Francisco Bay Trail / Point Emery would be accomplished at the at-grade crosswalk aligning with the Point Emery parking lot. The portal option is no longer under consideration. Further details on the Preferred Alternative can be found in Section 1.5.4, Identification of a Preferred Alternative, in the Final Environmental Document (FED).

C-1.9 An Air Quality Report was prepared for the proposed project by Baseline Environmental Consultants (August 2020). This report relied on Vehicle Miles Traveled (VMT) calculations that factored in the shift towards bicycle and pedestrian modes of travel as a result of the proposed project. The findings of this report are summarized in Section 2.2.6, Air Quality, which already states that daily emissions of criteria air pollutants would generally decrease for the Build Alternative compared to the No Build Alternative.

C-1.10 As discussed in Section 3.2.13, the proposed project would comply with both the Emeryville and Berkeley Municipal Codes with regard to construction noise.

C-1.11 Energy-related benefits of a mode shift to bicycle and pedestrian travel are considered in Section 3.2.6, Energy, which states that the proposed project would increase alternative modes of transportation, thereby reducing direct energy consumption through bicycle and pedestrian infrastructure improvements.

C-1.12 Your suggestion regarding considering a 1:4 tree removal/ replacement ratio has been included in the administrative record. As described in Section 2.3.1, Natural Communities of the DED, Caltrans will require that removed or damaged trees be replaced at a 1:1 ratio with native trees, which will be irrigated for up to five years (Avoidance and Minimization Measure (AMM) BIO-1). A Caltrans-approved arborist will be retained to identify areas where tree pruning activities can occur rather than tree removal. The removed or damaged trees will be replaced within the Project area to the extent possible. Caltrans amenable to evaluation of a higher tree replacement ratio and will reach a decision during the design phase. Regarding impacts on migratory birds,

please refer to Section 2.3.4, Animal Species of the DED, for more information about project features, avoidance and minimization measures that address these impacts.

C-1.13 Caltrans is aware of the City's Rail Safety/Quiet Zone project. The I-80/Ashby Avenue Interchange Improvement Our understanding is that the City's plan includes a bike lane on the east side of Shellmound Avenue and that the City has conditioned the developer to include a bike facility on the west side of the street where the NADY site improvements are proposed. Project has been designed such that it will not preclude the implementation of any City projects along Shellmound Street.

C-1.14 Standard ADA compliant crosswalks and curb ramps would be included at both Bay Street and Shellmound Street connectors.

C-1.15 Caltrans recognizes the City's preference for the basket handle design, as well as the concerns regarding maintenance responsibilities. Taking into account the preferences of City of Emeryville, the stakeholders group, including the Caltrans Landscape unit and the Bike and Pedestrian advisory groups, has agreed on the basket handle design, which has the following advantages:

- The architectural style of the basket handle arch shares a similar visual language with the rest of the Pedestrian Overcrossings (POCs) with arch styles in the corridor.
- The vertical fence in the Basket Handle style will create a safer experience for the users on the POC compared to the fence of outstretching wings in the Butterfly arch style.

C-1.16 Caltrans recognizes the City's desire to have the bicycle/pedestrian overcrossing (BPOC) structure constructed as soon as possible to provide access across I-80 and facilitate construction-related detours. Caltrans will work with the design team to make sure that the BPOC is made available to the public as early as possible. Decisions regarding construction phasing will be made during the final design phase.

C-1.17 The City's support for the temporary construction detours, design variances, and additional treatments to be used in the nonstandard design areas has been recorded as part of the administrative record. Caltrans also recognizes the City's desire to have the BPOC structure constructed as soon as possible to provide access across I-80 and facilitate construction-related detours. Caltrans will work with the design team to make sure that the BPOC is made available to the public as early as possible. Decisions regarding construction phasing will be made during the final design phase.

C-1.18 Options to have the BPOC land on the west side were considered during the current phase and found not feasible. However, further analysis/studies will be considered during the final design phase in consultation with all stakeholders.

C-1.19 A Noise Study Report to analyze noise impacts of the proposed project on surrounding land uses (December 2020). The results of this analysis are summarized in Section 2.2.7, Noise and Vibration, of the DED. As shown in Table 2.2-10, 2045 sound levels at the 6701 Shellmound Street residential development are anticipated to reach a maximum of 62 Leq dBA and no noise abatement was deemed necessary. Furthermore, Mitigation Measure NOI-4 of the 6701 Shellmound Street Project Environmental Impact Report (EIR) states that the residential units must be designed so that the residential and commercial spaces noise criteria are not exceeded. This can be accomplished through the use of sound-rated windows, exterior doors, and exterior walls. Therefore, no sound walls or noise barriers would be warranted per the federal and state guidelines for conducting a noise study.

C-1.20 Your suggestion regarding a different alignment at the eastbound I-80 exit connection at Shellmound Street has been recorded as part of the administrative record.

One of the primary purposes of the project is to enhance safe bicycle and pedestrian connectivity across I-80. To that end, Caltrans has selected the tight-diamond configuration, which is designed to restrict high speeds and promote safety. Additionally, the proposed Class I bicycle/pedestrian pathway and BPOC would provide a conflict-free way for bicyclists and pedestrians to cross over I-80. Given this safe and easily accessible option, it is not anticipated that many bicyclists or pedestrians would use the new vehicular bridge to cross I-80.

Currently, there is insufficient available right-of-way within the interchange to accommodate two 90-degree bends at the Ashby Avenue/Shellmound Street intersection. To make this suggestion possible, additional right-of-way would need to be acquired from the NADY site. Additionally, the 90-degree turn would make it infeasible for large vehicles to make the turns. However, the project team will continue to evaluate additional options to further reduce speeds on connectors within the interchange and increase safety for all modes of travel during the design phase.

C-1.21 Caltrans recognizes the City's desire for additional complete streets infrastructure on Shellmound Street, near the proposed project area. This request for a new protected bicycle facility on Shellmound Street was also raised during the bicycle/pedestrian working group meetings held between February 2019 and October 2020. During those meetings, the project team agreed that additional improvements to bicycle facilities on Shellmound Street and other areas surrounding the interchange are

desirable and necessary, and explored several options for incorporating such connections as part of the proposed project. However, the team ultimately decided that the best way to realize these connections was through implementation of separate projects consistent with the general plans and active transportation plans of the Cities of Emeryville and Berkeley. In particular, the City of Emeryville has plans for low-stress bicycle/pedestrian facilities on Shellmound Street and 65th Street which will be developed and analyzed as part of a separate project-level review. Caltrans will continue to coordinate with the City as they evaluate options to integrate the proposed project with the regional bicycle and pedestrian trail network.



Our mission is to plan, fund and deliver a broad spectrum of transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County.

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**From:** Javandel, Farid <FJavandel@cityofberkeley.info>  
**Sent:** Monday, January 31, 2022 4:16 PM  
**To:** Kanda Raj <kraj@alamedactc.org>; John Kenyon <john.kenyon@tylin.com>  
**Subject:** Comments from City of Berkeley staff will be late

**Comment:** C-2.1 | Our staff from Parks Recreation and Waterfront and our Engineering Sewers group are asking for another two weeks to review the document and submit their comments. I hope you can give them an informal extension to submit comments.

**Comment:** C-2.2 | I've been giving you my comments throughout the Preliminary Engineering process, so I have no comments at this time, though our Transportation Commission indicated that they would like to see clear low stress bikeway connections built between the POC and bike facilities on 65<sup>th</sup> and on

Shellmound.

Best Regards,  
Farid

Farid Javandel, PE, TE  
Deputy Director of Public Works  
City of Berkeley, Public Works, Transportation  
1947 Center Street, 4th Floor, Berkeley, CA 94704; 510-981-7061 (PH), 510-981-7060 (FX)  
*Safety | Mobility | Equity | Sustainability*



**Response to Comment Letter C-2: City of Berkeley**

C-2.1 In anticipation of the December/January holidays, the public review/comment period was extended from 30 days to 45 days. Caltrans elected not to extend the comment period further at the City's request in order to be fair to all commenters, who abided by the posted comment period of December 15, 2021 through January 31, 2022. However, Caltrans will continue to engage with the partnering agencies, including the City of Berkeley, throughout the final design process.

C-2.2 Caltrans recognizes the City's desire for additional complete streets infrastructure on Shellmound Street and 65th Street, near the proposed project area. The request for a new protected bicycle facility on Shellmound Street was also raised during the bicycle/pedestrian working group meetings held between February 2019 and October 2020. The project team agreed that additional improvements to bicycle facilities on Shellmound Street and other areas surrounding the interchange are desirable and necessary, and explored several options for incorporating such connections. However, the team ultimately decided that the best way to realize these connections was through implementation of separate projects consistent with the general plans and active transportation plans of the Cities of Emeryville and Berkeley. In particular, the City of Emeryville has plans for low-stress bicycle/pedestrian facilities on Shellmound Street and 65th Street which will be developed and analyzed as part of a separate project-level review. Caltrans will continue to coordinate with both cities on opportunities to integrate the proposed project with the regional bicycle and pedestrian trail network.



Caltrans, District 4  
 Office of Environmental Analysis  
 ATTN: Wahida Rashid  
 P.O. Box 23660, MS: 8B  
 Oakland, CA 94623-0660

Dear Ms. Rashid,

Comment:  
 C-3.1

As the representative of West Berkeley on the Berkeley City Council, I am excited for the long-planned improvements coming to the I-80/Ashby Avenue. For decades, pedestrians and cyclists have had limited access to the Berkeley waterfront between University Avenue and the Berkeley-Emeryville-Oakland border and I am happy to see that finally changing. While the construction of these improvements will necessarily disrupt the regular flow of traffic in West Berkeley and along the entire waterfront, I want to be sure that any changes and detours do not adversely impact West Berkeley residents, no matter how temporary those detours may be in effect.

Comment:  
 C-3.2

My primary concern relates to the proposed detour routes for I-80 traffic during the construction phase of the improvements. Of the three preliminary detour concepts included in the Draft Environmental Document, two of them would redirect I-80 traffic through West Berkeley commercial and residential areas along Sixth and Seventh Street. Such a diversion into my district raises serious safety concerns for the residents, workers, families, and West Berkeley business patrons who regularly walk, bike, and drive along these streets. Even without freeway-level traffic, Sixth Street is highlighted by Berkeley's Vision Zero Action Plan as a "High-Injury Street" where severe traffic injuries and fatalities have been most common in recent years. With such dangerous existing conditions, it stands to reason that choosing Sixth Street and Seventh Street as a detour route for this project will only worsen pedestrian and cyclist safety in this area.

Comment:  
 C-3.3

Should you move forward with the Sixth and Seventh Street detour options, there must be mitigation measures put in place to ensure that the necessary rerouting of I-80 does not result in the unnecessary deaths of my constituents. Traffic safety measures such as protected bike lanes, traffic lights, improved lighting, and other safety improvements must be explored, funded, and implemented by Caltrans for the duration of the detour period. While not completely alleviating

Comment:  
 C-3.4

my safety concerns, I believe an alternative detour through San Pablo Avenue is worth your consideration. As San Pablo Avenue is already accustomed to higher volumes of traffic than Sixth and Seventh Street, fewer safety mediation measures will be necessary. Key San Pablo Avenue intersections such as Ashby Avenue, University Avenue, Allston Way, and Dwight

Comment:  
C-3.4 | Avenue, which have proven to be dangerous in the past, would still require traffic safety  
Cont. | improvements should San Pablo Avenue be used as a detour route instead.

Comment:  
C-3.5 | I have immense gratitude for all of the time and attention your offices have dedicated to this  
project and would like to make my office available for any and all input necessary throughout  
this process. Thank you for taking my comments into consideration as you finalize the plans for  
these exciting improvements.

Sincerely,

Councilmember Terry Taplin  
Berkeley City Council – District 2  
Pronouns: he/him  
2180 Milvia St  
Berkeley, CA 94704  
(510) 981-7120

**Response to Comment Letter C-3: Councilmember Terry Taplin**

C-3.1 Thank you for providing comments on this draft environmental document. Your support for the proposed project has been recorded as part of the administrative record.

C-3.2 As noted in Section 1.5.1, Proposed Build Alternative, I-80 mainline closures would occur at night, which would minimize effects to adjacent residents. Additionally, all closures and detours will be advertised well in advance as part of the public information campaign. The suggestion to avoid 6th and 7th streets for detours has been added to the administrative record, and will be considered during final design.

C-3.3 As discussed in Section 2.1.9, Traffic and Transportation, PF-TRA-1 would be implemented to create a Traffic Management Plan (TMP). The TMP would require various safety measures to protect drivers and pedestrians. Decisions regarding detour routes, and the creation of the TMP will be made during the final design phase.

C-3.4 The City's suggestion of an alternative detour through San Pablo Avenue has been recorded as part of the administrative record. Caltrans also recognizes the City's desire for their preference of the San Pablo Avenue detour. Decisions regarding detour routes will be made during the final design phase in consultation with the City's representatives.

C-3.5 Thank you for providing comments on this draft environmental document. Your support for the proposed project has been recorded as part of the administrative record.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80Ashby Interchange Comments on IS Proposed Mitigated Neg Declaration  
**Date:** Thursday, April 7, 2022 1:29:40 PM

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**From:** Akagi, Daniel <[DAkagi@cityofberkeley.info](mailto:DAkagi@cityofberkeley.info)>  
**Sent:** Monday, January 31, 2022 4:59 PM  
**To:** [comments@i80ashby.com](mailto:comments@i80ashby.com)  
**Subject:** I-80Ashby Interchange Comments on IS Proposed Mitigated Neg Declaration

**EXTERNAL EMAIL.** Links/attachments may not be safe.

- Comment:** C-4.1 | 1. The description for the Proposed Build Alternative indicates dewatering will be needed (Page 1-23). Discharge of dewatering water to the City of Berkeley's sewer system is not allowed 36-hours before, during, and 36-hours after a rainfall event.
- Comment:** C-4.2 | 2. Please verify that there will be no post-construction or ongoing discharge of groundwater or rainfall related water to the sanitary sewer system.
- Comment:** C-4.3 | 3. Please address the stability of soils in the vicinity of City streets and facilities during dewatering operations.
- Comment:** C-4.4 | 4. The list provided in Table 2.1-5 Public Utility Providers Serving Emeryville and Berkeley for utility service providers within the study area does not include the City of Berkeley (stormwater drainage, sewer collection, solid waste collection and disposal services). The table needs to be updated, the services identified, and impacts assessed.
- Comment:** C-4.5 | 5. The report needs to identify the impacts of changing loadings on the pipelines connecting the Radio Tower Pond to the Bay, the Model Yacht Basin to the Bay, and Potter Street Storm Drain (see Figure 12B of the Aquatic Park Improvement Program Technical Report, March 2008, available on the City's website). These impacts derive from dewatering, surcharge in adding fill above these pipes, and removing fill above these pipes.

If you have comments or questions please contact me.

Daniel Akagi, Supervising Civil Engineer  
City of Berkeley  
Public Works, Engineering, Sewers  
1947 Center Street, 4<sup>th</sup> Floor  
Berkeley, CA 94704

Phone: 510-981-6394  
[dakagi@cityofberkeley.info](mailto:dakagi@cityofberkeley.info)

**Response to Comment Letter C-4: Daniel Akagi, City of Berkeley**

C-4.1 Caltrans is aware of the City's dewatering allowances. The I-80/Ashby Avenue Interchange Improvement Project has been designed such that the discharge of dewatering water will not be allowed 36-hours before, during, and 36-hours after a rainfall event.

C-4.2 The project will not discharge any groundwater or rainfall related water into City Sewer System post project construction. **Caltrans - please provide additional detail regarding ongoing discharge of rainfall related events.**

C-4.3 As Discussed in Section 2.2.2, Water Quality and Stormwater Runoff, there is a possibility of a loss of stability during dewatering activities associated with construction. PF WQ-1, Temporary Construction BMPs, and PF WQ-6, and compliance with Caltrans Standard Specifications and Field Guide to Construction Site Dewatering, would be required to minimize loss of stability for soils during dewatering activities.

C-4.4 Table 2.1-5 has been revised as suggested in Section 2.1.8, Utilities and Emergency Service.

C-4.5 Caltrans has reviewed the Aquatic Park Improvement Program Technical Report, and has confirmed the project/construction activities will not affect the loading on the existing pipes connecting to radio tower pond.

**From:** [Eric Jennings](mailto:Eric.Jennings@80ashby.com)  
**To:** [comments@80ashby.com](mailto:comments@80ashby.com)  
**Subject:** I-80/ASHBY AVE (SR-13) INTERCHANGE IMPROVEMENTS  
**Date:** Wednesday, December 22, 2021 1:21:14 PM

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**Comment:** NO UNDERPASS. It will cause more problems than it solves.  
I-1.1

Eric Jennings  
5760A Vicente St  
Oakland 94609

**Response to Comment Letter I-1: Eric Jennings**

- I-1.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).



**From:** [Joseph Morris](#)  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** Please made at grade crossing for bikes-peds on W Frontage Rd  
**Date:** Wednesday, December 22, 2021 2:16:37 PM

---

Hi ACTC,

**Comment:** I-2.1 Please make the crossing of W Frontage Road an at-grade crossing for bikes/peds with lots of signals rather than below grade. If below grade will be subject to flooding, will be occupied by unhoused, etc.

Joe Morris, zip code 94602

**Comment:** I-2.2 Also technical web note the link to "online comment form" on this page  
<https://www.alamedactc.org/programs-projects/highway-improvement/i-80-ashby-avenue-sr-13-interchange-improvements/>

has a certificate error and then, even if you accept that error, it just says "Error" again when you try to submit the web form

**Response to Comment Letter I-2: Joseph Morris**

- I-2.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).
- I-2.2 The technical issue was noted and addressed immediately following the release of DED, and prior to the virtual public open house meeting.

**From:** [Kevin Burke](#)  
**To:** [comments@80ashby.com](mailto:comments@80ashby.com)  
**Subject:** Oppose pedestrian underpass  
**Date:** Wednesday, December 22, 2021 2:24:15 PM

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Comment: I agree with Ally Medina that an underpass would be prone to flooding, poor lighting and be  
I-3.1 the most likely place for homeless residents to congregate when it rains. An at-grade crossing  
would be less expensive and a better option.

Kevin

**Response to Comment Letter I-3: Kevin Burke**

I-3.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal). Caltrans' approach to coordinating with unsheltered residents is discussed in **Master Response #2**.

**From:** [Phyllis Orrick](mailto:Phyllis.Orrick@caltrans.ca.gov)  
**To:** [comments@80ashby.com](mailto:comments@80ashby.com)  
**Cc:** [Currey\\_Greco@DOT](mailto:Currey_Greco@DOT); [John J. Bauters](mailto:John.J.Bauters@caltrans.ca.gov); [Rashi Kesarwani](mailto:Rashi.Kesarwani@caltrans.ca.gov); [amedina@emeryville.org](mailto:amedina@emeryville.org); [sergio.rui@dot.ca](mailto:sergio.rui@dot.ca); [ttapl@cityofberkeley.info](mailto:ttapl@cityofberkeley.info)  
**Subject:** No underpass at Ashby for pedestrians and bicyclists.  
**Date:** Wednesday, December 22, 2021 2:13:54 PM

Hello,

Comment:  
I-4.1

I saw the new environmental report for the proposed changes to the Ashby/I-80 interchange and wanted to emphasize the importance of replacing the RR underpass on Ashby and not using it for pedestrian and bicycle access. This facility floods easily and is a dark and threatening place to walk and bike in. Bicyclists in particular are vulnerable when they are navigating the steep grade to enter and exit.

As a member of the Caltrans D4 Pedestrian Advisory Committee, I would welcome hearing possible alternatives to this approach.

I'm contacting the PAC coordinator, as well as some electeds whose districts are affected. Here is a link to the newest D-4 pedestrian plan, as well. [https://www.caltrans.ca.gov/files/managed/Document/1149/Caltrans%20District%204%20Pedestrian%20Plan%20for%20the%20Bay%20Area%20\(final\).pdf](https://www.caltrans.ca.gov/files/managed/Document/1149/Caltrans%20District%204%20Pedestrian%20Plan%20for%20the%20Bay%20Area%20(final).pdf)

Thanks for your consideration.

Phyllis Orrick

Comment:  
I-4.2

PS when I tried to submit a comment via your comment form, this is the error message that I received in response.  
 1:39 PM Wed Dec 22

wordpress-462271-2315716.cloudwaysapps.com 30%

<b>Email</b>	<b>Phone Number</b>
Optional	Optional
<b>Mailing Address</b>	<b>Zip Code</b>
Optional	94702
<b>Comments</b>	
Please make sure the final project does NOT include an underpass for pedestrian and bikes. This would be flood prone and discouraging to non-motorized travelers. This would create more problems than it would solve.	
<b>Send</b>	
✘ error	

There are several ways to provide formal comments on the Draft Environmental Document:

- The comment card on this page
- Email us at [comments@80Ashby.com](mailto:comments@80Ashby.com)
- By phone at (510) 800-8924
- Send your comments through US Mail to:  
 Caltrans, District 4  
 Office of Environmental Analysis  
 ATTN: Wahida Rashid  
 P.O. Box 23660, MS: 8B

**Response to Comment Letter I-4: Phyllis Orrick**

- I-4.1 For concerns related to flooding within and near the existing interchange, including the UPRR underpass, please refer to **Master Response #3**.
- I-4.2 Thank you for bringing this technical issue to our attention. This problem was addressed prior to the virtual public open house on December 22, 2021.

Date Submitted	12/22/21
First and Last Name	Eric Jennings
Organization	
Email	kaos@pm.me
Phone Number	
Mailing Address	5760A Vicente St
Zip Code	94609
Comments	<p><b>Comment: I-5.1</b>   NO UNDERPASS. It will cause more problems than it solves.</p>

**Response to Comment Letter I-5: Eric Jennings**

- I-5.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).



Date Submitted	12/22/21
First and Last Name	Phyllis Orrick
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94702
Comments	<p>Comment: I-6.1 Please make sure the final project does NOT include an underpass for pedestrian and bikes. This would be flood prone and discouraging to non-motorized travelers. This would create more problems than it would solve.</p>

**Response to Comment Letter I-6: Phyllis Orrick**

- I-6.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).

Date Submitted	12/22/21
First and Last Name	Joseph Morris
Organization	
Email	bulk@xenotropic.net
Phone Number	
Mailing Address	
Zip Code	94602
Comments	<p>Comment: I-7.1</p> <p>Please make this an at-grade crossing for bikes/peds with lots of signals rather than below grade. If below grade will be subject to flooding, will be occupied by unhoused, etc.</p>

**Response to Comment Letter I-7: Joseph Morris**

- I-7.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).

Date Submitted	12/22/21
First and Last Name	Stephen Dalton
Organization	
Email	
Phone Number	
Mailing Address	1329 Henry st., #3D
Zip Code	94709
Comments	<p>Do not install a below-grade crossing. It will quickly be taken over by the homeless and rendered useless for its intended purpose. Also, it will flood, as it is close to sea level which is inching upwards every year due to climate change. Finally, even in the best circumstances, below-grade crossings are scary (burned out light bulbs are common), often reek of urine and do not entice people to access the outdoors. Installing a below grade crossing is a terrible idea.</p>
Comment: I-8.1	

**Response to Comment Letter I-8: Stephen Dalton**

- I-8.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).

Date Submitted	12/23/21
First and Last Name	Alexandra Medina
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p>Comment: I-9.1   Test to see if link works</p>

**Response to Comment Letter I9: Alexandra Medina**

I-9.1 Thank you for the comment. The project team noted a glitch on our website and fixed the issue right away on December 22, 2021.



Date Submitted	12/23/21
First and Last Name	Matthew Solomon
Organization	
Email	matthew.solomon1@gmail.com
Phone Number	(917) 513-8629
Mailing Address	5510 Doyle Street, Emeryville, CA
Zip Code	94608
Comments	<p>Comment: I-10.1</p> <p>It is such a shame that the bike infrastructure you're including ends in crossing underneath West Frontage road, in a crossing that is likely to be dark and dangerous-feeling. Is there no way to extend the bike/ped bridge to cross West Frontage Road, so that people on foot and bike do not need to interact with cars at all from when they leave LaCoste and 65th when they get to the Bay Trail? Having that option would dramatically increase safety and it's unlikely that cyclists would want to risk an unpleasant below-grade crossing, lessening the impact of the rest of the great bridge!</p>

**Response to Comment Letter I-10: Matthew Solomon**

I-10.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).

Date Submitted	12/24/21
First and Last Name	Samuel Maier
Organization	
Email	sjsm32@yahoo.com
Phone Number	(626) 487-8391
Mailing Address	1632 Alcatraz Ave Berkeley, CA
Zip Code	94703
Comments	<p>I understand that either an at-grade crosswalk or a below-grade crossing are being considered for pedestrian and bike crossing of W Frontage Rd at Point Emery. As a pedestrian and cyclist, I urge that an at-grade crosswalk be chosen. I worry that a below-grade crossing will be ill-maintained and unappealing, with frequent flooding and poor lighting. Instead, I advocate for an at-grade crosswalk at W Frontage Rd with strong safety measures taken so that pedestrians and cyclists can comfortably cross car traffic. Please consider including as many pedestrian and cyclist-friendly amenities as possible for this project. Thank you.</p>
Comment: I-11.1	

**Response to Comment Letter I-11: Samuel Maier**

I-11.1 After thorough consideration of public interest, the Project Development Team (PDT) has agreed to eliminate the portal crossing option. Please refer to **Master Response #1** for a further discussion of the bicycle pedestrian pathway (i.e., the portal).

Date Submitted	1/4/22
First and Last Name	Dave Campbell
Organization	
Email	dave@bikeeastbay.org
Phone Number	
Mailing Address	
Zip Code	
Comments	<p><b>Comment: 1-12.1</b>   Could I please get a copy of the transportation analysis done by Kittelson for this interchange project? Thank you.</p>

**Response to Comment Letter I-12: Dave Campbell**

I-12.1 The Traffic Operation Analysis Report (TOAR) was made available to Dave Campbell during the comment period. No further comments on the TOAR were received.

Date Submitted	1/6/22
First and Last Name	Jerry Yip
Organization	
Email	jerry.yip@gmail.com
Phone Number	(510) 648-7794
Mailing Address	1213 67TH ST.
Zip Code	94608
Comments Comment: I-13.1	As a long time resident of the area (11 years at City Limits condo complex on 67th street between San Pablo and Hollis), just wanted to say this project looks great and I hope it can be expedited and completed as soon as possible! Thanks!

**Response to Comment Letter I-13: Jerry Yip**

I-13.1 Thank you for your comment. Your support of the I-80/Ashby Avenue Interchange Improvements Project has been recorded as part of the public record.



Date Submitted	1/6/22
First and Last Name	Jerry Yip
Organization	
Email	jerry.yip@gmail.com
Phone Number	(510) 648-7794
Mailing Address	1213 67TH ST.
Zip Code	94608
Comments	<p>Comment: I-14.1</p> <p>As both a long time resident of the area (City Limits Condo Complex on 67th Street between San Pablo and Hollis) since 2010, and an avid bicyclist, I just wanted to say I think this project looks terrific! On behalf of my girlfriend, myself and my friends who also live in my condo complex and equally enjoy riding bikes, we've always wanted an easier way to access the Emeryville Marina and accompanying SF Bay Trail and this project is exactly what is needed! Kudos for what looks like a nice design! I hope this project can proceed quickly and complete as soon as possible. Thanks!!</p>

**Response to Comment Letter I-14: Jerry Yip**

I-14.1 Thank you for your comment. Your support of the I-80/Ashby Avenue Interchange Improvements Project has been recorded as part of the public record.

Date Submitted	1/10/22
First and Last Name	John Parr
Organization	
Email	jpoakland@gmail.com
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p>I received the mailer for the open house. We live on 67th street between Hollis and San Pablo - 2 blocks from Ashby street. I use the Ashby on / off ramp frequently and especially the side ramp that leads to Emeryville. I'm sure the "elephant in the room" will be a hot topic. I have addressed this with Berkeley and Emeryville and they have done their part to resolve this. Now, all of it is Cal Trans property!</p> <p>Do something about the homeless camps around the Ashby on / off ramp. It's a health hazard, environmental hazard and is no place for human beings to live. It's worse than a Mumbai slum! I used this off ramp just yesterday and had to swerve to avoid one of the "campers".</p> <p>I look forward to this open house.</p>

Comment:  
I-15.1

**Response to Comment Letter I-15: John Parr**

I-15.1 For a discussion of Caltrans' approach to coordinating with unsheltered residents, please refer to **Master Response #2**.

Date Submitted	1/10/22
First and Last Name	John Parr
Organization	
Email	jpoakland@gmail.com
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p>The first priority of this project is to eliminate Camp Off Ramp. I have to drive through this disaster every day. All of it is now on CalTrans property. when the Berkeley Offramp camp was FINALLY cleaned up, many moved to Ashby. It's an environmental hazard, health hazard and no place for human beings to live. It's worse than a Mumbai slum! For what it costs us to live in this area it is simply unbelievable that there is no solution to this. Most of the occupants are mentally ill and roam ours and all the other streets of the area 24/7 dragging shopping carts of more and more crap to this location. Most of it will ultimately end up in they bay. Do you want this in your neighborhood? I don't have a solution to the homeless problem but Camp Offramp is not it! The rest of the project will be a bonus and maybe, just maybe I will feel comfortable to walk to or ride my bike to the Bay Trail!</p>
Comment: I-16.1	

**Response to Comment Letter I-16: John Parr**

I-16.1 For a discussion of Caltrans' approach to coordinating with unsheltered residents, please refer to **Master Response #2**.

