# Redwood Parkway – Fairgrounds Drive Improvement Project

SOLANO COUNTY, CALIFORNIA
DISTRICT 04-Sol-80 PM 4.0/4.9
04-Sol-37 PM 10.6/11.2
EA 4A4410/Project No. 0400020584
SCH No. 2011012032

## Draft Environmental Impact Report/ Environmental Assessment (EIR/EA)

Prepared by the State of California Department of Transportation and Solano Transportation Authority

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

**September 2012**

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# General Information About This Document

## WHAT'S IN THIS DOCUMENT

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed Build Alternative located in Solano County, California. The Department is the lead agency under the National Environmental Policy Act (NEPA). The Solano Transportation Authority (STA) is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the Build Alternative is being proposed, what alternatives we have considered, how the existing environment could be affected, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

## WHAT YOU SHOULD DO

- Please read the document.
- Additional copies of this document, as well as of the technical studies relied on in preparing it, are available for review at:
  - Caltrans District 4, 111 Grand Avenue, Oakland, California;
  - Solano Transportation Authority, One Harbor Center, Suite 130, Suisun City, California;
  - City of Vallejo, City Clerk Division, 555 Santa Clara Street, Vallejo, California;
  - John F. Kennedy Library, 505 Santa Clara Street, Vallejo, California
- Attend the public meeting scheduled for October 11, 2012, 7:00 – 8:00 p.m. at Cooper Elementary School, Multipurpose Room, 612 Del Mar Street, Vallejo, CA 94589. We would like to hear what you think. If you have any comments regarding the proposed Build Alternative, please attend the public meeting and/or send your written comments to the Department by the deadline.

- Submit comments via postal mail to:

  Department of Transportation
  Attn: Ngoc Bui
  Office of Environmental Analysis, MS-8B
  P.O. Box 23660
  Oakland, CA, 94623

- Submit comments via email to: fairgroundsdriveproject@gmail.com

Be sure to submit comments by the deadline: November 5, 2012

## WHAT HAPPENS NEXT

After comments are received from the public and reviewing agencies, the Department, as assigned by the FHWA and STA may: (1) give environmental approval to the Build Alternative, (2) do additional environmental studies, or (3) abandon the project. If the Build Alternative is given environmental approval and funding is appropriated, the Department and STA could design and construct all or part of the Build Alternative.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Ngoc Bui, Office of Environmental Analysis, MS-8B, P.O. Box 23660, Oakland, CA, 94623-0660; (510) 286-4736, Voice, or use the California Relay Service TTY number, 711.

SCH No. 2011012032
DISTRICT 04-SOL-80-PM 4.0/4.9
04-Sol-37 PM10.6/11.2
EA 4A4410/Project No. 0400020584

Widen and improve Fairgrounds Drive from the Interstate 80/Redwood Parkway interchange (post mile 4.0/4.9) to the State Route 37/Fairgrounds Drive interchange (post mile 10.6/11.2), including interchange and intersection modifications.

**DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT**

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

THE STATE OF CALIFORNIA
Department of Transportation

and

SOLANO TRANSPORTATION AUTHORITY

8/31/2012
Date of Approval

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# Summary

The Solano Transportation Authority (STA), Solano County, and the City of Vallejo, in cooperation with the California Department of Transportation (Department), propose to modify the existing Interstate 80 (I-80)/Redwood Parkway interchange to a tight diamond configuration, realign Fairgrounds Drive to a tee intersection north of the I-80 westbound ramps, widen Fairgrounds Drive between Redwood Street and State Route 37 (SR 37), widen the westbound exit ramp from SR 37 to Fairgrounds Drive, and improve the intersections at the SR 37/Fairgrounds Drive Interchange. Current transportation issues in this area include poor circulation during peak commute periods, long delays at intersections, short acceleration and deceleration areas, and limited sight distance. In addition, the existing capacity of the roadways in this area would not accommodate the projected future traffic volumes. **Figure 1-1** depicts the project location and **Figures 1-2a** through **1-2c** depicts the proposed Build Alternative improvements.

## JOINT CEQA/NEPA DOCUMENT

The project is subject to Federal and State environmental review requirements because the STA proposes the use of federal funds from the Federal Highway Administration (FHWA) and requires a FHWA approval action. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). STA is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to Section 6005 of SAFETEA-LU codified at 23 U.S.C. 327(a)(2)(A). Effective July 1, 2007, FHWA has assigned, and the Department has assumed, all the U.S. Department of Transportation (USDOT) Secretary's responsibilities under NEPA. The assignment applies to all projects on the State Highway System (SHS) and all Local Assistance Projects off the SHS within the State of California, with the exception of the responsibilities concerning certain categorical exclusions, which were assigned to the Department under the June 7, 2007 Memorandum of Understanding (MOU), projects excluded by definition and specific project exclusions.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a "lower level" document is prepared for NEPA. One of the most commonly seen joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

Following receipt of comments from the public and reviewing agencies, a final environmental document will be prepared. STA and the Department may undertake additional environmental and/or engineering studies to address comments. The final environmental document will include responses to comments received on the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the Build Alternative, a Notice of Determination will be published for compliance with CEQA, and the Department will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of Federal, State, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

## Overview of the Project Area

The proposed improvements are located within an existing urban context, with a mixture of commercial, office, residential, and recreation facility developments. Beginning at the southernmost portion of the project study area, the I-80/Redwood Parkway interchange and Redwood Parkway/Fairground Drive intersection are surrounded by a mixture of commercial and residential development. The area along Fairgrounds Drive, between Valle Vista Avenue and Coach Lane is developed with multi-family homes and medical office buildings, as well as vacant lands. The area between Coach Lane and SR 37 along Fairgrounds Drive is primarily developed with recreational facilities. Six Flags Discovery Kingdom Amusement Park (Six Flags) and associated surface parking areas are located to west of Fairgrounds Drive. Lake Chabot is also on the west side of Fairgrounds Drive. The Solano County Fairgrounds and associated surface parking areas are located to the east, along with a Courtyard Marriot hotel and fast-food restaurants. The area to the north of SR 37, along Fairgrounds Drive, is comprised of single-family homes, a gas station, and Best Western Inn hotel.

Rindler Creek enters the project study area at the intersection of Coach Lane and Fairgrounds Drive, from under I-80 and then follows the outer boundary of the County Fairgrounds property. The creek flows northwest along Fairgrounds Drive before crossing beneath the road via a series of culverts. The creek forms some backwater channels between the road embankment and the embankment for the Six Flags Amusement Park, and then flows into Lake Chabot.

### Related Projects

The revitalization of the 149-acre Solano County Fairgrounds property, located on the east side of Fairgrounds Drive, between Coach Lane and SR 37 is planned for future redevelopment. Future land uses include features such as a public entertainment zone and the fair of the future zone. The public entertainment zone would provide an active gathering place that would be home to a waterside pedestrian trail, restaurants, public art, main street shops, terraced seating, and water-related activities. The fair zone continues the 60-year tradition of the annual Solano County Fair and would house a world class

exhibition hall, organic demonstration farm, children's discovery island, and flexible sports fields and other multi-use facilities.

The analyses of the potential effects of the proposed Build Alternative reflect the local land use and road improvements planned to be in place by 2035.

## PURPOSE AND NEED

Current transportation issues within the project corridor include poor circulation during peak commute periods, long delays at intersections, short acceleration and deceleration areas, and limited sight distance. In addition, the existing capacity of the roadways in this area will not accommodate projected future traffic volumes planned for in the project vicinity.

The purpose of the project is to address these issues by:

- Relieving existing congestion and improving traffic flow on the local roadway network for approved redevelopment and planned land uses in the area;
- Improving the existing interchanges and intersection operations; and
- Improving the safety of the local roadway network by reducing congestion.

## PROPOSED ACTION

The types of interchange improvements that would be possible at the existing Fairgrounds Drive/SR 37 and the Redwood Parkway/I-80 interchange are limited because these areas are physically constrained by the existing residential and commercial development. With the exception of the Build Alternative, other interchange configurations would require the reconstruction of the existing overcrossing structures and have severe right-of-way impacts combined with extremely high construction costs. Similarly, along the Fairgrounds Drive right-of-way, no other alignment alternatives were possible because of the steep grades and developed land uses and/or water features on either side of the roadway.

Because of these constraints, no other design alternatives were carried forward beyond initial design screenings. The alternatives evaluated in this environmental document include the Build Alternative and the No-Build (No Action) Alternative.

### Build Alternative

**Figures 1-2a** through **1-2c** illustrate the improvements proposed under the Build Alternative, which would include the following major elements:

- Modification of the Redwood Parkway/I-80 Interchange
- Relocation of the Fairgrounds Drive/Redwood Street Intersection

- Moorland Street Cul-de-sacs
- Widening of Fairgrounds Drive
- Modifications to the Fairgrounds Drive/SR 37 interchange
- Signal Modifications

The total length of the project corridor is approximately 1.5 miles, and extends from the Fairgrounds Drive/ SR 37 interchange (postmile 4.0-4.9) to the Redwood Parkway/Interstate 80 (I-80) interchange (postmile 10.6-11.2).

## No-Build (No Action) Alternative

The No-Build Alternative is being evaluated in accordance with NEPA and CEQA requirements, and serves as the baseline comparison to the Build Alternative. Under the No-Build Alternative, Fairgrounds Drive would maintain its existing configuration. No realignment of the Fairgrounds Drive/Redwood Street intersection would occur. There would be no improvements to the SR 37/Fairgrounds Drive or I-80/Redwood Parkway/Admiral Callaghan Lane interchanges.

Traffic volumes within the project corridor would increase under the No-Build Alternative. As there are no improvements proposed to the existing local roadway network, the No-Build Alternative would not achieve the project purpose of increasing the local roadway network capacity to accommodate existing and approved redevelopment and growth in the area. In addition, the increased traffic volumes without capacity improvements would worsen the congestion and slow traffic flow on the local roadway network. Without the realignment of the Fairgrounds Drive/Redwood Street intersection, the No-Build Alternative would not improve the current safety issues related to limited sight distance in this area. In addition, without modifying the I-80 eastbound ramps to a tight diamond configuration, short acceleration and deceleration lanes would remain, resulting in nonstandard merge and diverge distances.

## Project Impacts

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

Table S-1 Project Impacts

| Environmental Topic | No Build Alternative | Build Alternative | Avoidance, Minimization, and/or Mitigation Measures |
|---|---|---|---|
| **Land Use** | | | |
| Division of an established community | None expected | None expected | None |
| Compatibility with land use plans | Low | High consistency | None |
| Compatibility with habitat conservation plan | Not applicable | Not applicable | None |
| **Growth** | | | |
| No Effect | | | |
| **Farmlands/Timberlands** | | | |
| No Effect | | | |
| **Community Impacts** | | | |
| Displacement of existing housing | None | 19 residential parcels potentially affected | Caltrans Relocation Assistance Program |
| Displacement of significant number of people | None expected | Unknown | Caltrans Relocation Assistance Program |
| Disproportionately affect environmental justice communities | No | No | None |
| **Utilities/Emergency Services** | | | |
| No Effect | | | |
| **Traffic and Transportation** | | | |
| Conflict with applicable plans, ordinances, policies, or programs | None | None | None |
| Increase congestion | Yes | Will reduce congestion | None |
| Increase hazards as a result of a design feature | None | None | None |

| Environmental Topic | No Build Alternative | Build Alternative | Avoidance, Minimization, and/or Mitigation Measures |
|---|---|---|---|
| **Visual Resources** | | | |
| Adverse effect on scenic views/damage scenic resources | Same as Build Alternative | No scenic resources in project area | None |
| Degradation of existing visual character or quality | None expected | Potential visual quality lost | Roadway design would adhere to City of Vallejo Standard Specifications<br>All landscaping removed by project would be replaced |
| Create a new source of light or glare | None expected | Temporary due to construction | Caltrans light and glare screening measures |
| **Cultural Resources** | | | |
| Create an adverse change in the significance of a historical resource | None expected | No historical resources in project vicinity | None |
| Create an adverse change in the significance of an archaeological resource | None expected | No archaeological resources in project vicinity. | An Archaeological Monitoring and Discovery Plan has been prepared that specifies the appropriate construction monitoring locations and protocols recommended for an area near the known redeposit of archaeological materials outside of the project's area of potential effect (APE). |
| Disturbance to human remains | None expected | None expected | If human remains discovered, activity will stop (State Health and Safety Code Section 7050.5). If the remains are thought to be Native American, the Native American Heritage Commission will be contacted (Public Resources Code Section 5097.98). |
| **Hydrology and Floodplain** | | | |
| Within a 100-year floodplain | Same as Build Alternative | Small portion of Fairgrounds Drive, north of Coach Lane | None |

| Environmental Topic | No Build Alternative | Build Alternative | Avoidance, Minimization, and/or Mitigation Measures |
|---|---|---|---|
| Expose people/structures to a significant risk of loss | Unknown | None expected | None |
| **Water Quality and Storm Water Runoff** | | | |
| Result in substantial drainage pattern alteration | None | None expected | None |
| Violation of water quality standards | None | Temporarily during construction | Storm Water Pollution Prevention Plan |
| Change to groundwater supply or groundwater recharge | None | None | None |
| Substantially degrade water quality | None | Possible operation impacts | Design Pollution Prevention and Treatment Best Management BMPs. |
| **Geology** | | | |
| Expected Likelihood of seismic related issues, including ground shaking and liquefaction | Same as Build Alternative | High potential for ground shaking, liquefaction potential varies | Caltrans seismic design standards |
| Expose people or structures to potential adverse effects | None expected | Worker safety | Occupational Safety and Health Act Section 5(a)(1) |
| **Paleontology** | | | |
| Unearth previously unidentified paleontological resources (i.e., fossil remains and sites) | None expected | Potential due to excavation and construction activities | Preparation and implementation of a Department-approved paleontological monitoring and mitigation program. See Mitigation Measure PAL-1 |
| **Hazardous Materials** | | | |
| Create a hazard to the environment | None expected | Potential due to excavation and construction activities | Additional subsurface sampling, Soil Management Plan, and Caltrans Variance<br>Follow regulations requiring abatement of asbestos-containing materials and lead-based paint. |

| Environmental Topic | No Build Alternative | Build Alternative | Avoidance, Minimization, and/or Mitigation Measures |
|---|---|---|---|
| Create a hazard to the public | None expected | None expected | Additional subsurface sampling, Soil Management Plan, and Caltrans Variance<br>Follow regulations requiring abatement of asbestos-containing materials and lead-based paint. |
| Location on a site that is included on a list of hazardous materials sites | Same as Build Alternative | Varies throughout project area, sites on several lists | Additional subsurface sampling, Soil Management Plan, and Caltrans Variance<br>Follow regulations requiring abatement of asbestos-containing materials and lead-based paint. |
| **Noise** | | | |
| Exposure of the public to excessive noise levels, including groundborne noise levels | None | Some temporary noise effects, no permanent ambient noise increase with mitigation | Noise abatement measures, sound walls |
| A substantial increase in permanent noise levels | None expected | Potential permanent noise level increases ranging from 0 to 6 dBA (varies throughout project area) | Potential noise abatement measures |
| A substantial increase in temporary noise levels | None | Due to construction activities | Restricted construction hours, equipment mufflers, equipment placed away from sensitive receptors, “quiet” air compressors, no unnecessary idling, equipment must conform to Standard Specifications |
| **Energy** | | | |
| No Effect | | | |

| Environmental Topic | No Build Alternative | Build Alternative | Avoidance, Minimization, and/or Mitigation Measures |
|---|---|---|---|
| **Biological Resources** | | | |
| Effects to sensitive or special status species | None | Western pond turtle, potential effect to bird habitat | Limit construction zone, limit artificial lighting, dispose of food-related trash, no firearms on site, no pets on site, conduct nesting bird surveys prior to construction and butterfly survey, biological monitor present during Rindler Creek relocation |
| Effects to habitat or sensitive natural communities | None | Wetlands/riparian woodlands effected due to realignment of Rindler Creek | Compensatory mitigation for jurisdictional water features. See Mitigation Measure BIO-1. |
| Conflict with local policies/plans | None | None | None |

## COORDINATION WITH PUBLIC AND OTHER AGENCIES

### Notice of Preparation and Scoping

"Scoping" is the process of determining the scope, focus, and content of an environmental document. The scoping process allows agencies and other interested parties to provide input on the proposed project, range of alternatives, topics being evaluated, environmental effects, methods of assessment, and mitigation measures being considered.

Scoping for this project included the use of several channels of communication, including the Notice of Preparation (NOP), mailers, internet, and newspaper ads. In addition, a public open house scoping meeting was held on January 26, 2011 to inform the public and agencies of the project and scoping process. The NOP was issued to the State Clearinghouse on January 11, 2011. A mailer, which provided information on the project and details of the scoping meeting, was distributed to approximately 2,000 stakeholders in the project vicinity. Stakeholders include property owners within 500 feet of the project, elected officials and public agencies, special interest organizations, and neighborhood groups. The list of stakeholders was developed with the aid of the City of Vallejo Planning Department, the Solano 360 project stakeholder list, and local parcel data. This information was also posted on January 11, 2011 to the STA website: www.sta.ca.gov. The project information on the website was available both in English and Spanish and provided project location maps.

An e-mail address (fairgroundsdriveproject@gmail.com) was created as an additional method for the public to comment on the Build Alternative.

A display advertisement announcing the scoping period and the public open house scoping meeting ran in the Vallejo Times-Herald and Cronicas (the local Spanish-language newspaper) on Tuesday, January 11, 2011.

There were eight written comments submitted at the January 26 scoping meeting. Two comment sheets were mailed to STA and six e-mails were received via fairgroundsdriveproject@gmail.com. One comment letter was received from the California Department of Fish and Game, one letter was received from the Governor's Office of Planning and Research, and one comment letter was received from the California Transportation Commission. Key issues raised during the scoping period are addressed in **Chapter 2.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures,** of this environmental document.

A public meeting was held on January 18, 2012 to provide information and answer questions about the Build Alternative. Invitation letters were sent to property owners whose residence or business may potentially be directly impact by the project. Thirteen property owners and residents signed in at the meeting and one written comment was received.

## Necessary Permits and Approvals

**Table S-2** identifies the permits/approvals that would be required for project construction.

Table S-2 Permits and Approvals

| Agency | Permit/Approval | Status |
|---|---|---|
| United States Army Corps of Engineers | Section 404 Permit – Nationwide | Issued during the Final Design Phase |
| United States Fish and Wildlife Service | Concurrence with “no effect” determination | Issued during the Final Design Phase |
| California Department of Fish and Game | 1602 Agreement | Issued during the Final Design Phase |
| California Water Resources Board | NPDES Permit | Issued during the Final Design Phase |
| Regional Water Quality Control Board | Section 401 Certification | Issued during the Final Design Phase |

Temporary construction easements may be required from the City of Valley and Solano County to accommodate work outside State-owned right-of-way.

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# List of Acronyms

| | |
|---|---|
| AB 32 | Assembly Bill 32 |
| AB 1493 | Assembly Bill 1493 |
| ACM | asbestos containing material |
| ADT | average daily trips |
| APE | area of potential effect |
| ARB | California Air Resources Board |
| ASR | Archaeological Survey Report |
| BAAQMD | Bay Area Air Quality Management District |
| BMPs | Best Management Practices |
| BSA | biological study area |
| CAAQS | California Ambient Air Quality Standards |
| CDFG | California Department of Fish and Game |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Compensation and Liability Act of 1980 |
| CERFA | Community Environmental Response Facilitation Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| $CH_4$ | methane |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CRLF | California red-legged frog |
| CWA | Clean Water Act |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| CO-CAT | Costal Ocean Climate Action Team |
| CSA | construction staging area |
| CTP | Solano Comprehensive Transportation Plan |
| dB | decibel |
| dBA | A-weighted decibel |
| DEIR | Draft Environmental Impact Report |
| Department | California Department of Transportation |
| DI | De-Ionized |
| DSA | Disturbed Soil Area |
| EIS | Environmental Impact Statement |
| EO | Executive Order |
| EOS | Edge of Shoulder |
| ESL | Environmental Screening Limits |

| | |
|---|---|
| FCAA | Federal Clean Air Act |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FIRM | Flood Insurance Rate Maps |
| FONSI | Finding of No Significant Impact |
| FSTIP | Federal Statewide Transportation Improvement Program |
| FTA | Federal Transit Administration |
| FY | fiscal year |
| GHGs | greenhouse gases |
| GVRD | Greater Vallejo Recreation District |
| $H_{2S}$ | Hydrogen Sulfide |
| HFC-134a | s, s, s, 2 –tetrafluoroethane |
| HFC-152a | difluoroethane |
| HFCs | hydrofluorocarbons |
| HFC-23 | fluoroform |
| HOV | high occupancy vehicle |
| HPSR | Historic Property Survey Report |
| HRER | Historic Resources Evaluation Report |
| I-80 | Interstate 80 |
| IGR | Intergovernmental Review |
| IPCC | Intergovernmental Panel on Climate Change |
| ITS | Intelligent Transportation System |
| Leq | The average A-weighted noise level during the measurement period |
| $L_{max}$ | The maximum A-weighted noise level during the measurement period |
| LEDPA | least environmentally damaging practicable alternative |
| LOS | Levels of Service |
| LT | long-term |
| LUST | Leaking Underground Storage Tank |
| MCE | Maximum Credible Earthquake |
| MLD | Most Likely Descendent |
| MOU | Memorandum of Understanding |
| MPO | Metropolitan Planning Organization |
| MS4s | Municipal Separate Storm Sewer Systems |
| MSAT | Mobile Source Air Toxics |
| MTC | Metropolitan Transportation Commission |
| N2O | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAC | noise abatement criteria |

| | |
|---|---|
| NADR | Noise Abatement Decision Report |
| NAHC | Native American Historic Commission |
| NEPA | National Environmental Protection Act |
| NES | Natural Environment Study |
| NHPA | National Historic Preservation Act |
| NHTSA | National Highway Traffic Safety Administration |
| $NO_2$ | nitrogen dioxide |
| NOAA | National Oceanic Atmospheric Administration |
| NOAA Fisheries | National Marine Fisheries Service |
| NOP | Notice of Preparation |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| $O_3$ | ozone |
| OPR | Office of Planning and Research |
| OSHA | Occupational Safety and Health Act |
| OSTP | Office of Science and Technology Policy |
| PA | Programmatic Agreement |
| Pb | lead |
| PFCs | perfluorocarbons |
| PID | Project Initiation Document |
| PM | particulate matter |
| POAQC | projects of air quality concern |
| PRC | Public Resources Code |
| R | receptors |
| RAP | Relocation Assistance Program |
| Resources Agency | California Natural Resources Agency |
| ROW | Right of Way |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| RWQCB GT | Regional Water Quality Control Board Geotracker |
| RCRA | Resource Conservation and Recovery Act of 1976 |
| SF6 | sulfur hexafluoride |
| SHPO | State Historic Preservation Office |
| SIP | State Implementation Plan |
| SMP | Soil Management Plan |
| $SO_2$ | sulfur dioxide |
| SR 37 | State Route 37 |
| ST | short-term |
| STA | Solano Transportation Authority |
| STLC | Solubility Threshold Concentration Limit |
| SVOCs | semi-volatile organic compounds |

| | |
|---|---|
| SWDR | Storm Water Data Report |
| SWMP | Storm Water Management Plan |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TASAS | Traffic Accident Surveillance and Analysis Systems |
| TIP | Transportation Improvement Plan |
| TMDL | Total Maximum Daily Loads |
| TOAR | Traffic Operation Analysis Report |
| TPH | total petroleum hydrocarbons |
| TSCA | Toxic Substances Control Act |
| TTLC | Total Threshold Limit Concentrations |
| U.S. | United States |
| U.S. EPA | United States Environmental Protection Agency |
| USACE | Unites States Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |
| USGS | Unites States Geological Survey |
| UST | Underground Storage Tank |
| V/C | volume to roadway capacity |
| VMT | vehicle miles traveled |
| VOCs | volatile organic compounds |
| WDRs | Waste Discharge Requirements |
| WET | Waste Extraction Testing |
| WPCP | Water Pollution Control Plan |

# 1.0 Proposed Project

## 1.1 INTRODUCTION

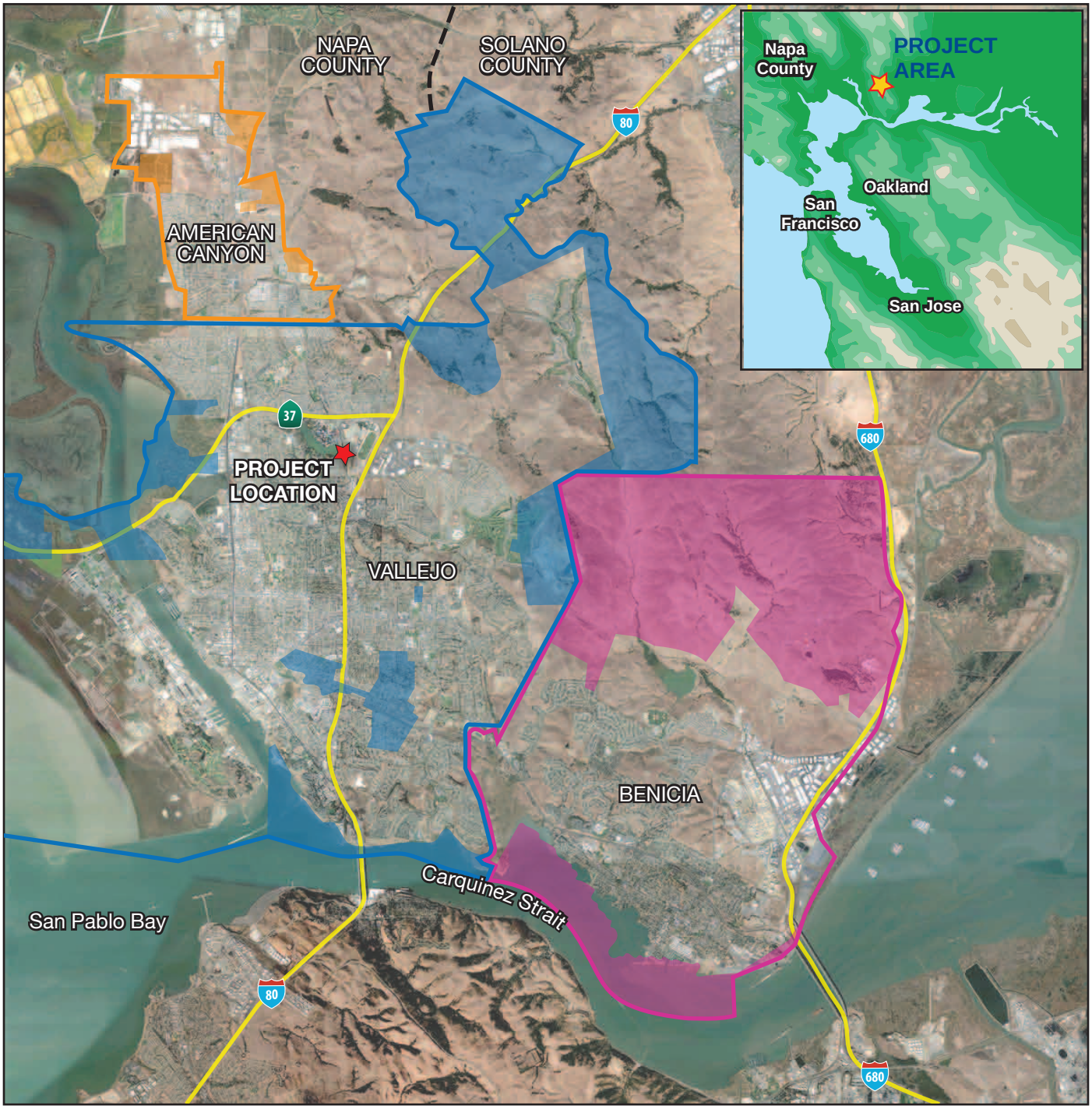
The California Department of Transportation (Department) is the lead agency under the National Environmental Protection Act (NEPA). Solano Transportation Authority (STA) is the lead agency under the California Environmental Quality Act (CEQA).

STA, Solano County, and the City of Vallejo, in cooperation with the Department, proposes to modify the existing Interstate 80 (I-80)/Redwood Parkway interchange to a tight diamond configuration, realign Fairgrounds Drive to a tee intersection north of the I-80 westbound ramps, widen Fairgrounds Drive between Redwood Street and State Route (SR 37), widen the westbound exit ramp from SR 37 to Fairgrounds Drive, and improve the intersections at the SR 37/Fairgrounds Drive interchange. Current transportation issues in this area include poor circulation during peak commute periods, long delays at intersections, short acceleration and deceleration areas, and limited sight distance. Additionally, the existing capacity of the roadways in this area would not accommodate the projected future traffic volumes. **Figure 1-1** depicts the project location and **Figures 1-2a** through **1-2c** depict the proposed improvements.

### STATE/REGIONAL/LOCAL PLANNING

The project is included in the fiscal year (FY) 2010/2011 Metropolitan Transportation Commission's (MTC) Transportation Improvement Program (TIP) as project number SOL090015. MTC approved the financially constrained TIP on October 27, 2010. Following approval by the Department, the Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) incorporated the TIP into the Federal Statewide Transportation Improvement Program (FSTIP) on December 14, 2010.

The project is also included in the fiscally constrained Solano Regional Transportation Plan (RTP) Project List that was adopted by STA on May 22, 2011. This list was prepared by the County for submittal to MTC's 2013 update to its RTP (also known as T-2040 Update "Plan Bay Area"). In the Solano RTP, the project (No. 230313) is identified as fiscally constrained with committed funds of $62 million (local funding) and $3 million in discretionary funds, for a total of $65 million. The preliminary cost estimate for the Build Alternative is $55.8 million, which includes $34.2 million for construction and $21.6 million for right of way and utility relocations.




**Legend**

- Project Location
- City of Vallejo
- Vallejo Sphere of Influence
- City of Benicia
- Benicia Sphere of Influence
- City of American Canyon
- American Canyon Sphere of Influence

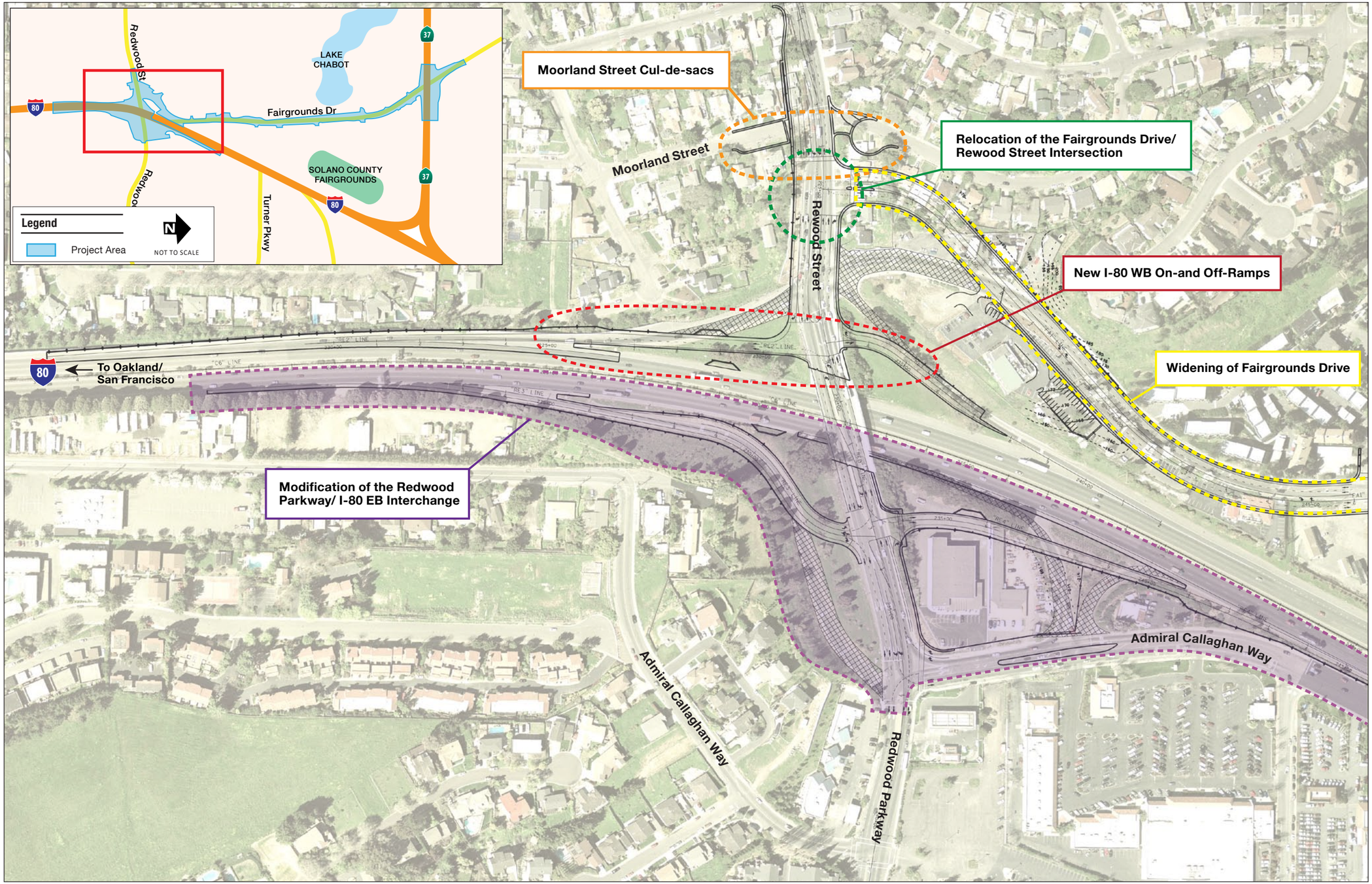
N

0 50 100 200 FEET

**Project Location**

**Figure 1-1**

*Source: Google Earth, 2010.*




**Legend**

- Build Alternative Layout
- Existing Roadway to be Removed
- Improvements to be Constructed 2035*

*Note: Modification of the Redwood Parkway/I-80 EB Interchange would occur concurrently with the construction of the I-80 High-Occupancy-Vehicle (HOV) lane project, which is anticipated to be completed in 2035.

N

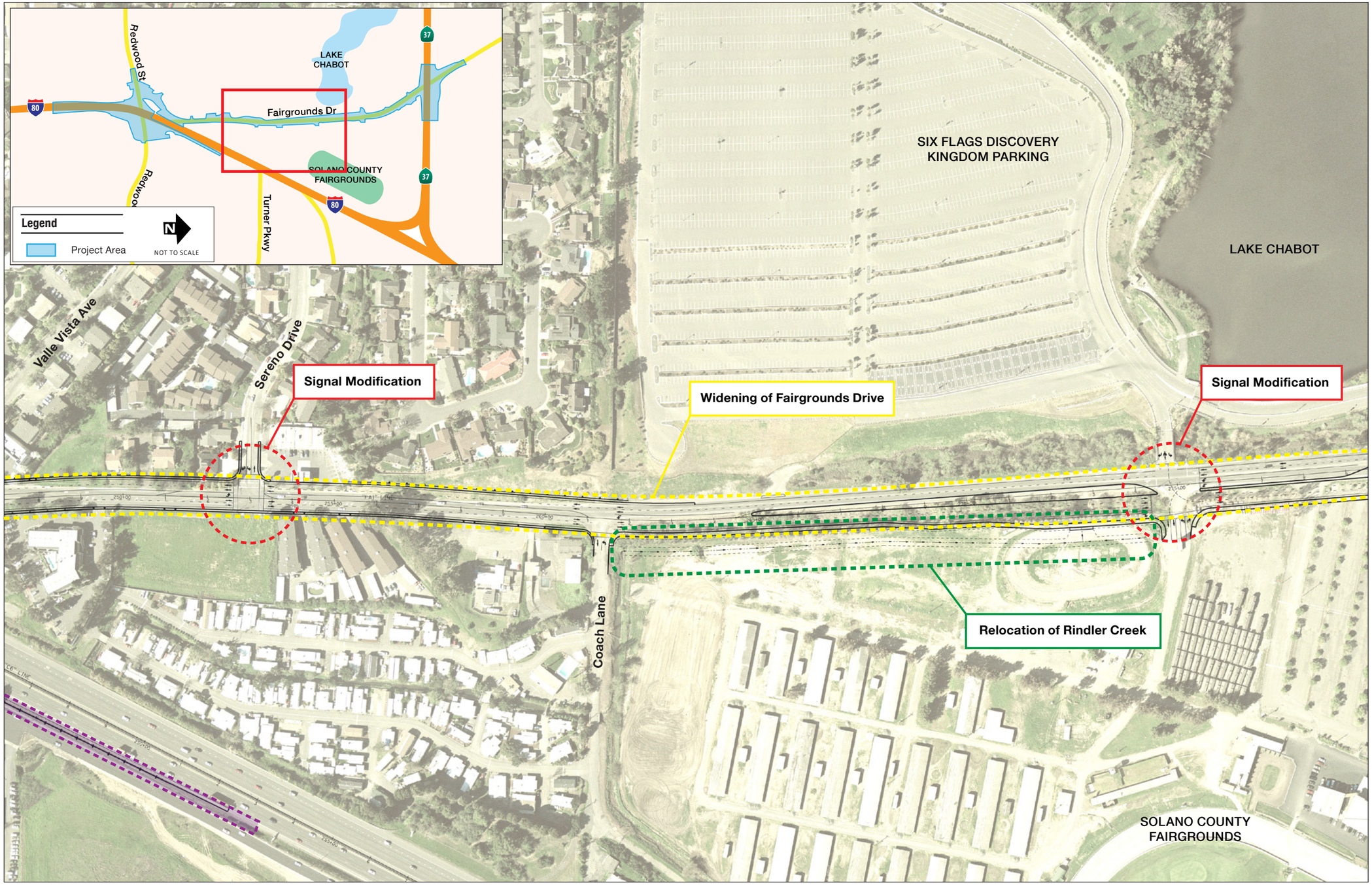
0 50 100 200 FEET

**Build Alternative Layout**

Figure **1-2a**

*Source: HQE, 2012.*

Figure 1-2a Build Alternative Layout (back)




**Legend**

- Build Alternative Layout
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- Improvements to be Constructed 2035*

*Note: Modification of the Redwood Parkway/I-80 EB Interchange would occur concurrently with the construction of the I-80 High-Occupancy-Vehicle (HOV) lane project, which is anticipated to be completed in 2035.

N

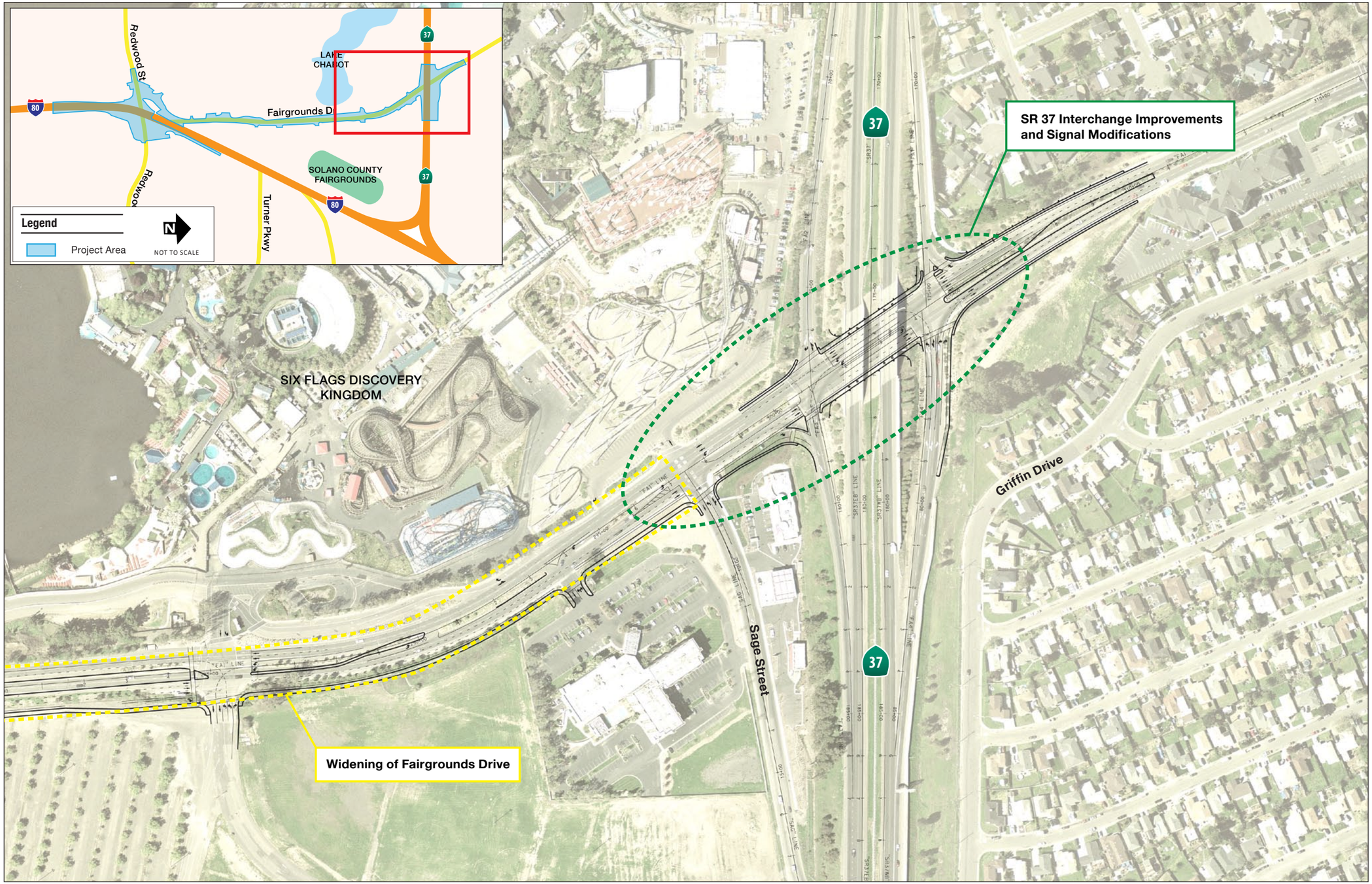
0 50 100 200
FEET

**Build Alternative Layout**

Figure **1-2b**

*Source: HQE, 2012.*

Figure 1-2b Build Alternative Layout (back)




**Legend**

- Build Alternative Layout
- Existing Roadway to be Removed
- Improvements to be Constructed 2035*

*Note: Modification of the Redwood Parkway/I-80 EB Interchange would occur concurrently with the construction of the I-80 High-Occupancy-Vehicle (HOV) lane project, which is anticipated to be completed in 2035.

N

0 50 100 200 FEET

**Build Alternative Layout**

Figure 1-2c

*Source: HQE, 2012.*

Figure 1-2c Build Alternative Layout (back)

# 1.2 PURPOSE AND NEED

## PURPOSE

Current transportation issues within the project corridor include poor circulation during peak commute periods, long delays at intersections, short acceleration and deceleration area, and limited sight distance. In addition, the existing capacity of the roadways in this area will not accommodate projected future traffic volumes planned for in the project vicinity.

The purpose of the project is to address these issues by:

- Relieving existing congestion and improving traffic flow on the local roadway network for approved redevelopment and planned land uses in the area;
- Improving the existing interchanges and intersection operations; and
- Improving the safety of the local roadway network by reducing congestion.

## NEED

### Existing and Future Traffic Congestion

#### Existing Conditions

Level of Service (LOS) is a measure of actual traffic conditions and the perception of such conditions by motorists. There are six LOS ratings, ranging from LOS A (free traffic flow with low volumes and high speeds, resulting in low vehicle densities) to LOS F (traffic volumes exceeding the capacity of the infrastructure, resulting in forced flow operations, slow speeds, and high vehicle densities). The following intersections within the project limits currently experience heavy congestion and long delays[1], as indicated by a Level of Service (LOS) D or worse:

- Fairgrounds Drive at Sage Street
- Fairgrounds Drive at Redwood Street/westbound I-80 ramps

#### Future Conditions

Traffic forecasts were prepared, based on the latest version of the Solano-Napa Phase II county-wide transportation model. This model was provided by STA and modifications were made to ensure that it accurately reflected the road improvement projects expected to be in place by 2035. Some additional modifications were made to improve the

[1] Department, 2012j.

representation of the road network within the study area[2] and to incorporate the changes in land use that are expected to occur by both 2015 and 2035. This was based on input received from STA, Solano County, and City of Vallejo.

The land use assumptions in the 2010 travel demand model have been used for 2010 land use assumptions; however, the land use files for 2030 did not reflect current expectations about development within the study area. The Solano County Fairgrounds are now expected to be redeveloped with a mixture of hotel, retail, and entertainment uses as described in the Solano 360 Vision Report, dated May 28, 2009. This redevelopment is expected to be in place by 2030. Additionally, the existing Elks Club located at 2850 Redwood Parkway, is expected to be replaced in the near future by a small retail development, known as the Winco Foods project.

*2015 Traffic Congestion*

Without the project, the Traffic Operation Analysis Report (TOAR) shows that the following intersections within the project limits would operate at unacceptable Levels of Service (LOS D or worse) during the PM peak periods in 2015:

- Fairgrounds Drive at westbound SR 37 ramps
- Fairgrounds Drive at Sage Street
- Fairgrounds Drive at Redwood Street/westbound I-80 ramps
- Admiral Callaghan Lane at eastbound I-80 ramps

*2035 Traffic Congestion*

Without the project, the TOAR shows that the following intersections within the project limits would operate at unacceptable Levels of Service (LOS D or worse) during the AM and PM peak periods in 2035:

- Fairgrounds Drive at westbound SR 37 ramps
- Fairgrounds Drive at eastbound SR 37 ramps
- Fairgrounds Drive at Sage Street
- Fairgrounds Drive at Fairground gate
- Fairgrounds drive at Six Flags gate
- Fairgrounds Drive at Coach Lane
- Fairgrounds Drive at Sereno Drive
- Fairgrounds Drive at Valle Vista Avenue

[2] The study area for the traffic analysis encompasses an approximately 4.6 mile segment of the I-80 freeway corridor, an approximately 1.7 mile segment of the SR 37 corridor, and 20 local intersections along Fairgrounds Drive and connecting roadways.

- Fairgrounds Drive at Redwood Street/westbound I-80 ramps
- Admiral Callaghan Lane at Redwood Parkway
- Admiral Callaghan Lane at eastbound I-80 ramps

## Existing Operations and Deficiencies

### *Accident Data*

Accident data for the three-year period from April 1, 2007 to March 31, 2010 was obtained from Caltrans Traffic Accident Surveillance and Analysis Systems (TASAS) data and is summarized below in **Table 1-1**. The summaries are shown for the following project elements:

- I-80 eastbound ramps
- I-80 westbound ramps
- SR 37 eastbound ramps
- SR 37 westbound ramps

The accident information includes the number of fatal (F), fatal plus injury (F+I) and the total (Total) accidents on the study area ramps. The actual rates for the project area are compared with the statewide averages for similar facilities in urban areas.

A majority of the accidents within the study area were rear end collisions caused by drivers speeding with traffic slowing and/or stopped. Most of the accidents occurred during day time under clear and dry conditions. Bad driving behavior was a major factor that contributed to most of the accidents. About six percent of the accidents involved drivers under the influence of alcohol. Approximate 60 percent of all the drivers in the reported accidents were speeding or were cited for some other traffic violation.

### *Non-Standard Roadway Design Features*

The existing I-80/Redwood Parkway interchange facility is over 50 years old and several non-standard features are present with the study limits. The Redwood Parkway eastbound interchange configuration consists of short, tight radius hook ramps connecting to Admiral Callaghan Lane rather than the cross road that they serve, resulting in nonstandard merge and diverge distances. In the westbound direction, the entrance and exit ramps form a five-legged intersection with Redwood Street and Fairgrounds Drive with poor stopping and corner sight distance.

Table 1-1 Accident Rates for I-80 and SR 37 Ramps

| Location | No. of Accidents | | | Actual Rates | | | State Average Rates | | |
|---|---|---|---|---|---|---|---|---|---|
| | F | F+I | Total | F | F+I | Total | F | F+I | Total |
| **I-80 Eastbound** | | | | | | | | | |
| Exit to EB Redwood Street/Admiral Callaghan Lane | 0 | 1 | 1 | 0.000 | 0.21 | 0.21 | 0.004 | 0.26 | 0.85 |
| Exit to Redwood Street/Admiral Callaghan Lane | 0 | 1 | 5 | 0.000 | 0.11 | 0.54 | 0.004 | 0.28 | 0.95 |
| Entrance from Redwood Street/ Admiral Callaghan Lane | 0 | 0 | 0 | 0.000 | 0.00 | 0.00 | 0.002 | 0.16 | 0.55 |
| **I-80 Westbound** | | | | | | | | | |
| Entrance from Redwood Street/ Fairgrounds Drive | 0 | 1 | 7 | 0.000 | 0.06 | 0.43 | 0.002 | 0.14 | 0.45 |
| Exit to Redwood Street/Fairgrounds Drive | 0 | 1 | 3 | 0.000 | 0.18 | 0.55 | 0.004 | 0.42 | 1.20 |
| **SR 37 Eastbound** | | | | | | | | | |
| Exit to Fairgrounds Drive | 0 | 2 | 4 | 0.000 | **0.72** | **1.43** | 0.004 | 0.42 | 1.20 |
| Entrance from Fairgrounds Drive | 0 | 3 | 7 | 0.000 | 0.16 | 0.38 | 0.002 | 0.26 | 0.75 |
| **SR 37 Westbound** | | | | | | | | | |
| Exit to Fairgrounds Drive | 0 | 5 | 20 | 0.000 | 0.26 | 1.05 | 0.004 | 0.42 | 1.20 |
| Entrance from Fairgrounds Drive | 0 | 0 | 3 | 0.000 | 0.00 | **1.14** | 0.002 | 0.26 | 0.75 |

Source: HQE, Inc. 2011.
Note: **Bold** text indicates x.xx = Actual rate is higher than average rate; F=Fatal; I=Injury

SR 37 is a four-lane, east-west freeway connecting State Route (SR 29) and I-80 within the city of Vallejo. The westerly project limit includes SR 37/Fairgrounds Drive interchange, a tight diamond configuration, and the I-80/SR 37 freeway to freeway interchange, constructed in the late 1970s is the easterly project limit. The majority of this segment was constructed in the mid- to late 1970s while the Fairgrounds Drive/SR 37 interchange was built in the early 1990s. This segment of SR 37 consists of 12-foot lanes, 5-foot left shoulders, and 10-foot right shoulders. The existing pavement section is constructed of asphaltic concrete on top of cement treated base. There is less than 300 feet spacing between adjacent eastbound and westbound ramp intersections causing short queuing storage lengths.

Within the project study limits, Fairgrounds Drive is a conventional 2-lane, undivided local arterial with two 12-foot lanes, flanked by 2 to 4 foot non-standard shoulders. Moorland Street is a two-lane residential roadway that runs parallel to the west of Fairgrounds Drive. The roadway continues south, between Redwood Street and Greenfield Avenue, however, only the northern portion of Moorland Street connects directly to Redwood Street. The portion of Moorland Street south of Redwood Street is

currently a non-standard dead-end that does not provide an adequate turning radius for emergency fire response vehicles.

### INDEPENDENT UTILITY AND LOGICAL TERMINI

The Fairgrounds Drive/SR 37 and the Redwood Parkway/I-80 interchanges are logical termini for the Build Alternative as they represent the major links to the freeway network for the local traffic along Fairgrounds Drive. In addition, the project corridor termini are of sufficient length to address environmental matters on a broad scope.

The project would result in improvements to the current traffic conditions along the existing roadway network without any additional improvements being made in the area. As such, the project is considered to have independent utility. Furthermore, the project would not restrict considerations of alternatives for other reasonably foreseeable transportation improvements in the area.

## 1.3 PROJECT DESCRIPTION

The Redwood Parkway–Fairgrounds Drive Improvements Project (Build Alternative) would construct several roadway improvements along portions of Fairgrounds Drive and Redwood Parkway/Redwood Street within the city of Vallejo. The total length of the project corridor is approximately 1.5 miles, and extends from the Fairgrounds Drive/ I-80 interchange (post mile 4.0 to 4.9) to the Fairgrounds Drive/ SR 37 interchange (post mile 10.6 to 11.2). Detailed descriptions of the existing facilities within the project study limits, and associated deficiencies, are discussed above under project need. The purpose of the project is to relieve congestion and improve traffic flow on the local roadway network; improve the existing interchange and intersection operations; improve the safety of the local roadway network by reducing congestion; and increase the local roadway network capacity.

### ALTERNATIVES

The types of interchange improvements that would be possible at the existing Fairgrounds Drive/SR 37 and the Redwood Parkway/I-80 interchange are limited because these areas are physically constrained by the existing residential and commercial development. With the exception of the Build Alternative (described below), other interchange configurations would require the reconstruction of the existing overcrossing structures and have severe right-of-way impacts combined with extremely high construction costs. Similarly, along the Fairgrounds Drive right-of-way, no other alignment alternatives were possible because of the steep grades and developed land uses and/or water features on either side of the roadway.

Because of these constraints, no other design alternatives were carried forward beyond initial design screenings. The alternatives evaluated in this environmental document include the Build Alternative and the No-Build (No Action) Alternative.

## Build Alternative

The Build Alternative would construct several roadway improvements along portions of Fairgrounds Drive and Redwood Parkway/Redwood Street, within the city of Vallejo. **Figures 1-2a** through **1-2c** illustrates the improvements proposed under the Build Alternative which would include the major elements described below.

### Modification of the Redwood Parkway/I-80 Interchange

The existing Redwood Parkway/I-80 interchange would be reconstructed as a tight diamond configuration that utilizes the existing I-80 overcrossing structure. The existing Redwood Street overcrossing structure would not be replaced. **Figures 1-2a** through **1-2c** illustrate the proposed through-lanes, turning lanes, and intersection configurations of the new Redwood Parkway/I-80 interchange.

New I-80 westbound on- and off-ramps would be constructed to directly connect with Redwood Street as a signalized four-way intersection, independent of the Fairgrounds Drive/Redwood Street intersection, and closer to the I-80 freeway right-of-way. West of the I-80 overcrossing structure, Redwood Street would be widened to accommodate new turning lanes to and from the proposed I-80 westbound ramps, requiring additional right-of-way acquisition from existing residential land uses.

The existing tight radius hook on- and off-ramps connecting I-80 eastbound to Admiral Callaghan Lane would be replaced with a new Redwood Parkway/I-80 eastbound on-ramp that follows the proposed tight diamond interchange configuration. Similar to the proposed Redwood Street/I-80 westbound ramps, new I-80 eastbound on- and off-ramps would be constructed to directly connect with Redwood Parkway as a signalized four-way intersection, independent of the Redwood Parkway/Admiral Callaghan Lane intersection, and closer to the I-80 freeway right-of-way. Construction of the new I-80 eastbound on-ramp would require additional right-of-way acquisition from existing commercial land uses.

