

**Exhibit B**  
**ACTA Resolution Number 2009-0004**

**Mitigation Monitoring Plan**  
**East-West Connector Project**

*(SCH# 2007102078)*



**June 2009**

ICF Jones & Stokes. 2009. Mitigation Monitoring Plan. East-West Connector Project. June. (SCH# 2007102078.) (ICF J&S 00703.07.) Oakland, CA. Prepared for: T.Y. LIN International, Oakland, CA.

# Contents

	<b>Page</b>
Introduction .....	1
Summary of Mitigation Measures (Table 1).....	2
Mitigation Measures .....	9
Aesthetics .....	9
Air Quality .....	10
Biological Resources .....	12
Cultural Resources .....	20
Hazards and Hazardous Materials.....	21
Hydrology and Water Quality .....	23
Land Use and Planning .....	28
Noise .....	29
Public Services, Utilities, and Recreation.....	33
Transportation and Traffic.....	34
References.....	37
Acronyms and Abbreviations .....	39

**This page intentionally left blank**

# Mitigation Monitoring Plan

## Introduction

The Alameda County Transportation Authority (ACTA), as Lead Agency under the California Environmental Quality Act (CEQA) and State CEQA Guidelines, has prepared the Final Environmental Impact Report (EIR) for the East-West Connector Project (proposed project) (SCH # 2007102078). When a lead agency makes findings on significant effects identified in an EIR, it must also adopt a program for reporting or monitoring mitigation measures that were adopted or made conditions of project approval (Public Resources Code [PRC] Section 21081.6[a]; State CEQA Guidelines Sections 15091[d], 15097).

This document represents the mitigation monitoring program (MMP) prepared by ACTA for the proposed project. This MMP includes all measures required to reduce potentially significant environmental impacts to a less-than-significant level, as well as measures that reduce impacts but not necessarily to a less than significant level. It also identifies the timing of implementation; the agency responsible for implementing the mitigation; and the agency responsible for monitoring the mitigation. The mitigation measures, agencies, and timing are summarized in the Mitigation Monitoring Table. The full text of the mitigation measures follows.

This MMP has been prepared by ACTA, with technical assistance from ICF Jones & Stokes, an environmental consulting firm. Questions should be directed to Stefan Garcia, EWC Project Manager.

### Contact Information:

EWC Environmental Document  
Stefan Garcia, EWC Project Manager  
c/o CirclePoint  
555 12th Street, Suite 290  
Oakland, CA 94607  
Fax: 510.268.8499  
Email: [eastwestconnector@circlepoint.com](mailto:eastwestconnector@circlepoint.com)

**Table 1. Mitigation Monitoring Plan – Summary of Mitigation Measures**

<b>Mitigation Measure</b>	<b>Timing</b>	<b>Implementation Responsibility</b>	<b>Monitoring Responsibility</b>	<b>Monitoring/Reporting Notes</b>
<b>AES-1:</b> Provide Screened Fencing around Project Staging Areas During Construction	During construction	Construction contractor	ACTA	
<b>AES-2:</b> Prepare and Implement a Landscape Plan along the Project Alignment	Prior to construction	ACTA, with Fremont Landscape Architecture Div., Union City Planning Dept.	ACTA, with Fremont Landscape Architecture Div., Union City Planning Dept.	
<b>AES-3:</b> Incorporate Aesthetically Sensitive Design into the Soundwalls between Paseo Padre Parkway and Alvarado-Niles Road	Prior to construction	ACTA, with Fremont Planning Div., Union City Planning Dept.	ACTA, with Fremont Planning Div., Union City Planning Dept.	
<b>AES-4:</b> Provide Landscape Plan for Arroyo Park	Prior to construction	ACTA	ACTA, with Union City Public Works Dept.	
<b>AES-5:</b> Ensure the Landscape Plan Precludes Extremely Tall Vegetation along the New Roadway Alignment between the Two Old Alameda Creek Bridge Crossings	Prior to finalizing landscape plan	ACTA, with Fremont Landscape Architecture Div.	ACTA, with Fremont Landscape Architecture Div.	
<b>AES-6:</b> Install Low-Standing Light Standards with Directional Shields Downward along the New Roadway	Prior to opening the new road to traffic	ACTA	ACTA	
<b>AES-7:</b> Minimize Fugitive Light from Portable Sources	During nighttime construction	Construction contractor	ACTA	
<b>AIR-1:</b> Employ Measures to Reduce Criteria Pollutant Emissions during Construction	During construction	Construction contractor	ACTA, BAAQMD	
<b>AIR-2:</b> Employ Measures to Reduce Project-Related Greenhouse Gas Emissions	During construction	Construction contractor	ACTA	

Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>BIO-1:</b> Provide Construction Workers with Awareness Training for Special-Status Species and Sensitive Habitats in the Construction Area	Prior to construction	ACTA	ACTA	
<b>BIO-2:</b> Conduct Preconstruction Surveys and, If Necessary, Implement Measures to Protect California Red-Legged Frog, California Tiger Salamander, and Western Pond Turtle	Prior to construction	ACTA	ACTA, with DFG	
<b>BIO-3:</b> Conduct Site Preparation and Construction Activities between September 1 and January 31 to Avoid the Typical Nesting Period of Migratory Birds, and Implement Preconstruction Surveys and Protective Measures if Necessary	During construction	Construction contractor	ACTA	
<b>BIO-4:</b> Conduct In-Water Construction Activities in Alameda Creek Flood Control Channel between May 1 and October 1 to Avoid Special-Status Fish Spawning and Migration Seasons	During construction	Construction contractor	ACTA, with DFG	
<b>BIO-5:</b> Provide an Alternate Migration Corridor through the Alameda Flood Control Channel if Surface Flow Is Present during Construction	During construction	ACTA	ACTA	
<b>BIO-6:</b> Implement Channel Protection Measures during Construction	During construction	Construction contractor	ACTA	
<b>BIO-7:</b> Prepare and Implement a Wetlands Mitigation Plan that Includes the Creation of New Wetlands, Waters of the United States and State, and Replacement and Enhancement of Willow Riparian Woodland and Scrub	Prior to acquiring Section 404 permit from Corps, Section 401 permit from RWQCB	ACTA, with Corps, RWQCB	ACTA, with Corps, RWQCB	

Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>BIO-8:</b> Protect Willow Riparian Woodland and Scrub Habitat during Project Construction	Prior to construction in the vicinity of Old Alameda Creek	Construction contractor	ACTA	
<b>BIO-9:</b> Implement Measures to Avoid or Minimize the Dispersal of Noxious Weeds into Sensitive Riparian Areas during Construction	During construction	Construction contractor	ACTA	
<b>BIO-10:</b> Identify Wetlands and Other Waters Temporarily Affected and Install Protective Fencing during Construction	Prior to construction	ACTA	ACTA	
<b>BIO-11:</b> Prepare an Arborist Report and Develop and Implement a Landscaping Plan that Includes Compensation for Loss of Protected Trees	Prior to finalizing landscaping plan	ACTA, with Fremont Landscape Architecture Div., Union City Planning Dept.	ACTA, with Fremont Landscape Architecture Div., Union City Planning Dept.	
<b>BIO-12:</b> Install Temporary Fencing around Remaining Protected Trees	Prior to construction	ACTA	ACTA	
<b>CUL-1:</b> Conduct Earthwork Monitoring by Qualified Archaeologist during Construction and Implement Management Measures if Resources are Discovered	During construction	ACTA	ACTA	
<b>HAZ-1:</b> Train Construction Workers to Identify Potentially Contaminated Materials and, if Found, Stop Work and Implement Hazardous Materials Investigations and Remediation	Prior to construction	ACTA	ACTA	
<b>HAZ-2:</b> Implement Recommendations in the Phase I Environmental Site Assessment to Prepare a Phase II Environmental Site Assessment, a Health and Safety Plan, and a Soil and Groundwater Management Plan, and to Properly Abandon any Agricultural Wells	Prior to construction	ACTA	ACTA, with ACWD	



Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>HAZ-3:</b> Implement Procedures to Reduce Fire Risk during Construction	During construction	Construction contractor	ACTA	
<b>HWQ-1:</b> Comply with National Pollutant Discharge Elimination System Requirements and Develop and Implement a Stormwater Pollution Prevention Plan	Prior to construction	ACTA, with Fremont Engineering Div., Union City Public Works Dept.	ACTA	
<b>HWQ-2:</b> Clean Paved Areas with Street-Sweeping Equipment	During construction	Construction contractor	ACTA	
<b>HWQ-3:</b> Implement Additional Water Quality Protection Measures to Reduce Sediment in Surface Waters during Construction	During construction	Construction contractor	ACTA	
<b>HWQ-4:</b> Prepare and Implement a Hazardous Materials Spill Prevention and Control Program during Construction	During construction	ACTA	ACTA	
<b>HWQ-5:</b> Construct the Tree Wells and Infiltration Basins to Implement the Hydrograph Modification Management Plan for Stormwater Runoff	Prior to construction	ACTA, with ACWD, ACCWP, RWQCB	ACTA	
<b>HWQ-6:</b> Incorporate Site-Specific Water Quality Treatment Devices into Site Drainage Plans to Meet Water Quality Standards and Maintain Beneficial Uses	Prior to construction	ACTA	ACTA	
<b>LUP-1:</b> Ensure Compatibility of Gutter Pans and Sewer Grates with Bicycle Traffic along Paseo Padre Parkway	Prior to acquiring encroachment permit from Fremont	ACTA	ACTA, with Fremont Engineering Div.	
<b>NOI-1:</b> Employ Measures to Reduce Construction Noise to Comply with Applicable Construction Noise Standards	During construction	ACTA	ACTA, with Fremont City Manager's Office, Union City Manager's Office	

Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>NOI-2:</b> Prepare a Community Awareness Program for Project Construction	Prior to construction	ACTA, with Fremont Planning Div., Fremont Engineering Div., Union City Planning Dept., Union City Public Works Dept.	ACTA	
<b>NOI-3:</b> Conduct Structural Conditions Survey for Areas Where Vibratory Compaction is Proposed	Prior to construction	ACTA	ACTA	
<b>NOI-4:</b> Limit Extent of Vibratory Compaction Activity and Vibratory Pile Driving	During construction	Construction contractor	ACTA	
<b>NOI-5:</b> Limit Vibration Levels Received at Structures	During construction	Construction contractor	ACTA	
<b>NOI-6:</b> Maximize Distance between Shoofly and Residences to Extent Allowed by UPRR	Prior to securing Right-of-Entry Construction and Maintenance Agreement with UPRR	ACTA	ACTA, with UPRR	
<b>NOI-7:</b> Implement Traffic Noise Reduction Treatments (Soundwalls and Quiet Pavement) along the New Roadway between Paseo Padre Parkway and Alvarado-Niles Road	Prior to opening the new road to traffic	ACTA	ACTA, with Fremont Engineering Div., Union City Public Works Dept.	
<b>NOI-8:</b> Implement Traffic Noise Reduction Treatments (Soundwalls and Quiet Pavement) at the Affected Residences along the New Roadway between Alvarado-Niles Road and Mission Boulevard	Prior to opening the new road to traffic	ACTA	ACTA, with Union City Public Works Dept.	

Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>NOI-9:</b> Conduct Survey for Presence of Air Conditioning at Residences Adjacent to the New Roadway	Prior to construction	ACTA	ACTA, with Fremont Engineering Div., Union City Public Works Dept.	
<b>NOI-C1:</b> Contribute to City Funds to Implement Traffic Noise Reduction Treatments	Prior to opening the new road to traffic	ACTA	ACTA, with Fremont City Manager's Office, Union City Manager's Office	
<b>NOI-C2:</b> Use Low Noise Pavement Types on Project Roadways	During construction	ACTA	ACTA, with Fremont Engineering Div., Union City Public Works Dept.	
<b>PSR-1:</b> Conduct an Investigation of Utility Line Locations and Maintain Utility Services	Prior to acquiring encroachment permits	ACTA	ACTA	
<b>TRA-1:</b> Develop and Implement a Traffic Control Plan for Project Construction	Prior to construction	Construction contractor	ACTA, with Fremont Engineering Div., Union City Public Works Dept.	
<b>TRA-2:</b> Provide Temporary Bus Service during All Interruptions in BART Service	During construction of BART shoofly	BART	ACTA	
<b>TRA-3:</b> Limit Interruption of BART Service to Weekends	During construction of BART shoofly	ACTA, BART	ACTA	
<b>TRA-4:</b> Prepare a Rider Awareness Program Addressing BART Service Interruptions	Prior to acquiring an encroachment permit from BART	ACTA, BART	ACTA	

Mitigation Measure	Timing	Implementation Responsibility	Monitoring Responsibility	Monitoring/Reporting Notes
<b>TRA-5:</b> Adjust Signal Timing and Signal Coordination at Intersections	Prior to opening new road to traffic	ACTA, with Caltrans, Fremont Engineering Div.	ACTA	
<b>TRA-6:</b> Relocate the Crosswalk at Mission Boulevard and Nursery Avenue	Prior to opening new road to traffic	ACTA, with Caltrans, Fremont Engineering Div.	ACTA	

# Mitigation Measures

## Aesthetics

### **Mitigation Measure AES-1: Provide Screened Fencing around Project Staging Areas during Construction**

For all work occurring between Paseo Padre Parkway and Alvarado-Niles Road, ACTA will require their contractors to provide screens on all fencing that surrounds staging areas. Screens must be of a neutral color and made of a material that will prevent glare, as received from views outside the staging areas.

### **Mitigation Measure AES-2: Prepare and Implement a Landscape Plan along the Project Alignment**

ACTA will prepare and implement a landscape plan that includes landscaping in the median of the existing and new roadway and along the outside of the new roadway. This will include native, drought-tolerant trees and shrubs. The project landscape plan will include a vegetated buffer extending from the outside of the soundwalls planted with small trees, shrubs, or vines to screen the walls from outside views. The buffer also may include berms or other minimal landform modifications to soften the landscape and provide visual relief from the new roadway. Slopes will be graded to appear as natural as possible.

Final design of the landscape plan will be developed in consultation with the City of Fremont Landscape Division and the Union City Planning Department, to enable the incorporation of specific local landscaping or gateway requirements, and with Alameda County Water District to determine appropriate irrigation facilities. These agencies will have the opportunity review and revise the plan.

### **Mitigation Measure AES-3: Incorporate Aesthetically Sensitive Design into the Soundwalls between Paseo Padre Parkway and Alvarado-Niles Road**

ACTA, through consultation with planning staff at the Cities of Fremont and Union City, and with input from residents of the affected neighborhoods, will incorporate aesthetically sensitive design into the soundwalls. For example, the soundwall design will incorporate texture and color that are compatible to the greatest extent feasible with the existing visual setting. The soundwall design will match the themes of local development and present a unified design throughout the corridor.

### **Mitigation Measure AES-4: Provide Landscape Plan for Arroyo Park**

ACTA will prepare a landscape plan for the affected portion of Arroyo Park that provides a buffer area at the park's edge. The landscape plan will include a physical barrier separating the new roadway from the park for safety and noise reduction, and a vegetation buffer planted with dense shrubs and trees to eliminate views of the new roadway from the park. Vegetation must be

“Bay-friendly landscaping” in that it is native, drought-tolerant and thrives in the Bay Area. The plan must be submitted for approval to the Union City Public Works Department.

**Mitigation Measure AES-5: Ensure the Landscape Plan Precludes Extremely Tall Vegetation along the New Roadway Alignment between the Two Old Alameda Creek Bridge Crossings**

ACTA will ensure that the final landscape plan prepared for the proposed project does not include planting tall vegetation along the new roadway segment between the two bridge crossings of Old Alameda Creek. This portion of the new roadway alignment will instead be planted with trees, shrubs, and native vegetation whose height will allow maintenance of views of the eastern hillsides while still buffering external views of the proposed soundwalls. ACTA will coordinate with the City of Fremont Landscape Division to ensure that this aspect of the landscape plan is mutually agreeable.

**Mitigation Measure AES-6: Install Low-Standing Light Standards with Directional Shields Downward along the New Roadway**

The light standards used along the new roadway segment will be low-standing with shields directing the light downward. The lights will be the lowest height practicable where new lights are introduced adjacent to residences and where residences are not shielded from direct lighting by soundwalls or landscaping.

**Mitigation Measure AES-7: Minimize Fugitive Light from Portable Sources**

In order to minimize fugitive light impacts on residents located along the existing and temporary BART alignment, portable construction lighting will use color-corrected halide lights. At a minimum, construction-related light and glare will be minimized to the maximum extent feasible, given safety considerations. Portable lights will be operated at the lowest allowable height. All lights will be screened and directed downward toward work activities and away from residences adjacent to the project alignment. The number of nighttime lights used will be minimized to the greatest extent possible.

## Air Quality

**Mitigation Measure AIR-1: Employ Measures to Reduce Criteria Pollutant Emissions during Construction**

Construction activities are subject to Caltrans requirements found in the Caltrans document, Standard Specifications: For Construction of Local Streets and Roads (California Department of Transportation 2002). ACTA will follow Caltrans Standard Specification 7-1.01F, Standard Specification 10, and Standard Specification 18, which address the requirements of the Bay Area Air Quality Management District (BAAQMD) and dust control and dust palliative application, respectively. Standard Specification 7-1.01F stipulates that construction activities must comply with all rules, regulations, ordinances, and statutes of the local air pollution control district, while Standard Specification 10 addresses dust control requirements. In addition, BAAQMD requires the

implementation of all feasible, effective, and comprehensive control measures to reduce particulate matter smaller than 10 microns in diameter (PM10) emissions from construction activities. Therefore, this mitigation includes the following control measures.

- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Install windbreaks or plant trees or vegetative wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 miles per hour.
- Limit the area subject to excavation, grading, and other construction activity at any one time.
- Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (i.e., previously graded areas inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (nontoxic) soil binders to exposed stockpiles (e.g., dirt and sand).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
- Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Use alternate fuels, catalyst and filtration technologies, and retrofit existing engines in construction equipment.
- Minimize idling time to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.
- Manage operation of heavy-duty equipment to reduce emissions and maintain heavy-duty earthmoving, stationary, and mobile equipment in optimum running conditions.
- Employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation.

- Use electric equipment when feasible.
- Properly maintain equipment according to manufacturers' specifications.

### **Mitigation Measure AIR-2: Employ Measures to Reduce Project-Related Greenhouse Gas Emissions**

ACTA will ensure the construction contractor employs the following measures to reduce greenhouse gas (GHG) emissions.