Date Submitted	1/11/22
First and Last Name	Denah Brookstein
Organization	
Email	denahsbookstein@gmail.com
Phone Number	
Mailing Address	
Zip Code	
Comments Comment: I-17.1	Are you going to FIX the flooding ?

**Response to Comment Letter I-17: Denah Brookstein**

I-17.1 For concerns related to flooding within and near the existing interchange, including the UPRR underpass, please refer to **Master Response #3**.



Date Submitted	1/11/22
First and Last Name	Beverly
Organization	
Email	
Phone Number	(510) 800-8924
Mailing Address	
Zip Code	94710
Comments	<p>first my name is Beverly do my zip code is 94710 and the most important thing I want to say is that we reach environmental because if we are not part of a broader environment BJ's and recognize that the world is round we will not be succeeding in in being included in including in the world around us to the best of our ability that is the consideration I wish to have made and to make as a contributing member at this meeting thank you</p>
Comment: I-18.1	

**Response to Comment Letter I-18: Beverley**

I-18.1 Thank you for your comment. Potential effects of the proposed project on the environment have been thoroughly analyzed as part of this Draft Initial Study (IS) and Mitigated Negative Declaration (MND)/Environmental Assessment (EA). Please refer to Chapters 2 and 3 for a full description of this analysis. As detailed in those Chapters, the proposed project would not have an adverse effect on the environment with implementation of the avoidance, minimization, and mitigation measures listed in Appendix C.

Date Submitted	
First and Last Name	Denah Brookstein
Organization	
Email	denahsbookstein@gmail.com
Phone Number	
Mailing Address	
Zip Code	
<p>Comments</p> <p>Comment: I-19.1</p> <p>Comment: I-19.2</p> <p>Comment: I-19.3</p>	<p>Will the bridge be raised to address the on-going problem of flooding under the Ashby St Ramp ?</p> <p>Will Caltrans ever begin to address the huge increase in pollution from the ever-increasing traffic, especially trucks, on I80/580 as it travels between Ashby and Gilman ?</p> <p>A green belt and/or walls are needed!!</p> <p>Thank you</p>

**Response to Comment Letter I-19: Denah Brookstein**

- I-19.1 For concerns related to flooding within and near the existing interchange, including the UPRR underpass, please refer to **Master Response #3**.
- I-19.2 Air pollution is a regional issue that requires cooperation between many different agencies and stakeholders to address. As discussed in Section 2.2.6, the Bay Area Air Quality Management District (BAAQMD) developed the 2017 Bay Area Clean Air Plan (2017 CAP) to establish regional strategies for reducing air pollutants such as ground-level ozone, reactive organic gases (ROG) and nitrous oxides, particulate matter, and key greenhouse gases (GHG). The proposed project would not increase capacity or otherwise interfere with the control measures described in the 2017 CAP. Rather, the Build Alternative would provide transportation benefits that reduce pollutant emissions, including ozone precursors, by improving traffic operations and efficiency and by providing bicycle and pedestrian amenities to promote active transportation.
- I-19.3 While the purpose of this proposed project is to improve safety and efficiency of the existing I-80/Ashby Avenue Interchange while providing additional bicycle and pedestrian connectivity to the San Francisco Bay Trail, the proposed project would not preclude separate efforts to implement parks and open space projects within open areas of the interchange. The Cities of Berkeley and Emeryville will continue to evaluate options for bringing more greenspace to this area. Such improvements would be analyzed under a separate environmental document. Sound walls were considered as part of the proposed project but ultimately dropped from consideration due to unreasonable cost. For a full discussion of sound walls refer to Section 2.2, Noise and Vibration, of the DED.

Date Submitted	1/11/22
First and Last Name	Denah Brookstein
Organization	
Email	denahsbookstein@gmail.com
Phone Number	
Mailing Address	
Zip Code	
<p>Comments</p> <p>Comment: I-20.1</p>	<p>Wouldn't it be important to ensure that pedestrians could SAFELY use the bridge !?!?!            What about Seniors and people using wheelchairs , etc.            We are not using bicycles !</p> <p>Thank you.</p>

**Response to Comment Letter I-20: Denah Brookstein**

I-20.1 Safety is a top priority for Caltrans on all projects, and especially on this proposed project. As discussed in Section 1.5, Project Alternatives, the Class I pathway, including the bike and pedestrian overcrossing (BPOC) structure, will be an ADA-compliant facility accessible by both bikes and pedestrians. The Class I pathway will include ADA compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure so that all users can safely use the crossing.

Date Submitted	1/13/22
First and Last Name	Howard Matis
Organization	BPAC Member
Email	hsmatis@gmail.com
Phone Number	
Mailing Address	6824 Sherwick Drive
Zip Code	94705
Comments	<p>The I-80/Ashby Avenue area is a highly used recreation area for bicyclists and pedestrians. I support making that area more friendly for their use. Currently, I need to drive my car over Highway 80 because it is currently too dangerous to cycle. I support these improvements and urge that they be approved. Furthermore, it is very important to connect this path to the Bay Bridge Bike and Pedestrian Trail. Currently, the path is much too congested. Caltrans should find a way to link these two trails. It would be very beneficial for these communities.</p>
Comment: I-21.1	

**Response to Comment Letter I-21: Howard Matis**

I-21.1 Thank you for your comment. Your support of the I-80/Ashby Avenue Interchange Improvements Project has been recorded as part of the public record.



Date Submitted	1/13/22
First and Last Name	John Scheuerman
Organization	Emeryville resident
Email	streetcars4us@gmail.com
Phone Number	(510) 612-2964
Mailing Address	6363 Christie Avenue Apt 3016
Zip Code	94608
Comments	<p>Comment: I-22.1</p> <p>I'm writing to voice my support for the hybrid design for the BPOC connection to the Bay Trail. There are some people that hate the portal. I love it. The beauty of the hybrid design is that it provides two good options. If people are uncomfortable with the portal, they can use the at grade crossing.</p>

**Response to Comment Letter I-22: John Scheuerman**

I-22.1 Thank you for your comment. Your support of the I-80/Ashby Avenue Interchange Improvements Project has been recorded as part of the public record.

Date Submitted	1/13/22
First and Last Name	Trey H
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94596
Comments	<p>Induced demand! Widening freeways does nothing to ease congestion and this has been proven time and time again. Increased miles driven and therefore CO2 emissions will not help the fight against climate change and this project won't decrease traffic after X amount of months/years. You know this, please don't do this.</p>
Comment: I-23.1	

**Response to Comment Letter I-23: Trey H**

I-23.1 Please refer to **Master Response #4** for clarifications regarding roadway widening.

Date Submitted	1/13/22
First and Last Name	Gregory Rozmarynowycz
Organization	
Email	thundercracker15@gmail.com
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p>It's really disturbing to see Caltrans trying to move forward with these projects that accelerate climate change and contribute to the carnage on our streets. There shouldn't be a single net new lane-mile of private vehicle capacity anywhere, let alone in the inner-East Bay. If the interchange needs to be reconstructed for structural safety fine, but that should be with same or less car capacity. The reconstructed elements should be designed to minimize traffic violence and VMT - max 10ft lanes and narrow, sharp turns, and most importantly, completely connected sidewalks and protected bike lane facilities across the entire project scope. Somehow, in 2022, this design includes trash like a bike gutter in the middle of a 5 lane freeway approach, and not a single protected intersection. This is a dense urban area with lots of people around - many who are murdered by continued malfeasance like this - not an exurban wasteland. This is in clear contradiction of the agency Complete Streets policy. Despite the insistence on building new capacity to flood local streets with new car traffic (and later water from all the increased emissions), the project has so far scoped out key elements to protect vulnerable road users. It'll be even more of a nightmare to access Aquatic Park. Tons of new lanes, and even widening Frontage road for some absurd reason. Despite the absurd amount of concrete being rolled out for drivers, people outside cars are still completely excluded from access across the railroad tracks at this location. All the intersections feature deadly features like wide lanes, ultra-wide turn radii, and gaping pedestrian crossing distances (lacking even refuge islands). It's unbelievable this agency is still dead set on ramming an utter monstrosity like this through our neighborhoods, continuing a near-century of imposing engineering violence and destruction on urban areas and their inhabitants. Stop killing and maiming us. Stop burning the planet. Stop this automobile madness.</p>

Comment:  
I-24.1

Comment:  
I-24.2

**Response to Comment Letter I-24: Gregory Rozmarynowycz**

I-24.1 Please refer to **Master Response #4** for clarifications regarding roadway widening, anticipated VMT reductions, safety.

I-24.2 Safety is a top priority for Caltrans on all projects, and especially for this proposed project. The proposed project is not a capacity increasing project. Rather, as discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separated Class I pathway and BPOC structure south of the new interchange. This pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

Date Submitted	1/13/22
First and Last Name	sarah
Organization	
Email	seejanebee@yahoo.com
Phone Number	
Mailing Address	
Zip Code	94117
Comments	<p>Comment: I-25.1</p> <p>How are the pedestrians and bikes supposed to get access to this bridge through this hellish maze of onramps? This is completely not thought through. Stop widening freeways and freeway ramps, you are increasing vehicle miles and adding to fossil fuel use. I oppose this project as (poorly) designed.</p>

**Response to Comment Letter I-25: Sarah**

I-25.1 The new BPOC structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west. Please refer to **Master Response #4** for clarification regarding roadway widening and a discussion of anticipated VMT reductions and additional connections to the broader bicycle/pedestrian trail network.



Date Submitted	1/13/22
First and Last Name	Evan Tschuy
Organization	
Email	evantschuy@gmail.com
Phone Number	
Mailing Address	
Zip Code	94703
Comments	<p>Comment: I-26.1</p> <p>I am deeply concerned that the Ashby Ave / I-80 interchange project as designed explicitly increases motor vehicle access to Shellmound/Bay Street without compensating for the decreased safety for pedestrian and cyclist users of the street. Bay St/Shellmound is already one of the more dangerous bike routes in the area, serving north-south bike traffic to and through Aquatic Park, and the facility is under-prepared for the increased traffic.</p>

**Response to Comment Letter I-26: Evan Tuschuy**

I-26.1 Please refer to **Master Response #4** for a discussion of protected bicycle facilities on Shellmound Street.

Date Submitted	1/13/22
First and Last Name	Evan Tschuy
Organization	
Email	evantschuy@gmail.com
Phone Number	
Mailing Address	
Zip Code	94703
Comments	<p><b>Comment: I-27.1</b></p> <p>The existing Ashby Ave underpass at the Union Pacific Railroad and Shellmound/Bay St contains a sidewalk. This project's scope includes motor vehicle, bicycle, and pedestrian network improvements throughout the area of the project, and so it should provision the missing Ashby Ave to Bay St on the northern side as part of a missing link from West Berkeley to Aquatic Park. This would help offset the increased auto traffic from the new offramps by providing an alternative non-motor vehicle entry to the park. The nearest existing entry to Aquatic Park is located 1mi / 20min north at Bancroft Way, and with the proposed interchange improvements, pedestrians at from West Berkeley will need to continue detouring into Emeryville instead of having direct access. As the interchange project will be rebuilding the retaining walls on the north side of Ashby west of the underpasses, and as it will be increasing motor vehicle traffic to Bay St/Shellmound St and Aquatic Park, the project should provision for pedestrian access to the existing walkway at the underpass.</p> <p><b>Comment: I-27.2</b></p>

**Response to Comment Letter I-27: Evan Tuschuy**

- I-27.1 As discussed further in **Master Response #4**, additional protected bicycle and pedestrian connections on the east side of the interchange were considered as part of the project development process. However, through coordination with the Cities of Emeryville and Berkeley and other local stakeholders, it was decided that the best way to realize such connections would be through the implementation of separate projects consistent with each city's active transportation plan. The City of Berkeley will continue to evaluate options for additional bicycle and pedestrian connections to and from Aquatic Park. Such improvements will be analyzed as part of a separate environmental document.
- I-27.2 Thank you for your comment. Your suggestion to include additional pedestrian access to the existing walkway at the underpass will be recorded as part of the administrative record and considered during the final design phase. Please refer to **Master Response #4** for discussion of the progression of design process in regard to other protected bicycle facilities within the project area.

Date Submitted	12/22/21
First and Last Name	Eric Jennings
Organization	
Email	kaos@pm.me
Phone Number	
Mailing Address	5760A Vicente St
Zip Code	94609
Comments	<p>Comment: I-28.1 NO UNDERPASS. It will cause more problems than it solves.</p>

**Response to Comment Letter I-28: Eric Jennings**

I-28.1 Please refer to **Master Response #4** for discussion of the progression of design process in regard to other protected bicycle facilities within the project area.

Date Submitted	1/13/22
First and Last Name	Daniel Tahara
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94705
Comments	<p>Do not continue to widen roads, ramps, and highways. We need to decrease VMT, narrow roads, and get cars and trucks out of our backyard to reduce local particulate pollution that causes respiratory diseases as well as carbon emissions causing climate change. I am supportive of the pedestrian and bike additions. Please only do those. I oppose the rest of the project.</p>
Comment: I-29.1	

**Response to Comment Letter I-29: Daniel Tahara**

I-29.1 Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions.



Date Submitted	1/13/22
First and Last Name	Beaudry Kock
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94114
Comments	<p>Comment: I-30.1</p> <p>It is appalling engineering malfeasance to be building any project in the Bay Area which will add traffic lanes, whether on a freeway or onramp, or make it easier in any way to get onto or off of a freeway. Everyone knows that more lanes and easier access to freeways means induced demand which means more emissions, more traffic violence, more climate change, and eventually and ironically, more congestion. If there are planners and engineers at ACTC or Caltrans who don't know this or won't accept it, they should lose their jobs, along with the folks who created this project literally feet from a Bay which will eventually rise and swamp the whole rotten mess anyway. This is an execrable 1950s throwback which does not belong in the modern Bay Area. Scrap it, and spend the money instead on real bike/ped improvements that will make communities cleaner, safer and less car dependent.</p>

**Response to Comment Letter I-30: Beaudry Kock**

I-30.1 Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions.

Date Submitted	1/14/22
First and Last Name	john potis
Organization	merrill morris partners
Email	jpotis@merrill-morris.com
Phone Number	(415) 291-8960
Mailing Address	155 Filbert St. Oakland, CA 94607
Zip Code	94111
Comments	<p>Comment: I-31.1</p> <p>It has been proven over and over that widening roads only increases auto traffic counts and increases the opportunity to speed dangerously on roadways. Please abandon this misguided 'improvement' that will only increase greenhouse gasses and increase car dependency rather than give people viable options to get around. At a minimum, the project should provide a 50/50 split in pedestrian and cyclist improvements throughout the study area, including all intersections affected by the project. All intersections need to prioritize safety for vulnerable roadway users (those not in a SUV, car or truck) and not throughput of 'traffic'. This project as designed will only make things worse in the short and long term for the people of the bay area and increase the body count of vulnerable users sacrificed for short term and shortsighted convenience of environmentally and socially destructive ways of getting around, namely SUVs, cars and trucks.</p>

**Response to Comment Letter I-31: John Potis**

I-31.1 Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions.

Date Submitted	1/14/22
First and Last Name	Emily Crandall Fleischman
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94602
Comments Comment: I-32.1	The proposed design does not provide adequate pedestrian and bicycle access to Point Emery and the Bay Trail. The circuitous route of the ramps to and from the bike/ped bridge only serve to convenience drivers at the expense of direct and safe ped/bike access across the freeway. Furthermore, adding new lanes to the interchange will induce new traffic demand, and increase the dangers to non-automobile users.

**Response to Comment Letter I-32: Emily Crandall Fleischman**

I-32.1 As discussed in Section 1.5.1, Proposed Build Alternative, the San Francisco Bay Trail and Point Emery would be accessed by pedestrians and bicyclists from either the BPOC or the sidewalks on the Ashby Avenue bridge. Crossing West Frontage Road to these facilities would be accomplished at the at-grade crosswalk aligning with the Point Emery parking lot, or at a below-grade crossing under West Frontage Road just east of the T-intersection. The "circuitous" route is necessary to achieve the necessary height to safely cross the existing I-80 corridor while maintaining a manageable grade for pedestrians/bicycles and meeting ADA requirements.

Date Submitted	1/14/22
First and Last Name	Ashley Elliott
Organization	
Email	ashrelliott@yahoo.com
Phone Number	
Mailing Address	
Zip Code	94590
Comments	<p>As Caltrans and ACTC executives are well aware, widening highways, on ramps, over passes, and roads induces demand and increases traffic. Not only is this design not going to ease congestion in the long run, but it will have the opposite effect, inducing more drivers, increasing harm to the environment and our air quality. Additionally, Bike East Bay has already raised concerns about safety improvements or the lack thereof for pedestrians and cyclists in this plan. I would like to use this opportunity to advocate for the 2-way cycletrack on the east side of Shellmound between 65th Street and Aquatic Park as suggested by Bike East Bay. Anything short of a fully protected intersection where the ramps meet Shellmound with bike signals will cause all but the most experienced cyclists to be cut off from a frequently used route through Aquatic Park, and increase danger to cyclists and pedestrians alike and the east side of shellmound needs safety improvements as well to maintain an already well used cycling route. As a cyclist, I find it disappointing and discouraging that a bike/ped bridge to the bay trail and other similar "safety improvements" must still be tied in with a road widening in order to be built, especially when the agencies involved know, understand, and have made public comments that road widening will cause more harm than good and we must stop building this way.</p>

Comment:  
I-33.1

**Response to Comment Letter I-33: Ashley Elliot**

I-33.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of proposed safety improvements.



Date Submitted	1/14/22
First and Last Name	Jake Jenzen
Organization	
Email	
Phone Number	
Mailing Address	Bernal Heights, San Francisco, CA
Zip Code	94110
Comments	<p>At the very least, please add a protected bicycle intersection on Shellmound Street, where the new car amps will otherwise certainly expand car traffic and create dangers for cyclists. This project could/should additionally be created without expanding car infrastructure at all. Please honor your commitments to not continually widen car-roads.</p>

Comment:  
I-34.1

**Response to Comment Letter I-34: Jake Jenzen**

I-34.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of Shellmound Street bicycle/pedestrian facilities considered during the project development process.

Date Submitted	1/14/22
First and Last Name	Andrew Judd
Organization	
Email	andrwjudd@gmail.com
Phone Number	
Mailing Address	
Zip Code	94705
Comments  Comment: I-35.1	A 2-way cycletrack on the east side of Shellmound between 65th Street and Aquatic Park would be great. Without safe routes on both sides of the bike/pedestrian bridge, families won't use it in high numbers. Take advantage of this opportunity to do something bold. Make connections. Widening the highway is going to induce demand (just like it always does) and won't ease congestion. Increased driver volume will make the approach that much more dangerous to cyclists and pedestrians.

**Response to Comment Letter I-35: Andrew Judd**

I-35.1 Please refer to **Master Response #4** for discussion of Shellmound Street bicycle/pedestrian facilities considered during the project development process.

Date Submitted	1/14/22
First and Last Name	Ricardo Barron-Silva
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94544
Comments Comment: I-36.1	It is a well established fact that widening freeways does not reduce congestion, it only induces demand. Please stop wasting everybody's time and money. Please! Instead, invest the money in public transportation, walking and cycling.

**Response to Comment Letter I-36: Ricardo Barron Silva**

I-36.1 Please refer to **Master Response #4** for clarifications regarding roadway widening. Caltrans and the Cities of Emeryville and Berkeley will continue to evaluate options for additional bicycle and pedestrian facilities throughout their respective jurisdictions. Such improvements would undergo separate environmental and design review.

Date Submitted	1/14/22
First and Last Name	Steven Dunbar
Organization	N/A for this comment
Email	steven.james.dunbar@gmail.com
Phone Number	(650) 201-2440
Mailing Address	2878 4th St Unit 1403
Zip Code	94550
Comments	<p>The previous draft showed bike lanes installed on 65th to connect with the bridge. The latest draft doesn't. Additionally, the Emeryville bike plan shows intersection improvements at 65th (I know there has been significant work to coordinate with UP). Please indicate whether these will be included. Bicyclists headed to destinations on the northeast side of the area from the Bay Trail may use the sidewalk for direct access to Bay Street instead of coming down 65th. The previous draft had the trail extending to this intersection. While I understand the intersection treatments for this to meet standards may be difficult, leaving it as a sidewalk to say that bikes won't use it is not best practice. Bikes and other small mobility devices will use it either way, and the design should account for that. The Berkeley Pedestrian Plan 2020 inaccurately categorizes the area north of the Ashby / Bay Street bridge as having a sidewalk of unknown width. However, no sidewalk exists until the angled parking, and that sidewalk is on the opposite side of the street with no crosswalk. CalTrans should provide the connecting sidewalk and/or an appropriate crossing facility if these properties are under CalTrans ROW. The bike lanes on Ashby itself across the interchange are not comfortable facilities. They seem to be floating to the left of dual right turns for much longer than 150 feet. These facilities should be improved. The ped bridge is not a full mitigation for uncomfortable onstreet lanes.</p>
Comment: I-37.1	
Comment: I-37.2	

**Response to Comment Letter I-37: Steven Dunbar**

- I-37.1 At-grade sidewalks and signalized crossings are proposed along the Bay Street and Shellmound Street connection to Ashby Avenue, the Ashby Avenue (to the north of the Folger Avenue underpass), the vehicular overcrossing at Ashby Avenue, and the West Frontage Road. In addition, a separate Class I pathway is proposed to provide connection from Shellmound Street to San Francisco Bay Trail. Bicyclists and pedestrians can access the pathway via Ashby Avenue/Shellmound Street, 65th Street on the east side of I-80. Bicycle and pedestrian can access the pathway via Bay Trail on the west side of I-80. Additionally, the City of Emeryville is planning to include Class II/IV bike lanes on 65th Street and Class I/II/IV bike lanes on Shellmound Street. There are currently no plans to extend the sidewalk past the driveway to the KRE radio tower property. The Right of Way (ROW) limits are currently being evaluated. Once the associated right of way agreements and maintenance agreements are in place, the ultimate disposition will not preclude the opportunity for equal access. The City of Berkeley would assess the need for Active Transportation Plan elements through their master planning document and their integration into future projects.
- I-37.2 Standard 8-foot shoulders and 6-foot sidewalks are being provided along W. Frontage Road, Ashby Avenue vehicular overcrossing and Shellmound Street /Bay Street connectors. Even though shoulders can be used as Class II bike lanes, the bicyclists are encouraged to use the separated Class I pathway. The primary purpose of the Class I pathway is to increase safety by preventing conflicts between automobiles and bicyclists/pedestrians.



Date Submitted	1/14/22
First and Last Name	Lucas Woodward
Organization	
Email	ljwoodw@yahoo.com
Phone Number	(617) 645-9544
Mailing Address	
Zip Code	94710
Comments	<p>The DEIR does not seem to consider what role W. Frontage Road actually needs to serve in this area. There are no destinations on the road between Point Emery and University Avenue, and parking is very limited at Point Emery anyway. People can drive to Point Emery from the south or from Ashby Ave, so the only reason anyone ever has to drive on this segment of W. Frontage Rd is when they feel that freeway traffic is too slow for their liking. Undoubtedly, this causes additional delays and conflicts when that traffic tries to rejoin freeway traffic later. The DEIR should consider an alternative of closing Frontage Rd between University and Point Emery. This would simplify the overall design of the interchange, lower project costs, and reduce future maintenance liabilities. The space could be used at any point in the future for green space and an enhanced Bay Trail.</p>

Comment:  
I-38.1

**Response to Comment Letter I-38: Lucas Woodward**

I-38.1 The commenter's suggestion to remove West Frontage Road between University and Point Emery has been recorded as part of the public record. As discussed in Section 1.3.4, West Frontage Road currently enhances access to the San Francisco Bay Trail by allowing automobiles to navigate to and park at the Point Emery parking lot. As such, removal of this roadway would not meet the proposed project's purposed and need because it would reduce access to these important recreational facilities and would therefore not be a viable alternative. Implementation of the proposed project would not preclude future greenspace projects adjacent to the existing interchange. Such improvements would be implemented as separate projects.

Date Submitted	1/14/22
First and Last Name	David Hays
Organization	
Email	davidhays@gmail.com
Phone Number	
Mailing Address	336 Pierce St apt 8
Zip Code	94117
Comments	<p>Comment: I-39.1</p> <p>As someone who has tried to ride my bike and run in this area, it is gratifying to see that a pedestrian/bicycle bridge is incorporated into the plan, but I wish there could be some more joined up thinking about how difficult it is to navigate the areas beyond the on/off ramps at both ends. The frontage road needs to be less of a rat-run for people avoiding the freeway tailbacks and more of a resource for people trying to enjoy the waterfront on a bike or on foot.</p>

**Response to Comment Letter I-39: David Haye**

I-39.1 Caltrans and Alameda CTC recognize the need for additional bicycle/pedestrian improvements along neighboring streets and interchanges to further integrate the proposed project with the broader bicycle/pedestrian network. Such improvements were considered during stakeholder working group meetings in 2019. However, the project team decided that the best way to make such improvements is through separate projects consistent with the Cities of Emeryville and Berkeley general plans. Please refer to **Master Response #4** for a discussion of additional bicycle and trail connections that were considered during the project development process.

Date Submitted	1/14/22
First and Last Name	Zack Ludwig
Organization	
Email	zacharyzane@yahoo.com
Phone Number	
Mailing Address	
Zip Code	94110
Comments Comment: I-40.1	I'm glad that pedestrian and bike infrastructure are part of this project, but the design as planned is not complete. I strongly urge Caltrans and its partners to add a protected bike intersection at Shellmound in order to ensure that everyone can safely access the Bay Trail. Thank you.

**Response to Comment Letter I-40: Zack Ludwig**

I-40.1 Caltrans and Alameda CTC recognizes the need for additional bicycle/pedestrian improvements along neighboring streets and interchanges. Such improvements were considered during stakeholder working group meetings in 2019. However, the project team decided that the best way to make such improvements is through separate projects consistent with the Cities of Emeryville and Berkeley general plans. Please refer to **Master Response #4** for further details regarding improvements along neighboring streets and interchanges.

Date Submitted	1/15/22
First and Last Name	Henry Coggins
Organization	
Email	hcoggins93@gmail.com
Phone Number	(706) 333-3966
Mailing Address	
Zip Code	36863
Comments	<p>I lived the SF Bay Area for a few years and still travel there frequently. As someone who often bikes in cities, it is nice to see some bike &amp; ped infrastructure being considered in addition to the ramp-widening at the Ashby/I80 interchange. However, I worry that the additional traffic that the freeway generates will prevent or discourage people on bikes from adequately accessing the trail, due to concerns that people rightly have about cycling in and alongside car traffic. It is therefore vital to plan and build a more comprehensive network of protected bike infrastructure that connects the trail and bridge to destinations in the area. Otherwise, we risk having a piece of bike and ped infrastructure that will be poorly used, as it is poorly connected. This would additionally risk damaging the perception of bike and ped infrastructure as unimportant, as drivers and passerby would take note that it not well utilized, and falsely conclude that people don't want to use bike and ped infrastructure. I hope that additional plans for improving the bike and ped infrastructure near the Ashby/I80 interchange and throughout the east bay are presented soon, and that the proposed ped and bike bridge can be a vital connector. Thanks for reading.</p>
Comment: I-41.1	

### **Response to Comment Letter I-41: Henry Coggins**

I-41.1 Caltrans and Alameda CTC recognize the need for additional bicycle/pedestrian improvements along neighboring streets and interchanges. Such improvements were considered during stakeholder working group meetings in 2019. However, the project team decided that the best way to make such improvements is through separate projects consistent with the Cities of Emeryville and Berkeley general plans. Please refer to **Master Response #4** for further details regarding improvements along neighboring streets and interchanges.



Date Submitted	1/15/22
First and Last Name	Ryan McCormick
Organization	
Email	rpmccormick12@gmail.com
Phone Number	
Mailing Address	225 Clifton Street Oakland, CA
Zip Code	94618
Comments	<p>I take this exit on my commute trip home about once per week depending on traffic patterns. I am not supportive of adding more lanes to the Ashby exit as it will ultimately increase traffic elsewhere, especially on nearby city streets. There will be people who die in car crashes (likely pedestrians) caused by increased car trips spurred by this outdated project. This will also exacerbate our climate emergency by encouraging more car trips. This money would be much better spent solely on pedestrian and cycling improvements in this neighborhood that is underserved by these amenities. I like the portion of the design that includes the pedestrian overpass but its connectivity is not adequate on either side. Any plan to build new infrastructure should include protected intersections and connections to other infrastructure to not make a bridge to nowhere.</p>
Comment: I-42.1	

**Response to Comment Letter I-42: Ryan McCormick**

I-42.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of proposed safety improvements.