By eliminating the existing unconventional five-way intersection, the potential for conflicts due to driver error should be reduced. Improving the angle of the ramps would aid in improving drivers' ability to avoid crashes, and the maneuverability of turning vehicles through the ramp intersections.

### Relocation of the Fairgrounds Drive/Redwood Street Intersection

The existing Fairgrounds Drive/Redwood Street intersection would be relocated approximately 200 feet west of its current location. In doing so, the corner sight distance at the peak of the roadway curve on Fairgrounds Drive near Redwood Street would be improved from 55 feet to 300 feet. As discussed above, the new three-way signalized intersection would be independent from the proposed Redwood Street/I-80 westbound ramps. **Figures 1-2a** through **1-2c** illustrate the proposed through-lanes, turning lanes, and Fairgrounds Drive/Redwood Street intersection configuration.

### Moorland Street Cul-de-sacs

The existing Redwood Street/Moorland Street intersection would be removed. The termini of Moorland Street, both north and south of Redwood Street, would be reconfigured as cul-de-sacs. Each of the cul-de-sacs would be designed to provide an adequate turning radius for emergency fire response vehicles. The alignment of the Moorland Street cul-de-sacs would require additional right-of-way acquisition from existing residential land uses.

### Widening of Fairgrounds Drive

Fairgrounds Drive would be widened from two to four lanes from Redwood Street to Coach Lane, and from four to five lanes from Coach Lane to SR 37 (see **Figures 1-2a** through **1-2c**). The two-way left turn lane would be maintained between Redwood Street and Coach Lane to accommodate frontage property access. As a result of the widening, approximately 1,300 linear feet of Rindler Creek that parallels Fairground Drive would be relocated to the east. Five-foot sidewalks would be provided in the southbound directions from Redwood Street to Coach Lane. A ten-foot sidewalk is proposed in the northbound direction north of Coach Lane. Class II bike lanes are planned in both direction of travel from Redwood Street to the SR 37 interchange.

### Modifications to the Fairgrounds Drive/SR37 Interchange

As described above, the portion of Fairgrounds Drive that crosses under SR 37 would be widened to better accommodate queuing issues associated with closely spaced intersections. However, the existing tight diamond configuration of the Fairgrounds Drive/SR 37 interchange would largely remain unchanged. Minor modifications to the SR 37 westbound exit ramp would include the addition of a right-turn lane and reconfiguration of the turning lanes to and from Fairgrounds Drive (see **Figures 1-2a** through **1-2c**).

### Signal Modifications

As described above, all of the new intersections associated with the interchange modifications and relocation of the Fairgrounds Drive/Redwood Street intersection would be signalized. In addition, the Build Alternative includes the signalization of the Fairgrounds Drive/Sage Street intersection.

The Built Alternative would also include signal modifications at Fairgrounds Drive/SR 37 westbound ramps, Fairgrounds Drive/SR37 eastbound ramps, Fairgrounds Drive/Solano County Fairgrounds Development Entrance (north), Sereno Drive/Fairgrounds Drive, and Redwood Parkway/Admiral Callaghan Way.

## Construction Staging

The design and construction phases of the project will be staged to coordinate with a future High Occupancy Vehicle (HOV)/ Toll lanes (express lanes) project along I-80. The

portion of the I-80 corridor through Solano County has been identified by the Metropolitan Transportation Commission (MTC) as part of a feasible express lane network throughout the San Francisco Bay Area. STA has completed a study to prioritize implementation of the HOV/express lanes along the I-80 corridor. In order to construct the HOV/express lanes, additional work along the I-80 mainline would be necessary. In order to maximize efficiencies and reduce costs it has been determined that the design and construction of eastbound improvements on I-80 as part of the Build Alternative should be done concurrently with the future I-80 HOV/express lanes project.

The projected opening day for the Build Alternative improvements located on the west side of I-80 would occur by the year 2015 through multiple construction packages. This includes the modification of the Redwood Parkway/I-80 westbound ramps, the relocation of the Fairgrounds Drive/Redwood Street Intersection, the completion of the Moorland Street cul-de-sacs, the widening of Fairgrounds Drive, the relocation of Rindler Creek, and the modification of the Fairgrounds Drive/SR 37 interchange. All improvements associated with the modification of the Redwood Parkway/I-80 eastbound ramps (east of I-80), including the replacement of the existing Admiral Callaghan hook ramps would be constructed by the year 2035, concurrently with the construction of the I-80 HOV /express lanes Project. This would ensure that the proposed Build Alternative improvements could accommodate any changes in the I-80 eastbound lane widths, or related lane alignment shifts, caused by the future construction of an HOV lane in this area. **Figures 1-2 a - c** identify which Build Alternative improvements would occur in 2035.

The construction of the I-80 HOV /express lanes project is not part of the Build Alternative, and is evaluated under separate environmental review. This environmental document only evaluates the environmental effects associated with the Build Alternative, including those improvements that would occur in 2015 and 2035.

## Construction Methods

Construction of the Build Alternative would include grading (earthwork), paving, drainage facilities, retaining walls, sound walls, overhead signs, utility protection and/or relocation, temporary traffic control, storm water pollution prevention measures (permanent and temporary), temporary creek diversion, permanent realignment of the man-made channel for Rindler Creek, temporary construction easements, and right-of-way acquisition.

The Build Alternative would shift approximately 1,300 linear feet of the Rindler Creek watercourse and its associated riparian vegetation east from its current man-made alignment to accommodate the widening of Fairgrounds Drive. This would occur between Coach Lane and the southern entrance to the Solano County Fairgrounds property. Realignment of the creek involves clearing, grubbing, dewatering, and backfilling the current man-made channel. The new channel would be excavated and re-vegetated to create a riparian habitat in equal size and comparable function to the existing watercourse. Staging of the realignment is expected to require a temporary creek diversion during the low-flow period, between April 15 and August 15.

To avoid and minimize effects to wildlife species and their habitats, the Build Alternative includes a number of general measures that are considered part of the project design. The measures summarized below are discussed in full detail in the appropriate sections of **Section 2.3, Biological Resources.** All measures would be implemented prior to and during construction activities, and would be included as part of the special provisions of the bid package.

- Retain a biological monitor during the dewatering and backfill of Rindler Creek
- Conduct pre-construction nesting bird surveys
- Establish temporary construction zone exclusion fencing
- Minimize nighttime artificial lighting
- Maintain good housekeeping practices regarding food-related trash items
- Restrict firearms from the construction areas, except for those carried by authorized personnel
- Restrict pets from the construction areas
- Develop a stormwater pollution prevention plan (SWPPP)
- Designate areas for the storage of grindings and asphalt-concrete waste
- Re-vegetate all areas temporarily affected by construction activities

## Transportation Management Plan

In order to minimize traffic delays while maintaining worker safety, there would be four major stages of construction for the Build Alternative. Detailed Stage Construction/Traffic Handling plans will be prepared during final design phase of the project.

### Stage 1

All existing traffic movements would be maintained utilizing temporary railing to separate public traffic and construction activities. The contractor may elect to close the ramps while installing the temporary rail. The westbound I-80 mainline lanes would require short-term closures for temporary restriping activities. Temporary lane closures would be required on Redwood Parkway in order to remove the existing raised median.

At the SR 37/Fairgrounds Drive interchange, pedestrians would be relocated to the northbound side of Fairgrounds Drive using temporary crossings at the existing intersections.

Along Fairgrounds Drive, the two-way left turn lane would be utilized to maintain one through lane in each direction, between Redwood Street and Valle Vista Avenue.

Pedestrians would be restricted to one side of the roadway and bicyclists would use a temporary Class III route[3], riding with motor vehicles through the construction zone.

### Stage 2

Temporary closures would be required at all ramp entrances and exits. Traffic on the westbound I-80 ramps would be shifted to the east onto temporary adjacent pavement separated by temporary railing.

At the SR 37/Fairgrounds Drive interchange, pedestrians would be detoured to the new sidewalk location along the southbound side of Fairgrounds Drive, and bicyclists would use a temporary Class III route, riding with motor vehicles through the construction zone. Alternately, cyclists may choose to walk their bikes on the sidewalk.

Weekend closures of Fairgrounds Drive would be required prior to shifting traffic to the west to maintain one through lane in each direction between Redwood Street and Valle Vista Avenue. Pedestrians would be restricted to one side of the roadway, and bicyclists would use a temporary Class III route, riding with motor vehicles through the construction zone.

### Stage 3

Traffic using the eastbound I-80 diagonal off-ramp would be shifted to the new intersection with Redwood Parkway, and the existing hook off-ramp would be closed. Traffic using the eastbound I-80 entrance ramp would be shifted to detour pavement constructed adjacent to the existing ramp. Temporary westbound and eastbound ramp closures would be required. Short-term closure of the third westbound I-80 mainline lane would be required.

Traffic would be shifted to the outside the existing roadway at the SR 37/Fairgrounds Drive Interchange, to the east along Fairgrounds Drive. Temporary lane closures would be required to set temporary railings as required for the median work.

### Stage 4

Traffic using the eastbound I-80 entrance ramp would continue to use the detour pavement constructed in Stage 2. Traffic would be shifted to the new westbound I-80 exit ramp.

The contractor would be required to submit a traffic control plan at least one week prior to any ramp or lane closure. The traffic control plan would contain a detailed contingency plan to ensure opening of ramps or closed lanes by the designated time. During construction activities requiring lane closure, the contractor shall provide appropriate personnel to monitor activities and make decisions regarding activation of contingency plans.

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[3] On-street signed bicycle route

During the final design phase of the project, a detailed Transportation Management Plan would be developed to facilitate access and reduce traffic congestion during construction. The Transportation Management Plan would include four broad strategy categories: public information, motorist information, incident management, and construction. Under this plan, mailers would be sent to notify and inform motorists, business community groups, local entities, emergency services, and elected officials of upcoming road closures and detours. Freeway ramp and lane closures would be displayed on changeable message, signs, and construction area signs would be used to direct traffic. A Construction Zone Enhanced Enforcement Program would be implemented to engage California Highway Patrol (CHP) officers for ramp or lane closures, and to provide for enforcement of speed restrictions and faster incident response. Traffic management strategies that require action by the construction contractor would be presented in detail in the Build Alternative's technical specifications of the bid contract.

## Transportation System Management and Transportation Demand Management Alternatives

Transportation System Management strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Although Transportation System Management measures alone could not satisfy the purpose and need of the Build Alternative, the following Transportation System Management measures have been incorporated into this project:

- Include bike lanes and sidewalks along Fairgrounds Drive;
- Maintain existing in-road sensor loops[4]; and
- Include ramp metering at the I-80/Redwood Parkway interchange.

There are several transportation demand management strategies within the San Francisco Bay Area that are used to reduce the number of vehicle trips along the I-80 corridor. Rideshare offers carpoolers reduced bridge tolls as well as access to carpool lanes. There is also a vanpool for larger groups of commuters. Transportation demand management may also involve the provision of contract funds to regional agencies that are actively promoting ridesharing, maintaining rideshare databases, and providing limited rideshare services to employers and individuals. Increased vehicle occupancy reduces traffic volumes during peak commuting periods on the freeway; however, it would not improve the safety and operation of the local roadway network. Accordingly, a transportation demand management alternative would not satisfy the purpose of the Build Alternative.

[4] When you approach a traffic signal you may notice a rectangular "scar" where the road surface has been cut with a saw and then re-sealed. This is the sensor loop. The system detects (through detection loops in the pavement) traffic volumes so that the "green-light" signals can be appropriately timed.

### No-Build (No Action) Alternative

The No-Build Alternative is being evaluated in accordance with NEPA and CEQA requirements, and serves as the baseline comparison to the Build Alternative. Traffic operations analysis of the No-Build alternative represents the baseline condition against which the effectiveness and impacts of alternatives are measured. Traffic forecasts were prepared based on the latest version of the Solano-Napa Phase II countywide transportation model. This model reflects the land use and road improvement projects planned to be in place by 2035. Some additional modifications were made to improve the representation of the road network within the project study area and to incorporate the changes in land use that are expected to occur by both 2015 and 2035.

Traffic volumes within the project study area would increase with the No-Build Alternative. As there are no improvements proposed to the existing local roadway network, the No-Build Alternative would not achieve the project purpose of increasing the local roadway network capacity to accommodate existing and approved redevelopment and growth in the area. In addition, the increased traffic volumes without capacity improvements would most likely worsen the congestion and slow traffic flow on the local roadway network. Without the realignment of the Fairgrounds Drive/Redwood Street intersection, the No-Build Alternative would not improve the current safety issues related to limited sight distance in this area. The eastbound I-80 hook ramps would continue to have nonstandard merge and diverge area, as well as limited sight distance.

## Identification of a Preferred Alternative

Within the existing project corridor, no other build alternatives were deemed viable because of the physical constraints and developed land uses surrounding the roadways (see discussion below). As such, the alternatives considered for the project include the Build Alternative and the No-Build Alternative. The Build Alternative has been identified as the preferred alternative, subject to public review. Final identification of a preferred alternative will occur after the public review and comment period.

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

## Alternatives Considered But Eliminated From Further Discussion

Several additional interchange configurations were investigated during the development of the Build Alternative. These included a partial-cloverleaf (parclo) interchange, a trumpet interchange, and an urban (single point) interchange. All interchange configurations other than the diamond type would require reconstruction of the Redwood

Parkway overcrossing structure and have severe right-of-way impacts combined with extremely high construction costs. Constructing a roundabout on the westbound side of the Redwood Parkway interchange was also investigated. This was found to be infeasible due to the grades.

Similarly, along the Fairgrounds Drive right-of-way, no other alignment alternatives were possible because of the steep grades and developed land uses and/or water features on either side of the roadway.

Various intersection modifications to the signal timing and turning lane configurations were analyzed to determine the minimum improvements that would be needed to provide an acceptable traffic operations under 2035 conditions. In several cases, there was more than one acceptable design for each intersection. The final design of the intersection improvements was selected in consultation with the traffic engineers so the improvements could accommodate other requirements, such as sight distance, deceleration, and available right-of-way. The proposed Build Alternative encompasses the best possible intersection designs, based on the predicted 2035 traffic conditions.

A detailed description of each alternative that was considered is provided in the Project Study Report (PSR). **Table 1-2** summarizes the description of each considered alternative and the reason it was withdrawn.

Table 1-2 Alternatives Considered But Withdrawn

| Alternative | Summary of Reason for Withdrawal |
|---|---|
| 2B | Alternative 2B would construct an overcrossing at Turner Parkway. The Turner Parkway overcrossing would not alleviate congestion at the I-80/Redwood interchange nor the SR 37/Fairgrounds Drive interchange. Both would have intersections that continue to operate at unacceptable levels of service in future years. Therefore, this alternative does not meet the purpose and need for the project. In addition, construction of the overcrossing has the high potential for biological impacts related to Rindler Creek and potential wetlands on the east side of Admiral Callaghan Lane. |
| 3A | Alternative 3A would reconfigure the I-80/Redwood Parkway interchange as a standard partial cloverleaf interchange instead of the Build Alternative's proposed diamond configuration. A partial cloverleaf interchange at this location would require constructing a new bridge over I-80. A new structure would need to meet current standards, including minimum vertical clearances, sight distance, and horizontal clearances to the new bridge abutments. In addition, the bridge would have to be designed to accommodate standard lane widths, including a future HOV/Express lanes planned for I-80. All of these elements, combined with the steep grade on Redwood Parkway east of I-80 and the installation of loop ramps, would result in additional right-of-way and construction costs in the range of $50-$60 million, almost double the current estimated cost of the project. |

| Alternative | Summary of Reason for Withdrawal |
|---|---|
| 3B | Alternative 3B would reconfigure the I-80/Redwood Parkway interchange as a modified partial cloverleaf interchange, with the westbound I-80 exit ramp connecting to Fairgrounds Drive. This configuration would decrease the amount of residential right-of-way required for the project, but would increase the amount of commercial property acquisitions, including Denny's and the dental office building. Alternative 3B would require construction of a new bridge over I-80, which would result in the additional impacts listed above under Alternative 3A. |
| 3C | Alternative 3C would reconfigure the I-80/Redwood Parkway interchange as a modified partial cloverleaf with the westbound I-80 exit ramp connecting to Fairgrounds Drive, across from Valle Vista. This alternative would likely require additional intersection improvements at Fairgrounds Drive/Redwood Parkway. Alternative 3C would also result in non-standard shoulders (2 to 3 feet) on I-80 where loop ramp entrances connect. |
| 4A | Alternative 4A would construct westbound I-80 hook ramps over ¼ mile away from the cross street they serve (Redwood Parkway) connecting to Valley Vista Avenue. This configuration would result in impacts to the mobile home park and Blue Rock Springs Creek. Alternative 4A would likely require additional intersection improvements at Fairgrounds Drive/Redwood Parkway due to the change in ramp traffic patterns (traffic that would need to use Fairgrounds Drive). In addition, hook ramps tend to have higher accident rates than diamond or loop ramps due to small radius curves. |
| ***Alternatives Considered But Withdrawn, continued.*** | |
| 4B | Alternative 4B would construct a westbound I-80 hook exit ramp connecting to Valle Vista Avenue. The existing I-80 entrance ramp would remain at Redwood Street. Under this alternative, operations at existing intersections would not be acceptable in 2035. Similar to Alternative 4A, this alternative would result in impacts to the mobile home park and Blue Rock Springs Creek and require additional intersection improvements. |
| 5 | Alternative 5 would reconfigure the I-80/Redwood Parkway interchange as a pitchfork configuration. Alternative 5 would result in non-standard shoulders (2 to 3 feet) on I-80 at the Redwood Parkway overcrossing. This Alternative would also increase the potential for wrong-way movements. Additional residential right-of-way acquisitions would be required in the southwest quadrant of the proposed interchange improvements. |
| 6 | Alternative 6 would reconfigure the I-80/Redwood Parkway interchange as a roundabout configuration. The steep grades in this area would not support this configuration. The roundabout configuration would not balance the flow of traffic in and out of the interchange. |
| 7 | Alternative 7 would reconfigure the I-80/Redwood Parkway interchange as an urban interchange configuration. It would be difficult to construct and stage, as it would have to be right on top of the existing bridge. A new bridge over I-80 would be required (see Alternative 3 for impacts). Alternative 7 eliminates access to westbound I-80 from Fairgrounds Drive. This alternative would also require three westbound through travel lanes on Redwood Parkway. |

| Alternative | Summary of Reason for Withdrawal |
|---|---|
| VA 1.1 | Alternative VA 1.1 would improve the existing I-80 Redwood Parkway interchange by adding lanes. Modification of the existing interchange configuration does not work from an operational standpoint. The five-legged intersection at westbound I-80 Ramps/Redwood Street/Fairgrounds Drive would operate at LOS E under 2035 evening peak commute hours. In addition, the queuing associated with the evening peak traffic conditions at all intersections would cause unacceptable congestion and block adjacent intersections. |
| VA 1.2 | Alternative VA 1.2 would improve the existing eastbound I-80 ramps by adding lanes. The queuing associated with the 2035 evening peak traffic conditions at the existing eastbound I-80 Ramps/Admiral Callaghan Lane intersection and the Redwood Parkway/Admiral Callaghan Lane/I-80 EB exit ramp intersection would cause unacceptable congestion and block adjacent intersections. |
| VA 1.3 | Alternative VA 1.3 would construct a diverging diamond interchange serving the eastbound I-80 ramps/Redwood Parkway intersection. This alternative is not feasible due to the close proximity of the Redwood Parkway/Admiral Callaghan Lane intersection, and the 8 percent grade that would need to be maintained in order to use the existing overcrossing structure. In addition, this alternative poses substantial schedule delays as this interchange type has not been accepted in California. |

Source: HQE, Inc., 2011

## PERMITS AND APPROVALS NEEDED

**Table 1-3** identifies the permits/approvals that would be required for project construction.

Table 1-3 Permits and Approvals

| Agency | Permit/Approval | Status |
|---|---|---|
| United States Army Corps of Engineers | Section 404 Permit – Nationwide | Issued during the Final Design Phase |
| United States Fish and Wildlife Service | Concurrence with “no effect” determination | Issued during the Final Design Phase |
| California Department of Fish and Game | 1602 Agreement | Issued during the Final Design Phase |
| California Water Resources Board | NPDES Permit | Issued during the Final Design Phase |
| Regional Water Quality Control Board | Section 401 Certification | Issued during the Final Design Phase |

Temporary construction easements and/or encroachment permits may be required from the City of Valley and Solano County to accommodate work outside state-owned right-of-way.

## PROJECT COST AND FUNDING

### Cost

The breakdown of remaining anticipated costs is $58,000,000 for the Build Alternative(see **Table 1-4)**.

Table 1-4 Construction Cost Estimate Summary

| | Build Alternative |
|---|---|
| Final design phase (includes 10 percent of construction cost plus 3 percent of right-of-way cost for ROW engineering) | $3,900,000 |
| Construction Management at 12 percent | $4,100,000 |
| Construction Administration at 3 percent | $1,000,000 |
| Construction | $34,300,000 |
| Right-of-Way | $14,7000,000 |
| **Total Cost** | $58,000,000 |

### Funding

The funding for the majority of the project is Local Funding that will come from traffic impact fees. The Fiscally Constrained Solano RTP Project List for submittal to MTC (T2040 Update "Plan Bay Area") was adopted by the STA Board on May 22, 2011. Project Number 230313 identifies the Redwood Parkway/Fairgrounds Drive Improvements project as Fiscally Constrained with Committed Funds of $62 million (Local Funding) and $3 million in Discretionary Funds, for a total of $65 million. MTC's RTP update is anticipated to be approved in the spring of 2013.

# 2.0 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

Table 2-1 Issues With No Adverse Impacts

| **Introductory Note:** As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document. | |
|---|---|
| **Growth** | The project would not result in any direct growth-inducing impacts, because no development is tied to the construction of the widening, ramp improvements, and intersection improvements. The Build Alternative would not expand an essential public service and would not require public services once operational. The Build Alternative is not considered growth inducing with respect to removal of an impediment to growth and economic growth. |
| **Parks and Recreational Facilities** | There are no parks and recreation facilities within the project study limits. Three parks are located within a quarter-mile of the project area; Fairmont Park, Dan Foley Community Park, and Camino Alto are each 0.2 miles from the project area. Given the distance between the project area and these parks, no direct or indirect effect from the project construction would occur. In addition, the Build Alternative would not increase population in the area and therefore would not result in an impact to existing parks and recreational facilities in the project area.<br><br>Section 4(f) resources include publicly-owned parks, recreational areas, and wildlife refuges. Additionally, historic sites on or eligible for the *National Register of Historic Places* and archaeological sites on or eligible for the *National Register of Historic Places* and which warrant preservation are protected. There are no parks present in the project area or vicinity that are protected under 4(f). As mentioned above, the closest park is within 0.2 miles of the project area, and is the closest 4(f) resource. There are no historical sites, or wildlife refuges on or near the project area. Therefore, the proposed Build Alternative would have no impact on these resources. |
| **Coastal Zone** | The Build Alternative is not located in the Coastal Zone. As such, no coastal resources would be directly affected by construction or operation of the Build Alternative. |
| **Wild and Scenic Rivers** | The Build Alternative is not located near any rivers designated as part of the National Wild and Scenic Rivers System. The closest designated river, the American River, is over 50 miles away. As such, no wild or scenic rivers would be directly affected by construction or operation of the Build Alternative. |

| *Issues With No Adverse Impacts, continued.* | |
|---|---|
| **Farmlands/Timberlands** | There is no land used for, designated as, or zoned as agricultural or timberland in the project area.[1] The project area is made up of residential and commercial uses, with surrounding uses that include public facilities and other planned developments. There are lands used for grazing purposes to the east of the Build Alternative, but it is physically separated from the project area by several freeways and commercial and residential developments. Therefore, no farmland or timberland would be affected by the Build Alternative. |
| **Utilities** | The Build Alternative is a transportation improvement project, and would not directly increase in the number of residences within the project area. . Therefore, there would be no increase in demand to water, wastewater, or electrical and natural gas services, and utility services in the project area would not be disrupted as a result of project construction or operation. Additionally, the Build Alternative would not conflict with any utility facilities in the project area, and no utility relocations would occur as a result of the project. As such, there would be no utilities affected by the Build Alternative. |
| **Emergency Services** | Police protection within the project area is provided by the Vallejo Police Department and the California Highway Patrol. Fire protection is provided by the Vallejo Fire Department. No property of emergency providers would be acquired or used for the Build Alternative. Project implementation is anticipated to reduce congestion, thereby improving safety for motorists and maintenance workers. The reduction in congestion would help emergency crews reach their destinations faster.<br><br>Project construction may result in a temporary increase in localized delays and congestion at some locations within the project area. These impacts are considered temporary and are not expected to adversely affect emergency services. Further, a detailed Traffic Management Plan (TMP) would be developed to minimize potential traffic delay impacts that construction activities would have on the traveling public and emergency services. |
| **Energy** | The Build Alternative involves no planned use of natural resource beyond fuel and energy needed during construction activities. Furthermore, the Build Alternative would help reduce wasteful energy consumption by improving operations and alleviating congestion. When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the Build Alternative would not have substantial energy impacts. |

[1] Department, 2012c.

# 2.1 HUMAN ENVIRONMENT

## 2.1.1 LAND USE

### Existing and Future Land Use

**Existing Land Use Patterns**

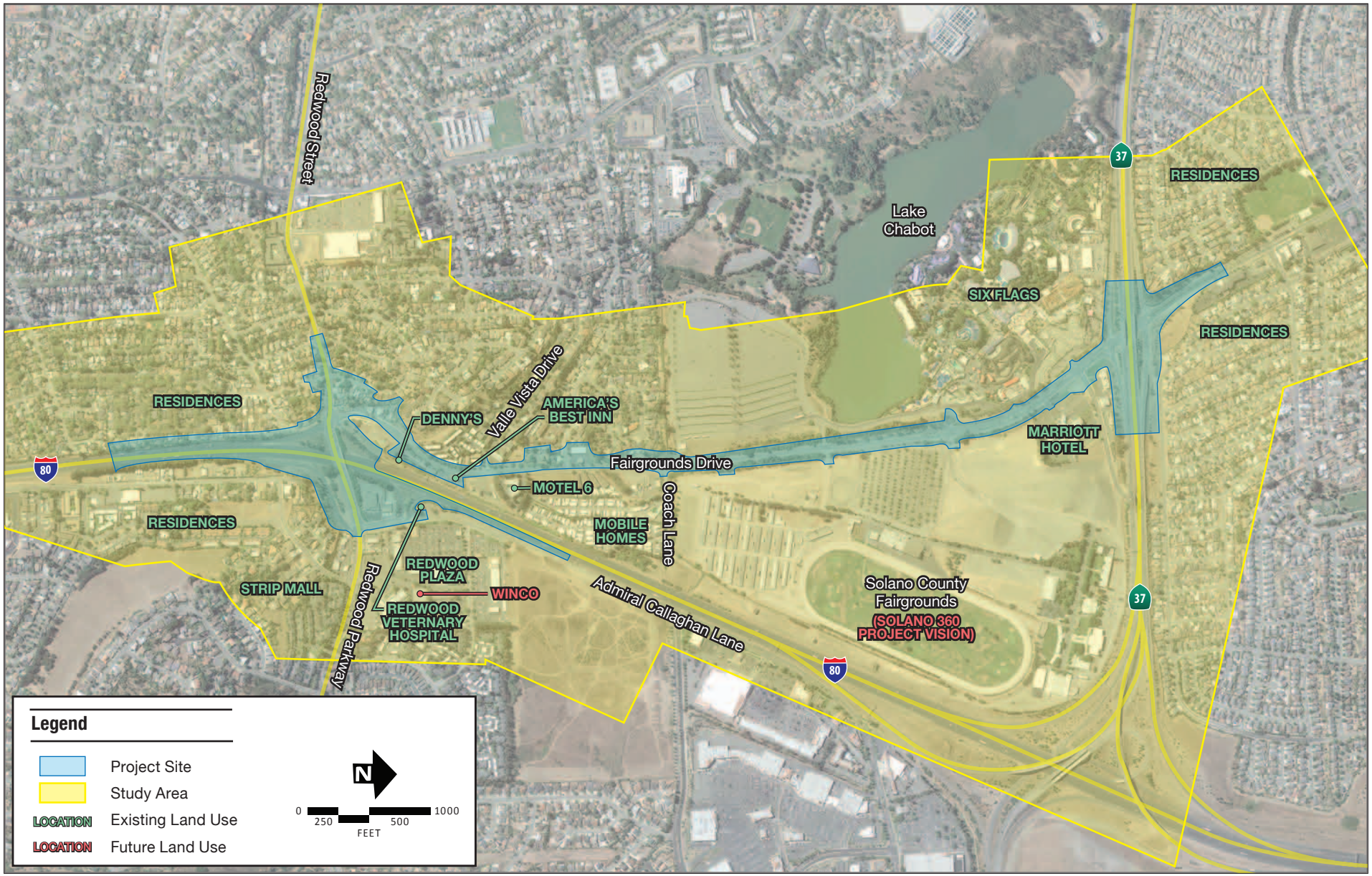
The proposed Build Alternative would be constructed within an existing urban context, with a mixture of commercial, office, residential, and recreation facility developments,. The land use study area is shown in **Figure 2-1**, which includes the proposed Build Alternative and surrounding land uses within 1,000 feet. Beginning at the southernmost portion of the study area, the Redwood Parkway/I-80 and Redwood Parkway/Fairground Drive intersections are surrounded by a mixture of commercial and residential development. The northeastern corner of the Redwood Parkway/I-80 intersection, just west of Admiral Callaghan Lane, includes a furniture store and an equipment rental store. The area to the east of Admiral Callaghan Lane is developed with the Redwood Plaza, which includes a Shell gas station, Safeway grocery store, AutoZone auto supply store, a Starbucks coffee shop, and other small commercial vendors. The Redwood Veterinary Hospital is also located northeast of this intersection.

The area to the south of the Redwood Parkway/I-80 intersection is primarily developed with single-family homes, with the exception of a small strip mall with a pizza delivery shop and other small commercial vendors.

The area surrounding the Redwood Parkway/Fairgrounds Drive intersection is comprised of a mix of single-family and multi-family homes, as well as a gas station, dentist office, Denny's restaurant, and an America's Best Inn motel. A private day care facility operates from a single-family home on Redwood Parkway, just west of Fairgrounds Drive.

Farther north along the study area, land uses surrounding the intersection of Valle Vista Avenue/Fairgrounds Drive includes a mix of residential and commercial developments. Multi-family homes, a Chinese restaurant (Annie's Panda Garden), and a surface asphalt-paved parking area utilized for storing vacant mobile homes are located to the south of this intersection. The Lee's Market and Gas Station, JJ's Fish and Chicken restaurant, and Motel 6 motel are located near the Sereno Drive/Fairgrounds Drive intersection.

The area on Fairgrounds Drive between Valle Vista Avenue and Coach Lane is developed with multi-family homes and medical office buildings, as well as vacant lands. The area between Coach Lane and SR 37 on Fairgrounds Drive is primarily developed with recreational facilities. Six Flags Discovery Kingdom Amusement Park (Six Flags) and associated surface parking areas are located to the west of Fairgrounds Drive. Lake Chabot is also on the west side of Fairgrounds Drive. The Solano County Fairgrounds and associated surface parking areas are located to the east, along with a Courtyard Marriot hotel and fast-food restaurants. The area to the north of SR 37 on Fairgrounds Drive is comprised of single-family homes, a gas station, and Best Western Inn hotel.




**Land Use Study Area and Existing and Future Land Uses**

**Figure 2-1**

*Source: Circlepoint, Google Earth, 2011.*

### Planned Development

There are two planned developments within the land use study area. Solano County and the City of Vallejo are planning for the redevelopment of the 149-acre Solano County Fairgrounds property. The Solano County Fairgrounds are now expected to be redeveloped with a mixture of hotel, retail, and entertainment uses as described in the Solano 360 Vision Report, dated May 28, 2009. The Solano 360 Project Vision seeks to establish a pedestrian-friendly, community gathering place, and destination for visitors. In addition, the project intends to generate revenues for the County and City, introduce a mix of complementary land uses, and to enhance the physical connectivity with the adjacent Six Flags Discovery Kingdom, downtown Vallejo, and existing commercial operations. This redevelopment is expected to be in place by 2030. **Figure 2-1** shows planned projects in the project vicinity.

The City of Vallejo is currently processing a plan to construct a new Winco Foods Store (a discount grocery store) at the intersection of Redwood Parkway and Admiral Callaghan Lane, within the existing Elks Club property. The project is consistent with the existing commercial development at this intersection.

## Consistency with State, Regional, and Local Plans and Programs

### Regional Transportation Plans

The project is included in the Metropolitan Transportation Commission's (MTC) fiscal year 2010/2011 Transportation Improvement Program (TIP) as project number SOL090015. MTC approved the financially constrained TIP on October 27, 2010. Following approval by the Department, the Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) incorporated the TIP into the Federal Statewide Transportation Improvement Program (FSTIP) on December 14, 2010.

The project is also included in the fiscally-constrained Solano Regional Transportation Plan (RTP) Project List that was adopted by STA on May 22, 2011. This list was prepared by Solano County for submittal to MTC's 2013 update to its RTP (also known as T-2040 Update "Plan Bay Area").

Consistent with the goals of the 2010/2011 TIP, MTC sponsored development of the San Francisco Bay Area Regional Intelligent Transportation System (ITS) Plan as a roadmap for transportation systems integration in the Bay Area over the next 10 years. The ITS Plan identifies ITS strategies such as vehicle detection, ramp metering, closed caption television cameras, and changeable message signs for the I-80 corridor.

### Solano Bicycle Transportation Plan

In December, 2011, STA published the Final Bicycle Transportation Plan (Bicycle Plan) for Solano County. The Bicycle Plan serves as a guide to planning and engineering professionals to encourage the development of a unified bicycle system throughout the Solano County. The system consists of the physical bikeway routes, way finding signage, and associated amenities such as bicycle lockers, showers, etc. The Bicycle Plan focuses on a bikeway network that will provide origin and destination connections in and surrounding Solano County. The Bicycle Plan includes the potential construction of an off-street bike/pedestrian path (Class I) along Fairgrounds Drive, from Marine World Parkway to Redwood Street.

### City of Vallejo General Plan

The Build Alternative is located within the jurisdiction of the City of Vallejo. The City of Vallejo General Plan provides policies and goals for the development along Fairgrounds Drive.

The City of Vallejo General Plan Circulation and Traffic Element includes planning several goals, objectives and policies that relate to the Build Alternative.

*Mobility Goal:* To have mobility for all segments of the community with a transportation system that minimizes pollution and conserves energy and that reduces travel costs, accidents and congestion.

> Policy 1. When evaluating future expansion of street and highways, consider incorporation of public transit, bicycle and pedestrian right-of-way, and distribution of goods and services as a system to maintain the citizenry, rather than as a system devoted solely to the accommodation of the private automobile.
>
> Policy 4. The toll of deaths and injuries that result from transportation accidents should be kept to a minimum.

*Street and Highway System Goal:* To have a functional street and highway system that provides appropriate access to the industrial, commercial and residential areas of the city.

*Traffic Safety Goal:* To have a street and highway system that is safe to use.

> Policy 3. Sight distances should be consistent with probable traffic speed, terrain and alignments. Horizontal and vertical street alignments should relate to the natural contours of the site insofar as is practical and should be consistent with other design objectives. They should be selected to minimize grading quantities. Existing unpaved street rights-of-way too steep for cars or not needed should be abandoned or unused to provide landscaping.

*Compatibility with Adjoining Land Uses Goal:* To have a street and highway system that services all land uses with a minimum adverse impact.

> Policy 4. Street widening should not be approved in existing neighborhoods where there is significant opposition from the immediate residents. Alternative mitigation should be initiated prior to such widening, including modification of street signalization, rerouting of cross-town traffic, creating one-way streets and eliminating on street parking. Street widening should include street planting to give an immediate landscaped appearance.

**Environmental Consequences**

*Compatibility with Regional Transportation Plans*

The Build Alternative is consistent with the project list included in MTC's TIP, as incorporated into FHWA's FSTIP. The Build Alternative is also consistent with the project list incorporated into STA's current RTP.

The Build Alternative is consistent with MTC's ITS plan in that it proposes to maintain the existing I-80 traffic operations system elements like in-road sensor loops[1], and would include ramp metering at the I-80/Redwood Parkway interchange.

*Compatibility with the Solano Bicycle Transportation Plan*

The Bicycle Plan includes the potential construction of an off-street bike/pedestrian path (Class I) along Fairgrounds Drive, from Marine World Parkway to Redwood Street. Under the Build Alternative, this bike path would be changed to a designated on-street bike lane (Class II). Although the Build Alternative does not propose the construction of a separated bike path, such as the one proposed in the Bicycle Plan, the proposed improvements would establish the bicycle network connectivity the Bicycle Plan intended to establish along Fairgrounds Drive. As such, the proposed Build Alternative is not considered to be in conflict with the Bicycle Plan.

*Compatibility with City of Vallejo General Plan*

The Build Alternative is consistent with the applicable goals and policies presented in the Circulation and Traffic Element of the City of Vallejo General Plan. The Mobility Goal encourages mobility for communities with a transportation system that minimizes pollution, conserves energy, and reduces travel costs, accidents and congestion. The Build Alternative would alleviate roadway congestion by increasing the capacity of the local roadway to accommodate for existing and planned increases in traffic. This in turn would minimize pollution and conserve energy usually emitted or wasted by idling automobiles.

The Build Alternative would also be consistent with the Street and Highway System Goal, which encourages functional street and highway systems in the City, and the Traffic Safety Goal, which calls for street and highway systems to be safe for use. As the Build

[1] When you approach a traffic signal you may notice a rectangular "scar" where the road surface has been cut with a saw and then re-sealed. This is the sensor loop. The system detects (through detection loops in the pavement) traffic volumes so that the "green-light" signals can be appropriately timed.

Alternative objectives include improving traffic flow and safety on the local roadway network, the project would be consistent with these goals.

The Compatibility with Adjoining Land Uses Goal promotes street and highways systems that service land uses with a minimum adverse impact. Policy 4 of the goal states that street widening should not be approved in existing neighborhoods where there is significant opposition from the immediate residents. Although the Build Alternative would displace several residential and commercial businesses along the project corridor, these displacements would not divide the existing community within the project area.

**No-Build Alternative**

Under the No-Build Alternative, Fairgrounds Drive would maintain its existing configuration. No realignment of the Fairgrounds Drive/Redwood Street intersection would occur. There would be no improvements to the SR 37/Fairgrounds Drive or I-80/Redwood Parkway/Admiral Callaghan Lane interchanges and there are no improvements proposed to the existing local roadway network, the No-Build Alternative would not increase the local roadway network capacity to accommodate existing and approved redevelopment and growth in the area. In addition, the increased traffic volumes without capacity improvements would most likely worsen the congestion and slow traffic flow on the local roadway network. Without the realignment of the Fairgrounds Drive/Redwood Street intersection, the No-Build Alternative would not improve the current safety issues related to limited sight distance in this area.

As such, the No-Build Alternative is not consistent with any of the applicable local or regional planning documents described above.

**Avoidance, Minimization, and/ or Mitigation Measures**

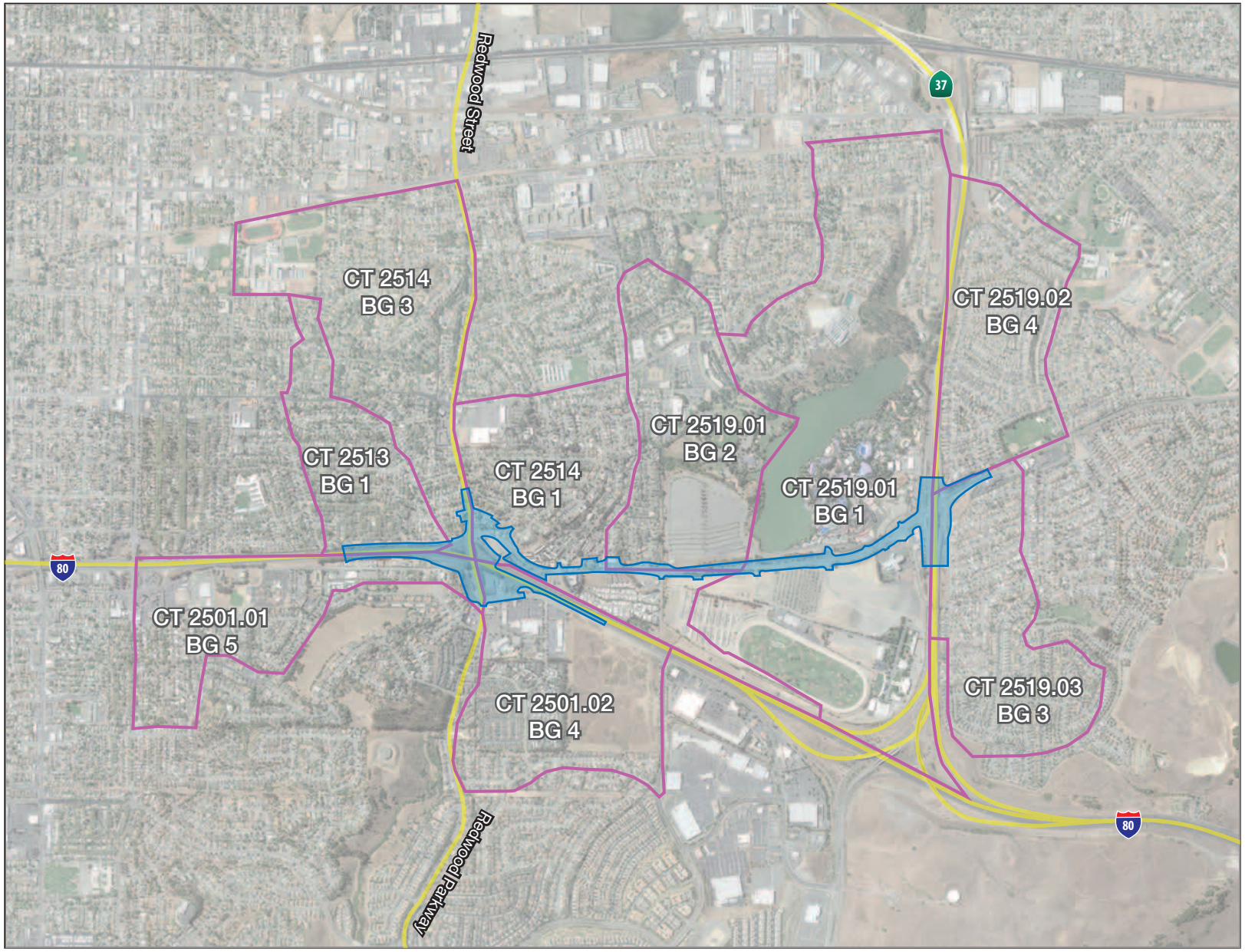
Because the Build Alternative is consistent with local planning goals and policies to improve traffic circulation and improve safety on the local roadway network and at the existing interchange, no minimization or mitigation measures are needed.

## 2.1.2 Community Impacts

### Community Character and Cohesion

The following analysis is based on the Community Impact Assessment (CIA) completed in October 2011 (Department, 2012c). The study area for community impacts from the Build Alternative includes the area to the east and west of Fairgrounds Drive and I-80 and is defined as the census tract block groups that are crossed by or surround the project alignment. The entire study area for community impacts lies within the City of Vallejo.

For the purposes of this analysis, the CIA study area is defined by available statistical data describing the City of Vallejo and the nine census tract block groups that are crossed by or adjacent to the Build Alternative. **Figure 2-2** shows the boundary of each census tract and block group within the vicinity of the CIA study area.




**Legend**

Project Site

Census Tract (CT)/ Block Group (BG) Boundaries

N

0 500 1000 2000
FEET

**Census Tracts and Block Groups in the Project Area**

Figure **2-2**

*Source: U.S. Census Bureau, 2000; Circlepoint, 2011.*

Table 2.1.2-1 Study Area Racial and Ethnic Composition, 2000

| | CT 2501.01 BG 5 | CT 2501.02 BG 4 | CT 2513 BG 1 | CT 2514 | | CT 2519.01 | | CT 2519.02 BG 4 | CT 2519.03 BG 3 | City of Vallejo |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | BG 1 | BG 3 | BG 1 | BG 2 | | | |
| Total Population | 1,547 | 1,831 | 1,038 | 2,186 | 1,859 | 2,005 | 1,231 | 2,228 | 2,377 | *116,760* |
| White | 638 | 336 | 741 | 964 | 1,173 | 307 | 578 | 137 | 177 | *35,533* |
| Hispanic or Latino | 231 | 154 | 100 | 271 | 215 | 214 | 150 | 323 | 270 | *18,591* |
| Black/African American | 332 | 539 | 64 | 449 | 218 | 1,073 | 258 | 664 | 1,255 | *27,201* |
| American Indian and Alaska Native | 3 | 5 | 2 | 9 | 4 | 5 | 1 | 3 | 5 | *547* |
| Asian | 264 | 666 | 73 | 327 | 161 | 351 | 165 | 954 | 518 | *27,829* |
| Native Hawaiian and Other Pacific Islander | 4 | 12 | 6 | 29 | 5 | 16 | 30 | 28 | 16 | *1,188* |
| Some Other Race | 2 | 3 | 0 | 5 | 6 | 6 | 4 | 9 | 4 | *312* |
| Two or More Races | 73 | 116 | 52 | 132 | 77 | 33 | 45 | 110 | 132 | *5,559* |
| Minority Population (Percentage) | 58.8% | 81.6% | 28.6% | 55.9% | 36.9% | 84.7% | 53% | 93.9% | 92.6% | *69.6%* |

Source: U.S. Census, 2000.
Notes: CT= Census tract, BG = Block group

### Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S.C. 4331 (b)(2)]. The Federal Highway Administration (FHWA) in its implementation of NEPA [23 U.S.C. 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services. Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

### Affected Environment

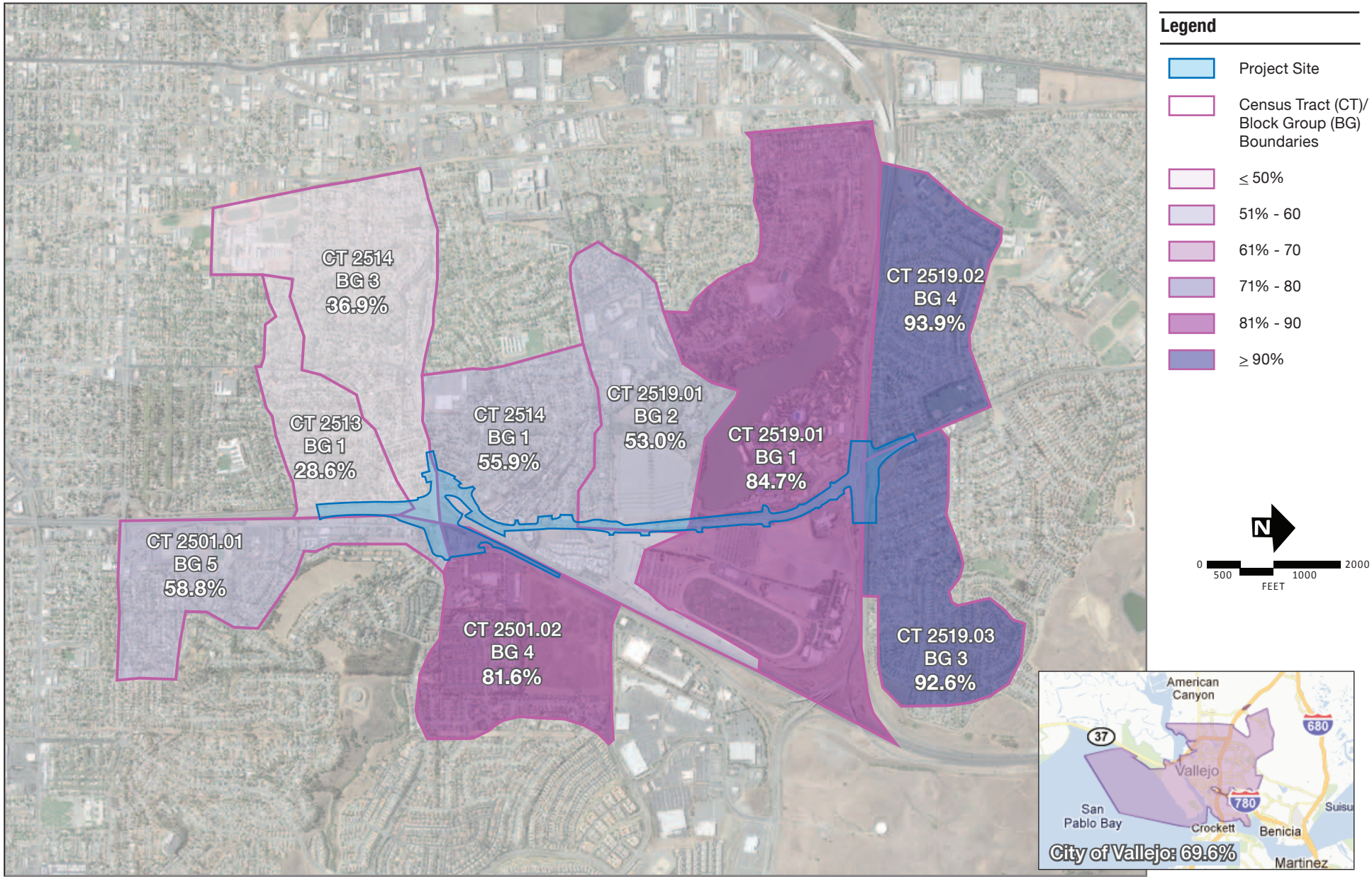
*Demographic Profile*

City of Vallejo has a population of 116,760 in 2000, with the CIA study area comprising approximately 14 percent of the total population.

**Table 2.1.2-1** shows the racial and ethnic composition of the City of Vallejo and the CIA study area. The racial and ethnic composition of the City is comprised of predominantly 30 percent Whites, 24 percent Asians, 23 percent Black/African American, and 16 percent Hispanic or Latino. Overall, the minority[2] population in the City of Vallejo is approximately 70 percent. The minority population within Build Alternative's nine census tract block groups ranges from 28.6 percent to 93.9 percent. As shown in **Figure 2-3**, census tract block groups with higher minority populations are concentrated in the eastern portion of the Build Alternative. As a whole, the CIA study area is comprised of predominantly of 31 percent Whites, 21 percent Asians, 30 percent Black/African American, and 12 percent Hispanic or Latino. The CIA study area has a similar racial and ethnic composition to the City of Vallejo, with the exception of a higher Black/African American population and a lower Asian and Hispanic or Latino population in the study area when compared to the City.

Median household incomes in the City of Vallejo ($50,030) are well above the State average ($47,493), but below the Solano County average ($54,099). **Table 2.1.2-2** shows the income and poverty levels for the CIA study area in comparison to the City of Vallejo. The median household income within the CIA study area ranges from $45,684 to $77,245. With the exception of two census tracts, the median household incomes within the CIA study area are well above the City's average. Per capita income in the City of Vallejo ($20,415) is below the State average ($22,711) and Solano County average ($21,731). In

[2] According to Executive Order 12898, the term "minority" includes any individual who is American Indian or Alaskan Native, Asian or Pacific Islander (including Native Hawaiian), Black/African American (not of Hispanic Origin), or Hispanic/Latino.




**Minority Populations in Project Area**

**Figure 2-3**

*Source: U.S. Census Bureau, 2000; Circlepoint, 2011.*

the CIA study area, per capita income ranges from $18,037 to $42,870. Approximately half of the CIA study area's census tracts are above the City's per capita income average, whereas the other half is below.

Approximately 10.1 percent of the City of Vallejo residents were below the poverty level in 1999, whereas the State average was 14.2 percent and the Solano County average was 8.3 percent. As shown in **Table 2.1.2-2**, the percentage of population in poverty within the study area ranges from 3.2 percent to 10.8 percent. With the exception of census tracts 2519.02 and 2519.03, the study area's population in poverty is well below the City's average. Census tract 2519.02 and 2519.03's population in poverty is slightly higher than the City average.

Table 2.1.2-2 Study Area Income and Poverty, 1999

| | CT 2501.01 | CT 2501.02 | CT 2513 | CT 2514 | CT 2519.01 | CT 2519.02 | CT 2519.03 | *City of Vallejo* |
|---|---|---|---|---|---|---|---|---|
| Per Capita Income | $24,129 | $26,097 | $42,870 | $22,581 | $18,037 | $16,668 | $18,426 | *$20,415* |
| Median Household Income | $64,375 | $77,245 | $56,382 | $50,000 | $45,684 | $58,284 | $62,606 | *$50,030* |
| Population in Poverty | 486 | 232 | 210 | 334 | 525 | 683 | 606 | *11,588* |
| Percentage in Poverty | 6.6% | 3.2% | 6.9% | 6.2% | 9.7% | 10.8% | 10.3% | *10.1%* |

Source: U.S. Census, 2000.
Notes: CT = Census tract

**Table 2.1.2-3** compares the housing characteristics of the CIA study area to the City of Vallejo. Approximately 96 percent of the housing units in the City of Vallejo are occupied. Of these occupied units in the City, approximately 63 percent of the housing units are owner-occupied and 37 percent are renter-occupied units. Within the CIA study area, 97 percent the housing units are occupied. Of the occupied units in the CIA study area, 65 percent of the housing units are owner-occupied and 35 percent are renter-occupied housing units. The study area has a slightly higher percentage of owner-occupied housing units when compared to the City.

*Community Profile*

The CIA study area is comprised of a mixture of commercial, office, residential, and recreational facility developments. Please refer to **Subsection 2.1.1** for a discussion on the existing land use patterns in the project study area.

Commercial businesses in the CIA study area are concentrated around the Redwood Parkway intersection with Fairgrounds Drive, I-80, and Admiral Callaghan Lane; along Fairgrounds Drive; and at the intersection of Fairgrounds Drive and SR 37. Businesses in the CIA study area include gas stations, restaurants including fast-food chains, hotels/motels, and neighborhood-serving businesses such as grocery stores and markets.

A dental office, medical office building, veterinary hospital, and a private day care facility are also located within the CIA study area.

Residential neighborhoods are located in the southern and northern portions of the CIA study area. In the southern portion of the CIA study area, the Redwood Parkway/I-80 and Redwood Parkway/Fairground Drive intersections are surrounded by a mixture of single-family and multi-family homes. Single family homes are located to the west of Fairgrounds Drive from Redwood Parkway to Coach Lane. In the northern portion of the CIA study area, single-family homes are clustered north of SR 37 on both sides of Fairgrounds Drive.

There are no schools or parks located immediately adjacent to the Build Alternative study area. The closest schools, Highland Elementary School and Johnston Copper Elementary School, are located 0.5 mile from the Build Alternative. Three neighborhood community parks are located within a ¼ mile from the Build Alternative.