- Use recycled, low-carbon, and otherwise climate-friendly building materials such as salvaged and recycled-content materials for hard surfaces, and non-plant landscaping materials.
- Minimize, reuse, and recycle construction-related waste.
- Minimize grading, earth-moving, and other energy-intensive construction practices.
- Landscape to preserve natural vegetation and maintain watershed integrity.
- Use alternative fuels in construction equipment and require construction equipment to use the best available technology to reduce emissions.
- Use energy-efficient low-sodium street lights.

Given the relatively small amount of GHG emissions that would be emitted from this proposed project during short-term construction, and implementation of prescribed mitigation measures, the proposed project would not conflict with the state's goals of reducing GHG emissions to 1990 levels by 2020 relative to construction emissions.

## **Biological Resources**

### **Mitigation Measure BIO-1: Provide Construction Workers with Awareness Training for Special-Status Species and Sensitive Habitats in the Construction Area**

ACTA will ensure that all construction personnel receive worker awareness training provided by a qualified wildlife biologist experienced in training nonspecialists to ensure that they can recognize California red-legged frog (*Rana aurora draytonii*) (CRLF), California tiger salamander (CTS), western pond turtle, and other aquatic and riparian wildlife, and that they understand where sensitive resource areas are within the construction zone so that they could minimize their impact on all sensitive habitats.

### **Mitigation Measure BIO-2: Conduct Preconstruction Surveys and, If Necessary, Implement Measures to Protect California Red-Legged Frog, California Tiger Salamander, and Western Pond Turtle**

Prior to the start of construction activities, ACTA will retain a qualified biologist to conduct preconstruction surveys for CRLF, CTS, and western pond turtle in all suitable habitats in the study area. Surveys will take place no more than 72 hours prior to the onset of site preparation and construction, and will review the



suitable habitat for individuals and nests. If the species is observed during preconstruction surveys, the biologist will remain on site during initial ground-disturbing activities to monitor individuals and ensure CRLF, CTS and western pond turtles are not affected by construction activities. Whenever possible, the biologist will work with construction crews to avoid impacts on individuals. If necessary, individual turtles, CRLF, and CTS will be relocated by a California Department of Fish and Game (DFG)-approved biologist, in accordance with DFG specifications.

If construction activities occur from May through July, there is the possibility of affecting active western pond turtle nests. If preconstruction surveys identify active nests, the biologist will establish visual no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation will be permeable to allow young turtles to move away from the nest following hatching. The radius of the buffer zone and the duration of exclusion will be determined in consultation with DFG. The buffer zones and fencing will remain in place until the young have left the nest, as determined by a qualified biologist.

**Mitigation Measure BIO-3: Conduct Site Preparation and Construction Activities between September 1 and January 31 to Avoid the Typical Nesting Period of Migratory Birds, and Implement Preconstruction Surveys and Protective Measures if Necessary**

Site preparation and initial ground disturbance that require vegetation removal will occur between September 1 and January 31, outside the migratory bird nesting period (February 1 through August 31). Additionally, any demolition of structures will occur outside of the typical nesting period to avoid loss of birds that nest on structures (e.g., phoebes, swallows). If vegetation removal occurs outside the nesting period, no preconstruction survey will be required.

If construction activities must occur between February 1 and August 31 during the nesting period, ACTA will retain a qualified wildlife biologist to conduct a survey for nesting raptors and migratory birds that may nest in any available habitats that will be removed during construction. Surveys will take place no more than 48 hours prior to vegetation removal and will cover all suitable raptor and migratory bird nesting habitat that will be affected directly or any adjacent areas where nesting birds may be affected by construction noise or human presence. This includes areas potentially used by ground-nesting migratory bird species.

The potential habitats to be surveyed will be determined by the qualified biologist during the survey. If an active nest is discovered, the biologist will establish a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, the nest itself). This no-disturbance zone will be marked with some visual markers (flagging or fencing) that are easily identified by the construction crew, and will not draw attention to the nesting bird. Buffers will remain in place as long as the nest is active or young remain in the area and are dependent on the adults. No construction activity of any type will be permitted within buffer zones. In general, the minimum buffer zone widths will be 300 feet for white-tailed kite and raptors, and 250 feet for migratory birds. Based on discussion with DFG, buffer widths may be modified, depending on the

proximity of activities to the nest(s) and whether the nest(s) will have a direct line of sight to construction activities, existing disturbance levels at the nest(s), local topography and vegetation, the nature of proposed activities, and the species potentially affected.

**Mitigation Measure BIO-4: Conduct In-Water Construction Activities in Alameda Creek Flood Control Channel between May 1 and October 1 to Avoid Special-Status Fish Spawning and Migration Seasons**

In-channel construction, including riverbank and channel bed construction below the ordinary high water mark (OHWM), will be limited to the summer low-precipitation period (May 1 to October 1) to reduce the likelihood of adverse impacts on rearing juvenile steelhead and on adult fish spawning and migration, unless otherwise approved by appropriate resource agencies. Central California coast adult steelhead typically migrate upstream during winter storms primarily between December and March (Gunther et al. 2000), which is outside of the construction season. Due to the severely altered nature of the Alameda Creek Flood Control Channel (absence of riparian vegetation and riffle/pool sequences), the reach is not expected to support rearing steelhead (Gunther et al. 2000). Therefore, neither adult nor juvenile fish are expected to be present during the construction season. DFG may extend the time limits of in-channel construction and require a fisheries biologist to perform a preconstruction survey to ensure that no steelhead are present in the study area.

**Mitigation Measure BIO-5: Provide an Alternate Migration Corridor through the Alameda Flood Control Channel if Surface Flow Is Present during Construction**

If in-channel construction occurs when surface flow is present, in-water construction activities will include installing diversion structures in the flood control channel around the new footing excavations to provide a migratory route through the channel. Cofferdams will affect no more of the stream channel than is necessary to support completion of the construction activity. Flow will be diverted the minimum distance necessary to isolate construction area. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows at all times.

Immediately upon completion of in-channel work, diversion structures, and other in-channel structures will be removed in a manner that minimizes disturbance to downstream flows and water quality.

**Mitigation Measure BIO-6: Implement Channel Protection Measures during Construction**

The following measures will be implemented to decrease impacts on the Alameda Creek Flood Control Channel and associated habitat.

- All bridge construction work will be performed from the bank where practicable.
- The duration and extent of in-water activities will be limited to the maximum extent practicable.

- Any falsework or other construction equipment will be removed from the channel.
- The minimum amount of wood, sediment and gravel, and other natural debris necessary will be removed to maintain and protect bridge function, ensure suitable fish passage conditions, and minimize disturbance of the streambed.

**Mitigation Measure BIO-7: Prepare and Implement a Wetlands Mitigation Plan that Includes the Creation of New Wetlands, Waters of the United States and State, and Replacement and Enhancement of Willow Riparian Woodland and Scrub**

A plan for wetlands mitigation adjacent to and including Old Alameda Creek will be developed by qualified wetland botanists, wildlife biologists, hydrologists, engineers, and restoration ecologists.

The wetlands mitigation plan will include the creation and enhancement of wetlands, riparian vegetation, and linear aquatic features along Old Alameda Creek that will ensure no net loss of wetlands or waters of the United States or state and will provide mitigation for loss of riparian vegetation as a result of the proposed project. Impacts on wetlands or waters and required compensation will be developed based on the wetland delineation prepared for the proposed project (Appendix H of the Draft EIR) and in consultation with the U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB). ACTA will retain a qualified biologist to survey and flag willow riparian woodland and scrub that will be permanently affected by construction of the proposed project, and the mitigation plan will include replacement and enhancement of existing willow riparian woodland and scrub along Old Alameda Creek to ensure no net loss of willow riparian woodland and scrub.

The wetlands mitigation plan will evolve throughout the project planning so that a self-sustaining mosaic of vegetation communities will replace those affected through project implementation. Ongoing planning efforts will include further input from ICF Jones & Stokes biologists and restoration planners, and consultation with ACTA as further project details are defined. In order to meet the objectives of the mitigation planning process and establish the proposed wetland mitigation site at Old Alameda Creek, the proposed project will include:

- diverting water from Line M Channel to increase flow to Old Alameda Creek; creating an enhanced open channel segment of the Line M Channel drainage alignment to extend to the continuous linear aquatic habitat of Old Alameda Creek;
- grading new channel banks and regrading creek banks to create benches for additional waters, wetlands, and vegetation; and
- planting native wetland and riparian vegetation.

A draft wetlands mitigation plan for the wetlands mitigation site is shown in Figure 3.3-3 of the Draft EIR. Mitigation acreages for affected habitats and linear feet for linear aquatic features are shown in Table 2. The specifics of the plan and the acreages will evolve over time as project details are finalized.

Because the plan is conceptual and will require coordination and approval from the Corps and RWQCB, specific information on the anticipated amount of excavation required to implement the plan is not finalized, but, based on the draft wetlands mitigation plan, it is estimated to be 230,000 cubic yards of material. Thus, there would be secondary impacts from implementation of this mitigation, including loss of nonnative grasslands and riparian vegetation and increased air emissions. Construction-related impacts have been addressed in this and other sections of the Draft EIR. Compensation for impacts on biological resources is included in this wetlands mitigation plan.

The wetlands mitigation plan includes creating an approximately 1,100-foot linear aquatic feature (open channel) adjacent and connecting to the existing segment of Old Alameda Creek to provide 1:1 compensation for the loss of linear aquatic features (from culverting Line M Channel). The new open channel would begin on the south side of the new roadway at the outfall for the Line M Channel diversion pipeline, extends along the east side of Old Alameda Creek, and connects with Old Alameda Creek at its upstream end near the Line N-12 outfall. The new secondary channel will convey flow from the Line M Channel diversion pipeline into Old Alameda Creek.