Date Submitted	1/15/22
First and Last Name	Peter Trio
Organization	
Email	petetrio@gmail.com
Phone Number	(507) 340-8039
Mailing Address	1690 28th St,
Zip Code	94608
Comments	<p>This project describes bike and pedestrian connections as an integral part of the project but is reflected as an afterthought to automobiles in the design. Access over the interstate requires a long weaving route for pedestrians and bikers all while being exposed to the noise and pollution of vehicles. Wide ramps and land dedicated to vehicles leaves the margins left over for bikers and pedestrians. Additionally the further accommodation of automobiles over more sustainable modes of transit will only continue to erode away the stability of our planet relative to climate change. This project must be radically redesigned or not implemented at all.</p>
Comment: I-43.1	

**Response to Comment Letter I-43: Peter Trio**

I-43.1 Safe access for bicyclists and pedestrians is one of the primary purposes of the proposed project. The separated Class I pathway and BPOC structure would be the primary crossing option for bicyclists, while pedestrians could either use the BPOC or sidewalks on the Ashby Avenue Bridge. Provision of a separated BPOC is intended to increase safety for bicyclists and pedestrians by eliminating conflicts with automobiles. The "weaving" route is necessary to achieve the necessary height to safely cross the existing I-80 corridor while maintaining a manageable grade for pedestrians/bicycles and meeting ADA requirements.

Date Submitted	1/15/22
First and Last Name	S Po
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94605
Comments	<p>Comment: I-44.1</p> <p>Add a protected intersection for pedestrians and bicyclists! I don't want to get run over!</p>

**Response to Comment Letter I-44: S. Po**

I-44.1 Provision of a separated BPOC is intended to increase safety for bicyclists and pedestrians by eliminating conflicts with automobiles. A protected, grade-separated intersection is proposed on the west side of the interchange to connect the bicycle pedestrian pathway with the San Francisco Bay Trail. Caltrans and the Cities of Berkeley and Emeryville will continue to evaluate further options for integration of the proposed project with the broader bicycle and pedestrian trail network. Such improvements would be implemented as part of separate projects.

Date Submitted	1/17/22
First and Last Name	Joe
Organization	
Email	jhlacap@ucdavis.edu
Phone Number	(415) 221-6972
Mailing Address	
Zip Code	94118
Comments	<p>Comment: I-45.1</p> <p>Please stop widening highways. We all know you've heard of induced demand, but for some reason you still keep claiming that adding more capacity "eases congestion". Are you lying to everyone or just that bad at your job? We need fewer VMT not more. If you really wanted to reduce traffic you would implement congestion pricing and spend your absurdly large budget on trains and buses instead of cars. We don't live in the 60's anymore. Also you do know it's possibly to upgrade/add biking and walking infrastructure WITHOUT also adding more freeway lanes?</p>

**Response to Comment Letter I-45: Joe**

I-45.1 Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions.



Date Submitted	1/18/22
First and Last Name	Bob Gomez
Organization	
Email	zorro@sbcglobal.net
Phone Number	
Mailing Address	
Zip Code	94709
Comments	<p>I recommend that the project include high steel fences around all the green areas to prevent the encroachment of homeless encampments into the project area. The problem of homelessness and outdoor encampments will only get worse as residential real estate and rental housing costs continue to rise. One need only look to the I80/University Avenue interchange to see what would inevitably happen if such fencing isn't included. Please add these steel fences to your online picture/renderings of the project.</p>
Comment: I-46.1	

**Response to Comment Letter I-46: Bob Gomez**

I-46.1 The commenter's suggestion to add high steel fences around all green areas has been recorded as part of the administrative record and will be considered during the final design phase. For a discussion of Caltrans' efforts to coordinate with the local unsheltered residents, please refer to **Master Response #2**.

Date Submitted	1/18/22
First and Last Name	J. Anderson
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94602
Comments	<p>Provide safe, family friendly bikeways through the interchange and link to safe bike routes to access this new multiuser ped bridge, so that this interchange upgrade meets goals for safer and complete connections for cycling, wheelchairing, walking, jogging, skating or scootering as the mode of transit.( not just cars and trucks)</p>
Comment: I-47.1	

**Response to Comment Letter I-47: J. Anderson**

I-47.1 A primary feature of the proposed project is an ADA-compliant Class I pathway including BPOC structure that would provide safe access across I-80 on the south side of the interchange. Caltrans and the Cities of Emeryville and Berkeley will continue to evaluate options to further integrate the proposed project with the broader bicycle and pedestrian trail network. Such improvements would be implemented as separate projects.

Date Submitted	1/18/22
First and Last Name	Marianne Dresser
Organization	
Email	mariannedresser@att.net
Phone Number	
Mailing Address	
Zip Code	94510
Comments	<p>THE CURRENT PLAN IS INADEQUATE! Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville’s own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn’t do that with 65th Street. Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project.</p>
Comment: I-48.1	
Comment: I-48.2	
Comment: I-48.3	

**Response to Comment Letter I-48: Marianne Dresser**

- I-48.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-48.2 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-48.3 The existing interchange was constructed in the 1950s. Based on earlier planning studies, Caltrans concluded the need to upgrade the interchange by the 2000s. Please refer to Section 1.2 of the DED for further information regarding the background and need for the project. Please refer to Section 1.5.3, Alternatives Considered but Eliminated from Further Discussion in the DED, for the project team's reasoning behind the chosen Build Alternative which includes consideration of cost.

As described in Section 1.3, Purpose and Need of the DED, the purpose of the proposed project is to improve interchange access and circulation and to provide multimodal connectivity, which includes a Class I bike path. Note that the implementation of the BPOC structure alone does not fulfill the purpose and need of the project.

In addition to the proposed project, the Cities of Emeryville and Berkeley are working on bicycle pedestrian improvements consistent with their respective active transportation plans. Such projects would undergo separate, project-level environmental and design review.

Date Submitted	1/18/22
First and Last Name	Chris Cassidy
Organization	
Email	cassidy.christopher@gmail.com
Phone Number	(415) 374-0400
Mailing Address	2331 24th Ave, 1
Zip Code	94601
Comments	<p>Hello, Thank you for working on this and providing the opportunity for public feedback. I appreciate the solid bike connections to 65th, the Bay Trail, and Shellmound, but find other elements of the project lacking. What needs to be improved: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville’s own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn’t do that with 65th Street. Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project. Thanks again for your work and for considering the input of the community. Best, Chris</p> <p>Comment: I-49.1</p> <p>Comment: I-49.2</p> <p>Comment: I-49.3</p>

### **Response to Comment Letter I-49: Chris Cassidy**

- I-49.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-49.2 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-49.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.



Date Submitted	1/18/22
First and Last Name	Samuel Maier
Organization	
Email	sjsm32@yahoo.com
Phone Number	(626) 487-8391
Mailing Address	1632 Alcatraz Ave Unit D Berkeley, CA
Zip Code	94703
Comments Comment: I-50.1	I am excited for the bike and pedestrian bridge for crossing I-80, but I am worried about the safety of cyclists getting to the bridge. Please add more bike safety features to Shellmound St and 65th so that cyclists can safely get to the bridge. I think this is an essential component to the project. Thank you!

**Response to Comment Letter I-50: Samuel Maier**

I-50.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/18/22
First and Last Name	David Mermin
Organization	
Email	dmermin@hotmail.com
Phone Number	
Mailing Address	2636 Stuart St
Zip Code	94705
Comments	<p>Comment: I-51.1 Please include bikeways on Shellmound St and on 65th St to connect to the new bridge.</p>

**Response to Comment Letter I-51: David Mermin**

I-51.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/18/22
First and Last Name	Elliot
Organization	
Email	elliottcobb@gmail.com
Phone Number	(303) 601-4626
Mailing Address	435 vernon st Oakland, CA
Zip Code	94610
Comments Comment: I-52.1	Please make this project with complete streets! I bike in the area and would love to be able to safely access the marina and Ashby ave. Traffic calming and protected bike lanes would be ideal. thanks for reading!

**Response to Comment Letter I-52: Elliot**

I-52.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

<b>Date Submitted</b>	1/18/22
<b>First and Last Name</b>	Rachel Katz
<b>Organization</b>	
<b>Email</b>	rachel@katco.com
<b>Phone Number</b>	
<b>Mailing Address</b>	1400 Fairview St, Berkeley, CA 94702
<b>Zip Code</b>	94702
<b>Comments</b>	<p><b>Comment: I-53.1</b>   I appreciate a bike bridge to the Bay Trail from the Ashby area. However, as a person who bikes or walks to Aquatic Park from south of Ashby several times every week, I am concerned about the reduction in safety in an already dicey route to Aquatic Park. Though there are bike lanes, the overpass and highway ramps make it less than ideal. I think this design makes that worse. And I concur with Bike East Bay's comments: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this.</p> <p><b>Comment: I-53.2</b>   There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street.</p> <p><b>Comment: I-53.3</b>   Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets.</p>

**Response to Comment Letter I-53: Rachel Katz**

- I-53.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-53.2 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.
- I-53.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.



Date Submitted	1/18/22
First and Last Name	Gavin Platt
Organization	
Email	gavin.m.platt@gmail.com
Phone Number	(724) 825-1508
Mailing Address	862 Wood Street, Oakland, CA
Zip Code	94607
Comments	<p><b>Comment:</b> I-54.1</p> <p>Shellmound Street needs a family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville’s own draft active transportation plan calls for such a bikeway. 65th Street also needs a safe bikeway between Shellmound and Doyle Street, and this project stops short of this. Please improve this project proposal.</p>

**Response to Comment Letter I-54: Gavin Platt**

I-54.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

<b>Date Submitted</b>	1/18/22
<b>First and Last Name</b>	Arlo Armstrong
<b>Organization</b>	
<b>Email</b>	arlo.phoenix@gmail.com
<b>Phone Number</b>	(916) 524-6444
<b>Mailing Address</b>	1721A 8th St
<b>Zip Code</b>	94710
<b>Comments</b>	<p><b>Comment: I-55.1</b>   My family regularly bikes from Berkeley to Emeryville and we have appreciated the recent improvements to Doyle St bike infra. Thank you for including a bike ped bridge and connection at the western end of 65th Street as well as a direct connection to the Bay Trail as part of this proposal. I also appreciate the bike-ped connection from Shellmound Street to the bridge takeoff for people coming from Berkeley.</p> <p><b>Comment: I-55.2</b>   What needs to be improved: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville’s own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that.</p> <p><b>Comment: I-55.3</b>   Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets.</p>

**Response to Comment Letter I-55: Arlo Armstrong**

I-55.1 Thank you for your comment. Your support for the proposed project has been recorded as part of the administrative record.

I-55.2 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

I-55.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/18/22
First and Last Name	Lovett-Harris
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p><b>Comment:</b> I-56.1</p> <p>I appreciate the pedestrian/bike bridge and the way that it's separated from traffic. That said, I'm concerned that it won't be safe for people of all ages to get to the bridge. My children are four and seven and love to bike, but without a protected bikeway on Shellmound St, they sadly will either be put in a very dangerous situation or simply won't use the bridge. Regardless, I'd like to suggest that a protected walkway and bikeway on Shellmound Street is essential so that people can choose to use the new pedestrian/bike bridge and/or safely arrive at Aquatic Park in Berkeley and take the Addison Street bike bridge.</p>

**Response to Comment Letter I-56: Lovett-Harris**

I-56.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/19/22
First and Last Name	Eric McKinley
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94501
Comments	<p><b>Comment: I-57.1</b></p> <p>Please consider improving bicycle access for all connections and directions to the proposed new bridge. With so much of this area already well developed and other segments in the planning and design stages of improvement for bicycles, this will be a choke point of danger for bicyclists as is proposed.</p>

**Response to Comment Letter I-57: Eric McKinley**

I-57.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.



Date Submitted	1/19/22
First and Last Name	Brit Harvey
Organization	
Email	britharvey1@gmail.com
Phone Number	(510) 845-9122
Mailing Address	1224 Oregon St
Zip Code	94702
Comments	<p><b>Comment: I-58.1</b></p> <p>I have lived near the Ashby interchange for 32 years and eagerly await improvements. Please update the plan to integrate better with existing bike/ped facilities, such as the Doyle St bikeway in Emeryville. I also hope that the project can be designed in a way that decreases costs without sacrificing bike/ped features. Thank you</p>

**Response to Comment Letter I-58: Brit Harvey**

I-58.1 Thank you for your comment. Your support for the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/20/22
First and Last Name	Jackson Hurst
Organization	
Email	ghostlightmater@yahoo.com
Phone Number	(678) 628-4232
Mailing Address	4216 Cornell Crossing, Kennesaw, Georgia
Zip Code	30144
Comments	<p><b>Comment: I-59.1</b></p> <p>I have reviewed the Draft Environmental Document (DED) for the I-80/Ashby Avenue (SR-13) Interchange Improvements Project. I support the build alternative which is a Tight Diamond Modified Interchange. The reason I support the build alternative is the Tight Diamond Modified Interchange will be safer by removing the I-80 Southbound flyover off ramp to Eastbound Ashby Avenue/CA 13 which causes motorists to slow down at the end of the ramp at peak times which causes backups onto I-80 Southbound.</p>

**Response to Comment Letter I-59: Jackson Hurst**

I-59.1 Thank you for your comment. Your support of the I-80/Ashby Avenue Interchange Improvements Project has been recorded as part of the public record.

Date Submitted	1/20/22
First and Last Name	Dona Gomez
Organization	
Email	goez1970@yahoo.com
Phone Number	
Mailing Address	
Zip Code	94608
Comments	<p><b>Comment:</b> I-60.1   I am for improving this area but the improvement must include family-friendly bikeways on Shellmound Street and 65th Street to connect to the new bridge.</p>

**Response to Comment Letter I-60: Dona Gomez**

I-60.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

Date Submitted	1/21/22
First and Last Name	Jeff Watts
Organization	
Email	jeffreynealwatts@gmail.com
Phone Number	
Mailing Address	858 Rosedale Ave Apt 17
Zip Code	94549
Comments	<p>Comment: I-61.1                  What needs to be improved: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville’s own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn’t do that with 65th Street.</p> <p>Comment: I-61.2                  Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project.</p>

**Response to Comment Letter I-61: Jeff Watts**

I-61.1 Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

I-61.2 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.



Date Submitted	1/21/22
First and Last Name	chris lee-egan
Organization	
Email	chrislee.public@gmail.com
Phone Number	
Mailing Address	
Zip Code	94702
Comments	<p>Comment: I-62.1</p> <p>Stop widening highways and roads and supporting fossil fuel infrastructure! Fix the drainage and improve pedestrian/bike access, don't make another asphalt, carbon-emissions-promoting nightmare! Cut the lanes and add some real protected bike infrastructure</p>

**Response to Comment Letter I-62: Chris Lee-egan**

I-62.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions.

Date Submitted	1/21/22
First and Last Name	Andrew Carothers
Organization	
Email	andrecarothers1@gmail.com
Phone Number	(510) 393-7981
Mailing Address	1710 Rose Street
Zip Code	94703
Comments Comment: I-63.1	I and all my neighbors are deeply opposed to this costly and useless expenditure of public Highway funds. Rarely does widening or growing access to highways East congestion. Would you like to eat congestion? Do something for bicycles.

**Response to Comment Letter I-63: Andrew Carothers**

I-63.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions.

Date Submitted	1/21/22
First and Last Name	Michael Howley
Organization	
Email	howley.michaelj@gmail.com
Phone Number	(412) 360-9454
Mailing Address	820 STANYAN ST, APT 4
Zip Code	94117-2757
Comments	<p><b>Comment:</b> I-64.1</p> <p>I work near this interchange, at Heinz and 7th. I bike in every day from BART, and often bike or run in the neighborhood after work. The area is already a car sewer, and Ashby is a nightmare murder highway. Apparently everyone but traffic engineers knows you can't expand your way out of congestion - this project will only induce demand and bring in more cars, making streets less safe and increasing emissions. Stop letting \"car circulation\" be your design KPI! It's misguided at best and runs counter to every level of climate action plan at worst."</p>

**Response to Comment Letter I-64: Michael Howley**

I-64.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

Date Submitted	1/22/22
First and Last Name	Jill Purdy
Organization	
Email	jpurdy37137@gmail.com
Phone Number	
Mailing Address	411 E 17th Street, Apartment 10
Zip Code	94606
Comments	<p><b>Comment: I-65.1</b>   I am strongly against this project. Widening freeways does not prevent congestion and will only induce more driving.</p> <p><b>Comment: I-65.2</b>   This plan also has poorly thought out infrastructure for bikes and pedestrians. Climate change is real and if we are going to reduce emissions then projects like this need to die.</p>

**Response to Comment Letter I-65: Jill Purdy**

I-65.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions.

I-65.2 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record.



Date Submitted	1/22/22
First and Last Name	Jim Koman
Organization	
Email	jskoman@gmail.com
Phone Number	(805) 279-3118
Mailing Address	1182 Ocean Ave, Oakland, CA
Zip Code	94608
Comments	<p>While I appreciate the improved ped/bike bridge access to the bay trail, this plan must include a protected intersection at Shellmound for bicyclists and pedestrians. Widening auto access to Ashby/180 will induce vehicle demand and lead to more traffic. Pedestrian and bicyclist safety will be hampered by the plan at current. Also, we should not be widening freeway ramps in our current climate crisis. More lanes=more cars, as has been proven over and over again. This will not alleviate traffic. Why must pedestrian and bicyclist safety “improvements” come with increasing the amount of vehicles that are the source of danger and death to us? I live and work in the area of this project, and commute by bicycle. I also own a car as secondary transportation.</p>
Comment: I-66.1	

**Response to Comment Letter I-66: Jim Koman**

I-66.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

Date Submitted	1/22/22
First and Last Name	Thomas Egan
Organization	
Email	thomasegan@berkeley.edu
Phone Number	
Mailing Address	
Zip Code	94105
Comments Comment: I-67.1	To widen a freeway at great cost in 2022 is to willfully ignore the impending climate crisis in order to marginally improve "LOS" and induce ever-greater freeway demand. The great error of 20th centurt urban planning must be eliminated, not upsized. Absurd. How about improve pedestrian safety in Alameda County and induce some less harmful transit choices.

**Response to Comment Letter I-67: Thomas Egan**

I-67.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of safety measures included in the proposed project.

Date Submitted	1/22/22
First and Last Name	David Maltzan
Organization	
Email	dmaltzan@gmail.com
Phone Number	(339) 223-5579
Mailing Address	120 Bayo Vista Ave, Oakland, CA
Zip Code	94611
Comments	<p><b>Comment: I-68.1</b></p> <p>The bike/ped bridge is a positive improvement for the area. However, by widening the ramps this project will increase car traffic on Shellmound and other local streets. I am someone who often drives a car in the area of these ramps, but still I do not want ramps widened - we shouldn't be inducing more car traffic during a climate change crisis! If you do insist on widening ramps, I ask that you please mitigate the increase in local traffic by adding some type of protected bike facility on Shellmound between 65th Street and Aquatic Park. Thank you for your consideration of my comment.</p>

**Response to Comment Letter I-68: David Maltzan**

I-68.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of safety measures included in the proposed project. This response also includes a discussion of additional bicycle pedestrian improvements considered as part of the project development process.

Date Submitted	1/22/22
First and Last Name	will freyman
Organization	
Email	willfreyman@gmail.com
Phone Number	
Mailing Address	
Zip Code	94608
Comments Comment: I-69.1	I live on 62nd Street and very often bicycle on Shellmound/Aquatic Park to travel between Emeryville and Berkeley. Shellmound is already unsafe with too much car traffic (riding there with my young daughter is not fun). This project will bring even more car traffic on Shellmound, so the project should include protected bicycle lanes on Shellmound at least between 65th Street and Aquatic Park.

**Response to Comment Letter I-69: Will Freyman**

I-69.1 Please refer to **Master Response #4** for discussion of additional bicycle pedestrian improvements considered as part of the project development process.



Date Submitted	1/22/22
First and Last Name	JoAnn Brookes
Organization	
Email	joannbrookes@gmail.com
Phone Number	(314) 960-1359
Mailing Address	4121 Culver Street
Zip Code	94619
Comments Comment: I-70.1	I really like the pedestrian and bicycle bridge. It is much needed in this area. As for the car exit, this seems too large for the traffic. My partner used to work at the car dealership near the exit, and never encountered the traffic backing up here. Did anyone do a traffic count? I do like that you can get to the frontage road easier.

**Response to Comment Letter I-70: JoAnn Brookes**

I-70.1 A Traffic Operations Analysis Report (TOAR) was completed for the project in March 2021. Please refer to Section 2.1.9, Traffic and Transportation/ Pedestrian and Bicycle Facilities, for an analysis of existing AM and PM peak hour intersection operations in the project area. The Build Alternative would improve traffic circulation. While Shellmound Street would see an increase in traffic volume, the traffic volume at Powell Street off-ramp and West Frontage Road would decrease. In addition, wider lanes were included to accommodate off-tracking for larger vehicles at local street connections.

<b>Date Submitted</b>	1/22/22
<b>First and Last Name</b>	Adam Lenz
<b>Organization</b>	
<b>Email</b>	MRADAMLENZ@GMAIL.COM
<b>Phone Number</b>	(415) 516-0673
<b>Mailing Address</b>	1082 65th St
<b>Zip Code</b>	94608
<b>Comments</b>	<p><b>Comment: I-71.1</b> Communities near the freeway have suffered health impacts from the freeway for far too long. This project does not build in enough infrastructure design to benefit those freeway adjacent communities and mitigate the environmental impacts of inducing vehicle demand on the bridge. My comments are as follows: 1. I support the bicycle and pedestrian bridge on 65th St. with the butterfly or basket handle design.</p> <p><b>Comment: I-71.2</b></p> <p><b>Comment: I-71.3</b> 2. Reduce the number of lanes on the Ashby bridge. The Ashby bridge needs more traffic calming, it's an unnecessary expansion of lanes and that will result in unsafe driving speeds, and large unsafe crossing distances for pedestrians.</p> <p><b>Comment: I-71.4</b> 3. The design for the primary bridge at Ashby should include more traffic calming measures for safe pedestrian crossings. Even with the pedestrian bridge, there will still be a large demand for bike and peds to quickly cross I-80. Safely reconnecting the Bay with the community should be the top priority of this project. The community nearby has to breathe the emissions from the freeway, we should easily be able to cross both bridges to access the Bay. The bridge design should accommodate pedestrian traffic (that will happen even with a pedestrian bridge nearby) with bulb-outs, crosswalks, and infrastructure to increase safe passage from neighborhoods to the Bay shore.</p> <p><b>Comment: I-71.5</b> 4. This design should also consider that degree of homelessness currently in the area is unlikely to change and those persons will need to safely cross both bridges.</p> <p><b>Comment: I-71.6</b> 5. The design should be changed to reduce vehicle speeds exiting from the Ashby interchange in the East Bound direction. Too many cars at high speeds exit the freeway and enter residential neighborhoods near San Pablo. This is one of the most dangerous corridors in the East Bay due to high vehicle speeds. The design should incorporate measures to have cars leaving the Ashby Exit at a speed no higher than 25 MPH. The current design does not accomplish that.</p> <p><b>Comment: I-71.7</b> 6. The design should reconsider a traffic circle at the interchange OR accomplish the same outcomes in slowing down vehicle speeds. The current design does not accomplish that.</p> <p><b>Comment: I-71.8</b> 7. This project absolutely has to upgrade the UPRR/Ashby Avenue underpass just east of the area at the portal undercrossing, near the existing Caltrans pump station. It is unacceptable that we would still leave a significant barrier to accessing the Bay and crossing the Ashby bridge in this project. Caltrans needs to work with the cities of Berkeley and Emeryville to address the underpass and Ashby sidewalk improvements in this project.</p>

**Response to Comment Letter I-71: Adam Lenz**

- I-71.1 The proposed project is not a capacity increasing project in that it would not add any new capacity to the I-80 mainline. Rather, the project is intended to improve circulation within the interchange, alleviate congestion on local streets, and improve safety and access for all modes of travel. The proposed project is therefore not anticipated to result in an increase in criteria air pollutant emissions compared to the existing year conditions or the future No Build Alternative. In fact, the proposed project would slightly reduce regional VMT and associated vehicle emissions.
- I-71.2 Your support for the BPOC with the butterfly or basket handle design has been recorded as part of the public record.
- I-71.3 Your suggestion to reduce the number of lanes on the Ashby Avenue overcrossing structure has been recorded as part of the administrative record and will be considered during the final design process.
- I-71.4 Your suggestion to enhance the bicycle/pedestrian facilities on the Ashby Avenue overcrossing structure has been recorded as part of the administrative record and will be considered during the final design process. Current design includes standard sidewalks and shoulders along Shellmound Street, Bay Street, vehicular overcrossing and along W. Frontage Road. ADA curb ramps, crosswalks and pedestrian signals at the intersections were also included. A separated BPOC was proposed to limit the number of conflicts between bicyclists/pedestrians and automobile traffic and increase safety for all modes of transportation.
- I-71.5 Please refer to **Master Response #2** for a discussion of Caltrans' ongoing coordination with the unsheltered residents.
- I-71.6 Your comment regarding redesigning ramps to reduce vehicle speeds exiting from the Ashby interchange in the East Bound direction has been recorded as part of the administrative record and will be considered during the final design process. Currently, the Shellmound connector is designed for 30 mph with a posted speed of 25 mph. Standard shoulders and wider sidewalks along Shellmound connector would increase safety for cyclists and pedestrians traveling from West Frontage Road and San Francisco Bay Trail to Shellmound Street by encouraging them to stay on Shellmound Street instead of going through the tunnel with no shoulders or sidewalks.
- I-71.7 The roundabout design was analyzed but ultimately dropped from consideration because the anticipated 2045 forecast traffic volumes require at least 4

circulation roundabout lanes, it did not meet design year projected traffic operations, and it provided no safety performance benefits. For a full discussion of this and other alternatives considered but eliminated from further discussion, please refer to Section 1.5.3.

- I-71.8 Caltrans and the Cities of Berkeley and Emeryville recognize the need for improvements at the UPRR/Ashby Avenue underpass and are coordinating on efforts to remedy the existing flooding issues. Improvements will be implemented as part of a separate project and will be analyzed under a separate environmental document.

Date Submitted	1/22/22
First and Last Name	Raul J Maldonado
Organization	
Email	rmaldonadocloud@gmail.com
Phone Number	(209) 622-9876
Mailing Address	825 55TH ST
Zip Code	94608
Comments	<p><b>Comment: I-72.1</b></p> <p>Hello Caltrans! I hope you are well. I wanted to reach out about the Ashby-80-Shellmound interchange project. I was hoping, along with other bike commuters, to different places, consider that the total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project. Thank you for the consideration!</p>

**Response to Comment Letter I-72: Raul J Maldonado**

I-72.1 Please refer to **Master Response #4** for discussion of project funding and safety improvements included as part of the proposed project.

Date Submitted	1/22/22
First and Last Name	Harry Chomsky
Organization	
Email	harry@chomsky.net
Phone Number	
Mailing Address	
Zip Code	94706
Comments Comment: I-73.1	<p>Thank you for including a bike-pedestrian bridge in the design for improving the I-80 / Ashby Avenue interchange. Please make sure the project truly supports active transportation by including safe, low-stress bikeways on the neighboring streets in all directions. In order for ordinary people to use an impressive new feature like this bridge, they need to be able to travel comfortably between the feature and the places where they live and work. This project has the potential to improve mobility for all modes of travel, but if it is built without first-rate neighborhood connectivity for walking and biking, it risks locking our region into a future of increased car travel, with all the congestion, health and environmental harms that follow.</p>



**Response to Comment Letter I-73: Harry Chomsky**

I-73.1 Please refer to **Master Response #4** for discussion additional bicycle and pedestrian linkages that were considered as part of the project development process.

Date Submitted	1/22/22
First and Last Name	Arvi Sreenivasan
Organization	
Email	ams100@gmail.com
Phone Number	(917) 293-4918
Mailing Address	5529 Snake Rd
Zip Code	94611
Comments	<p><b>Comment: I-74.1</b>   This is a pivotal moment to respond to our climate crisis, and projects like this matter are where we'll make the difference – or fail to. Please, spend money on non-car modes of transport. I support the bike east bay critique: What we like about the project: The bike ped bridge is well-designed and includes a good connection at the western end of 65th Street as well as a direct connection to the Bay Trail. There is also a good bike-ped connection from Shellmound Street to the bridge takeoff for people coming from the north (Berkeley).</p> <p><b>Comment: I-74.2</b>   What needs to be improved: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street.</p> <p><b>Comment: I-74.3</b>   Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project.</p>

**Response to Comment Letter I-74: Arvi Sreenivasan**

- I-74.1 Thank you for your comment. Your support of the BPOC connections has been recorded as part of the public record.
- I-74.2 Please refer to **Master Response #4** for discussion of safety improvements included as part of the proposed project and additional bicycle/pedestrian linkages that were considered as part of the project development process.
- I-74.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process. **Master Response #4** also includes a discussion of project funding.