### Environmental Consequences

*Build Alternative*

Impacts to neighborhoods arising from transportation projects are generally related to the division of existing neighborhoods. According to the Department's *Environmental Handbook Volume 4 – Community Impact Assessment*, transportation projects may divide neighborhoods when they act as physical barriers or when they are perceived as psychological barriers by neighborhood residents. In addition, transportation project perceived as physical or psychological barriers may isolate a portion of a neighborhood. This is a particularly sensitive issue within ethnic neighborhoods.

However, transportation projects may also increase cohesion within neighborhoods by diverting vehicular traffic to other roadways and increasing the desirability of pedestrian activity through a neighborhood.

The Build Alternative would involve the widening of Fairgrounds Drive, modifications to the I-80/Redwood Parkway interchange and several intersections in the CIA study area. Implementation of the Build Alternative would impact several parcels and require the displacement of several residential and commercial uses in the CIA study area, predominantly along Fairgrounds Drive between Redwood Street and Sereno Drive.

Businesses displaced along Fairgrounds Drive provide commercial services ranging from medical offices, lodging and food services, to gas and furniture sales. Displacement of these businesses is not anticipated to adversely affect the local community because there are several other businesses in the project study area that offer these same services.

Residential displacements would primarily occur near the intersection of Fairgrounds Drive and Redwood Street and near the intersection of Fairgrounds Drive and Sereno Drive. These residential uses are located at the periphery of the residential neighborhoods and comprise a relatively small proportion of these neighborhoods. The residential displacements are not expected substantially alter the physical character of the neighborhood nor divide, fragment or break up the community. Potential displacements are further discussed in **Relocation and Real Property Acquisition**, below.

Table 2.1.2-3 Study Area Housing Characteristics, 2000

| | CT 2501.01 | CT 2501.02 | CT 2513 | CT 2514 | | CT 2519.01 | | CT 2519.02 | CT 2519.03 | Study Area Total | *City of Vallejo* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BG 5 | BG 4 | BG 1 | BG 1 | BG 3 | BG 1 | BG 2 | BG 4 | BG 3 | | |
| Average Household Size | 2.7 | 2.6 | 2.5 | 2.5 | 2.4 | 2.8 | 2.2 | 3.9 | 3.5 | 2.78* | *2.9* |
| Total Housing Units | 581 | 728 | 437 | 938 | 792 | 730 | 419 | 567 | 692 | 5,884 | *41,219* |
| Occupied Housing Units | 571 | 707 | 424 | 857 | 775 | 706 | 409 | 560 | 678 | 5,687 | *39,601* |
| Owner Occupied Units | 309 | 197 | 362 | 452 | 608 | 493 | 209 | 485 | 598 | 3,713 | *25,020* |
| Renter Occupied Units | 262 | 510 | 62 | 405 | 167 | 213 | 200 | 75 | 80 | 1,974 | *14,581* |
| Vacant Units | 10 | 21 | 13 | 81 | 17 | 24 | 10 | 7 | 14 | 197 | *1,618* |

Source: Notes: CT = Census tract, BG = Block group
* This number indicates the average household size in the project area.

*No-Build Alternative*

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways within the study area, and would therefore avoid the effects to community character and cohesion associated with the Build Alternative.

### Avoidance, Minimization, and/ or Mitigation Measures

As the Build Alternative would not significantly affect the character and/or cohesiveness of the study area, no avoidance, minimization, and/or mitigation measures would be required.

## Relocation and Real Property Acquisition

### Regulatory Setting

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

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S.C. 2000d, et seq.). Please see **Appendix C** for a copy of the Department's Title VI Policy Statement.

### Affected Environment

Most of the proposed improvements would be constructed within the existing right-of-way. However, in order to widen Fairgrounds Drive between Redwood Street and SR 37 and to relocate the existing Fairgrounds Drive/Redwood Street intersection approximately 200 feet west of its current location, the Build Alternative could require the acquisition of commercial and residential properties adjacent to these areas. These affected properties are concentrated mainly in the southern portion of the project study area.

### Environmental Consequences

*Build Alternative*

Based on preliminary design, implementation of the Build Alternative would impact private property in several areas within the study area including portions of Fairgrounds Drive, along Redwood Parkway/Redwood Street, along Moorland Street, along Sereno Drive, and along Admiral Callaghan Lane all within the City of Vallejo. **Figures 2-4** and **2-5** depict the proposed parcels that would be affected by the Build Alternative.

The Build Alternative would impact 37 parcels in total. Out of these 37 impacted parcels, 7 are vacant and do not contain structures on site. The majority of the parcels consist of existing single/multi-family residential uses and several single/multi-commercial uses.

Residential Property Acquisition

The Build Alternative would affect 20 existing single/multi-family residential parcels along Fairgrounds Drive, Redwood Street, and Moorland Street due to the proposed widening of Fairgrounds Drive and the relocation of the Fairgrounds Drive/Redwood Street intersection. Of the 20 residential parcels, 19 of these residential parcels currently contain existing single family/multifamily homes.[3] The Build Alternative may result in the displacement of 14 of the 19 existing single/multi-family residences.

**Table 2.1.2-4** lists the potentially affected residential parcels based on preliminary design information. Parcels are listed in order from east to west within the project area and correspond to **Figures 2-4** and **2-5**.

According to the 2010 U.S. Census, there are 44,433 total housing units in the City of Vallejo. Of these, 3,874 housing units are vacant, representing approximately 9 percent of the total housing units in the City of Vallejo. Given the high vacancy rate of housing units within the City, there are sufficient resources for the impacted residents to relocate within the City and community, if necessary.

Commercial Property Acquisition

The Build Alternative would affect 17 commercial parcels along Fairgrounds Drive, Admiral Callaghan Lane, and Sereno Drive due to the proposed widening of Fairgrounds Drive, the relocation of the Fairgrounds Drive/Redwood Street intersection, and the design modification of the I-80/Redwood Parkway interchange. Of the 17 commercial parcels, 11 of these commercial parcels currently contain existing structures.[4] Ten businesses along Fairgrounds Drive would be impacted as a result of implementing the Build Alternative. Of these ten existing businesses, the Build Alternative may result in displacement of six businesses. **Table 2.1.2-5** lists the potentially affected commercial parcels based on preliminary design information. Parcels are listed in order from east to west within the project area and correspond to **Figures 2-4** and **2-5**.

Among the businesses potentially displaced by the Build Alternative include Lee's Market and Gas, medical offices, Annie's Panda Garden Restaurant, America's Bets Inn, 76 Gas Station, and American Furniture Galleries. Five of the six businesses potentially displaced provide commercial services ranging from lodging and food services, to gas and furniture sales. The medical office building does not appear to provide emergency services. Impacts to these businesses would not adversely impact the local community because there are several other businesses in the study area that offer these same services.

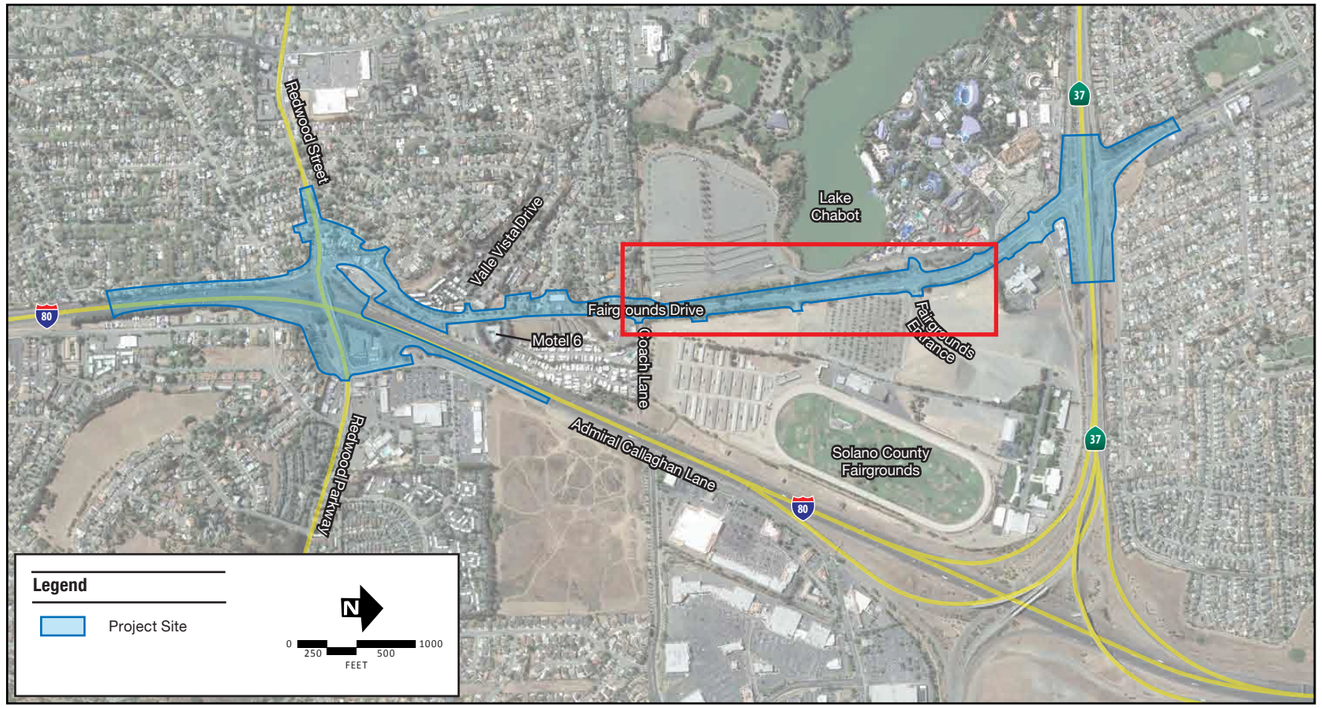
[3] As shown in Table 2.1.2-4, parcel 7 is vacant.

[4] As shown in Table 2.1.2-5, parcels 8, 9, 13, 31, and 32 are vacant. Further parcel 35, the Solano County Fairgrounds, does not have any structures on site and is considered 'vacant.'

Table 2.1.2-4 Potentially Affected Residential Parcels in the Study Area

| Parcel No. | APN No. | Existing use | Size of Parcel | Acres Needed for Build Alternative | Physical Address | Reason for Displacement |
|---|---|---|---|---|---|---|
| 1 | 0052-311-170 | Single family | 0.29 acre | 0.07 acre | 67 Emerald Circle | -- |
| 5 | 0052-303-210 | Single family | 0.33 acre | 0.09 acre | 437 Fairgrounds Drive | Fairgrounds Drive widening |
| 6 | 0052-303-220 | Single family | 0.25 acre | 0.10 acre | No address on record | Fairgrounds Drive widening |
| 7 | 0052-303-230 | Vacant residential | 0.57 acre | 0.13 acres | No address on record | Fairgrounds Drive widening |
| 15 | 0052-270-090 | Single family | 0.37 acre | 0.03 acres | 1345 Del Mar Avenue | -- |
| 16 | 0053-232-350 | Multi-family | 0.32 acre | 0.32 acre | 251 Fairgrounds Drive | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 18 | 0053-232-320 | Single family | 0.17 acre | 0.01 acre | 444 Moorland Street | -- |
| 19 | 0053-232-340 | Single family | 0.15 acre | 0.15 acre | 436 Moorland Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 20 | 0053-232-110 | Single family | 0.14 acre | 0.14 acre | 432 Moorland Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 21 | 0053-232-100 | Single family | 0.18 acre | 0.18 acre | 424 Moorland Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 22 | 0053-232-090 | Single family | 0.17 acre | 0.17 acre | 416 Moorland Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 23 | 0053-232-040 | Single family | 0.12 acre | 0.12 acre | 2624 Redwood Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 24 | 0053-232-050 | Single family | 0.13 acre | 0.13 acre | 2618 Redwood Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 25 | 0053-232-060 | Single family | 0.13 acre | 0.13 acre | 2612 Redwood Street | Relocation of Fairgrounds Drive /Redwood Street intersection |
| 26 | 0053-232-070 | Single family | 0.13 acre | 0.13 acre | 2606 Redwood Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 27 | 0053-232-080 | Single family | 0.13 acre | 0.13 acre | 400 Moorland Street | Relocation of Fairgrounds Drive /Redwood Street intersection |
| 28 | 0054-082-180 | Single family | 0.15 acre | 0.15 acre | 20 Howard Avenue | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 29 | 0054-082-190 | Single family | 0.19 acre | 0.19 acre | 2519 Redwood Street | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 30 | 0054-083-180 | Single family | 0.26 acre | 0.06 acre | 330 Moorland Street | -- |
| 36 | 0054-083-100 | Single family | 0.67 acres | 0.01 acre | 328 Moorland Street | -- |

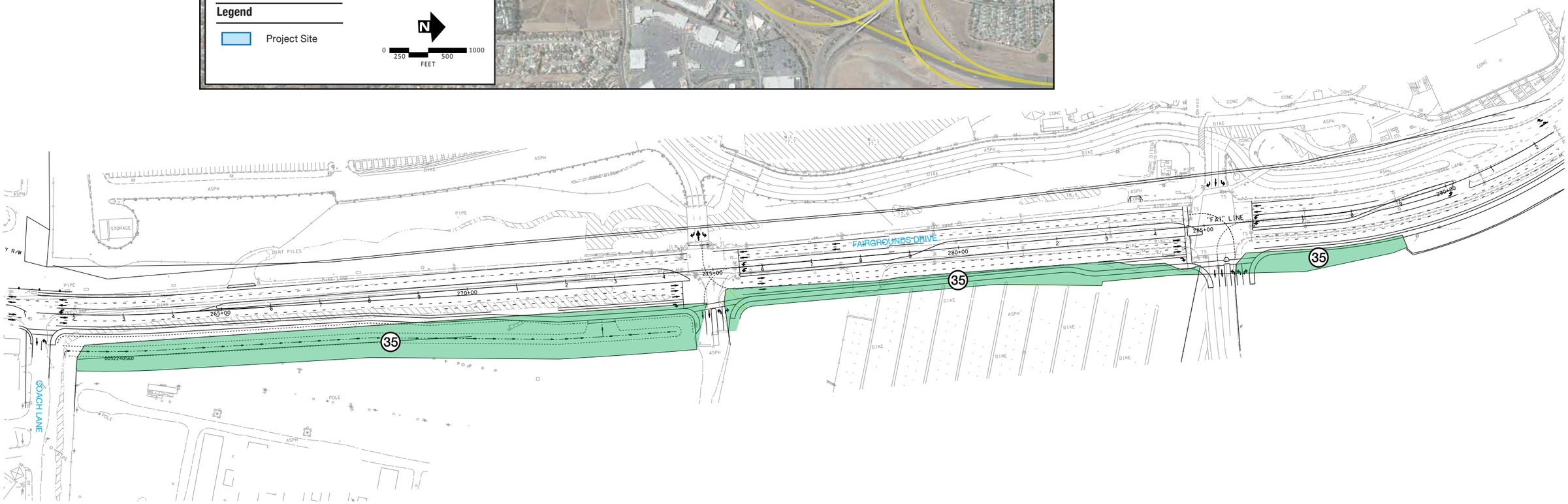
Parcel No. corresponds to Figures 2-4 and 2-5Source: Department, 2012c.




**Legend**

Areas Impacted by Project

(#) Parcel Number
*(refer to Table 2.1.2-5)*

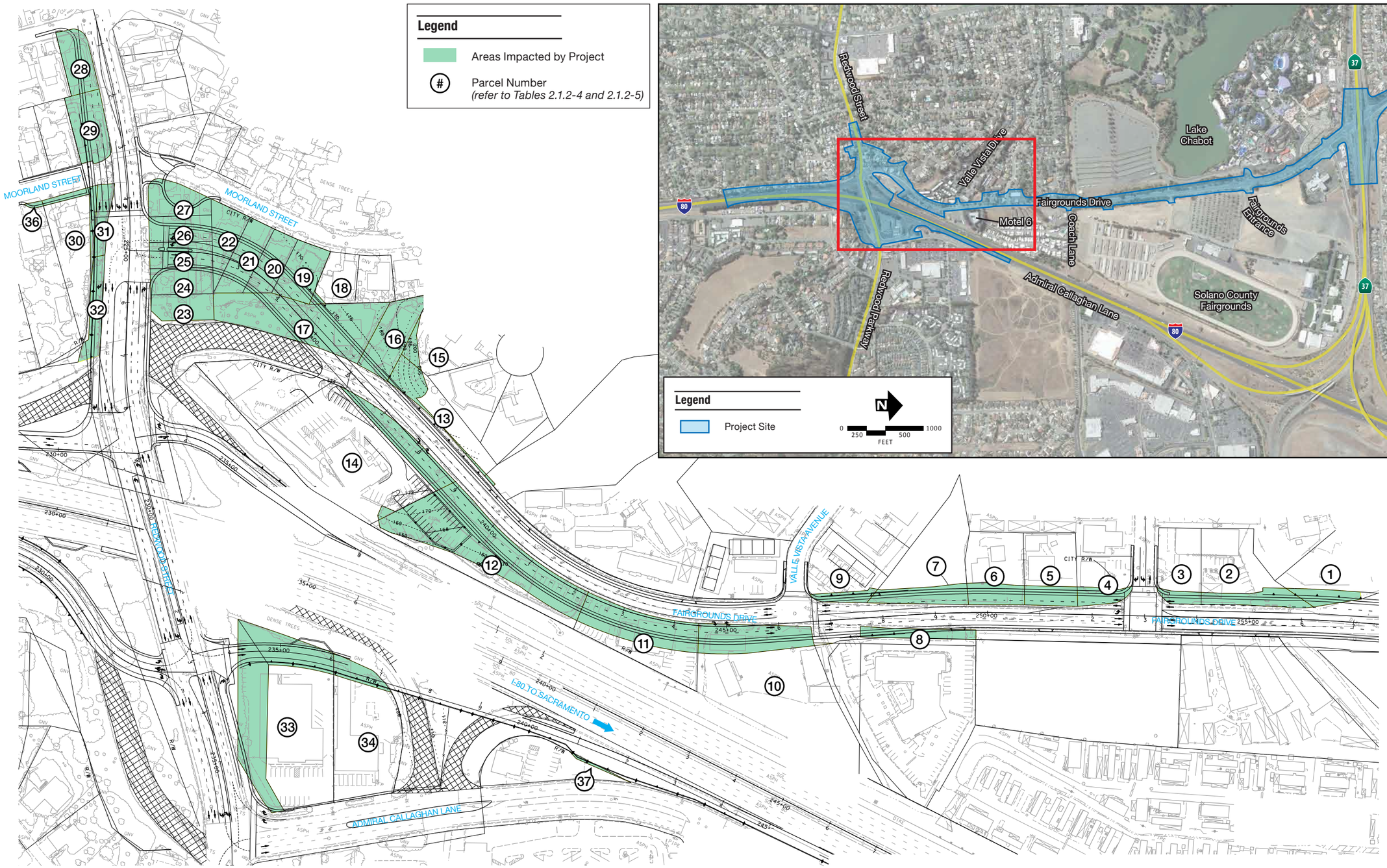



**Proposed Right-of-Way Acquisitions**

Figure **2-4**

*Source: Department, 2012c.*

*Figure 2-4 Property Right-of-Way Acquisitions (back)*




**Proposed Right-of-Way Acquisitions**

Figure 2-5

*Source: Department, 2012c.*

Figure 2-5 Property Right-of-Way Acquisitions (back)

Table 2.1.2-5 Potentially Affected Commercial Parcels in the Study Area

| Parcel No. | APN No. | Business Name | Size of Parcel | Amount to be Acquired | Physical Address | Reason for Displacement |
|---|---|---|---|---|---|---|
| 2 | 0052-302-080 | Lee's Market & Gas (Multi-business) | 0.52 acre | 0.12 acre | 511 Fairgrounds Drive | Fairgrounds Drive widening |
| 3 | 0052-302-090 | Lee's Market & Gas (Multi-business) | 0.29 acre | 0.04 acre | 501 Fairgrounds Drive | Fairgrounds Drive widening |
| 4 | 0052-303-010 | Medical Offices (Single business) | 0.18 acre | 0.07 acre | 1999 Sereno Drive | Fairgrounds Drive widening |
| 8 | 0052-320-100 | Vacant (N/A) | 0.04 acres | 0.04 acre | No address on record | Fairgrounds Drive widening |
| 9 | 0052-471-010 | Vacant (N/A) | 0.32 acres | 0.05 acre | No Address on record | Fairgrounds Drive widening |
| 10 | 0052-320-280 | Legacy Homes Sales (Single business) | 1.38 acres | 0.25 acre | 384 Fairgrounds Drive | -- |
| 11 | 0052-320-380 | Annie's Panda Garden Restaurant (Single business) | 0.49 acre | 0.30 acre | 320 Fairgrounds Drive | Fairgrounds Drive widening |
| 12 | 0053-233-070 | America's Best Inn (Single business) | 0.95 acre | 0.73 acre | 300 Fairgrounds Drive | Fairgrounds Drive widening |
| 13 | 0053-232-360 | Vacant (N/A) | 0.17 acre | 0.10 acre | No address on record | Fairgrounds Drive widening |
| 14 | 0053-233-020 | Denny's Restaurant (Single business) | 1.11 acres | 0.20 acre | 250 Fairgrounds Drive | -- |
| 17 | 0053-232-180 | 76 Gas Station (Single Business) | 0.63 acre | 0.63 acre | 223 & 225 Fairgrounds Drive | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 31 | 0054-083-140 | Vacant (Government & Misc.) | 0.15 acre | 0.15 acre | No address on record | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 32 | 0054-083-160 | Vacant (Government & Misc.) | 0.29 acre | 0.29 acre | No address on record | Relocation of Fairgrounds Drive/ Redwood Street intersection |
| 33 | 0069-340-130 | American Furniture Galleries (Single business) | 1.08 acres | 0.57 acre | 709 Admiral Callaghan Lane | Modification of the I-80/Redwood Parkway interchange to a tight diamond configuration |
| 34 | 0069-340-150 | Tell Rental (Single business) | 0.69 acre | 0.08 acre | 711 Admiral Callaghan Lane | -- |
| 35 | 0052-240-560 | Solano County Fairgrounds (Government & Misc.) | 148.62 acres | 3.18 acres | No address on record | Fairgrounds Drive widening |
| 37 | 0069-340-060 | Redwood Veterinary Hospital (Single business)l | 0.21 acres | 0.01 acre | 731 Admiral Callaghan Lane | -- |

Parcel No, correspond to Figures 2-4 and 2-5

Source: Department, 2012c.

Relocation of a business can result in unemployment and associated financial impacts. If the company can relocate within the same area and remain viable, the effects of unemployment would be temporary. The loss of a small business, however, is likely to have a lesser effect on employment in the community because of the fewer number of households affected. Businesses impacted by the Build Alternative would be considered small businesses.

The City of Vallejo's Economic Development Information System indicated that there are approximately 67 office building properties, 30 industrial buildings, 79 retail buildings, and 14 warehouse building vacant in the City of Vallejo. Given the number of vacant commercial properties in the City, there are sufficient existing resources for the impacted commercial businesses to relocate within the community and City, if necessary.

*No-Build Alternative*

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways within the study area, and would therefore avoid relocations or acquisitions associated with the Build Alternative.

### Avoidance, Minimization, and/ or Mitigation Measures

The Department's Relocation Assistance Program would help eligible displaced individuals or businesses move with as little inconvenience as possible. All rights and services provided under Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, would be strictly adhered to. The rights of non-tenured occupants of displaced properties would be preserved.

It is Department policy that persons displaced as a result of Department-sponsored transportation programs shall receive fair and humane treatment and shall not suffer unnecessarily as a result of projects designed for the benefit of the public. No occupants would be required to relocate until comparable replacement housing has been made available to them.

It is possible that some homeowners of the affected properties would have negative equity[5] on their mortgages. In recognition of this issue, the project sponsor will work closely with homeowners and the banks during the property acquisition phase of the project.

As the Build Alternative would provide for the equitable relocation of occupants and businesses, and there are sufficient residential and commercial vacancies available in the area for relocation, no avoidance, minimization, and/or mitigation measures would be required.

[5] Negative equity occurs when the value of an asset used to secure a loan is less than the outstanding balance on the loan. In terms of mortgages, this is also referred to as being "underwater" or "upside down."

## Environmental Justice

### Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2011, this was $22,350 for a family of four.[6]

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

### Affected Environment

Per EO 12898, a population, as evaluated by U.S. census block groups, is subject to environmental justice analysis if it meets at least one of the following criteria:

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

**Tables 2.1.2-1** and **2.1.2-2,** above include pertinent demographic and socioeconomic data for the census tracts and block groups in the study area for use in determining the whether the community qualifies as an environmental justice community.

*Demographic Data: Minority Populations*

**Table 2.1.2-1** summarizes the racial and ethnic composition of the City of Vallejo and block groups located within the study area. Based on the 2000 U.S. Census data, the City of Vallejo has a 69.6 percent minority population. This data indicates that there is a high minority population in the City of Vallejo as a whole. Given that the minority population in the City as a whole is well over 50 percent, the entire City of Vallejo would meet the criteria of an environmental justice community. The minority population within the project area range from 28.6 percent to 93.9 percent. **Figure 2-3** shows the minority population percentages for each block group in the project area.

As previously discussed, an environmental justice community under the minority population threshold would either:

[6] U.S. Department of Health & Human Services. 2011 HHS Poverty Guidelines. <http://aspe.hhs.gov/poverty/11poverty.shtml>. Accessed November 21, 2011.

- be greater than 50 percent of the community population, or
- be more than 10 percentage points higher than the City average.

Seven out of the nine block groups studied have minority populations greater than 50 percent. Out of those six block groups, four block groups in the study area (census tract 2501.01, block group 4; census tract 2519.01, block group 1; census tract 2501.02, block group 4; and census tract 2501.03, block group 3) are comprised of minority populations that are also 10 percent or more above the City's average of 69.6 percent. Two block groups with the study area (census tract 2513, block group 1 and census tract 2514, block group 3), with minority populations of 28.6 percent and 36.9 percent, respectively, are substantially less ethnically diverse compared to the City and surrounding block groups.

However, as a whole, the project area would meet the criteria as an environmental justice community given the minority population is greater than 50 percent.

*Socioeconomic Data: Low-Income Populations*

**Table 2.1.2-2** presents percentage of the population at or below the poverty level in 1999 for the City of Vallejo and the census tracts in the project area.[7] As shown, 10.1 percent of the population within the City of Vallejo is at or below the poverty level. The population in poverty within the project area varies from 3.2 percent to 10.8 percent.

As previously discussed, an environmental justice community under the low-income population threshold would either:

- be greater than 25 percent of the total population of the community, or
- be more than 10 percentage points higher than the City average.

None of the census tracts in the study area have populations in poverty that are greater than 25 percent. With the exception of two census tracts (census tract 2519.02 and census tract 2519.03), the remaining five census tracts in the project area are also below the City's poverty average. The percentage of the population in poverty in census tract 2519.02 and census tract 2519.03 are 10.8 percent and 10.3, respectively. Although these percentages are slightly higher than the City's average of 10.1 percent, they would not qualify as an environmental justice community under the low-income threshold as they are not more than 10 percentage points above the City average.

There are no census tracts within the project area that would meet the criteria as an environmental justice community under the low-income thresholds.

### Environmental Consequences

*Build Alternative*

Although none of the census tracts/block groups in the study area were considered to be low-income environmental justice communities, seven out of none block groups in the study area qualify as environmental justice minority populations as the minority population in these areas are well above 50 percent.

[7] Income and poverty level data is not available at the block group level.

As shown in **Figure 2-6**, displacements associated with the Build Alternative would occur in census tract 2501.02, block group 4; census tract 2519.01, block group 2; census tract 2514, block group 1; and census tract 2514, block group 3. **Table 2.1.2-6** below shows the number of potential displacements (residential and business) associated with each of these four census tracts/block groups.

Table 2.1.2-6 Displacements in Study Area Census Tracts/Block Groups

| CT/BG | Minority Population in CT/BG | Number of Potential Residential Displacements | Number of Potential Business Displacements |
|---|---|---|---|
| CT 2501.02, BG 4 | 81.6% | 0 | 1 |
| CT 2519.01, BG 2 | 53.0% | 0 | 1 (on two parcels) |
| CT 2514, BG 1 | 55.9% | 12 | 4 |
| CT 2514, BG 3 | 36.9% | 2 | 0 |

Source: American Community Survey, U.S. Census Bureau, 2009.

A displacement would occur in census tract 2501.02, block group 4 (minority population of 81.6 percent), however, this is a commercial displacement, and not a residential displacement. Similarly, two commercial displacements would occur in census tract 2519.01, block group 2 (minority population of 53.0 percent). Two residential displacements would occur in census tract 2514, block group 3 (minority population 36.9 percent). In census tract 2514, block group 1, with a minority population of 55.9 percent, 12 residential and 6 business displacements are expected to occur.

Although the Build Alternative would result in the displacement of several homes and businesses within the study area, these displacements would actually occur in the block groups that have a substantially lower minority population than other surrounding block groups and the City of Vallejo as a whole. Given that the City's minority population is 69.6 percent, census tract 2514, block group 1 and 2, and census tract 2519.01, block group 2 are below the City's average. While census tract 2501.01, block group 4 does consist of a minority population above the City's average, the displacement in the community would be limited to one business.

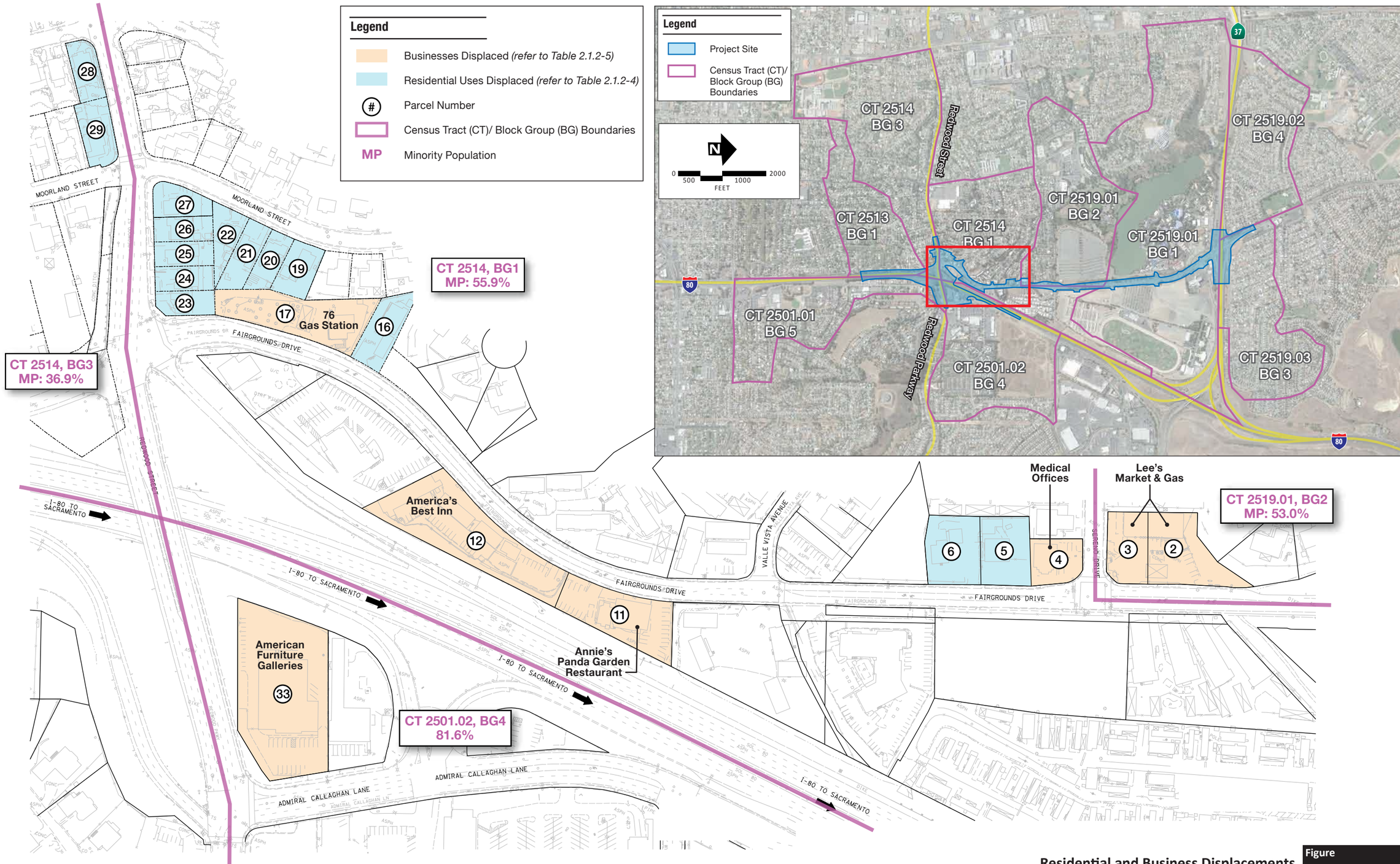
The Build Alternative would occur wholly within an area and community with a high minority population that qualifies as an environmental justice community. As such, the Build Alternative's impacts, including residential/business displacements, increase noise levels and temporary construction-period impacts (e.g. dust and noise impacts) would be borne by this same community. However, as the Build Alternative's purpose is to relieve congestion and improve traffic flow on the local roadway network along Fairgrounds Drive and Redwood Parkway/Redwood Street, the Build Alternative would directly benefit this same community. Given this situation, the environmental effects of the Build Alternative that would be borne by the minority population within the study area would not be more severe or greater in magnitude that the adverse effects that would be suffered by non-minority populations.

*No-Build Alternative*

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the study area. Implementation of the currently planned and funded transportation projects outside the study area but within the project region would be subject to the same potential environmental justice communities as the Build Alternative, since they would occur in the same general region. These projects would be required to comply with E.O. 12898 regarding potentially disproportionate impacts to environmental justice communities. The potentially disproportionate impacts to environmental justice communities would be determined under separate environmental review.

### Avoidance, Minimization, and/ or Mitigation Measures

Based on the above discussion and analysis, the Build Alternative will not cause disproportionately high and adverse effects on any minority or low-income populations as per E.O. 12898 regarding environmental justice. No avoidance, minimization, and/or mitigation measures would be required.




Residential and Business Displacements

Figure 2-6

*Source: Department, 2012c.*

*Figure 2-6 Residential and Business Displacements (back)*

## 2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities

### Regulatory Setting

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

The Department is committed to carrying out the 1990 Americans with Disabilities Act (ADA) by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

### Affected Environment

This section discusses the Build Alternative's effects on motor vehicle traffic and circulation. Information in this section is based on the *Redwood Parkway-Fairgrounds Drive Improvements Traffic Operations Analysis Report* prepared in September 2011 (Department, 2012j).

The study area was developed in consultation with the Solano Transportation Authority (STA), City of Vallejo, Solano County, and the Department, and is intended to capture the potential local and regional traffic effects of the Build Alternative. The study area encompasses an approximately 4.6 mile segment of the I-80 freeway corridor; an approximately 1.7 mile segment of the SR 37 corridor; and 20 local intersections along Fairgrounds Drive and connecting roadways (see **Figure 2-7**).

#### Analysis Approach

The traffic operations analysis evaluates three distinct traffic conditions:

- existing (2010);
- projected opening day of the improvements (2015); and
- 20 years after the opening day(2035).

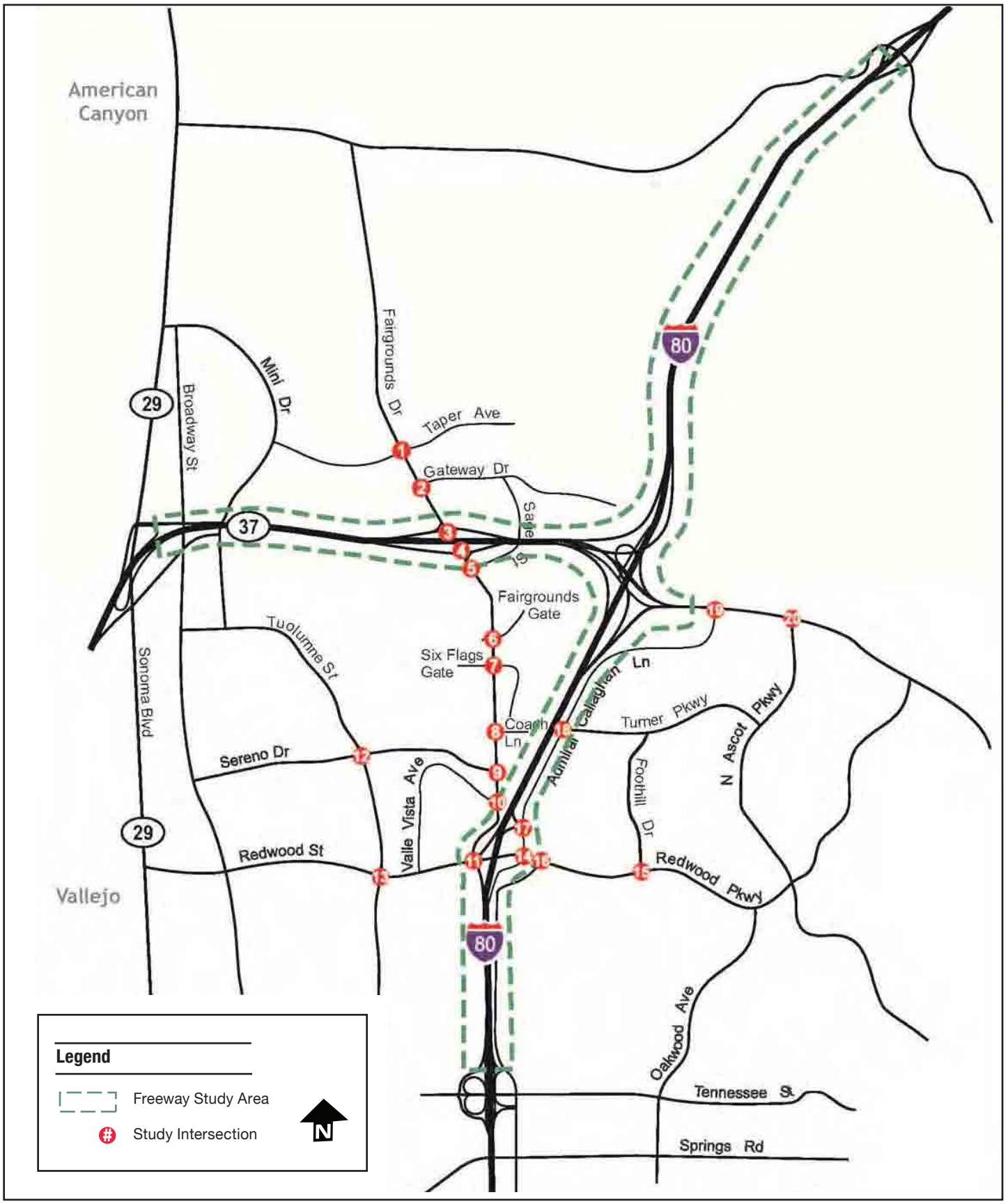
The design and construction phases of the project will be staged to coordinate with a future High Occupancy Vehicle (HOV)/ Toll lanes (express lanes) project along I-80. The portion of the I-80 corridor through Solano County has been identified by the Metropolitan Transportation Commission (MTC) as part of a feasible express lane network throughout the San Francisco Bay Area. STA has completed a study to prioritize implementation of the HOV/express lanes along the I-80 corridor. In order to construct the HOV/express lanes, additional work along the I-80 mainline would be necessary. In order to maximize efficiencies and reduce costs it has been determined that the design and

construction of eastbound improvements on I-80 as part of the Build Alternative should be done concurrently with the future I-80 HOV/express lanes project.

The projected opening day for the Build Alternative improvements located on the west side of I-80 would occur by the year 2015 through multiple construction packages. This includes the modification of the Redwood Parkway/I-80 westbound ramps, the relocation of the Fairgrounds Drive/Redwood Street Intersection, the completion of the Moorland Street cul-de-sacs, the widening of Fairgrounds Drive, the relocation of Rindler Creek, and the modification of the Fairgrounds Drive/SR 37 interchange. All improvements associated with the modification of the Redwood Parkway/I-80 eastbound ramps (east of I-80), including the replacement of the existing Admiral Callaghan hook ramps would be constructed by the year 2035, concurrently with the construction of the I-80 HOV /express lanes Project. This would ensure that the proposed Build Alternative improvements could accommodate any changes in the I-80 eastbound lane widths, or related lane alignment shifts, caused by the future construction of an HOV lane in this area. **Figures 1-2 a - c** identify which Build Alternative improvements would occur in 2035.

The construction of the I-80 HOV /express lanes project is not part of the Build Alternative, and is evaluated under separate environmental review. This environmental document only evaluates the environmental effects associated with the Build Alternative, including those improvements that would occur in 2015 and 2035.

Future traffic conditions were prepared, based on the latest version of the Solano-Napa Phase II countywide transportation model. Modifications to the model were made to improve the representation of the roadway network within the study area, and to ensure that the model accurately reflected planned and funded development and transportation projects expected to be in place by 2015 and 2035. The land use assumptions in the 2010 travel demand model have been used for 2010 land use assumptions; however, the land use assumptions in the model for 2030 did not reflect current expectations about development within the study area. The Solano County Fairgrounds are now expected to be redeveloped with a mixture of hotel, retail, and entertainment uses. This redevelopment is expected to be in place by 2030. Additionally, the existing Elks Club located at 2850 Redwood Parkway, is expected to be replaced in the near future by a small retail development, known as the Winco project. The 2030 land use assumptions in the transportation model were updated to reflect these reasonably foreseeable development projects.




**Traffic Study Freeway Limits and Study Intersections**

Figure **2-7**

*Source: Deptarment, 2012k.*

The current *Transportation Plan for the San Francisco Bay Area*, approved by the MTC in 2009, lists high-occupancy vehicle (HOV)/express lanes to be installed along I-80 from Carquinez straight to Fairfield and beyond. The traffic analysis assumes that HOV/express lanes would be in place by the year 2035 and operational along the segment of I-80 that runs within the study area.

The following measures of effectiveness are used to evaluate traffic conditions within the study area:

- *Number of Vehicles and Persons Served* is a measure of the total throughput of the corridor. This measure takes into consideration the actual volume served versus the demand
- *Average Speed* is a measure of the average speeds on all roadways throughout the study area
- *Total Delay* is the amount of vehicle delay incurred during the peak period as a result of the congestion and demand exceeding the capacity of the highway and/or local roadways
- *Average Delay per Vehicle* is the amount of vehicle delay incurred per vehicle
- *Average Travel Time* is a measure of the time it takes (on average) to travel from one point to another during peak commute hours. The travel time calculation considers the average delay throughout the study area, vehicle queues, and delay caused by merging vehicles.

### Level of Service

Level of Service (LOS) is a measure of actual traffic conditions and the perception of such conditions by motorists. There are six LOS ratings, ranging from LOS A (free traffic flow with low volumes and high speeds, resulting in low vehicle densities) to LOS F (traffic volumes exceeding the capacity of the infrastructure, resulting in forced flow operations, slow speeds, and high vehicle densities). This traffic analysis evaluates traffic operations based on the LOS criteria for highway mainline and weaving segments, local intersections, and peak commute hour vehicle speeds and average travel times. The criteria used in this traffic traffic analysis are consistent with the procedures contained in the Highway Capacity Manual.[8]

### Analysis of Weaving, Merge, and Diverge Areas

The LOS criteria for weaving segments (i.e., ramp junctions); and merge and diverge areas is based on vehicle density (vehicles per travel lane per mile) using the relationships presented in **Tables 2.1.3-1** and **2.1.3-2**. The Department's policy is to maintain highway operations at the LOS D threshold.

[8] The Highway Capacity Manual (2000) is a publication of the United States Transportation Research Board. It contains concepts, guidelines, and procedures for computing the capacity and quality of service of various transportation facilities, including highways, arterial roads, and intersections.

Table 2.1.3-1 LOS Criteria

| LOS | Description | Basic Freeway Sections |
|---|---|---|
| | | Maximum Density (Passenger Car/Lane/Mile) |
| A | Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream | <11 |
| B | Free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted | >11 to 18 |
| C | Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lance changes require more care and vigilance on the part of the driver. | >18 to 26 |
| D | Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort. | >26 to 35 |
| E | Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.[1] | >35 to 45 |
| F | Represents a breakdown in flow | >45 |

Source: Department, 2012j.

Table 2.1.3-2 Freeway Weaving Segments Level of Service Criteria

| LOS | Merge and Diverge Areas | Weaving Segments | |
|---|---|---|---|
| | | Freeway Weaving Segment | Multilane and Collector-Distributor Weaving Segments |
| A | ≤10 | ≤10 | ≤12 |
| B | >10 and ≤ 20 | >10 and ≤20 | >12 and ≤24 |
| C | >20 and ≤ 28 | >20 and ≤28 | >24 and ≤32 |
| D | >28 and ≤ 35 | >28 and ≤35 | >32 and ≤36 |
| E | >35 | >43 | >36 and ≤40 |
| F | Demand Exceeds Capacity | >43 | >40 |

Source: Department, 2012j.

### Intersection Analysis

*LOS Criteria*

At signalized intersections, the LOS rating is based on the average delay of all vehicle movements measured in seconds per vehicle. Peak commute hour traffic volumes, lane configurations, and signal timing plans are used as inputs in the LOS calculations. For all-way stop-controlled (i.e., unsignalized) intersections, the LOS is also based on the average delay of all vehicle movements. At side-street stop-controlled intersections, the LOS rating is based on the level of delay at the worst case vehicle movement. **Table 2.1.3-3** summarizes the relationship between the level of delay per vehicle and LOS for signalized and unsignalized intersections. Each study intersection was analyzed using existing lane configurations and traffic signal timing data provided by the City of Vallejo and the Department. Existing intersection peak hour turning movement volumes are based on numerous counts at intersections and ramps, most of which were conducted during the period 2008 to 2010.

The Departments policy is to maintain intersection operations at the LOS D threshold; however, in existing urban areas, an LOS E is acceptable if there is no practical alternative to the intersection alignment. For the purposes of this analysis, the Department has accepted LOS E as being reasonable for locations at which the No-Build Alternative would have a worse LOS then when compared to the Build Alternative.

The City of Vallejo's *Traffic Impact Analysis/Study Guidelines* considers traffic impacts as "significant" when the traffic volume to roadway capacity (V/C) ratio increases between the No-Build and Build Alternative more than the threshold identified in **Table 2.1.3-4**. For example, an intersection operating as LOS C under both the No-Build conditions and Build Alternative conditions, must have an increased V/C ratio of more than 0.04 for the deterioration of the intersection performance to be considered significant.

*Using LOS to Define the Build Alternative*

The intersection analysis was first conducted under year 2035 conditions for the study intersections that fall within the Build Alternative's limits. Various modifications to the signal phasing, signal timing, and intersection geometry were analyzed to determine the minimum improvements that would be needed to provide an acceptable LOS under the 2035 conditions. For the proposed new and reconfigured intersections at the Redwood Parkway interchange, various alternative configurations were investigated in order to ascertain whether it would be possible to reduce the number of proposed lanes, which in turn would reduce the right-of-way required to provide the proposed improvements. Several different arrangements of the reconfigured eastbound I-80 off-ramp were also analyzed to attempt to minimize the potential for traffic queues overflowing in the short-left turn lanes on Redwood Parkway.

In several cases, there was more than one acceptable design for each intersection. The final design of these intersections was selected in consultation with traffic engineers so that the improvements could accommodate other requirements, such as sight distance, deceleration requirements, and right-of-way availability. The proposed Build Alternative encompasses the best possible intersection designs, based on the predicted 2035 traffic conditions.

Study intersections outside the Build Alternative limits were also studied to verify that no impacts on those intersections would occur as a consequence of the Build Alternative. Signal timing was optimized for the future traffic demand in order to calculate the expected LOS. No geometric improvements are proposed for those intersections.

Table 2.1.3-3 Intersection Level of Service Criteria

| LOS | Description of Traffic Conditions | Average Control Delay Per Vehicle |
|---|---|---|
| **Signalized Intersections** | | |
| A | Insignificant Delays: No approach phase is fully utilized and no vehicle waits longer than on red indication. | ≤10 |
| B | Minimal Delays: An occasional approach to phase is fully utilized. Drivers begin to feel restricted. | >10-20 |
| C | Acceptable Delays: Major approach phase may become fully utilized. Most drivers feel somewhat restricted. | >20-35 |
| D | Tolerable Delays: Drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays | >35-55 |
| E | Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream. | >55-80 |
| F | Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections. | >80 |
| **Unsignalized Intersections** | | |
| A | No delay for stop-controlled approaches. | ≤10 |
| B | Operations with minor delay. | >10-15 |
| C | Operations with moderate delays. | >15-25 |
| D | Operations with some delays. | >25-35 |
| E | Operations with high delays, and long queues. | >35-50 |
| F | Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers. | >50 |

Source: Department, 2012j.

Table 2.1.3-4 City of Vallejo Traffic Impact Guidelines

| LOS | Threshold V/C increase |
|---|---|
| A, B | N/A |
| C | >0.04 |
| D | >0.02 |
| E,F | >0.01 |

Source: 2012j.

### Existing Transportation Facilities

*I-80:* In general, I-80 is a six-lane freeway with three mixed-flow lanes in each direction. The I-80/Redwood Parkway interchange has a mixture of ramp types, as described below. **Figure 2-8a** illustrates the I-80 lane configuration within the project study area.

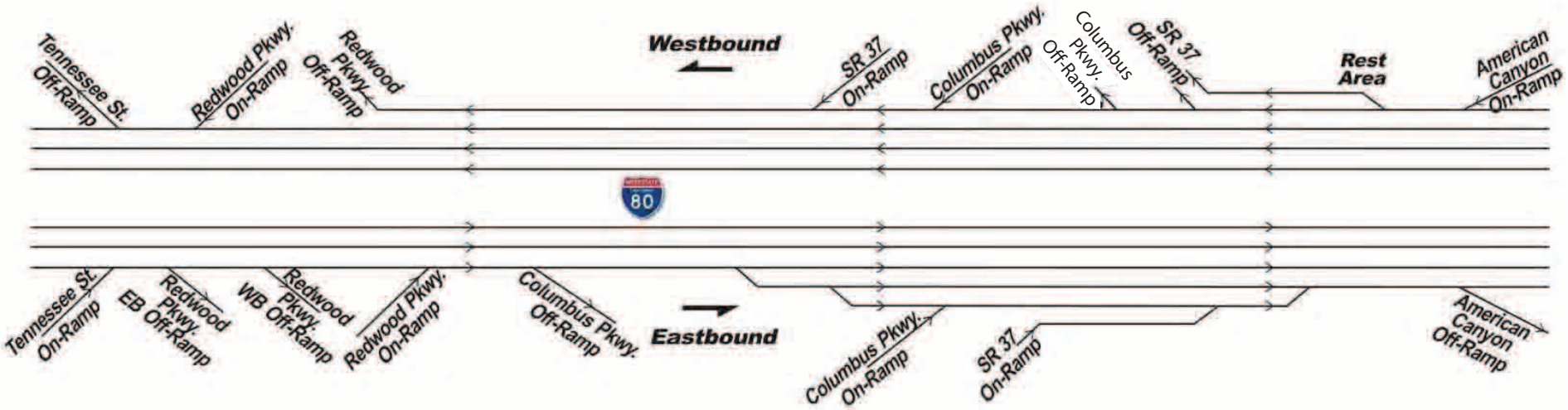
*SR 37:* Within the project study area, SR 37 is a four-lane, east-west freeway connecting SR 29 and I-80 within the City of Vallejo. The majority of this segment was constructed in the mid- to late 1970s while the Fairgrounds Drive/SR 37 interchange was built in the early 1990's. This segment of SR 37 consists of 12-foot lanes, 5-foot left shoulders, and 10-foot right shoulders. The SR 37/Fairgrounds Drive interchange is a tight diamond-shaped interchange. **Figure 2-8b** illustrates the SR 37 lane configuration within the project study area.

*Local Roadways*: Within the traffic study area, Fairgrounds Drive is a conventional two-lane, undivided local arterial with two 12-foot lanes and a continuous two-way left turn lane, flanked by 2 to 4 foot non-standard shoulders. Moorland Street is a two-lane residential roadway that runs parallel to the west of Fairgrounds Drive. The roadway continues south, between Redwood Street and Greenfield Avenue; however, only the northern portion of Moorland Street connects directly to Redwood Street.

*Non-Standard Features*

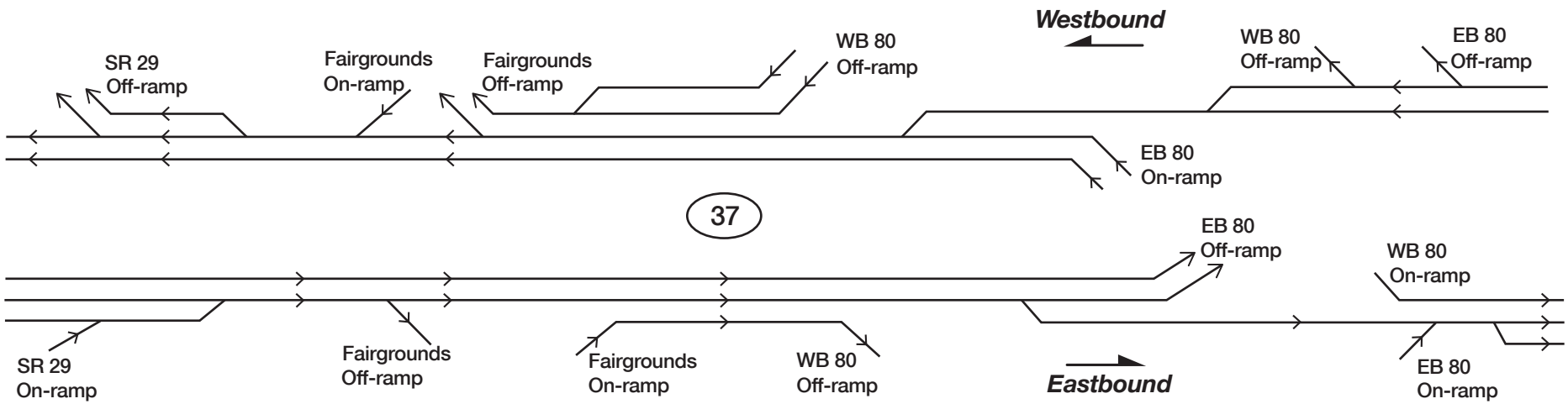
The following non-standard features are present within the traffic study area:

- The existing I-80/Redwood Parkway interchange facility is over 50 years old. Westbound ramps to and from I-80 form a non-standard five-way intersection with Redwood Street and Fairgrounds Drive (see **Figure 2-9**).
- On the east side of the freeway, one eastbound I-80 off-ramp forms a non-standard four-way intersection with Redwood Parkway and Admiral Callaghan Lane (see **Figure 2-10**). Approximately 200 feet north of the four-way intersection, another pair of eastbound I-80 hook ramps connect to Admiral Callaghan Lane, as shown in **Figure 2-11**. The interchange configurations consists of short, tight radius hook ramps connecting to parallel arterial roadways rather than the cross road that they serve.
- The portion of Moorland Street south of Redwood Street is currently a non-standard dead-end that does not provide an adequate turning radius for emergency fire response vehicles.