The wetlands mitigation plan includes creating 2.7 acres of wetlands within the new secondary channel and in the upstream end of Old Alameda Creek to provide 2:1 compensation for the loss of wetlands and waters of the United States and waters of the State (from placing fill in Basin 2C, Old Alameda Creek, and Alameda Creek Flood Control Channel).

The wetlands mitigation plan includes creation of 6.7 acres of willow riparian woodland and scrub to replace (2:1 compensation) loss of this sensitive habitat (from construction of the new roadway and bicycle/pedestrian trail). An additional 2.3 acres of willow riparian woodland and scrub would be restored (1:1 compensation) in areas temporarily disturbed by construction activities.

The wetlands mitigation plan will be supported by flow from the Line M Channel diversion pipeline, as well as from Line N-12, which currently enters Old Alameda Creek at its southernmost point near Quarry Lakes Drive. The Line M Channel diversion pipeline will discharge into a concrete dissipation structure located at the upstream end of the new secondary channel.

**Table 2. Impacts and Mitigation for Aquatic Features, Riparian Habitat, and Wetlands in the Study Area**

Habitat Type	Impacts				Mitigation Calculations							Mitigation Requirements (See Figure 3.3-3 in the Draft EIR)		
					Mitigation Ratio		Calculated Mitigation					Wetland Mitigation Plan		Riparian Vegetation Restoration
	Stream Length (linear feet)	Permanent (acres) <sup>1</sup>	Temporary from WMP (acres) <sup>2</sup>	Other Temporary (acres) <sup>3</sup>	Permanent	Temporary	Stream Length (linear feet)	Permanent (acres) <sup>1</sup>	Temporary from WMP (acres) <sup>2</sup>	Other Temporary (acres) <sup>3</sup>	Subtotal Required Mitigation (acres)	(linear feet)	(acres)	(acres)
Willow Riparian/Woodland Scrub	-	1.7 <sup>a</sup>	3.2	2.2	2:1	1:1	-	3.5	3.2	2.2	8.9 <sup>e</sup>	-	6.7	2.3
Wetlands	-	1.2 <sup>b</sup>	0.0	0.4	2:1	1:1	-	2.3	0	0.4	2.7 <sup>f</sup>	-	2.7	0.0
Open Waters	1132 <sup>d</sup>	0.4 <sup>c</sup>	0.0	0.0	1:1	-	1132	0.4	0	0	0.4 <sup>g</sup>	1075	0.9	0.0
<b>Subtotals</b>	1132	3.3	3.2	2.6	-	-	1132	6.2	3.2	2.6	12.0	1075	10.3	2.3
<b>Total Extent of Mitigation</b>												<b>1075<sup>h</sup></b>	<b>12.6<sup>i</sup></b>	

Notes:

The numbers in this table are based on the proposed project footprint, most recent vegetation mapping (Figure 3.3-1 in the Draft EIR), and geographic information system (GIS) calculations in March 2009.

- 1 Permanent impacts and mitigation for constructing the new roadway, bicycle/pedestrian trail, and infiltration basin overflow pipelines/outfalls.
- 2 Temporary impacts and mitigation for implementing the Wetland Mitigation Plan.
- 3 Temporary impacts and mitigation for the 30 foot disturbance area on both sides of the new roadway and bicycle/pedestrian trail.
- a Acreage of willow riparian/woodland scrub that would be permanently impacted by construction of the new roadway, bicycle/pedestrian trail, and infiltration basin overflow pipelines. Includes habitat associated with Old Alameda Creek and the Alameda Creek Flood Control Channel.
- b Acreage of wetlands that would be permanently impacted by construction of the new roadway, bicycle/pedestrian trail, and infiltration basin overflow outfalls. Includes habitat associated with Basin 2C (0.87 acre), Old Alameda Creek (0.07 acre), and Alameda Creek Flood Control Channel (0.22 acre) for a total of 1.16 (1.2) acres.
- c Acreage of open waters that would be permanently impacted by construction of the new roadway and bicycle/pedestrian trail. Includes habitat associated with Line M Channel (0.23) and Alameda Creek Flood Control Channel (0.07) for a total of 0.35 (0.4) acre.
- d Total linear feet of open waters (Line M Channel) that would be permanently impacted by the proposed project.
- e Total mitigation required for permanent and temporary impacts to willow riparian/woodland scrub is 8.9 acres [1.7 acres x 2 (2:1 ratio) = 3.5 acres] + [3.2 acres x 1 (1:1 ratio) = 3.2 acres] + [2.2 acres x 1 (1:1 ratio) = 2.2 acres]. The Wetland Mitigation Plan includes 6.7 acres of mitigation (3.5 acres + 3.2 acres), and an additional 2.3 acres are mitigated through riparian vegetation along Old Alameda Creek (replacement in kind of vegetation disturbed during construction).
- f Total mitigation required for permanent and temporary impacts to wetlands is 2.7 acres [1.2 acres x 2 (2:1 ratio) = 2.3 acres] + [0.4 acre x 1 (1:1 ratio) = 0.4 acre].
- g Total mitigation required for permanent and temporary impacts to open waters 0.4 acre [0.4 acre x 1 (1:1 ratio)]. The Wetland Mitigation Plan includes 0.9 acre of mitigation, which is 0.5 acre beyond calculated required mitigation.
- h The total aquatic linear feet impacted and calculated for mitigation is approximately 1,100 feet. When calculated using GIS, the impacted area is 1,132 feet, and the mitigation area is 1,075 feet. The slight difference is compensated by the 0.5 acre extra provided in the Wetland Mitigation Plan (see footnote “g” above).
- k The total mitigation acreage proposed by the project is 12.6 acres (10.3 acres wetland mitigation + 2.3 acres riparian vegetation restoration), which is 0.6 acre beyond calculated required mitigation.

ACTA will be responsible for implementation of the wetlands mitigation plan, including construction and maintenance of the wetlands mitigation site until it is established based on permitting criteria. Post-construction maintenance responsibilities will be the subject of future agreements between and amongst ACTA, the cities of Fremont and Union City, and the Alameda County Flood Control and Water Conservation District. Once established, the mitigation site will be self-sustaining.

#### **Mitigation Measure BIO-8: Protect Willow Riparian Woodland and Scrub Habitat during Project Construction**

ACTA will retain a qualified biologist to survey and flag the limits of construction in areas that support willow riparian woodland and scrub. The construction contractor will be required to protect these areas from encroachment and damage during project construction by installing temporary construction fencing. Fencing will be bright-colored and highly visible. Fencing will be installed under the supervision of a qualified biologist to prevent damage to riparian vegetation during installation. The fencing will protect all potentially affected wetlands and a minimum 20-foot buffer zone. Where appropriate and feasible, the buffer zone will be expanded up to 100 feet. Fencing will be installed before any site preparation or construction work begins and will remain in place for the duration of construction. Construction personnel will be prohibited from entering fenced areas (the exclusion zone) for the duration of project construction. Essential vehicle operation on existing roads will be permitted, but all other construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities will be prohibited within the exclusion zone.

#### **Mitigation Measure BIO-9: Implement Measures to Avoid or Minimize the Dispersal of Noxious Weeds into Sensitive Riparian Areas during Construction**

To avoid or minimize the introduction or spread of noxious weeds into sensitive riparian areas, ACTA will incorporate the following measures into the construction best management practices (BMPs).

- If erosion control is needed along the banks of Old Alameda Creek or the Alameda Creek Flood Control Channel, only certified weed-free erosion control materials will be used.
- Construction supervisors and managers will be educated about noxious weed identification and the importance of controlling and preventing their spread.
- Equipment that enters the construction area adjacent to Old Alameda Creek and the Alameda Creek Flood Control Channel will be cleaned at designated wash stations before entering the project alignment. Equipment traveling between the staging area and the riparian construction area will be cleaned once at the start of the project and only subsequently if the equipment leaves the area and returns.

**Mitigation Measure BIO-10: Identify Wetlands and Other Waters Temporarily Affected and Install Protective Fencing during Construction**

ACTA will retain a qualified biologist to survey and flag wetlands that could be temporarily affected by project construction. All wetlands will be protected from encroachment and damage during construction by installing temporary construction fencing. Fencing will be bright-colored and highly visible. Fencing will be installed under the supervision of a qualified biologist to prevent damage to wetlands during installation. The fencing will protect all potentially affected wetlands and a minimum 20-foot buffer zone. Where appropriate and feasible, the buffer zone will be expanded up to 100 feet. Fencing will be installed before any site preparation or construction work begins and will remain in place for the duration of construction. Construction personnel will be prohibited from entering fenced areas (the exclusion zone) for the duration of project construction. Essential vehicle operation on existing roads will be permitted, but all other construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities will be prohibited within the exclusion zone.