Date Submitted	1/22/22
First and Last Name	Nathan Golshan
Organization	
Email	nathan.golshan@gmail.com
Phone Number	(570) 506-1879
Mailing Address	2523 Potomac St Oakland CA
Zip Code	94602
Comments	<p><b>Comment: I-75.1</b> This is a pivotal moment to respond to our climate crisis, and projects like this matter are where we'll make the difference -- or fail to. Please, spend money on non-car modes of transport. I support the bike east bay critique: What we like about the project: - The bike ped bridge is well-designed and includes a good connection at the western end of 65th Street as well as a direct connection to the Bay Trail. - There is also a good bike-ped connection from Shellmound Street to the bridge takeoff for people coming from the north (Berkeley). What needs to be improved: - Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. - 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street. -</p> <p><b>Comment: I-75.2</b></p> <p><b>Comment: I-75.3</b> Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. - The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. - The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project.</p>

### **Response to Comment Letter I-75: Nathan Golshan**

I-75.1 Thank you for your comment. Your support of the BPOC connections has been recorded as part of the public record.

I-75.2 Please refer to **Master Response #4** for discussion of safety improvements included as part of the proposed project and additional bicycle/pedestrian linkages that were considered as part of the project development process.

I-75.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process. **Master Response #4** also includes a discussion of project funding.

Date Submitted	1/23/22
First and Last Name	Alex Applegate
Organization	
Email	alexapplegate@gmail.com
Phone Number	(316) 200-6751
Mailing Address	1826 Allston Way
Zip Code	94703
Comments	<p><b>Comment: I-76.1</b> This is a pivotal moment to respond to our climate crisis, and projects like this are where we'll make the difference -- or fail to. Please, spend money on non-car modes of transport. I support the bike east bay critique: What we like about the project: - The bike ped bridge is well-designed and includes a good connection at the western end of 65th Street as well as a direct connection to the Bay Trail. - There is also a good bike-ped connection from Shellmound Street to the bridge takeoff for people coming from the north (Berkeley).</p> <p><b>Comment: I-76.2</b> What needs to be improved: - Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. - 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street. -</p> <p><b>Comment: I-76.3</b> Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted on to local streets, including 6th/7th Streets in Berkeley. - The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets. - The total project now is estimated to cost \$157 million to build, and lacks \$100 million of this. Alameda CTC will need to find that money elsewhere, taking it from other higher priority projects, or redesign this interchange project with a more reasonable design and cost. As is, the project is overly designed for cars. We can completely build out a safe bike network in all of Emeryville and Berkeley for the cost of this one interchange project.</p>

### **Response to Comment Letter I-76: Alex Applegate**

I-76.1 Thank you for your comment. Your support of the BPOC connections has been recorded as part of the public record.

I-76.2 Please refer to **Master Response #4** for discussion of safety improvements included as part of the proposed project and additional bicycle/pedestrian linkages that were considered as part of the project development process.

I-76.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process. **Master Response #4** also includes a discussion of project funding.

Date Submitted	1/23/22
First and Last Name	Paula Kingsley
Organization	
Email	citymouse@gmail.com
Phone Number	
Mailing Address	
Zip Code	94703
Comments Comment: I-77.1	<p>I'm excited that *something* is being done to address the inexcusable lack of pedestrian/bike access over the freeway from Ashby to the Bay trail, but I'm disappointed this plan apparently isn't going to mandate safety improvements on Bay/Shellmound, which is a nightmare (for pedestrians, cyclists, and even cars, for some unfathomable reason!) Please make sure we're doing everything possible to ensure there is a safe path all the way through, not simply at the most difficult (or nonexistent) crossings. — <a href="https://sf.streetsblog.org/2022/01/13/call-to-action-comment-on-the-ashby-i-80-interchange-widening/">https://sf.streetsblog.org/2022/01/13/call-to-action-comment-on-the-ashby-i-80-interchange-widening/</a> “ As previously reported, on the project’s eastern end there is a concurrent development underway that should include raised, protected bike lanes on part of Shellmound. But that won’t address the increased traffic coming off the freeway where the ramps intersect. “A 2-way cycletrack on the east side of Shellmound between 65th Street and Aquatic Park would be an ideal mitigation for the interchange project, but it is being considered ‘out of scope’ by Caltrans,” commented Bike East Bay’s Robert Prinz. Streetsblog would add that anything short of a fully protected intersection where the ramps meet Shellmound, complete with bike signals, would be an act of traffic engineering malfeasance.”</p>



**Response to Comment Letter I-77: Paula Kingsley**

I-77.1 Please refer to **Master Response #4** for a discussion of safety elements included as part of the proposed project and for a discussion of additional bicycle/pedestrian linkages that were considered during the project development process.

Date Submitted	1/24/22
First and Last Name	Perez
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94710
Comments	<p>Comment: I-78.1   Please invest in non car transport and instead pivot to local walk/cycling models. Thank you</p>

**Response to Comment Letter I-78: Perez**

I-78.1 One of the purposes of the I-80 Interchange Improvements Project is to enhance safe bicycle and pedestrian connectivity across the I-80 via the proposed BPOC. At-grade sidewalks and signalized crossings on the east side of I-80 at the ramps and adjacent to the Ashby Avenue would be included as part of the bridge structure. Bicyclists and pedestrians would access this connection via Ashby Avenue, Shellmound Street, and 65th Street on the east side of the proposed project.

Date Submitted	1/24/22
First and Last Name	Jonathan Parry
Organization	
Email	jonbparry@gmail.com
Phone Number	
Mailing Address	
Zip Code	94612
Comments	<p>Do not implement this project as is. I want better pedestrian and bike access from South Berkeley and Northern Emeryville to the bay like the proposed bridge. However, adding an additional car lane in each direction will increase the number of cars accessing this ramp at rush hour and will increase the amount of speeding at non-peak times. This will discourage use by vulnerable people - walkers, people on wheelchairs, children, seniors, and people on scooters and bikes. Please instead REDUCE the number of lanes coming down Ashby to discourage people from driving.</p>
Comment: I-79.1	

**Response to Comment Letter I-79: Jonathan Parry**

I-79.1 The commenter's request to reduce the number of lanes on the proposed Ashby Avenue overcrossing bridge has been recorded as part of the administrative record and will be considered during the final design process. Although sidewalks would be included on the Ashby Avenue bridge, the separated BPOC structure is intended to be the primary crossing option for both bicyclists and pedestrian. No bicycle lanes would be provided on the new Ashby Avenue bridge itself. The main reason for this separation would be to increase safety by preventing conflicts between automobiles and bicyclists/pedestrians.

Date Submitted	1/25/22
First and Last Name	Rachel Fenichel
Organization	
Email	
Phone Number	
Mailing Address	
Zip Code	94117
Comments	<p><b>Comment: I-80.1</b>   What I like about the project: The bike ped bridge is well-designed and includes a good connection at the western end of 65th Street as well as a direct connection to the Bay Trail. There is also a good bike-ped connection from Shellmound Street to the bridge takeoff for people coming from the north (Berkeley).</p> <p><b>Comment: I-80.2</b>   What needs to be improved: Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that. 65th Street also needs a safe bikeway between Shellmound and Doyle Street to connect to existing bikewayst.</p>

**Response to Comment Letter I-80: Rachel Fenichel**

I-80.1 Thank you for your comment. Your support of the BPOC and associated connections has been recorded as part of the administrative record.

I-80.2 Please refer to **Master Response #4** for discussion of safety improvements included as part of the proposed project and additional bicycle/pedestrian linkages that were considered as part of the project development process.

Date Submitted	1/26/22
First and Last Name	Thomas Yamaguchi
Organization	
Email	tomyamaguchi@mac.com
Phone Number	510-548-5294
Mailing Address	1015 Channing Way, Berkeley, CA
Zip Code	94710
<b>Comments</b> Comment: I-81.1	Thank you for taking our comments. At your recent online open house, a number of us shared the same concern for the part of Ashby Avenue that crosses under the railroad tracks just east of the proposed new interchange. I personally was not satisfied by the response on how future flooding would be prevented. In fact, as sea levels rise due to climate change, flooding at that section of Ashby Avenue will only worsen. The project, as a whole, is very impressive, and, as a bicyclist, I would certainly take advantage of the new bicycle bridge over I-80. The beg button at the frontage road is another issue, but not a big one. My main concern is the millions of dollars that will be spent on this interchange that will become useless each time Ashby Avenue floods out at the railroad under crossing. I know funding is tight. Yet, I hope some efforts can be made to fix this problem, possibly by creating an overpass from Seventh Street to take vehicle traffic over the railroad tracks instead of underneath.



**Response to Comment Letter I-81: Thomas Yamaguchi**

I-81.1 Please refer to **Master Response #3** regarding concerns about flooding near the existing interchange.

Date Submitted	1/10/22
First and Last Name	Madeline Shwears
Organization	
Email	
Phone Number	(510) 665-5829
Mailing Address	
Zip Code	94710
Comments	<p>Comment: I-82.1</p> <p>Very unhappy about the mess down there and one of our service vehicles had a rock thrown through its window as it went by. This happened last Friday. It broke the window. Totally unhappy. 94710. Thank you.2:2</p>

**Response to Comment Letter I-82: Madeline Shwears**

I-82.1 Thank you for your comment. Your support of the project has been recorded as part of the administrative record.

# BAYVIEW EMERYVILLE LLC

30141 AGOURA RD., STE. #100  
AGOURA HILLS, CALIF. 91301-4332  
TEL (818) 706-0694 ♦ FAX (818) 706-3752  
WWW.AMCALHOUSING.COM

January 17, 2022

Caltrans, District 4  
Office of Environmental Analysis  
ATTN: Wahida Rashid  
P.O. Box 23660, MS: 8B  
Oakland, CA 94623-0660

**Re: Comment Letter to Initial Study with Proposed  
Mitigated Negative Declaration and Environmental Assessment  
I-80/Ashby Avenue Interchange Improvement Project  
Project ID 04-1800-0225  
Alameda County, California**

To Whom It May Concern:

Bayview Emeryville LLC is the owner and developer of the 186-unit multifamily rental project located at 6701 Shellmound Street and currently under construction. Our development is surrounded by this Interchange Improvement project and the Environmental Study Limit (ESL). See the attached amended figure 1.4-1 showing the location of our site: the north and west boundaries of our site are the existing exit ramps and shoulders of the Ashby Avenue interchange; the eastern boundary of our site fronts Shellmound Street in Emeryville.

Bayview Emeryville should be occupied in early 2023—about 12 months from now. Therefore, there will be residents at our project, surrounded by the ESL, during the construction of these improvements.

We want to express our support of the proposed interchange redesign and new Bicycle/Pedestrian Overcrossing (BPO). We believe that the proposed configuration will improve access to the great waterfront amenities in both Emeryville and Berkeley. Primary access to the BPO along 65<sup>th</sup> Street, with secondary access to 67<sup>th</sup> Street, ties into the area's existing circulation patterns, while separating the vehicular traffic at the base of the interchange from the pedestrian/bicycle traffic as much as possible. We applaud that this design can be accommodated without the need for easements on our property. Given the design of our project and the topography of the area, accommodating circulation on our site would be difficult, if not impossible.

Comment  
I-83.1

Comment Letter to Initial Study for  
I-80/Ashby Avenue Interchange Improvement Project  
Project ID 04-1800-0225

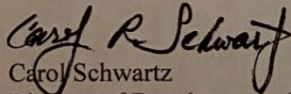
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Comment  
I-83.1  
Cont.

We understand that there are likely to be temporary construction impacts that will affect our residents, notably with respect to traffic, noise and vibration, hazardous materials, and water quality and storm water runoff. But we are looking forward to the overall positive impact that these new improvements will ultimately have on the area. As currently designed, we support the interchange improvements and the analysis and mitigation measures put forth in the Initial Study with Proposed Mitigated Negative Declaration and Environmental Assessment.

Thank you for your consideration.

Sincerely,



Carol Schwartz  
Director of Development, Market-Rate and Student Housing

**Response to Comment Letter I-83: Carol Schawrtz**

I-83.1 Thank you for your comment. Your support of the project has been recorded as part of the administrative record.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I80 Ashby Comment  
**Date:** Thursday, April 7, 2022 1:31:17 PM

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**From:** Mark Trainer <[mark.trainer1@live.com](mailto:mark.trainer1@live.com)>  
**Sent:** Monday, February 7, 2022 10:59 AM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I80 Ashby Comment

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello Wahida,

- Comment:** I-84.1 | I am a frequent user of the bay trail and appreciate the inclusion of the dedicated bike/pedestrian bridge. I do have two concerns that I'm hoping can be addressed in the final design.
- Provide better protection for cyclists where the Shellmound bike lanes interact with the freeway ramps. This will be a dangerous intersection and anything short of full protection would be very disappointing and discourage ridership.
- Comment:** I-84.2 |
- I'm also disappointed that the proposal includes widening the ramps that will encourage additional car congestion at a time of climate crisis.

Thank you,  
Mark Trainer  
94612

**Response to Comment Letter I-84: Mark Trainer**

I-84.1 Please refer to **Master Response #4** for discussion of safety improvements included as part of the proposed project and additional bicycle/pedestrian linkages, including additional facilities on Shellmound Street, that were considered as part of the project development process.

I-84.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions.



**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew_Metzger); [Janet Kung](mailto:Janet_Kung)  
**Subject:** FW: frontage road Emeryville & Ashby  
**Date:** Thursday, April 7, 2022 1:32:16 PM

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-----Original Message-----

From: martha birch <[hey\\_mt@sbcglobal.net](mailto:hey_mt@sbcglobal.net)>  
Sent: Thursday, March 24, 2022 1:47 PM  
To: [comments@j80ashby.com](mailto:comments@j80ashby.com)  
Subject: frontage road Emeryville & Ashby

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello

**Comment:** Please advise who/ how best way to address the potential changes of the frontage road from  
**I-85.1** Emeryville to San Francisco.  
Ashby to Emeryville

I am an elderly Emeryville resident since 2001.

**Comment:** My grave concerns re changing the frontage road Emeryville to San Francisco to bus lane only include  
**I-85.2** Safety concerns for the elderly and others who cannot easily take a bus.  
Safety concerns for the need "escape" and safe routes.  
Increase Traffic Congestion  
Increase Accidents at the ramp entrance.  
Increase Congestion related to increased Condo permits.

THANK YOU,  
Martha Birch

**Response to Comment Letter I-85: Martha Birch**

I-85.1 Please refer to Section 1.5.1, Proposed Build Alternative of the DED for a discussion of the proposed changes to West Frontage Road. The environmental effects of these changes are analyzed in Chapters 2 and 3 of the DED.

I-85.2 Safety is a top priority for Caltrans on all projects, and especially on this proposed project. As discussed in Section 1.5, Project Alternatives, the Class I pathway, including the bike and pedestrian overcrossing (BPOC) structure, will be an ADA-compliant facility accessible by both bikes and pedestrians. The Class I pathway will include ADA compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure so that all users can safely use the crossing. As described in Section 1.5.1, Proposed Build Alternative of the DED, the Build Alternative would not widen or otherwise increase capacity on the I-80 mainline or on local roadways approaching the interchange. Rather, the existing overcrossing structures would be demolished and replaced with a tight diamond interchange. Since the change to a tight diamond interchange would convert free flow ramps movements to signalized control, the travel time for vehicles at the interchange is expected to increase rather than decrease. Given that there are no capacity improvements proposed to the freeway or the local roads approaching/departing the interchange and the conversion of free flowing ramps to signal controlled ramp intersections, the Build Alternative is not anticipated to increase vehicle capacity or VMT. Rather, the Build Alternative is anticipated to have a net benefit as it would alleviate local traffic congestion and result in less truck traffic diverting onto the surrounding street network, and slightly reduce VMT.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:27:56 PM

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**From:** Ellen Schwartz <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Tuesday, January 25, 2022 12:08 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-86.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-86.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-86.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-86.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Ellen Schwartz  
[ellenschwartz@gmail.com](mailto:ellenschwartz@gmail.com)  
8134 Canyon Creek Circle  
Pleasanton, California 94588

**Response to Comment Letter I-86: Ellen Schwartz**

I-86.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-86.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-86.3 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:31:06 PM

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**From:** Dioni Rey <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Tuesday, February 1, 2022 3:36 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment: I-87.1 As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment: I-87.2 The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment: I-87.3 Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-87.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Dioni Rey

[dioni.c.rey@gmail.com](mailto:dioni.c.rey@gmail.com)

567 Sycamore St

Oakland, California 94612-1709

**Response to Comment Letter I-87: Dioni Rey**

I-87.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-87.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

I-87.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-87.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.



**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Janet Kung](mailto:Janet.Kung); [Andrew Metzger](mailto:Andrew.Metzger)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:30:56 PM

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**From:** Jonathan Tyburski <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 31, 2022 10:59 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment: I-88.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment: I-88.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment: I-88.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-88.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Jonathan Tyburski  
[jtyburski@gmail.com](mailto:jtyburski@gmail.com)  
1849 Page St, 204  
San Francisco, California 94117

**Response to Comment Letter I-88: Jonathan Tyburski**

I-88.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-88.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-88.3 Please refer to **Master Response #4** for a discussion of additional improvements considered for Shellmound Street. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west. The general comment regarding separation of bicycle/pedestrian projects from roadway projects has been recorded as part of the administrative record and will be considered during the development of future projects.

I-88.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:30:47 PM

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**From:** Aaron Webber <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 31, 2022 10:59 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

\$125 million on more highways is a ridiculous way to spend money in 2022. 9 figure capital budgets should be spent on transit and safety not bigger highway on ramps.

**Comment:**  
I-89.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

**Comment:**  
I-89.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

**Comment:**  
I-89.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need

not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-89.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Aaron Webber  
[aaronwebber@gmail.com](mailto:aaronwebber@gmail.com)  
1435 Thousand Oaks Blvd  
Albany, California 94706

**Response to Comment Letter I-89: Aaron Webber**

I-89.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-89.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

I-89.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-89.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:30:23 PM

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**From:** Theodore Randolph <[public@theodr.net](mailto:public@theodr.net)>  
**Sent:** Monday, January 31, 2022 10:42 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-90.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-90.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-90.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-90.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Theodore Randolph  
[public@theodr.net](mailto:public@theodr.net)  
387 Athens St  
San Francisco, California 94112



**Response to Comment Letter I-90: Theodore Randolph**

I-90.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-90.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-90.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-90.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:30:09 PM

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**From:** Aaron Priven <aaron@priven.com>  
**Sent:** Monday, January 31, 2022 9:39 PM  
**To:** comments@I80Ashby.com  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

**Comment:**  
I-91.1 | Dear Caltrans and ACTC,  
No conceivable benefit could come from this project that would not be outweighed by the environmental and social costs. Lighting 125,000,000 dollar bills aflame would accomplish as much good and have less of a carbon impact.

**Comment:**  
I-91.2 | As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:  
- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)  
- Acceleration of climate change and sea level rise  
- Decreased safety for people walking, rolling, and biking near the new interchanges  
- Further retreats from our goal of creating viable alternatives to driving.

**Comment:**  
I-91.3 | The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

**Comment:**  
I-91.4 | Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with

Comment: | automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need  
I-91.4 Cont. | not be tied to highway widening proposals, but rather should be stand-alone projects to help  
| achieve our active transportation and climate goals.

Comment: | For the enormous price of \$125 million, this project would be a giant step backwards for the  
I-91.5 | goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups  
| agree that this money would be better spent improving accessibility for people walking,  
| rolling and biking throughout the East Bay.

Thank you for your consideration.

Aaron Priven  
[aaron@priven.com](mailto:aaron@priven.com)  
830 Stannage Ave.  
Albany, California 94706

**Response to Comment Letter I-91: Aaron Priven**

I-91.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record.

I-91.2 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-91.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel

I-91.4 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-91.5 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

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**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:29:54 PM

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**From:** Veronika Coleman <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 31, 2022 8:29 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-92.1

I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-92.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-92.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-92.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Veronika Coleman  
[Verkcoleman@gmail.com](mailto:Verkcoleman@gmail.com)  
721 E Spring St  
Dayton, Washington 99328

**Response to Comment Letter I-92: Veronika Coleman**

I-92.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-92.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-92.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-92.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80.Ashby.Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Avenue Interchange Project Is Bad.  
**Date:** Thursday, April 7, 2022 1:28:52 PM

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**From:** Paul Bickmore <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Friday, January 28, 2022 5:59 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Avenue Interchange Project Is Bad.

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

- Comment: I-93.1 | Dear Caltrans and ACTC,  
Oppose the 80/Ashby Avenue Interchange Improvements Project. This project would result in:  
- Induced traffic demand, and the resulting pollution, congestion and noise due to additional vehicle miles traveled  
- Acceleration of climate change and sea level rise due to the additional pollution  
- Decreased safety for people walking, rolling, and biking near the new interchanges  
- Further retreats from our goal of creating viable alternatives to driving.
- Comment: I-93.2 | The finding of the Environmental Impact Report that this project would reduce vehicle miles traveled is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on 80, diesel locomotive thoroughfare, and industrial uses. Our environment cannot afford the additional carbon emissions that this project would create.
- Comment: I-93.3 | Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to walk to the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.



Comment:  
I-93.4

For the enormous price of one hundred twenty-five million dollars, this project would be a giant step backwards for the goals of Caltrans and Alameda County Transportation Commission to provide viable alternatives to driving. This money would be better spent on transit or improving accessibility for people walking, rolling and cycling throughout the East Bay.

Thank you for your consideration.

Paul Bickmore  
[paulbickmore@gmail.com](mailto:paulbickmore@gmail.com)  
4957 Coronado Avenue  
Oakland , California 94618

**Response to Comment Letter I-93: Paul Bickmore**

I-93.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-93.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-93.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-93.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Janet Kung](mailto:Janet.Kung); [Andrew Metzger](mailto:Andrew.Metzger)  
**Subject:** FW: Possible Homeless Enclaves Will Populate the Proposed Project: Ultimately, Rendering It Unsafe?  
**Date:** Thursday, April 7, 2022 1:28:39 PM

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-----Original Message-----

From: ELSIE WILEY <[ewiley6288@aol.com](mailto:ewiley6288@aol.com)>

Sent: Friday, January 28, 2022 4:40 PM

To: [comments@j80ashby.com](mailto:comments@j80ashby.com)

Subject: Possible Homeless Enclaves Will Populate the Proposed Project: Ultimately, Rendering It Unsafe?

EXTERNAL EMAIL. Links/attachments may not be safe.

To Whom It May Concern:

Comment:  
I-94.1

As a long time resident of North Oakland and a user of the various East Bay trails, as well as a frequent shopper at Bay Street, I have noticed a number of homeless encampments on Frontage Road nearing and on University Avenue. So, I stopped jogging Frontage Road awhile back.

I foresee the homeless population stretching out their wings to include parts of your proposed project.

What measures do you have in place to prevent this stellar plan from being foiled?

Sincerely,

Elsie Wiley  
[ewiley6288@aol.com](mailto:ewiley6288@aol.com)

**Response to Comment Letter I-94: Elsie Wiley**

I-94.1 For a discussion of Caltrans' approach to coordinating with unsheltered residents, please refer to **Master Response #2**.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:27:43 PM

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**From:** Raul Maldonado <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Tuesday, January 25, 2022 8:41 AM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-95.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-95.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-95.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-95.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Raul Maldonado  
[rmaldonadocloud@gmail.com](mailto:rmaldonadocloud@gmail.com)  
825 55TH ST  
OAKLAND, California 94608

**Response to Comment Letter I-95: Raul Maldonado**

I-95.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-95.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-95.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-95.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:27:29 PM

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**From:** Tim Courtney <[tim@timcourtney.net](mailto:tim@timcourtney.net)>  
**Sent:** Monday, January 24, 2022 9:38 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-96.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-96.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-96.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.



Comment: I-96.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Tim Courtney  
[tim@timcourtney.net](mailto:tim@timcourtney.net)  
1510 8th St  
Oakland, California 94607

**Response to Comment Letter I-96: Tim Courtney**

I-96.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-96.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-96.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-96.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:27:14 PM

**From:** Tom Kunhardt <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 9:01 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Members of the Alameda County Transportation Commission,

Comment:  
I-97.1

Dear Caltrans and ACTC,

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-97.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-97.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-97.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Tom Kunhardt  
[tt101@mac.com](mailto:tt101@mac.com)  
2506 Delmer St  
Oakland, California 94602

**Response to Comment Letter I-97: Tom Kunhardt**

I-97.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-97.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-97.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-97.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:26:58 PM

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**From:** Ranjit Bharvirkar <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 7:43 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-98.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-98.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-98.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-98.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Ranjit Bharvirkar  
[fouler.ports0u@icloud.com](mailto:fouler.ports0u@icloud.com)  
1836 Arch Street  
Berkeley, California 94709

**Response to Comment Letter I-98: Ranjit Bharvirkar**

I-98.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-98.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-98.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-98.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.



**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:26:41 PM

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**From:** Jordan Burns <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 7:39 PM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-99.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-99.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-99.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

**Comment:** I-99.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Jordan Burns  
[jordanbums13@gmail.com](mailto:jordanbums13@gmail.com)  
2151 1/2 Russell street  
Berkeley, California 94609

**Response to Comment Letter I-99: Jordan Burns**

I-99.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-99.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-99.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-99.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:25:23 PM

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**From:** Travis Close <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 11:53 AM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL. Links/attachments may not be safe.**

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-100.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-100.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-100.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-100.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Travis Close  
[travis.close@gmail.com](mailto:travis.close@gmail.com)  
2456 Hilgard Ave  
Berkeley, California 94709

**Response to Comment Letter I-100: Travis Close**

I-100.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-100.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-100.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-100.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80\\_Ashby\\_Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Janet Kung](mailto:Janet.Kung); [Andrew Metzger](mailto:Andrew.Metzger)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:24:05 PM

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**From:** Vanessa Boehm <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 11:42 AM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

CalTrans ,

Dear Caltrans and ACTC,

Comment:  
I-101.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-101.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-101.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-101.4 For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Vanessa Boehm  
[boehmvanessa@gmail.com](mailto:boehmvanessa@gmail.com)  
2456 Hilgard Ave  
Berkeley, California 94709



**Response to Comment Letter I-101: Vanessa Boehm**

I-101.1 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process. As discussed on page 2.2-9 of the DED, the project area would be susceptible to sea level rise with or without the proposed project. The proposed project would not exacerbate the effects of sea level rise because it would not lower the existing elevation of the project area or otherwise make the area more susceptible to further inundation.

I-101.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process. VMT reductions estimates are based on the TOAR, which was prepared in March 2021. Net VMT reductions reported in the TOAR factor in induced demand for both vehicular travel and bicycle and pedestrian travel.

I-101.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65

I-101.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate  
**Date:** Thursday, April 7, 2022 1:23:47 PM

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**From:** Vanessa Boehm <[info@email.actionnetwork.org](mailto:info@email.actionnetwork.org)>  
**Sent:** Monday, January 24, 2022 11:42 AM  
**To:** [comments@I80Ashby.com](mailto:comments@I80Ashby.com)  
**Subject:** I-80/Ashby Ave Interchange "Improvements" Project is wrong for Emeryville, Berkeley and our climate

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Members of the Alameda County Transportation Commission,

Dear Caltrans and ACTC,

Comment:  
I-102.1

As a member of our Bay Area community, I am writing to oppose the I-80/Ashby Ave Interchange Improvements Project, which is wrong for Emeryville and Berkeley. This project would result in:

- Induced demand, including more pollution, congestion and noise in Emeryville and Berkeley due to additional vehicle miles traveled (VMT)
- Acceleration of climate change and sea level rise
- Decreased safety for people walking, rolling, and biking near the new interchanges
- Further retreats from our goal of creating viable alternatives to driving.

Comment:  
I-102.2

The finding of the Environmental Impact Report that this project would reduce VMT is contrary to the accepted principle known as induced demand. It is now universally recognized that projects which make driving easier will only result in more driving. The additional pollution caused by the new interchange would be terrible for the health of nearby families already facing elevated burdens from traffic on I-80, diesel locomotive thoroughfare, and industrial uses. Our climate cannot afford the additional carbon emissions that this project would create.

Comment:  
I-102.3

Although this proposal includes a pedestrian overpass bridge, it lacks other key safety features, causing the negative impacts to outweigh any pedestrian benefits. The freeway interchange project does not include safety improvements along Shellmound Ave such as protected bike lanes and traffic calming, which are necessary to protect vulnerable road users from increased traffic entering and exiting the freeway. As a result, families who wish to access the Bay Trail will face elevated dangers competing for road space with automobiles, thus discouraging recreational access. Pedestrian and bike infrastructure need not be tied to highway widening proposals, but rather should be stand-alone projects to help achieve our active transportation and climate goals.

Comment: I-102.4 | For the enormous price of \$125 million, this project would be a giant step backwards for the goals of Caltrans and ACTC to provide viable alternatives to driving. Community-led groups agree that this money would be better spent improving accessibility for people walking, rolling and biking throughout the East Bay.

Thank you for your consideration.

Vanessa Boehm  
[boehmvanessa@gmail.com](mailto:boehmvanessa@gmail.com)  
2456 Hilgard Ave  
Berkeley, California 94709

### **Response to Comment Letter I-102: Vanessa Boehm**

I-102.1 Please refer to **Master Response #4** for clarification regarding roadway widening and anticipated VMT reductions, and for discussion of safety improvements included as part of the proposed project and additionally bicycle/pedestrian linkages that were considered as part of the project development process..