Existing I-80 Freeway Lanes

Figure 2-8a




Existing SR 37 Freeway Lanes

Figure 2-8b

*Source: Department, 2012k.*

NO SCALE

**Existing Fairgrounds Drive, I-80 WB Ramps, Redwood Street Intersection**

Figure 2-9

*Source: Department, 2012k; Google Earth, 2011.*

NO SCALE

**Existing Redwood Parkway, Admiral Callaghan Lane, I-80 EB Off-Ramp Intersection**

Figure 2-10

*Source: Department, 2012k; Google Earth, 2011.*

NO SCALE

**Existing Admiral Callaghan Lane, I-80 EB Ramps Intersection**

Figure **2-11**

*Source: Department, 2012k; Google Earth, 2011.*

### Existing and No-Build Traffic Conditions

*Merge, Diverge, and Weaving Analysis*

At each location at which there is merge, diverge, or weaving activity, the LOS rating was calculated for the peak commute hours. The results are illustrated in **Table 2.1.3-5** through **Table 2.1.3-8** for both existing and future Build and No-Build conditions. Field observations confirmed that localized traffic congestion does occur in the freeway lanes adjacent to on- and off-ramps. The areas with the worst congestion include the eastbound I-80/SR 37/Columbus off-ramp diverge, the westbound I-80/SR 37 on-ramp merge, and the weaving segment from the eastbound SR 37/Fairgrounds on-ramp to the westbound I-80 off-ramp. These areas experience an LOS F during both morning and evening peak commute hours.

Table 2.1.3-5 Eastbound I-80 Merge, Diverge and Weaving Segment LOS (Build and No-Build)

| Location | Type | Peak Hour | LOS | | | | |
|---|---|---|---|---|---|---|---|
| | | | Existing | 2015 No-Build | 2015 Build | 2035 No-Build | 2035 Build |
| Off-ramp to EB Redwood | Diverge | AM<br>PM | D<br>**E** | D<br>**E** | D[1]<br>**E** | D<br>**F** | D[1]<br>**F** |
| Off-ramp to WB Redwood | Diverge | AM<br>PM | D<br>D | D<br>**E** | | D<br>**E** | |
| On-ramp from Redwood | Merge | AM<br>PM | D<br>**E** | D<br>**E** | D<br>**E** | C<br>**E** | C<br>**E** |

Source: Department, 2012j.
Note: **Bold** indicates unacceptable LOS.
1. Under the Build Alternative, the I-80/Redwood Parkway interchange configuration would result in the consolidation of eastbound freeway off- and off-ramps.

Table 2.1.3-6 Westbound I-80 Merge, Diverge and Weaving Segment LOS (Build and No-Build)

| Location | Type | Peak Hour | LOS | | |
|---|---|---|---|---|---|
| | | | Existing | 2015 | 2035 |
| Off-ramp to Redwood | Diverge | AM<br>PM | C<br>C | C<br>C | D<br>C |
| On-ramp from Redwood | Merge | AM<br>PM | C<br>D | D<br>D | **E**<br>D |

Source: Department, 2012j.
Note: Bold indicates unacceptable LOS
Future Build and No-Build Alternative conditions are the same.

Table 2.1.3-7 Eastbound SR 37 Merge, Diverge and Weaving Segment LOS (Build and No-Build)

| Location | Type | Peak Hour | LOS | | |
|---|---|---|---|---|---|
| | | | Existing | 2015 | 2035 |
| Off-ramp to Fairground | Diverge | AM<br>PM | C<br>D | C<br>**E** | C<br>**E** |
| Fairgrounds on-ramp to the WB I-80 off-ramp | Weave | AM<br>PM | **F**<br>**F** | **F**<br>**F** | **F**<br>**F** |

Source: Department, 2011m.
Note: Bold indicates unacceptable LOS
Future Build and No-Build Alternative conditions are the same.

Table 2.1.3-8 Westbound SR 37 Merge, Diverge and Weaving Segment LOS (Build and No-Build)

| Location | Type | Peak Hour | LOS | | |
|---|---|---|---|---|---|
| | | | Existing | 2015 | 2035 |
| Off-ramp to Fairgrounds | Diverge | AM<br>PM | C<br>C | C<br>C | D<br>C |
| On-ramp from Fairgrounds | Merge | AM<br>PM | C<br>D | D<br>D | **E**<br>D |

Source: Department, 2012j.
Note: Bold indicates unacceptable LOS
Future Build and No-Build Alternative conditions are the same.

*Intersection Analysis*

**Table 2.1.3-9** summarizes the existing traffic conditions at the study intersections. With the exception of the following intersections, the majority of the study intersections currently operate at LOS C or better during the morning and evening peak commute hours. The following study intersections currently operate at unacceptable LOS D or worse during the evening peak period:

- Fairgrounds Drive/Sage Street (LOS F) – Unsignalized
- Fairgrounds Drive at Redwood Street/Westbound I-80 Ramps (LOS D) – Signalized
- Tuolumne Street/Redwood Street (LOS E) – Signalized
- Redwood Parkway/Foothill Drive (LOS D) - Unsignalized

The LOS F rating for the unsignalized intersection of Sage Street/Fairgrounds Drive only represents the left turning movement out of Sage Street. At this intersection, drivers were observed to make a two-stage turn; first picking a gap in the northbound traffic then waiting in the shadow of the central median before picking a gap in the southbound traffic. The drivers' overall delay at this location is therefore more than what is represented in this analysis.

Table 2.1.3-9 Intersection LOS under Existing and 2015 Conditions (Build and No-Build)

| Intersection ID | Study Intersection | Signal Control Type | Existing | | | | 2015 No Project | | | | 2015 With Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | PM | | AM | | PM | |
| | | | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS |
| 1 | Fairgrounds Dr at Taper Ave | Signalized | 19.9 | B | 21.3 | C | 20 | C | 21.2 | C | 20 | C | 21.2 | C |
| 2 | Fairgrounds Dr at Gateway Dr | Signalized | 7 | A | 7.3 | A | 7.3 | A | 7.5 | A | 7.3 | A | 7.5 | A |
| 3 | Fairgrounds Dr at WB 37 Ramps | Signalized | 20.4 | C | 33.1 | C | 20.6 | C | 43.9 | D | 16.3 | B | 17.1 | B |
| 4 | Fairgrounds Dr at EB 37 Ramps | Signalized | 15.6 | B | 22.4 | C | 16.7 | B | 28.3 | C | 14.5 | B | 18.2 | B |
| 5 | Fairgrounds Dr at Sage St | Stop[1,2] controlled[1,2] | 24.7 | C | 59.2 | **F** | 26.6 | D | 88.6 | F | 12.4 | B | 13.3 | B |
| 6 | Fairgrounds Dr at Fairground Gate | Signalized | 3.3 | A | 9 | A | 12.5 | B | 19.4 | B | 9.7 | A | 14.5 | B |
| 7 | Fairgrounds Dr at Six Flags Gate | Signalized | 8.7 | A | 9.3 | A | 5.8 | A | 14.3 | B | 8 | A | 10.1 | B |
| 8 | Fairgrounds Dr at Coach Lane | Stop controlled[1] | 11.6 | B | 16.4 | C | 12.7 | B | 20.7 | C | 14.2 | B | 18.6 | C |
| 9 | Fairgrounds Dr at Sereno Dr | Signalized | 12.4 | B | 17.9 | B | 22.4 | C | 18.1 | B | 17.4 | B | 13.2 | B |
| 10 | Fairgrounds Dr at Valle Vista Ave | Stop controlled[1] | 11.6 | B | 13.3 | B | 12.2 | B | 15.7 | C | 11.1 | B | 13.4 | B |
| 11 | Fairgrounds Dr at Redwood St/WB I-80 Ramps | Signalized | 33.7 | C | 38.7 | D | 33.6 | C | 38.7 | D | NA | | NA | |
| 12 | Tuolumne St at Sereno Dr | Signalized | 27.2 | C | 31.6 | C | 27.7 | C | 30.6 | C | 27.7 | C | 30.6 | C |
| 13 | Tuolumne St at Redwood St | Signalized | 32.4 | C | 59.8 | **E** | 34.8 | C | 62.5 | **E** | 34.8 | C | 62.5 | **E** |
| 14 | Redwood Pkwy at EB I-80 Ramps | Signalized | 27.7 | C | 32.8 | C | 26.6 | C | 28.7 | C | NA | | NA | |
| 15 | Redwood Pkwy at Foothill Dr | Stop controlled[1] | 23.8 | C | 26.9 | D | 27.7 | D | 29.8 | D | 27.7 | D | 29.8 | D |
| 16 | Admiral Callaghan S Ln at Redwood Pkwy | Signalized | 16.3 | B | 24.1 | C | 17.8 | B | 23.4 | C | 13.4 | B | 17.8 | B |
| 17 | Admiral Callaghan Ln at EB I-80 Ramps | Stop controlled[1] | 9.5 | A | 14.7 | B | 9.6 | A | 29.8 | D | NA | | NA | |
| 18 | Admiral Callaghan Ln at Turner | Signalized | 9.9 | A | 14 | B | 8.2 | A | 13.4 | B | 8.2 | A | 13.4 | B |
| 19 | Admiral Callaghan at Columbus | Signalized | 10.5 | B | 26.7 | C | 27.7 | C | 36.3 | D | 27.7 | C | 36.3 | D |

| Intersection ID | Study Intersection | Signal Control Type | Existing | | | | 2015 No Project | | | | 2015 With Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | PM | | AM | | PM | |
| | | | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS |
| 20 | Columbus Pkwy at Ascot Pkwy | Signalized | 11.5 | B | 8.2 | A | 13.2 | B | 11.4 | B | 9.4 | A | 12 | B |
| 21 | Fairground Dr at Redwood St | | | | | | | | | | 6.9 | A | 9.2 | A |
| 22 | Redwood St at I-80 WB Ramps | | | | | | | | | | 17.7 | B | 17.9 | B |
| 23 | Redwood St at I-80 EB Ramps[3] | | | | | | | | | | | | | |
| 24 | Admiral Callaghan N at Redwood[3] | | | | | | | | | | | | | |

Source: Department, 2012j.
Note: **Bold** indicated unacceptable LOS
1 Two-way-stop-control intersection: delay and LOS of the worst movement is reported
2. Signalized intersection in Build scenario
3. I-80 EB ramps will be constructed after the completion of the proposed I-80 HOV lane project (anticipated to be operational in year 2035)

As previously discussed, the intersection analysis was first conducted under year 2035 conditions to determine the minimum improvements that would be needed to provide an acceptable LOS. The proposed Build Alternative encompasses the best possible intersection designs, based on the predicted 2035 traffic conditions. The intersection operations under 2035 conditions are evaluated further below, and illustrate that the Build Alternative would comply with the City's traffic impact thresholds. Because the 2035 conditions represent a worst-case scenario in terms of traffic volumes, an evaluation of intersection operation under the City of Vallejo capacity-based LOS thresholds (V/C ratio) was not warranted for the 2015 condition.

*Pedestrian and Bicycle Facilities*

Fairgrounds Drive has sidewalks on both sides of the roadway from Redwood Street to just north of the intersection with Sereno Drive. The sidewalk on the west side of Fairgrounds Drive is discontinued north of Sereno Drive, while the sidewalk on the east side of the roadway continues all the way to SR 37. North of Sereno Drive to the signalized intersection at the Solano County Fairgrounds Gate, a bicycle lane is present on the east side of Fairgrounds Drive. Sidewalks exist on the north side of Redwood Street/Redwood Parkway. Bike lanes/shoulders are present on both sides of Redwood Street/Redwood Parkway, approaching Fairgrounds Drive, and end just west of the intersection of Redwood Street and Fairgrounds Drive.

## Environmental Consequences

### Opening Year 2015

The improvements proposed under the Build Alternative would have little to no impact on the distribution of traffic within the study area. Based on the 2015 model forecasts, during the morning peak commute hours, there would be a maximum of five additional vehicles attracted to southbound Fairgrounds Drive, and no change in the northbound volume. During the evening peak commute hours, there would be no change in the southbound Fairgrounds Drive volume, an additional four northbound vehicles from Redwood Parkway, and an additional ten northbound vehicles north of Sereno Drive. There would be no impact on the traffic volumes using I-80 or SR 37. Traffic volumes entering and leaving the land use development within the study area would be the same, with or without the Build Alternative. There would be no change in the volumes on Redwood Parkway between the freeway ramp intersections.

*Freeway Mainline Analysis*

When compared to the existing conditions, I-80 and SR 37 freeway mainline operations would generally operate with little to no traffic congestion, at the current LOS ratings. Eastbound I-80 segment between the Tennessee Street on ramp and Redwood Parkway off-ramp would slightly degrade from an LOS C in the morning and LOS D in the evening, to an LOS D and E, respectively. The only improvement in this area that would affect freeway operations is the consolidation of the existing two eastbound I-80 off-ramps. This improvement was accounted for in the operations analysis by manually reassigning traffic counts at this location.

For the westbound direction of I-80 and both directions of SR 37, there would be no difference in the geometry of the freeway, or the associated ramps.[9] As such, there would be no difference in the operation of these sections of freeways with or without the Build Alternative. While the Build Alternative would change the intersection and ramp configurations at Redwood Parkway, the overall capacity of the ramps would not change. It is therefore assumed that the volumes entering and leaving I-80 at this interchange would be the same, under either the Build or No-Build Alternative. **Tables 2.1.3-5** through **Table 2.1.3-8** summarize the overall performance of the study area freeways under the 2015 conditions.

*Merge, Diverge, and Weaving Analysis*

As previously stated, evening peak commute conditions are expected to slightly deteriorate along eastbound I-80 by the year 2015. During the evening peak commute hours, under the No-Build scenario, traffic congestion is expected to occur on the approach to the eastbound I-80/Tennessee Street on-ramp, as the traffic volumes entering the merge area would exceed capacity. This bottleneck is not unexpected, since the existing condition currently shows some localized slowing in the right lanes at this location. Between the eastbound I-80/Tennessee Street on-ramp and the first Redwood Parkway off-ramp, travel speeds would decrease and travel times would increase. Similar traffic congestion is expected to occur under the Build Alternative. The bottleneck would appear at the same location, and the slow traffic beyond the bottleneck to the proposed consolidated Redwood Parkway off-ramp would be the same. There would be little to no difference in the operation of westbound I-80 and both directions of SR 37, between the existing conditions, No-Build, and Build Alternatives. The analysis of localized conditions at the merge, diverge and weaving locations is summarized in **Table 2.1.3-9**.

*Intersection Analysis*

**Table 2.1.3-9** summarizes the study intersection operating conditions for the year 2015 under both the Build and No-Build Alternatives. Under existing conditions, the majority of the study intersections currently operate at LOS C or better during the morning and evening peak commute hours. Four study intersections currently operate at unacceptable LOS D or worse during the evening peak period. With the exception of this improvement, operations under the 2015 No-Build Alternative would generally deteriorate at the majority of the study intersections.

[9] Changes to the intersection geometry (i.e., reconfiguration of the turning lanes) at the westbound I-80 and SR 37 ramp termini would occur, as described in **Section 1.3, Project Description**. However, these intersection improvements are not considered part of the ramp geometry that connects directly to the freeway, and do not have an effect on the freeway mainline operations.

The intersection improvements proposed under the Build Alternative would improve intersection operations under 2015 conditions. With the exception of the following, the majority of the study intersections would operate at LOS C or better during the morning and evening peak commute hours:

- Admiral Callaghan Lane/Columbus Parkway (LOS D-evening peak hours)-Signalized
- Tuolumne Street/Redwood Street (LOS E-evening peak hours)-Signalized
- Redwood Parkway/Foothill Drive (LOS D -morning and evening peak hours) -Unsignalized

There is no difference in operations between the Build and No-Build Alternatives for these intersections. The proposed improvements do not degrade operations over the no build condition.

Because the Build Alternative would improve intersection operations under 2015 conditions, an analysis using the City of Vallejo traffic impact guidelines (V/C ratio) was not required.

*Pedestrian and Bicycle Improvements*

Class II bike lanes[10] and sidewalks would be constructed to fill the gaps along Fairgrounds Drive, and would provide continuous bicycle and pedestrian access from the Redwood Street/Fairgrounds Drive intersection to the Fairgrounds Drive/SR 37 interchange. Pedestrian and bicycle facilities along Redwood Street/Redwood Parkway would remain the same as the existing condition.

The existing sidewalks on both eastbound and westbound Fairgrounds Drive under SR-37 would be relocated to be between the piers and the abutments of the freeway overcrossing. Placing the sidewalks behind the existing overcrossing piers would increase the separation between the people using the sidewalks and the vehicular traffic along Fairgrounds Drive, and should improve pedestrian safety.

In December, 2011, STA published the Final Bicycle Transportation Plan (Bicycle Plan) for Solano County.[11] The Bicycle Plan serves as a guide to planning and engineering professionals in Solano County's jurisdictions, to encourage the development of a unified bicycle system throughout the County. The system consists of the physical bikeway routes, wayfinding signage, and associated amenities such as bicycle lockers, showers, etc. The Bicycle Plan focuses on a bikeway network that will provide origin and destination connections in Solano County as well as to surrounding counties. It is important to note that each city and the County can adopt the Bicycle Plan and meet the state and federal requirements for grant funding sources to develop the projects contained within. However, each jurisdiction can also develop and approve its own bicycle plan, or use some portion of the Bicycle Plan to do so.

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[10] Class II bike lanes are areas within paved streets that are identified with striping, stencils, and signs for preferential (semi-exclusive) bicycle use.

[11] Solano Transportation Authority, 2011.

The Bicycle Plan includes the potential construction of a Class I bike path[12] along Fairgrounds Drive, from Marine World Parkway to Redwood Street. Under the Build Alternative, this bike path would be reduced to a Class II bike lane facility. Although the Build Alternative does not propose the construction of a separated bike path, such as the one proposed in the Bicycle Plan, the proposed improvements would establish the bicycle network connectivity the Bicycle Plan intended to establish along Fairgrounds Drive. As such, the proposed Build Alternative is not considered to be in conflict with the Bicycle Plan.

*Safety Improvements*

The Build Alternative would eliminate the five-way non-standard intersection of westbound I-80/Redwood Street Interchange on- and off-ramps and Fairgrounds Drive. The Build Alternative would improve the angle at which the freeway on and off ramps intersect with Redwood road and separate and move the intersection of Fairgrounds Drive and Redwood Parkway 200 feet to the west. In doing so, the corner sight distance at the peak of the roadway curve on Fairgrounds Drive near Redwood Street would be improved from 55 feet to 300 feet. Eliminating the unconventional five legged intersection should reduce the potential for conflicts due to driver error. Improving the angle of the ramps and the sight distance before the Fairgrounds Drive/Redwood Parkway intersection would aid in improving drivers' ability to avoid crashes, and the maneuverability of turning vehicles through the intersections.

Historic data shows that hook off-ramps have accident rates that are higher than traditional diamond type ramps.[13] The short deceleration and acceleration hook ramps on eastbound I-80 to and from Admiral Callaghan Lane would be eliminated, resulting in increased deceleration length, weaving length and improved sight distance.

### Design Year 2035

An HOV/Express lane will be in place in both eastbound and westbound directions of I-80 by 2035, between Carquinez Strait and Fairfield. No HOV lanes are programmed for SR 37 at this time, and the number of freeway lanes would not change from the current conditions. When comparing year 2015 with design year 2035 conditions, there would be no change in the traffic volumes travelling southbound on Fairgrounds Drive or on westbound I-80. Similarly, There would be no change in the forecast volumes on Redwood Parkway between the I-80 ramp intersections, when comparing 2015 with 2035 conditions.

*Merge, Diverge, and Weaving Analysis*

The analysis of the merge and diverge locations along eastbound I-80 is summarized in **Table 2.1.3-5**. During the morning peak commute period, the merge and diverge locations along eastbound I-80 would operate at an acceptable LOS, while majority of

[12] Class I off-street bike paths are facilities for use exclusively by bicycles and pedestrians, with minimal cross-flow by motor vehicles. They are often located in a separate right-of-way.

[13] Federal Highway Administration. 1997. Statistical models of accidents on interchange ramps and speed-change lanes. Report Number FHWA-RD-97-106. Available online at: http://www.fhwa.dot.gov/publications/research/safety/97106/index.cfm. Last accessed: January 11, 2012.

these same locations would experience LOS E or LOS F during the evening peak commute hours. No congestion is expected in the westbound direction of I-80 or SR 37 under the 2035 condition. Along eastbound SR 37, the weaving section between Fairgrounds Drive and the westbound I-80 off-ramp is expected to continue to have a poor LOS.

*Intersection Analysis*

**Table 2.1.3-10** summarizes the study intersection operating conditions for the year 2035 under both the Build and No-Build Alternatives. Under existing conditions, the majority of the study intersections currently operate at LOS C or better during the morning and evening peak commute hours. Four study intersections currently operate at unacceptable LOS D or worse during the evening peak period. Under 2035 No-Build Alternative evening conditions, the vehicle delay at the majority of the study intersections would deteriorate.

The improvements proposed under the Build Alternative would improve intersection operations under 2035 conditions. With the exception of the following, the majority of the study intersections would operate at LOS C or better:

- Fairgrounds Drive/Coach Lane (LOS F-evening peak hours)-Stop controlled
- Fairgrounds Drive/Valle Vista Ave (LOS F-evening peak hours)-Stop controlled
- Tuolumne Street/Sereno Drive (LOS D-evening peak hours)-Signalized
- Tuolumne Street/Redwood Street (LOS E-morning peak hours, LOS F-evening peak hours)-Signalized
- Redwood Parkway/Foothill Drive (LOS E-morning peak hours, LOS F-evening peak hours)-Stop controlled
- Admiral Callaghan Lane/Columbus Parkway (LOS D-morning peak hours, LOS D-evening peak hours)-Signalized
- Columbus Parkway/Ascot Parkway (LOS F-morning peak hours, LOS D-evening peak hours)-Signalized
- Redwood Street/I-80 eastbound Ramps (LOS D-evening peak hours)-

There are three existing unsignalized intersections within the project limits on Fairgrounds Drive: Sage Street, Coach Lane and Valle Vista Avenue. It is proposed to signalize the Sage Street intersection, and it will operate satisfactorily. As discussed in section 7.1, the low-volume left turn movements at Coach Lane and Valle Vista Avenue, that would experience long delays according to this analysis, are not likely to materialize in practice. Drivers wishing to make these movements are likely to either turn right instead (experiencing much less delay), or (in the case of Valle Vista) choose an alternative route.

The proposed project will not add traffic to any of these intersections, and the project will significantly improve the expected operation in 2035. There is little or no chance that the volumes will exceed the thresholds required to meet a traffic signal warrant during the analysis period at Coach Lane or Valle Vista Avenue, and there are no project impacts that require mitigation.

Table 2.1.3-10 Intersection LOS under Existing and 2035 Conditions (Build and No-Build)

| Intersection ID | Study Intersection | Signal Control Type | Existing Conditions | | | | 2035 No Project | | | | 2035 With Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | PM | | AM | | PM | |
| | | | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS |
| 1 | Fairgrounds Dr at Taper Ave | Signalized | 19.9 | B | 21.3 | C | 28.9 | C | 25.6 | C | 28.9 | C | 25.6 | C |
| 2 | Fairgrounds Dr at Gateway Dr | Signalized | 7 | A | 7.3 | A | 9.2 | A | 9.9 | A | 9.2 | A | 10 | A |
| 3 | Fairgrounds Dr at WB 37 Ramps | Signalized | 20.4 | C | 33.1 | C | 60.9 | **E** | 87.6 | **F** | 17.4 | B | 23.8 | C |
| 4 | Fairgrounds Dr at EB 37 Ramps | Signalized | 15.6 | B | 22.4 | C | 38.4 | **D** | 110.3 | **F** | 16.7 | B | 27.4 | C |
| 5 | Fairgrounds Dr at Sage St | Stop controlled[1,2] | 24.7 | C | 59.2 | **F** | 72.1 | **F** | 2248 | **F** | 10.1 | B | 12.7 | B |
| 6 | Fairgrounds Dr at Fairground Gate | Signalized | 3.3 | A | 9 | A | 22.7 | C | 68.5 | **E** | 15.5 | B | 24.7 | C |
| 7 | Fairgrounds Dr at Six Flags Gate | Signalized | 8.7 | A | 9.3 | A | 16 | B | 201.7 | **F** | 9.3 | A | 20.2 | C |
| 8 | Fairgrounds Dr at Coach Lane | Stop controlled[1] | 11.6 | B | 16.4 | C | 21.1 | C | 799.1 | **F** | 24.6 | C | 121.2 | **F** |
| 9 | Fairgrounds Dr at Sereno Dr | Signalized | 12.4 | B | 17.9 | B | 15 | B | 60.6 | **E** | 13 | B | 21.9 | C |
| 10 | Fairgrounds Dr at Valle Vista Ave | Stop controlled[1] | 11.6 | B | 13.3 | B | 28.3 | **D** | 1571.3 | **F** | 16.2 | C | 196.3 | **F** |
| 11 | Fairgrounds Dr at Redwood St/WB I-80 Ramps | Signalized | 33.7 | C | 38.7 | **D** | 78.2 | **E** | 142 | **F** | | | | |
| 12 | Tuolumne St at Sereno Dr | Signalized | 27.2 | C | 31.6 | C | 33.6 | C | 46.9 | **D** | 33.6 | C | 46.9 | **D** |
| 13 | Tuolumne St at Redwood St | Signalized | 32.4 | C | 59.8 | **E** | 64.5 | **E** | 110.9 | **F** | 64.5 | **E** | 110.9 | **F** |
| 14 | Redwood Pkwy at EB I-80 Ramps | Signalized | 27.7 | C | 32.8 | C | 29 | C | 57.5 | **E** | NA | | NA | |
| 15 | Redwood Pkwy at Foothill Dr | Stop controlled[1] | 23.8 | C | 26.9 | **D** | 42.5 | **E** | 61.6 | **F** | 42.5 | **E** | 61.6 | **F** |
| 16 | Admiral Callaghan S at Redwood | Signalized | 16.3 | B | 24.1 | C | 25.8 | C | 41.6 | **D** | 14 | B | 26.7 | C |
| 17 | Admiral Callaghan Ln at EB I-80 Ramps | Stop controlled[1] | 9.5 | A | 14.7 | B | 10.5 | A | 31.6 | **D** | | | | |
| 18 | Admiral Callaghan Ln at Turner Pkwy | Signalized | 9.9 | A | 14 | B | 9.5 | A | 15 | B | 9.5 | A | 15 | B |
| 19 | Admiral Callaghan Ln at Columbus Pkwy | Signalized | 10.5 | B | 26.7 | C | 50.1 | **D** | 50.5 | **D** | 50.1 | **D** | 50.5 | **D** |

| Intersection ID | Study Intersection | Signal Control Type | Existing Conditions | | | | 2035 No Project | | | | 2035 With Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | PM | | AM | | PM | |
| | | | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS | Delay (sec) | LOS |
| 20 | Columbus Pkwy at Ascot Pkwy | Signalized | 11.5 | B | 8.2 | A | 101.7 | **F** | 52.4 | **D** | 101.7 | **F** | 52.4 | **D** |
| 21 | Fairground Dr at Redwood St | | | | | | | | | | 10.8 | B | 23 | C |
| 22 | Redwood St at I-80 WB Ramps | | | | | | | | | | 18 | B | 16.8 | B |
| 23 | Redwood St at I-80 EB Ramps | | | | | | | | | | 16.2 | B | 36.4 | **D** |
| 24 | Admiral Callaghan N at Redwood | | | | | | | | | | 12.9 | B | 20.7 | C |

Source: Department, 2012j.
Note: 1 Two-way-stop-control intersection: delay and LOS of the worst movement is reported
2. Signalized intersection in Build scenario

For intersections that are studied, but are not within the construction footprint, the operation of the signal was optimized for the future traffic demand in order to calculate the expected LOS. These intersections were studied to verify that there are no impacts on those intersections as a consequence of the project. No geometric improvements are proposed for those intersections.

The study intersections outside the project limits were analyzed to determine whether the Build Alternative would comply with City of Vallejo's capacity-based traffic impact guidelines (V/C ratio), to show that the Build Alternative has no significant impact on those intersections. As shown in **Table 2.1.3-11**, in all cases except one, the expected change in V/C is below the City's thresholds. The exception is the Redwood Parkway/Admiral Callaghan Lane (south) intersection. This exceedance is due to a modeling assumption of independent signal timing at this location. Contrary to the modeling assumption, it is anticipated that this intersection would be synchronized with the other traffic signals to the west during the peak commute periods. The cycle length at this intersection during the peaks periods would be driven by the other, more heavily used intersections, which would result in shorter cycle lengths under the Build Alternative when compared to the No-Build Alternative. The operation of this intersection is anticipated to be more efficient under the Build Alternative, with a lower estimated delay and superior LOS, as shown in **Table 2.1.3-11**. However, the calculated V/C would be slightly higher simply because of the different cycle length. Therefore, no action is required.

*Temporary Construction Impacts*

As discussed in **Chapter 1.0**, **Proposed Project**, the Build Alternative would be constructed in multiple stages in order to minimize traffic delays and congestion caused by construction activities. The exact staging of the construction phases would be determined during the final design process. It is anticipated that the proposed construction would require temporary roadway and shoulder closures.

### No-Build Alternative

Under the No-Build Alternative, Fairgrounds Drive would maintain its existing configuration. No realignment of the Fairgrounds Drive/Redwood Street intersection would occur. There would be no improvements to the SR 37/Fairgrounds Drive or I-80/Redwood Parkway/Admiral Callaghan Lane interchanges. The No-Build Alternative would include the planned and funded projects within the corridor, as described in **Chapter 1.0, Proposed Project**. As presented in the analyses above, the increased traffic volumes without capacity improvements would most likely worsen the congestion and slow traffic along Fairgrounds Drive. Without the realignment of the Fairgrounds Drive/Redwood Street intersection, the No-Build Alternative would not improve the current safety issues related to limited sight distance in this area.

For the westbound direction of I-80 and both directions of SR 37, there would be no difference in the geometry of the freeway, or the associated ramps. As such, there would be no difference in the operation of these sections of freeways with or without the Build Alternative. While the Build Alternative would change the intersection and ramp configurations at Redwood Parkway, the overall capacity of the ramps would not change. The forecasting model is not sufficiently sensitive to reliably estimate minor changes in volume that could result from changes in delays at the interchange intersections. It is therefore assumed that the volumes entering and leaving

Table 2.1.3-11 Change in Intersection v/c Under 2035 Conditions (Build and No-Build)

| Intersection ID | Study Intersection | Signal Control Type | 2035 No-Build | | | | 2035 Build | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | V/C Change | Exceeds Thresholds | PM | | V/C Change | Exceeds Thresholds |
| 1 | Fairgrounds Dr at Taper Ave | Signalized | 0.88 | C | 0.83 | C | 0.88 | C | 0.00 | No | 0.83 | C | 0.00 | No |
| 2 | Fairgrounds Dr at Gateway Dr | Signalized | 0.66 | A | 0.72 | A | 0.66 | A | 0.00 | No | 0.72 | A | 0.00 | No |
| 3 | Fairgrounds Dr at WB 37 Ramps | Signalized | 1.04 | **E** | 0.98 | **F** | 0.64 | B | -0.40 | No | 0.62 | C | -0.36 | No |
| 4 | Fairgrounds Dr at EB 37 Ramps | Signalized | 0.75 | D | 1.05 | **F** | 0.71 | B | -0.04 | No | 0.83 | C | -0.22 | No |
| 5 | Fairgrounds Dr at Sage St | Stop controlled[1,2] | 0.57 | **F** | 4.85 | **F** | 0.34 | B | -0.23 | No | 0.53 | B | -4.32 | No |
| 6 | Fairgrounds Dr at Fairground Gate | Signalized | 0.58 | C | 1.02 | **E** | 0.36 | B | -0.22 | No | 0.64 | C | -.038 | No |
| 7 | Fairgrounds Dr at Six Flags Gate | Signalized | 0.65 | B | 1.48 | **F** | 0.26 | A | -.039 | No | 0.80 | C | -0.68 | No |
| 8 | Fairgrounds Dr at Coach Lane | Stop controlled[1] | .48 | C | 1.70 | **F** | 0.32 | C | -0.16 | No | 0.56 | **F** | -1.14 | No |
| 9 | Fairgrounds Dr at Sereno Dr | Signalized | 0.58 | B | 0.99 | **E** | 0.50 | B | -0.08 | No | 0.82 | C | -0.17 | No |
| 10 | Fairgrounds Dr at Valle Vista Ave | Stop controlled[1] | 0.43 | D | 5.42 | **F** | 0.23 | C | -0.20 | No | 1.29 | **F** | -4.13 | No |
| 11 | Fairgrounds Dr at Redwood St/WB I-80 Ramps | Signalized | | | | | | | | | | | | |
| 12 | Tuolumne St at Sereno Dr | Signalized | 0.71 | C | 0.91 | D | 0.71 | C | 0.00 | No | 0.91 | D | 0.00 | No |
| 13 | Tuolumne St at Redwood St | Signalized | 0.79 | **E** | 1.15 | **F** | 0.73 | **E** | 0.00 | No | 1.15 | **F** | 0.00 | No |
| 14 | Redwood Pkwy at EB I-80 Ramps | Signalized | | | | | | | | | | | | |
| 15 | Redwood Pkwy at Foothill Dr | Stop controlled[1] | 0.47 | **E** | 0.63 | **F** | 0.45 | **E** | -0.02 | No | 0.63 | **F** | 0.00 | No |
| 16 | Admiral Callaghan S Ln at Redwood | Signalized | 0.48 | C | 0.79 | D | 0.48 | B | 0.00 | No | 0.84 | C | 0.05 | Yes |

| Intersection ID | Study Intersection | Signal Control Type | 2035 No-Build | | | | 2035 Build | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | | PM | | AM | | V/C Change | Exceeds Thresholds | PM | | V/C Change | Exceeds Thresholds |
| 17 | Admiral Callaghan at EB I-80 Ramps | Stop controlled[1] | 0.24 | A | 0.79 | D | 0.24 | | 0.00 | No | 0.39 | | -0.40 | No |
| 18 | Admiral Callaghan Ln at Turner Pk | Signalized | 0.23 | A | 0.61 | B | 0.23 | A | 0.00 | No | 0.61 | B | 0.00 | No |
| 19 | Admiral Callaghan Ln at Columbus | Signalized | 0.98 | D | 0.92 | D | 0.98 | D | 0.00 | No | 0.92 | D | 0.00 | No |
| 20 | Columbus Pkwy at Ascot Pkwy | Signalized | 1.06 | **F** | 0.93 | D | 1.06 | **F** | 0.00 | No | 0.93 | D | 0.00 | No |
| 21 | Fairground Dr at Redwood St | | | | | | 0.60 | B | | | 0.92 | C | | |
| 22 | Redwood St at I-80 WB Ramps | | | | | | 0.74 | B | | | 0.80 | B | | |
| 23 | Redwood St at I-80 EB Ramps | | | | | | 0.63 | B | | | 1.01 | D | | |
| 24 | Admiral Callaghan N Ln at Redwood Pkwy | | | | | | 0.53 | B | | | 0.83 | C | | |

Source: Department, 2012j.

Note: **Bold** indicates unacceptable LOS

1. Two-way-stop-control intersection: delay and LOS of the worst movement is reported
2. Signalized intersection under Build Alternative

I-80 at this interchange would be the same, under either the Build or No-Build Alternative. The only improvement proposed under the Build Alternative that would affect freeway operations is the consolidation of the existing two eastbound I-80 off-ramps. Under the No-Build Alternative, eastbound I-80 freeway operations would experience a slight decrease in travel speeds and a minor degradation of LOS ratings in some locations.

In December, 2011, STA published the Final Bicycle Transportation Plan (Bicycle Plan) for Solano County. The Bicycle Plan includes the potential construction of a Class I bike path along Fairgrounds Drive, from Marine World Parkway to Redwood Street. Assuming that the City of Vallejo adopts the County's Bicycle Plan, this bike path would potentially be constructed under the No-Build Alternative. Under the Build Alternative, this bike path would be reduced to a Class II bike lane facility.

### Avoidance, Minimization, and/or Mitigation Measures

As described in **Chapter 1.0**, a preliminary Transportation Management Plan (TMP) has been developed in order to minimize traffic delays while maintaining worker safety during the construction of the Build Alternative. During the final design phase of the project, a detailed TMP would be developed to minimize delays during construction. The objective of the TMP would be to minimize the impacts that construction activities would have on the traveling public. The plan would include press releases to notify and inform motorists, business community groups, local entities, emergency services, and elected officials of upcoming road closures and detours. Traffic management strategies that require action by the construction contractor would be presented in detail in the Build Alternative's technical specifications of the bid contract, and are considered part of the project.

## 2.1.4 Visual/Aesthetics

### Regulatory Setting

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

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

## Affected Environment

Information in this section is based on the *Visual Impact Assessment* prepared for the project (Department, 2012k). The visual impact assessment was prepared in accordance with the guidelines in the Federal Highway Administration's *Visual Impact Assessment for Highway Projects* (FHWA, 1981). The study area for visual resources (visual study area) encompasses the project's viewshed which is defined as the immediate areas in which proposed improvements would occur as well as areas visible from the project area and views from off-site locations toward the project area. The viewshed is limited to the south and west by existing development and topography. The viewshed is more expansive to the east, especially in the northern portion of the project limits. The project site is located along portions of Fairgrounds Drive and Redwood Parkway/Redwood Street within the City of Vallejo and extends from the Fairgrounds Drive/ SR 37 interchange to the Redwood Parkway/ I-80 interchange.

### Local Policies and Guidelines

Local city and county land use plans were reviewed to identify goals and policies concerning visual resources in the visual study area.

The City of Vallejo Department of Public Works' *Regulations and Standard Specifications for Public Improvements* (1992) includes polices geared toward the design of streets (Section 3) and landscaping (Section 5). These regulations identify design standards for street width, pavement type, and the type and size of roadside landscaping that would ensure visual consistency in the visual study area.

The Solano County General Plan Resources Element (2008) lists roadways considered scenic by the County. The County considers the portions of I-80 and SR 37 in the project vicinity as scenic roadways.

The Department has a scenic highway program. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. No officially designated State scenic highways, or highways eligible for such designation, are within the visual study area.

### Visual Setting

The regional area surrounding the visual study area consists of urban development immediately surrounding Vallejo, with open land areas in the northeast portions of Vallejo and throughout much of Benicia's sphere of influence area. Urban development in this region consists mainly of shopping and service areas, commercial, and residential development. Rolling hillsides and Sulphur Springs Mountain are located to the northeast portion of Vallejo. According to the Vallejo General Plan, Sulphur Springs Mountain provides an important visual amenity to both residents and visitors passing through the city.

The local setting of the visual study area consists of residential and commercial development, moderately trafficked arterials, and heavily trafficked highways. There are views of the hillsides and Sulphur Springs Mountain from a number of locations within the project limits. From the intersection of Fairgrounds Drive and Redwood Parkway, traveling in the northbound direction on Fairgrounds Drive, motorists, pedestrians and

residents have views of residential and commercial development immediately adjacent to the roadway. As travelers continue north along Fairgrounds Drive to SR 37, views of the hillsides and Sulphur Springs Mountain appear and remain visible. Lake Chabot is located on the east side of Fairgrounds Drive; however, because of dense vegetation, the Lake is not visible to motorists and pedestrians travelling on Fairgrounds Drive. There are highly visible views of Six Flags Discovery Kingdom, on the west side of Fairgrounds Drive, which include colorful signage and large roller coasters. On the east side of Fairgrounds Drive, the Solano County Fairgrounds, with its large parking area, stadium and race track, and golf course are visible.

Views at the SR 37/Fairgrounds Drive intersections include some newer commercial development such as fast-food establishments and a hotel complex. North of SR 37 are single-family residential subdivisions.

### Existing Visual Quality

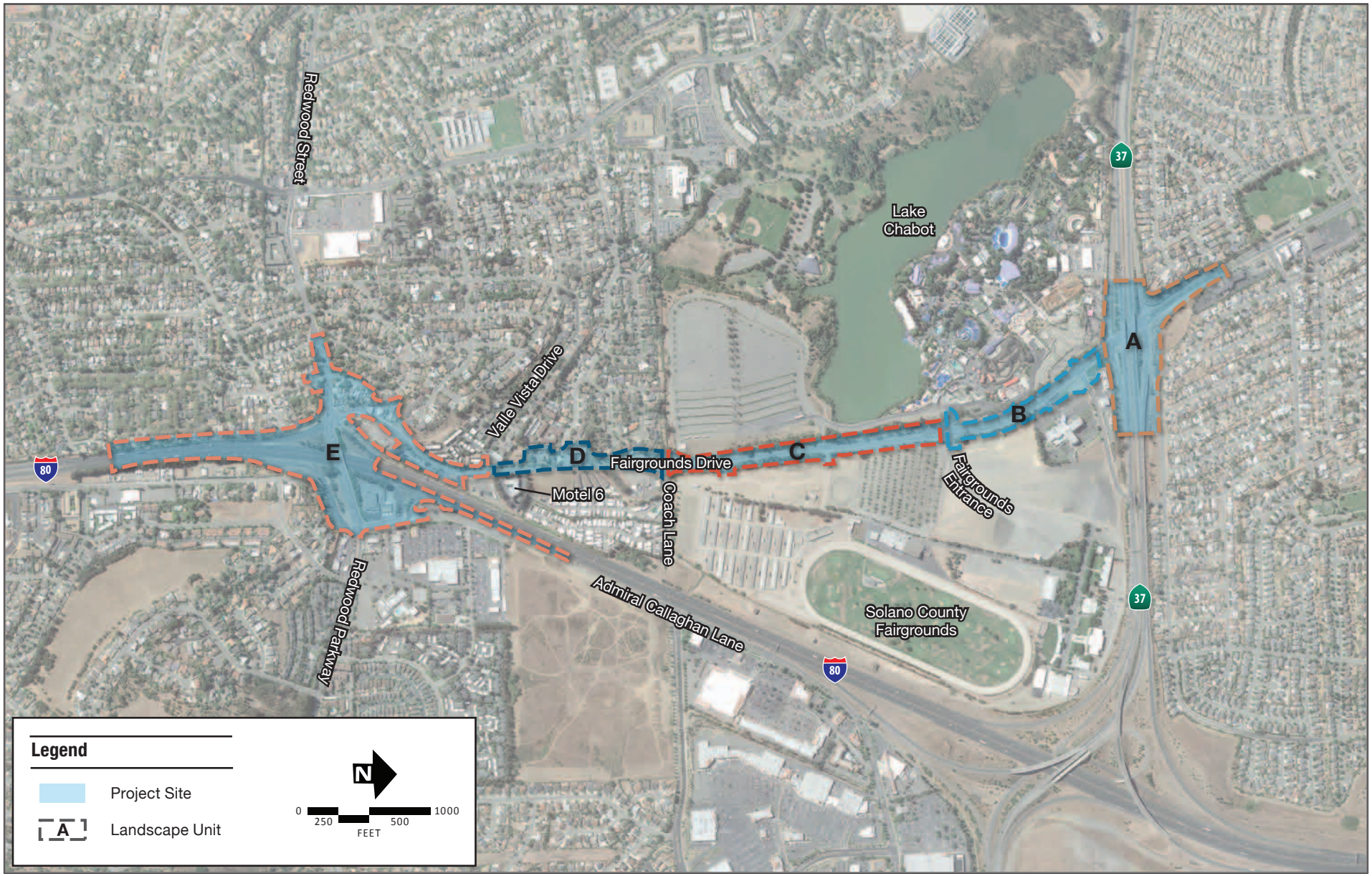
The visual setting and visual quality of the study area can be described by five distinct landscape units. Landscape units are geographically discreet areas that are often separated by natural features such as bodies of water, ridges, or changes in vegetation. Each landscape unit has a certain visual character based upon the land uses and features that comprise it. **Figure 2-12** depicts the location of these landscape units.

*Landscape Unit A*

This landscape unit is characterized as a transportation corridor surrounded by a suburban neighborhood with moderate density residential development, and a Best Western Inn & Suites located on the east side of Fairgrounds Drive. There is ornamental landscaping along the sides of the Fairgrounds Drive and along the median (see **Figure 2-13**). Motorists' and pedestrians/bicyclists' views are generally restricted to the roadway itself. The landscape elements do not combine to create a striking and distinctive pattern, resulting in low vividness. There is man-made development interspersed with natural elements of the landscape such as trees, hills, and grass, resulting in high intactness. The landscape unit as a whole provides a visually coherent arrangement of man-made and natural elements resulting in moderate unity. Therefore, this landscape unit can be classified as having moderate visual quality.

*Landscape Unit B*

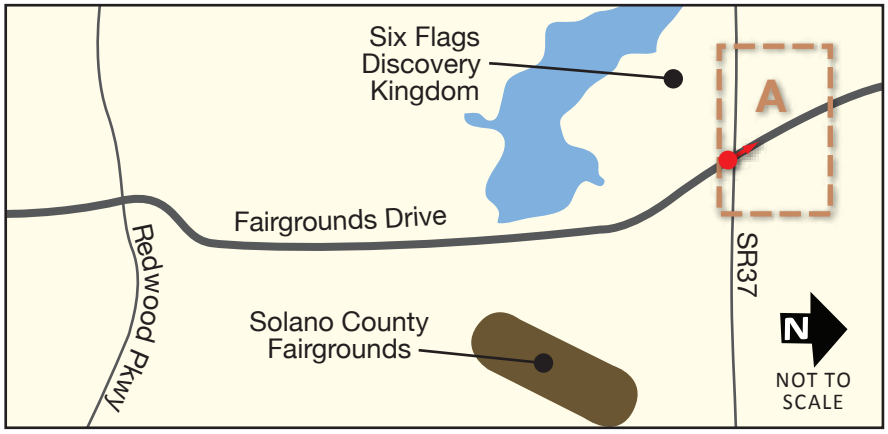
This landscape unit is characterized as generally rural, open land with limited structures and some ornamental landscaping (see **Figure 2-14**). Many of the structures (including signage and an ornamental wall) in this landscape unit are associated with Six Flags Discovery Kingdom, which is located on the west side of Fairgrounds Drive. There are also views of some commercial development and a hotel on the east side of Fairgrounds Drive and views of the hillsides to the northeast.




**Landscape Units** Figure **2-12**

*Source: Department, 2012l.*

South of Fairgrounds Drive/State Route 37 Interchange looking north



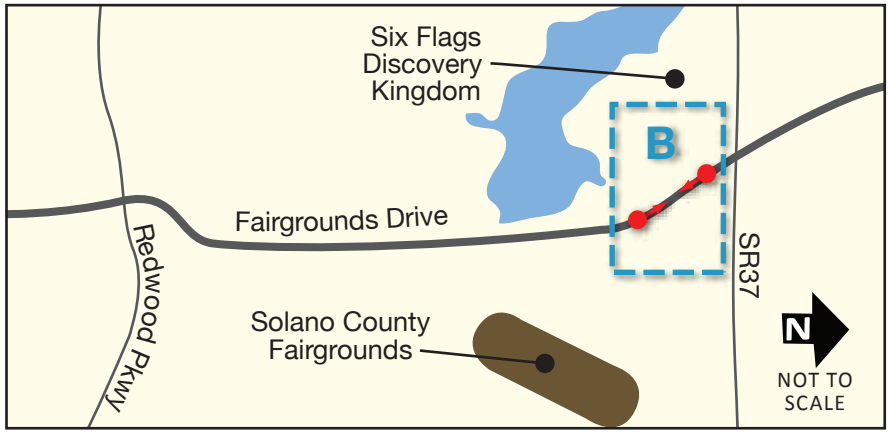

**Landscape Unit A: Existing Conditions**

**Figure 2-13**

*Source: Department, 2012l.*

South of Fairgrounds Drive/State Route 37 Interchange looking south

Fairgrounds Drive looking north towards Six Flags Discovery Kingdom




**Landscape Unit B: Existing Conditions**

**Figure 2-14**

*Source: Department, 2012l.*

The landscape elements in this landscape unit do not combine to create a striking and distinctive pattern, resulting in low vividness. The integration of man-made and natural landscape in this landscape unit can be described as having moderate intactness and low unity. This landscape unit can be classified as having low visual quality.

*Landscape Unit C*

This landscape unit is characterized as a flat valley with heavy vegetation and includes surface parking to both the east and west associated with Six Flags Discovery Kingdom and the Solano County Fairgrounds. Within this landscape unit, there are views of the hillsides to the northeast and of Six Flags Discovery Kingdom to the west (see **Figure 2-15**). There are sporadic views of the hillsides to the east, through some open spaces in vegetation. This landscape unit also includes Rindler Creek and a riparian area on the west side of Fairgrounds Drive. There is moderate vividness, visual intactness, and unity in this landscape unit as the dense vegetation along both sides of Fairgrounds Drive provides integrity and cohesiveness to the visual pattern. This landscape unit can be classified as having moderate visual quality.

*Landscape Unit D*

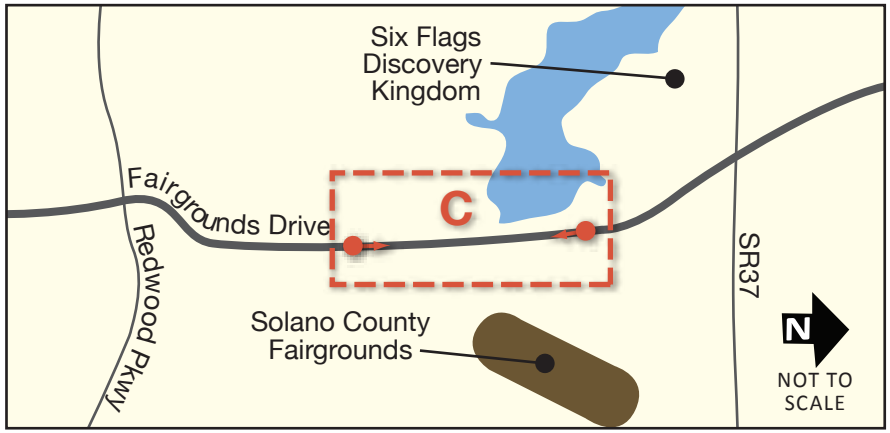
This landscape unit is characterized as a suburban area with moderate residential density and some commercial development (see **Figure 2-16**). The area includes one-story single-family housing, a gas station, restaurant, and some small businesses. The area to the west of Fairgrounds Drive and north of Lee's Market Gas Station located at the Sereno Drive and Fairgrounds Drive intersection is steeply-sloped with light vegetation. There are views of the hillsides to the north and east from within this landscape unit. This landscape unit can be described as having moderate vividness as the man-made development contrasts visually somewhat in form, line and color for the setting. There is high intactness due to the distinction between the man-made environment and natural environment. There is low visual unity as there is no coherent visual pattern. The landscape unit can be classified as having moderate visual quality.

*Landscape Unit E*

This landscape unit is characterized as a transportation corridor with one-story single family housing and some commercial development (see **Figure 2-17**). This is a heavily trafficked area with motorists traveling east and west on Redwood Parkway and north and south on Fairgrounds Drive and Admiral Callaghan Lane (on the east side of I-80). The commercial development in the area includes gas stations, fast-food restaurants, and strip malls. There are some views of the hillsides to the northeast. This landscape unit can be described as having low vividness as the man- made development is only minimally visually contrasting in form, line, or color. There is low visual intactness as the man-made development appears to be encroaching on the natural environment. As the landscape elements do not join together to form a cohesive visual pattern, the visual unity is low. This landscape unit can be classified as having low visual quality.

Fairgrounds Drive at Solano County Fairgrounds entrance looking south

Fairgrounds Drive at Coach Lane looking north



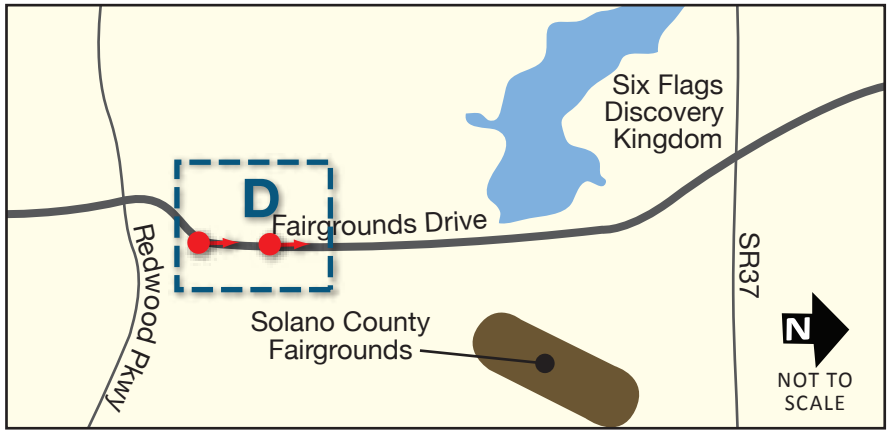

**Landscape Unit C: Existing Conditions**

Figure **2-15**

*Source: Department, 2012l.*

Fairgrounds Drive north of Sereno Drive looking north

Fairgrounds Drive at Valle Vista Avenue looking north




**Landscape Unit D: Existing Conditions**

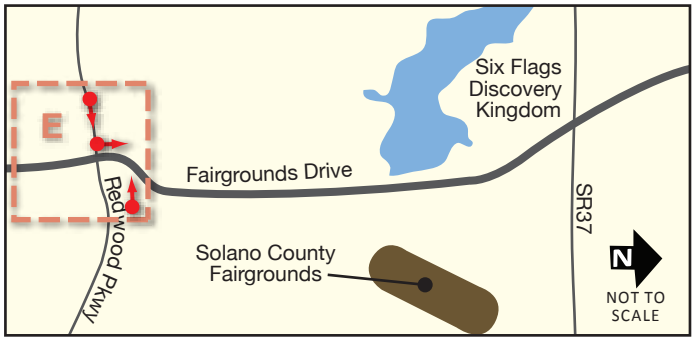
Figure **2-16**

*Source: Department, 2012l.*

Looking north towards Fairgrounds Drive from Redwood Parkway

Redwood Street at Moorland Street looking east

Admiral Callaghan Lane looking west




**Landscape Unit E: Existing Conditions**

**Figure 2-17**

*Source: Department, 2012l.*

### Viewer Groups

Viewer groups within the visual study area include motorists, bicyclists/pedestrians, residents in the surrounding homes, and employees and patrons of the commercial businesses along the project limits. Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view.

*Motorists*

Motorists include both drivers and passengers traveling along Fairgrounds Drive within in the project area and through the SR 37/Fairgrounds Drive interchange, Redwood Street/Fairgrounds Drive intersections, and the I-80/Redwood Parkway interchange. Motorists drive through the project area daily. These viewers experience a short and constantly changing sequence of views as they travel through the project limits.