**Mitigation Measure BIO-11: Prepare an Arborist Report and Develop and Implement a Landscaping Plan that Includes Compensation for Loss of Protected Trees**

ACTA will retain a qualified arborist to prepare an arborist report detailing the size and health of trees that fall within the project alignment and could be removed by the proposed project. The report will identify trees protected under the City of Fremont Tree Preservation Ordinance and the City of Union City Tree Protection Ordinance. ACTA will hire a qualified landscape architect to prepare a landscape plan that includes adequate compensation or replacement for the loss of protected trees. The City of Fremont Tree Preservation Ordinance requires a 1:1 replacement ratio with a 24-inch-box-sized replacement tree of a species of the same type and size as the removed tree. The Union City Tree Protection Ordinance requires replacement trees in a 15-gallon container at a ratio to be determined by the City of Union City staff.

The landscaping plan for the project alignment will specifically identify the locations where replacement trees are to be planted. The replacement trees will be located on site to the extent feasible, based on space considerations. The plan will be subject to review and approval by the Cities of Fremont and Union City for areas within their jurisdiction.

Newly planted trees will be monitored by ACTA at least once a year for 3 years. Each year, any trees that do not survive will be replaced. Any trees planted as remediation for failed plantings will then be monitored for a period of 3 years in the same manner.

**Mitigation Measure BIO-12: Install Temporary Fencing around Remaining Protected Trees**

Trees that are identified as “protected trees” in the arborist report and that will remain during project construction will be protected from damage during construction by installing temporary fencing. If possible, fencing will be located

immediately outside each tree's drip line. Fencing will keep construction equipment away from trees and prevent unnecessary damage to or loss of heritage trees in the project alignment. Like newly planted trees, any protected trees that are retained and are located adjacent to construction activities will be monitored by ACTA at least once a year for 3 years. Each year, any trees that do not survive will be replaced. Any trees planted as remediation for failed plantings will then be monitored for a period of 3 years in the same manner.

## Cultural Resources

### **Mitigation Measure CUL-1: Conduct Earthwork Monitoring by Qualified Archaeologist during Construction and Implement Management Measures if Resources are Discovered**

ACTA will retain a qualified consulting archaeologist to monitor ground-disturbing activities in all trenching work for utilities installation. The grading plans for the proposed project will contain a note stating that all grading, excavation, or other ground-disturbing activities will be monitored by the consulting archaeologist. The consulting archaeologist will meet with the grading and/or excavation contractor prior to any grading or excavation to discuss the grading plan and explain the monitoring procedures to be followed if cultural resources are encountered. The consulting archaeologist will be present on site when initial ground-disturbing activities begin, and will monitor all grading, trenching, or other ground disturbance until the grading and trenching reach sterile sandstone or conglomerate strata (where it is assumed that no buried deposits would be present).

In the event cultural resources are encountered during project earthwork, the consulting archaeologist will be empowered to temporarily redirect, divert, or halt project activity to allow recovery of potentially significant cultural resources. The resource's significance will be determined by the archaeologist and, if the resource is deemed significant, it will be photographed at the site and mapped, before being collected or otherwise addressed in a manner deemed appropriate by the consulting archaeologist (e.g., resource avoidance, data recovery excavations, and so on). The consulting archaeologist will ensure that all significant cultural resources uncovered on the site are analyzed, collected, catalogued, and curated with the Northwest Information Center of the California Historical Resources Information System or other appropriate scientific institution, as deemed appropriate. At the completion of the project monitoring, the consulting archaeologist will prepare a report of findings, even if negative, and submit the report to ACTA and the Northwest Information Center. If cultural resources are not discovered by grading and excavation monitoring, this mitigation measure is not required.

If human remains are uncovered during project earthwork, work will cease and the Alameda County Coroner will be contacted. If the remains are determined to be Native American in origin, the County Coroner will notify NAHC, which will determine and notify the most likely descendent, and coordinate the appropriate management of the remains. If human remains are not discovered by grading and excavation monitoring, this mitigation measure is not required.



## Hazards and Hazardous Materials

### **Mitigation Measure HAZ-1: Train Construction Workers to Identify Potentially Contaminated Materials and, if Found, Stop Work and Implement Hazardous Materials Investigations and Remediation**

Prior to the onset of construction, all construction workers will be trained in the identification of potentially contaminated soil and water, including information on the characteristics of potential contamination, such as discolored soil, oils or sheens on water, and unusual odors. In the event that hazardous materials are encountered during construction, all construction activities in the area of the discovery will stop, and ACTA will conduct hazardous materials investigations to identify the nature and extent of contamination and evaluate potential impacts on project construction. If necessary, ACTA will implement remediation measures consistent with all applicable local, state, and federal codes and regulations. Construction will not resume until remediation is complete. If waste disposal is necessary, ACTA will ensure that all hazardous materials removed during construction are handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, in accordance with local, state, and federal requirements.

### **Mitigation Measure HAZ-2: Implement Recommendations in the Phase I Environmental Site Assessment to Prepare a Phase II Environmental Site Assessment, a Health and Safety Plan, and a Soil and Groundwater Management Plan, and to Properly Abandon any Agricultural Wells**

ACTA will implement the following recommendations from the Phase I Environmental Site Assessment (Fugro West 2008), including preparation of a Phase II Environmental Site Assessment. As required for any specific Phase II Environmental Site Assessment conducted in ACWD jurisdiction, the scope of work will be submitted to Alameda County Water District (ACWD) and other jurisdictional entities for their review and comment prior to implementation. The Phase II Environmental Site Assessment will be conducted by qualified professionals and will conform to all relevant regulations. For any soil and groundwater assessment requiring a Drilling Permit from ACWD pursuant to this Phase II Environmental Site Assessment or subsequent review, a work plan for chemical investigation will be submitted to ACWD for their approval. As required by California Occupational Safety and Health Administration (Cal-OSHA) standards, a Health and Safety Plan will be prepared prior to the onset of construction activities. The plan will address all activities proposed through implementation of the project. The project-specific Health and Safety Plan will be developed under the guidance of a health and safety professional or certified industrial hygienist before any investigation, cleanup, or construction activities begin in the area. Workers who could directly contact soil, vapors, or groundwater containing hazardous levels of constituents will perform all activities in accordance with the Health and Safety Plan. The plan will include:

- a description of all planned construction activities;

- a list of known contaminants that may be present, including the media that may be affected (e.g., soil, groundwater, soil-vapor) and the highest known concentrations;
- the identification of potential physical, mechanical, electrical, and biological hazards that may be encountered;
- the identification of special procedures or precautions that need to be employed (e.g., confine space entry, ambient air monitoring, dust suppression, and so on);
- the determination of the level of and list of required personal protective equipment;
- the development of contingency measures and decontamination procedures;
- listed emergency contact information, including directions to the nearest hospital; and
- provisions for daily tailgate meetings.

Based on the results of the Phase II Environmental Site Assessment performed for the proposed project alignment, a Soil and Groundwater Management Plan will be prepared to address potential impacts that may occur through implementation of the proposed project. The proposed project would disturb existing shallow soil conditions in the project alignment, and encounter subsurface soil and groundwater where improvements extend below the surface. At a minimum, the Soil and Groundwater Management Plan will establish soil and groundwater mitigation and control specifications for grading and construction activities, including health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel. The plan will also include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils or dewatered groundwater with contaminants are stored, managed, and disposed of in accordance with applicable regulations. The plan will include:

- the project background and description of proposed actions;
- a summary of environmental conditions (e.g. previous investigations, known contaminants, media affected, highest known concentrations, potential exposure pathways, etc.); and
- general soil and groundwater management practices, including:
  - site dewatering procedures,
  - excess soil handling procedures,
  - general construction activities that will occur on or adjacent to the hazardous materials site,
  - dust control procedures,
  - stormwater runoff procedures,
  - soil transportation and disposal procedures (if necessary),

- contingency procedures for unexpected conditions (e.g. upon encountering stained or obviously contaminated soil, any underground storage tanks (USTs), well, associated piping and/or other identifiable environmental conditions posing a potential risk to health, safety, or the environment), and
- reporting procedures.

Any wells, agricultural wells, and other improvements that may be encountered throughout the project alignment and wetlands mitigation site during construction activities will be properly abandoned or removed, in coordination with ACWD. In accordance with prior communication with ACWD, abandonment of each agricultural well or improvement will need to be handled on a case-by-case basis in accordance with the California Department of Water Resources guidelines and ACWD specifications. If any hazardous materials, underground storage tanks, soil contamination, or groundwater contamination is encountered during excavation or construction activities, ACWD will be included in the notification and reporting procedures.

### **Mitigation Measure HAZ-3: Implement Procedures to Reduce Fire Risk during Construction**

During construction, all staging areas or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel. Any construction equipment that normally includes a spark arrester will be equipped with an arrester in good working order. During construction, adequate water will be made available for fire protection.

## **Hydrology and Water Quality**

### **Mitigation Measure HWQ-1: Comply with National Pollutant Discharge Elimination System Requirements and Develop and Implement a Stormwater Pollution Prevention Plan**

ACTA will comply with the requirements of the Alameda Countywide Clean Water Program (ACCWP) stormwater quality management plan (SWQMP), Alameda County's National Pollutant Discharge Elimination System (NPDES) General Construction Permit, and Caltrans NPDES permit where applicable before the onset of any construction activities. Compliance and coverage with the SWQMP and NPDES General Construction Permit will require controls of pollutant discharges that use BMPs and technology to reduce erosion and sediments to meet water quality standards. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point-source runoff. Measures range from source control, such as reduced surface disturbance, to the treatment of polluted runoff, such as detention basins.

A stormwater pollution prevention plan (SWPPP) will be developed by a qualified engineer or erosion control specialist in accordance with the San Francisco Bay RWQCB requirements for NPDES compliance and implemented prior to the issuance of any grading permit before construction. Additionally,

local requirements by the City planning or public works departments will also be incorporated. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the San Francisco Bay RWQCB.