I-102.2 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

I-102.3 Please refer to **Master Response #4** for clarifications regarding roadway widening and anticipated VMT reductions. Safety is a top priority for Caltrans on all projects, and especially for this proposed project. As discussed in Section 1.3.1, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished through the construction of a separate Class I pathway including a BPOC structure south of the new interchange. The Class I pathway would include ADA-compliant switchbacks and landings on the east and west sides of I-80 approaching the separate BPOC structure. The structure would be publicly accessible from 65th Street to the east and West Frontage Road to the west.

I-102.4 Thank you for your comment. Your opposition to the proposed project has been recorded as part of the administrative record. Please refer to **Master Response #4** for discussion of project funding.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I work in the area: terrible idea to expand freeway  
**Date:** Thursday, April 7, 2022 1:23:35 PM

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**From:** Carter Lavin <[carter.lavin@gmail.com](mailto:carter.lavin@gmail.com)>  
**Sent:** Saturday, January 22, 2022 6:12 PM  
**To:** [comments@i80ashby.com](mailto:comments@i80ashby.com)  
**Subject:** I work in the area: terrible idea to expand freeway

EXTERNAL EMAIL. Links/attachments may not be safe.

Comment: I-103.1 | some day I bike mainly along San Pablo and on any day I believe it is a ridiculous waste of money to expand the freeway. There are far more cost effective ways to help ensure better mobility across the region and inducing car demand through freeway widening is a climate disaster.

ays I drive it,

**Response to Comment Letter I-103: Carter Lavin**

I-103.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Janet Kung](mailto:Janet.Kung); [Andrew Metzger](mailto:Andrew.Metzger)  
**Subject:** FW: Just build the bicycle elements  
**Date:** Thursday, April 7, 2022 1:23:23 PM

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-----Original Message-----

From: Will's Gmail <[willhandsfield@gmail.com](mailto:willhandsfield@gmail.com)>  
Sent: Saturday, January 22, 2022 2:55 PM  
To: [comments@j80ashby.com](mailto:comments@j80ashby.com)  
Subject: Just build the bicycle elements

EXTERNAL EMAIL. Links/attachments may not be safe.

**Comment:** I-104.1 | Yet again I'm astonished that CalTrans proposes to widen ramps in order to relieve congestion, a strategy followed for 70 years with worse results every time.

**Comment:** I-104.2 | The only method to reduce congestion is fewer car trips on existing roads, so substituting driving trips for biking and transit trips is where you should direct the project.

It is necessary that you build the proposed bicycle elements, and extend protection to bike facilities down Shellmound. Provide first class bike accommodation for the many Bay Area people who are willing to substitute bike trips for driving, and don't do the ramps or widening that will simply induce more demand on the roads.

Tiny iPhone keys = mistakes

**Response to Comment Letter I-104: Will Handsfield**

I-104.1 Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions and other bicycle/pedestrian improvements considered as part of the project development process.

I-104.2 As discussed in Section 1.3, Purpose and Need of the DED, one of the primary purposes of the proposed project is to enhance safe bicycle and pedestrian connectivity across I-80. This would be accomplished via a new Class I bicycle/pedestrian pathway. Please refer to **Master Response #4** for clarifications regarding roadway widening and a discussion of anticipated VMT reductions.



**From:** [Klepl, Brooklyn@DOT](mailto:Klepl.Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80.Ashby.Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: Ashby-80-Shellmound interchange project  
**Date:** Thursday, April 7, 2022 1:23:10 PM

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**From:** Scott Amundson <[scott.amundson@gmail.com](mailto:scott.amundson@gmail.com)>  
**Sent:** Thursday, January 20, 2022 6:56 PM  
**To:** [comments@i80ashby.com](mailto:comments@i80ashby.com)  
**Cc:** [advocacy@bikeeastbay.org](mailto:advocacy@bikeeastbay.org)  
**Subject:** Ashby-80-Shellmound interchange project

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello,

Thank you for taking public input on this project. I'm a frequent visitor to Emeryville via bicycle and automobile. I live in Oakland. I will appreciate this new bike bridge. However, I have the same concerns that Bike East Bay has expressed:

- Comment: I-105.1
1. Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that.
- Comment: I-105.2
2. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street.

Regards,  
Scott Amundson  
Oakland, CA

**Response to Comment Letter I-105: Scott Amundson**

I-105.1 Please refer to **Master Response #4** for a discussion other bicycle/pedestrian improvements considered as part of the project development process.

I-105.2 Please refer to **Master Response #4** for a discussion other bicycle/pedestrian improvements considered as part of the project development process.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: I-80 Ashby Interchange comments  
**Date:** Thursday, April 7, 2022 1:23:08 PM

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**From:** Warren Wells <[warrenjwells@gmail.com](mailto:warrenjwells@gmail.com)>  
**Sent:** Friday, January 21, 2022 11:19 PM  
**To:** [comments@i80ashby.com](mailto:comments@i80ashby.com)  
**Subject:** I-80 Ashby Interchange comments

**EXTERNAL EMAIL.** Links/attachments may not be safe.

My name is Warren Wells. I am an AICP certified planner working in bicycle advocacy in Marin, but I live in Berkeley. I am writing to urge ACTC to follow the recommendations of Bike East Bay, which I am including here.

- Comment: I-106.1 | 1. Shellmound Street needs a low-stress, family-friendly bikeway the whole way, connecting from Emeryville to the south and connecting from Bay Street and Berkeley to the north. Emeryville's own draft active transportation plan calls for such a bikeway. Such a safe bikeway is needed even more with this project because the project adds two new connector ramps to I-80 from Shellmound. There is going to be more traffic on Shellmound and the project has to mitigate that.
- Comment: I-106.2 | 2. 65th Street also needs a safe bikeway between Shellmound and Doyle Street and the project stops short of this. There is a basic concept in transportation planning that experts fail to remember that when building a good bikeway with a project, the bikeway should connect to existing bikeways, and this project doesn't do that with 65th Street.
- Comment: I-106.3 | 3. Construction impacts also need to be well mitigated. During construction of the new freeway interchange, traffic will be diverted onto local streets, including 6th/7th Streets in Berkeley. The bikeway crossings of Berkeley should be upgraded during construction to maintain safe crossings of 6th Street, as well as safety of people bicycling on 6th/7th Streets.

Thank you for your time and consideration.

Warren J. Wells, AICP  
Cell: 410-703-9898  
Email: [warrenjwells@gmail.com](mailto:warrenjwells@gmail.com)

### **Response to Comment Letter I-106: Warren Wells**

I-106.1 Please refer to **Master Response #4** for a discussion other bicycle/pedestrian improvements considered as part of the project development process.

I-106.2 Please refer to **Master Response #4** for a discussion other bicycle/pedestrian improvements considered as part of the project development process.

I-106.3 Please refer to Section 1.5, Project Alternatives for discussion of construction methods used for the proposed project. Project Features CON-1 and CON-2 will be implemented to minimize construction impacts during construction. Additionally, a Traffic Management Plan (TMP) will be implemented to maintain safe crossings during the construction phase. Please refer to **Master Response #4** for a discussion of additional bicycle and pedestrian connections considered during the project development process.

**From:** [Klepl, Brooklyn@DOT](mailto:Klepl_Brooklyn@DOT) on behalf of [I-80 Ashby Project@DOT](mailto:I-80_Ashby_Project@DOT)  
**To:** [Andrew Metzger](mailto:Andrew.Metzger); [Janet Kung](mailto:Janet.Kung)  
**Subject:** FW: Roundabout alternative for I80-Ashby  
**Date:** Thursday, April 7, 2022 1:26:32 PM  
**Attachments:** [Screen Shot 2022-01-24 at 14.09.53.png](#)

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**From:** Maxime Baudette <[maxime.baudette@gmail.com](mailto:maxime.baudette@gmail.com)>  
**Sent:** Monday, January 24, 2022 2:24 PM  
**To:** [comments@i80ashby.com](mailto:comments@i80ashby.com)  
**Subject:** Roundabout alternative for I80-Ashby

EXTERNAL EMAIL. Links/attachments may not be safe.

Comment:  
I-107.1

My name is Maxime Baudette and I live in Emeryville (94608).  
Here's a proposal that would reuse the 2 bridges locations that exist today for a single big roundabout solution to the interchange.  
By also moving a bit the Frontage road on the bike/ped bridge side, it would make it possible to cross I80 + frontage road with a single bridge.

The current proposal with a tight diamond not only has way way too many lanes everywhere, but also makes extensive use of traffic lights that are known to generate traffic congestions. A roundabout based solution is way more fluid and simpler to use, plus it's rather elegant and compact.

See attached drawings.



Maxime



**Response to Comment Letter I-107: Maxime Baudette**

I-107.1 Thank you for your comment. Your suggestion to reuse the two existing bridge locations has been recorded as part of the administrative record and will be considered during the final design phase. As discussed in Section 1.5.3, Alternatives Considered But Eliminated From Further Discussion, several roundabout designs were considered but ultimately not carried forward because they did not meet design year projected traffic operations and provided no safety performance benefits.



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Appendix F List of Technical Reports

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Appendix F List of Technical Reports Prepared

1. Community Impact Assessment
2. Traffic Operations Analysis Report
3. Visual Impact Assessment
4. Location Hydraulic Study
5. Water Quality Assessment Report
6. Preliminary Geotechnical and Foundation Report
7. Paleontological Evaluation Report
8. Air Quality Report
9. Noise Study Report
10. Natural Environment Study
11. Stormwater Data Report
12. Phase I Initial Site Assessment
13. Historic Property Survey Report
14. Sea Level Rise Memo

Appendix G MTC Air Quality Conformity Determination

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**From:** [Harold Brazil](#)  
**To:** [Fund Management System](#); [ybhat@alamedactc.org](mailto:ybhat@alamedactc.org)  
**Cc:** [Adam Crenshaw](#); [Susan Chang](#); [Andrew Metzger](#)  
**Subject:** Re: FMS POAQC Project TIP ID ALA170002 (I-80/Ashby Avenue Interchange Improvements Project) update: Project is a not a POAQC  
**Date:** Thursday, July 30, 2020 2:53:09 PM

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**\*\* please note: this is a second email to correct the project name and TIP ID number [ALA170002] for the I-80/Ashby Avenue Interchange Improvements Project**

Dear Project Sponsor

Based on the recent interagency consultation with the Air Quality Conformity Task force, Project TIP ID ALA170002 (FMS ID: 6315.00) does not fit the definition of a project of air quality concern as defined by 40 CFR 93.123(b)(1) or 40 CFR 93.128 and therefore is not subject to PM2.5 project level conformity requirement. Please save this email as documentation confirming the project has undergone and completed the interagency consultation requirement for PM2.5 project level conformity. Note project sponsors are required to undergo a proactive public involvement process which provides opportunity for public review as outlined by 40 CFR 93.105(e). For projects that are not of air quality concern, a comment period is only required for project level conformity determinations if such a comment period would have been required under NEPA. For more information, please see FHWA PM2.5 Project Level Conformity Frequently Asked Questions (FAQ):  
[https://www.fhwa.dot.gov/environment/air\\_quality/conformity/policy\\_and\\_guidance/faqs/pm25faqs.cfm](https://www.fhwa.dot.gov/environment/air_quality/conformity/policy_and_guidance/faqs/pm25faqs.cfm)

If you have any questions, please direct them to Harold Brazil at [hbrazil@bayareametro.gov](mailto:hbrazil@bayareametro.gov) or by phone at 415-778-6747.

Appendix H NMFS Concurrence Letter

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**From:** Andrew Trent - NOAA Federal <[andrew.trent@noaa.gov](mailto:andrew.trent@noaa.gov)>  
**Sent:** Wednesday, August 17, 2022 12:01 PM  
**To:** Moss, Sara@DOT <[Sara.Moss@dot.ca.gov](mailto:Sara.Moss@dot.ca.gov)>  
**Cc:** Rechs, Matthew@DOT <[Matthew.Rechs@dot.ca.gov](mailto:Matthew.Rechs@dot.ca.gov)>; Mu, Lily@DOT <[Lily.Mu@dot.ca.gov](mailto:Lily.Mu@dot.ca.gov)>  
**Subject:** Re: FW: Ashby Interchange Project FED / Effects Determination (NLAA to No Effects)

**EXTERNAL EMAIL.** Links/attachments may not be safe.

Hi Sarah,

Thank you for your email requesting a change to a "no effects" determination for the Ashby Interchange Project. In light of our previous discussions involving the Project, particularly the meeting between Caltrans and myself on August 9, 2022, where we discussed outfall drainage capacity and stormwater treatments, NMFS agrees that this project will have no effect on the listed fish species mentioned in your previous email. This is under the assumption that Caltrans follows all the avoidance and minimization measures described in the Biological Assessment provided to NMFS for this Project (work windows, erosion control, use of vibratory hammer for sheet pile installation, and having the sheet pile installation occurring at low tide in a dry environment).

If there are any questions or concerns feel free to reach me by email or phone (707) 578-8553.

Thank you,

Andy

On Wed, Aug 17, 2022 at 11:06 AM Moss, Sara@DOT <[Sara.Moss@dot.ca.gov](mailto:Sara.Moss@dot.ca.gov)> wrote:

Hi Andy,

Thank you for checking in!

Based on our conversations last week about this Project, we wish to down scope our Effects Determination from a NLAA to a No Effects and withdraw our request for an LOC. To recap, we originally requested an LOC for the .019 acre of temporary and .007 acre of permanent impacts to estuarine, open water habitat (the San Francisco bay). The area of the San Francisco bay within our Project limits has the potential for green sturgeon – sDPS, Steelhead - CCC DPS, Steelhead – CV DPS, and Chinook salmon - Sac River winter-run ESU to be present and is designated Critical Habitat for these species. The .007 acre of permanent impacts on this Project is due to the new outfall and riprap required along the shore. Installation of the outfall requires a coffer dam that will go in during the non-migrating fish season (June 2 to October 31), at low tide with a Bio-monitor present. In addition, the water conveyed through the outfall will be treated through a bio-swale. With the AMMs in place the impact from our project is expected to be insignificant to minimal on the above listed fish species and Critical Habitat.

Please let me know if you have any questions / concerns.

Thank you for your patience,

**Sara Moss**

Caltrans Biologist  
District 4 – East Counties  
(510) 570 - 6983

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Appendix I FHWA Conformity Determination

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# Air Quality Conformity Analysis

## INTERSTATE 80/ASHBY AVENUE (ROUTE 13) INTERCHANGE IMPROVEMENT PROJECT (ASHBY AVENUE [SR-13] - SHELLMOUND STREET)

From 65th Street to Potter Street along I-80 and W Frontage Road  
to Bay Street along Ashby Avenue in Alameda County

04-ALA-80 PM 3.9/5.0  
04-ALA-13 PM 13.7/13.9  
EA 04-256200  
Project ID 0418000225

July 2022

Prepared By: *Patrick Sutton* Date: 8/29/2022  
Patrick Sutton, Sr. Environmental Engineer  
Baseline Environmental Consulting

Approved By: *Shilpa Mareddy* Date: 10/21/2022  
Shilpa Mareddy, Air and Noise Branch Chief  
Office of Environmental Engineering



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## Section 1. Introduction and Project Description

This Air Quality Conformity Analysis contains the information that is required to make a project-level air quality conformity determination for the Interstate 80 (I-80)/Ashby Avenue Interchange Improvements Project (proposed project). This analysis has been prepared to be consistent with information published by FHWA related to Project-Level Conformity Analysis, the Standard Environmental Reference (SER) Air Quality Conformity Findings Checklist (included as [Appendix A](#)), applicable U.S. EPA project-level analysis guidance, the Transportation Conformity Regulations at 40 CFR 93 Subpart A, and Section 176(c) of the Federal Clean Air Act (42 USC 7506(c)).

This analysis only addresses the conformity requirements of the Federal Clean Air Act. It does not address general air quality analysis or studies conducted for the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA), and only addresses pollutants for which the project area is designated nonattainment, or attainment with an approved Maintenance SIP, by the U.S. EPA.

This report is intended to provide all information needed by FHWA to make a project-level conformity determination for a project that falls under 23 USC 327 NEPA Assignment to Caltrans; or to support a full project-level conformity determination by Caltrans under 23 CFR 326 NEPA Assignment for projects that require a project-level conformity determination (including regionally significant projects as defined in 40 CFR 93.101), and are categorically excluded from NEPA analysis under 23 CFR 771.117(c)(22) or 23 CFR 771.117(c)(23).

### 1.1. Project Description

The California Department of Transportation (Caltrans) District 4, in partnership with the Alameda County Transportation Commission (Alameda CTC), proposes to provide interchange and local road improvements along Interstate 80 (I-80) at the Ashby Avenue Interchange (interchange). The interchange is located between post miles (PM) 3.9 and 5.0 on I-80 and between 13.7 and 13.9 on State Route (SR) 13 in the cities of Emeryville and Berkeley in Alameda County. The proposed project would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to West Frontage Road, and introduce a new bicycle and pedestrian overcrossing and connection from 65th Street / Shellmound Street to the San Francisco Bay Trail.

The purpose of the project is to:

- Improve interchange access and circulation;
- Provide multimodal connectivity;



- Provide westbound I-80 connection to Shellmound Street;
- Provide safe bicycle and pedestrian connectivity across I-80;
- Improve circulation at I-80/Powell Street and 7th Street; and
- Alleviate local surface street congestion.

The interchange, constructed in the 1950's, does not provide access to or from westbound I-80 or Shellmound Street in the City of Emeryville. Additionally, the area including the interchange lacks connectivity for different modes of transportation (i.e., vehicular, bicycle and pedestrian users).

For these reasons, the interchange suffers from the following key operational issues:

- The existing interchange provides no access to Shellmound Street to/from westbound I-80 and no access from Shellmound Street to Frontage Road;
- Access from westbound traffic to Emeryville is forced to use the Powell Street interchange; and
- There is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street/Shellmound Street area.

The proposed project is located within Alameda County. The portion of the project area to the north of Ashby Avenue is within the City of Berkeley and the portion to the south is within the City of Emeryville. The approximately 85-acre project site extends from I-80 PM 4.58 to PM 13.90 from north to south. Between PM 2.00/6.03 and 6.53/8.04, I-80 is a Classified Landscaped Freeway. The classification assists in the control and placement of outdoor advertising. The San Francisco Bay borders the project area to the west. The project area is generally bordered by Shellmound Street and the Union Pacific Railroad (UPRR) tracks to the east.

Caltrans selected the Preferred Alternative and made the final determination of the project's effect on the environment. Under CEQA, no significant impacts were identified, and Caltrans has prepared a Mitigated Negative Declaration (MND) for the approval of the Preferred Alternative. Caltrans, as assigned by the FHWA, will issue a FONSI in accordance with NEPA.

The Preferred Alternative would be identical to the Build Alternative (Figure 1) which would demolish the existing I-80/Ashby Avenue connector ramps and replace them with a tight diamond interchange. The tight diamond form is a compressed diamond interchange used in

urban and suburban areas where there is limited right of way. This configuration has two closely-spaced signalized intersections at the crossing of the ramp terminals and side street.

The bridge structure associated with the Build Alternative would be approximately 118 feet wide by 160 feet long and would have a closed face on both abutments. The bridge would provide access to and from I-80, Ashby Avenue, Shellmound Street, Bay Street, and West Frontage Road. The overcrossing, which would accommodate 7 traffic lanes, would remove existing interference with truck traffic by raising vertical clearance of the structure above its current height of 15 feet, 4 inches. Traffic within the interchange would be controlled by two traffic signals, one at the westbound on- and off-ramps and one at the eastbound on and off-ramps. East of the eastbound on and off-ramp locations there would be a traffic signal for the Bay Street connector ramp and Ashby Avenue. A traffic signal would be located at the intersection of the Ashby Avenue and West Frontage Road. Both eastbound and westbound on-ramps would be metered.

As shown in Figure 1, Ashby Avenue would connect to the realigned West Frontage Road using a simple T-Intersection. West Frontage Road would be required to meet geometric and safety specifications for the three-way intersection along its new alignment. This realignment to the east would create greater separation between the realigned West Frontage Road and the San Francisco Bay Trail.

East of I-80, the Build Alternative would realign the existing eastbound off-ramp parallel to the existing East Bay Municipal Utility District 66-inch sanitary sewer main. The off-ramp would intersect Ashby Avenue. The existing connection from the eastbound off-ramp to Shellmound Street would also be modified. A new connection from Bay Street to Ashby Avenue would provide a connection to both the interchange and across the bridge to West Frontage Road on the west side of the interchange.

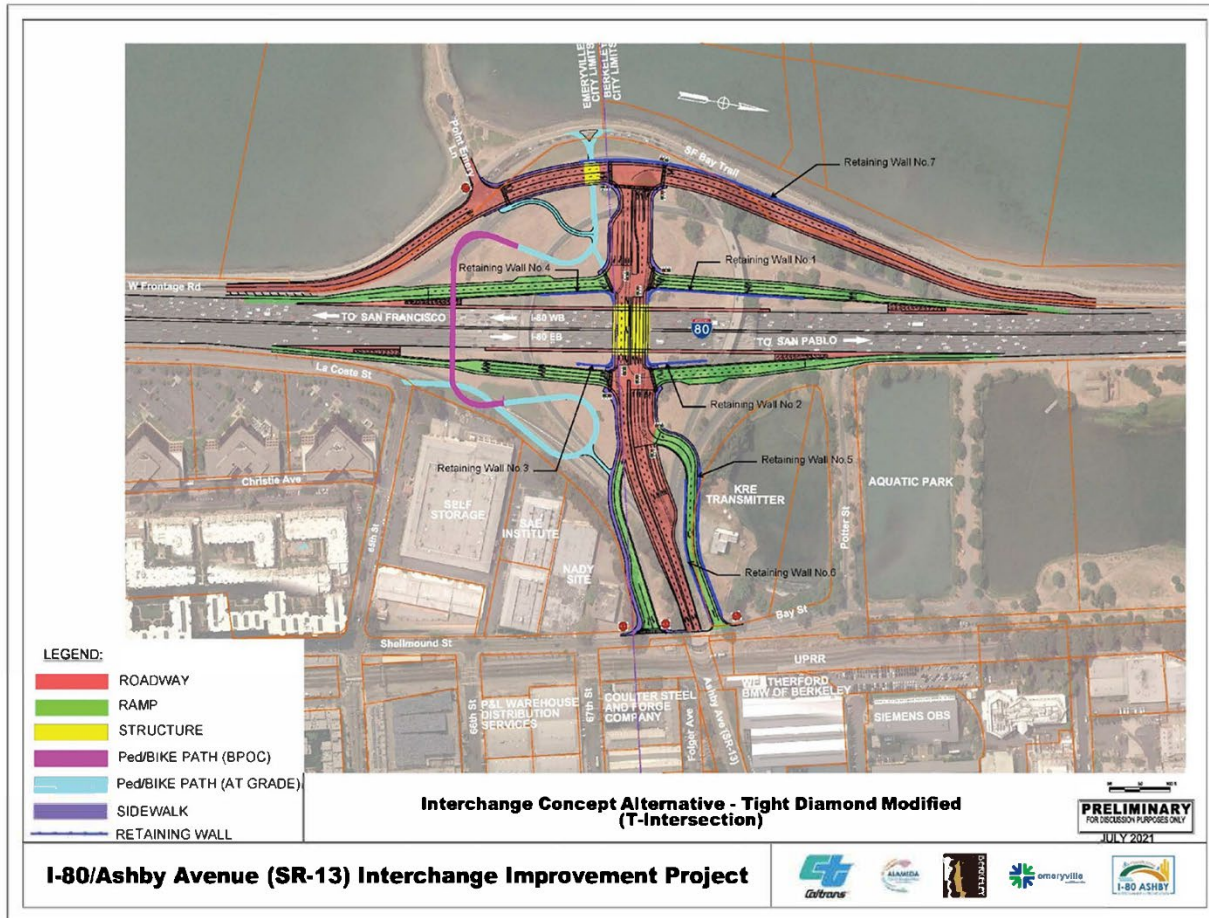
This connection would require installation of retaining walls between 8 and 32 feet in height. The current eastbound ramp at Potter Street would be replaced with a diagonal onramp and it would provide two general purpose lanes, maintenance vehicle pullouts (MVP), and California Highway Patrol (CHP) enforcement areas. These proposed improvements would also allow direct a ramp-to-ramp connection.

Proposed improvements along Bay Street would require relocation of one of the three guy wires (i.e., tensioned cables that add stability to a free-standing structure) for the transmitting tower. The project team will work with the property owner in making the appropriate modifications.

Project construction is expected to begin in Spring 2025 with the project opening to traffic in Fall 2027. This schedule is subject to change based on funding availability.

**Figure 1. Build Alternative**

INTERSTATE 80/ASHBY AVENUE INTERCHANGE IMPROVEMENTS PROJECT



**Build Alternative** Figure **1**

Source: TYLIN 2021

## 1.2. Air Quality Regulatory Framework

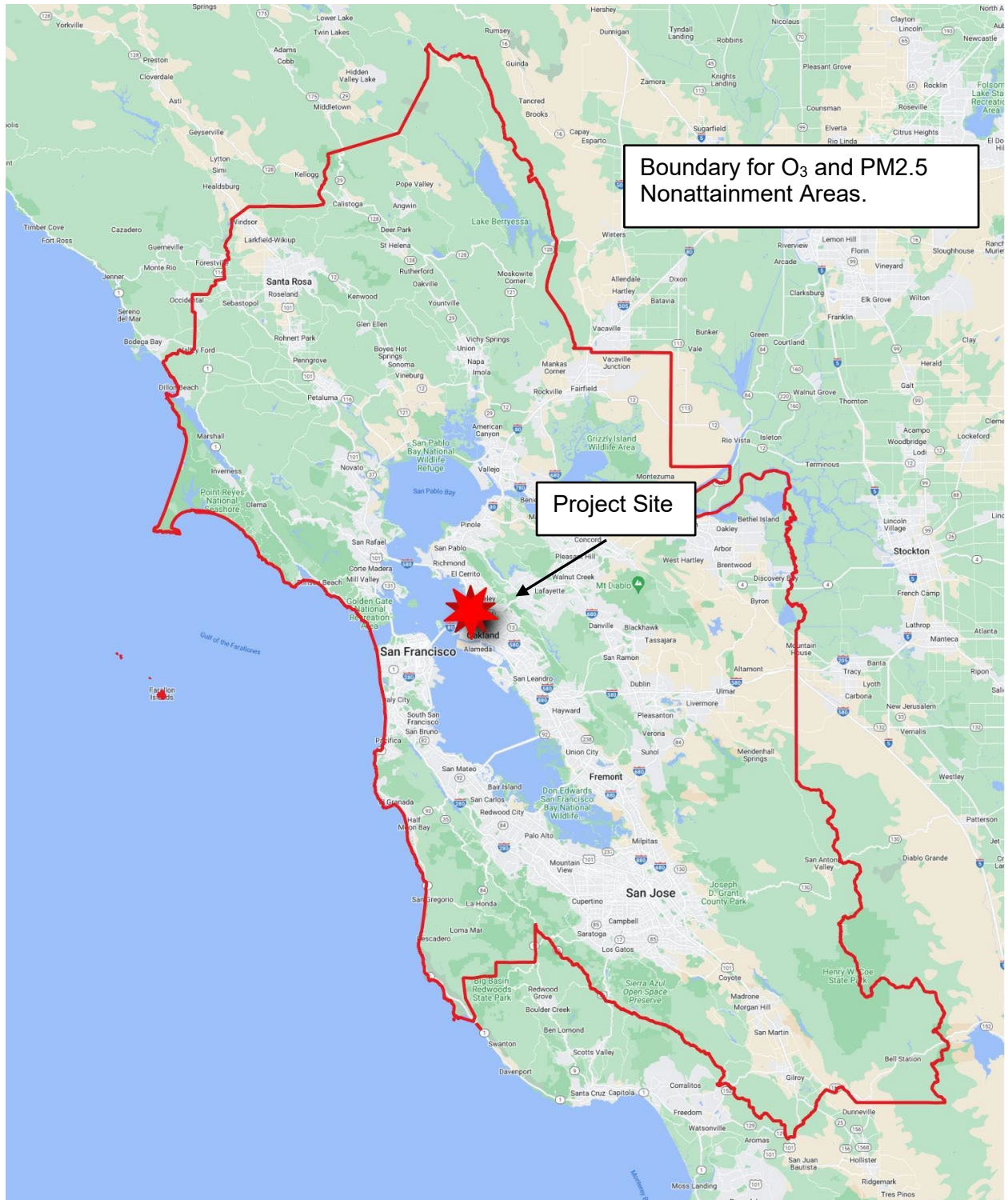
**Table 1** shows that the proposed project is located in an area that is nonattainment for ozone (O<sub>3</sub>) and fine particulate matter (PM<sub>2.5</sub>). This analysis focuses on these criteria pollutants. The conformity process does not address pollutants for which the area is attainment/unclassified, mobile source air toxics, other toxic air contaminants or hazardous air pollutants, or greenhouse gases.

**Table 1. Project Area Attainment Status**

<b>Criteria Pollutant</b>	<b>Federal Attainment Status</b>
Ozone (O <sub>3</sub> )	Nonattainment (Marginal)
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment-Unclassified
Carbon Monoxide (CO)	Attainment-Unclassified
Particulate Matter (PM <sub>10</sub> )	Attainment-Unclassified
Particulate Matter (PM <sub>2.5</sub> )	Nonattainment (Moderate)

The nonattainment area boundary for O<sub>3</sub> and PM<sub>2.5</sub> include the nine counties in the San Francisco Bay area (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma). As shown in **Figure 2**, the project is not located near the boundaries of the nonattainment areas.