Drivers traveling along at normal speeds typically focus their attention on long-range, non-peripheral views while maintaining focus on the roadways and traffic in front of them.[14] Passengers would likely have a heightened awareness of a wide range of views while traveling since they are not focused on the task of driving. Motorist sensitivity to visual change within the project limits would be considered moderate to low because there are few to no substantial visual resources within the project limits and project viewshed and the high levels of traffic that occur on a daily basis along project roadways.

*Bicyclist and Pedestrians*

Fairgrounds Drive has sidewalks on both sides of the road from the southern end of Fairgrounds Drive until just north of the intersection with Sereno Drive. North of Sereno Drive, there is a sidewalk and a bicycle lane on both sides of the road. A bike lane/shoulder exists on both sides of Redwood Street and a sidewalk on the north side of Redwood Street, approaching Fairgrounds Drive.[15] Pedestrians and bicyclists generally have a heightened awareness of a wide range of views as they are slow-moving and can look at views for a greater length of time. Bicyclists and pedestrian sensitivity to visual change within the project limits would be considered moderate to low because there are few to no substantial visual resources within the project limits and project viewshed and the high levels of traffic that occur on a daily basis along project roadways.

*Residents*

There are several residential neighborhoods and multi-family apartment buildings along and near the visual study area. The majority of residences are located at the south end of the project limits, on the west side of Fairgrounds Drive and north and south of Redwood Street and on Moorland Street. These residents' sensitivity to visual change within the visual study area would be considered moderate because of their immediate and direct views of the project area.

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[14] *Visual Impact Assessment for Highway Projects*, Federal Highway Administration (FHWA), March 1981

[15] The bike lanes end at the intersection of Fairgrounds Drive and Redwood Street.

Residences are also located in the south-east quadrant of the I-80/Redwood Parkway interchange and north of the SR 37/Fairgrounds Drive interchange. These residents sensitivity to visual change is considered low because views of the project would be blocked by intervening structures (e.g., SR 37), topography or orientation of the residences. Furthermore, these residents are located on a hill and so have primarily unobstructed views. These residents sensitivity to visual change is considered low.

*Commercial Area Employees and Customers*

There are a number of commercial uses, ranging from restaurants to hotels and businesses, along portions of Fairgrounds Drive, Admiral Callaghan Lane, and Redwood Parkway. Because these viewers would have relatively short-duration views of the project site their sensitivity to visual change is considered low.

## Environmental Consequences

### Build Alternative

*Landscape Unit A*

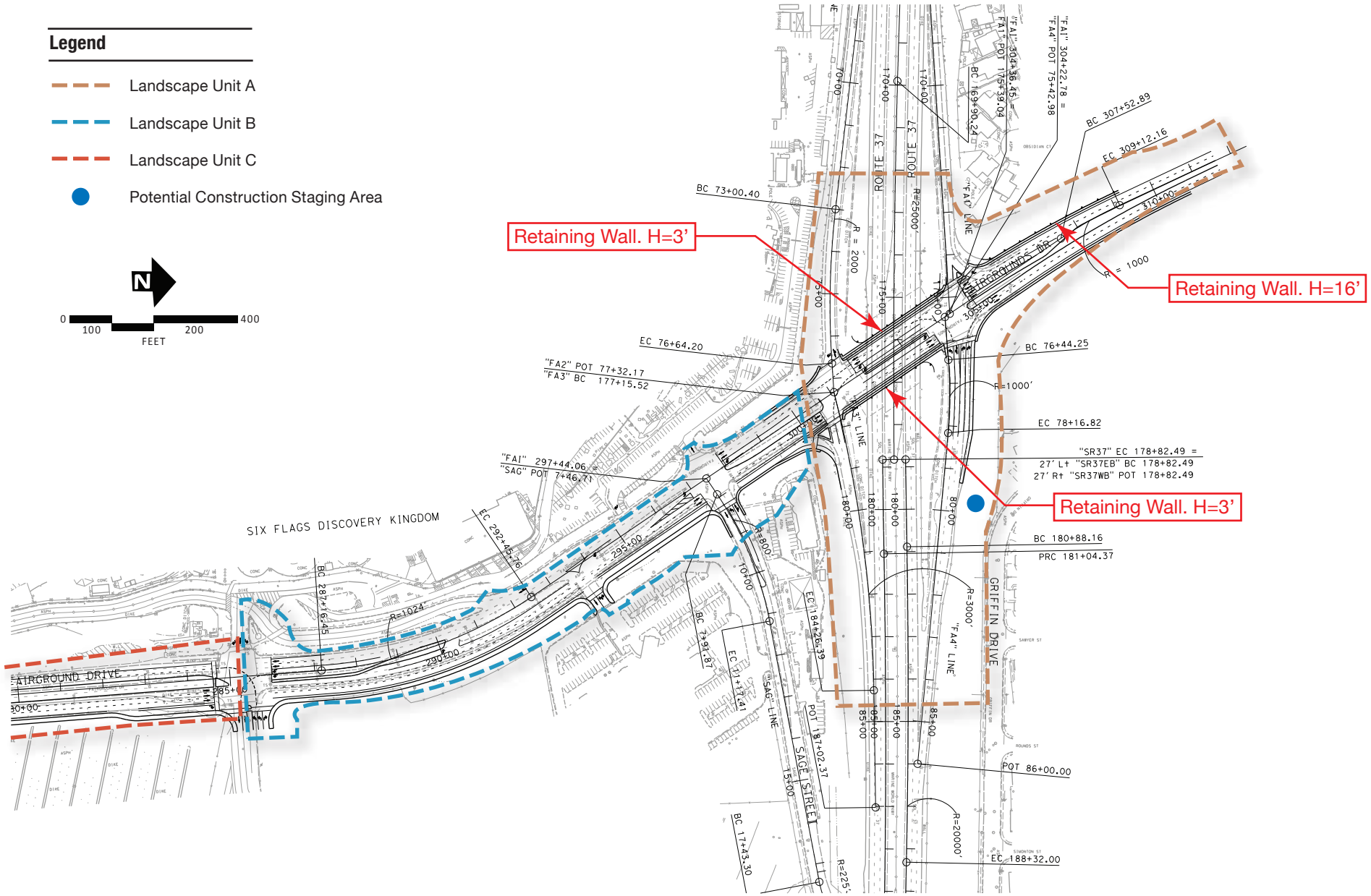
The Build Alternative would not alter the overall aesthetic character of Landscape Unit A. The Build Alternative would only modify the existing roadway by widening the existing roadway and restriping the pavement. The Build Alternative would not add or remove any elements that would impact views (see **Table 2.1.4-1**). The Build Alternative would include two 3-foot (maximum) retaining walls, one on either side of Fairgrounds Drive, underneath the SR 37 overcrossing. As these retaining walls would be located below the overcrossing and views to the retaining walls would be limited, their installation would not affect visual quality nor block any existing views. These retaining walls would be designed such that they match the Six Flags Discovery Kingdom ornamental walls with decorative waves.

Table 2.1.4-1 Visual Quality Change from Landscape Unit A

| Alternative | Vividness | Intactness | Unity | Overall Visual Quality |
|---|---|---|---|---|
| Existing Conditions | Low | High | Moderate | Moderate |
| No-Build Alternative | No Change | No Change | No Change | No Change |
| Build Alternative | Negligible | Negligible | Negligible | Negligible |

Source: Department, 2012k.

The Build Alternative would also include a 16-foot retaining wall (at its highest point) on the west side of Fairgrounds Drive, just north of SR 37. The location of all of the retaining walls is shown in **Figure 2-18**. There is an existing retaining wall at this location with landscaping and existing residences above it. The Build Alternative would rebuild and raise this wall by a maximum of 3 feet taller than the existing wall. This would occur where the existing wall is approximately 10 to 11 feet.




**Landscape Unit A CSA and Retaining Walls**

Figure 2-18

*Source: Department, 2012l.*

At this area, the proposed wall would be approximately 13 to 14 feet. This retaining wall would be designed such it would match the Six Flags Discovery Kingdom ornamental walls with decorative waves. Motorists traveling through the SR 37/Fairgrounds Drive interchange would see a similar aesthetic, although a slightly higher and more massive retaining wall. This addition would not result in a substantial change from the existing aesthetic, and the main elements of the view and visual quality in this area would not change. Views to the west from Fairgrounds Drive would not be affected.

The Build Alternative would result in negligible changes to the vividness, intactness, and unity within Landscape Unit A. The vividness would continue to be low as the Build Alternative would not combine landscape elements to create a striking and distinctive pattern. The intactness would remain high as the man-made development within this Landscape Unit would remain interspersed with natural elements of the landscape. The landscape unit would continue to have moderate unity as the arrangement of man-made and natural elements would continue to be visually coherent. Therefore, the change in overall visual quality would be negligible and the resulting visual quality would be moderate.

*Landscape Unit B*

The project would result in the widening of Fairgrounds Drive to the east to provide additional through lanes and turn lanes. The median of the roadway, sidewalk, and entry drives along the east-side of the roadway would be re-built. The horizontal and vertical alignment of the roadway would not change. The widening would primarily affect existing landscaped areas along the east side of Fairgrounds Drive associated with commercial development. The overall aesthetic of the roadway would not change substantially but would appear to be slightly larger due to the additional lane in the northbound direction. The southbound direction and west side of the Fairgrounds Drive would not change within Landscape Unit B. As a result, the Build Alternative would not alter views from or within this landscape unit. Views of the hillsides to the east would remain intact.

The Build Alternative would result in negligible changes to the vividness, intactness, and unity within Landscape Unit B. The vividness would continue to be low as the Build Alternative would not combine landscape elements to create a striking and distinctive pattern. The intactness would remain moderate and the unity would remain low as the integration of man-made features and the natural landscape in this landscape unit would not be altered. Therefore, the change to overall visual quality would be negligible and the resulting visual quality would be low (see **Table 2.1.4-2**).

Table 2.1.4-2 Visual Quality Change from Landscape Unit B

| Alternative | Vividness | Intactness | Unity | Overall Visual Quality |
|---|---|---|---|---|
| Existing Conditions | Low | Moderate | Low | Low |
| No-Build Alternative | No Change | No Change | No Change | No Change |
| Build Alternative | Negligible | Negligible | Negligible | Negligible |

Source: Department, 2012k.

*Landscape Unit C*

The Build Alternative would widen Fairgrounds Drive from a two-lane roadway (one lane in each direction) to a four- lane roadway (two lanes in each direction) within Landscape Unit C.[16] The vertical alignment of the roadway would not change. The widening would occur to the east onto the Solano Fairgrounds property and require the relocation of Rindler Creek which would be relocated to parallel the east side of the widened roadway. The project would not widen the roadway to the west and the existing drainage feature and associated vegetation on the west side of Fairgrounds Drive would not be affected by the project.

As a result, the overall visual character of Landscape Unit C would not change dramatically. Fairgrounds Drive would appear as a much larger and wider roadway. However the primary elements that comprise the visual quality in this area would remain; Fairgrounds Drive lined by vegetation and drainage features on both the east and west sides. Views of the hillsides and of Six Flags Discovery Kingdom would also remain intact. Mitigation measures listed in **Avoidance, Minimization, and/or Mitigation Measures** below would require trees that are removed to realign Rindler Creek be replanted. With this mitigation, there would be not substantial change in the aesthetic quality of Rindler Creek and existing views within Landscape Unit C would be restored.

The Build Alternative would result in negligible changes to the vividness, intactness, and unity within Landscape Unit C. Although the Build Alternative would include the realignment of Rindler Creek, the vividness, intactness, and unity within the landscape unit would continue to be moderate as the Build Alternative would replant the removed vegetation. Therefore, the change to overall visual quality would be negligible and the resulting visual quality would be moderate (see **Table 2.1.4-3**).

The Build Alternative would result in negligible changes to the vividness, intactness, and unity within Landscape Unit C. Although the Build Alternative would include the realignment of Rindler Creek, the vividness, intactness, and unity within the landscape unit would continue to be moderate as the Build Alternative would replant the removed vegetation. Therefore, the change to overall visual quality would be negligible and the resulting visual quality would be moderate (see **Table 2.1.4-3**).

Table 2.1.4-3 Visual Quality Change from Landscape Unit C

| Alternative | Vividness | Intactness | Unity | Overall Visual Quality |
|---|---|---|---|---|
| Existing Conditions | Moderate | Moderate | Moderate | Moderate |
| No-Build Alternative | No Change | No Change | No Change | No Change |
| Build Alternative | Negligible | Negligible | Negligible | Negligible |

Source: Department, 2012k.

[16] Fairgrounds Drive is a two-lane road south of the Six Flags Discovery Kingdom parking lot exit and a four-lane road north of the exit.

*Landscape Unit D*

The Build Alternative would widen Fairgrounds Drive from a 2-lane roadway with a median turn lane to a 4-lane roadway with a median turn lane. The vertical alignment of the roadway would not change. Fairgrounds Drive would be widened to both the east and west which would affect landscaped areas, private property and result in the displacement of the Lee's Market Gas Station located at 501 Fairgrounds Drive, and JJ's Fish and Chicken located at 515 Fairgrounds Drive. A maximum 20-foot retaining wall would be installed on the west side of Fairgrounds Drive, just south of Coach Lane. **Figure 2-19** shows the location of the retaining wall. As there is an existing steep slope adjacent to the road which currently blocks views to the west, the installation of the retaining wall would not change existing views (see **Figure 2-20**). Viewer groups would experience a noticeable visual change due to the removal of the commercial developments and road-widening, however the main elements of visual character of the area would remain intact. Motorists and residents would continue to experience views of the roadway and surrounding development with long-distance views of the hillsides. Therefore, while the addition of the retaining wall and the removal of buildings would change the visual appearance of the Landscape Unit, viewer response is not expected to be adverse and the overall visual quality would not be affected (see **Table 2.1.4-4**).

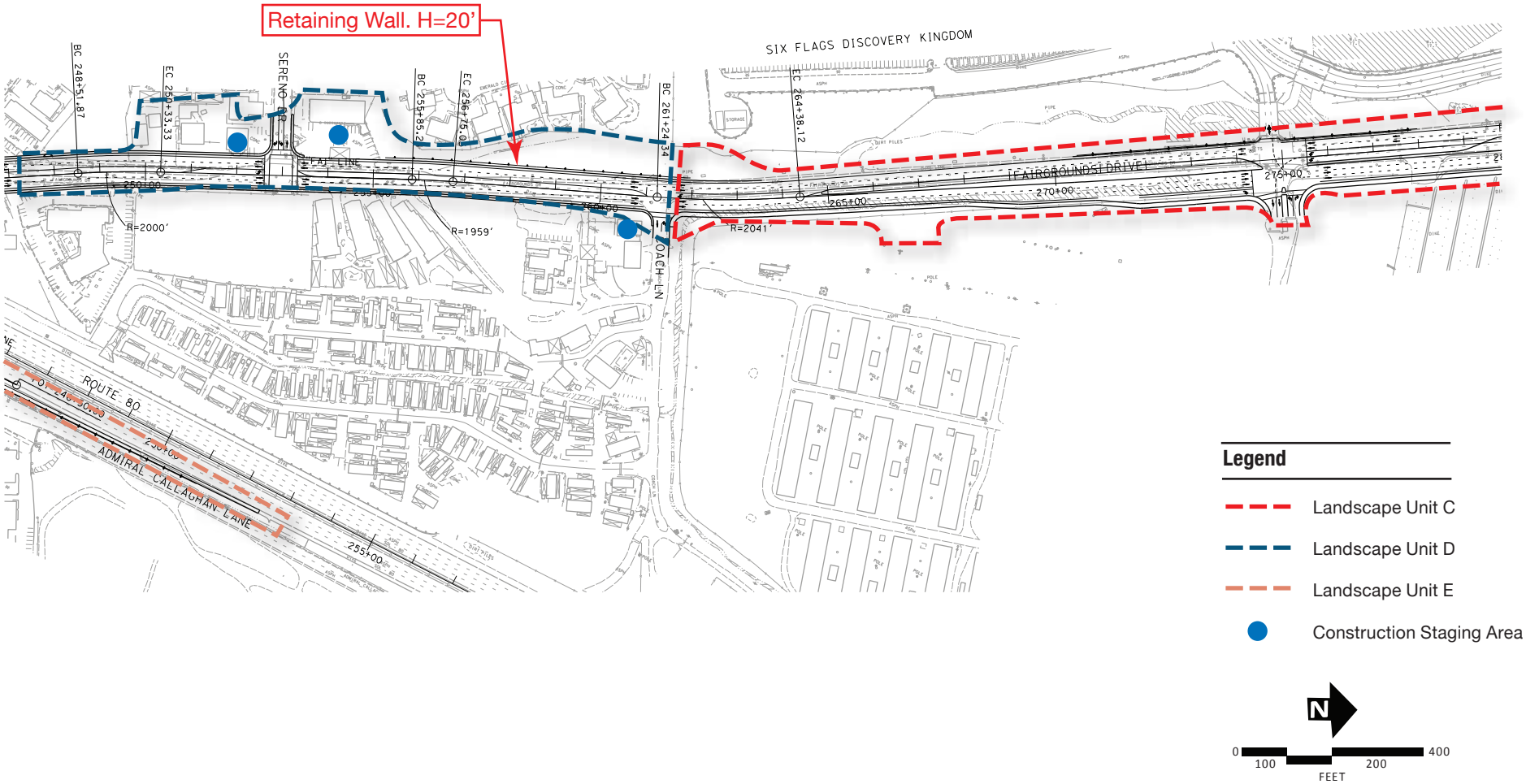
Table 2.1.4-4 Visual Quality Change from Landscape Unit D

| Alternative | Vividness | Intactness | Unity | Overall Visual Quality |
|---|---|---|---|---|
| Existing Conditions | Moderate | High | Low | Moderate |
| No-Build Alternative | No Change | No Change | No Change | No Change |
| Build Alternative | Negligible | Negligible | Negligible | Negligible |

Source: Department, 2012k.

*Landscape Unit E*

On the west side of I-80, the Build Alternative would realign Fairgrounds Drive to connect with Redwood Street farther to the west. In doing so, Moorland Street, on the north side of Redwood Street, would no longer connect to Redwood Street and would end in a cul-de-sac. These improvements would result in the displacement of several residences to accommodate the realigned Fairgrounds Drive and cul-de-sacing of Moorland Street. The westbound on- and off-ramps to I-80 at Redwood Parkway would also be realigned to form a tight-diamond configuration. Several retaining walls would be constructed along Fairgrounds Drive (a maximum of 6 to 8 feet high) and one retaining wall would be constructed along Redwood Street (a maximum of 10 feet high) (see **Figure 2-21**).



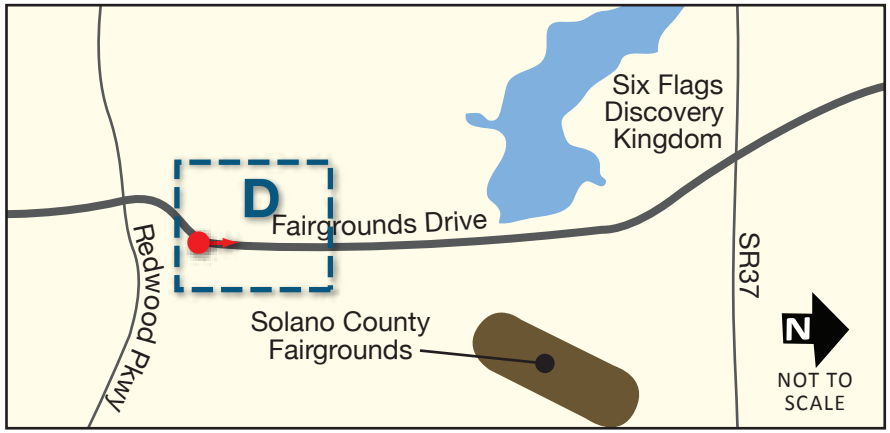

**Landscape Unit D Retaining Wall**

**Figure 2-19**

*Source: Department, 2012l.*

Fairgrounds Drive at Sereno Drive looking north

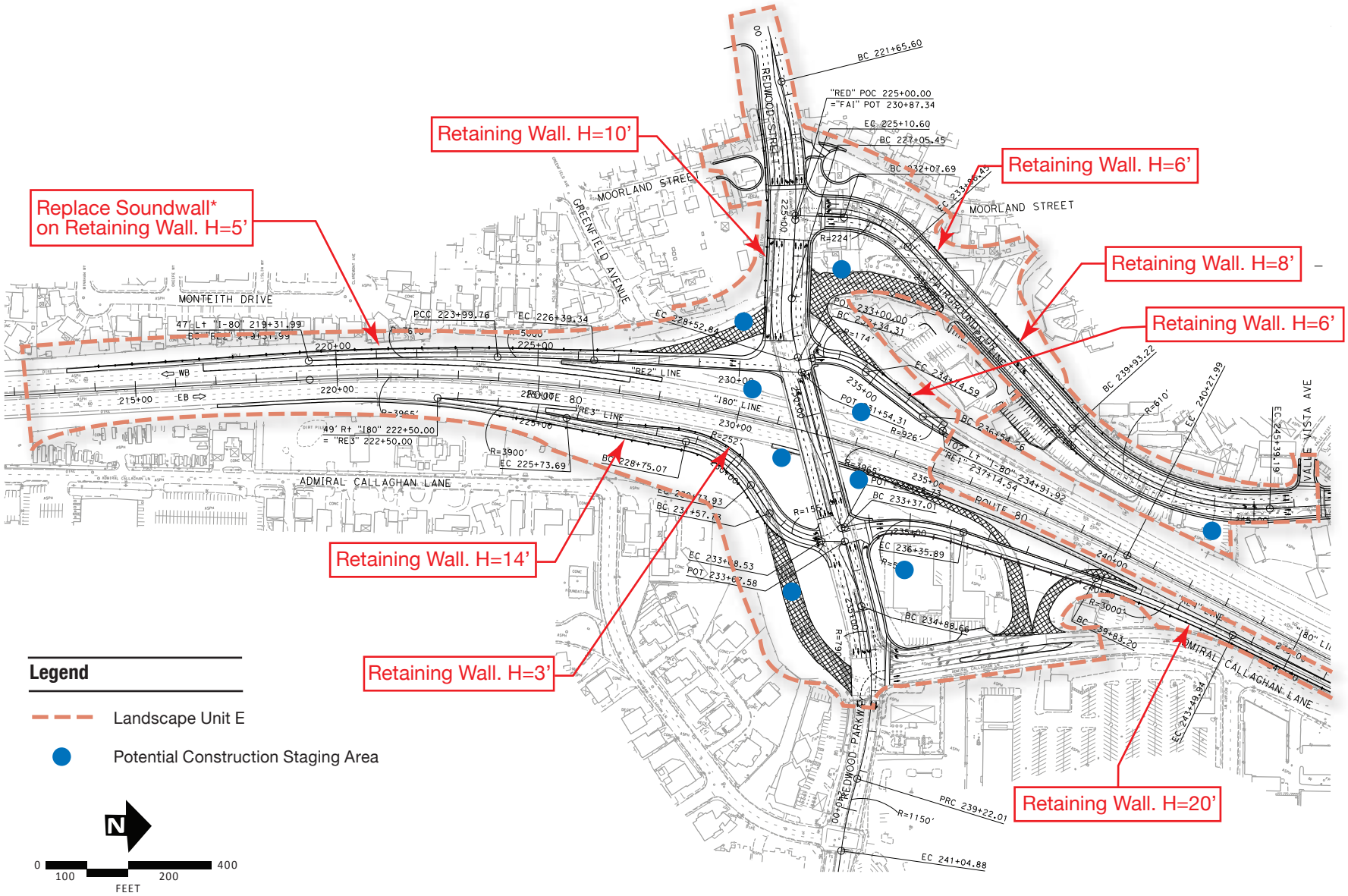
Visual Simulation of Build Alternative




**Landscape Unit D: Visual Simulation**

Figure **2-20**

*Source: Department, 2012l.*




*Note: The total height for this retaining wall would be 5 feet.

**Landscape Unit E CSA and Retaining Walls**

**Figure 2-21**

*Source: Department, 2012l.*

Fairgrounds Drive would be widened which would result in the displacement of multi-family residences, located at 251 Fairgrounds Drive; the 76 gas station, located at 223 Fairgrounds Drive, America's Best Inn, located at 300 Fairgrounds Drive; and Annie's Panda Garden, located at 320 Fairgrounds Drive.

There are five potential noise barriers located within Landscape Unit E (see **Figure 2-22** and **Table 2.1.4-5**). These walls could range in height from 6 to 16 feet tall. The Project Development Team will make the final decision regarding noise abatement to be included in the project and will incorporate that decision into the final environmental documentation. Any proposed changes to the noise abatement subsequent to adoption of the final environmental document must be reviewed with the Caltrans noise specialists to ensure adequate acoustic performance.

Table 2.1.4-5 Potential Noise Barrier Locations

| Noise Barrier ID | Location |
|---|---|
| 1 | Eastbound I-80 ("C6 Line 210+00 to 225+00) |
| 2 | Westbound Redwood Street Right-of-Way ("Red" Line 221+00 to 227+00) |
| 3 | Southbound Fairgrounds Drive ROW ("FAI" Line 231+00 to 236+00) |
| 4 | Southbound Fairgrounds Drive ("FAI" Line 236+50 to 239+30) |
| 5 | Southbound Fairgrounds Drive Right-of-Way ("FAI" Line 241+00 to 246+00) |

Source: Department, 2012k.

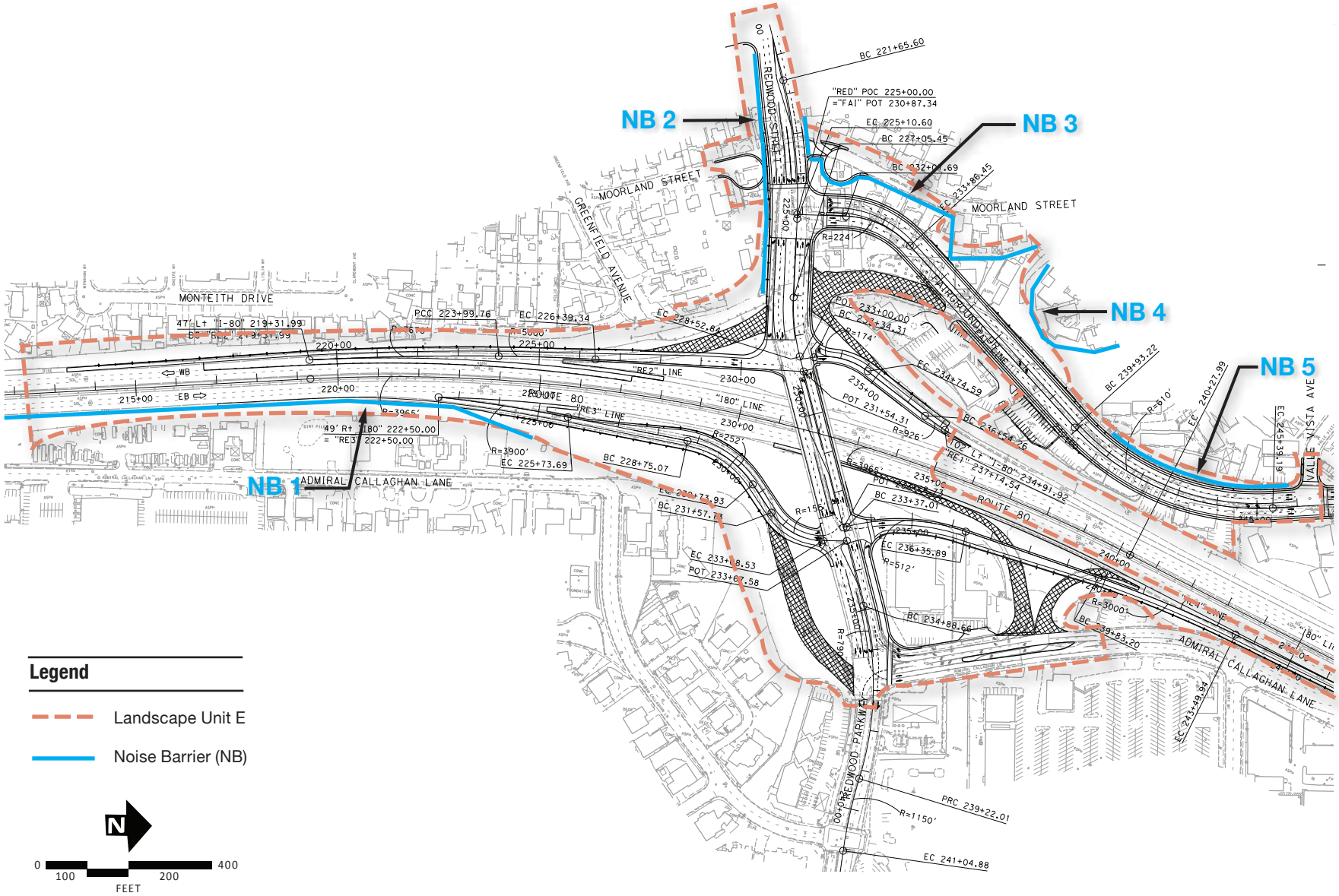
Noise barrier 1 would be visible to motorists travelling along I-80, but would not be visible to residents in the surrounding area. There would not be a substantial change in views.

Noise barrier 2 would be located in an area dominated by existing roadway and a commercial building. This noise barrier could potentially block views from residences of surrounding roadways and commercial development which could potentially be a beneficial effect on views.

Noise barrier 3 could block views to the east from residences located on Moorland Street (see **Figure 2-23**).

Noise barrier 4 would be located behind residences on the top of a hill adjacent to Fairgrounds Drive. This noise barrier could block views to the east from residences in this area.

Noise barrier 5 would be located along existing apartment buildings on Fairground Drive. This wall would block views from lower levels of the apartment buildings. However, lower units do not have significant views beyond the immediate street due to intervening topography. The upper units have views to the east. And typically, the height of the noise barrier would not be high enough to block views from these units.



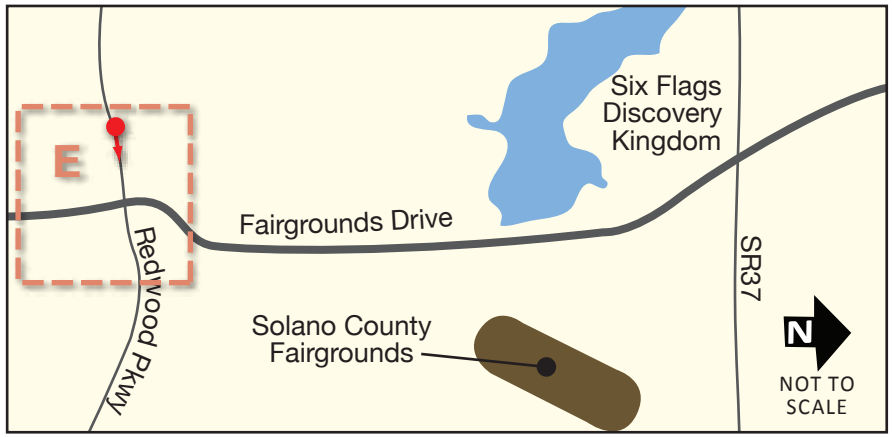

**Landscape Unit E Potential Noise Barrier Locations**

Figure 2-22

*Source: Department, 2012l.*

Redwood Street at Moorland Street looking east

Visual Simulation of Build Alternative




**Landscape Unit E: Visual Simulation**

Figure **2-23**

*Source: Department, 2012l.*

As shown in **Figure 2-23**, the Build Alternative would result in substantial visual change on the west side of I-80 as a result of the potential residential and commercial displacement, realigned roadways and noise barrier location.[17] This change however would not result in a substantial effect on visual quality. The existing visual quality of this area is low with low vividness, intactness, and unity (see **Table 2.1.4-6**). There are no scenic resources or substantial scenic views in this area. The predominate viewer groups consist of motorists and residents who currently have views of busy streets and I-80. As a result, while the visual changes will be noticeable to motorists, residents and employees in the area, viewer response is expected to be minimal.

On the eastside of I-80, the Build Alternative would include realigning the eastbound off- and on-ramps from I-80 to Redwood Parkway. These improvements would result in the potential displacement of the American Furniture Gallery commercial building, located at 709 Admiral Callaghan Lane. A large retaining wall (up to 14 feet high) would be constructed along the eastbound off-ramp to Redwood Parkway at the bottom of a large slope (See **Figure 2-22**). Minor widening and restriping would also occur on Admiral Callaghan Lane and Redwood Parkway. The visual changes in this area would be less dramatic than on the west side of I-80. The realigned roadway and business displacement would be noticeable, but would occur in close proximity to the existing freeway in an area with low visual quality and no scenic resources. While viewer groups would notice the visual change, their response to this change is expected to be minimal (see **Table 2.1.4-6**).

Table 2.1.4-6 Visual Quality Change from Landscape Unit E

| Alternative | Vividness | Intactness | Unity | Overall Visual Quality |
|---|---|---|---|---|
| Existing Conditions | Low | Low | Low | Low |
| No-Build Alternative | No Change | No Change | No Change | No Change |
| Build Alternative | Negligible | Negligible | Negligible | Negligible |

Source: Department, 2012k.

### Temporary Construction Impacts

During project construction, equipment would be present to widen and realign the roadways and the visual study area would appear as a large construction zone. Construction would result in the removal of residences, commercial buildings, vegetation, grading for the widened and realigned roadways, and utility relocations which would be highly visible and distinct.

[17] **Figure 2-23** depicts noise barrier 3 as a 10-foot-high wall. Ten feet is the minimum wall height required to achieve the noise abatement threshold established by Caltrans (noise reduction of at least 5 dBA).

Nighttime construction activities may temporarily add new sources of light and glare for residents, businesses and local motorists in Landscape Units A, D, and E. One construction staging area (CSA) would potentially be located within Landscape Unit A as shown in **Figure 2-18**. The CSA would be located on a plot of land between Griffin Drive and SR37, on the northeast side of the Fairgrounds Drive/SR37 Interchange. There would be potentially three CSAs located within Landscape Unit D as shown in **Figure 2-19.** As shown in **Figure 2-21**, there would be potentially nine CSAs located within Landscape Unit E. As construction equipment and machinery would potentially be stationed at any of the potential CSAs, temporary sources of light and glare would be added to these landscape units during the construction phase. However, temporary visual effects from the construction of the Build Alternative would be typical of any major corridor improvement project, and are not considered to be significant.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive or the connecting roadways and interchanges. Under the No-Build Alternative, Fairgrounds Drive would not be widened, there would be no intersection modifications, and several intersections would not be signalized. Transportation projects planned and funded within Solano County would not be in the same viewshed as the Build Alternative and would avoid potential aesthetic and visual effects. The visual quality of the study area would remain the same.

## Avoidance, Minimization, and/or Mitigation Measures

The Department and the FHWA mandates that a qualitative/aesthetic approach should be taken to mitigate for visual quality loss in the project area. Visual mitigation for adverse project impacts addressed in landscape unit assessments and summarized in the previous section will consist of adhering to the following design requirements in cooperation with the Caltrans District Landscape Architect. The requirements are arranged by project feature and include design options in order of effectiveness. All visual mitigation will be designed and implemented with the concurrence of the Caltrans District Landscape Architect.

Aesthetic treatments for retaining walls will help integrate roadway elements into the urban design of adjacent local streets. Aesthetic treatments will include adding texture and architectural detailing to retaining walls. The final decision regarding the types of aesthetic treatments on retaining walls will be made during the final design process, and include coordination with the local jurisdiction.

The project applicant shall implement the following mitigation measures to increase visual quality of the project site during construction and operation:

- The design of the roadways outside of the State right-of-way shall adhere to the City of Vallejo Standard Specifications.
- As directed by the Department, appropriate light and glare screening measures shall be used at the Construction Staging Areas including the use of downward cast lighting and motion-sensored lighting.

- As directed by the Department, all landscaping removed by the project shall be replaced along Fairgrounds Drive, I-80, Redwood Parkway, and Redwood Street within the project limits. Landscape plans shall be developed and approved by the Department during the final design phases. Landscape plans for areas outside of the State right-of-way shall also adhere to the City of Vallejo Standard Specifications.

## 2.1.5 Cultural Resources

### Regulatory Setting

"Cultural resources" as used in this document refers to all "built environment" resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 327) (July 1, 2007).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way.

### Affected Environment

The analysis in this section is based on the Historic Property Survey Report (HPSR) completed in January 2012 (Department, 2012e). The HPSR incorporates the results of the Archaeological Survey Report (ASR), Extended Phase I Geoarchaeological Explorations, and the Historic Resources Evaluation Report (HRER). An area of potential effect (APE) for a project encompasses all areas that fall within the physical footprint of the proposed improvements (i.e. the Build Alternative), and areas that may either be directly or indirectly affected by project-related construction activities. The APE includes the

horizontal extent of the proposed realignment of Fairgrounds Drive, the Redwood Parkway intersection, and I-80 and SR 37 freeway ramps, totaling 70.5 acres. The vertical APE varies greatly within the project APE, with excavations ranging from three to 25 feet throughout.

### Archaeological Resources

An archival records search and an archaeological field survey of the APE were conducted as part of the Archaeological Survey Report. No archaeological material was observed within the APE during the field survey. No known archaeological resources were identified within the APE.

One previously identified archaeological site was identified just west of the APE. This site is reported as a redeposit of flaked stone, shell fragments and a few possibly fire-affected rocks. While this site is not located within any portion of the APE, SHPO has recommended that the area be monitored during adjacent construction of the Build Alternative. Consequently, an Archaeological Monitoring and Discovery Plan that specifies the appropriate construction monitoring locations and protocols has been prepared.

The soil and geology of the APE consists primarily of sandstone and shale of the Great Valley Sequence and alluvial fan and fluvial deposits from the Holocene Epoch. Approximately 10 percent of the APE is identified as having a high potential for buried archaeological resources in two specific areas. Both areas are situated along the margins of the former Blue Rock Springs Creek. The first area is located on the east side of Fairgrounds Drive, between Fairgrounds Drive and Lake Chabot. The second area is located off of Admiral Callaghan Lane, where the proposed I-80/Redwood Parkway eastbound entrance ramp would be located. An Extended Phase I Geoarchaeological Investigation was conducted at these two areas of high sensitivity. Eleven trenches were excavated, in addition to one hand auger, and no archaeological materials were uncovered. The lack of discovery from the excavations determined that the likelihood of encountering significant archaeological material in these areas and other parts of the APE during construction is considered low.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact

District 4 Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

### Historic Resources

A records search, review of historic and current maps, and a field surveys were conducted to determine the presence of historical architectural resources within the APE. Sixteen historic-era properties were identified and evaluated for their eligibility to the National Register of Historic Places (NRHP) within the APE located at:

- 67 Emerald Circle, Vallejo (APN 0052-311-170)
- 501-515 Fairgrounds Drive, Vallejo (APN 0052-302-080; 0052-302-090)
- 510-534 Fairgrounds Drive, Vallejo (APN 0052-320-040)
- 437 Fairgrounds Drive, Vallejo (APN 0052-303-210)
- 435 Fairgrounds Drive, Vallejo (APN 0052-303-220)
- 444 Moorland Street, Vallejo (APN 0053-232-320)
- 436 Moorland Street, Vallejo (APN 0053-232-340)
- 424 Moorland Street Vallejo (APN 0053-232-100)
- 2612 Redwood Street, Vallejo (APN 0053-232-060)
- 2618 Redwood Street, Vallejo (APN 0053-232-050)
- 2624 Redwood Street, Vallejo (APN 0053-232-040)
- 20 Howard Avenue, Vallejo (APN 0054-082-180)
- 18 Howard Avenue, Vallejo (APN 0054-082-170)
- 337 Moorland Street, Vallejo (APN 0054-082-020)
- 328 Moorland Street, Vallejo (APN 0054-083-100)
- 711 Admiral Callaghan Lane, Vallejo (APN 0081-030-150)

In a letter dated March 1, 2012, the SHPO concurred with the Department's determination that none of the architectural resources listed above were eligible to the NRHP and that a finding of "No Historic Properties Affected" was appropriate for the Build Alternative, due to the absence of any identified historic properties within the APE. Please see **Appendix D** for SHPO's letter of concurrence.

## Environmental Consequences

### Build Alternative

Based on the investigations conducted, there are no archaeological or historical resources within the Build Alternative's APE. The Historic Property Survey Report determined a CEQA finding of no impact to historic properties and a Section 106 determination of no historic properties affected was filed with the California SHPO. The Build Alternative would therefore not result in the use (direct or indirect) of a historic property qualifying for protection under Section 4(f).

Although no known archaeological resources exist within the APE, construction activities could potentially unearth previously unidentified resources. Provisions to address these circumstances are included in the Avoidance, Minimization, and/or Mitigation Measures section below. In addition, an Archaeological Monitoring and Discovery Plan has been

prepared that specifies the appropriate construction monitoring locations and protocols recommended for an area near the known redeposit of archaeological materials outside of the APE.

*Native American Consultation*

In February 2011, a Sacred Lands File search was conducted by the Native American Heritage Commission (NAHC) to determine if there were known cultural sites within or near the APE . Following the records search, the NAHC stated that the file search showed no recorded resources within the APE.

The NAHC also provided a list of interested Native American groups and individuals in the study area. Letters requesting input from interested parties were sent to the Native American groups and individuals in April 2011. Mr. Reno Keoni Franklin, Director of Cultural Resources and Tribal Historic Preservation Officer for the Yocha Dehe Wintun Nation, requested more specific information about the project, including a more detailed project description, which was provided. Mr. Marshall McKay, Yocha Dehe Wintun Tribal Chairman, stated that the Yocha Dehe have a cultural interest in the proposed project area and stated their intention to initiate consultation with the Department and STA. Mr. McKay requested a project timeline and the latest cultural study. The Department provided Mr. McKay with the ASR. In response to the request for formal consultation, the project was discussed at the quarterly meeting of the Department's Office of Cultural Resource Studies and the Yocha Dehe Wintun Nation. Discussion of the project focused on the ASR, post mile 317, and the potential for archaeological testing for buried resources in the APE.

Mr. Kesner Flores of the Cortina Band of Indians responded, stating that they would like to monitor construction activities at the location of P-48-000152/CA-SOL-315, noting that there is a potential that more material could be encountered. Mr. Flores also requested that Patwin Wintun Cultural Management Response Plan be followed if unexpected cultural resources are encountered, and if cultural resources are discovered during project activities that he be notified. The Department responded with a letter that discussed the procedures for monitoring, and how the Department ensures the dignified treatment and disposition of Native American Human remains and associated grave artifacts.

Mr. Dave Jones of the Wintun Environmental Protection Agency stated that the project area is on the south edge of their ancestral territory, and that they have little information of the area. He asked that if cultural materials are encountered during the project, that they be notified.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. Implementation of the currently planned and funded transportation projects outside the project limits but within Solano County could result in similar effects to archaeological and historic resources as the Build Alternative, since they would occur in the same region. These projects would be required to comply with local, State and Federal law protecting cultural resources as well as the Department's standard design and construction guidelines regarding cultural resources.

## Avoidance, Minimization, and/or Mitigation Measures

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact District 4 Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

In addition, an Archaeological Monitoring and Discovery Plan has been prepared that specifies the appropriate construction monitoring locations and protocols recommended for an area near the known redeposit of archaeological materials outside of the APE. During the construction of the Build Alternative, a professional archaeologist will be assigned to monitor construction work in the vicinity of the known archaeological site for the purpose of identifying and evaluating any newly discovered materials. Implementation of the provisions outlined in the Archaeological Monitoring and Discovery Plan would ensure that no adverse effects to the nearby archaeological materials occur as a result of the Build Alternative.

# 2.2 PHYSICAL ENVIRONMENT

## 2.2.1 HYDROLOGY AND FLOODPLAIN

### Regulatory Setting

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

In order to comply, the following must be analyzed:

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

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

### Affected Environment

The analysis in this section is based on the Location Hydraulic Study Report prepared in July 2011 (Department, 2011b). The Location Hydraulic Study Report incorporates information from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Solano County, FEMA Flood Insurance Study, and the Vallejo Sanitation & Flood Control District Storm Drain Master Plan (November 2002).

The only portion of the Build Alternative improvements that would be located within an existing base floodplain is the area where Rindler Creek parallels Fairgrounds Drive, north of Coach Lane. This area makes up the hydrologic study area for determining potential adverse effects related to flooding and floodplain encroachment.

#### Floodplain

According to the FEMA FIRM Map for Solano County (see **Figure 2-24**), areas adjacent to Rindler Creek which parallels Fairgrounds Drive, north of Coach Lane, fall within the base floodplain, Zone AE.[1] This indicates that this area is subject to inundations by the 1-percent annual chance flood event. Other areas along Fairgrounds Drive, Redwood Parkway, Redwood Street, Admiral Callaghan Lane, I-80 and SR 37 are not within a designated floodplain.

[1] FEMA FIRM Map No. 06095C044OE

Although some portions of Fairgrounds Drive are identified as being within the 100-year floodplain (Zone AE), based on the 2009 FEMA Flood Insurance Study for Solano County, there is no history of flooding on Fairgrounds Drive during the 100-year storm event. The flood profile for Rindler Creek in the Flood Insurance Study indicated that the 1-percent annual chance flood elevations are either at or below Fairground Drive's original elevation. In addition, the City of Vallejo's Storm Drain Master Plan shows no evidence of flooding on Fairgrounds Drive (see **Figure 2-25**).

FEMA is currently updating the FIRM for the hydrologic study area. As there is no historic evidence of flooding along Fairgrounds Drive, there is a potential that the new FIRM will be changed so that none of the Fairgrounds Drive roadway alignment falls within the 100-year floodplain.

## Environmental Consequences

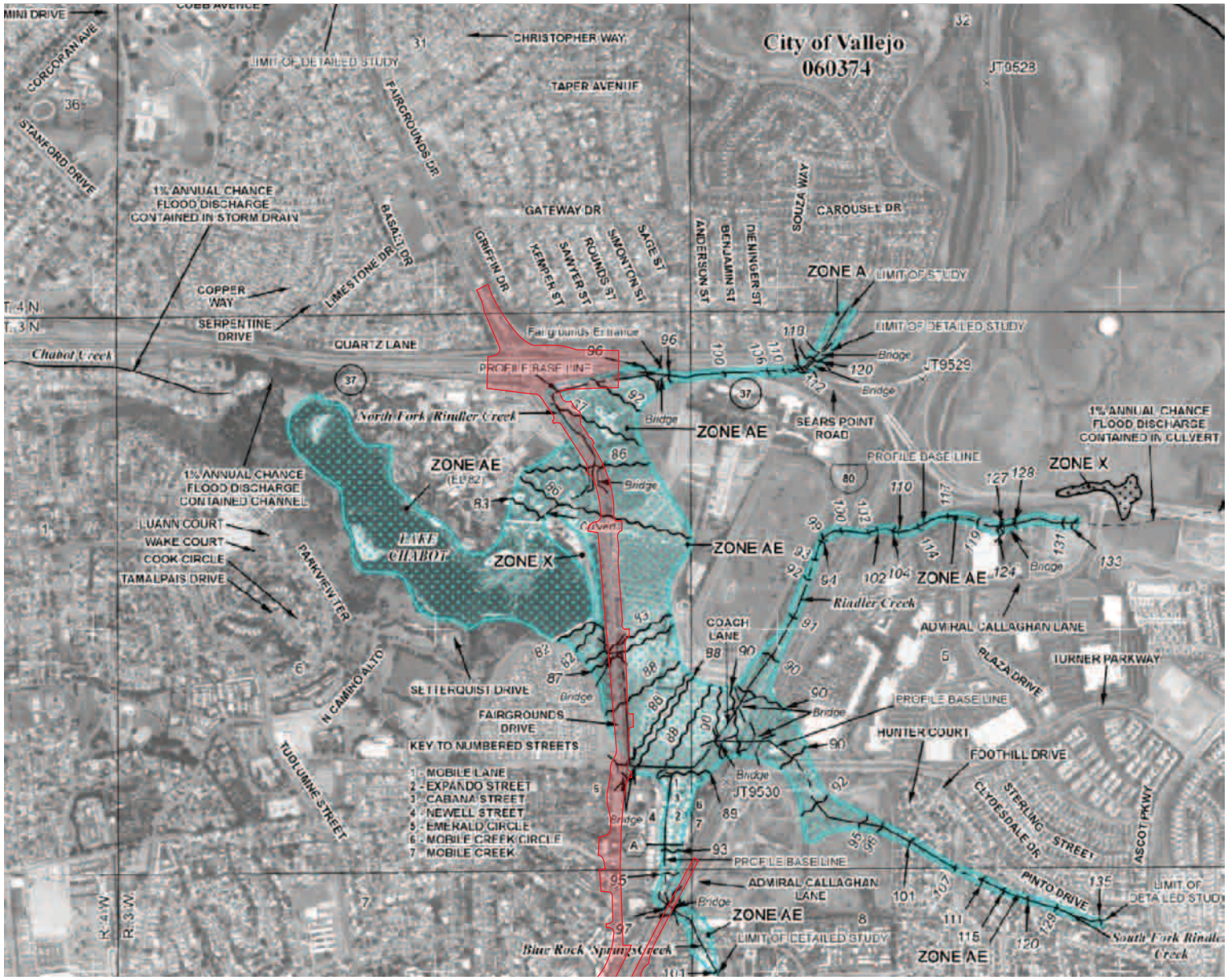
### Build Alternative

The Build Alternative proposes shifting the Rindler Creek channel and its associated riparian vegetation to the east in order to accommodate the widening of Fairgrounds Drive, which would add approximately 380,000 cubic feet of embankment within the existing 100-year base floodplain. The placement of new embankment within the floodplain could result in a rise in water surface elevation within Rindler Creek; however, the Build Alternative proposes a deeper and wider creek channel that would be able to offset the volume equivalent to this rise in water surface elevation. This offset would ensure that the new embankment associated with the relocation of Rindler Creek would have no effect on the hydrology and existing drainage pattern within the floodplain.

In addition, the Build Alternative would create an increase of approximately 3.7 acres of impervious area due to the conversion of existing unpaved surfaces to paved improvements. This increase in impervious area would result in a slight increase in the stormwater flow from the project area by approximately 0.09 percent of the total discharge volume, and would raise the water surface elevation within the floodplain by 0.09 inches. This level of floodplain elevation is considered negligible, and would have no adverse effect on the hydrology and existing drainage pattern within the floodplain.

In summary, with the proposed relocation of Rindler Creek as a slightly larger channel than what currently exists, neither the addition of impervious area nor the added embankment within the floodplain will significantly affect the discharge rates or water surface elevation of the floodplain within the project limits. As such, this floodplain encroachment is not considered an environmental risk in terms of flooding.

The realigned Rindler Creek would be slightly larger than the existing creek and revegetated to maintain hydrological and biological function (beneficial floodplain values). Refer to **Subsection 2.2.2, Water Quality**, and **Section 2.3, Biological Environment**, for a detailed description of the measures that would be taken to protect hydrology and water quality.




**Legend**

- 100-Year Floodplain
- Project Site

N

0 600 1200 2400
FEET

**FEMA Flood Insurance Rate Map**

Figure **2-24**

*Source: Federal Emergency Management Agency; Map Number 06095C0440E, 2009.*

**Legend**

Project Site

Reported Flooding Area*

*Note: Reported flooding area is appoximate

N

0 250 500 1000
FEET

**Reported Flooding within the Hydrologic Study Area**

Figure **2-25**

*Source: Vallejo Sanitation and Flood Control District - Storm Drain Master Plan, October 2002; Circlepoint, 2012.*

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. The No-Build Alternative would therefore not affect the hydrology or result in floodplain development within the areas evaluated above. Implementation of the currently planned and funded transportation projects outside the project limits but within the hydrologic study area would require a review of the FEMA FIRMs under separate environmental review in order to determine if any of those projects would be located within a 100-year floodplain.

## Avoidance, Minimization, and /or Mitigation Measures

The Build Alternative proposes a deeper and wider Rindler Creek channel that would be able to offset the volume equivalent to the rise in water surface elevation. This would ensure that the relocation of Rindler Creek would have no effect on the hydrology and existing drainage pattern within the floodplain. There will be no impacts on I-80 and SR 37, and the impact on the base water surface elevation near Fairgrounds Drive is not significant. As such, no avoidance, minimization, or mitigation measures are proposed.

# 2.2.2 WATER QUALITY

## Regulatory Setting

### Federal Requirements: Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S. to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below.)
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administers this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

USACE issues two types of 404 permits: Standard and General Permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

### State Requirements: Porter-Cologne Water Quality Control Act

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

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. States designate beneficial uses for all water body segments, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and

vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source controls, the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

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

The SWRCB administers water rights, water pollution control, and water quality functions throughout the state. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### National Pollution Discharge Elimination System (NPDES) Program

*Municipal Separate Storm Sewer Systems*

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

The Department's MS4 Permit, under revision at the time of this update, contains three basic requirements:

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

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

pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed Project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Part of and appended to the SWMP is the Storm Water Data Report (SWDR) and its associated checklists. The SWDR documents the relevant storm water design decisions made regarding project compliance with the MS4 NPDES permit. The preliminary information in the SWDR prepared during the Project Initiation Document (PID) phase will be reviewed, updated, confirmed, and if required, revised in the SWDR prepared for the later phases of the project. The information contained in the SWDR may be used to make more informed decisions regarding the selection of BMPs and/or recommended avoidance, minimization, or mitigation measures to address water quality impacts.

*Construction General Permit*

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with the Department's Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

*Section 401 Permitting*

Under Section 401 of the Clean Water Act (CWA), any project requiring a federal license or permit that may result in a discharge to a water body must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the U.S. Army Corps of Engineers (USACE). The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board (RWQCB), dependent on the project location, and are required before USACE issues a 404 permit.

In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

## Affected Environment

The analysis in this section is based on the Water Quality Assessment Technical Report prepared in January 2012 (Department, 2012l).

The hydrologic study area consists of the watershed that contains Rindler Creek, North and South Fork Rindler Creek, Blue Rock Spring Creek, and Lake Chabot. The watershed drains westerly to San Pablo Bay through Chabot Creek. Surface runoff from the hydrologic study area flows through a series of dikes, open channels, and subsurface drainage systems into Rindler Creek and Blue Rock Springs Creek. Both creeks flow into Lake Chabot located approximately 1,800 feet north of I-80 and 400 feet west of SR 37, then continues to the northwest and ultimately discharges into the Napa River located approximately 2.5 miles from the study area. Lake Chabot serves as a flood control retention basin for the watershed. The Napa River is on the 2006 Section 303(d) list for impairment of nutrients, pathogens and sediments. Lake Chabot is not on the 2006 Section 303(d) list.

The Build Alternative is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB), which implements water quality protection through the issuance of permits for projects found to be in compliance with the San Francisco Basin Plan. The RWQCB separates the San Francisco Bay Region into seven hydrologic planning areas, with the hydrologic study area falling in the San Pablo – Napa River Hydrologic area.

## Environmental Consequences

### Build Alternative

*Temporary Construction Related Effects*

Construction would require the temporary disturbance of surface soils and removal of vegetative cover. During the construction period, grading and excavation activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment in the runoff. The accumulation of sediment could result in blockage of water flows, potentially resulting in increased localized ponding or flooding. The potential for chemical releases is present at most construction sites associated with refueling equipment, lubricants, and solvents. Once released, these substances could be transported to nearby surface waterways and/or groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters.