The SWPPP will include BMPs for the proposed project and may include the following practices.

- Install falsework and netting at bridge construction sites to keep bridge debris and construction materials from falling into the Alameda Creek Flood Control Channel and Old Alameda Creek during construction activities.
- Erosion control measures will be installed adjacent to suitable aquatic habitat to prevent soil from eroding or falling into these areas. Natural and biodegradable erosion control measures (i.e., straw wattles and hay bales) will be used. Plastic monofilament netting (erosion control matting) will not be allowed because salamanders and frogs can become caught in this type of erosion control material.
- Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Use a dry detention basin (which is typically dry except after a major rainstorm, when it will temporarily fill with stormwater), designed to decrease runoff during storm events, prevent flooding, and allow for off-peak discharge. Basin features will include maintenance schedules for the periodic removal of sediments, excessive vegetation, and debris that may clog basin inlets and outlets.
- Cover, or apply nontoxic soil stabilizers to, inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
- Ensure that no earth or organic material will be deposited or placed where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water.
- Ensure that grass or other vegetative cover will be established on the construction site as soon as possible after disturbance.
- Locate staging areas at least 50 feet away from any drainages.
- Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; heavily chlorinated water.

ACTA, in coordination with the city planning or public works departments, will select a combination of BMPs to minimize runoff flows and remove contaminants from stormwater discharges. The final selection of BMPs will be subject to approval by the RWQCB. ACTA will verify that a Notice of Intent

has been filed with the State Water Board and that a SWPPP has been developed before allowing construction to begin. ACTA will perform inspections of the construction area, to verify that the BMPs specified in the SWPPP are properly implemented and maintained. ACTA will notify contractors immediately if there is a noncompliance issue and will require compliance. If necessary, ACTA will require that additional BMPs be designed and implemented if those originally constructed do not achieve the identified performance standard.

### **Mitigation Measure HWQ-2: Clean Paved Areas with Street-Sweeping Equipment**

To minimize the amount of pollutants entering the storm drain system during construction, project roadways and other paved areas will be cleaned regularly using street-sweeping equipment. Additionally, litter and debris that may accumulate on the streets of the project area will be regularly collected and properly disposed of. These activities will be the responsibility of the applicant or its contractors.

### **Mitigation Measure HWQ-3: Implement Additional Water Quality Protection Measures to Reduce Sediment in Surface Waters during Construction**

If construction occurs when flows are present in on-site surface waters (Alameda Creek Flood Control Channel, Old Alameda Creek, Line M Channel, and other drainages), the contractor will implement measures to protect surface water quality, including flow diversions, impoundments (e.g., diversion structures), or other methods to avoid the direct exposure of surface water to sediment created as part of construction activity. As a performance standard, the measures will maintain basin plan standards for turbidity. If ambient turbidity is greater than 50 nephelometric turbidity units (NTUs), then project construction will not exceed 10% over the ambient conditions.

Where the proposed project has potential to result in elevated turbidity, monitoring will be performed at least twice daily at upstream and downstream locations to determine whether the standards outlined above have been met. In the event that they are not being met, the turbidity-generating activities will cease until turbidity is within the identified limits, and construction methods or turbidity control measures will be modified to ensure that turbidity limits continue to be met.

### **Mitigation Measure HWQ-4: Prepare and Implement a Hazardous Materials Spill Prevention and Control Program during Construction**

To ensure compliance with the NPDES General Construction Permit, ACTA will require that project contractors develop and implement a spill prevention and control program to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during all construction activities. The NPDES General Construction Permit requires the spill prevention and control program. The program will be completed before any construction activities begin. The program may include the following practices.

- Provision of security for storage areas that contain hazardous materials
- Secondary containment for hazardous materials storage

- Implementation of preventative measures, specific to hazardous materials that would be used, to prevent spillage of each material
- Provision of containment and cleanup or mop-up supplies at each site
- Posted emergency contact information

ACTA will review and approve the spill prevention and control program before the onset of construction activities. ACTA will inspect the construction area routinely to verify that the measures specified in the spill prevention and control program are properly implemented and maintained. ACTA will notify contractors immediately if there is a noncompliance issue and will require compliance.

The federal reportable spill quantity for petroleum products, as defined in 40 Code of Federal Regulations (CFR) 110, is any oil spill that:

- violates applicable water quality standards,
- causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or
- causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

If a spill is reportable, the contractor will notify the City's Fire Department and the California Department of Toxic Substances Control (DTSC), which has a spill response and cleanup ordinances to govern emergency spill response. A written description of reportable releases must be submitted to the San Francisco Bay RWQCB and the DTSC. This submittal must include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases would be documented on a spill report form. The contractor will also notify ACWD of reportable spills, and include ACWD in the distribution of spill-related reports prepared for other agencies.

#### **Mitigation Measure HWQ-5: Construct the Tree Wells and Infiltration Basins to Implement the Hydrograph Modification Management Plan for Stormwater Runoff**

ACTA will coordinate with ACWD, Alameda Countywide Clean Water Program (ACCWP), and RWQCB to design and construct the hydrograph modification management plan to detain runoff to match the pre-project runoff conditions for low flows. The plan will include construction of tree wells and infiltration basins as Integrated Management Practices. Stormwater runoff from the new roadway will be collected and conveyed through the use of underground conduits to infiltration basins. The infiltration basins will be planted with grasses and other vegetation to provide primary treatment by means of infiltration. The tree wells and infiltration basins will be constructed and the vegetation established so they can effectively control flows, trap sediments and uptake nutrients, and decrease the likelihood of poor quality surface runoff reaching Old Alameda Creek. During large storm events when the infiltration basins cannot

absorb all the stormwater, the high flows will go into an overflow pipeline extending underground from the basins to outfalls in Old Alameda Creek. The conceptual hydro modification management plan, based on the Water Quality Report prepared by WRECO (2008) (Appendix M of the Draft EIR), is shown in Figure 3.7-4 of the Draft EIR. The location of the basins, outfalls, and tree wells shown in the figure are tentative and will be further detailed during the design phase. The basins will be sized according to guidelines set forth in the ACCWP and are expected to be sized in the range from about 10,000 square feet to 30,000 square feet. They will be located on existing nonnative grassland and will avoid riparian vegetation to the extent possible. If this is not possible, additional mitigation will be required to compensate for these impacts (in addition to what is specified in Mitigation Measure BIO-7). The outfalls from each basin to Old Alameda Creek will include rock slope protection, which will be approximately 72 square feet (6 feet wide, 12 feet long, and 2 to 3 feet deep). The outfalls will be situated above the depth of the 100-year water level.

Implementation of this plan would result in temporary secondary impacts on existing vegetation, including nonnative grassland and vegetation at Arroyo Park from the infiltration basins and some riparian vegetation and wetlands along Old Alameda Creek from the overflow pipelines and outfalls. The vegetation planted in the infiltration basins will be a seeding mix of native grasses that will result in a 1:1 replacement ratio. Replacement vegetation for Arroyo Park will be “Bay-friendly landscaping” in that it is native, drought-tolerant and thrives in the Bay Area. Replacement of riparian vegetation and wetlands will be incorporated into the wetlands mitigation plan as required. Refer to Impacts BIO-7, BIO-9, and BIO-11; and Mitigation Measures BIO-7 and BIO-8 in Section 3.3, Biological Resources.

#### **Mitigation Measure HWQ-6: Incorporate Site-Specific Water Quality Treatment Devices into Site Drainage Plans to Meet Water Quality Standards and Maintain Beneficial Uses**

ACTA or their contractors will incorporate stormwater treatment devices into the drainage plan and size the treatment devices according to ACCWP’s permit section Provision C. Up to 50% of this water treatment may occur off site infiltration basins after they are constructed and landscaping is established. The water treatment devices and infiltration basins will ensure that water quality standards and beneficial uses of downstream water bodies are met. These plans will address, but may not be limited to:

- manipulation of the hydroperiod to allow for appropriate plant growth;
- other vegetation and sediment management activities, such as periodic vegetation and sediment removal every 5 to 10 years;
- control of water residence time, periodic flushing of the water features, and maintenance of drainage channels and culverts;
- source control of contaminants reaching the water bodies;
- measures to reduce the potential for disease vectors (e.g., mosquitoes and rodents);
- measures to ensure that groundwater does not become contaminated;

- use of water quality treatment devices such as traction sand traps or media filters; and
- conveying stormwater runoff from the proposed Alameda Creek Flood Control Channel and Old Alameda Creek bridges, by pipeline to an infiltration basin to receive water quality treatment prior to being discharged to Old Alameda Creek.

The measures identified in the drainage plans and measures to protect water quality according to Provision C.3 will conform to the performance standard that water quality in the off-site water features meets the numeric and narrative water quality objectives of the basin plan and that beneficial uses of the downstream water bodies are not compromised.

In addition to water quality BMPs incorporated in the project landscaping as described above, existing stormwater pipes that carry runoff that has not received primary treatment before being discharged to Line M Channel will have an in-line mechanical filtration vault installed before being connected to the new Line M Channel diversion pipeline. The vault will contain replaceable filtration media designed to remove sediment and other water quality target contaminants in order to meet Provision C.3 goals. This filtration device is not the primary water quality measure, but will act in series with other BMPs, and the sediment trapping and biological processes in Old Alameda Creek and the Alameda Creek Flood Control Channel.