**Figure 2. Nonattainment Area Boundaries**



### 1.3. Public Review Comments Related to Air Quality Conformity

Public comment regarding the conformity analysis was requested on June 1, 2022. No public comments related to conformity were received. A copy of the public notice is included in [Appendix B](#).

## Section 2. Regional Conformity

The I-80/Ashby Avenue Interchange Improvement project was included in the regional emissions analysis conducted by Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) for the conforming Regional Transportation Plan (RTP), *Plan Bay Area 2050*, adopted on October 21, 2021 (RTP ID 21-T06-048). FHWA determined that the RTP conforms to the SIP on December 3, 2021. The project's design concept and scope have not changed significantly from what was analyzed in the regional emission analysis. This analysis found that the plan, which takes into account regionally significant projects and financial constraint, will conform to the state implementation plan(s) (SIP(s)) for attaining and/or maintaining the National Ambient Air Quality Standards (NAAQS) as provided in Section 176(c) of the Clean Air Act. Additional documentation related to the regional emissions analysis is contained in [Appendix C](#).

The I-80/Ashby Avenue Interchange Improvement project is also included in the federal 2021 Transportation Improvement Program (TIP), which was amended (Amendment NO. 2021-10) and adopted by MTC on October 21, 2021 (TIP ID ALA170002). FHWA determined that the amended TIP conforms to the SIP on December 3, 2021. The project's open-to-traffic year is consistent with (within the same regional emission analysis period as) the construction completion date identified in the federal TIP and/or RTP. The federal TIP gives priority to eligible Transportation Control Measures (TCMs) identified in the SIP and provides sufficient funds to provide for their implementation. Documentation related to the public and interagency consultation process conducted to develop the TIP is contained in [Appendix C](#).

## Section 3. Localized Impact (Hot-Spot) Conformity

### 3.1. Carbon Monoxide Hot-Spot Analysis

This project is located in an area that is designated attainment-unclassified for carbon monoxide (CO). Therefore, no project-level conformity analysis is necessary for CO.

### 3.2. PM2.5 Hot-Spot Analysis

The proposed project is not considered a project of air quality concern for PM2.5 (POAQC) because it does not meet the definition of a POAQC as defined in U.S. EPA's Transportation Conformity Guidance. The project would not add capacity for diesel vehicles on I-80 or increase heavy duty truck traffic by 10 percent or more. Overall, the project would improve or maintain the level of service (LOS) at the I-80/Ashby Avenue interchange. The project does not include new or expanded bus terminals, rail terminals, or transfer points. Therefore, PM hot-spot analysis is not required.

The project has undergone Interagency Consultation (IAC) regarding POAQC determination. IAC participants concurred that the project is not a POAQC (see [Appendix D](#)).

In 2012, CARB submitted a PM2.5 Emission Inventory for the San Francisco Bay Area to the U.S. EPA to revise the SIP. On January 9, 2013, the U.S. EPA finalized a determination that the San Francisco Bay Area nonattainment area had attained the 2006 24-hour PM2.5 NAAQS. Based on this determination, EPA suspended the requirements to submit plans that identify control measures to meet reasonable further progress and attainment deadlines as long as the area continues to attain the 2006 24-hour PM2.5 NAAQS. As a result, there are no control measure in the SIP related to PM2.5 for the San Francisco Bay Area. Therefore, a written commitment to implement control measures is not required.

The NEPA document for this project does not identify specific avoidance, minimization, and or mitigation measures for PM2.5. A written commitment to implement such control measures is therefore not required.

The approved RTP and TIP for the project area has no PM mitigation or control measures that relate to the project's construction or operation. Therefore, a written commitment to implement PM control measures is not required.

### 3.3. Construction-Related Hot-Spot Emissions

40 CFR 93.123(c)(5) states that: "CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site."

Because construction of the project is expected to last less than five years, construction-related emissions related to it are not considered in the project-level or regional conformity analysis.

# Appendix A. Air Quality Conformity Findings Checklist

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## Transportation Air Quality Conformity Findings Checklist

### PROJECT INFORMATION

**Project Name:** I-80/Ashby Avenue Interchange Improvement Project

**DIST-CO-RTE-PM:** 04-ALA-80 PM 3.9/5.0 04-ALA-13 PM 13.7/13.9

**EA:** 04-256200 **Federal Aid Number:** 04-1800-0225

**Document Type:**  23 USC 326 CE  23 USC 327 CE  EA  EIS

### CHECKLIST

**Step 1.** Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM<sub>2.5</sub>, or PM<sub>10</sub> per [EPA's Green Book](#) listing of non-attainment areas?

If no, go to Step 18. **Transportation conformity does not apply to the project.**

If yes, go to Step 2.

---

**Step 2.** Is the project exempt from conformity per [40 CFR 93.126](#) or [40 CFR 93.128](#)?

If yes, go to Step 18. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).

40 CFR 93.126<sup>1</sup>

**Project type from Table 2:** \_\_\_\_\_

40 CFR 93.128

If no, go to Step 3.

---

**Step 3.** Is the project exempt from regional conformity per [40 CFR 93.127](#)?

If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type).

**Project type:** Interchange reconfiguration projects

If no, go to Step 4.

---

**Step 4.** Is the project located in a region with a currently conforming RTP and TIP?

If yes, **the project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.

If no and the project is located in an isolated rural area, go to Step 5.

If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

---

<sup>1</sup> Please refer to [Clarifications on Exempt Project Determinations](#) to verify exempt project type from Table 2. Road diets, auxiliary lanes less than one-mile, and ramp metering may be exempt under "projects that correct, improve, or eliminate a hazardous location or feature."

Transportation Air Quality Conformity Findings Checklist

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**Step 5.** For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

- If yes, go to Step 6.
- If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[e]).**

---

**Step 6.** Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

- If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[e]).**
- If no, go to Step 7.

---

**Step 7.** The project, located in an isolated rural area, requires a separate regional emissions analysis.

- Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[e] and 95.105).<sup>2</sup> Go to Step 8.**

---

**Step 8.** Is the project located in a CO nonattainment or maintenance area? (South Coast Air Basin only)

- If no, go to Step 9. **CO conformity analysis is not required.**
- If yes, **hot-spot analysis requirements for CO per the [CO Protocol](#) (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors<sup>3</sup>) have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)<sup>4</sup>. Go to Step 9.**

---

**Step 9.** Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

- If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**
- If yes, go to Step 10.

---

<sup>2</sup> The analysis must support this conclusion before going to the next step.

<sup>3</sup> Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: <http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot>.

<sup>4</sup> As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.

Transportation Air Quality Conformity Findings Checklist

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**Step 10.** Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's [Transportation Conformity Guidance](#) for PM 10 and PM 2.5?

- If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on July 30, 2020.** Go to Step 12.
- If yes, go to Step 11.

---

**Step 11.** The project is a POAQC.

- The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on \_\_\_\_\_. Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

---

**Step 12.** Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures? [Control measures can be found in the applicable Federal Register notice at: <https://www.epa.gov/state-and-local-transportation/conformity-adequacy-review-region-9#ca>.]

- If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).** Go to Step 14.
- If no, go to Step 13.

---

**Step 13a.** Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

**Step 13b.** Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document? AND

**Step 13c** (applies only if Step 13a and/or 13b are answered "yes"). Has a written commitment been made as part of the air quality analysis to implement the identified measures?

- If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination (40 CFR 93.125(a)).** Go to Step 14.
- If no, go to Step 14.

---

**Step 14.** Does the project qualify for a Categorical Exclusion pursuant to 23 USC 326?

- If yes, go to step 15.
- If no, the project requires preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327. Go to Step 16.

**Transportation Air Quality Conformity Findings Checklist**

**Step 15. Is any analysis required by steps 1-13 of this form?<sup>5</sup>**

- If yes, then Caltrans prepares the appropriate analysis and documentation for the project file and makes the conformity determination through its signature on the CE form. No FHWA involvement is required. See the AQCA Annotated Outline. Go to Step 18.
- If no, then Caltrans makes the conformity determination through its signature on the CE form. No FHWA involvement is required. Go to Step 18.

**Step 16. Is the project located in a non-attainment/maintenance area for ozone only and considered not regionally significant/non-exempt?**

- If yes, go to Step 18.<sup>6</sup>
- If no, then **an AQCA is needed**. See the AQCA Annotated Outline. Caltrans submits a conformity determination request to FHWA for FHWA's conformity determination. Go to Step 17.

**Step 17.** Send FHWA Request for Conformity Determination package and [FHWA Submittal Package Checklist](#) to DOTP- Air Quality ([rodney.tavitas@dot.ca.gov](mailto:rodney.tavitas@dot.ca.gov)) and DEA-Air Quality ([daisy.laurino@dot.ca.gov](mailto:daisy.laurino@dot.ca.gov)) for completeness review. Please direct technical questions to DOTP-Air Quality office. Headquarters staff will coordinate with FHWA on behalf of the district.

**Date of FHWA air quality conformity determination:** \_\_\_\_\_

**Step 18. STOP as all air quality conformity requirements have been met.**

**SIGNATURE**

Shilpa Mareddy

Air Quality and Noise Branch  
Chief

Signature

Date

<sup>5</sup> Please note that not all projects that qualify for a categorical exclusion will be exempt from air quality conformity requirements. Many types of projects that may qualify for a CE (such as the addition of auxiliary lanes less than one-mile, weaving lanes less than one-mile, turning lanes less than one-mile, climbing lanes less than one-mile, parking, road diets, ramp metering, and even many bridge projects) MAY require some level of project level conformity analysis and may even require interagency consultation. Additionally, please note that for ALL projects the project file must include evidence that one of the three following situations apply: 1) Conformity does not apply to the project area; or 2) The project is exempt from all conformity analysis requirements; or 3) The project is subject to project-level conformity analysis (and possibly regional conformity analysis) and meets the criteria for a conformity determination. The project file must include all supporting documentation and this checklist.

<sup>6</sup> Project-level conformity analysis shows that the project will conform to the State Implementation Plan. Because the project area is Attainment/Unclassified for carbon monoxide (CO) and particulate matter (PM10 and PM2.5), no hot spot analysis is required for the project-level conformity determination by 40 CFR 93.116 and 93.123. The project comes from a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). Include documentation of interagency consultation review in the final CE/EA/EIS, if applicable.

## **Appendix B. Public Review Comments and Responses Related to Air Quality Conformity**

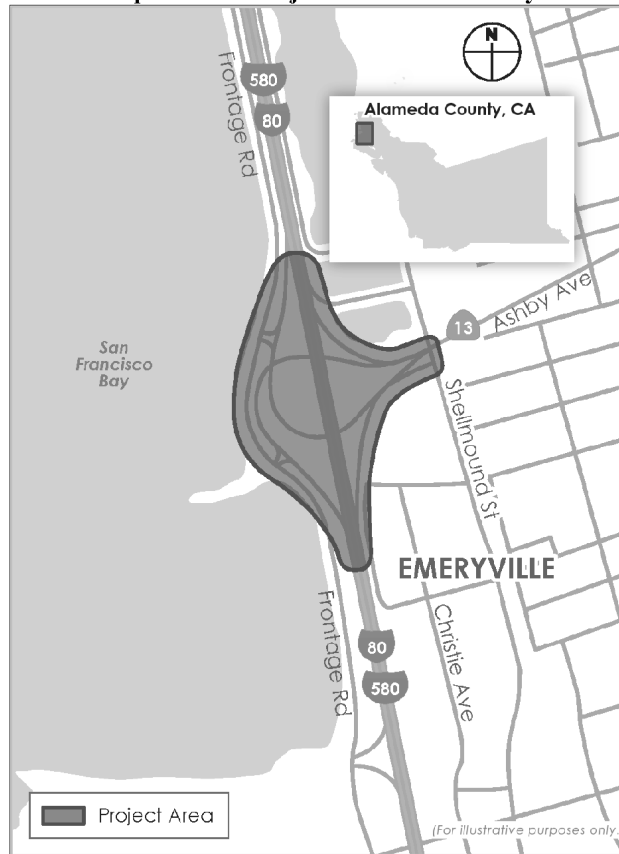
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No public comments related to conformity were received during public review of this project's public notice period related to conformity. The public notice related to conformity is provided on the following page.



## Public Notice

### Disclosure of Air Quality Study Results for the Interstate 80 / Ashby Avenue Interchange Improvement Project in Alameda County



The California Department of Transportation (Caltrans) District 4 has prepared an Air Quality Study Report pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) for the Interstate 80 / Ashby Avenue Interchange Improvement Project (Project).

**WHAT'S BEING PLANNED:** The California Department of Transportation (Caltrans) District 4, in partnership with the Alameda County Transportation Commission (Alameda CTC), proposes to provide interchange and local road improvements along Interstate 80 (I-80) at the Ashby Avenue Interchange (interchange). The interchange is located between post miles (PM) 3.9 and 5.0 on I-80 and between 13.7 and 13.9 on State Route (SR) 13 in the cities of Emeryville and Berkeley in Alameda County. The proposed project would replace the existing elevated interchange connector ramps with a new bridge over I-80,

realign access to West Frontage Road, and introduce a new bicycle and pedestrian overcrossing and connection from 65th Street / Shellmound Street to the San Francisco Bay Trail.

**WHY THIS AD:** This advertisement is to disclose the results of the project-level air quality conformity analysis conducted for this project. Project-level conformity analysis shows that the project will conform to the State Implementation Plan, including localized impact analysis with interagency consultation for particulate matter (PM2.5) required by 40 CFR 93.116 and 93.123. This project is not considered a Project of Concern regarding particulate matter (PM2.5) as defined in 40 CFR 93.123(b)(1). A detailed PM2.5 hot-spot analysis was not completed because Clean Air Act and 40 CFR 93.116 requirements are met without an explicit hot-spot analysis. The project comes from a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). Comment is requested regarding the project-level conformity analysis. The Project Assessment Form for PM2.5 Interagency Consultation and the Air Quality Conformity Task Force determination are included in Appendix C of the Air Quality Study Report for this project, which is available at [180Ashby.com](http://180Ashby.com).

**WHERE YOU CAN MAKE A DIFFERENCE:** Have the potential impacts been addressed? Do you have information that should be included? Your comments will be part of the public record. Please submit your formal comment(s) during the public review period that runs from **June 1, 2022 through June 30, 2022**, to Caltrans via the following:

You can submit written comments via mail at:

Caltrans, District 4  
Office of Environmental Analysis  
ATTN: Brooklyn Klepl, Environmental Scientist  
P.O. Box 23660, **MS: 8B**  
Oakland, CA 94623-0660

Or email comments to [I-80AshbyProject@dot.ca.gov](mailto:I-80AshbyProject@dot.ca.gov) (**preferred method due to COVID-19**)

For more information, please contact us at (510) 504-7246 or visit us at [www.180Ashby.com](http://www.180Ashby.com). Thank you for your interest in this project!

## **Appendix C. Documentation Related to Regional Conformity**

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### **Regional Emissions Analysis Conducted for Conforming RTP**

The regional emissions analysis found that regional emissions will not exceed the SIP's emission budgets for mobile sources in the build year, a horizon year at least 20 years from when conformity analysis started, and additional years meeting conformity regulation requirements for periodic analysis. The regional emissions analysis was based on the latest population and employment projections for the San Francisco Bay area counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma) that were adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) at the time the conformity analysis was started on October 21, 2021. These assumptions are less than five years old. The modeling was conducted using current and future population, employment, traffic, and congestion estimates. The traffic data, including the fleet mix data, were based on the most recently available vehicle registration data included in the EMFAC model. EMFAC2017 was used, which was the most recent version of the model developed by the California Air Resources Board and approved for use in California by the U.S. EPA at the time of the analysis.

### **Public and Interagency Consultation Process for TIP**

The 2021 TIP was developed in accordance with MTC policies for community input and interagency consultation procedures. These procedures ensure that the public has adequate opportunity to be informed of the federal TIP development process and encourages public participation and comment.

The Draft 2021 TIP and Draft Transportation-Air Quality Conformity Analysis were released for review and comment on November 9, 2020 and were presented at the Programming and Allocations Committee Meeting on December 9, 2020. The review and comment period closed on December 14, 2020. MTC received 2 comments from the public during this period. These comments as well as staff's responses to comments were presented to the Programming and Allocations Committee on February 10, 2021 and are attached on the following page.



List of 2021 TIP Projects

County	Sponsor	Project Title	Project Description	TIP ID	Air Quality Description	RTP ID	Conformity Analysis Year
Alameda	ACE	ACE Fixed Guideway (Capitalized Maintenance)	ACE: Along ACE Corridor: Capitalized Maintenance with Union Pacific Railroad for track/signal maintenance.	ALA170048	EXEMPT (40 CFR 93.126) - Operating assistance to transit agencies	21-T01-002	Not Modelled
Alameda	ACE	ACE Platform Extensions	ACE System: At Fremont, Pleasanton, Livermore, Vasco, Tracy, and Manteca stations: Extend existing ACE platforms to accommodate longer train sets	ALA170042	NON-EXEMPT - Not Regionally Significant Project	21-T11-106	Not Modelled
Alameda	ACE	ACE Preventative Maintenance	ACE Rail: Systemwide: Preventative maintenance activities for ACE service and associated equipment, functions, and facilities.	ALA110099	EXEMPT (40 CFR 93.126) - Operating assistance to transit agencies	21-T01-002	Not Modelled
Alameda	ACE	ACE Revenue Vehicle Communication Equipment	ACE: Fleetwide: Replace and upgrade on-board communications equipment for the ACE service	ALA210009	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts,	21-T01-002	Not Modelled
Alameda	ACE	ACE Track Improvements	ACE: From Stockton to San Jose: Corridor improvements for signaling, grade crossing, track and other cost associated	ALA010056	EXEMPT (40 CFR 93.126) - Rehabilitation or reconstruction of track structures, track, and trackbed in	21-T01-002	Not Modelled
Alameda	ACE	ACE: Railcar Midlife Overhaul	ACE: System-wide: Perform midlife overhaul of existing ACE railcars to extend useful life.	ALA170079	EXEMPT (40 CFR 93.126) - Rehabilitation of transit vehicles	21-T01-002	Not Modelled
Alameda	ACTC	7th Street Grade Separation East	Oakland: 7th St and rail tracks between 1880 and Maritime St in the Port of Oakland: Reconstruct the existing 7th St underpass on an adjacent alignment, rail tracks, and other rail infrastructure. No through	ALA170085	EXEMPT (40 CFR 93.127) - Changes in vertical and horizontal alignment	21-T07-056	Not Modelled
Alameda	ACTC	Alameda County Rail Safety Enhancement Program	Alameda County: Various at-grade rail crossings: Implement safety improvements	ALA210022	EXEMPT (40 CFR 93.126) - Railroad/highway crossing	21-T07-056	Not Modelled
Alameda	ACTC	Alameda County Safe Routes to School	Alameda County: Countywide: SR2S Program including education & outreach in various K-12 schools, ridesharing, & project development	ALA110033	EXEMPT (40 CFR 93.126) - Grants for training and research programs	21-END9-132	Not Modelled
Alameda	ACTC	East Bay Greenway	Alameda County: Generally along the BART alignment from Lake Merritt BART station to South Hayward BART station: Install a trail facility consisting of Class I & Class IV bikeway facilities. Includes 2 road	ALA150008	NON-EXEMPT - Not Regionally Significant Project	21-T08-060	Not Modelled
Alameda	ACTC	Freight Intelligent Transportation System (FITS)	Oakland: In the Port of Oakland and surrounding areas: Implement ITS improvements, signal systems, and other technologies to cost-effectively manage truck arrivals and improve incident response	ALA170087	EXEMPT (40 CFR 93.127) - Intersection signalization projects at individual intersections	21-T07-056	Not Modelled
Alameda	ACTC	I-80 Gilman Interchange Improvements	Berkeley: On Gilman Ave at I-80: Reconfigure interchange providing dual roundabout at the entrance & exits from I-80 as well as the Eastshore Hwy & West Frontage Rd and bike/peo overcrossing. Project	ALA050079	EXEMPT (40 CFR 93.127) - Changes in vertical and horizontal alignment	21-T06-048	Not Modelled
Alameda	ACTC	I-80/Ashby Avenue Interchange Improvements	Alameda County: I-80/Ashby IC: Reconstruct the interchange including constructing new bridge, stand-alone bike/peo overcrossing and other bike/peo improvements, and ramp metering.	ALA170002	EXEMPT (40 CFR 93.127) - Interchange reconfiguration projects	21-T06-048	Not Modelled
Alameda	ACTC	Various Bike Education and Promotion Programs	Oakland and Berkeley: Various locations: Provide various bike promotion and education programs for youth and adults focused toward Communities of Concern.	ALA210021	EXEMPT (40 CFR 93.126) - Grants for training and research programs	21-END9-132	Not Modelled
Alameda	Alameda	Alameda City-Wide Pavement Rehabilitation	Alameda: Various streets: Resurface and rehabilitate pavement	ALA170074	EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation	21-T01-003	Not Modelled
Alameda	Alameda	Central Avenue Safety Improvements	Alameda: On Central Ave from Main St to Sherman St: construct multimodal street improvements including reduction from 4 to 3 lanes, center turn lane, bike lanes, 2-way separated bikeway, roundabouts	ALA170049	NON-EXEMPT - Not Regionally Significant Project	21-T07-056	Not Modelled
Alameda	Alameda	Clement Avenue Complete Streets	Alameda: On Clement Avenue between Broadway and Grand St: Complete street improvements including Class IV bikeway, curb extensions, flashing beacons, sidewalk/curb ramp improvements, railroad	ALA170073	EXEMPT (40 CFR 93.126) - Bicycle and pedestrian facilities	21-T08-060	Not Modelled
Alameda	Alameda	Cross Alameda Trail (includes SRTS component)	City of Alameda: Between Webster St and Sherman St: Construct a new trail with an on-street portion.	ALA150007	EXEMPT (40 CFR 93.126) - Bicycle and pedestrian facilities	21-T08-060	Not Modelled

Roadway Projects  
**Alameda County**  
 State Highway Projects

TIP ID: **ALA050079** County: Alameda System: State RTP ID: 17-01-0040 CTIPS 2060000366  
 Sponsor: Alameda County Transportation Commission (ACTC) Implementing Agency: Alameda County Transportation  
 Project Name: I-80 Gilman Interchange Improvements  
 Description: Berkeley: On Gilman Avenue at I-80: Reconfigure interchange providing dual roundabout at the entrance & exits from I-80 as well as the Eastshore Highway and West Frontage Rd and bike/ped overcrossing. Project also references RTP ID 17-01-0001

Air Quality Exempt Code: 5.04 - EXEMPT (40 CFR 93.127) - Changes in vertical and horizontal alignment

Route: 80 Post Mile From: 6.4 Post Mile To: 6.8 Toll

All funding in thousands of dollars								
Phase	Fund Source	Prior Years	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	Future Years	Total Programmed
PE	EARMARK	\$ 1,080						\$ 1,080
PE	OTHER LOCAL	\$ 354						\$ 354
PE	SALESTAX-MEASURE	\$ 5,066						\$ 5,066
PSE	SALESTAX-MEASURE	\$ 5,200						\$ 5,200
ROW	RTP-LRP						\$ 1,126	\$ 1,126
ROW	SALESTAX-MEASURE	\$ 1,734						\$ 1,734
CON	ATP-REG		\$ 4,152					\$ 4,152
CON	RIP				\$ 25,784			\$ 25,784
CON	RTP-LRP						\$ 9,164	\$ 9,164
CON	SALESTAX-MEASURE		\$ 2,340					\$ 2,340
Total Programmed Funding:		\$ 13,434	\$ 6,492		\$ 25,784		\$ 10,290	\$ 56,000

TIP ID: **ALA170002** County: Alameda System: State RTP ID: 17-01-0037 CTIPS 2060000607

Sponsor: Alameda County Transportation Commission (ACTC) Implementing Agency: Alameda County Transportation  
 Project Name: I-80/Ashby Avenue Interchange Improvements  
 Description: Alameda County: I-80/Ashby IC: Reconstruct the interchange including constructing new bridge, two roundabouts and bike/ped improvements

Air Quality Exempt Code: 5.03 - EXEMPT (40 CFR 93.127) - Interchange reconfiguration projects

Route: 80 Post Mile From: Post Mile To: Toll

All funding in thousands of dollars								
Phase	Fund Source	Prior Years	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	Future Years	Total Programmed
PE	SALESTAX-MEASURE	\$ 4,000	\$ 2,000					\$ 6,000
ROW	SALESTAX-MEASURE		\$ 1,500					\$ 1,500
CON	OTHER LOCAL				\$ 2,000			\$ 2,000
CON	RTP-LRP						\$ 44,060	\$ 44,060
Total Programmed Funding:		\$ 4,000	\$ 3,500		\$ 2,000		\$ 44,060	\$ 53,560

TIP ID: **ALA050014** County: Alameda System: State RTP ID: 17-01-0032 CTIPS 2060000280

Sponsor: Alameda County Transportation Commission (ACTC) Implementing Agency: Alameda County Transportation  
 Project Name: SR 84 Expressway Widening  
 Description: In Livermore: Widen Route 84 from Jack London Blvd. to Pigeon Pass.

Air Quality Exempt Code: NON-EXEMPT

Route: 84 Post Mile From: 22.3 Post Mile To: 27.3 Toll \$ 4,247,341

All funding in thousands of dollars								
Phase	Fund Source	Prior Years	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	Future Years	Total Programmed
ENV	XTRAN	\$ 3,000						\$ 3,000
PSE	XTRAN	\$ 9,000						\$ 9,000
ROW	SALESTAX-MEASURE	\$ 7,311						\$ 7,311
ROW	XTRAN	\$ 17,510						\$ 17,510
CON-CT	XTRAN	\$ 3,852						\$ 3,852
CON	PROP	\$ 20,000						\$ 20,000
CON	RIP	\$ 42,130						\$ 42,130
CON	SALESTAX-MEASURE	\$ 2,689						\$ 2,689
CON	XTRAN	\$ 9,927						\$ 9,927
CON-CE	RIP	\$ 4,900						\$ 4,900
Total Programmed Funding:		\$ 120,319						\$ 120,319

## Transportation Improvement Program (TIP) Programming Information for Federal Request for Authorization (RFA)

- To Be Submitted To Caltrans With Request For Authorization Of Federal Highway Funding -

**I-80/Ashby Avenue Interchange Improvements** **ACTIVE** **CTIPS ID: 20600006072**

**TIP ID:** ALA170002 **TIP Status:** ACTIVE **Version:** 4 **FMS ID:** 6315 **TIP Revision:** 2021-07 **TIP Revision Approval Date:** 08/04/2021

**Sponsor:** Alameda County Transportation Commission (ACTC) **Implementing Agency:** Alameda County Transportation Commission (ACTC)

**County:** Alameda **Investment Category:** SYSTMGMT:100% **State Highway Rte:** 80

**Trans. System:** State Highway

**Primary Mode:** Auto:90% | Bike/Ped:10% **Sub Mode:** Auto:90% | Bicycle:5% | Pedestrian:5%

**Project Name:** I-80/Ashby Avenue Interchange Improvements

**Project Description:** Alameda County : I-80/Ashby IC : Reconstruct the interchange including constructing new bridge, stand-alone bike/ped overcrossing and other bike/ped improvements, and ramp metering.

**Expanded Description:** Alameda County: I-80/Ashby IC: Reconstruct the Interchange. The proposed interchange elements include construction of a new bridge to replace the existing bridge and reconstruction of the interchange, construction of a new stand-alone bike & pedestrian overcrossing structure over the I-80 and provide access to Bay Trail from Shellmound Street, relocate frontage road, construct signal, ramp metering, lighting and landscaping. Cost for bike Ped elements is estimated at roughly \$40M, June 2021.

**RTP Description:**

**RTP ID:** 17-01-0037 **RTP Cycle:** PLANBAYAREA2040

**Regional Air Quality Status:** Exempt (40 CFR 93.127) - Interchange reconfiguration projects

**Air Basin:** San Francisco Bay Area **Air District:** BAAQMD

**TIP Funding:** (All Funding in Whole Dollars)

Fund Code	Phase	Prog Year	Total	Prior	TIP 4-Year Period				Later	Obligation Information			Toll Credits
					FY 20/21	FY 21/22	FY 22/23	FY 23/24		Fed Proj No.	Date	Amount	
RIP-COVID21-ALA	PSE	2023	\$50,000										
SALESTAX-MEASURE-ALA	PE	2017	\$4,000,000	\$4,000,000									
SALESTAX-MEASURE-ALA	PE	2018	\$8,000,000	\$8,000,000									
SALESTAX-MEASURE-ALA	PE	2023	\$3,000,000				\$3,000,000						
SALESTAX-MEASURE-ALA	ROW	2023	\$4,400,000				\$4,400,000						
RTP-LRP	CON	2025	\$105,000,000					\$105,000,000					
SALESTAX-MEASURE-ALA	CON	2024	\$32,600,000				\$32,600,000						
<b>Project Totals</b>			\$157,050,000	\$12,000,000	\$0	\$0	\$7,450,000	\$32,600,000	\$105,000,000				

Contact Information	Name & Title	Agency	Phone	Email
<b>Project Sponsor Contact:</b>	Vivek Bhat, Senior Trans Engineer	ACTC	510-208-7430	vbhat@alamedactc.org
	Vivek Bhat, Senior Trans Engineer	ACTC	510-208-7430	vbhat@alamedactc.org
<b>Sponsor Single Point of Contact:</b>	Vivek Bhat, Senior Trans Engineer	ACTC	510-208-7430	vbhat@alamedactc.org

End of Project Version: 4

**End of TIP ID: ALA170002**

**Metropolitan Transportation Commission - Federal Transportation Improvement Program  
(Dollars in Whole)  
State Highway System**

DIST: 04	PPNO:	EA:	CTIPS ID: 206-0000-6072	TITLE (DESCRIPTION): I-80/Ashby Avenue Interchange Improvements (Alameda County: I-80/Ashby IC: Reconstruct the interchange. The proposed interchange elements include construction of a new bridge to replace the existing bridge and reconstruction of the interchange.)	MPO Aprv: 10/19/2022
CT PROJECT ID:		MPO ID.: ALA170002	State Aprv:		
COUNTY: Alameda County	ROUTE: 80	PM: 0.000 / 0.000	Federal Aprv:		
					EPA TABLE II or III EXEMPT CATEGORY Interchange reconfiguration projects.