*Permanent Operation Effects*

The operation of roadways could result in permanent adverse effects to storm water quality because of contaminant discharge to the environment that could be transported by

runoff away from the roadways and new or modified ramps. These pollutants could reach receiving waters and potentially increase the incremental pollutant load discharged to the Napa River. Pollutants associated with roadways include metals and petroleum hydrocarbons contained in fuels and lubricants and pollutants associated with wear of tires and brake pads such as particulate matter and metals.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. Existing storm water treatment systems would remain unchanged. The currently planned and funded transportation projects within the hydrologic study area would be required to adhere to the applicable State requirements and permitting issued by San Francisco Bay RWQCB, which would protect water quality in the study area under separate review.

## Avoidance, Minimization, and/ or Mitigation Measures

Construction activities and operation of the roadway improvements would be regulated under the applicable Department NPDES permits and SWMP, which regulate storm water discharge from activities on local roadways. Compliance with the NPDES permit and SWMP would require the implementation of maximum extent practicable (MEP) pollutant control for roadway runoff. In addition, construction site runoff must be controlled using best available technology economically achievable (BAT) for toxic pollutants, and best conventional pollutant control technology (BCT) for other pollutants. Full compliance with the provisions of existing NPDES permits and SWMP would minimize potential adverse effects to water quality.

The terms for coverage under the Department's NPDES permit also require that a SWPPP be developed and implemented for the Build Alternative during construction to reduce the potential for adverse water quality effects from erosion and sedimentation. To eliminate run-off of sediment from the proposed work area during and after construction, the *Caltrans Storm Water Quality Handbooks – Project Planning and Design Guidelines* would be used to determine the Best Management Practices (BMPs) that are appropriate to install. Typical temporary construction site BMPs may include, but are not limited to, temporary storm drain inlet protection, concrete cleanout facilities, and stabilized construction entrances/exits. Proposed areas where soils will be disturbed will either be hardscaped or re-vegetated to reduce the potential for future soil erosion and sedimentation issues. A planting plan would be prepared for restoration of temporary work areas.

Implementation of the SWMP also requires that long-term pollution prevention and control measures be incorporated into the Build Alternative design. Typical permanent treatment BMPs may include vegetated basins and/or swales along the roadways that collect stormwater runoff. The basins allow pollutants to settle and filter out prior to the stormwater entering the drainage systems. Specific temporary construction and permanent pollution prevention BMPs would be determined during the final design phase of the Build Alternative.

Incorporation of these BMPs and any measures outlined in the SWPPP would ensure that the Build Alternative would not adversely affect water quality in local waterways or groundwater quality.

## 2.2.3 Geology/Soils/Seismic/Topography

### Regulatory Setting

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

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department's Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. The current policy is to use the anticipated Maximum Credible Earthquake (MCE), from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

### Affected Environment

The analysis in this section is based on the Preliminary Geotechnical and Foundations Report completed in May 2012 (Department, 2012i). The geologic study area includes those geologic features within which the Build Alternative improvements would be located.

#### Site Geology and Subsurface Conditions

No natural landmarks or other examples of major geologic features (such as scenic rock outcroppings) occur within the geologic study area.

The geologic study area is situated in the Coast Ranges geomorphic province of California. This province is characterized by northwest-trending mountain ranges and elongated valleys between the San Joaquin Valley and Pacific Ocean. The province is generally divided into three northwest-trending blocks that are underlain by metamorphic or igneous rocks and separated by major physical breaks. The geologic study area is within the Eastern Franciscan Block.

Surface and underlying geological formations within the geologic study area are mapped as the Cretaceous Great Valley Sequence, Pleistocene alluvial fan deposits (older alluvium), and Holocene alluvial fan deposits (younger alluvium). The bedrock in this unit of the Great Valley Sequence contains undivided sandstone and shale from the Cretaceous Period. It is also known to include carbonaceous-biotite wacke, white-mica-carbonaceous sandstone, greenish-gray mudstone and shale, laminated fine-grained sandstone and gray shale, carbonaceous siltstone, black shale, and fine-grained mica wacke. Near the ground surface, artificial fill that was placed during past construction activities is present along the existing Fairgrounds Drive alignment. Fill materials range from loose to very consolidated gravel, sand, silt, clay, rock fragments, organic matter, and

debris in various combinations. **Figure 2-26** illustrates the general geology of the study area.

Alluvium within the geologic area consists of Holocene-aged fan and fluvial deposits from rivers or streams. The alluvial fan deposits are generally brown or tan, medium dense to dense, gravelly sand or sandy gravel that generally grades upward to sandy or silty clay. Specifically, the area around Redwood Parkway is underlain by younger alluvial deposits, as well as sandstone and shale formations.

*Liquefactions Susceptibility*

Liquefaction is a result of ground shaking associated with earthquakes, and causes soil to lose strength and behave as a liquid. Liquefaction is known to occur in saturated or near-saturated, loose cohesionless soils at depths shallower than 50 feet. Susceptibility to liquefaction in portions of the geologic study area is very low to moderate. Areas near the Fairgrounds Drive/Redwood Parkway intersection face very low to low susceptibility to liquefaction, while portions of Fairgrounds Drive alignment near Lake Chabot face moderate susceptibility to liquefaction.

*Dynamic Settlement*

Dynamic settlement is caused by the strong vibratory motion associated with earthquakes, and compacts loose, granular soil, leading to surface settlements. Dynamic settlement is not limited to the near surface environment and may occur in both dry and saturated sand and silt. Seismically induced dynamic settlement may occur within the geologic study area following a significant seismic event, particularly in the areas where the liquefaction susceptibility is mapped as moderate. Within the geologic study area, dynamic settlement could occur along portions of Fairgrounds Drive near Lake Chabot where liquefaction susceptibility is moderate.

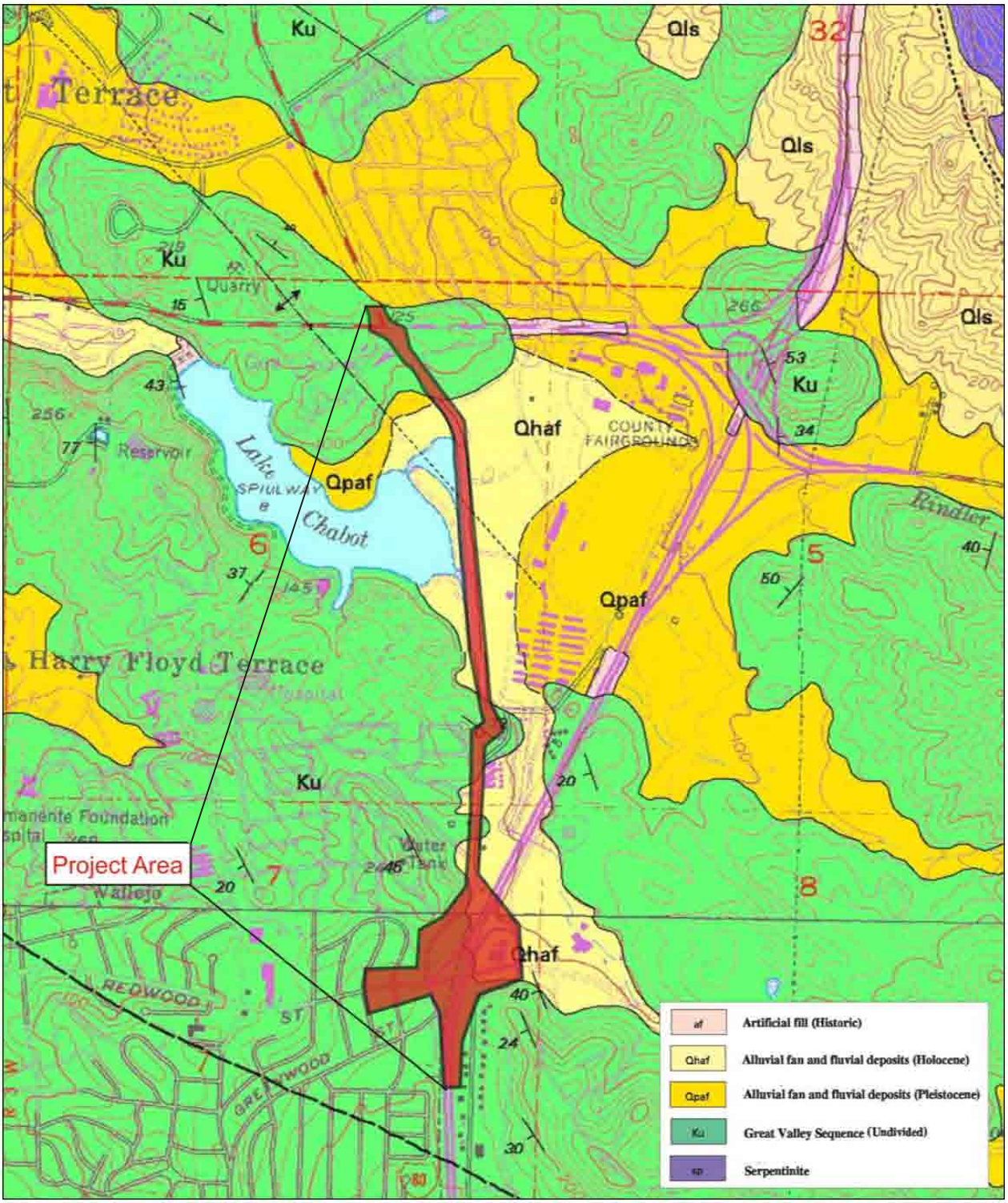
The support characteristics of the artificial fill materials within the geologic study area are variable and may induce differential settlement. In general, undocumented fill materials are unsuitable for the support of structures and embankments proposed as part of the Build Alternative.

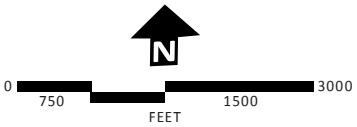
*Lateral Spread*

Seismic ground shaking can also induce horizontal displacements as surface soil deposits spread laterally by floating atop liquefied subsurface layers. This is known as lateral spread, and can occur on gently sloping ground or on flat ground adjacent to an exposed face. Lateral spread is a concern over soil that is moderately susceptible to liquefaction. Within the geologic study area, lateral spreading could occur along portions of Fairgrounds Drive near Lake Chabot where liquefaction susceptibility is moderate.

*Groundwater*

The subsurface exploration information conducted for other improvements near the project limits found that groundwater is generally encountered within 5 to30 feet below the ground surface within the geologic study area. Groundwater levels may fluctuate based on seasonal conditions, including rainfall amounts and water level changes in the active stream and rivers within the geologic study area, changes in nearby irrigation practices, and groundwater pumping.




**Geologic Map**

**Figure 2-26**

*Source: Department, 2012i.*

### Seismic Conditions

The geologic study area is located in a seismically active area of California. Many faults in this area are capable of producing earthquakes that may cause ground shaking. **Table 2.2.3-1** presents seismic parameters from the 2007 Fault Database that contains a list of faults that are active or potentially active near the geologic study area. The parameters within this table also include the estimated most likely a size of earthquake that has not yet occurred within the geologic study area (Maximum Moment Magnitude). This information was determined in conformance with the Department's Geotechnical Services Design Manual and Seismic Design Criteria.

There are no active faults that pass through the geologic study area; therefore, the potential for fault rupture is considered low. However, the geologic study area could experience a relatively large degree of ground shaking due to seismic activity on a nearby fault.

Table 2.2.3-1 Maximum Credible Earthquake for Faults in the Vicinity of the Build Alternative

| Fault | Fault Type | Maximum Moment Magnitude | Fault Distance to Geologic Study Area (kilometer) | Fault Rupture Plane Distance to Geologic Study Area (kilometer) | Projection of Rupture Plane Distance to Geologic Study Area (kilometer) | Peak Ground Acceleration PGA (g)[1] |
|---|---|---|---|---|---|---|
| West Napa (416) | Strike-Slip | 7.1 | ~0.9 | ~3.0 | ~3.0 | 0.43 |
| Green Valley (213) | Strike-Slip | 6.9 | ~8.1 | ~8.5 | ~8.5 | 0.30 |
| Hayward (353) | Strike-Slip | 7.3 | ~18.3 | ~18.3 | ~18.32 | 0.21 |
| Rodgers Creek (157) | Strike-Slip | 7.1 | ~18.9 | ~18.9 | ~18.9 | 0.19 |
| San Andreas North (308) | Strike-Slip | 7.9 | ~47.1 | ~47.1 | ~47.13 | 0.14 |
| Southampton (151) | Strike-Slip | 6.3 | ~14.4 | ~14.4 | ~14.4 | 0.18 |

Notes: [1] Peak Ground Acceleration (PGA): how hard the earth shakes in a given geographic area (the *intensity*).
Source: Department, 2012i.

## Environmental Consequences

### Build Alternative

The Build Alternative is located in a seismically active region. Without proper seismic engineering, improvements located adjacent to or spanning Fairgrounds Drive could pose safety issues to people and structures as a result of strong ground shaking, liquefaction, dynamic settlement, and lateral spread.

*Temporary Construction Impacts*

Construction workers could be exposed to potential seismic hazards during installation of the proposed improvements since the Build Alternative is located in a seismically active region.

The Build Alternative would require extensive excavation and earth moving construction activities, which could result in substantial soil erosion or the loss of top soil. In addition, groundwater may be encountered during excavation work for the proposed improvements. As previously discussed in **Subsection 2.2.2**, the potential for chemical releases is present at most construction sites associated with refueling equipment, lubricants, and solvents. Once released, these substances could be transported directly into groundwater exposed during excavation work, potentially reducing the quality of the receiving waters.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. Implementation of the currently planned and funded transportation projects outside the project limits but within the City of Vallejo would be subject to the same seismic and geologic hazards as the Build Alternative, since they would occur in the same seismically active region. These projects would be required to comply with the Department's standard design and construction guidelines and OSHA requirements regarding seismic and geologic hazards, which would be determined under separate environmental review.

## Avoidance, Minimization, and/ or Mitigation Measures

Under the Build Alternative, any new structures would be constructed in compliance with the Department's seismic design standards and construction guidelines. No avoidance, minimization, or mitigation measures would be required beyond the implementation of the Department's standard specifications. As part of the final design phase, the Department requires preparation of the geotechnical design reports that incorporate additional subsurface field work and laboratory testing. Site specific subsurface soil conditions, slope stabilities, and groundwater conditions within the Build Alternative area would be verified during the preparation of these geotechnical design reports. The identification of the site specific soil conditions within the project area would be used to determine the appropriate final design for the foundations and footings that would support the proposed Build Alternative improvements.

The Department's standard design and construction guidelines incorporate engineering standards that address seismic risks. Proposed structures including, retaining walls, soundwalls, and embankments constructed within the geologic study area would consider seismically-induced liquefaction and settlement during the final design phase. The final design phase would also include the evaluation of the Design Response Spectrum, which measures the ground motion or acceleration caused by the input of a vibration from an earthquake at a specific location and can help understand how structures would respond to earthquakes in a given place.

With respect to worker safety during construction, the Occupational Safety and Health Act (OSHA) requires employers to comply with hazard-specific safety and health standards.

Pursuant to Section 5(a)(1) of the OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Potential seismic-related hazards to workers during construction are expected to be less than substantial with compliance with the OSHA and compliance with the Department's standard design and construction guidelines.

As described in **Subsection 2.2.2**, erosion control measures would be implemented during construction activities in accordance with the best management practices outlined in the SWPPP. Protective measures would reduce soil erosion and minimize impacts to water quality, including groundwater.

## 2.2.4 PALEONTOLOGY

### Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. (e.g., Antiquities Act of 1906 [16 USC 431-433], Federal-Aid Highway Act of 1960 [23 USC 305]), and the Omnibus Public Land Management Act of 2009 [16 USC 470aaa]). Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

### Affected Environment

This section is based on the Paleontological Evaluation Report completed in September 2011 (Department, 2011c).

The paleontological area is similar to the geologic study area, and includes those geologic features within which the Build Alternative improvements would be located, plus a 1-mile buffer on either side of the proposed improvements. As discussed in **Subsection 2.2.3**, surface and underlying geological formations within the paleontological study area are mapped as the Cretaceous Great Valley Sequence, Pleistocene alluvial fan deposits (older alluvium), and Holocene alluvial fan deposits (younger alluvium), and have been confirmed with a field survey.

#### Cretaceous Great Valley Sequence

The paleontological study area is generally underlain by undivided shale and sandstone of the Great Valley Sequence. The massive, hardened sandstones form the backbone of the ridges to the north and south of Lake Chabot and to the southeast along I-80.

No invertebrate macrofossils have been reported in the Great Valley Sequence exposed in the paleontological study area; however, microfossils have been reported. Fossil plant remains were observed along bedding planes within the Cretaceous Great Valley Sequence exposed within the paleontological study area. The presence of fossil plant material within the Great Valley Sequence indicates that depositional conditions observed in exposures in the paleontological study area are favorable for the preservation of fossils. Therefore, it is

possible that additional paleontological resources will be found. However, because significant fossils have not previously been reported from the Great Valley Sequence within or near the paleontological study area, although potentially could, this unit is characterized as having a low paleontological sensitivity.

### Pleistocene Alluvial Deposits

A small area north of Lake Chabot, within the paleontological study area, is underlain by older alluvial deposits dating from the Pleistocene Epoch. Units mapped as Pleistocene Alluvium in Solano County have previously produced abundant both vertebrate and invertebrate fossils representing many extinct taxonomic groups. Many of these fossil specimens represent the best-preserved examples of their taxonomic groups found to date. Since fossil vertebrates have been previously reported elsewhere from this unit and in similar sediments, there is a potential that additional significant paleontological resources will be found in sediments of the Pleistocene Alluvium during excavations for the Build Alternative. Because significant fossils have previously been reported from this unit and from localities not far from the paleontological study area, this unit is characterized as having a high paleontological sensitivity.

### Holocene Alluvial Deposits

The portion of the paleontological study area around the Redwood Parkway overcrossing is underlain by younger alluvial deposits dating from the Holocene Epoch. This unit is exposed within the paleontological study area as a thin veneer over older sediments, and its depth varies widely. The Holocene alluvial deposits are too thin and too young for the preservation of fossils and, over much of the paleontological study area, are already disturbed. This unit is, therefore, characterized as having a low paleontological sensitivity.

## Environmental Consequences

### Build Alternative

The paleontological study area contains Pleistocene alluvial deposits, which are considered to have a high sensitivity for the presence of paleontological resources. Ground disturbance and earth moving associated with the construction of the Build Alternative, such as excavations, augering, and drainage diversion measures, could unearth previously unidentified paleontological resources within this sensitive unit. Resources affected could include fossil remains and sites, associated specimen data and corresponding geological and geographic site data, and the fossil-bearing strata.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. Implementation of the currently planned and funded transportation projects outside the project limits but within the same geologic units in Solano County would be subject to the same paleontological sensitivities ratings as in the Build Alternative, since they would occur in the same region and in the same geologic units. These projects would be required to comply with the Department's standard design and construction guidelines regarding paleontological resources, which would be determined under separate environmental review.

## Avoidance, Minimization, and/ or Mitigation Measures

**Mitigation Measure PAL-1: Monitoring and Mitigation Program**

A qualified paleontologist, with Caltrans approval, shall design a monitoring and mitigation program and implement the program during project-related excavation and earth disturbance activities prior to construction. The paleontological resource monitoring and mitigation program shall include preconstruction coordination, construction monitoring, emergency discovery procedures, and sampling and data recovery. Prior to the start of construction, the paleontologist shall conduct a field survey of exposures of sensitive stratigraphic units within the study area that would be disturbed. Finally, construction personnel would be informed that fossils could be discovered during excavation, that these fossils are protected by laws, on the appearance of common fossils, and on proper notification procedures.

Both the Great Valley Sequence and Holocene alluvial deposits have a low sensitivity for paleontological resources. However, Holocene alluvial deposits typically occur as a thin layer overlying Pleistocene alluvial deposits, which have a high potential for paleontological resources. Excavation in areas covered by Holocene alluvial deposits would likely encounter Pleistocene alluvial deposits in the shallow subsurface. As such, construction activities within Pleistocene alluvial deposit areas covered by Holocene alluvial deposits would need to be monitored where excavations are expected to reach more than three feet below ground surface.

## 2.2.5 HAZARDOUS WASTE/MATERIALS

## Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

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

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

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

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

## Affected Environment

The analysis summarized in this section is based on an Initial Site Assessment conducted in 2007 for the I-80 High Occupancy Vehicle (HOV) Lanes and Turner Parkway Overcrossing project[2], and the subsequent Preliminary Site Investigation and Aerially Deposited Lead Survey Report, prepared in January 2012 (Department, 2012j).

The initial site assessment (ISA)included an environmental regulatory database search, which identifies known hazardous waste sites that could negatively impact the project. A regulatory agency files review of selected sites of potential concern, a review of historical and current land use information, and a site reconnaissance were also conducted as part of the ISA. The ISA was performed in accordance with ASTM E1527 05 and the Department's project development procedures manual (PDPM) and standard environmental reference (SER).

### Sites of Potential Environmental Concern

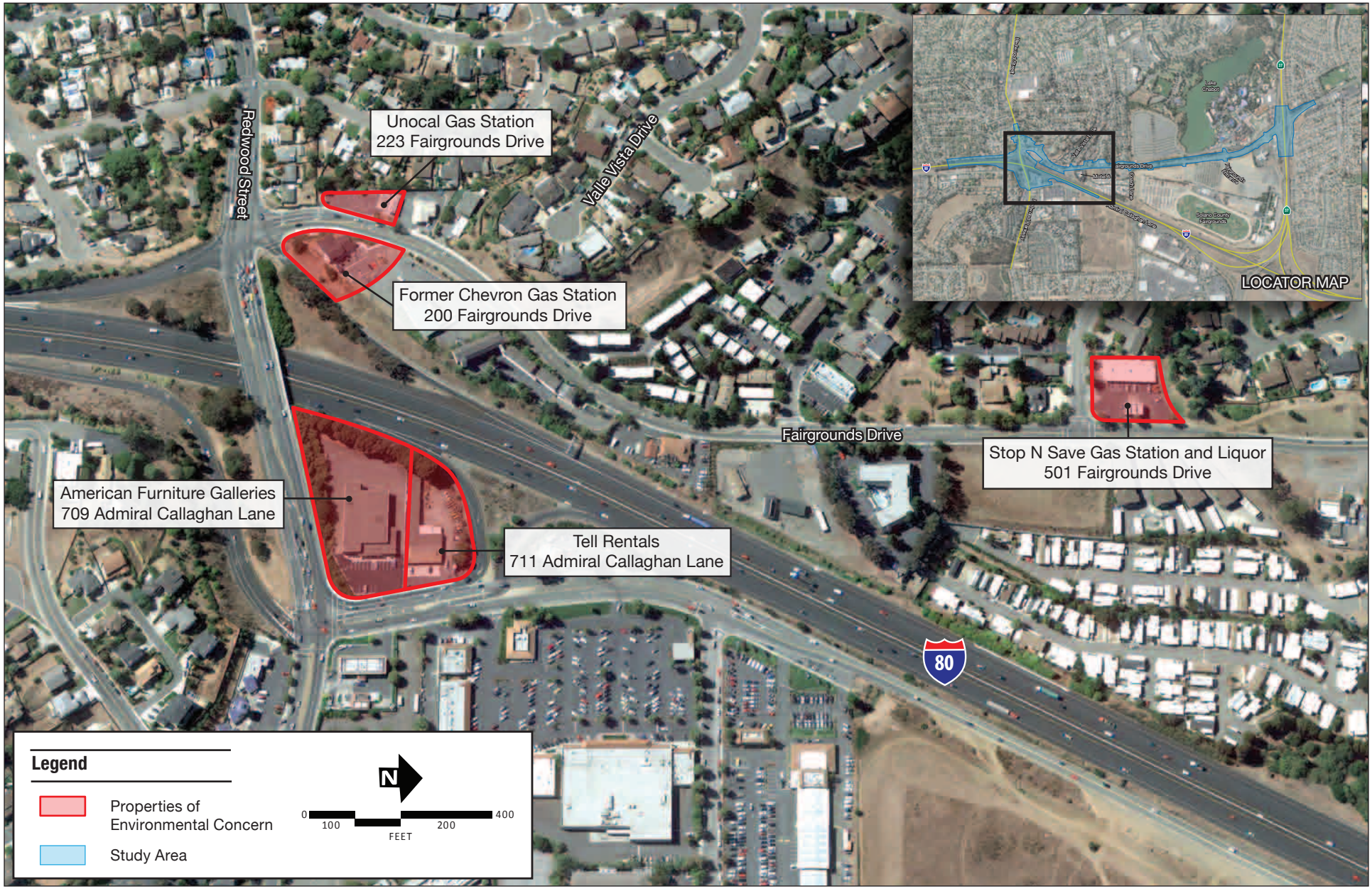
The preliminary site investigation identified five sites of potential environmental concern associated with petroleum products release from leaking underground storage tanks within the hazardous materials study area. These sites are listed in **Table 2.2.5-1** and depicted in **Figure 2-27**. The potential release of petroleum products from these sites may have impacted the subsurface conditions within the area where improvements would be constructed.

[2] Several components of this larger project have since been withdrawn from consideration as part of the alternatives analysis (see Chapter 1); however, the improvements proposed under the Build Alternative would be located in areas that were previously evaluated for health risks related to hazardous materials. Information in the 2007 assessment is therefore applicable to the proposed Build Alternative.

Table 2.2.5-1 Potential Impacts from Hazardous Materials Release Sites

| Site Name and Location | | Summary of Potential Impacts to Build Alternative Improvements |
|---|---|---|
| 1 | Unocal 76 Gasoline Service Station<br>(223 Fairgrounds Drive) | Potential petroleum constituents in soil and/or groundwater associated with former and current service station activities. This site is currently undergoing groundwater and soil remediation.<br>The Build Alternative would relocate the Fairgrounds Drive/Redwood Street intersection on to this property. As such, this site may pose a risk to people or structures. |
| 2 | Chevron Gasoline Service Station<br>(200 Fairgrounds Drive) | Potential petroleum constituents in soil and/or groundwater associated with former service station activities. The regulatory oversight of the release from this property has since been closed as of 1997.<br>The Build Alternative would realign Fairgrounds Drive to the west of this release site. As such, this site is not likely to pose a risk to people or structures. |
| 3 | Stop N Save Gasoline Station and Liquor<br>(501 Fairgrounds Drive) | Existing UST and fuel dispensing activities associated with former and current service station activities.<br>The Build Alternative would widen Fairground Drive onto this property. Sub-surface sampling could not be conducted at this site because access was not granted. This presents a data gap. |
| 4 | American Furniture Galleries<br>(709 Admiral Callaghan Lane) | Potential petroleum constituents and Title 22 metals in soil and/or groundwater associated with active and inactive UST facilities. Soil samples taken from the American Furniture Galleries property were analyzed for these contaminants; the concentrations were below the laboratory reporting limits. As such, this site would not pose a risk to people or structures. |
| 5 | Tell Rentals<br>(711 Admiral Callaghan Lane) | Potential petroleum constituents, volatile organic compounds, and Title 22 metals in soil and/or groundwater associated with former release from leaking underground storage tank facilities. The regulatory oversight of the release from this property has since been closed as of 1998. Soil samples taken in 2011 on the Tell Rentals property were analyzed for these compounds; one compound, 2-methylnaphthalene, was reported above the Commercial Environmental Screening Levels (ESL). This site may pose a risk to site occupants and construction workers. |

Source: Department, 2011d.




**Properties of Environmental Concern**

**Figure 2-27**

*Source: Department, 2012j, Google Earth, 2011.*

### Aerially Deposited Lead (ADL)

Until their use was banned in the 1990s, additives in gasoline expelled lead-based compounds from engine exhaust. Consequently, lead was aerially deposited as a particulate, frequently concentrating onto the adjacent road shoulders and in medians. Lead can be hazardous to humans as exposure can adversely affect the nervous, circulatory, and reproductive systems and can severely damage the brain and kidneys.

Fairgrounds Drive and the surrounding roads and freeways were constructed prior to the 1990s, and therefore there is potential for lead to be present in the soils adjacent to the roadways. Due to this potential, an aerially deposited lead survey was conducted at 13 locations at varying depths within the hazardous materials study area, including the two properties where subsurface assessments were conducted. Soluble lead concentration in one soil sample was found to be above the State's regulatory threshold (i.e., soluble threshold limit concentration [STLC]) defining hazardous waste.

### Asbestos-Containing Material and Lead-Based Paint

The Build Alternative involves the demolition of residential and commercial building structures. There is potential that asbestos-containing material (ACM) and lead-based paint (LCP) may be present in these building structures. Asbestos, a known human carcinogen, was commonly used in construction and building materials until the 1980s, when it was phased out. Lead oxide and lead chromate were commonly used in paint until 1978, when regulations limited the allowable lead content in paint. Lead is a known teratogen (i.e., it has the potential to cause birth defects), and a reproductive toxin. Asbestos fibers and lead particles emitted to the air during demolition activities could potentially pose a risk to human health. [3]

## Environmental Consequences

### Build Alternative

Five sites with known or potential releases of hazardous materials were identified that could potentially contaminate soil and/or groundwater beneath areas of proposed construction from the Build Alternative (see **Table 2.2.5-1** and **Figure 2-27**). This could pose a potential risk to construction workers. Upon further investigation of these releases, and subsequent subsurface sampling, three of these sites were determined not likely to pose a risk to people. The remaining two sites, Stop N Save Gasoline Station and Liquor (501 Fairgrounds Drive) and Unocal 76 Gasoline Service Station (223 Fairgrounds Drive), are likely to pose some risk, as Unocal 76 Gasoline Service Station has been identified as a petroleum products release site and Stop N Save Gasoline Station and Liquor could potentially be a petroleum products release site upon future investigation. Within the existing project corridor, no other build alternatives were deemed viable because of the physical constraints associated with the topography of the area and developed land uses surrounding the roadways. Given these constraints, the current design of the Build

[5] The California EPA Department of Toxic Substances Control (DTSC)Variance No. V09HQSCD006 (Caltrans Variance), states that "lead-contaminated soil (s) that meets thecriteria for hazardous waste but contains less than 3397 mg/Kg total lead and is hazardous primarily because of ADL contamination associated with exhaust emissions..." can be managed within a project site under certain circumstances

Alternative would not be feasible without the acquisition of these hazardous material sites. As such, these hazardous material sites cannot be avoided.

Additionally, construction workers may be exposed to aerially deposited lead in the surface soils within the hazardous materials study area, which could result in harmful health hazards. Furthermore, the Build Alternative involves demolition of older existing freeway elements and structures that potentially contain asbestos and lead-based paint. Asbestos was commonly used in construction materials, such as insulation in buildings and piping until the 1980's, when its use was phased out. Similarly, lead-based paints were used up until 1978. The demolition of residential and commercial structures could generate waste containing asbestos and lead-based paint that could post a threat to human health and the environment. It is possible that construction workers would be exposed to these harmful hazardous materials during demolition activities.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways. Therefore, the No-Build Alternative would avoid the hazardous waste and materials effects associated with the Build Alternative.

## Avoidance, Minimization, and/ or Mitigation Measures

Under the Build Alternative, demolition of building structures will be required. Prior to any demolition work, an asbestos and lead-based paint survey would be conducted to determine the presence or absence of asbestos-containing materials and lead-based paint in these building structures. Preceding any demolition activities, construction contractors will follow regulations requiring the abatement of asbestos-containing materials and lead-based paint to prevent exposure to construction workers and nearby residents.

Because of the potential for exposure to hazardous materials and aerially deposited lead, the following measures would be taken to avoid any potential adverse effects:

- If acquisition of the Stop N Save Gasoline Station and Liquor site (501 Fairgrounds Drive) is necessary, a limited subsurface sampling for potential soil and groundwater contamination would be conducted prior to purchase. Implementation of the limited surface sampling in this area is expected to cost approximately $15,000.
- In the event that excavation occurs in the former UST pit on the Tell Rentals property, and petroleum impacts on the 223 Fairgrounds Drive property remain within soil and groundwater, a Soil Management Plan (SMP) would be developed to manage excavation of soil from these areas. The SMP would specifically address worker protection during excavation and removal activities. The SMP would also address the transport and disposal of petroleum-impacted soil to the appropriate Class II Landfill facility. Implementation of the SMP in this area is expected to cost approximately $16,000.

- The Department's Variance[5] would be used to manage soil excavated in the area of the ADL sample location with hazardous concentration levels. Excavated soil would be placed in other roadway right-of-way areas and covered with one foot of clean soil. The management of ADL-contaminated soils during the construction of the Build Alternative is expected to cost approximately $26,000.

## 2.2.6 Air Quality

### Regulatory Setting

The Federal Clean Air Act (FCAA) as amended in 1990 is the federal law that governs air quality. The California Clean Air Act of 1988 is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and State ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns. The criteria pollutants are: carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter (PM, broken down for regulatory purposes into particles of 10 micrometers or smaller – $PM_{10}$ and particles of 2.5 micrometers and smaller – $PM_{2.5}$), lead (Pb), and sulfur dioxide ($SO_2$). In addition, State standards exist for visibility reducing particles, sulfates, hydrogen sulfide ($H_2S$), and vinyl chloride. The NAAQS and State standards are set at a level that protects public health with a margin of safety, and are subject to periodic review and revision. Both State and Federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics within their general definition.

Federal and State air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). In addition to this type of environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

FCAA Section 176(c) prohibits the U.S. Department of Transportation and other Federal agencies from funding, authorizing, or approving plans, programs or projects that are not first found to conform to State Implementation Plan (SIP) for achieving the goals of Clean Air Act requirements related to the NAAQS. "Transportation Conformity" takes place on two levels: the regional, or planning and programming, level, and the project level. The proposed project must conform at both levels to be approved. Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 CFR 93 govern the conformity process.

[5] The California EPA Department of Toxic Substances Control (DTSC)Variance No. V09HQSCD006 (Caltrans Variance), states that "lead-contaminated soil (s) that meets thecriteria for hazardous waste but contains less than 3397 mg/Kg total lead and is hazardous primarily because of ADL contamination associated with exhaust emissions..." can be managed within a project site under certain circumstances

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the standards set for carbon monoxide (CO), nitrogen dioxide ($NO_2$), ozone ($O_3$), particulate matter ($PM_{10}$ and $PM_{2.5}$), and in some areas sulfur dioxide (SO2). California has attainment or maintenance areas for all of these transportation-related "criteria pollutants" except $SO_2$, and also has a nonattainment area for lead (Pb). However, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all of the transportation projects planned for a region over a period of at least 20 years (for the RTP), and 4 years (for the FTIP). RTP and FTIP conformity is based on use of travel demand and air quality models to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), and the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and "open-to-traffic" schedule of a proposed transportation project are the same as described in the RTP and the FTIP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires "hot spot" analysis if an area is "nonattainment" or "maintenance" for carbon monoxide (CO) and/or particulate matter ($PM_{10}$ or $PM_{2.5}$). A region is "nonattainment" if one or more of the monitoring stations in the region measures violation of the relevant standard, and U.S. EPA officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. EPA, and are then called "maintenance" areas. "Hot spot" analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific procedural and documentation standards for projects that require a "hot spot" analysis. In general, projects must not cause the "hot spot"-related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

## Affected Environment

The following analysis is based on the *Air Quality Technical Report* completed in March 2012 (Department, 2012a). The Build Alternative is located within the San Francisco Bay Area Air Basin (SF Air Basin) and within the jurisdictional boundaries of the Bay Area Air Quality Management District (BAAQMD). These boundaries effectively make up the air quality study area for the Build Alternative.

The climate within the air quality study area is affected by its proximity to both the Pacific Ocean and the San Francisco Bay, which has a moderating influence. The Bay cools the air with which it comes in contact during warm weather and warms the air during cold

weather. Typical summer maximum temperatures for the region are in the upper 70's, while winter maximum temperatures are in the high 50's or low 60's. Minimum temperatures usually range from the high 50's in the summer to the upper 30's and low 40's in the winter. Rainfall in the area occurs mostly in the months of November through March. Winds flow typically from the southwest.

### Regional Air Quality Conformity

The BAAQMD monitors pollutants of concern, known as criteria pollutants, and air quality conditions throughout the SF Air Basin. The current attainment status for the SF Air Basin according to national and State standards of criteria pollutants is included in **Table 2.2.6-1**.

As shown in **Table 2.2.6-1**, the SF Air Basin is not in attainment of State or Federal standards with respect to Ozone or $PM_{2.5}$. In addition, the SF Air Basin is not in attainment of State standards for $PM_{10}$.

Table 2.2.6-1 San Francisco Bay Area Basin Attainment Status

| Pollutant | Federal Status | State Status |
|---|---|---|
| Ozone ($O_3$) – 1-Hour Standard | Not Applicable | Serious Nonattainment |
| Ozone ($O_3$) – 8-Hour Standard | Nonattainment | Not Applicable |
| Respirable Particulate Matter ($PM_{10}$) | Unclassified | Nonattainment |
| Fine Particulate Matter ($PM_{2.5}$) | Nonattainment | Nonattainment |
| Carbon Monoxide (CO) | Attainment (maintenance) | Attainment |
| Nitrogen Dioxide ($NO_2$) | Attainment | Attainment |
| Sulfur Dioxide ($SO_2$) | Attainment | Attainment |
| Sulfates | No National Standards | Attainment |
| Lead | Not Applicable | Attainment |
| Hydrogen Sulfide | No National Standards | Unclassified |
| Visibility Reducing Particles | No National Standards | Unclassified |

Source: Department, 2012a.

## Environmental Consequences

### Build Alternative

*Regional Conformity*

A portion of the Build Alternative is included in the Metropolitan Transportation Commission (MTC) current conforming regional transportation plan (i.e., Transportation 2035 Plan) and the 2011 Transportation Improvement Program (or TIP) as Project SOL-090015 (RTP Project 230708). MTC approved the financially constrained TIP on October 27, 2010. Following approval by the Department, the FHWA, and Federal Transit Administration (FTA) incorporated the TIP into the Federal Statewide Transportation Improvement Program (FSTIP) on December 14, 2010. The Build Alternative design scope and concept have not changed from the design scope and concept in the RTP and TIP listings. However, all applicable Transportation Control Measures are included in the Build Alternative. The Build Alternative is not considered to be a Project of Air Quality Concern with respect to $PM_{2.5}$.

*Project Level Conformity*

Carbon Monoxide

The SF Bay Area Air Basin, including the air quality study area, is located in a maintenance area for the Federal 1-hour and 8-hour CO standards. Therefore, a CO hot spot analysis was conducted for the Build Alternative.

CO concentrations were modeled using traffic volumes, emissions, meteorology, and the roadway/receptor geometry. I-80 and SR 37 mainline segments, Redwood Street and Fairground Drive were modeled since this is where there would be a combination of the highest traffic volumes, greatest project traffic contribution, and highest level of congestion. High volume freeways, such as I-80/SR 37 and congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of CO. Project impacts from local traffic were evaluated by the quantitative method, which is modeling roadside CO concentrations associated with the Build Alternative and comparing them to the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Predicted CO concentrations, which include background levels, are shown in **Table 2.2.6-2**.

The CO assessment was conducted for future No-Build and Build Alternative conditions in 2015 and 2035.[6] The results indicate that future CO levels with or without the project would remain below the NAAQS and CAAQS. The predicted decrease in future levels is due to vehicle fleet turnover, with newer (less polluting) vehicles replacing older vehicles. As a result, the Build Alternative would not cause or contribute to any localized CO violations.

[6] As a conservative approach to the air quality analysis, the 2015 conditions incorporate future traffic operations assuming the complete construction and operation of the Build Alternative, including those improvements that are anticipated to be constructed concurrently with the construction of the I-80 HOV Lane Project (2035). See **Subsection 2.1.3** for a detailed description of the traffic forecasts assumptions.

Table 2.2.6-2 Project Worst-Case 1-Hour and 8-Hour Carbon Monoxide Concentrations

| Receiver ID | 2015 No-Build | | 2015 Build | | 2035 No-Build | | 2035 Build | | Exceed Thresholds |
|---|---|---|---|---|---|---|---|---|---|
| | 1-hour | 8-hour | 1-hour | 8-hour | 1-hour | 8-hour | 1-hour | 8-hour | |
| Redwood Street | 3.8 | 2.7 | 3.8 | 2.7 | 3.5 | 2.5 | 3.5 | 2.5 | No |
| Fairgrounds Drive | 3.8 | 2.7 | 3.8 | 2.7 | 3.6 | 2.5 | 3.6 | 2.5 | No |
| I-80 | 5.5 | 3.9 | 5.5 | 3.9 | 4.0 | 2.8 | 4.0 | 2.8 | No |
| SR 37 | 4.9 | 3.4 | 4.9 | 3.4 | 4.0 | 2.8 | 4.0 | 2.8 | No |
| | | | | | | | | | |
| NAAQS | 35 | 9.0 | 35 | 9.0 | 35 | 9.0 | 35 | 9.0 | No |
| CAAQS | 20 | 9.0 | 20 | 9.0 | 20 | 9.0 | 20 | 9.0 | No |

Source: Department, 2012a.

The project-level air quality analysis indicates that the Build Alternative would not cause or contribute to any new localized CO violations; therefore, meeting the "hot-spot" conformity requirements of 40 CFR 93.116(a).

Particulate Matter

Because the SF Air Basin is located within nonattainment areas for the Federal and State $PM_{2.5}$ standards, and nonattainment for the State $PM_{10}$ standard, a qualitative PM hot-spot analysis is required under the EPA Transportation Conformity rule for projects of air quality concern (POAQC).

On March 10, 2006, the U.S. EPA published a final rule that establishes the transportation conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts in $PM_{2.5}$ and $PM_{10}$ nonattainment and maintenance areas (71 FR 12468). The Federal $PM_{10}$ standards have been met in the SF Bay Area, and therefore the Build Alternative is not subject to hot spot analysis for $PM_{10}$ for purposes of transportation conformity. The Federal $PM_{2.5}$ standards are exceeded in the SF Bay Area and the Build Alternative would be subject to hot spot analysis for $PM_{2.5}$ for purposes of transportation conformity. MTC's Air Quality Conformity Task Force met on September 22, 2011 as part of interagency consultation for the Build Alternative. On October 6, 2011, the task force took action to conclude that the Build Alternative was not a POAQC. As a result of that action, a project-level $PM_{2.5}$ Hot Spot Analysis is not required.

The project area is nonattainment for the much more stringent $PM_{10}$ and $PM_{2.5}$ CAAQS. All urbanized portions of California do not attain these standards. The Build Alternative would result in no net change in emissions of these pollutants, since the vehicle miles traveled (VMT) would essentially be the same with or without implementation of the project. There would be less congestion during peak hours with the Build Alternative than without the Build Alternative. $PM_{10}$ and to some extent, $PM_{2.5}$ are almost directly related to VMT. With the Build Alternative, there would be a slight increase in peak traffic period speeds for some roadway segments. However, these changes would not affect localized concentrations of $PM_{10}$ and $PM_{2.5}$.

Mobile Source Air Toxics (MSAT)

In addition to the criteria pollutants, mobile source air toxics (MSAT) are regulated by the EPA in order to meet air quality attainment goals. MSAT are a subset of the 188 hazardous air pollutants identified by the Clean Air Act as harmful to human health. MSATs are emitted into the air as fuel evaporates or by passing through engines unburned.

The purpose of this project is to relieve congestion and improve traffic flow on the local roadway network by constructing several roadway improvements along portions of Fairgrounds Drive and Redwood Parkway/Redwood Street. The Build Alternative would not result in any significant changes in traffic volumes, vehicle mix, the general location of the existing roadway facilities, or any other factor that would cause an increase in emissions impacts relative to the No-Build Alternative. FHWA has determined that the types of improvements proposed by the Build Alternative would generate minimal air quality impacts for Clean Air Act criteria pollutants (i.e., no meaningful potential for MSAT effects) and should not been linked with any special MSAT concerns.[7] Consequently, a qualitative analysis for MSATs is not required.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050, while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from the Build Alternative.

### *Temporary Construction Impacts*

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities related to construction. Emissions from construction equipment also are anticipated and would include CO, $NO_x$, VOCs, $PM_{10}$,$PM_{2.5}$, and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from $NO_x$ and VOCs in the presence of sunlight and heat.

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[7] FHWA, September 30, 2009. "*Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents*", Available at: http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.pdf; Last accessed June 25, 2012.

Site preparation and roadway construction typically involves clearing, cut-and-fill activities, grading, removing or improving existing roadways, building bridges, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough $PM_{10}$, $PM_{2.5}$, and small amounts of CO, $SO_2$, $NO_x$, and VOCs to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an additional source of airborne dust after it dries. $PM_{10}$ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. $PM_{10}$ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the U.S. EPA to add 1.09 tonne (1.2 tons) of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Caltrans' Standard Specifications (Section 14-9.02) pertaining to dust minimization requirements requires use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related $PM_{10}$ emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, $SO_2$, $NO_x$, VOCs and some soot particulate ($PM_{10}$ and $PM_{2.5}$) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

$SO_2$ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal standards can contain up to 5,000 parts per million (ppm) or more of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm), so $SO_2$-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

Construction is expected to begin in fall 2014 and last 15 months. Construction-related emissions are generally short-term in duration but may still cause adverse air quality impacts. Average daily construction exhaust emissions were analyzed for the Build Alternative, as shown in **Table 2.2.6-3**.

Table 2.2.6-3 Daily Construction Emissions

| Project Construction Phase | Average Daily Emission Estimates (lbs/day) | | | |
|---|---|---|---|---|
| | ROG | NOx | Exhaust $PM_{10}$ | Exhaust $PM_{2.5}$ |
| Grubbing/Land Clearing | 5.7 | 42.7 | 1.9 | 1.7 |
| Grading/Excavation | 5.2 | 35.2 | 1.8 | 1.6 |
| Drainage/Utilities/Sub-Grade | 4.1 | 26.9 | 1.5 | 1.3 |
| Paving | 3.2 | 16.3 | 1.4 | 1.2 |
| BAAQMD Significance Thresholds | 54 | 54 | 82 | 54 |
| Exceeds Threshold? | No | No | No | No |

Source: Department, 2012a.

Emissions associated with construction were found not to exceed any of the BAAQMD thresholds of significance for construction-related criteria air pollutants and precursors.

### No-Build Alternative

The No-Build Alternative would make no physical improvements or alterations to Fairgrounds Drive and Redwood Parkway/Redwood Street or the connecting roadways. Therefore, the No-Build Alternative would avoid the localized air quality effects associated with the Build Alternative. Other planned and programmed projects that would occur under the No-Build Alternative within the SF Air Basin would have the same potential for adverse air quality effects related to construction activities and vehicle emissions. Any improvements under the No-Build Alternative would require project-specific environmental review to determine the environmental impacts related to such expansions and/or improvements. These improvements would be subject to the same conformity requirements, Federal and State air quality standards and regulations as the Build Alternative.

## Avoidance, Minimization, and/ or Mitigation Measures

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following measures will reduce any air quality impacts resulting from construction activities:

- The construction contractor shall comply with Caltrans' Standard Specifications Section14-9.01 and Section 10 of Caltrans' Standard Specifications (2010).
  - Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 14-9.01 specifically requires compliance by the contractor with all applicable laws and

regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

  - Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.

- Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions, at least two times per day.
- Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.
- Wash off trucks as they leave the right-of-way as necessary to control fugitive dust emissions.
- Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.
- Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- Establish ESAs for sensitive air receivers within which construction activities involving extended idling of diesel equipment would be prohibited, to the extent that is feasible.
- Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- Cover all transported loads of soils, sand, loose material and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce $PM_{10}$ and deposition of particulate matter during transportation.
- Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.
- Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of

Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

### Climate Change

Climate change is analyzed in **Chapter 3.0**, **CEQA Evaluation**. Neither U.S. EPA nor FHWA has promulgated explicit guidance or methodology to conduct project-level greenhouse gas analysis. As stated on FHWA's climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making process–from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this environmental document and may be used to inform the National Environmental Policy Act (NEPA) decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

## 2.2.7 NOISE

### Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

*California Environmental Quality Act*

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible. The rest of this

section will focus on the NEPA-23 CFR 772 noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

*National Environmental Policy Act and 23 CFR 772*

For highway transportation projects with FHWA (and the Department, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). **Table 2.2.7-1** lists the noise abatement criteria for use in the NEPA-23 CFR 772 analysis.

**Figure 2-28** lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise-levels discussed in this section with common activities.

In accordance with the Department's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

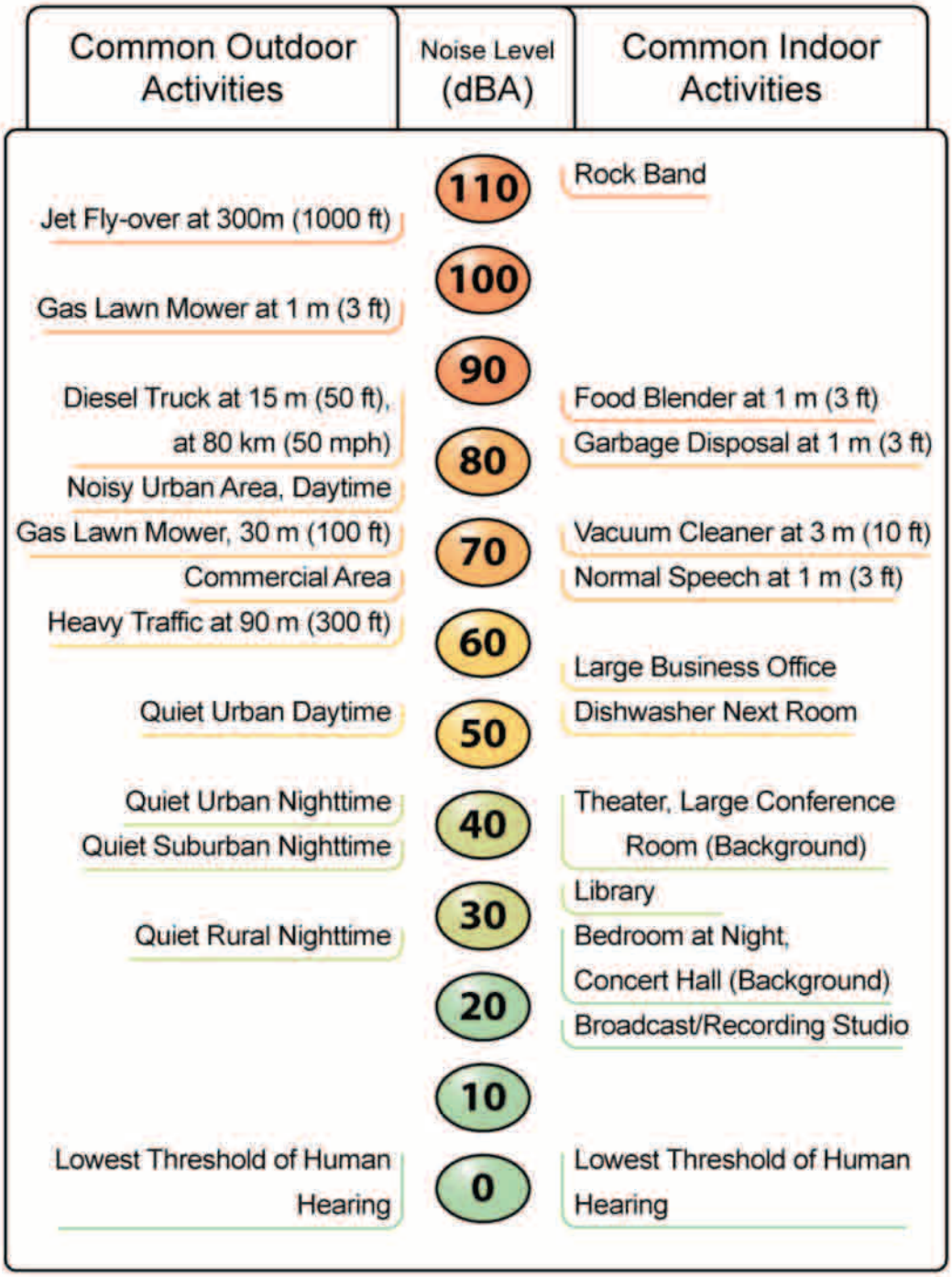
If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Department's Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5 dBA reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents acceptance and the cost per benefited residence.

Table 2.2.7-1 Noise Abatement Criteria

| Activity Category | NAC, Hourly A- Weighted Noise Level, dBA $L_{eq}(h)$ | Description of Activities |
|---|---|---|
| A | 57 (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose |
| B[1] | 67 (Exterior) | Residential. |
| C[1] | 67 (Exterior) | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. |
| D | 52 (Interior) | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E | 72 (Interior) | Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F. |
| F | No NAC – reporting only | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing. |
| G | No NAC – reporting only | Undeveloped lands that are not permitted. |

[1] Includes undeveloped lands permitted for this activity category.




**Noise Levels of Common Activities**

Figure **2-28**

*Source: California Department of Transportation, 2011.*

## Affected Environment

The following analysis is based on the Noise Study Report completed in November 2011 (Department, 2012h). The Noise Study Report follows FHWA and Caltrans policies to address traffic noise impacts and noise abatement. The report was prepared in accordance with the Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol or TNAP). The Protocol addresses both Federal and State environmental statutes with regard to noise.

The existing noise environment throughout the Build Alternative's noise study area varies by location, depending on site characteristics such as proximity to Interstate I-80, SR 37, Fairgrounds Drive, Redwood Parkway, and other noise sources, the relative elevation of roadways and receivers, and any intervening structures or barriers. Land uses that could be subject to traffic and construction noise impacts from the proposed improvements along the noise study area include single- and multi-family residences (Category B land uses) and hotels/motels (Category E land use). No other noise-sensitive Category A, C, or D land uses were identified.

The noise study area was divided into three segments for noise modeling and noise abatement assessment purposes. **Figures 2-29**, **2-30,** and **2-31** show the sensitive receiver locations in each segment.

As shown in **Figure 2-29**, Category B land uses within Segment 1 are residences located north of SR 37, both west and east of Fairgrounds Drive. Ten-foot noise barriers currently shield these Category B land uses. The Marriott Courtyard Vallejo Napa Valley, a Category E land use, is also located within Segment 1 and has an outdoor pool. The location of the pool is to the east and south of the hotel building, thus is not affected by traffic noise from Fairgrounds Drive. This land use was not included as a sensitive receiver since the noise environment at the outdoor pool area results primarily from vehicle traffic along portions of I-80 and SR 37 outside of the Build Alternative limits.