The 1,100 feet of new channel construction adjacent and connecting to Old Alameda Creek will also increase residence time and vegetation contact time with the project area drainage. This increase in residence time will increase potential for nutrient uptake and sediment removal from Line M Channel diversion flow before they enter Alameda Creek Flood Control Channel. These flows will also expand the contiguous aquatic habitat and riparian corridor of Old Alameda Creek improving its overall water quality improvement capacity.

## Land Use and Planning

### **Mitigation Measure LUP-1: Ensure Compatibility of Gutter Pans and Sewer Grates with Bicycle Traffic along Paseo Padre Parkway**

Throughout the project-related stretch of Paseo Padre Parkway, ACTA will ensure that bicycle lanes do not contain incompatible gutter pans and grates. Paseo Padre Parkway will either provide adequate width for bike lanes so as to avoid any gutter pans and grates that are present, or will feature gutter pans and grates that are compatible with bicycle traffic. ACTA will consult the engineering guidelines presented in Appendix A of the Fremont Bike Plan, and show the width on final plans, to the satisfaction of the Fremont Department of Public Works.



## Noise

### Mitigation Measure NOI-1: Employ Measures to Reduce Construction Noise to Comply with Applicable Construction Noise Standards

ACTA will require the construction contractor to employ measures to reduce construction noise so that it does not violate applicable construction noise standards. Measures that can be implemented to reduce construction noise to acceptable levels include, but are not limited to, the following.

- For construction occurring within the City of Fremont, limit construction to between 7:00 a.m. to 7:00 p.m. Monday through Friday, and to 9:00 a.m. to 6:00 p.m. on Saturdays and holidays, and prohibit construction on Sunday, as stated in the Fremont Municipal Code. If deviation from these limitations is necessary in order to minimize disruption of traffic on existing roads, coordinate with the Fremont City Manager's Office to gain official approval for such work, as allowed in the Fremont Municipal Code.
- For construction occurring within the City of Union City, limit all construction activities, including loading and unloading of materials and on-site truck movements, to between 8:00 a.m. and 8:00 p.m., Monday through Friday; 9:00 a.m. to 8:00 p.m. Saturday; and 10:00 a.m. to 6:00 p.m. Sunday and holidays, as stated in the Union City Municipal Code.
- Use available noise suppression devices and techniques, including:
  - equipping all internal combustion engine-driven equipment with mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that are in good operating condition and appropriate for the equipment;
  - using "quiet" models of air compressors and other stationary noise sources where such technology exists;
  - using electrically powered equipment instead of pneumatic or internal combustion powered equipment, where feasible;
  - using of noise-producing signals, including horns, whistles, alarms, and bells, for safety warning purposes only;
  - locating stationary noise-generating equipment, construction parking, and maintenance areas as far as reasonable from sensitive receptors when sensitive receptors adjoin or are near the construction project area;
  - prohibiting unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes);
  - placing temporary soundwalls or enclosure around stationary noise-generating equipment when located near noise sensitive areas;
  - ensuring that project-related public address or music systems are not audible at any adjacent receptor; and
  - notifying adjacent residents in advance of construction work.

**Mitigation Measure NOI-2: Prepare a Community Awareness Program for Project Construction**

In consultation with the representatives of Fremont and Union City, ACTA will prepare and maintain a program to enhance community awareness of project construction issues, including noise, vibration, nighttime noise, nighttime lighting, and park or trail closures. Initial information packets will be prepared and mailed to all residences within a 1,000-foot radius of project construction, with updates prepared as necessary to indicate new scheduling or processes. A project liaison will be identified who will be available to respond to community concerns regarding noise, vibration, and light.

**Mitigation Measure NOI-3: Conduct Structural Conditions Survey for Areas Where Vibratory Compaction is Proposed**

Prior to construction, ACTA will survey all structures within 50 feet of proposed vibratory compacting activities to document the structural composition of structures and note the presence and condition of existing cosmetic or structural cracks or defects that may be sensitive to vibratory compaction. Any sensitive conditions will be reported to the contractor conducting the vibration.

**Mitigation Measure NOI-4: Limit Extent of Vibratory Compaction Activity and Vibratory Pile Driving**

ACTA will restrict all soil compaction using large, truck-mounted compactors and all vibratory sheet pile driving to areas beyond 50 feet of residential structures or wood-framed buildings, and to areas 20 feet or more from commercial buildings. Wherever feasible, soil compaction within these limits will be performed with hand-operated vibratory rollers.

**Mitigation Measure NOI-5: Limit Vibration Levels Received at Structures**

ACTA will ensure that construction specifications include the following restrictions on vibratory compaction. Vibration at all residential and non-engineered wood frame buildings should be limited to 0.2 inches per second (in/sec) peak particle velocity (PPV). Vibration at commercial, concrete, and engineered buildings should be limited to 0.3 in/sec PPV. ACTA will require contractors conducting high-vibration activities to monitor their vibration levels and ensure that the stated levels are not exceeded.

**Mitigation Measure NOI-6: Maximize Distance between Shoofly and Residences to Extent Allowed by UPRR**

ACTA will maximize the distance between the shoofly and residences to the extent allowed by Union Pacific Railroad (UPRR).

**Mitigation Measure NOI-7: Implement Traffic Noise Reduction Treatments (Soundwalls and Quiet Pavement) along the New Roadway between Paseo Padre Parkway and Alvarado-Niles Road**

ACTA will implement noise reduction measures, including soundwalls at required locations and a quieter pavement type, along the new roadway segment. These specific measures are described below based on the preliminary traffic noise modeling conducted for the Draft EIR. These measures may be further refined when ACTA performs a detailed noise study, conducted by a qualified

acoustical professional, during the final design stage of the proposed project to define reasonable and feasible noise mitigation for the residences along the new roadway segment between Paseo Padre Parkway and Alvarado-Niles Road. The final specifications for noise reduction measures will be determined after the detailed noise study is complete and with approval from the Cities of Fremont and Union City, and will be implemented by ACTA.

- Construct soundwalls or berms to protect existing residential land uses from noise levels that exceed established thresholds. Based on preliminary traffic noise modeling, 8- to 10-foot-high soundwalls would be sufficient to reduce noise levels below the exterior noise significance thresholds if soundwalls are constructed within the new roadway alignment (Figure 3.9-2 of the Draft EIR). Alternately, 8-foot-high soundwalls relative to the elevation of the terrain at the residential property lines (Figure 3.9-3 of the Draft EIR) would also be sufficient to reduce noise levels below the exterior noise significance thresholds. To be effective, soundwalls must be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between soundwall materials or the ground substantially decrease the effectiveness of the soundwall. Suitable materials for soundwall construction should have a minimum surface weight of 4 pounds per square foot (such as 1-inch-thick wood, masonry block, concrete, or metal).
- Pave the new roadway with “quiet” pavement types such as porous open-grade asphalt concrete with fine aggregate size.

#### **Mitigation Measure NOI-8: Implement Traffic Noise Reduction Treatments (Soundwalls and Quiet Pavement) at the Affected Residences along the New Roadway between Alvarado-Niles Road and Mission Boulevard**

ACTA will implement noise reduction measures, including retrofitting existing soundwalls at required locations and a quieter pavement type, along the new roadway segment. These specific measures are described below based on the preliminary traffic noise modeling conducted for the Draft EIR. These measures may be further refined when ACTA performs a detailed noise study, conducted by a qualified acoustical professional, during the final design stage of the proposed project to define reasonable and feasible noise mitigation for the residences near ST-21 (located along the new roadway between Alvarado-Niles Road and Mission Boulevard). The final specifications for noise reduction measures will be determined after the detailed noise study is complete and with approval from the City of Union City, and will be implemented by ACTA.

- Retrofit existing soundwalls to protect existing residential land uses from noise levels that exceed established thresholds. Based on preliminary traffic noise modeling, an increase in the existing soundwall height from 8 feet to 10 feet would be sufficient to maintain noise levels below the exterior noise and land compatibility thresholds. To be effective, soundwalls must be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between soundwall materials or the ground substantially decrease the effectiveness of the soundwall. Suitable materials for soundwall construction should have a minimum surface weight of

4 pounds per square foot (such as 1-inch-thick wood, masonry block, concrete, or metal).

- Paving the new roadway with “quiet” pavement types such as porous open-grade asphalt concrete with fine aggregate size.

#### **Mitigation Measure NOI-9: Conduct Survey for Presence of Air Conditioning at Residences Adjacent to the New Roadway**

ACTA will perform a survey of existing residences adjacent to the new roadway alignment to identify residences that currently do not have forced air mechanical ventilation systems. The survey will include residences located in the first row of homes and within 300 feet of the center of the new roadway alignment between Paseo Padre Parkway and Quarry Lakes Drive, and residences located in the first row of homes along the south side of the new roadway segment between Alvarado-Niles Road and Mission Boulevard. For locations found to lack air conditioning, and which would thus be unable to maintain closed-window conditions, reasonable and feasible noise mitigation measures will be identified during the final design stage of the project in coordination with and approval from the Cities of Fremont and Union City. Mitigation measures that reduce the proposed project’s significant impacts to less-than-significant levels will be incorporated into the proposed project. These measures may include, but are not limited to, providing forced air ventilation systems to residences, so that windows may be kept closed at the occupant’s discretion to control noise. Where appropriate and needed to meet noise requirements, ACTA will provide funding for double-pane windows.