IMPLEMENTING AGENCY: Alameda County Transportation Commission  
PROJECT MANAGER:

PHONE:

EMAIL:

*PROJECT VERSION HISTORY (Printed Version is Shaded)*

*(Dollars In whole)*

Version	Status	Date	Updated By	Change Reason	Amend No.	Prog Con	Prog RW	PE
6	Official	10/19/2022	ACRENSHA	Amendment - Cost/Scope/Sch. Change	25	136,000,000	3,400,000	17,650,000
5	Official	09/28/2022	ACRENSHA	Adoption - Cost/Scope/Sch. Change	0	136,000,000	3,400,000	17,650,000
4	Official	07/28/2021	ACRENSHA	Amendment - Cost/Scope/Sch. Change	7	137,600,000	4,400,000	15,050,000
3	Official	02/24/2021	ACRENSHA	Adoption - Cost/Scope/Sch. Change	0	46,060,000	1,500,000	6,000,000
2	Official	09/26/2018	ACRENSHA	Adoption - Cost/Scope/Sch. Change	0	46,060,000	1,500,000	6,000,000
1	Official	09/28/2016	ACRENSHA	Adoption - New Project	0	46,060,000	1,500,000	6,000,000

* Future Need -		PRIOR	20-21	21-22	22-23	23-24	24-25	25-26	BEYOND	TOTAL
* Fund Source 1 of 3	PE									
* Fund Type: Future Funds	RW									
* Funding Agency: Alameda County Transportation Commission	CON								105,000,000	105,000,000
	Total:								105,000,000	105,000,000

* RIP -		PRIOR	20-21	21-22	22-23	23-24	24-25	25-26	BEYOND	TOTAL
* Fund Source 2 of 3	PE				50,000					50,000
* Fund Type: COVID Relief Funds - STIP	RW									
* Funding Agency: Alameda County Transportation Commission	CON									
	Total:				50,000					50,000

* Local Funds -		PRIOR	20-21	21-22	22-23	23-24	24-25	25-26	BEYOND	TOTAL
* Fund Source 3 of 3	PE	9,600,000			8,000,000					17,600,000
* Fund Type: ALA Co Sales Tax	RW				400,000	3,000,000				3,400,000
* Funding Agency: Alameda County Transportation Commission	CON					31,000,000				31,000,000
	Total:	9,600,000			8,400,000	34,000,000				52,000,000

Project Total:		PRIOR	20-21	21-22	22-23	23-24	24-25	25-26	BEYOND	TOTAL
	PE	9,600,000			8,050,000					17,650,000
	RW				400,000	3,000,000				3,400,000
	CON					31,000,000			105,000,000	136,000,000
	Total:	9,600,000			8,450,000	34,000,000			105,000,000	157,050,000

Comments:

## Appendix D. PM Interagency Consultation

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**From:** [Harold Brazil](#)  
**To:** [Fund Management System](#); [ybhat@alamedactc.org](mailto:ybhat@alamedactc.org)  
**Cc:** [Adam Crenshaw](#); [Susan Chang](#); [Andrew Metzger](#)  
**Subject:** Re: FMS POAQC Project TIP ID ALA170002 (I-80/Ashby Avenue Interchange Improvements Project) update: Project is a not a POAQC  
**Date:** Thursday, July 30, 2020 2:53:09 PM

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**\*\* please note: this is a second email to correct the project name and TIP ID number [ALA170002] for the I-80/Ashby Avenue Interchange Improvements Project**

Dear Project Sponsor

Based on the recent interagency consultation with the Air Quality Conformity Task force, Project TIP ID ALA170002 (FMS ID: 6315.00) does not fit the definition of a project of air quality concern as defined by 40 CFR 93.123(b)(1) or 40 CFR 93.128 and therefore is not subject to PM2.5 project level conformity requirement. Please save this email as documentation confirming the project has undergone and completed the interagency consultation requirement for PM2.5 project level conformity. Note project sponsors are required to undergo a proactive public involvement process which provides opportunity for public review as outlined by 40 CFR 93.105(e). For projects that are not of air quality concern, a comment period is only required for project level conformity determinations if such a comment period would have been required under NEPA. For more information, please see FHWA PM2.5 Project Level Conformity Frequently Asked Questions (FAQ): [https://www.fhwa.dot.gov/environment/air\\_quality/conformity/policy\\_and\\_guidance/faqs/pm25faqs.cfm](https://www.fhwa.dot.gov/environment/air_quality/conformity/policy_and_guidance/faqs/pm25faqs.cfm)

If you have any questions, please direct them to Harold Brazil at [hbrazil@bayareametro.gov](mailto:hbrazil@bayareametro.gov) or by phone at 415-778-6747.



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street, Suite 800  
San Francisco, CA 94105  
415.778.6700  
[www.mtc.ca.gov](http://www.mtc.ca.gov)

## **Air Quality Conformity Task Force Meeting** Metropolitan Transportation Commission

Join Zoom Meeting @  
<https://bayareametro.zoom.us/j/94260005333>

**Meeting ID: 942 6000 5333**  
(Additional Zoom Meeting Call-In Info on Next Page)

**July 23, 2020**  
**9:30 a.m. –11:00 a.m.**

### **AGENDA**

1. Welcome and Introductions
2. PM<sub>2.5</sub> Project Conformity Interagency Consultations
  - a. Consultation to Determine Project of Air Quality Concern Status
    - i. Interstate 80/Ashby Avenue Interchange Improvement Project
3. Consent Calendar
  - a. June 25, 2020 Air Quality Conformity Task Force Meeting Summary
4. Other Items

Next Meeting: August 27, 2020

MTC Staff Liaison: Harold Brazil [hbrazil@bayareametro.gov](mailto:hbrazil@bayareametro.gov)

J:\SECTION\PLANNING\AIRQUAL\TSKFORCE\2020\7-23-20\Draft\1\_Agenda\_072320.docx

Harold Brazil is inviting you to a scheduled Zoom meeting.

Topic: Air Quality Conformity Task Force Meeting  
Time: Jul 23, 2020 09:30 AM Pacific Time (US and Canada)

Join Zoom Meeting  
<https://bayareametro.zoom.us/j/94260005333>

Join Zoom Meeting  
<https://bayareametro.zoom.us/j/94260005333>

Meeting ID: 942 6000 5333  
One tap mobile  
+16699006833,,94260005333# US (San Jose)  
+14086380968,,94260005333# US (San Jose)

Dial by your location  
+1 669 900 6833 US (San Jose)  
+1 408 638 0968 US (San Jose)  
+1 346 248 7799 US (Houston)  
+1 253 215 8782 US (Tacoma)  
+1 312 626 6799 US (Chicago)  
+1 646 876 9923 US (New York)  
+1 301 715 8592 US (Germantown)  
888 788 0099 US Toll-free  
877 853 5247 US Toll-free

Meeting ID: 942 6000 5333  
Find your local number: <https://bayareametro.zoom.us/u/aeFH6pfncT>

Join by SIP  
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Meeting ID: 942 6000 5333

**Air Quality Conformity Task Force  
Summary Meeting Notes  
July 23, 2020**

Participants:

Panah Stauffer – EPA  
Dick Fahey – Caltrans  
Kevin Krewson – Caltrans  
Dominique Kraft – FTA  
Romi Archer – Circlepoint  
Chris Katrak – Caltrans  
Snehalatha Pavuluri – Caltrans  
Lexie Arellano – Caltrans  
Susan Chang – Alameda CTC  
Andrew Metzger – Circlepoint  
Patrick Sutton – Baseline Environmental Consulting

Yilin Tian – Baseline Environmental Consulting  
John Kenyon – T.Y. Lin International Group  
Samuel Chui – T.Y. Lin International Group  
Aaron Elias – Kittleson Associates  
Brian Ray – Kittleson Associates  
Wahida Rashid – Caltrans  
Andrea Gordon – BAAQMD  
Adam Crenshaw – MTC  
Harold Brazil – MTC

**1. Welcome and Self Introductions:** Harold Brazil (MTC) called the meeting to order at 9:35 am.

**2. PM<sub>2.5</sub> Project Conformity Interagency Consultations**

**a. Consultation to Determine Project of Air Quality Concern Status**

**i. Interstate 80/Ashby Avenue Interchange Improvement Project**

Susan Chang (Alameda CTC) began the Interstate 80/Ashby Avenue Interchange Improvement project presentation mentioning the project has been around for over 20 years and indicating the project approval and environmental documents stage with construction are to start sometime in 2023 – pending the funding availability. John Kenyon (T.Y. Lin International Group) then discussed the project's location where the interchange itself is half in the City of Berkeley and half in the City of Emeryville within Alameda County.

Mr. Kenyon stated the Interstate 80/Ashby Avenue Interchange Improvement project is included in measure BB and the project is not located within the West Oakland Community Action Plan regarding AB 617.

Mr. Kenyon indicated the project would:

- Replace existing elevated interchange connector ramps with new bridge over I-80;
- Realign access to the West Frontage Road;



- Introduce new bicycle and pedestrian pathway from 65th Street/Shellmound Street to the San Francisco Bay Trail

Mr. Kenyon indicated the Interstate 80/Ashby Avenue Interchange Improvement project proposes two build alternatives for the I-80/Ashby Avenue Interchange. The alternatives are “Build Alternative 1” and “Build Alternative 2”. The main differences between Build Alternatives 1 and 2 are related to the proposed connector ramp configurations at the I-80/Ashby Avenue interchange. Mr. Kenyon also noted the Interstate 80/Ashby Avenue Interchange Improvement project would provide safe access for pedestrians and bicyclists to connect across I-80 via at-grade sidewalks and a separated pedestrian overcrossing (POC) structure accessible from 65th Street to the east and West Frontage Road to the west.

Aaron Elias (Kittleson Associates) began the Interstate 80/Ashby Avenue Interchange Improvement project traffic discussion by saying the traffic operations were evaluated primarily using continuously collected detector data for freeway operations, and analysis procedures from the Transportation Research Board’s Highway Capacity Manual 6th Edition (HCM 6) for intersection operations.

Mr. Elias also stated:

- The current intersections analyzed are roughly what is the number of intersections in the interchange today.
- In the future, because of all the configuration changes, there were seven total intersections analyzed.
- From a level of service analysis standpoint, under build condition in 2025, three of the four intersections analyzed would go to are usually operate a level service D or level service F.
- Within the project study area in 2025, the analysis showed no real change in the average annual daily traffic in this area for generating about 10.8 million vehicle trips per day for this whole area.
- With the interchange reconfigurations – any travel coming up Shellmound Street under the new configuration or build alternatives would have to get on Ashby Avenue.

Panah Stauffer (EPA) and Dick Fahey (Caltrans) requested both additional overall traffic and truck traffic data during the analysis discussion to inform the conformity determination for the Task Force. After the meeting, Andrew Metzger (Circlepoint) provided the requested information which was distributed to the Task Force via email.

**Final Determination:** After receiving the requested additional information and with input from EPA, FTA, FHWA and Caltrans (deferring their determination to FHWA), the Task Force concluded that Interstate 80/Ashby Avenue Interchange Improvement project was not of air quality concern.

### 3. Consent Calendar

#### a. June 25, 2020 Air Quality Conformity Task Force Meeting Summary

**Final Determination;** Panah Stauffer (EPA) identified a typographical error in the draft meeting summary and the correction was made. Subsequently, with input from all members, the Task Force concluded that the consent calendar was approved.



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Bay Area Metro Center  
375 Beale Street  
San Francisco, CA 94105  
TEL 415.778.6700  
WEB www.mtc.ca.gov

## *Memorandum*

TO: Air Quality Conformity Task Force

DATE: July 13, 2020

FR: Harold Brazil

W. I.

RE: PM<sub>2.5</sub> Project Conformity Interagency Consultation

A project sponsor is seeking interagency consultation from the Air Quality Conformity Task Force (AQCTF) at today's meeting and the project is as follows:

No.	Project Sponsor	Project Title
1	Alameda County Transportation Commission	Interstate 80/Ashby Avenue Interchange Improvement Project

**2ai\_Interstate\_80-Ashby\_Ave\_Interchg\_Improve\_Project\_Assess\_Form.pdf** (for the Interstate 80/Ashby Avenue Interchange Improvement project)

J:\SECTION\PLANNING\AIRQUAL\TSKFORCE\2020\7-23-20\Draft\2a\_PM2.5 Interagency Consultation.docx

## Application of Criteria for a Project of Air Quality Concern

**Project Title: Interstate 80/Ashby Avenue Interchange Improvement**  
**Project Summary for Air Quality Conformity Task Force Meeting: Thursday, July 23, 2020**

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### Description

- The purpose of this project is to:
  - o Improve interchange access and circulation;
  - o Provide multimodal connectivity;
  - o Provide westbound I-80 connection to Shellmound Street;
  - o Provide bicycle and pedestrian connectivity across I-80;
  - o Improve circulation at I-80/Powell Street and 7<sup>th</sup> Street; and
  - o Alleviate local surface street congestion.
- The proposed project would reconstruct the Interstate 80 (I-80)/Ashby Avenue interchange to improve accessibility, traffic flow, and bicycle and pedestrian facilities.
- The project will provide safe access for pedestrians and bicyclists to connect across I-80 via at-grade sidewalks and a separated pedestrian overcrossing (POC) structure accessible from 65<sup>th</sup> Street to the east and West Frontage Road to the west.
- The project proposes the following two build alternatives for the I-80/Ashby Avenue Interchange:
  - o Build Alternative 1 - Tight Diamond Interchange Configuration. This build alternative currently has three options regarding the Ashby Avenue connection to West Frontage Road.
    - Option A – T-Intersection connecting Ashby Avenue to a partially-realigned West Frontage Road.
    - Option B – S-Curve Ramp connecting Ashby Avenue to the existing West Frontage Road with no realignment required.
    - Option C – C-Curve Ramp connecting Ashby Avenue to a fully-realigned West Frontage Road that would run adjacent to and parallel with I-80.
  - o Build Alternative 2 – Single Point Diamond Interchange Configuration. This build alternative would only connect to West Frontage Road via T-Intersection.

### Background

- Technical studies are being prepared to support the CEQA/NEPA environmental document Initial Study/Environmental Assessment (IS/EA).
- A public scoping meeting was held on May 22, 2019.
- Seeking air quality conformity determination by July 23, 2020

### Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

#### (i) *New or expanded highway projects with significant number/increase in diesel vehicles?*

- Not a new or expanded highway project
- Interchange replacement—no additional lanes on I-80
- No change in truck percentages on I-80
- The Build Alternatives would reduce PM<sub>2.5</sub> emissions from diesel vehicles by lowering the vehicle miles travelled in the regional study area compared to the No-Build Alternative.

#### (ii) *Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*

- The percentage of diesel trucks (4.2 to 4.4%) would remain the same in the regional study under the Build and No-Build Alternatives.
- The Build Alternatives would improve or maintain the LOS at the I-80/Ashby Avenue ramp and ramp terminal intersections in the project area.

#### (iii) *New bus and rail terminals and transfer points?*

- Not Applicable

*(iv) Expanded bus and rail terminals and transfer points?*

- Not Applicable

*(v) Affects areas identified in PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as site of violation?*

- No state implementation plans for PM<sub>10</sub> or PM<sub>2.5</sub>.

<b>RTP ID# (required)</b> 17-01-0037			
<b>TIP ID# (required)</b> ALA170002			
<b>Air Quality Conformity Task Force Consideration Date</b> Thursday, July 23, 2020			
<b>Project Description (clearly describe project)</b> The Alameda County Transportation Commission (Alameda CTC), in cooperation with the California Department of Transportation (Caltrans) and the cities of Berkeley and Emeryville, proposes to reconstruct the Interstate 80 (I-80)/Ashby Avenue interchange to improve accessibility, traffic flow, and bicycle and pedestrian facilities. These improvements are intended to provide traffic congestion relief and enhanced mobility at this critical access point and important intersection of regional transportation routes. The project will also provide multimodal transportation options, while improving community connectedness, including connectivity to the existing San Francisco Bay Trail. The location of the project is depicted in <b>Figure 1</b> .  The project proposes two build alternatives for the I-80/Ashby Avenue Interchange. The alternatives are "Build Alternative 1" and "Build Alternative 2". The main differences between Build Alternatives 1 and 2 are related to the proposed connector ramp configurations at the I-80/Ashby Avenue interchange. <b>Figure 2</b> illustrates the general configurations of the proposed interchange improvements.  Build Alternative 1 would reconfigure the I-80/Ashby Avenue connector ramps to a tight diamond configuration. In addition, Build Alternative 1 would include one of the following three options for the Ashby Avenue connection to West Frontage Road: <ul style="list-style-type: none"> <li>• Option A (T-Intersection): Ashby Avenue would connect to the realigned West Frontage Road using a simple T-Intersection. Partial realignment of West Frontage Road to the east would be required to meet geometric and safety specifications for the three-way intersection.</li> <li>• Option B (S-Curve Ramp): This option would connect Ashby Avenue to the existing West Frontage Road via an S-Curve Ramp. No realignment of West Frontage Road would be required for this option. The intersection operations at West Frontage Road are the same as the T-Intersection option.</li> <li>• Option C (C-Curve Ramp with Full Frontage Road Realignment): This option would realign West Frontage Road adjacent to and parallel with I-80. Ashby Avenue would connect with the realigned West Frontage Road via a C-Curve ramp structure.</li> </ul> From a traffic operations perspective, the T-intersection (Option A) and S-Curve (Option B) options are identical analysis scenarios, and different from the C-Curve Ramp (Option C).  Build Alternative 2 would reconfigure the I-80/Ashby Avenue connector ramps to Single Point Diamond configuration. Ashby Avenue would connect to the realigned West Frontage Road using a simple T-Intersection.			
<b>Type of Project:</b> Interchange improvements			
<b>County</b>	<i>Narrative Location/Route &amp; Postmiles</i>		
Alameda	As depicted in <b>Figure 1</b> , the proposed project is located within Alameda County. The portion of the project area to the north of Ashby Avenue is within the City of Berkeley and the portion to the south is within the City of Emeryville. The approximately 85-acre project area extends from I-80 PM 4.58 to PM 13.90 from north to south. The San Francisco Bay borders the project area to the west. The project area is generally bordered by Shellmound Street and the Union Pacific Railroad (UPRR) tracks to the east.  <b>Caltrans District 04-ALA-80/13-PM 4.58/13.90</b> <b>EA# 04-256200</b> <b>Project ID 0418000225</b>		
<b>Lead Agency:</b> Alameda County Transportation Commission			
<i>Contact Person</i> Susan Chang	<i>Phone#</i> 510.208.7491	<i>Fax#</i>	<i>Email</i> schang@alamedactc.org

Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>					
<i>Categorical Exclusion (NEPA)</i>	X	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<i>Other</i>
<b>Scheduled Date of Federal Action:</b> 2021					
NEPA Delegation – Project Type <i>(check appropriate box)</i>					
X	<b>Not an exempt project</b>	<b>Section 326 – Categorical Exclusion</b>	X	<b>Section 327 – Non-Categorical Exclusion</b>	
Current Programming Dates <i>(as appropriate)</i>					
	PE/Environmental	ENG	ROW	CON	
<b>Start</b>	2017	2020	2020	2022	
<b>End</b>	2021	2022	2022	2025	
<b>Project Purpose and Need (Summary):</b> <i>(please be brief)</i>					
<p>Project Purpose:  The purpose of the project is to:</p> <ul style="list-style-type: none"> <li>• Improve interchange access and circulation;</li> <li>• Provide multimodal connectivity;</li> <li>• Provide westbound I-80 connection to Shellmound Street;</li> <li>• Provide safe bicycle and pedestrian connectivity across I-80;</li> <li>• Improve circulation at I-80/Powell Street and 7<sup>th</sup> Street; and</li> <li>• Alleviate local surface street congestion.</li> </ul> <p>Project Need:  The interchange, constructed in the 1950's, does not provide access to or from westbound I-80 or Shellmound Street in the City of Emeryville. Additionally, the area including the interchange lacks connectivity for different modes of transportation (i.e., vehicular, bicycle and pedestrian users). For these reasons, the interchange suffers from the following key operational issues:</p> <ul style="list-style-type: none"> <li>• The existing interchange provides no access to Shellmound Street to/from westbound I 80 and no access from Shellmound Street to Frontage Road;</li> <li>• Access from westbound traffic to Emeryville is forced to use the Powell Street interchange; and</li> <li>• There is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street/Shellmound Street area.</li> </ul>					

**Surrounding Land Use/Traffic Generators** (*especially effect on diesel traffic*)

Land uses within the project area are generally transportation uses associated with the existing interchange or associated landscaping. No housing is located within the project area. However, the project area does contain portions of several distinguishing features and landmarks as described below.

- Point Emery: A small park with a surface parking lot featuring unobstructed views of the San Francisco Bay.
- San Francisco Bay Trail: The project area contains a small portion of this 500-mile trail that connects 47 cities across 9 counties all along the San Francisco Bay shoreline.
- Berkeley Aquatic Park: The southern edge of this park—which features a wide range of recreational opportunities including bird-watching, boating, and hiking—falls within the project area.
- KRE Radio Station: A historic radio station building located in the northeastern quadrant of the project area.

The area surrounding the project area to the north is mostly occupied by the Berkeley Aquatic Park. Areas to the south primarily comprise industrial and commercial businesses intermixed with residential neighborhoods including some high-density residential buildings, though the land is generally zoned as Mixed-Use with Residential and Industrial. East of the project area in Berkeley, nearby lands are zoned as Mixed Use-Light Industrial and Mixed-Use Residential. Other nearby land uses include a private college, storage facilities, commercial centers, and residential homes. Within 1.5 miles of the proposed project area, land use designations east of I-80 range from low to medium density residential, parks and recreation uses, retail spaces and commercial offices.

The project is not a new or expanded highway project and it will not add additional lanes on I-80 nor change the percentages of trucks in the regional study area. The project will alleviate local traffic congestion at the I-80/Ashby Avenue interchange, which will result in less truck traffic diverting onto the surrounding local street network to avoid congestion.

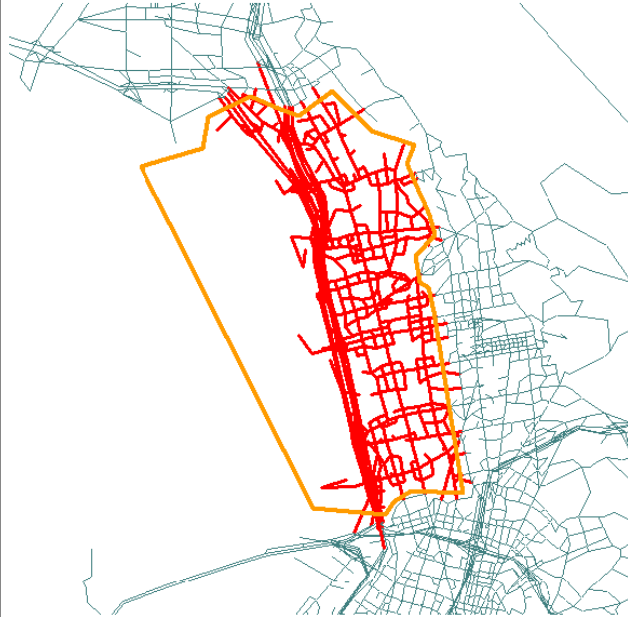


**Brief summary of assumptions and methodology used for conducting analysis**

Kittelson and Associates, Inc. (Kittelson) evaluated traffic operations primarily using continuously collected detector data for freeway operations, and analysis procedures from the Transportation Research Board's Highway Capacity Manual 6th Edition (HCM 6) for intersection operations. Kittelson conducted travel forecasting using the May 2018 version of the Alameda Countywide Travel Demand Model maintained by Alameda CTC. The model assumptions include land uses from Plan Bay Area 2040 as adopted in 2017 and network assumptions from the Countywide Transportation Plan and MTC Regional Transportation Plan (RTP), consistent with Plan Bay Area 2040. Kittelson evaluated traffic operations and developed traffic forecast for the existing year (2018), opening year (2025), horizon year (2040), and a design year (2045).

The regional study area considered in this analysis extended beyond the project limits to capture the effects of the proposed project on the surrounding transportation system as well as the effects of traffic in the surrounding area on the proposed project. As shown in the illustration below, the regional study area included the I-80 interchange at Ashby Avenue in the City of Emeryville and the following I-80 mainline segments: I-80 between Powell Street and Ashby Avenue, and I-80 between Ashby Avenue and University Avenue.

**REGIONAL STUDY AREA**



**Source:**

Kittelson & Associates, Inc. (April 28, 2020). *Draft Traffic Operation Analysis Report – Interstate 80/Ashby Avenue Interchange Improvements*.

**Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

**Table 1. Opening Year (2025) Peak Hour I-80 Freeway Operations**

Location	Direction	Lanes	Peak Period	2025 No-Build Alternative			2025 Build Alternatives <sup>3</sup>		
				Volume <sup>1</sup>	Density <sup>2</sup>	LOS	Volume	Density	LOS
I-80 North of Ashby Avenue (to University Ave.)	EB	5	AM	7,134	22.5	C	7,150	22.5	C
			PM	11,872	119.3	F	11,798	118.6	F
	WB	5	AM	12,971	118.3	F	13,022	118.7	F
			PM	7,466	29.6	D	7,492	29.7	D
I-80 South of Ashby Avenue (to Powell St.)	EB	6	AM	7,740	21.2	C	7,749	21.2	C
			PM	11,311	167.8	F	11,575	171.7	F
	WB	6	AM	13,205	90.2	F	13,371	91.3	F
			PM	7,644	39.5	E	7,727	39.9	E

Source: Kittelson & Associates, Inc., 2020.

Notes: LOS = level of service; EB = eastbound; WB = westbound

<sup>1</sup> Volumes reported are passenger car equivalent per hour.

<sup>2</sup> Densities reported are passenger vehicles per mile per lane.

<sup>3</sup> Freeway mainline operations are the same for Build Alternatives 1 and 2.

**Table 2. Opening Year (2025) AADT and VMT**

Study Area	Measure	% Trucks	2025 No-Build Alternative		2025 Build Alternatives		% Change
			Total	Trucks	Total	Trucks	
I-80 North of Ashby (to University Ave.)	AADT	4.8	280,803	13,479	282,729	13,571	0.7%
I-80 South of Ashby (to Powell St.)	AADT	4.8	291,591	13,996	291,755	14,004	0.1%
Regional Study Area	AADT	4.2	10,810,956	454,060	10,809,302	453,991	0.0%
	VMT	4.2	2,239,684	94,067	2,235,317	93,883	-0.2%

Source: Kittelson & Associates, Inc., 2020.

Notes: AADT = Annual average daily traffic; VMT = vehicle miles traveled.

**RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

**Table 3. Horizon Year (2040) AADT and VMT**

Study Area	Measure	% Trucks	2040 No-Build Alternative		2040 Build Alternatives		% Change
			Total	Trucks	Total	Trucks	
Regional Study Area	AADT	4.4	12,458,867	548,190	12,470,910	548,720	0.1%
	VMT	4.4	2,499,264	109,968	2,494,434	109,755	-0.2%

Source: Kittelson & Associates, Inc., 2020.

Notes: AADT = Annual average daily traffic; VMT = vehicle miles traveled.

**Table 4. Design Year (2045) Peak Hour I-80 Freeway Operations**

Location	Direction	Lanes	Peak Period	2025 No-Build Alternative			2025 Build Alternatives <sup>3</sup>		
				Volume <sup>1</sup>	Density <sup>2</sup>	LOS	Volume	Density	LOS
I-80 North of Ashby Avenue (to University Ave.)	EB	5	AM	8,044	25.4	C	8,210	25.9	C
			PM	13,681	137.5	F	14,051	141.2	F
	WB	5	AM	14,728	134.3	F	15,077	137.5	F
			PM	9,254	36.7	E	9,679	38.4	E
I-80 South of Ashby Avenue (to Powell St.)	EB	6	AM	8,742	23.9	C	8,941	24.4	C
			PM	13,406	198.9	F	13,888	206.0	F
	WB	6	AM	15,095	103.1	F	15,495	105.8	F
			PM	9,355	48.4	F	9,747	50.4	F

Source: Kittelson & Associates, Inc., 2020.