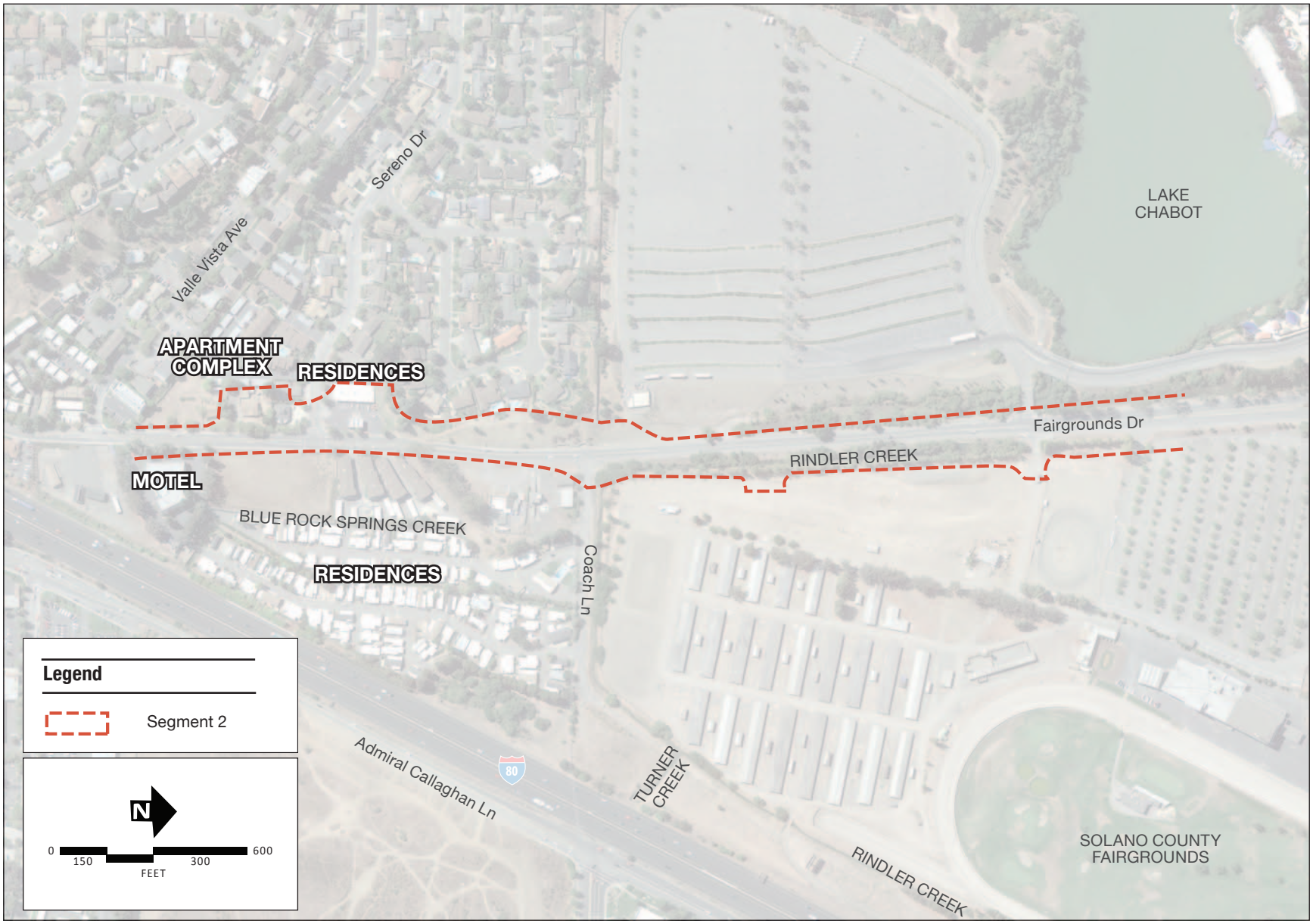
Segment 2 contains Category B and E land uses, including single- and multi-family residences and a motel (see **Figure 2-30**). Traffic noise within Segment 2 primarily results from Fairgrounds Drive and I-80. As shown in the figure, an apartment complex is located to the west of buildings planned from removal. The motel in this segment also has an outdoor pool that is located east and south of the motel building, away from Fairgrounds Drive. Since the noise environment at the outdoor pool of the motel results primarily from traffic along portions of I-80 outside of the Build Alternative limits, the motel was not included as a sensitive receiver.

The majority of land uses within Segment 3 are residential. Other non-noise sensitive land uses include gas stations, restaurants, and other small businesses. One noise barrier in Segment 3 is located along the westbound shoulder of I-80, as shown in **Figure 2-31**. Several structures would be removed as part of the Build Alternative, and receivers represented by ST-9 would be most affected since the existing buildings served as noise barriers to shield excess traffic noise from Fairgrounds Drive.

**Segment 1: Noise-Affected Receivers**

Figure 2-29

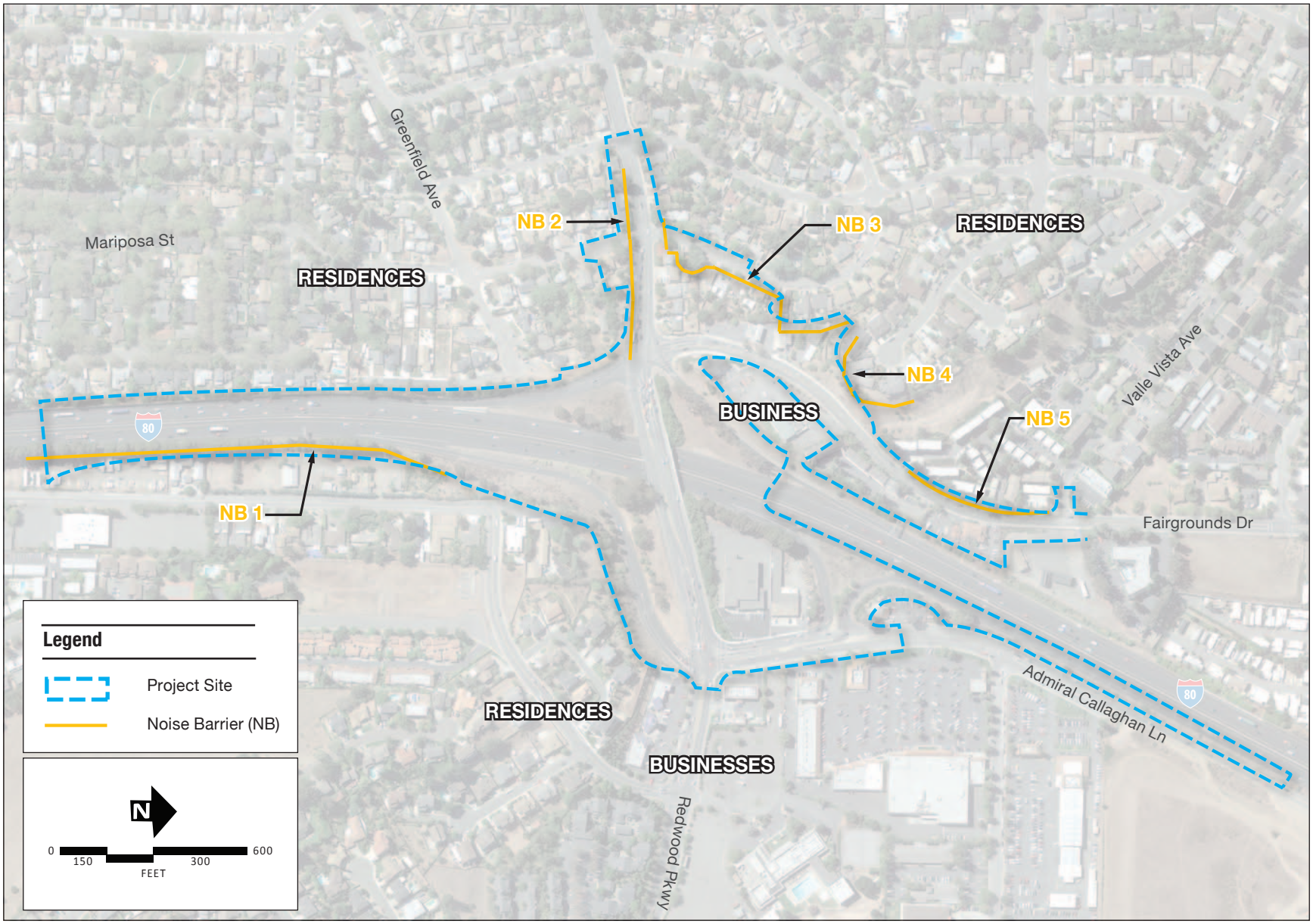
*Source: Department, 2011c.*




**Segment 2: Noise-Affected Receivers**

Figure 2-30

*Source: Department, 2011c.*




**Segment 3: Noise-Affected Receivers**

Figure 2-31

*Source: Department, 2011c.*

### Noise Modeling

Short- and long-term field measurements were taken to reflect the current noise environment within the noise study area (see **Figure 2-32**). The estimated worst-hour noise levels at short-term locations were based on daytime measurement data, peak-hour traffic data, and the trends in hourly noise levels measured at nearby representative long-term measurement sites. A direct comparison of the data collected simultaneously at the long-term and short-term noise measurement sites was made to calculate worst-hour noise levels at the short-term measurement locations. These data were then compared to the worst-hour noise levels predicted for existing conditions to confirm that the model accurately reflects the measured noise data. **Table 2.2.7-2** and **2.2.7-3** summarize the long- and short-term noise measurements.

Long-term (LT) reference noise measurements were made at four reference locations within the noise study area to quantify the daily trend in noise levels and to establish the peak traffic noise hour (see **Figure 2-32**). LT noise measurement locations were selected to generally represent human activity areas adjoining Fairgrounds Drive, Redwood Parkway, and the on- and off-ramps for I-80 and SR 37.

Twelve short-term (ST) noise measurements were made on March 30, 2011 concurrent with the data being collected at the long-term measurement sites. This facilitates a direct comparison between both the short-term and long-term reference noise measurements and allows for the identification of the worst-hour noise levels at Category B and E land uses in the vicinity of the Build Alternative.

At all locations, noise levels were measured 5-feet above the ground surface and at least 10 feet from structures or barriers. Noise measurement locations were used as noise modeling receivers for the prediction of existing and future worst-hour traffic noise levels.

Table 2.2.7-2 Summary of Long-Term Noise Measurements

| Receiver ID | Location | Time | Worst Hour $L_{eq[h]}$ |
|---|---|---|---|
| LT-1 | Rear yard of 1861 Griffin Drive | 5:00 PM | 61 |
| | | 4:00 PM | 61 |
| | | 7:00 AM | 60 |
| LT-2 | Rear yard of 51 Emerald Circle | 1:00 PM | 62 |
| | | 6:00 AM | 62 |
| | | 7:00 PM | 63 |
| LT-3 | Rear yard of 456 Moorland Street | 5:00 PM | 53 |
| | | 7:00 AM | 57 |
| | | 7:00 AM | 56 |
| LT-4 | Across from 11 Greenfield Court | 5:00 PM | 60 |
| | | 6:00 AM | 62 |
| | | 7:00 AM | 62 |

Source: Department, 2012h.
Notes: $L_{eq[h]}$ = Equivalent sound level over one hour.

Table 2.2.7-3 Summary of Short-Term Noise Measurements

| Receiver ID | Location | Time | 10-min $L_{eq}$, dBA | Estimated Worst Hour $L_{eq[h]}$, dBA |
|---|---|---|---|---|
| ST-1 | Side yard of 563 Admiral Callaghan Lane | 11:00 AM | 66 | 68 |
| | | 11:10 AM | 65 | |
| ST-2 | Rear yard of 1382 Monteith Drive | 11:40 AM | 58 | 60 |
| | | 11:50 AM | 58 | |
| ST-3 | Setback of Ridge Townhomes adjacent to Fairgrounds Drive | 12:30 PM | 66 | 71 |
| | | 12:40 PM | 68 | |
| ST-4 | Rear yard of 170 Obsidian Court | 1:30 PM | 60 | 62 |
| | | 1:40 PM | 59 | |
| ST-5 | Rear deck of 1354 Del Mar Avenue | 2:30 PM | 65 | 68 |
| | | 2:40 PM | 65 | |
| ST-6 | Rear yard of 618 Kathy Ellen Drive | 10:50 AM | 60 | 62 |
| | | 11:00 AM | 60 | |
| ST-7 | Front yard of 326 Greenfield Avenue | 11:40 AM | 61 | 63 |
| | | 11:50 AM | 61 | |
| ST-8 | Motel 6 Pool Area | 12:30 PM | 64 | 67 |
| | | 12:40 PM | 65 | |
| ST-9 | Front yard of 409 Moorland Street | 1:30 PM | 61 | 67 |
| | | 1:40 PM | 60 | |
| ST-10 | Franciscan Apartments Picnic Area | 2:10 PM | 48 | 52 |
| | | 2:20 PM | 49 | |
| ST-11 | Front yard of 16 Howard Street | 1:30 PM | 60 | 67 |
| ST-12 | Outdoor Use Area of the Fairgrounds Drive Apartments | 2:10 PM | 53 | 58 |
| | | 2:20 PM | 55 | |

Source: Department, 2012h.

**Legend**

- Segment 3
- Segment 2
- Segment 1

LT/ST-# Noise-Sensitive Receivers
R-# Additional Traffic Noise Modeling Receivers
*(refer to Tables 2.2.7-2 through 6)*

N

0 200 400 800
FEET

**Noise Measurements and Receiver Locations**

Figure **2-32**

*Source: Department, 2011c.*

*Figure 2-32 Noise Measurements and Receiver Locations (back)*

## Environmental Consequences

The Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise" provides procedures for preparing operational and construction noise studies and evaluating noise abatement options. Under 23 CFR 772, projects are categorized as Type I or Type II projects. Type I projects are defined as proposed Federal or Federal-aid highway improvements for the construction of a highway on new location; or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. The FHWA identifies Type I projects as improvements that would create a completely new noise source, increase the volume or speed of traffic, or move the traffic closer to a receiver. Type I projects include the addition of an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway, or the widening of an existing ramp by a full lane for its entire length. As the Build Alternative involves the modification and realignment of interchanges and ramps, as well as widening of ramps and roadway, it is considered a Type I project. The FHWA noise regulations require noise analyses for all Type I projects.

Future (2015 and 2035) traffic noise conditions under the Build and No-Build Alternatives were modeled for the identified noise-sensitive receivers illustrated in **Figures 2-29, 2-30,** and **2-31**.[8] As previously discussed, the noise-sensitive receivers in the noise study area are defined as Category B and E land uses, which have NAC thresholds of 67 dBA (exterior) and 72 dBA (interior), respectively. Noise levels predicted to approach (within 1 dBA) or exceed the NAC are considered unacceptable noise conditions for these land uses. Additional receivers were added to the traffic noise model to represent locations where noise measurements could not be made at the outdoor use area or in acoustically equivalent locations (see **Figure 2-32**).

### Build Alternative

*Segment 1 – Flint Court to Lake Chabot*

Category B land uses within this segment of the Build Alternative are residences located north of State Route 37, both west and east of Fairgrounds Drive (see **Figure 2-29**). Ten-foot noise barriers currently shield these Category B land uses. As shown in **Table 2.2.7-4**, worst-hour average noise levels under existing conditions range from 62 to 63 dBA $L_{eq[h]}$[9] at receivers represented by modeling sites LT-1 and ST-4. Future noise levels under the No-Build and Build Alternative scenarios are expected to remain at 62 dBA $L_{eq[h]}$ at ST-4 and 63 dBA $L_{eq[h]}$ at LT-1. The 2015 and 2035 Build conditions would increase existing noise levels by less than 1 decibel, and the noise level increase attributable to the Build

[8] As a conservative approach to the noise analysis, the 2015 conditions incorporate future traffic operations assuming the complete construction and operation of the Build Alternative, including those improvements that are anticipated to be constructed concurrently with the construction of the I-80 HOV Lane Project (2035). See **Subsection 2.1.3** for a detailed description of the traffic forecasts assumptions.

[9] $L_{eq[h]}$ is the equivalent steady-state sound level over one hour.

Alternative is not considered substantial. First- and second-tier residences would not experience noise levels that approach or exceed the NAC of 67 dBA. Noise impacts were not identified at Category B land uses located north of SR 37 and noise abatement was not considered for feasibility or reasonableness.

Table 2.2.7-4 Segment 1, Modeled Noise Levels

| Receiver ID | Number of Receivers Represented | Worst Hour Noise Levels, $L_{eq[h]}$, dBA | | | | | Approaches/ Exceeds (A/E) NAC? |
|---|---|---|---|---|---|---|---|
| | | 2010 | 2015 | | 2035 | | |
| | | Existing | No-Build | Build | No-Build | Build | |
| LT-1 | 8 | 63 | 63 | 63 | 63 | 63 | No |
| ST-4 | 5 | 62 | 62 | 62 | 62 | 62 | No |

Source: Department, 2012h.

*Segment 2 – Lake Chabot to Valle Vista Avenue*

**Table 2.2.7-5** summarizes the traffic noise modeling results for Category B land uses located between Coach Lane and Valle Vista Avenue. Traffic noise levels were modeled at Sites LT-2, ST-10, and ST-12. Two additional receivers, R1 and R2, were added to the traffic noise model. Worst-hour average noise levels under existing conditions range from 50 to 57 dBA $L_{eq[h]}$ at Category B residential outdoor use areas shielded by existing buildings (see ST-10, ST-12, and R1), and are approximately 59 to 63 dBA $L_{eq[h]}$ at single-family rear yards and multi-family patios adjacent to Fairgrounds Drive (see LT-2 and R2).

The 2015 and 2035 Build conditions would remove several existing buildings located northwest and southwest of the Fairgrounds Drive/Sereno Drive intersection resulting in an increase of approximately 3 to 4 dBA $L_{eq[h]}$ above existing noise levels. Category B land uses that are not currently shielded by existing buildings would experience traffic noise increases of about 0 to 2 dBA $L_{eq[h]}$ above existing noise levels with implementation of the Build Alternative. Noise levels at Category B land uses located between Coach Lane and Valle Vista Avenue would not approach or exceed the NAC of 67 dBA in private or common outdoor spaces. As a result, noise impacts were not identified and noise abatement was not considered for feasibility or reasonableness.

Table 2.2.7-5 Segment 2, Modeled Noise Levels

| Receiver ID | Number of Receivers Represented | Worst Hour Noise Levels, $L_{eq[h]}$, dBA | | | | | Approaches/ Exceeds (A/E) NAC? |
|---|---|---|---|---|---|---|---|
| | | 2010 | 2015 | | 2035 | | |
| | | Existing | No-Build | Build | No-Build | Build | |
| LT-2 | 6 | 63 | 63 | 64 | 64 | 65 | No |
| ST-10 | 1 | 50 | 50 | 53 | 52 | 54 | No |

| Receiver ID | Number of Receivers Represented | Worst Hour Noise Levels, $L_{eq[h]}$, dBA | | | | | Approaches/ Exceeds (A/E) NAC? |
|---|---|---|---|---|---|---|---|
| | | 2010 | 2015 | | 2035 | | |
| | | Existing | No-Build | Build | No-Build | Build | |
| ST-12 | 1 | 56 | 57 | 57 | 58 | 58 | No |
| R1 | 1 | 57 | 57 | 60 | 59 | 61 | No |
| R2 | 4 | 59 | 60 | 59 | 62 | 60 | No |

Source: Department, 2012h.

*Segment 3 – Valle Vista Avenue to Minahan Way*

Traffic noise modeling results for Category B land uses located within this segment of the Build Alternative are summarized in **Table 2.2.7-6**. Traffic noise levels were modeled at the ten measurement sites and at five additional modeling receivers identified as receivers R3 – R7.

Table 2.2.7-6 Segment 3, Modeled Noise Levels

| Receiver ID | Number of Receivers Represented | Worst Hour Noise Levels, $L_{eq[h]}$, dBA | | | | | Approaches/ Exceeds (A/E) NAC? |
|---|---|---|---|---|---|---|---|
| | | 2010 | 2015 | | 2035 | | |
| | | Existing | No-Build | Build | No-Build | Build | |
| LT-3 | 2 | 57 | 57 | 58 | 58 | 59 | No |
| LT-4 | 6 | 63 | 63 | 63 | 64 | 64 | No |
| ST-1 | 4 | 69 | 69 | 69 | 70 | 70 | Yes |
| ST-2 | 14 | 60 | 61 | 61 | 61 | 61 | No |
| ST-3 | 16 | 71 | 72 | 71 | 73 | 73 | Yes |
| ST-5 | 3 | 69 | 69 | 69 | 70 | 71 | Yes |
| ST-6 | 6 | 63 | 64 | 63 | 64 | 64 | No |
| ST-7 | 3 | 64 | 64 | 63 | 64 | 64 | No |
| ST-9 | 3 | 65 | 65 | 66 | 66 | 67 | Yes |
| ST-11 | 1 | 65 | 65 | 65 | 66 | 66 | Yes |
| R3 | 12 | 78 | 78 | 78 | 79 | 79 | Yes |
| R4 | 3 | 76 | 76 | 76 | 77 | 77 | Yes |
| R5 | 4 | 58 | 58 | 63 | 59 | 64 | No |
| R6 | 3 | 62 | 62 | 67 | 63 | 68 | Yes |
| R7 | 3 | 65 | 65 | 65 | 66 | 66 | Yes |

Source: Department, 2012h.
[1]Noise Increase Type: A/E = Approach or Exceed NAC, S=Substantial Increase (12 dBA or more).

Traffic noise levels at Receivers represented by measurement sites LT-3, LT-4, ST-2, ST-6, and ST-7 in **Figure 2-32** are calculated to remain below 64 dBA $L_{eq[h]}$ and would not approach or exceed the NAC. Noise levels would not substantially increase as a result of the Build Alternative under future conditions in 2015 or 2035. Noise impacts were not identified for Category B land uses located west of the southbound on-ramp to I-80 from Redwood Parkway as these receivers are currently and would remain shielded by an existing noise barrier and topography. Category B land uses located in areas away from the Build Alternative (LT-3 and ST-6) would not be impacted by the Build Alternative. Noise abatement was not considered for receivers LT-3, LT-4, ST-2, ST-6, and ST-7.

Category B land uses represented by measurement/modeling sites ST-1, R3, and R4 are currently exposed to traffic noise levels in excess of the NAC, with hourly average noise levels during the worst-hour ranging from 69 to 78 dBA $L_{eq[h]}$. Worst-hour traffic noise levels at these receivers would be about 1 dBA $L_{eq[h]}$ higher ranging from 70 to 79 dBA $L_{eq[h]}$.

Worst-hour average noise levels under existing conditions are approximately 69 to 71 dBA $L_{eq[h]}$ at Category B residential outdoor use areas adjacent to Fairgrounds Drive at ST-3 and ST-5). A 2 dBA $L_{eq[h]}$ increase in traffic noise levels is predicted at these receivers assuming 2035 Build conditions, resulting in worst-hour average noise levels of approximately 71 to 73 dBA $L_{eq[h]}$, exceeding the NAC by 4 to 6 dBA $L_{eq[h]}$. This is considered a noise impact that requires consideration of noise abatement. See discussion below.

The 2015 and 2035 Build conditions would remove several existing buildings located in the Moorland Street vicinity resulting in an increase of 2 to 6 dBA $L_{eq[h]}$ above existing noise levels at ST-9, R5, and R6. The 2035 Build noise levels would also exceed the NAC at receivers ST-9 and R6, requiring consideration of noise abatement.

### *Temporary Construction Impacts*

Noise generated by demolition related to the Build Alternative and construction activities would be a function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of construction activities, the proximity of nearby sensitive land uses, and the presence or lack of shielding at these sensitive land uses. Construction noise levels would vary on a day-to-day basis during each phase of construction depending on the specific task being completed.

Construction phases anticipated with the Build Alternative would include demolition, clearing and grubbing, earthwork, widening of Fairgrounds Drive, widening on- and off-ramps at the Fairgrounds Drive/SR 37 interchange, reconfiguration of ramps at the Redwood Parkway/I-80 interchange, relocation of Fairgrounds Drive/Redwood Parkway intersection, construction of cul-de-sacs at Moorland Street and Howard Avenue, construction of noise barriers, and paving. Each construction phase would require a different combination of construction equipment necessary to complete the task and differing usage factors for such equipment.

Build Alternative construction activities would be primarily concentrated at the Fairgrounds Drive/Redwood Parkway/I-80 interchange region and along Fairgrounds Drive. The reconfiguration of ramps and local roadways would at times bring construction activities within approximately 75 to 150 feet of adjacent Category B receivers.

**Table 2.2.7-7** presents the construction noise levels calculated for each major phase of construction, including the highest instantaneous sound level measure during a specific period ($L_{max}$), and the average noise level during the measurement period ($L_{eq[h]}$).. In some instances, maximum instantaneous noise levels are calculated to be slightly lower than hourly average noise levels. This occurs because maximum instantaneous noise levels generated by multiple pieces of construction equipment are not likely to occur at the same time. Hourly average noise levels resulting from multiple pieces of construction equipment would be additive resulting in slightly higher calculated noise levels. Noise generated by construction equipment drops off at a rate of 6 dB per doubling of distance.

Table 2.2.7-7 Construction Equipment Noise Levels at 100 Feet

| Construction Phase | Maximum Noise Level ($L_{max}$, dBA) | Hourly Average Noise Level ($L_{eq[h]}$, dBA) |
|---|---|---|
| Demolition | 84 | 78 |
| Earthwork | 76 | 78 |
| Paving | 79 | 79 |
| Structures (with Pile Driving) | 95 | 89 |
| Structures (without Pile Driving) | 77 | 78 |

Source: Department, 2012h.

### No-Build Alternative

The existing and 2035 No-Build noise conditions are predicted to be almost equal in Segment 1. Although noise levels would increase for receivers in Segment 2 under the 2035 No-Build conditions, the noise levels would not approach or exceed the NAC. The 2035 Build and No-Build noise conditions are predicted to be almost equal in Segment 3. Many receivers in Segment 3 would experience noise levels approaching or exceeding the NAC under both the 2035 Build and No-Build conditions. The No-Build Alternative would make no physical or operational improvement to Fairgrounds Drive, nearby roadways, or interchanges, therefore, noise abatement for those areas already approaching or exceeding the NAC thresholds would not be considered for this alternative. Implementation of the currently planned and funded land use projects within the noise study area would be subject to the same noise assessment as the Build Alternative. These projects would be required to comply with the local operation and construction guidelines regarding noise impacts, which would be determined under separate environmental review.

## Avoidance, Minimization, and/ or Mitigation Measures

None of the noise receivers within the Build Alternative area would be exposed to a substantial increase (greater than 12 dBA) in future predicted noise levels, 2015 and 2035, under the Build Alternative. Consequently, no adverse effects under NEPA were identified.

Receivers that exceed either State or Federal thresholds must be evaluated for potential abatement/mitigation measures. Noise abatement is considered only where frequent human use occurs and where a lowered noise level would be of benefit. Noise abatement must be predicted to provide at least a 5- dB minimum reduction at an impacted receiver to be considered feasible by Caltrans (i.e., the barrier would provide a noticeable noise reduction). Additionally, the Department's acoustical design goal for noise abatement is that noise abatement must be predicted to provide at least 7 dB of noise reduction at one or more benefited receivers. Noise abatement measures that provide noise reduction of more than 5 dB are encouraged as long as they meet the reasonableness guidelines.

Potential noise abatement measures identified in the Department protocol include:

- Avoiding the project impact by using design alternatives, such as altering the horizontal and vertical alignment of the project;
- Constructing noise barriers;
- Using traffic management measures to regulate types of vehicles and speeds;
- Acquiring property to serve as a buffer zone; and/or
- Acoustically insulating Activity Category D land uses.

The chosen abatement type for this Build Alternative would be the construction of noise barriers. A preliminary noise abatement analysis was conducted that identified the feasibility of constructing or replacing noise barriers to reduce traffic noise levels. According to the Department and FHWA policies, a noise barrier must provide a minimum 5 dBA reduction in traffic noise to be considered feasible. Furthermore, under the Department policies, noise barriers should interrupt the line of sight between a truck stack (assumed to be 11.5 feet high) and a receiver (assumed to be 5 feet above ground). If, during final design, conditions substantially change, noise barriers might not be provided.

The views and opinions of the residents living immediately adjacent to the project area and affected by the traffic noise would be considered in reaching a decision on noise abatement measures. The Department's policy is to not provide noise barriers if 50 percent or more of those affected residents do not want them. The opinions of these residents would be obtained through public and community meetings or other means, as appropriate. The final decision regarding noise abatement would be made upon completion of the project design and public involvement processes.

### Noise Abatement Decision Report

A Noise Abatement Decision Report (NADR) was prepared for the project using NEPA-23 CFR 772 and the Department's protocol, which requires that noise abatement be considered for projects that are predicted to result in traffic noise impacts. The NADR analysis was incorporated into the Draft Project Report (Department, 2012f).

The Department's protocol establishes a process for assessing the reasonableness and feasibility of noise abatement. Before publication of the draft environmental document, a preliminary noise abatement decision is made. The preliminary noise abatement decision is based on the feasibility of evaluated abatement and the preliminary reasonableness determination. If, during final design, conditions substantially change, noise barriers might not be provided. The final decision regarding noise barriers will be made upon completion of the project design and public involvement processes.

Noise abatement is considered only where frequent human use occurs and where a lowered noise level would be beneficial. Noise abatement would be acoustically feasible if it provides noise reduction of at least 5 dBA at receivers subject to noise impacts. Other non-acoustical factors relating to geometric standards (e.g., sight distances), safety, maintenance, and security also can affect feasibility. Additionally, the Department's acoustical design goal is to provide at least 7 dBA of noise reduction at one or more benefitted receivers.

To determine whether a proposed barrier is reasonable, the total reasonable allowance for that barrier must be greater or equal to the cost of the barrier. The reasonableness allowance is $55,000 per benefitted receiver. A benefited receiver is any receiver receiving a minimum of a 5-dBA reduction in noise levels from the proposed barrier.

Noise abatement was evaluated at impacted areas in Segment 3 and a total of five potential barriers were investigated, as illustrated in **Figure 2-31**. The primary focus of the investigation is on NAC Category B land uses where frequent human usage occurs and a lowered noise level would be of benefit. Noise barriers were evaluated at the following locations within Segment 3:

- Eastbound I-80 Edge of Shoulder (EOS)/Right of Way (ROW), (Noise Barrier 1)
- Eastbound Redwood Parkway ROW, (Noise Barrier 2)
- Southbound Fairgrounds Drive ROW, (Noise Barrier 3)
- Del Mar Avenue, (Noise Barrier 4)
- Southbound Fairgrounds Drive ROW, (Noise Barrier 5)

*Noise Barriers*

Based on preliminary design data, all noise barriers would reduce noise levels by at least 5 dBA at affected receivers. **Table 2.2.7-8** and the discussions below provide a summary of the acoustically feasibility and reasonableness of each noise barrier. Proposed noise barriers and associated affected receiver locations are depicted in **Figure 2-31**.

<u>Noise Barrier 1: Eastbound I-80 Edge of Shoulder/Right-of-Way</u>

By the year 2035, traffic noise levels at receivers ST-1, R3, and R4 are predicted to be between 70 and 79 dBA under the Build Alternative. This predicted noise level represents an increase of 1 dBA over existing conditions. Because the noise level is predicted to approach or exceed the NAC, noise abatement is considered in this area.

Noise barrier 1 is proposed along the eastbound I-80 edge of shoulder between Station 210+00 and Station 222+00. The noise barrier would transition from the eastbound I-80 edge of shoulder to the eastbound right-of-way and continue uphill to Station 225+00.

Table 2.2.7-8 Noise Abatement Summary

| Noise Barrier | Barrier Height | Predicted Noise Reduction | Acoustically Feasible? (≥5 dBA reduction) | Number of Benefited Receivers | Total Reasonable Allowance | Estimated Construction Cost | Preliminary Recommendation for Incorporation? |
|---|---|---|---|---|---|---|---|
| Barrier 1 | 8 foot | 3-6 dBA | Not for all receivers | 15 | $825,000 | $1,338,000 | No |
| | 10 foot | 5-9 dBA | Yes | 19 | $1,045,000 | $1,491,000 | No |
| | 12 foot | 6-11 dBA | Yes | 19 | $1,045,000 | $1,619,000 | No |
| | 14 foot | 7-12 dBA | Yes | 19 | $1,045,000 | Not estimated | -- |
| | 16 foot | 7-13 dBA | Yes | 19 | $1,045,000 | Not estimated | -- |
| Barrier 2 | 8 foot | 4 dBA | No | -- | -- | -- | -- |
| | 10 foot | 6 dBA | Yes | 3 | $165,000 | $179,000 | Yes[a] |
| | 12 foot | 7 dBA | Yes | 3 | $165,000 | $214,000 | No |
| | 14 foot | 8 dBA | Yes | 3 | $165,000 | Not estimated | -- |
| | 16 foot | 9 dBA | Yes | 3 | $165,000 | Not estimated | -- |
| Barrier 3 | 8 foot | 4-9 dBA | Not for all receivers | 7 | $385,000 | $430,000 | No |
| | 10 foot | 6-11 dBA | Yes | 10 | $550,000 | $481,000 | Yes |
| | 12 foot | 7-12 dBA | Yes | 10 | $550,000 | $554,000 | No |
| | 14 foot | 9-13 dBA | Yes | 10 | $550,000 | Not estimated | -- |
| | 16 foot | 9-14 dBA | Yes | 10 | $550,000 | Not estimated | -- |
| Barrier 4 | 6 foot | 8 dBA | Yes | 3 | $165,000 | $648,000 | No |
| | 8 foot | 10 dBA | Yes | 3 | $165,000 | $692,000 | No |
| | 10 foot | 12 dBA | Yes | 3 | $165,000 | Not estimated | -- |
| | 12 foot | 14 dBA | Yes | 3 | $165,000 | Not estimated | -- |
| | 14 foot | 15 dBA | Yes | 3 | $165,000 | Not estimated | -- |
| Barrier 5 | 8 foot | 7 dBA | Yes | 16 | $880,000 | $243,000 | No[b] |
| | 10 foot | 9 dBA | Yes | 16 | $880,000 | $292,000 | No[b] |
| | 12 foot | 10 dBA | Yes | 16 | $880,000 | Not estimated | -- |
| | 14 foot | 11 dBA | Yes | 16 | $880,000 | Not estimated | -- |
| | 16 foot | 12 dBA | Yes | 16 | $880,000 | Not estimated | -- |

Source: Department, 2012f.
Notes: [a] Although the cost to construct Barrier 2 is more than the reasonable allowance, a 10-foot noise barrier is recommended for construction. Refer to discussion above.
[b] Although the cost to construct Barrier 5 is less than the reasonable allowance, a noise barrier is not recommended for construction. Refer to discussion below.

The height of the modeled noise barrier varies in heights ranging from 8 feet to 16 feet tall. An 8-foot barrier would not provide a feasible noise reduction at ST-1, but would feasibly reduce noise levels at receivers R3 and R4. A 10-foot to 16-foot barrier would provide feasible noise reductions at the 19 Category B land uses represented by receivers ST-1, R3, and R4. A minimum 10-foot barrier would also provide at least 7 dB of noise reduction at one of more benefitted receiver and would break the line of sight from first-row receivers to truck stacks. Thus, noise barrier 1 would be acoustically feasible at a minimum height of 10 feet.

The reasonable allowance calculated for an 8-foot barrier, assuming 15 benefitted receivers, is $825,000. The reasonable allowance calculated, assuming 19 benefitted receivers for the 10-foot and 12-foot barriers, is $1,045,000. The estimated cost of construction for an 8-foot, 10-foot, and 12-foot barrier would be $1,338,000, $1,491,000, $1,619,000, respectively. For all three estimated heights, the cost to construct would surpass the reasonable allowance amount. Because the cost of the barrier is more than the reasonable allowance, noise barrier 1 is not anticipated to be incorporated into the Build Alternative.

Noise Barrier 2: Eastbound Redwood Parkway ROW

By year 2035, traffic noise levels at receivers R7 is predicted to be 66 dBA under the Build Alternative. This predicted noise level represents an increase of 1 dBA over existing conditions. Because the noise level is predicted to approach or exceed the NAC, noise abatement is considered in this area.

Noise barrier 2 is proposed along the eastbound Redwood Parkway right-of-way between Station 221+00 and Station 227+00. A minimum 10-foot noise barrier would provide a feasible noise reduction (minimum 5 dB reduction). However, a 12-foot noise barrier would be necessary to provide at least 7dB of noise reduction at the three Category B land uses represented by R7. Thus, noise barrier 2 would be acoustically feasible at the 10-foot and 12-foot height.

The reasonable allowance calculated for all noise barrier heights, assuming three benefitted receivers, is $165,000. The estimated construction cost of a 10-foot noise barrier is $179,000, which is $14,000 higher than the reasonable allowance. The estimated cost to construct a 12-foot barrier is $214,000, which is $49,000 higher than the reasonable allowance. During the initial public informational meeting held in January 2011, residents representing the receivers in this area indicated that noise was an issue and that noise barriers were desired. Thus, although the cost of the barrier is more than the reasonable allowance, a 10-foot noise barrier is recommended for construction.

Noise Barrier 3: Southbound Fairgrounds Drive ROW

By the year 2035, traffic noise levels at receivers ST-9, R5, and R6 are predicted to be between 64 and 68 dBA under the Build Alternative. This predicted noise level represents an increase of 2 to 6 dBA over existing conditions. Because the noise level is predicted to approach or exceed the NAC, noise abatement is considered in this area.

Noise barrier 3 is proposed along the property line of Moorland Street residential properties that would remain with the Build Alternative, along the northbound Moorland

Street right-of-way, and along a segment of westbound Redwood Parkway at the right-of-way. The noise barrier is proposed to replace the existing acoustical shielding that would be lost with the removal of homes on the east side of Moorland Street. The height of the modeled noise barrier varies in heights ranging from 8 feet to 16 feet tall. An 8-foot barrier would not provide a feasible noise reduction at ST-9, but would feasibly reduce noise levels at receivers R5 and R6. A 10-foot to 16-foot barrier would provide feasible noise reductions at the 10 Category B land uses represented by receivers ST-9, R5, and R6. Thus, to be considered acoustically feasible for all receiver locations, noise barrier 3 would need to be at least 10 feet in height.

The reasonable allowance calculated for an 8-foot barrier, assuming seven benefitted receivers, is $385,000. The reasonable allowance calculated for the 10-foot and 12-foot heights, assuming ten benefitted receivers, is $550,000. The estimated cost to construct an 8-foot, 10-foot, and 12-foot barrier would be $430,000, $481,000, and $554,000, respectively. Of these, only the 10-foot barrier's cost to construct would be less than the reasonable allowance. Because the cost of the barrier is less than the reasonable allowance, this 10-foot barrier is likely to be incorporated into the Build Alternative.

Noise Barrier 4: Del Mar Avenue

By year 2035, traffic noise levels at receivers ST-5 is predicted to be 71 dBA under the Build Alternative. This predicted noise level represents an increase of 2 dBA over existing conditions. Because the noise level is predicted to approach or exceed the NAC, noise abatement is considered in this area.

Noise barrier 4 would be located at the terminus of Del Mar Avenue adjacent to Fairgrounds Drive. Noise barriers tested within the right-of-way were not feasible given that the receivers are situated approximately 30 feet above Fairgrounds Drive and overlooked I-80. Thus, noise barrier 4 was tested on private property at the top of the slope generally following the 220-foot elevation contour. At this location, a minimum 6-foot noise barrier would provide at least 8 dB of noise reduction at the 3 Category B land uses represented by receiver ST-5. Thus, noise barrier 4 would be acoustically feasible at the 6-foot height.

The reasonable allowance calculated for all noise barrier heights, assuming three benefitted receivers, is $165,000. The estimated cost to construct a 6-foot and 8-foot barrier would be $648,000 and $692,000, respectively. Because the cost of the barrier is more than the reasonable allowance, noise barrier 4 is not anticipated to be incorporated into the Build Alternative.

Noise Barrier 5: Southbound Fairgrounds Drive ROW

By year 2035, traffic noise levels at receivers ST-3 is predicted to be 73 dBA under the Build Alternative. This predicted noise level represents an increase of 2 dBA over existing conditions. Because the noise level is predicted to approach or exceed the NAC, noise abatement is considered in this area.

Noise barrier 5 is proposed along the southbound Fairgrounds Drive right-of-way between Station 241+00 and Station 246+00. The proposed location of this noise barrier is on the inside of a tight radius curve at the back of a sidewalk flanked by driveways on either side

(see
**Figure 2-31**). Receiver ST-3 represents approximately 16 Category B land uses in the apartment community southwest of the Fairgrounds Drive and Valle Vista Avenue intersection. A minimum 8-foot noise barrier would provide a feasible noise reduction (minimum 7 dB reduction). Thus, noise barrier 5 would be acoustically feasible at the 8-foot height.

The reasonable allowance calculated for all noise barrier heights, assuming 16 benefitted receivers, is $880,000. The estimated cost to construct an 8-foot and 10-foot barrier would be $243,000 and $292,000, respectively. However, the construction of a noise barrier at this location would create a non-standard stopping sight distance for the Fairgrounds Drive southbound lanes and impair the corner-sight distances for vehicles exiting the apartment driveways. These factors render the barrier infeasible and construction of this noise barrier 5 is not recommended.

### Minimizing Construction Noise

To reduce potential noise effects resulting from construction, the following measures would be implemented during construction:

- Noise-generating construction activity shall be restricted to between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday. No construction activities should occur on weekends or holidays. If work is necessary outside of these hours, the Department shall require the contractor to implement a construction noise monitoring program and, if feasible, provide additional mitigation as necessary (in the form of noise control blankets or other temporary noise barriers, etc.) for affected receivers.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise generating equipment as far as possible from sensitive receivers when sensitive receivers adjoin or are near a construction project area.
- Utilize "quiet" air compressors and other "quiet" equipment where such technology exists.
- Prohibit unnecessary idling of internal combustion engines within 100 feet of residences.
- Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors, portable power generators, or self-powered lighting systems as far practical from noise sensitive receivers.
- Require all construction equipment to conform to Section 14-8.02, Noise Control, of the latest Standard Specifications. Section 14-8.02 states that construction noise shall not exceed an $L_{max}$ of 86 dBA at 50 feet from job site activities between the hours of 9 PM to 6 AM.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities and distribute this plan to adjacent noise-sensitive receivers. The construction plan should also list the construction noise reduction measures identified in this study.

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# 2.3 BIOLOGICAL ENVIRONMENT

## 2.3.1 NATURAL COMMUNITIES

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

The City of Vallejo Tree Ordinance (290 N.C., as amended) requires that certain trees on City property must be identified and permitted prior to removal. Tree removal permits are issued by the City's director of Public Works. Protected trees must meet the following criteria to be protected under this ordinance: (1) be located within in the City roadway right-of-way or planting easement; (2) of a variety the City has on a past or current "Approved Street Tree List".

### Affected Environment

The following analysis is based on the Natural Environment Study (NES) prepared for the project 2012 (Department, 2012g).

The biological study area (BSA) for the project includes the physical footprint of the Build Alternative, including all areas where ground disturbance would occur under the Build Alternative (e.g., construction staging areas, demolition, earthmoving activities, etc.), areas of right-of-way to be obtained for the project, temporary access areas, and an area to the west of Fairgrounds Drive, between Coach Lane and Six Flags Discovery Kingdom Amusement Park. For the purposes of the California red-legged frog (CRLF) habitat assessment surveys, the survey area was extended beyond the BSA to meet the specific United States Fish and Wildlife Service (USFWS) or Department protocols (see **Subsection 2.3.2** and **Subsection 2.3.3** for further discussion of the affected environment for these specific resource areas). The BSA was defined to include the areas of direct and indirect potential effects that may occur when implementing the proposed Build Alternative.

Formal studies of biological resources within the BSA were conducted on the following listed survey dates:

- A habitat assessment for CRLF was conducted on December 10th, 2010.
- Eight protocol-level surveys for CRLF were conducted, including six breeding season surveys (four nighttime surveys/two daytime surveys) and two non-breeding season surveys (one nighttime survey/one daytime survey). Breeding season surveys were conducted on February 23, March 14, March 21 and March 31, 2011. Non-breeding season surveys were conducted on July 28, 2011.
- Field investigations were conducted on February 16-18th, 2011 to delineate water features, including wetlands and other Waters of the U.S.

- A reconnaissance survey to identify suitable habitat for special-status plants and to verify preliminary vegetation and land-cover classification was conducted on January 12, 2011. Two natural communities within the BSA provide suitable habitat for State-listed rare plants, and therefore a protocol-level survey was conducted on September 9, 2011, to determine the presence or absence of those State-listed species.
- A tree survey was conducted over a period of four site visits between September 28, 2011 and October 12, 2011.

An Essential Fish Habitat evaluation was not required for the Build Alternative because the dam that creates Lake Chabot prevents species of fish managed for commercial or recreational uses from accessing Rindler Creek.

**Table 2.3.1-1** lists the natural communities present within the BSA (see **Figure 2-33a** and **2-33b**). Principal characteristics and general locations of these communities are described in this subsection. The vegetation types identified within the BSA support a variety of wildlife species, including mammals, birds, amphibians, reptiles, and fishes. Marsh habitats can provide habitat for fish nurseries, amphibians, aquatic reptiles, wading birds, waterfowl, and song birds. Riparian woodland can provide foraging, roosting, and nesting habitat for a variety of birds and provide cover and refuge sites for small mammals, amphibians, and reptiles. Detailed descriptions of each habitat and vegetation mapping are described in greater detail in the NES.

Table 2.3.1-1 Area of Vegetation and Land-Cover Classification Within the BSA and Estimated Areas of Impact

| Land-Cover Type | Permanent Impact (Acres) | Temporary Impact (Acres) | Total | No Impact (Acres) | Total Within BSA |
|---|---|---|---|---|---|
| Freshwater Marsh | 0.020 | 0.093 | 0.113 | 1.250 | 1.363 |
| Perennial Stream | 0.000 | 0.515 | 0.515 | 0.250 | 0.765 |
| Riparian Woodland | 0.000 | 1.423 | 1.423 | 2.599 | 4.022 |
| Road | 0.000 | 0.000 | 0.000 | 29.269 | 29.269 |
| Ruderal | 1.902 | 0.498 | 2.400 | 3.096 | 5.496 |
| Seasonal Wetland | 0.017 | 0.013 | 0.030 | 0.060 | 0.090 |
| Urban Landscaped | 9.805 | 11.062 | 20.867 | 12.678 | 33.545 |
| Total Acreage | 11.744 | 13.604 | 25.348 | 49.202 | 74.550 |

Source: Department, 2012g.

**Landcover Types** Figure **2-33a**

*Source: Department, 2012g.*

*Figure 2-33a Landcover Types (back)*

**Landcover Types** Figure **2-33b**

*Source: Department, 2012g.*

*Figure 2-33b Landcover Types (back)*

### Riparian Woodland

The 4.022 acres of riparian woodland community within the BSA includes the tree and shrub-dominated land cover found within the Rindler Creek corridor, which extends along the east and west sides of Fairgrounds Drive. The riparian woodland of the Rindler Creek corridor is composed of a dense growth of native and introduced evergreen and deciduous trees and shrubs, with an herbaceous understory. The dominant plants are large, deciduous willow shrubs that are native species, including Goodding's black willow (*Salix gooddingii*) and arroyo willow (*Salix lasiolepis*). Other native trees and shrubs are scattered throughout the area and include coast live oak (*Quercus agrifolia*), an evergreen tree; black cottonwood (*Populus balsamifera ssp. trichocarpa*), a deciduous tree; and blue elderberry (*Sambucus mexicana*), a deciduous shrub. Introduced trees and shrubs present in lesser abundance include: Italian buckthorn (*Rhamnus alaternus*), cherry plum (*Prunus cerasifera*), silver wattle (*Acacia dealbata*), river red gum (*Eucalyptus sideroxylon*), glossy privet (*Ligustrum lucidum*), and pines (*Pinus spp.*). These non-native species appear to have migrated from nearby landscaping. Also present in the shrub layer are dense thickets of the non-native invasive Himalayan blackberry (*Rubus discolor*). The herbaceous understory includes native and non-native grasses and annual herbs, including: saltgrass (*Distichlis spicata*), wire rush (*Juncus patens*), teasel (*Dipsacus fullonum*), common groundsel (*Senecio vulgaris*), field marigold (*Calendula arvensis*), fiddle dock (*Rumex pulcher*) and poison hemlock (*Conium maculatum*).

Riparian woodland habitat can support a variety of wildlife species including mammals, birds, reptiles, and amphibians. Riparian habitats can also provide important migration corridors for wildlife. Common wildlife that is expected to occur within the riparian woodland habitat of the BSA includes Northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), American crow (*Corvus brachyrhynchos*), lesser goldfinch (*Carduelis psaltria*), western scrub jay (*Aphelocoma californica*), a variety of sparrows and towhees (*Emberizidae*), and Pacific tree frog (*Pseudacris regilla*). Cooper's hawk (*Accipiter cooperii*), California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylii*), and western pond turtle (*Emys marmorata*) all have potential to occur within the Rindler Creek corridor. Non-native predatory species, such as fish and crayfish, were also found to inhabit Rindler Creek.

### Freshwater Marsh

Freshwater marsh is considered a natural community of special concern. Freshwater marsh habitat can provide habitat for fish, amphibians, aquatic reptiles, waterfowl, song birds, and wading birds. Common wildlife that could be expected to occur in the freshwater marsh habitat of the BSA includes passerine birds and Pacific chorus frog (*Pseudacris regilla*). California red-legged frog, foothill yellow-legged frog, and western pond turtle all have potential to occur in freshwater marsh habitat.

Nine freshwater marsh features, totaling 1.363 acres, were mapped within the BSA with the majority occurring in association with Rindler Creek and the backwater channels of Lake Chabot. Freshwater marsh vegetation within the BSA consists of open, mainly unshaded areas within the Rindler Creek corridor that have year-round standing water or

saturated soils. The freshwater marshes were largely vegetated with perennial emergent species, such as bulrush, water knotweed, and cattail. A few additional species, such as bull thistle, fringed willowherb, and Himalayan blackberry were also present.

### Ruderal Vegetation

Ruderal is the term used to describe roadside vegetation composed of primarily upland weedy, non-native grasses and forbs. It is distinguished from landscaped areas because it is highly disturbed and dominated by invasive weedy species. Ruderal vegetation is present along roadsides, within graded vacant lots, and within areas of open ground on the edges of the Six Flags Discovery amusement park property within the BSA. Non-native herbaceous species of these areas include: bristly ox-tongue (*Picris echioides*), burclover (*Medicago polymorpha*), cheeseweed (*Malva parviflora*), common groundsel, red-stemmed filaree (*Erodium cicutarium*), stinkweed (*Dittrichia graveolens*), teasel, smooth cat's-ear (*Hypochaeris glabra*), summer mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), and common mustard (*Brassica rapa*). Non-native grasses include: Harding grass (*Phalaris aquatica*), and annual bluegrass (*Poa annua*.

Ruderal habitats are capable of supporting a number of bird species associated with urban environments, and which are known to be tolerant of disturbance by human activities. Common wildlife that could be expected to occur in ruderal habitat include raccoon, Virginia opossum, striped skunk, American crow, and western fence lizard (*Sceloporus occidentalis*).

### Urban/Landscaped

The urban/landscaped areas within the BSA include areas with residential housing, small businesses, motels, gas stations, and other urban development. The dominant trees of the landscaped areas include mainly non-native species such as pines (*Pinus* spp.), eucalyptus (*Eucalyptus spp.*), fan palms (*Washingtonia spp.*), acacias and wattles (*Acacia spp.*), alders (*Alnus spp.*), maples (*Acer spp.*), ornamental pears (*Acer spp.*), liquidambar (*Liquidambar styraciflua*), ashes (*Fraxinus spp.*), and many others. A large number of species of non-native shrubs, perennial herbs, annual herbs, and grasses, also are common components of urban landscaping. Similar to the ruderal habitat described above, common wildlife that could be expected to occur in urban areas include raccoon, Virginia opossum, striped skunk, and American crow. Feral or free-roaming pets, such as dogs and cats, are also common.

### Sensitive Natural Communities

According to the California Natural Diversity Database (CNDDB) search of the United States Geological Survey (USGS) for 7.5-minute quadrangles Walnut Creek, Briones Valley, Richmond, Fairfield South, Cordelia, Benicia, Vine Hill, Cuttings Wharf, Mare Island, Mt. George, Fairfield North, and Napa. Two natural communities of special concern occur in the BSA: freshwater marsh and riparian woodland. The occurrence of these habitats is described above.

## Environmental Consequences

### Build Alternative

Two natural communities of special concern are identified within the BSA: freshwater marsh and riparian woodland. These communities consist of potentially jurisdictional Waters of the U.S., including wetlands (i.e., freshwater marsh), which are regulated by the United States Army Corp of Engineers (USACE), as well as waters of the State and riparian areas (i.e., Rindler Creek habitat) regulated by the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Game (CDFG). Adverse effects related to these two communities of special concern Waters of the U.S. are described in **Subsection 2.3.2** below, under wetlands and other Waters of the U.S.

### Temporary Construction and Operational Impacts

Impacts to riparian woodland community occur primarily in the area east of the current Fairgrounds Drive alignment, where Rindler Creek has an established riparian corridor. The riparian woodland along Rindler Creek includes approximately 151 trees that would be removed as part of the Build Alternative. This includes the removal of 32 native oak trees that are located within the landscaped areas along Fairgrounds Drive, and on private residential and commercial properties within the BSA.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway, or the connecting freeways within the BSA, and would therefore avoid the effects to natural communities associated with the Build Alternative.

## Avoidance, Minimization, and/or Mitigation Measures

The Build Alternative proposes to include on-site replacement of the wetlands (including freshwater marsh) and riparian woodlands associated with realignment of Rindler Creek see discussion in **Chapter 1.0, Proposed Project**. Replanting of native oaks within similar habitat areas of the BSA would be accomplished during the revegetation phase of the realignment process. The mitigation for oak tree removal will include appropriate replacement as part of revegetation of the realignment of Rindler Creek. The amount of replacement will be determined in consultation with the CDFG and documented in a streambed alteration agreement. Compliance with the CDFG agreements would mitigate any adverse effects to native oaks.

In accordance with the City of Vallejo Tree Ordinance, the project contractor(s) would identify any trees within City rights-of-way that would require local permitting prior to removal.

## 2.3.2 Wetlands and Other Waters

### Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act [CWA (33 U.S.C. 1344)] is the primary law regulating wetlands and surface waters. The CWA regulates the discharge of dredged or fill material into waters of the United States (U.S.), including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

USACE issues two types of 404 permits: Standard and General permits. Nationwide permits, a type of General permit, are issued to authorize a variety of minor project activities with no more than minimal effects. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 CFR Part 230), and whether permit approval is in the public interest. The 404 (b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on Waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG), the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development

Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the **Subsection 2.2.2, Water Quality**, for additional details.

## Affected Environment

The following analysis is based on the NES approved in April 2012 (Department, 2012g). Wetland delineations were conducted within the BSA by consultant biologists on February 16-18, 2011. The delineations were conducted in accordance with USACE guidance. Where portions of wetlands fell within the BSA, the wetland delineation study area boundaries were extended to include the entire water feature.