#### **Mitigation NOI-C1: Contribute to City Funds to Implement Traffic Noise Reduction Treatments**

ACTA will contribute to pooled City funds for both Union City and Fremont to implement traffic noise reduction treatments at existing residential areas, if such a fund exists or is established during the time this project is constructed. With use of this pooled fund, the Cities would perform studies, conducted by qualified acoustical professionals, to define reasonable and feasible noise mitigation for noise-sensitive receptors that are predicted to be exposed to traffic noise increases that exceed the noise significance thresholds. Mitigation measures could include the following.

- Construct new or larger soundwalls or berms to protect existing residential land uses where reasonable and feasible.
- Implement alternative noise reduction techniques, such as installing traffic calming measures to slow traffic, coordinating routing and other traffic control measures, or repaving the streets with “quiet” pavement types such as porous open-grade asphalt concrete with fine aggregate size.

Provide building sound insulation such as sound-rated windows and doors on a case-by-case basis as a method of reducing noise levels in interior spaces of affected residences. This method would be applicable where the construction of soundwalls is not feasible and interior noise levels inside residences are anticipated to exceed 45 dBA  $L_{dn}$ .

### **Mitigation NOI-C2: Use Low Noise Pavement Types on Project Roadways**

ACTA will pave the project alignment, including both the new roadway and existing roadways being widened, with “quiet” pavement types such as porous open-grade asphalt concrete with fine aggregate size. Specifically, this will include the widening on Decoto Road between Cabrillo Court and Paseo Padre Parkway, the widening of Paseo Padre Parkway between Decoto Road and Isherwood Way, and the new roadway between Paseo Padre Parkway and Mission Boulevard except at bridge crossings and in the vicinity of grade separation structures where it is not practicable.

## **Public Services, Utilities, and Recreation**

### **Mitigation Measure PSR-1: Conduct an Investigation of Utility Line Locations and Maintain Utility Services**

A detailed study identifying the locations of utilities along the project alignment will be conducted during the design phase of the proposed project. For areas with the potential for adverse impacts on utility services, the following measures will be implemented.

- Utility excavation or encroachment permits will be required from the appropriate agencies. These permits include measures to minimize utility disruption. ACTA and its contractors will comply with permit conditions. Such conditions will be included in construction contract specifications.
- Utility locations will be verified through a field survey (potholing) and use of the Underground Service Alert services.
- Detailed specifications will be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipelines. All affected utility services will be notified of the project construction plans and schedule. Arrangements will be made with these entities regarding the protection, relocation, or temporary disconnection of services.
- Residents and businesses adjacent to the project alignment will be notified of planned utility service disruption 2 to 4 days in advance, in conformance with the Cities of Fremont and Union City and state standards.
- Disconnected cables and lines will be reconnected promptly.
- The proposed project will observe all relevant California Department of Public Health standards for utility modification and construction.
- The proposed project will observe all relevant ACWD Standard Specifications for Water Main Extension.
- The proposed project will observe the California Department of Health Services (DHS) standards, which require:
  - a 10-foot horizontal separation between parallel sewer and water mains, and

- a 1-foot vertical separation between perpendicular water and sewer line crossings.

In the event that separation requirements cannot be maintained, the project proponent will obtain a DHS variance through provisions of water encasement or other means deemed suitable by the department.

## Transportation and Traffic

### **Mitigation Measure TRA-1: Develop and Implement a Traffic Control Plan for Project Construction**

In accordance with the City of Fremont and Union City policies on street closures and traffic diversion for arterial and collector roadways, the construction contractor will prepare a traffic control plan (to be approved by the City engineers) before construction. The traffic control plan will include:

- a street layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage;
- a tentative start date and construction duration period for each phase of construction;
- the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction; and
- written approval to implement traffic control from other agencies, as needed.
- Additionally, the traffic control plan will address the following stipulations required of the proposed project.
- Provide access for emergency vehicles at all times.
- Avoid creating additional delay at intersections currently operating at or approaching congested conditions, either by choosing routes that avoid these locations, or restricting construction-related trips to and from the site to nonpeak times of day.
- Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Maintain pedestrian and bicycle access and circulation during proposed project construction where safe to do so. If construction encroaches on a sidewalk or recreation trail, a safe detour will be provided for pedestrians at the nearest crosswalk. If construction encroaches on a bike lane, warning signs will be posted that indicate bicycles and vehicles are sharing the roadway.
- Provide detours as necessary throughout project construction to maintain safe access to the Quarry Lakes Regional Recreation Area.

- Identify the location of all project-related detours of East Bay Regional Park District (EBRPD) trail facilities through coordination with and approval of EBRPD planning staff, and provide detour signage approved by EBRPD to minimize hazards to trail users.
- Control traffic with flag persons wearing Cal-OSHA–approved vests and using a Stop/Slow paddle to warn motorists of construction activity.
- Maintain access to transit services and ensure that public transit vehicles are detoured.
- Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area.
- Notify police and fire departments of both Cities of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary during lane closures.
- Provide written notification to contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites. Submit a copy of all such written notifications to the City of Fremont and City of Union City planning departments.
- Repair or restore the road rights-of-way to their original condition or better upon completion of the work.

**Mitigation Measure TRA-2: Provide Temporary Bus Service during All Interruptions in BART Service**

ACTA will coordinate with BART officials to provide bus bridges (buses to shuttle BART passengers) between the Fremont and Union City BART stations. Buses will be scheduled to coincide with the normal BART train schedule, and will be available whenever an interruption in BART service is necessary.

**Mitigation Measure TRA-3: Limit Interruption of BART Service to Weekends**

ACTA will ensure that interruptions of BART service are limited to the weekends. BART ridership is lower on weekends than it is on weekdays, and limiting service interruption to weekends would minimize the number of affected passengers. ACTA will coordinate with BART officials to determine the schedule for construction work and service interruption.

**Mitigation Measure TRA-4: Prepare a Rider Awareness Program Addressing BART Service Interruptions**

ACTA, in consultation with BART officials, will prepare a rider awareness program to notify BART passengers of the dates and times of closures and of the availability of bus service during the interruption.

**Mitigation Measure TRA-5: Adjust Signal Timing and Signal Coordination at Intersections**

ACTA will coordinate with the City of Fremont and Caltrans (for intersections under their respective jurisdictions) to ensure that signal timing and signal coordination are optimized at the following intersections:

- Decoto Road/Fremont Boulevard
- Thornton Avenue/I-880 northbound ramp/Blacow Road
- Thornton Avenue and Fremont Boulevard
- Mission Boulevard and Nursery Avenue

Implementing this measure at these intersections would improve operations at the respective locations, but not to the degree that the impact would be reduced to a less-than-significant level.

**Mitigation Measure TRA-6: Relocate the Crosswalk at Mission Boulevard and Nursery Avenue**

ACTA, in coordination with the City of Fremont and Caltrans, will relocate the crosswalk at the intersection of Mission Boulevard and Nursery Avenue to the east leg of the intersection, allowing pedestrian traffic to cross Mission Boulevard with the heavier vehicular movement and enabling more efficient use of green signal time for vehicles. Implementing this measure would improve operations at the respective intersection, but not to the degree that the impact would be reduced to a less-than-significant level.



## References

- California Department of Transportation. 2002. Standard Specifications for Construction of Local Streets and Roads. Last revised: December 6, 2002. Available:  
<[http://www.dot.ca.gov/hq/esc/oe/specifications/std\\_specs/2002\\_StdSpecs/](http://www.dot.ca.gov/hq/esc/oe/specifications/std_specs/2002_StdSpecs/)>. Accessed: November 11, 2008.
- Fugro West, Inc. 2008. Phase I Environmental Site Assessment, Proposed I-880 to 238 East-West Connector. Alameda County, California. Prepared for T.Y. Lin International.
- Gunther, A. J., J. Hagar, and P. Salop. 2000. An assessment of the potential for restoring a viable steelhead trout population in the Alameda Creek watershed. Prepared for the Alameda Creek Fisheries Restoration Workgroup. February 7.
- WRECO. 2008. Draft Water Quality Study Report. August. East-West Connector Project in the Cities of Union City and Fremont, Alameda County, California. Prepared for Alameda County Transportation Authority. Alameda County, CA.

**This page intentionally left blank**

## Acronyms and Abbreviations

ACCWP	Alameda Countywide Clean Water Program
ACTA	Alameda County Transportation Authority
ACWD	Alameda County Water District
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit District
BMP	best management practice
Cal-OSHA	California Occupational Safety and Health Administration
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
CRLF	California red-legged frog ( <i>Rana aurora draytonii</i> )
CTS	California tiger salamander
DFG	California Department of Fish and Game
DHS	California Department of Health Services
DTSC	California Department of Toxic Substances Control
EBRPD	East Bay Regional Park District
EIR	environmental impact report
GHG	greenhouse gas
GIS	geographic information system
in/sec	inches per second
MMP	mitigation monitoring program
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NTU	nephelometric turbidity unit
OHWM	ordinary high water mark
PM10	particulate matter smaller than 10 microns in diameter
PPV	peak particle velocity
PRC	Public Resources Code
proposed project	East-West Connector Project
RWQCB	Regional Water Quality Control Board
SWPPP	stormwater pollution prevention plan
SWQMP	stormwater quality management plan
TMDL	total maximum daily load
UPRR	Union Pacific Railroad
UST	underground storage tank

**This page intentionally left blank**