Notes: LOS = level of service; EB = eastbound; WB = westbound

<sup>1</sup> Volumes reported are passenger car equivalent per hour.

<sup>2</sup> Densities reported are passenger vehicles per mile per lane.

<sup>3</sup> Freeway mainline operations are the same for Build Alternatives 1 and 2.

**Table 5. Design Year (2045) AADT and VMT**

Study Area	Measure	% Trucks	2045 No-Build Alternative		2045 Build Alternatives		% Change
			Total	Trucks	Total	Trucks	
I-80 North of Ashby (to University Ave)	AADT	4.8	302,806	14,535	307,743	14,772	1.6%
I-80 South of Ashby (to Powell St.)	AADT	4.8	324,973	15,599	323,693	15,537	-0.4%
Regional Study Area	AADT	4.4	13,008,171	572,360	13,024,780	573,090	0.1%
	VMT	4.4	2,585,791	113,775	2,580,806	113,555	-0.2%

Source: Kittelson & Associates, Inc., 2020.

Notes: AADT = Annual average daily traffic; VMT = vehicle miles traveled.

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

**Table 6. Opening Year (2025) Levels of Service at Interchanges**

#	Intersection	Peak Period	2025 No-Build Alternative		2025 Build Alternative 1		2025 Build Alternative 2	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Frontage Road & Ashby Avenue (Alt 1A & Alt 2)	AM	--	--	42.2	D	42.2	D
	Frontage Road & Ashby Avenue (Alt 1B)		--	--	6.3	A	--	--
2	I-80 WB Ramps & Ashby Avenue		--	--	29	C	29.2	C
3	I-80 EB Ramps & Ashby Avenue		--	--	17.1	B		
4	Shellmound Connectors & Ashby Avenue		--	--	12.4	B	13.4	B
5	Shellmound Connector WB & Shellmound Street		--	--	7.8	A	7.8	A
6	Shellmound Connector EB & Shellmound Street		--	--	12	B	12	B
7	7th Street & Ashby Avenue		61	E	58.4	E	58.4	E
8	Frontage Road & I-80 WB Off-Ramp		36.8	E	--	--	--	--
9	Frontage Road & I-80 WB On-Ramp		37.5	E	--	--	--	--
10	Shellmound Street & I-80 EB Off-Ramp	12.9	B	--	--	--	--	
1	Frontage Road & Ashby Avenue (Alt 1A & Alt 2)	PM	--	--	33.1	C	33.1	C
	Frontage Road & Ashby Avenue (Alt 1B)		--	--	7.9	A		
2	I-80 WB Ramps & Ashby Avenue		--	--	26.6	C	23.1	C
3	I-80 EB Ramps & Ashby Avenue		--	--	13.9	B		
4	Shellmound Connectors & Ashby Avenue		--	--	17.7	B	22.1	C
5	Shellmound Connector WB & Shellmound Street		--	--	8.7	A	8.7	A
6	Shellmound Connector EB & Shellmound Street		--	--	13.8	B	13.8	B
7	7th Street & Ashby Avenue		124.9	F	73.9	E	73.9	E
8	Frontage Road & I-80 WB Off-Ramp		118.9	F	--	--	--	--
9	Frontage Road & I-80 WB On-Ramp		168.3	F	--	--	--	--
10	Shellmound Street & I-80 EB Off-Ramp	18.7	C	--	--	--	--	

Source: Kittelson & Associates, Inc., 2020.

Notes: s/veh = seconds per vehicle; LOS = level of service; -- = not available

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

**Table 7. Design Year (2045) Levels of Service at Interchanges**

#	Intersection	Peak Period	2045 No-Build Alternative		2045 Build Alternative 1		2045 Build Alternative 2		
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	
1	Frontage Road & Ashby Avenue (Alt 1A & Alt 2)	AM	--	--	41.3	D	41.3	D	
	Frontage Road & Ashby Avenue (Alt 1B)		--	--	14.4	B	--	--	
2	I-80 WB Ramps & Ashby Avenue		--	--	42.7	D	41	D	
3	I-80 EB Ramps & Ashby Avenue		--	--	28.4	C			
4	Shellmound Connectors & Ashby Avenue		--	--	21	C	28.6	C	
5	Shellmound Connector WB & Shellmound Street		--	--	8.7	A	8.7	A	
6	Shellmound Connector EB & Shellmound Street		--	--	16.7	C	16.7	C	
7	7th Street & Ashby Avenue		146.2	F	149.5	F	149.5	F	
8	Frontage Road & I-80 WB Off-Ramp		128.7	F	--	--	--	--	
9	Frontage Road & I-80 WB On-Ramp		180.5	F	--	--	--	--	
10	Shellmound Street & I-80 EB Off-Ramp	13.6	B	--	--	--	--		
1	Frontage Road & Ashby Avenue (Alt 1A & Alt 2)	PM	--	--	35.9	D	33.1	C	
	Frontage Road & Ashby Avenue (Alt 1B)		--	--	27.8	C	35.2	D	
	2		I-80 WB Ramps & Ashby Avenue	--	--	44.2			D
	3		I-80 EB Ramps & Ashby Avenue	--	--	21.8	C		
	4		Shellmound Connectors & Ashby Avenue	--	--	19.3	B	28.5	C
	5		Shellmound Connector WB & Shellmound Street	--	--	9.3	A	9.3	A
	6		Shellmound Connector EB & Shellmound Street	--	--	17.7	C	17.7	C
	7		7th Street & Ashby Avenue	236.7	F	174.6	F	174.6	F
	8		Frontage Road & I-80 WB Off-Ramp	201.6	F	--	--	--	--
	9		Frontage Road & I-80 WB On-Ramp	282.7	F	--	--	--	--
10	Shellmound Street & I-80 EB Off-Ramp	24.1	C	--	--	--	--		

Source: Kittelson & Associates, Inc., 2020.

Notes: s/veh = seconds per vehicle; LOS = level of service; -- = not available

**Describe potential traffic redistribution effects of congestion relief (impact on other facilities)**

The proposed I-80 and Ashby Avenue Interchange would not create new traffic; rather it would redistribute traffic within the local area because it provides new connections to and from Shellmound Street and I-80 Westbound. The Build Alternatives would decrease traffic demands for the Powell Street off-ramp and along Frontage Road and Ashby Avenue west of 7th Street. The traffic volume for Shellmound Street south of Ashby Avenue would increase, while traffic volumes would decrease on Bay Street and Potter Street near Aquatic Park.

The City of Emeryville is planning to update the bicycle facilities along Shellmound Street by continuing the bicycle treatments already implemented south of 64th Street, north to the interchange. These additional bicycle treatments would reduce the level of traffic stress on Shellmound Street between 64th Street and the Ashby Avenue Interchange.

**Comments/Explanation/Details (please be brief)**

Under 40 CFR 93.123(b)(1), the following criteria are utilized to determine the potential for a proposed project to qualify as a Project of Air Quality Concern.

- (i) *New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;*

The project is not a new or expanded highway project and it will not add additional lanes on I-80 nor change the percentages of trucks in the regional study area. The project will alleviate local traffic congestion at the I-80/Ashby Avenue interchange and improve circulation, which will result in less truck traffic diverting onto the surrounding local street network to reach their destination. As a result, the project will provide better access to the regional study area while generally maintaining or improving the AADT (See Tables 2, 3, and 5) and LOS (see Tables 6 and 7), and reducing the regional vehicle miles traveled (VMT) (see Tables 2, 3, and 5). Because the project's reduction in regional VMT would result in a decrease in PM<sub>2.5</sub> emissions from diesel vehicles, the project would not be considered a Project of Air Quality Concern under this criterion.

- (ii) *Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;*

Overall, the Build Alternatives would improve or maintain the LOS at the I-80/Ashby Avenue ramp and ramp terminal intersections in project area.

- The Build Alternatives will modify the I-80 ramp/Ashby Avenue and Frontage Road/Ashby Avenue intersections, which will operate within LOS standards (D or better) in 2045.
- The Build Alternatives will reconfigure the connection to Shellmound Street by creating an intersection at Ashby Avenue, which will operate within LOS standards (D or better) in 2045.
- The Build Alternatives would not modify the 7th Street and Ashby Avenue intersection, which will continue to operate at LOS F.

The percentage of diesel trucks (4.2 to 4.4%) would remain the same in the regional study for the Build and No-Build Alternatives. The LOS at the affected intersections in the study area would be not due to a significant increase in the volume of diesel trucks. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

- (iii) *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;*

The proposed project would not implement a new bus or retail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

- (iv) *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and*

The proposed project does not involve expansion of a bus or rail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

- (v) *Projects in or affecting locations, areas, or categories of sites which are identified in the PM<sub>10</sub> or PM<sub>2.5</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.*

There is no state implementation plan for PM<sub>10</sub> or PM<sub>2.5</sub>. According to the Bay Area Air Quality Management District's Community Air Risk Evaluation (CARE) program, the project area is within a 24-hour PM<sub>2.5</sub> exceedance area and a 2013 cumulative impact area. However, the project is not mapped in a community that is disproportionately impacted by emissions from existing transportation and stationary sources. The project is not a first-year priority community under AB 617 and is not currently covered under a community action plan. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

Figure 1: Study Area



**Figure 2. Build Alternatives**

**Alternative 1, Option A: Tight Diamond with T-Intersection**



**Alternative 1, Option B: Tight Diamond with S-Curve Ramp**



**Alternative 1, Option C: Tight Diamond with C-Curve Ramp**



**Alternative 2: Single Point Diamond with T-Intersection**





**ALAMEDA COUNTY TRANSPORTATION COMMISSION**  
**I-80/ASHBY AVENUE (ROUTE 13)**  
**INTERCHANGE IMPROVEMENT PROJECT**



**AIR QUALITY CONFORMITY TASK FORCE**  
July 23, 2020





## Project Location

- I-80 / Ashby Avenue Interchange
  - City of Berkeley / City of Emeryville
  - Alameda County
- Not located within West Oakland Community Action Plan (AB 617)





## Project Description

The project would:

- Replace existing elevated interchange connector ramps with new bridge over I-80;
- Realign access to the West Frontage Road;
- Introduce new bicycle and pedestrian pathway from 65<sup>th</sup> Street / Shellmound Street to the San Francisco Bay Trail



# Project Alternatives

**ALTERNATIVE 1**



**Tight Diamond**

**ALTERNATIVE 2**



**Single Point Diamond**

- LEGEND:**
- █ ROADWAY
  - █ RAMP
  - █ STRUCTURE
  - █ Ped/BIKE PATH (POC)
  - █ Ped/BIKE PATH (AT GRADE)
  - █ SIDEWALK



## Project Purpose

The purpose of the project is to:

- Improve interchange access, safety, and circulation;
- Provide multimodal connectivity;
- Provide westbound I-80 connection to Shellmound Street;
- Provide safe bicycle and pedestrian connectivity across I-80;
- Improve circulation at I-80/Powell Street and 7th Street; and
- Alleviate local surface street congestion.





## Project Need

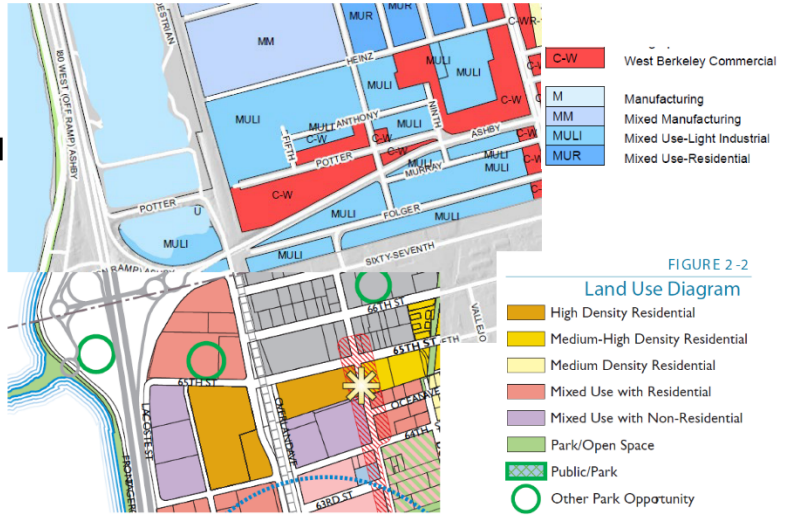
- The existing interchange provides no access to Shellmound Street to/from westbound I-80 and no access from Shellmound Street to Frontage Road;
- Access from westbound traffic to Emeryville is forced to use the Powell Street interchange; and
- There is no direct pedestrian and bicyclist access to the San Francisco Bay Trail from 65th Street / Shellmound Street area.





# Project Land Uses

- Commercial
- Mixed Use-Light Industrial
- Mixed Use with Residential
- Mixed Use with Non-Residential
- High Density Residential
- Park/Open Space
- Other Park Opportunity





## Traffic Data

### Opening Year (2025) LOS Summary

Alternative	No. Intersections at LOS D, E, F
No-Build	3
Build Alternative	2

### Design Year (2045) LOS Summary

Alternative	No. Intersections at LOS D, E, F
No-Build	3
Build Alternative	3





## Regional Traffic Data

### Opening Year (2025) AADT & VMT Summary

Measure	No-Build Alternative		Build Alternatives		% Change
	Total	Trucks (4.2%)	Total	Trucks (4.2%)	
AADT	10,810,956	454,060	10,809,302	453,991	0.0%
VMT	2,239,684	94,067	2,235,317	93,883	-0.2%



### Design Year (2045) AADT & VMT Summary

Measure	No-Build Alternative		Build Alternatives		% Change
	Total	Trucks (4.4%)	Total	Trucks (4.4%)	
AADT	13,008,171	572,360	13,024,780	573,090	0.1%
VMT	2,585,791	113,775	2,580,806	113,555	-0.2%







## I-80 Traffic Data

### Opening Year (2025) AADT Summary

Location	No-Build Alternative		Build Alternatives		% Change
	Total	Trucks (4.8%)	Total	Trucks (4.8%)	
I-80 North of Ashby (to University Ave.)	280,803	13,479	282,729	13,571	0.7%
I-80 South of Ashby (to Powell St.)	291,591	13,996	291,755	14,004	0.1%

### Design Year (2045) AADT Summary

Location	No-Build Alternative		Build Alternatives		% Change
	Total	Trucks (4.8%)	Total	Trucks (4.8%)	
I-80 North of Ashby (to University Ave.)	302,806	14,535	307,743	14,772	1.6%
I-80 South of Ashby (to Powell St.)	324,973	15,599	323,693	15,537	-0.4%



## Screening Results

### POAQC Criteria under 40 CFR 93.123(b)(1):

- i. New highway projects that have a significant number of diesel vehicles, and expanded highway project that have a significant increase in the number of diesel vehicles
  - Not a new or expanded highway project
  - Would alleviate local traffic congestion, which will result in less truck traffic diverting onto the surrounding street network
  - Negligible change in diesel AADT from project



## Screening Results

- ii. **Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project**
  - **Overall, Build Alternatives would improve or maintain LOS at the I-80/Ashby Ave ramp and ramp terminal intersections in project area**
  - **Percentage of diesel truck would remain the same in the regional study area for both Build and No Build Alternatives**



## Screening Results

- v. **Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation**
  - **Project not mapped in a community that is disproportionately impacted by emissions from existing transportation and stationary sources**
  - **Project location not a first-year priority community under AB 617 and not currently covered under a community action plan**



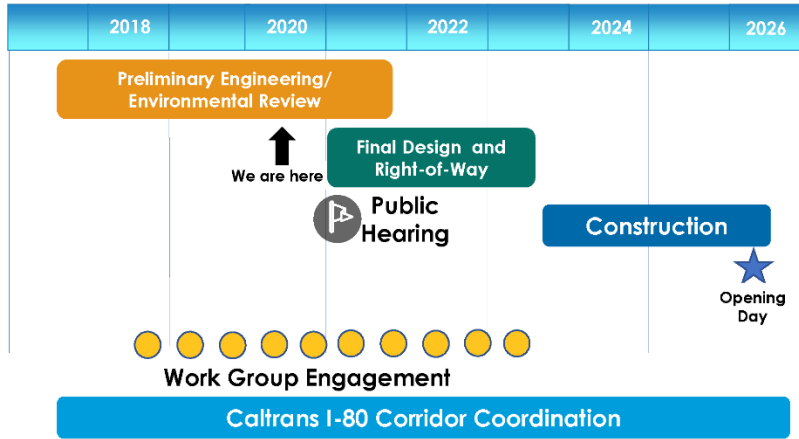
## Summary

### Not a project of Air Quality Concern

- Not a new or expanded highway project
- No additional lanes on I-80
- No added vehicular capacity
- No change in regional traffic volumes or truck percentages on I-80
- Intersection delay would improve compared to No-Build
- No changes to land use that would affect diesel traffic percentage
- No exceedances in Federal PM<sub>2.5</sub> standard



# Project Schedule



### Early Finish Dates

- DED (IS/EA) - Late 2020
- Public Hearing - Early 2021
- FED - Mid 2021
- Final Design - Early 2023
- R/W - Early 2023
- Construction - Mid 2026

Costs (\$ X 1,000)	
PE/Environmental	\$4,500
Final Design (PS&E)	\$7,500
Right-of-Way/Utility	\$4,000
Construction	\$82,535
<b>Total Expenditures</b>	<b>\$98,935</b>

**DRAFT – Subject to Change**



# Interchange Renderings

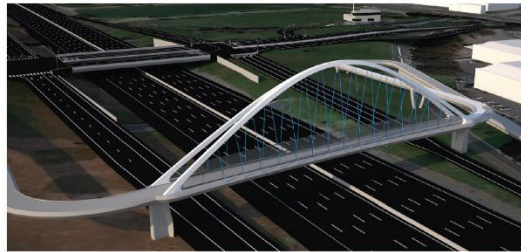
**BOX GIRDER**



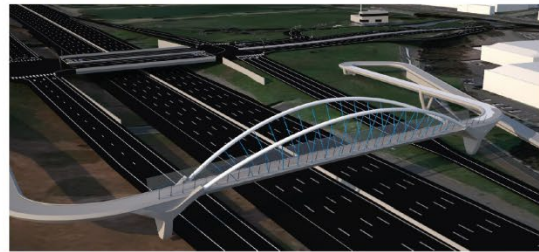
**TRUSS**



**BASKET HANDLE**



**BUTTERFLY ARCH**



# Pedestrian Overcrossing Renderings



**Butterfly Arch**





# Questions and Discussion



## Thank You

Questions? Please contact John Kenyon:

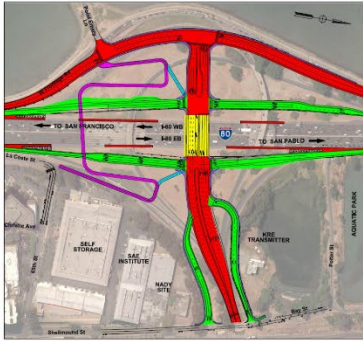
[John.Kenyon@tylin.com](mailto:John.Kenyon@tylin.com)

(510) 457-3044

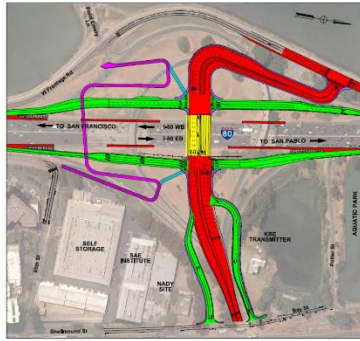
[www.AlamedaCTC.org](http://www.AlamedaCTC.org)



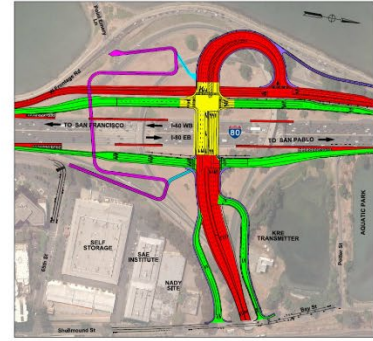
# Tight Diamond - West Conform Options



**TIGHT DIAMOND T - INTERSECTION  
(WITH POC & AT-GRADE SHOWN)**



**TIGHT DIAMOND S - CURVE  
(WITH POC & AT-GRADE SHOWN)**



**TIGHT DIAMOND C - CURVE  
(WITH POC & AT-GRADE SHOWN)**

**LEGEND:**

- █ ROADWAY
- █ RAMP
- █ STRUCTURE
- █ Ped/BIKE PATH (POC)
- █ Ped/BIKE PATH (AT GRADE)
- █ SIDEWALK

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# Transportation Air Quality Conformity Findings Checklist

## PROJECT INFORMATION

**Project Name:** I-80/Ashby Avenue Interchange Improvement Project

**DIST-CO-RTE-PM:** 04-ALA-80 PM 3.9/5.0 04-ALA-13 PM 13.7/13.9

**EA:** 04-256200      **Federal Aid Number:** 04-1800-0225

**Document Type:**  23 USC 326 CE     23 USC 327 CE     EA     EIS

## CHECKLIST

**Step 1.** Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM<sub>2.5</sub>, or PM<sub>10</sub> per [EPA's Green Book](#) listing of non-attainment areas?

- If no, go to Step 18. **Transportation conformity does not apply to the project.**
- If yes, go to Step 2.

---

**Step 2.** Is the project exempt from conformity per [40 CFR 93.126](#) or [40 CFR 93.128](#)?

- If yes, go to Step 18. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).
- 40 CFR 93.126<sup>1</sup>  
**Project type from Table 2:** \_\_\_\_\_
- 40 CFR 93.128
- If no, **go to Step 3.**

---

**Step 3.** Is the project exempt from regional conformity per [40 CFR 93.127](#)?

- If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type).  
**Project type:** Interchange reconfiguration projects
- If no, go to Step 4.

---

**Step 4.** Is the project located in a region with a currently conforming RTP and TIP?

- If yes, **the project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.
- If no and the project is located in an isolated rural area, go to Step 5.
- If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

---

<sup>1</sup> Please refer to [Clarifications on Exempt Project Determinations](#) to verify exempt project type from Table 2. Road diets, auxiliary lanes less than one-mile, and ramp metering may be exempt under "projects that correct, improve, or eliminate a hazardous location or feature."

---

**Step 5.** For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

- If yes, go to Step 6.
- If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[e]).**

---

**Step 6.** Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

- If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[e]).**
- If no, go to Step 7.

---

**Step 7.** The project, located in an isolated rural area, requires a separate regional emissions analysis.

- Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[e] and 95.105).<sup>2</sup> Go to Step 8.**

---

**Step 8.** Is the project located in a CO nonattainment or maintenance area? (South Coast Air Basin only)

- If no, go to Step 9. **CO conformity analysis is not required.**
- If yes, **hot-spot analysis requirements for CO per the [CO Protocol](#) (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors<sup>3</sup>) have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)<sup>4</sup>. Go to Step 9.**

---

**Step 9.** Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

- If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**
- If yes, go to Step 10.

---

<sup>2</sup> The analysis must support this conclusion before going to the next step.

<sup>3</sup> Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: <http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot>.

<sup>4</sup> As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.

**Step 10.** Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's [Transportation Conformity Guidance](#) for PM 10 and PM 2.5?

- If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on July 30, 2020.** Go to Step 12.
- If yes, go to Step 11.

**Step 11.** The project is a POAQC.

- The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on \_\_\_\_\_. Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

**Step 12.** Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures? [Control measures can be found in the applicable Federal Register notice at: <https://www.epa.gov/state-and-local-transportation/conformity-adequacy-review-region-9#ca>.]

- If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).** Go to Step 14.
- If no, go to Step 13.

**Step 13a.** Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

**Step 13b.** Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document? AND

**Step 13c** (applies only if Step 13a and/or 13b are answered "yes"). Has a written commitment been made as part of the air quality analysis to implement the identified measures?

- If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination (40 CFR 93.125(a)).** Go to Step 14.
- If no, go to Step 14.

**Step 14.** Does the project qualify for a Categorical Exclusion pursuant to 23 USC 326?

- If yes, go to step 15.
- If no, the project requires preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327. Go to Step 16.

**Step 15. Is any analysis required by steps 1-13 of this form?<sup>5</sup>**

- If yes, then Caltrans prepares the appropriate analysis and documentation for the project file and makes the conformity determination through its signature on the CE form. No FHWA involvement is required. See the AQCA Annotated Outline. Go to Step 18.
- If no, then Caltrans makes the conformity determination through its signature on the CE form. No FHWA involvement is required. Go to Step 18.

**Step 16. Is the project located in a non-attainment/maintenance area for **ozone only** and considered not regionally significant/non-exempt?**

- If yes, go to Step 18.<sup>6</sup>
- If no, then **an AQCA is needed**. See the AQCA Annotated Outline. Caltrans submits a conformity determination request to FHWA for FHWA's conformity determination. Go to Step 17.

**Step 17.** Send FHWA Request for Conformity Determination package and [FHWA Submittal Package Checklist](#) to DOTP- Air Quality ([rodney.tavitas@dot.ca.gov](mailto:rodney.tavitas@dot.ca.gov)) and DEA-Air Quality ([daisy.laurino@dot.ca.gov](mailto:daisy.laurino@dot.ca.gov)) for completeness review. Please direct technical questions to DOTP-Air Quality office. Headquarters staff will coordinate with FHWA on behalf of the district.

**Date of FHWA air quality conformity determination:** 11/21/2022

**Step 18. STOP as all air quality conformity requirements have been met.**

**SIGNATURE**

Shilpa Mareddy	<i>Shilpa Mareddy</i>	11/21/2022
Air Quality and Noise Branch Chief	Signature	Date

<sup>5</sup> Please note that not all projects that qualify for a categorical exclusion will be exempt from air quality conformity requirements. Many types of projects that may qualify for a CE (such as the addition of auxiliary lanes less than one-mile, weaving lanes less than one-mile, turning lanes less than one-mile, climbing lanes less than one-mile, parking, road diets, ramp metering, and even many bridge projects) MAY require some level of project level conformity analysis and may even require interagency consultation. Additionally, please note that for ALL projects the project file must include evidence that one of the three following situations apply: 1) Conformity does not apply to the project area; or 2) The project is exempt from all conformity analysis requirements; or 3) The project is subject to project-level conformity analysis (and possibly regional conformity analysis) and meets the criteria for a conformity determination. The project file must include all supporting documentation and this checklist.

<sup>6</sup> Project-level conformity analysis shows that the project will conform to the State Implementation Plan. Because the project area is Attainment/Unclassified for carbon monoxide (CO) and particulate matter (PM10 and PM2.5), no hot spot analysis is required for the project-level conformity determination by 40 CFR 93.116 and 93.123. The project comes from a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). Include documentation of interagency consultation review in the final CE/EA/EIS, if applicable.



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**California Division**

November 16, 2022

650 Capitol Mall, Suite 4-100  
Sacramento, CA 95814  
(916) 498-5001  
(916) 498-5008 (FAX)

In Reply, Refer To:  
HDA-CA

**ELECTRONIC CORRESPONDENCE ONLY**

Ms. Dina El-Tawansy,  
District 4 Director  
California Department of Transportation,  
P.O. Box 2366  
Oakland, CA 94623-0660

**SUBJECT: Project Level Conformity Determination for the I-80/Ashby Avenue Interchange Improvement Project (CTIPS ID 20600006072)**

Dear Ms. El-Tawansy:

On October 24, 2022, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the I-80/Ashby Avenue Interchange Improvement Project. The project is in an area that is designated Non-Attainment or Maintenance for Ozone, and Particulate Matter (PM 2.5).

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Metropolitan Transportation Commission's (MTC) current Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), as amended. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM<sub>2.5</sub> and PM<sub>10</sub> analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the I-80/Ashby Avenue Interchange Improvement Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93.



If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn at (916) 498-5346 or [Joseph.Vaughn@dot.gov](mailto:Joseph.Vaughn@dot.gov).

Sincerely,

Antonio Johnson  
Director of Planning, Environment,  
& Right of Way  
Federal Highway Administration

TO:

Dina El-Tawansy, Caltrans  
[Dina.el-Tawansy@dot.ca.gov](mailto:Dina.el-Tawansy@dot.ca.gov)

CC: (via email)

Shilpa Mareddy, Caltrans  
Kevin Krewson, Caltrans  
Lucas Sanchez, Caltrans  
Rodney Tavitas, Caltrans  
Vincent Mammano, FHWA  
Elissa Konove, FHWA  
Antonio Johnson, FHWA  
Joseph Vaughn, FHWA  
Patrick Pittenger, FHWA

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[Rodney.Tavitas@dot.ca.gov](mailto:Rodney.Tavitas@dot.ca.gov)  
[Vincent.Mammano@dot.gov](mailto:Vincent.Mammano@dot.gov)  
[Elissa.Konove@dot.gov](mailto:Elissa.Konove@dot.gov)  
[Antonio.Johnson@dot.gov](mailto:Antonio.Johnson@dot.gov)  
[Joseph.Vaughn@dot.gov](mailto:Joseph.Vaughn@dot.gov)  
[Patrick.Pittenger@dot.gov](mailto:Patrick.Pittenger@dot.gov)