A field review of the preliminary wetland delineation was conducted with the USACE on December 8, 2011. The USACE concluded that 2.268 acres of water features in the BSA are potential Waters of the U.S., including wetlands. A map of those jurisdictional aquatic features has been submitted to the USACE for verification. **Table 2.3.2-1** summarizes the potential jurisdictional waters within the BSA, by feature.

Table 2.3.2-1 Summary of Potential Jurisdictional Wetlands and Other Waters within the BSA

| Type of Feature | Potential Jurisdictional Acreage |
|---|---|
| Wetlands | |
| Freshwater Marsh | 1.363 |
| Riparian forest mosaic | 0.145 |
| Seep | 0.023 |
| Ephemeral channel | 0.002 |
| Seasonal wetland | 0.090 |
| Perennial Stream | 0.765 |
| *TOTAL* | *2.268* |

Source: Department, 2012g.

The water features listed in **Table 2.3.2-1** above are further described below. Detailed mapping of the potential jurisdictional areas is included in the *Preliminary Wetland Delineation Report*.

### Freshwater Marsh

Nine potentially jurisdictional freshwater marsh features, totaling 1.363 acres, were mapped within the BSA. Most of these features are associated with the shallow water areas of Rindler Creek, and appear to remain perennially wet. At the time of survey, these features contained up to 2 feet of standing water. These freshwater marsh features are likely considered jurisdictional waters because they are adjacent to and/or have connectivity with Rindler Creek. Also see description above under **Subsection 2.3.1** for more information on the freshwater marsh.

### Riparian Forest Mosaic

Two potentially jurisdictional riparian forest mosaic features (totaling 0.145-acre) occur within the BSA. The habitat is patchy "mosaic," with some areas dominated by herbaceous species common to the "freshwater marsh" and/or "seasonal wetland" types, and other areas dominated by trees more common of "forest." Both features are located in low-lying areas between Fairgrounds Drive and Six Flags Discovery Kingdom. These wetlands had saturated soils, and/or up to six inches of standing water at time of survey. These features are adjacent and/or connected to Rindler Creek. Therefore, these riparian forest mosaic wetlands likely qualify as jurisdictional Waters of the U.S.

### Seasonal Wetlands

Nine jurisdictional seasonal wetland features are present in the BSA (totaling 0.090-acre). Most of the seasonal wetland features within the BSA (6 of 9) appear to be man-made. Four seasonal wetlands are located in shallow depressions of the Solano County Fairgrounds "lawn". Two seasonal wetlands occur in low-lying depressions in the landscaping on the east side of I-80. Three of the seasonal wetland features may be naturally created, and are adjacent and/or connected to Rindler Creek.

### Seep

One potentially jurisdictional seep feature occurs within the BSA (totaling 0.023-acre). This seep is located in an area of managed vegetation at the base of the Six Flags Discovery Kingdom property. The water in this area appeared to originate from a leaking irrigation valve; some rainwater was also present at the time of survey.

### Perennial Stream

Three jurisdictional perennial stream segments (totaling 0.765-acre) were mapped within the BSA. These segments are all portions of Rindler Creek. At the time of survey, Rindler Creek was approximately 20 feet wide in most segments, but wider in short segments (up to 45 feet wide). The creek was more than 5 feet deep in the center.

### Ephemeral Channels

One jurisdictional ephemeral channel feature is mapped within the BSA. This channel consists of a short (approximately 18 feet long and 4 feet wide, 0.002-acre) unvegetated erosion channel, where a seasonal wetland overflows into Rindler Creek. At the time of

the survey, this feature contained approximately 1 inch of water. This channel is likely considered jurisdictional because of its connection to Rindler Creek.

## Environmental Consequences

### Build Alternative

*Temporary Construction Effects*

As described in **Chapter 1.0, Proposed Project**, a water diversion channel would be installed to maintain flow in the unaffected portions of Rindler Creek during construction. The freshwater marsh that is downstream of the proposed diversion channel is essentially at the same elevation as Lake Chabot, and thus the backflow from the lake provides a hydrologic connection that would remain unaffected by the construction activities. This would allow the freshwater marsh community to remain hydrated during the construction activities.

Water quality during construction would be protected by best management practices (BMPs) that would be developed and included in the Storm Water Pollution Prevention Plan (SWPPP) that would be prepared and approved prior to construction (see **Subsection 2.2.2, Water Quality,** for further details regarding this plan).

*Operational Effects*

Build Alternative impacts to Waters of the U.S., CDFG streambeds, and riparian habitat would primarily be related to the fill needed to create roadbed for the proposed widening of Fairgrounds Drive. In the area of Rindler Creek and Lake Chabot, the proposed widening of Fairgrounds Drive would occur to the east of the existing roadway, which would avoid direct effects to the freshwater marsh features/seasonal wetlands immediately adjacent to the west side of Fairgrounds Drive.

As part of the Build Alternative, the existing portion of Rindler Creek north of Coach Lane would be realigned to be immediately east of the widened roadway. The realigned Rindler Creek would be of the same size as the existing creek and revegetated to maintain by hydrological and biological function. The impacted jurisdictional water features to the east of Fairgrounds Drive (totaling approximately 0.621 acres) would be restored on-site at a 1:1 replacement ratio. Impacts to the jurisdictional water features and freshwater marsh communities associated with Rindler Creek would thereby be avoided through the complete on-site replacement of the affected creek segment. The procurement of on-site restoration for impacts to these areas would be permitted and verified by the appropriate regulatory oversight agencies prior to construction. The on-site restoration of Rindler Creek is anticipated to provide satisfactory mitigation for impacts to riparian habitat, including the removal of 151 trees. Restoration on-site will also ensure that functions, such as water flow through the BSA, will continue unchanged.

**Table 2.3.2-2** summarizes the impacts to other potential jurisdictional waters within the BSA (not associated with impacts related to the realignment of Rindler Creek).

Table 2.3.2-2 Impacts to Potential Jurisdictional Wetlands outside of Proposed Rindler Creek Realignment

| Type of Feature | Potential Jurisdictional Acreage |
|---|---|
| Wetlands | |
| Freshwater Marsh | 0.020 |
| Riparian forest mosaic | 0 |
| Seep | 0 |
| Ephemeral channel | 0.002 |
| Seasonal wetland | 0.017 |
| *TOTAL* | *0.039* |

Source: Department, 2012g.

Impacts to potential jurisdictional water features outside of the Rindler Creek realignment area (0.039 acres) would not be restored on site as part of the Build Alternative, and are subject to the provisions of **Mitigation Measure BIO-1** below.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the BSA. Implementation of the currently planned and funded transportation projects outside the BSA but within the project region would be subject to the same potential presence of jurisdictional waters as the Build Alternative, since they would occur in the same general region. These projects would be required to comply with the USACE, RWQCB, and CDFG requirements regarding protected Waters of the U.S., should those features be identified within areas that would be directly or indirectly affected. The potential presence of jurisdictional waters in areas outside of the BSA would be determined under separate environmental review.

## Avoidance, Minimization, and/or Mitigation Measures

To avoid and minimize effects to the water quality of the surrounding wetlands and Waters of the U.S., the Build Alternative includes a number of general measures that are considered part of the project design (see **Chapter 1.0, Proposed Project,** of this EIR/EA). The following measures would be implemented prior to and during construction activities, and would be included as part of the special provisions of the construction bid package.

- Water quality would be protected by BMPs to be described in the Storm Water Pollution Prevention Plan (SWPPP) to be prepared prior to construction of the Build Alternative (see **Subsection 2.2.2, Water Quality**).
- All grindings and asphaltic-concrete waste would be stored within previously disturbed areas absent of habitat and at a minimum of 150 feet from any aquatic habitat, culvert, or drainage feature.

- All areas that are temporarily affected during construction or where removed roadway is restored would be revegetated with an assemblage of native grass, shrub, and tree species.

**Mitigation Measure BIO-1: Compensatory Mitigation for Jurisdictional Water Features**

Any impacts jurisdictional water features that cannot be recreated on-site as part of the relocation of Rindler Creek shall be subject to formalized mitigation requirements of the regulatory agencies. A conceptual restoration and mitigation plan shall be prepared prior to permit applications to regulatory agencies. The on-site restoration of Waters of the U.S. combined with the implementation of other components of the conceptual restoration and mitigation plan will ensure no net loss of functions and values of Waters of the U.S.

The off-site mitigation ratio proposed for Waters of the U.S., including wetlands, under jurisdiction of the USACE, is 3:1 acres of mitigation per acre of permanent impact. Temporary impacts are proposed for mitigation at 1:1 acres of mitigation to impact.

Compensatory mitigation requirements among agencies are not cumulative. Mitigation acreage can be used to satisfy the requirements of multiple agencies, just as a single acre of impact to an existing resource may result in multiple requirements by agencies with varying jurisdictions. In summary, a single acre of wetland mitigation may satisfy both State and Federal agency mitigation requirements, if the characteristics of the wetland meet the definitions of each agency.

An estimate of the mitigation requirement is presented in **Table 2.3.2-3**.

Table 2.3.2-3 Proposed Wetland Mitigation for Estimated Impacts to USACE Jurisdictional Areas

| Impacts | Impact | | Mitigation (acres) | |
|---|---|---|---|---|
| | Permanent Impact | Temporary Impact | 3:1 ratio (Off Site) | 1:1 ratio (On Site) |
| Rindler Creek Realignment | 0 | 0.621 | - | 0.621 |
| All Other Build Alternative Improvements | 0.039 | 0 | 0.117 | - |
| *TOTAL* | *0.039* | *0.621* | *0.117* | *0.621* |

Source: Department, 2012g.

## 2.3.3 Plant Species

### Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) share regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species, **Subsection 2.3.5, Threatened and Endangered Species,** in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 USC Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

### Affected Environment

The following analysis is based on the NES prepared for the project in 2012 (Department, 2012g).

The identification of special-status plant species with potential to occur in the region was based on a search of the USFWS Species List Database, the CNDDB, and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants for 7.5-minute quadrangles Walnut Creek, Briones Valley, Richmond, Fairfield South, Cordelia, Benicia, Vine Hill, Cuttings Wharf, Mare Island, Mt. George, Fairfield North, and Napa.

The database searches identified 11 special-status plant species that could potentially occur in the region; however, no Federally-listed plant species has the potential to occur within the BSA. As part of the NES, a botanical survey was conducted in 2011 to identify the presence of special-status plants within the BSA. No special-status plants were identified. **Table 2.3.3-1** provides a summary of the special-status plant species which were considered to have a potential to occur within the suitable habitat of the BSA, and which were the focal species of the plant surveys.

Table 2.3.3-1 Special-status Plants Considered to have Potential to Occur within Suitable Habitat of the BSA

| Common Name | Scientific Name | Conservation Status (Fed/CA/California Rare Plant Rank) |
|---|---|---|
| Pappose tarplant | Centromadia parryi ssp.parryi | - / - / 1B.2 |
| Bolander's water hemlock | Cicuta maculata var.bolanderi | - / - / 2.1 |
| Diablo helianthella | Helianthella castanea | - / - / - 1B.2 |
| Hayfield tarplant | Hemizonia congesta ssp.congesta | - / - / 1B.2 |
| Loma Prieta hoita | Hoita strobilina | - / - / 1B.1 |
| Northern California black walnut | Juglans hindsii | - / - / 1B.1 |
| Delta tule pea | Lathyrus jepsonii var.jepsonii | - / - / 1B.2 |
| Mason's lilaeopsis | Lilaeopsis masonii | - / CR / 1B.1 |
| Marin knotweed | Polygonum marinense | - / - / 3.1 |
| Suisun Marsh aster | Symphyotrichum lentum (=Aster lentus) | - / - / 1B.1 |
| Saline clover | Trifolium hydrophilum | - / - / 1B.2 |

Source: Department, 2012g.
Notes: For the California Rare Plant Rank—Rank 1B.1: Plants that are rare, threatened, or endangered in California and elsewhere; these plants are seriously threatened in California. Rank 1B.2: Plants that area rare, threatened, or endangered in California and elsewhere; these plants are fairly threatened in California. Rank 2.1: Plants that area rare, threatened, or endangered in California, but more common elsewhere; these plants are seriously threatened in California. Rank 3.1: Plants about which we need more information, but are seriously threatened in California.

## Environmental Consequences

### Build Alternative

Since there are no known special-status plant species occurrences within the BSA, there would be no adverse effects from the proposed Build Alternative.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the BSA. Implementation of the currently planned and funded transportation projects outside the BSA but within the project region would be subject to the same potential presence of special-status plant species as the Build Alternative, since they would occur in the same general region. These projects would be required to comply with the USFWS and CDFG requirements regarding protected plant species, should those species be identified within areas that would be directly or indirectly affected. The potential presence of special status plant species in areas outside of the BSA would be determined under separate environmental review.

### Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are needed.

## 2.3.4 Animal Species

### Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the California Department of Fish and Game (CDFG) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing eas threatened or endangered are discussed in **Subsection 2.3.5** below. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

The BSA is not located within an area protected by a habitat conservation plan.

### Affected Environment

The identification of special status animal species with potential to occur in the region was based on a search of the USFWS Species List Database and the CNDDB for the thirteen USGS quadrangles surrounding the BSA, as well as field reconnaissance surveys, habitat assessments, and the wetland delineation survey completed for the project. The results of these efforts are further discussed in the appropriate sections below, and are documented in the NES.

The database searches identified 69 special-status wildlife species that could potentially occur in the vicinity of the BSA. Table 3 of the NES lists each of these species and describes whether or not the species could occur in the BSA. Of these 69 species, 4 are considered to have a moderate to high potential for occurring within the BSA, 1 species for which a protocol-level survey was conducted with negative findings, and 1 species confirmed present during the field surveys. These include:

- **Monarch butterfly** (Danaus plexippus), a species tracked in the CNDDB.
- **California red-legged frog** *(Rana draytonii)*, a Federally threatened species and a California Species of Special Concern.
- **Western pond turtle** *(Emys marmorata)*, a California Species of Special Concern.
- **Cooper's hawk** *(Accipiter cooperii)*, a species tracked in the CNDDB.
- **White-tailed kite** *(Elanus leucurus)*, a California Fully Protected Species.
- **Saltmarsh common yellowthroat** *(Geothlypis trichas sinuosa)*, a California Species of Special Concern.

California red-legged frog is listed as a Federally threatened species and is described in **Subsection 2.3.5**, Threatened and Endangered Species. The remaining four special-status species are described below.

### Monarch Butterfly

Monarch butterflies migrate long distances from summer to winter roosting grounds and produce four generations of butterflies along their route. During the spring and summer, this species can be found in open fields and meadows with milkweed, the larval host plant. During winter monarchs can be found on the coast of southern California and at high altitudes in central Mexico. Monarchs gather at their winter locations generally starting in November and roost in clusters in the trees. In spring, monarchs will reproduce and their offspring will make the return trip to the north. This species prefers dense, wind-protected tree groves, such as eucalyptus, Monterey pine and/or Monterey cypress found near the coast from northern Mendocino, California to Baja California, Mexico.

No active monarch butterfly roosts were observed during reconnaissance or protocol-level surveys for California red-legged frog, rare plants or during the tree survey.

No occurrences of milkweed were observed during the rare-plant survey, which indicates that there is no suitable larval food source on-site, and that reproduction of monarch butterflies would not occur in the BSA.

### Western Pond Turtle

Western pond turtles require still or slow-moving temporary and permanent waters such as ponds, freshwater marshes and pools in perennial streams. They favor habitats with large amounts of emergent logs or boulders, where they aggregate to bask in the sun. Individuals may remain active all year and sometimes move overland for distances of more than 300 feet to find a suitable nesting areas site. These turtles generally lay their eggs in open areas that are on dry slopes with soils rich in silt and clay, and the laying period is from April to July.

Western pond turtle observations were recorded at the mouth of Rindler Creek during the field surveys for California red-legged frog, and were reportedly present within the Rindler Creek channel, on the east side of Fairgrounds Drive, near the headwall for the culverts that direct water to flow beneath the roadway toward Lake Chabot. For the most part, the freshwater ponds, streams, and irrigation ditches within and adjacent to several of the

proposed Build Alternative improvements provide suitable habitat for this species, and are presumed occupied due to the observation in Rindler Creek.

### Cooper's Hawk

Cooper's hawk is a medium sized hawk of forests and meadows, but has adapted its lifestyle to become a common species in the San Francisco Bay Area's suburban, and urban zones. The species builds nests of sticks placed in mature landscaping trees, particularly sycamore, and hunts for house sparrows and other small passerines in residential yards and other small open spaces in the neighborhoods of the Bay Area. The East Bay has one of the highest recorded densities of this species.

There were no stick nests observed within the BSA during field surveys conducted for this project. However, the tree survey identified numerous trees that would be suitable for Cooper's hawk nesting habitat.

### White-tailed Kite

White-tailed kites inhabit open lowland valleys and low, rolling foothills. They forage in grasslands, marshes, riparian edges, and cultivated fields where prey species (mainly voles and other small mammals) are relatively abundant. White-tailed kites typically nest on the tops of trees in close proximity to good foraging locations. The CNDDB does not contain any nesting records less than 5 miles from the BSA, but this may be due to under-reporting for this fairly common species of raptor.

Natural and landscaped annual grasslands are located along the I-80 and SR-37 corridors, and may provide ideal foraging habitat for white-tailed kite. The BSA contains trees large enough to support a nest of the white-tailed kite, and the grasslands in the area would provide suitable foraging habitat for a pair of breeding kites.

No observations of white-tailed kites were recorded in the BSA during the field surveys conducted for the project.

### Saltmarsh Common Yellowthroat

The saltmarsh common yellowthroat occurs solely around the nine counties surrounding the San Francisco Bay. The species can inhabit a range of habitats from saltmarsh, wooded marsh, freshwater marsh and even into uplands, but is never far from water. The species can utilize small patches of habitat, including overgrown ditches and swales.

The freshwater marsh and riparian woodland land-cover types within the BSA are considered to be suitable habitat for this species.

There were no observations of saltmarsh common yellowthroat during the field surveys conducted for the project.

## Environmental Consequences

### Build Alternative

No impacts to monarch butterflies are expected, as they are unlikely to establish a roost in the BSA. In the unlikely event that a roost is discovered, the trees in which the roost occurs may be removed.

The realignment of Rindler Creek may result in impacts to individual western pond turtles that may be present within the creek during earthmoving operations to backfill the current channel. If earthmoving occurs during the reproductive period, eggs that have been laid along banks within the BSA could be damaged or destroyed.

Tree removal for the Build Alternative may reduce the number of potential nesting trees for Cooper's hawk, white-tailed kites, and saltmarsh common yellowthroat. A temporary reduction in available nesting habitat may occur during the realignment of the Rindler Creek channel. The alignment of the channel would experience a period of low vegetation cover until after the plant establishment period. After the vegetation of the riparian corridor and associated freshwater marsh has returned to similar densities, there is unlikely to be any remaining impact to the sensitive bird species likely to be present in the BSA.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the BSA. Implementation of the currently planned and funded transportation projects outside the BSA but within the project region would be subject to the same potential presence of special-status animal species as the Build Alternative, since they would occur in the same general region. These projects would be required to comply with the USFWS and CDFG requirements regarding protected animal species, should those species be identified within areas that would be directly or indirectly affected. The potential presence of special status animal species in areas outside of the BSA would be determined under separate environmental review.

### Avoidance, Minimization, and/or Mitigation Measures

To avoid and minimize effects to the special-status animal species and their associated habitats, the Build Alternative includes a number of general measures that are considered part of the project design (see **Chapter 1.0**). The following measures would be implemented prior to and during construction activities, and would be included as part of the special provisions of the construction bid package.

- The limits of the construction zones would be delineated with high visibility temporary fencing at least 4 feet in height, flagging, or other barrier to prevent encroachment of construction personnel and equipment outside the construction footprint. The fencing would be removed only when all construction equipment is removed from the site. No project activities would occur outside the delineated Build Alternative construction area.
- Except when necessary for construction, driver or pedestrian safety, lighting of the construction areas by artificial lighting during night-time hours would be minimized to the maximum extent practicable.
- To eliminate an attraction to wildlife, all food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed daily from the construction areas.

- To avoid injury or death of wildlife, no firearms would be allowed in the construction areas except for those carried by authorized security personnel, or local, State, or Federal law enforcement officials.
- To prevent harassment, injury or mortality of wildlife, no pets will be permitted in the construction areas.
- Nesting bird surveys would be conducted prior to clearing and grubbing activities that occur during the bird nesting season, which shall be specified as February 1 to August 31. When active bird nests are recorded, a buffer area would be established in which no project-related activities that may result in disturbance will be allowed. A qualified biologist would be consulted in order to establish a suitable buffer that is considered adequate to protect the nest from disturbance of project-related activities.
- In conjunction with nesting bird surveys, which will be conducted prior to tree removal or clearing and grubbing activities that occur between February 1 to August 31, biologists will record observations of roosting monarch butterflies. It is highly unlikely that roosts would occur in the area, but in the event that a roost is located, qualified biologist would be consulted in order to establish a suitable buffer that is considered adequate to protect the nest from disturbance of project-related activities.
- A biological monitor would be present during dewatering and backfill of Rindler Creek to capture and relocate western pond turtles. Western pond turtles that are captured shall be released outside the BSA in the lower segment of Rindler Creek. The capture and relocation of turtles would reduce the potential mortality of individuals that may be present. Relocation within the same creek is unlikely to result in mortality, because the turtles are typically mobile within the channel, and are generally robust.

## 2.3.5 Threatened and Endangered Species

This section addresses species listed or eligible for listing as threatened or endangered. The USFWS list of federally-listed species for the study area is provided in **Appendix E**.

### Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an Incidental Take statement.

Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Another Federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 19083, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

## Affected Environment

As previously discussed in **Subsection 2.3.4, Animal Species,** based on the USFWS and CNDDB database review, the CRLF was determined to have a moderate to high potential for occurring within the BSA. CRLF is listed as a Federally threatened species and designated as a California Species of Special Concern. The BSA is located within the historical and current potential range of this species; however, it is not within designated CRLF critical habitat. Historically, CRLF populations were found from Shasta County to Baja California, along both the Coast Range and the western slopes of the Sierra Nevada. The current range is greatly reduced, with a few highly localized populations in the Sierra Nevada, and most remaining populations occurring along the California coastline from Marin County to Ventura County.

CRLF primarily occurs in perennial or ephemeral ponds, pools, and streams where water remains long enough (14-28 weeks) for breeding and metamorphosis of young. Specific breeding sites include streams, creeks, ponds, marshes, sag ponds, deep pools, backwater areas, dune ponds, lagoons, and estuaries.

During wet seasons, frogs can move long distances between habitats, traversing upland areas or ephemeral drainages. Dispersal distances are typically less than 0.3 mile. Seeps and springs in open grasslands can function as foraging habitat or refugia for migrating frogs.

Following USFWS guidance, the site assessment included all potential CRLF habitats within the 1 mile radius of the proposed Build Alternative improvements. These areas were visited, photographed, and assessed for the potential presence of this species. Based upon the results of the site assessment, it was determined that there is potential for this species to occur within the BSA. To verify species presence, protocol surveys were implemented. This included six breeding season surveys (four nighttime surveys/two daytime surveys) and two non-breeding season surveys (one nighttime survey/one daytime survey). Breeding season surveys were conducted on February 23, March 14, March 21 and March 31, 2011. Non-breeding season surveys were conducted on July 28, 2011. California red-legged frogs were not observed during the surveys.

Based on the negative results of the CRLF protocol surveys, this species is considered to be absent within the BSA.

## Environmental Consequences

### Build Alternative

The Build Alternative has no expected effects to California red-legged frogs because the protocol-level surveys found negative results, and the species is considered to be absent from within the BSA.

Impacts to wetlands, as identified in **Subsection 2.3.2, Wetlands and Other Waters,** could affect areas considered to be suitable habitat for the CRLF. The design of the Build Alternative would minimize potential impacts to suitable habitat for the CRLF by confining roadway expansion along Fairgrounds Drive to a single side of the existing alignment. Jurisdictional wetlands, which are also considered suitable habitat for the CRLF, will be recreated onsite to the degree feasible, and mitigation credits will be purchased offsite to mitigate for remaining acreage of wetlands.

### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the BSA. Implementation of the currently planned and funded transportation projects outside the BSA but within the project region would be subject to the same potential presence of special-status animal species as the Build Alternative, since they would occur in the same general region. These projects would be required to comply with the USFWS and CDFG requirements regarding protected animal species, should those species be identified within areas that would be directly or indirectly affected. The potential presence of special status animal species in areas outside of the BSA would be determined under separate environmental review.

## Avoidance, Minimization, and/or Mitigation Measures

Implementation of the mitigation measures identified in **Subsection 2.3.2, Wetlands and Other Waters**, regarding the replacement of jurisdictional wetlands, would avoid impacts to suitable habitat for the CRLF.

## 2.3.6 INVASIVE SPECIES

### Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

### Affected Environment

As described in **Subsection 2.3.1, Natural Communities**, the BSA is already colonized by numerous invasive species of plant and wildlife.

### Environmental Consequences

#### Build Alternative

The Build Alternative is expected to have a minimal effect on the distribution of invasive species within the BSA. The area is already colonized by numerous invasive species of plant and wildlife, and the proposed improvements are not expected to result in the colonization of additional species. None of the species on the California list of noxious weeds is currently used by the Department for erosion control or landscaping.

In order to promote native species within the BSA, the riparian corridor of the proposed realignment of Rindler Creek would be revegetated with native plant species.

In order to reduce the occurrence of non-native wildlife, red-eared slider (a nonnative species of turtle) that may be captured incidental to proposed relocation of the native Western pond turtle, would not be released.

#### No-Build Alternative

The No-Build Alternative would make no physical or operational improvements to Fairgrounds Drive, Redwood Parkway or the connecting freeways within the BSA. Construction activities associated with the currently planned and funded transportation projects outside the BSA but within the project region would have the same potential to introduce or spread noxious weeds (non-native, invasive plants) into currently uninfested areas within or adjacent to the BSA. However, the same avoidance measures prescribed by the Department and E.O. 13112 would be applicable to these projects; thereby reducing potential impacts related to invasive species.

## Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the Build Alternative will not use species listed as noxious weeds.

# 2.4 CUMULATIVE IMPACTS

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

## 2.4.1 CUMULATIVE ANALYSIS

This cumulative analysis determines whether the Build Alternative in combination with other approved or foreseeable projects would result in a significant cumulative impact, and, if so, whether the Build Alternative's contribution to the cumulative impact would be considerable. Reasonably foreseeable future projects include land use developments and other transportation improvements that are planned and funded and would be located near the proposed Build Alternative improvements.

Planned land use developments would include:

- Redevelopment of the Solano Fairgrounds Property
- Winco Foods Store

Cumulative traffic volumes were prepared, based on the latest version of the Solano-Napa Phase II countywide transportation model. Modifications to the model were made to improve the representation of the roadway network within the traffic study area, and to ensure that the model accurately reflected planned and funded land-use development and transportation projects expected to be in place by 2015 and 2035.

## 2.4.2 Issues with no Adverse Effect

If a project would not result in a direct or indirect impact on a resource, then it will not contribute to a cumulative impact on that resource. The environmental resource areas for which a project has been found to have no adverse effect include parks and recreational facilities, coastal zone, wild and scenic rivers, farmlands/timberlands, utilities, emergency services, and energy.

The impact used in the cumulative impact analysis is the net impact (i.e., Build Alternative impact minus proposed minimization and/or mitigation measures). For resource areas where the impact would be fully offset by the proposed minimization and/or mitigation measures, there is no contribution to cumulative impacts from the project. The environmental analysis conducted for the project has determined that the project would not result in a net impact on any resource, with the exception of noise. A discussion of potential impacts to jurisdictional wetlands and other water features is also included in this section to document how the proposed avoidance and mitigation measures in **Subsection 2.3.2** would completely offset adverse effects from the Build Alternative.

Without the Build Alternative, much of the local roadway network operations would deteriorate to unacceptable levels of service, given the estimated traffic volumes generated by the approved development and planned growth in the area. The Build Alternative would have a beneficial impact on cumulative traffic conditions, as the proposed improvements are expected to relieve congestion and improve traffic flow on the local roadway network (See **Subsection 2.1.3**).

### Noise

The resource study area for noise is equivalent to the noise study area evaluated in **Subsection 2.2.7**, and encompasses all developed land uses surrounding the proposed Build Alternative improvements, with a focus on noise-sensitive receivers. The noise study conducted for the project (see **Subsection 2.2.**7) utilized traffic volumes based on the latest version of the Solano-Napa Phase II countywide transportation model (as modified to ensure that the model accurately reflected planned and funded land-use development and transportation projects expected to be in place by 2015 and 2035). As such, the noise study conducted for the project analyzed cumulative conditions within the study area.

For highway transportation projects with FHWA (and the Department, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. As such, this section focuses on the relevant noise thresholds established by the Department. Please see **Chapter 3** of this document for further information on noise impact analysis under CEQA.

In accordance with the Department's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase), or when the future noise level with the project approaches or exceeds the NAC. Sensitive receivers in close proximity to the Build Alternative include residential and hotel uses. The noise study determined that future noise levels within the study area would increase between 0 and 6 dBA under cumulative conditions with the Build Alternative, which is not considered a substantial increase (greater than 12 dBA). However, because the noise levels within the study area would exceed the NAC threshold, noise abatement options were considered, and the preliminary noise abatement analysis and decision is presented in **Subsection 2.2.7**.

The implementation of the noise abatement options determined to be feasible would effectively reduce noise levels below the NAC thresholds to a level that would completely offset the Build Alternative's contribution to cumulative noise levels. The chosen abatement type would be the construction of noise barriers. If, during final design, conditions substantially change, noise barriers might not be provided. The views and opinions of the residents living immediately adjacent to the project area and affected by the traffic noise would be considered in reaching a decision on noise abatement measures. The Department's policy is to not provide noise barriers if 50 percent or more of those affected residents do not want them. The opinions of these residents would be obtained through public and community meetings or other means, as appropriate. The final decision regarding noise abatement would be made upon completion of the project design and public involvement processes.

As discussed in **Subsection 2.2.7**, there are several locations where the cost of the noise abatement options (i.e., construction of a sound wall) would exceed the reasonable allowance for the sensitive receivers that would benefit from the noise reduction. In these locations, the noise abatement and decision analysis does not recommend the implementation of potentially feasible (but not reasonable) noise abatement options. It is also possible that design restrictions (i.e., inadequate sight distance for motorists) or negative public response to the construction of sound walls along Fairgrounds Drive would prevent the implementation of the noise abatement options that are considered both feasible and reasonable. However, if recommended noise abatement is not implemented, cumulative noise levels would increase between 0 and 6 dBA within the study area. In accordance with the Department's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, an increase in noise levels of this magnitude is not considered a substantial increase (defined as 12 dBA).

### Jurisdictional Wetlands and Other Waters

The resource study area for wetlands and other waters is equivalent to the biological study area (BSA) evaluated in **Section 2.3, biological Environment**, and encompasses the physical footprint of the Build Alternative, including all areas where ground disturbance would occur under the Build Alternative (e.g., construction staging areas, demolition,

earthmoving activities, etc.), areas of right-of-way to be obtained for the project, temporary access areas, and an area to the west of Fairgrounds Drive, between Coach Lane and Six Flags Discovery Kingdom Amusement Park. Wetland delineations were conducted within the BSA by consultant biologists on February 16-18, 2011, in accordance with United States Army Corp of Engineers (USACE) guidance. Where portions of wetlands fell within the BSA, the wetland delineation study area boundaries were extended to include the entire water feature.

A field review of the preliminary wetland delineation was conducted with the USACE on December 8, 2011. The USACE concluded that 2.268 acres of water features in the BSA are potential Waters of the U.S., including wetlands. These water features include freshwater marsh, riparian forest mosaic, seeps, ephemeral channels, seasonal wetlands, and perennial streams. The wetlands and other water features identified within the BSA support a variety of wildlife species, including mammals, birds, amphibians, reptiles, and fishes. Marsh habitats can provide habitat for fish nurseries, amphibians, aquatic reptiles, wading birds, waterfowl, and song birds. Riparian woodland can provide foraging, roosting, and nesting habitat for a variety of birds and provide cover and refuge sites for small mammals, amphibians, and reptiles.

Build Alternative impacts to Waters of the U.S., CDFG streambeds, and riparian habitat would primarily be related to the fill needed to create roadbed for the proposed widening of Fairgrounds Drive. As part of the Build Alternative, the existing portion of Rindler Creek north of Coach Lane would be realigned to be immediately east of the widened roadway. The realigned Rindler Creek would be of the same size as the existing creek and revegetated to maintain by hydrological and biological function. The impacted jurisdictional water features to the east of Fairgrounds Drive (totaling approximately 0.621 acres) would be restored on-site at a 1:1 replacement ratio. Impacts to the jurisdictional water features and freshwater marsh communities associated with Rindler Creek would thereby be avoided through the complete on-site replacement of the affected creek segment. The procurement of on-site restoration for impacts to these areas would be permitted and verified by the appropriate regulatory oversight agencies prior to construction. The on-site restoration of Rindler Creek is anticipated to provide satisfactory mitigation for impacts to riparian habitat, including the removal of 151 trees. Restoration on-site will also ensure that functions, such as water flow through the BSA, will continue unchanged.

**Table 2.4-1** summarizes the impacts to other potential jurisdictional waters within the BSA (not associated with impacts related to the realignment of Rindler Creek).

Table 2.4-1 Impacts to Potential Jurisdictional Wetlands outside of Proposed Rindler Creek Realignment

| Type of Feature | Potential Jurisdictional Acreage |
|---|---|
| Freshwater Marsh | 0.020 |
| Riparian forest mosaic | 0 |
| Seep | 0 |
| Ephemeral channel | 0.002 |
| Seasonal wetland | 0.017 |
| **TOTAL** | **0.039** |

Source: Department, 2012g.

Impacts to potential jurisdictional water features outside of the Rindler Creek realignment area (0.039 acres) would not be restored on site as part of the Build Alternative, and are subject to the provisions of **Mitigation Measure BIO-1** (see **Subsection 2.3.2**). Any impacts to jurisdictional water features that cannot be recreated on-site as part of the relocation of Rindler Creek shall be subject to formalized mitigation requirements of the regulatory agencies. A conceptual restoration and mitigation plan shall be prepared prior to permit applications to regulatory agencies. The on-site restoration of jurisdictional wetlands and other water features affected by the Build Alternative, combined with the implementation of other components of the conceptual restoration and mitigation plan will ensure no net loss of functions and values of these biological resources. As such, the implementation of the avoidance, minimization, and **Mitigation Measure BIO-1** identified in **Subsection 2.3.2** is anticipated to completely offset the Build Alternative's impacts to jurisdictional wetlands and other waters. The Build Alternative would therefore not contribute to a cumulative impact on these biological resources.

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# 3.0 California Environmental Quality Act (CEQA) Evaluation

## 3.1 DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project between the Solano Transportation Authority (STA), Solano County, and the City of Vallejo, in cooperation with the California Department of Transportation (Department) and the Federal Highway Administration (FHWA), and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable Federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 USC 327. The Department is the lead agency under NEPA. Solano Transportation Authority (STA) is the lead agency under CEQA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement (EIS), or some lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (Build Alternative) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the Build Alternative and ways to mitigate each significant effect. If the Build Alternative may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of the proposed Build Alterative being evaluated in this EIR/EA and CEQA significance that apply to this process.

## 3.2 DISCUSSION OF SIGNIFICANCE OF IMPACTS

The CEQA Environmental Significance Checklist (**Appendix A**) identifies the physical, environmental effects that might be affected by implementation of the proposed Build Alternative. The findings for the CEQA checklist were determined in consultation with the technical studies prepared for this project, as listed in **Chapter 7.0**, **References**. The CEQA impact levels include: potentially significant impact, less-than-significant impact with mitigation, less-than significant-impact, and no impact. In many cases, background studies performed in connection with the Build Alternative indicate no significant impact.

### 3.2.1 ISSUES WITH NO IMPACT

As part of the scoping and environmental analysis conducted for the Build Alternative, the following environmental issues were considered but no adverse impacts were identified: growth, coastal zone, wild and scenic rivers, farmlands/timberlands, utilities, emergency services, and energy. Refer to **Table 2-1**, for a more detailed description of these resource areas determined to be unaffected by the Build Alternative.

### Less-than-Significant Effects of the Build Alternative

The CEQA Checklist identified the following items as "Less then Significant". These items include resource areas where the Build Alternative would have a less-than-significant effect with the implementation of the avoidance and minimization measures identified in the relevant sections of **Chapter 2.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures**.

**Land Use**

The Build Alternative is within an existing urban context that is highly developed, and would not alter the use of land in the area. The Build Alternative does not conflict with any applicable habitat conservation plan or natural community conservation plan. See **Subsection 2.1.1**, **Land Use**, for further analysis.

**Community Impacts**

The Build Alternative consists of improvements to an existing roadway, and would not divide an established community. Existing housing and businesses would be displaced as a result of the project; however, the Department's Relocation Assistance Program would be utilized to help displaced individuals. See **Subsection 2.1.2**, **Community Impacts**, for a more detailed analysis.

**Traffic**

The Build Alternative intends to relieve existing congestion and improve traffic flow on the local roadway network for approved redevelopment and planned growth in the area. This would be accomplished by improving the existing interchanges and intersection operations; and improving the safety of the local roadway network by reducing congestion. Replacement of the existing non-standard design features in some areas would also

improve emergency access. The Build Alternative would not conflict with any applicable transportation plans, policies, or programs. See **Subsection 2.1.3**, **Traffic and Transportation/Pedestrian and Bicycle Facilities**, for a more detailed analysis.

### Visual

The Build Alternative would not have a substantial adverse effect on a scenic vista, damage scenic resources, degrade existing visual character of the area, or create a new source of substantial light or glare. The area of the Build Alternative is already heavily developed, and no scenic resources are known in the area. See **Subsection 2.1.4**, **Visual/ Aesthetics**, for a more detailed analysis.

### Cultural Resources

There are no archaeological or historical resources within the Build Alternative's are of potential effect (APE). The Build Alternative would not result in a significant impact to cultural resources or cause a substantial adverse change in the significance of a historical or archaeological resource. See **Subsection 2.1.5**, **Cultural Resources**, for a more detailed analysis.

The Build Alternative could potentially have an effect on human remains if uncovered during construction prior to implementation of mitigation. Please see **Mitigation Measure PAL-1** below.

### Hydrology and Floodplain

The Build Alterative would not result in a significant impact to hydrology or floodplains, as only a small portion is within the base floodplain. The proposed improvements would not place any housing with a 100-year floodplain. Proposed structures would not impede or redirect flood flows. Additionally, the proposed improvements would not expose people or structures to a significant risk, and there is no potential for inundation. See **Subsection 2.2.1**, **Hydrology and Floodplain**, for a more detailed analysis.

### Water Quality and Storm Water Runoff

The Build Alternative would not result in significant impacts to water quality or storm water runoff. Construction activities and roadway operations would be regulated, and include protective measures. The project would not violate any water quality standards, deplete groundwater supplies, alter drainage patterns, or create capacity exceeding runoff. See **Subsection 2.2.2**, **Water Quality**, for a more detailed analysis.

### Geology

The Build Alternative would not result in a significant impact to the geology of the site. All structures constructed as part of the Build Alternative would comply with the Department's seismic design standards. People and structures would not be exposed to substantial adverse effects involving fault rupture or other seismic-related issues. The proposed improvements would not result in the substantial soil erosion or the loss of topsoil and is not located on unstable soil, an unstable geologic unit, or expansive soil. See **Subsection 2.2.3**, **Geology/Soils/Seismic/Topography**, for a more detailed analysis.

### Hazards

The Build Alternative would not create any significant hazards to the public or environment. Measures would be taken to avoid exposure to hazardous materials and aerially deposited lead. No hazardous materials would be emitted as a result of the project, and no people or structures would be exposed to a significant risk of loss. Additionally, the proposed improvements would not impair implementation or interfere with any emergency plans. See **Subsection 2.2.5**, **Hazardous Waste/Materials**, for a more detailed analysis.

### Air Quality

The Build Alternative would not cause a significant change to air quality in the project area, conflict with the implementation of an applicable air quality plan, violate any air quality standards, or contribute to any air quality violation. In addition, the Build Alternative would not result in a net increase of any criteria pollutants, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors. See **Subsection 2.2.6**, **Air Quality**, for a more detailed analysis.

CEQA conclusions for potential impacts related to Greenhouse Gas Emissions are discussed in detail further below (see "Climate Change, CEQA Conclusions").

### Noise

Implementation of the Build Alternative would result in an increase in noise levels between 0 and 6 dBA. The CEQA Checklist defines a significant noise impact as an increase in noise levels "in excess of the standards established in the local general plan or noise ordinance..." In accordance with Policy 2c of the City of Vallejo General Plan Noise Element, the Build Alternative would be required to limit project-related noise increases to no more than 5dBA in residential areas where the with-project noise level is less than the maximum "normally acceptable" level of 75dBA (see Table 2 of the Noise Element, Residential Land Use Category). For those areas that would be above the "normally acceptable" level of 75dBA, project related noise increases must be limited to no more than 3dBA.

**Subsection 2.2.7, Noise**, provides a detailed analysis of the projected noise increases for both year 2015 and cumulative 2035 conditions (with and without the Build Alternative). Under both the year 2015 and cumulative 2035 conditions, the Build Alternative would not result in a noise increase in areas that would experience noise levels above the "normally acceptable" threshold of 75dBA (see **Table 2.2.7-6**, receivers R3 and R4). For those areas below the "normally acceptable" threshold, the residencies in the vicinity of Moorland Street would be the only noise-sensitive areas that would experience a noise increase of 5dBA or more (see **Table 2.2.7-6**, receivers ST-9, R5, and R6). This increase in noise levels would be considered a significant under Policy 2c of the City of Vallejo General Plan, and is considered a significant impact under CEQA.

However, noise abatement options were evaluated for the residencies in the vicinity of Moorland Street as "noise barrier 3" (see **Figure 2-31**). Noise barrier 3 is proposed along the property line of Moorland Street residential properties that would remain with the Build Alternative, along the northbound Moorland Street right-of-way, and along a segment of westbound Redwood Parkway at the right-of-way. The noise barrier is

proposed to replace the existing acoustical shielding that would be lost with the removal of homes on the east side of Moorland Street. Construction of noise barrier 3 (proposed as a 10-foot-high wall) would feasibly reduce noise levels in this area by 6 and 11 dBA. Because the cost of the barrier is less than the reasonable allowance (see **Table 2.2.7-8**), this barrier is likely to be incorporated into the Build Alternative. Construction of the barrier as part of the Build Alternative would reduce potential project-level and cumulative noise impacts under CEQA to a less-than-significant level.

Construction noise would be minimized through noise abatement measures. People would not be exposed to noise levels or groundborne vibration exceeding local standards. There would be no significant permanent increase in noise levels, and temporary noise level increase would be reduced through restricted construction times, equipment mufflers, and staging of construction away from sensitive receptors.

In addition, the project is not within an airport land use plan or within the vicinity of a private airstrip.

**Biology**

The Build Alternative would adversely affect Waters of the U.S., California Department of Fish and Game (CDFG) streambeds, and riparian habitat. However, as part of the Build Alternative, much of the impacted jurisdictional water features to the east of Fairgrounds Drive (totaling approximately 0.623 acres) would be restored on-site at a 1:1 replacement ratio. Impacts to the jurisdictional water features and freshwater marsh communities associated with Rindler Creek would thereby be offset through the complete on-site replacement of the affected creek segment. The procurement of on-site restoration for impacts to these areas would be permitted and verified by the appropriate regulatory oversight agencies prior to project construction. The on-site restoration of Rindler Creek is anticipated to provide satisfactory mitigation for impacts to riparian habitat, including the removal of 151 trees. Restoration on-site will also ensure that functions, such as water flow through the BSA, will continue unchanged.

Additional effects to wetlands and Waters of the U.S. that would not be restored on site as part of the Build Alternative is considered a significant impact (see **Impact BIO-1** below).

The Build Alternative would not have an adverse effect on any special status plan or animal species, or interfere with the movement of any native resident or migratory fish or wildlife species. The Build Alternative would not conflict with the provisions of a habitat conservation plan, nor would it conflict with the provisions of the City of Vallejo's tree preservation ordinance. See **Section 2.3**, **Biological Environment**, for a more detailed analysis.

## Significant Environmental Effects of the Build Alternative

### Paleontology

*Impact PAL-1: Implementation of the Build Alternative could have an adverse effect on previously undiscovered paleontological resources.*

Implementation of **Mitigation Measure PAL-1** described below under subheading Mitigation Measures would reduce this impact to a less-than-significant level.

### Biology

*Impact BIO-1: Implementation of the Build Alternative could have an adverse effect on federally protected wetlands and other Waters of the U.S.*

Implementation of **Mitigation Measure BIO-1** described below under subheading Mitigation Measures would reduce this impact to a less-than-significant level.

## Unavoidable Significant Environmental Effects

The Build Alternative would not have any environmental impacts that would remain significant after mitigation measures are incorporated.

## Growth-Inducing Impacts

The Build Alternative could potentially induce economic growth by introducing additional short-term employment opportunities from construction within the project area. Construction workers could be drawn from the construction employment labor force already residing in the City of Vallejo and the surrounding communities. It is not likely that construction workers would relocate their place of residency as a consequence of working on the proposed Build Alternative, which would have a relatively short construction period. Employment opportunities provided by construction would not constitute a substantial growth in employment. The Build Alternative is a transportation improvement project and would not result in the direct or indirect hire of permanent employees in the City.

Growth in an area may result from the removal of a physical impediments or restriction to development. In this context, growth impediments may include nonexistent or inadequate access to an area or lack of essential public services (i.e., electricity, sanitary sewers, water service, natural gas, and police and fire protection). The Build Alternative is located within an urbanized and developed area of the City of Vallejo. While the project would widen existing roadways and improve circulation and access to local roadways, the overall volume of traffic would not increase over the forecasted/growth prediction for the City and County, as identified in adopted land use planning documents (i.e., general plan, Solano 360 Vision, etc.). Additionally, the project would not create any new connections to other roadways or areas. There are no pending or recently-approved projects whose construction is conditioned upon the implementation of the Build Alternative.

The project would not result in any direct growth-inducing impacts, because no development is tied to the construction of the widening, ramp improvements, and intersection improvements. The Build Alternative would not expand an essential public service and would not require public services once operational. The Build Alternative is not considered growth inducing with respect to removal of an impediment to growth and economic growth.

## Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases (GHGs), particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization's in 1988, has led to increased efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs related to human activity that include carbon dioxide ($CO_2$), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas (GHG) Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts due to climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)[1].

Transportation sources (passenger cars, light duty trucks, other trucks, buses and motorcycles) in the state of California make up the largest source (second to electricity generation) of greenhouse gas emitting sources. Conversely, the main source of GHG emissions in the United States is electricity generation followed by transportation. The dominant GHG emitted is $CO_2$, mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improve system and operation efficiencies, 2) reduce growth of vehicle miles traveled (VMT), 3) transition to lower GHG fuels, and 4) improve vehicle technologies. To be most effective all four should be pursued collectively. The following regulatory setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

[1] http://climatechange.transportation.org/ghg_mitigation/

**Regulatory Setting**

State

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases (AB 1493), 2002: requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. In June 2009, the United States Environmental Protection Agency (U.S. EPA) Administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to implement its own GHG emission standards for motor vehicles beginning with model year 2009. California agencies will be working with Federal agencies to conduct joint rulemaking to reduce GHG emissions for passenger cars model years 2017-2025.

Executive Order S-3-05: (signed on June 1, 2005, by Governor Arnold Schwarzenegger) the goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020, and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

AB32 (AB 32), the Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

Executive Order S-01-07: Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this Executive Order, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by 2020.

Senate Bill 97 (Chapter 185, 2007): required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the State CEQA Guidelines for addressing greenhouse gas emissions. The Amendments became effective on March 18, 2010.

*Federal*

Although climate change and GHG reduction is a concern at the federal level; currently there are , no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Climate change and its associated effects are being addressed through various efforts at the federal level to

improve fuel economy and energy efficiency, such as the "National Clean Car Program" and Executive Order 13514- *Federal Leadership in Environmental, Energy and Economic Performance.*

Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the interagency Climate Change Adaptation Task Force, which is engaged in developing a U.S. strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that the U.S. EPA has the authority to regulate GHG. The Court held that the U.S. EPA Administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6)--in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. EPA's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles*, which was published on September 15, 2009.[2] On May 7, 2010 the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations. These steps were outlined by President Obama in a memorandum on May 21, 2010.[3]

The final combined U.S. EPA and NHTSA standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon (MPG) if the automobile industry were to meet

[2] http://www.epa.gov/climatechange/endangerment.html

[3] http://epa.gov/otaq/climate/regulations.htm

this carbon dioxide level solely through fuel economy improvements. Together, these standards will cut GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On January 24, 2011, the U.S. EPA along with the U.S. Department of Transportation and the State of California announced a single timeframe for proposing fuel economy and greenhouse gas standards for model years 2017-2025 cars and light-trucks. Proposing the new standards in the same timeframe (September 1, 2011), signals continued collaboration that could lead to an extension of the current National Clean Car Program.

**Project Analysis**

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG.[4] In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(h)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

The AB 32 Scoping Plan contains the main strategies California will use to reduce GHG. As part of its supporting documentation for the Draft Scoping Plan, CARB released the GHG inventory for California (Forecast last updated: 28 October 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. See **Figure 3-1**. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation,

the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006 (see Climate Action Program at Caltrans (December 2006).[5]

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[4] This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the SCAQMD (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

[5] Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

One of the main strategies in the Department's Climate Action Program to reduce GHG emissions is to make California's transportation system more efficient. As shown in **Figure 3-2**, the highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour, mph) and speeds over 55 mph; the most severe emissions occur from 0-25 mph. To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors GHG emissions, particularly $CO_2$, may be reduced.

The modifications along portions of Redwood Parkway, Fairgrounds Drive, and intersections to I-80 and SR 37 will help relieve congestion in the traffic peak hour period during the day. With construction of the project, the vehicle miles traveled (VMT) will remain the same as the No-Build Alternative. During the peak hours, the speeds between 10-30 mph would generally very slightly increase and the speed during the off peak hours would remain the same. The combination of this would have an overall neutral effect on the GHG emissions generated in the project area when compared with the No-Build Alternative. **Table 3-1** below shows GHG emissions as expressed in tons per day of $CO_2$. The net difference between the Build Alternative and No-Build Alternative is so small that they are not reflected in the calculations when show in terms or tons per day.

Table 3-1 No-Build Alternative Versus Build Alternative $CO_2$ Emissions

| | $CO_2$ Emissions by Year (in tons/day) | | |
|---|---|---|---|
| | **2010** | **2015** | **2035** |
| Existing | 29 | -- | -- |
| No-Build Alternative | -- | 35 | 40 |
| Build Alternative | -- | 35 | 40 |

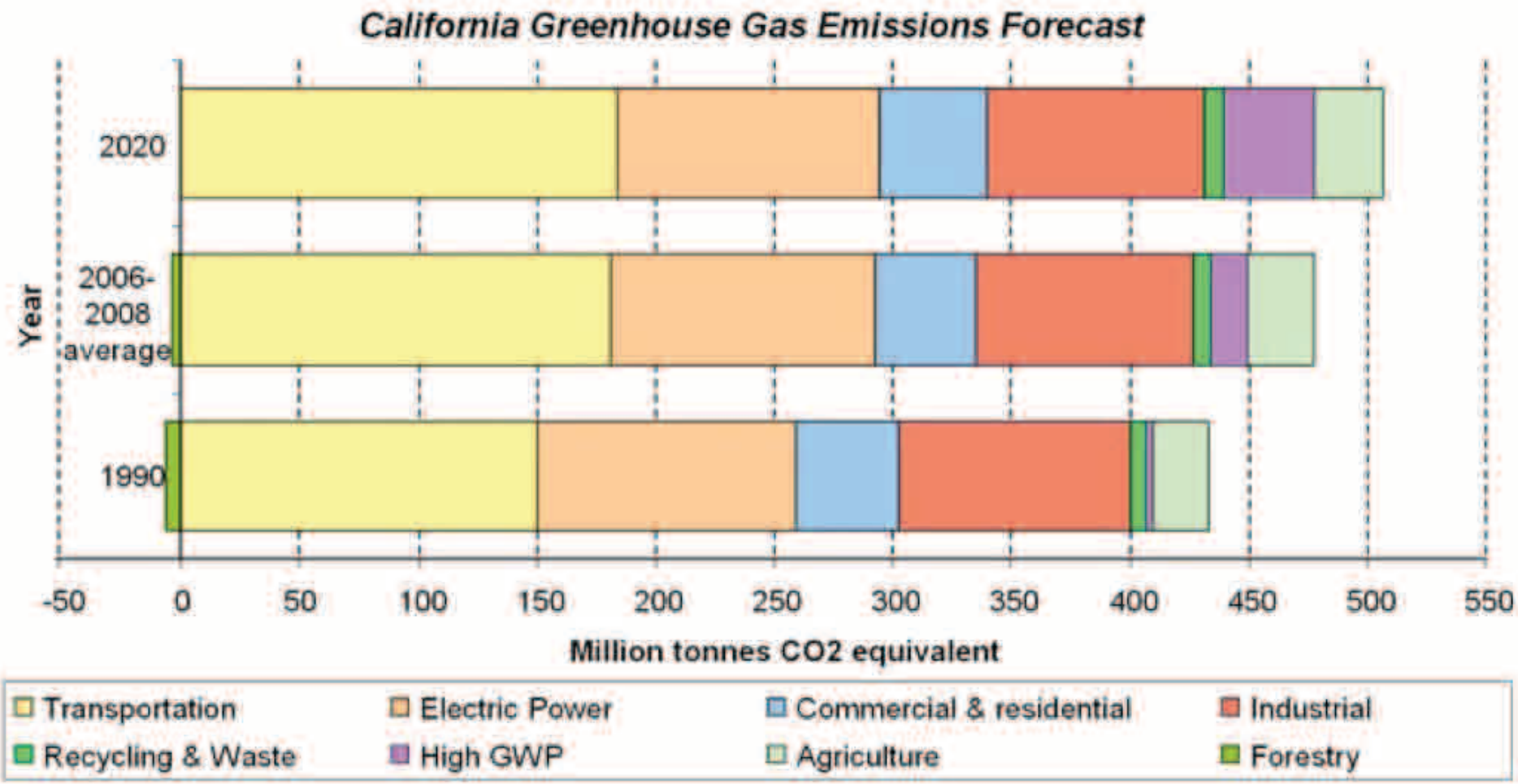
Department, 2012a.

Due to the small changes in the traffic, the daily $CO_2$ emissions are not expected to change as a result of the project. The $CO_2$ emission numbers are only useful for a comparison between alternatives; the numbers are not necessarily an accurate reflection of what the true $CO_2$ emissions will be because $CO_2$ emissions are dependent on other factors that are not part of the model, such as fuel mix[6], rate of acceleration, and the aerodynamics and efficiency of the vehicles.

### Construction Emissions

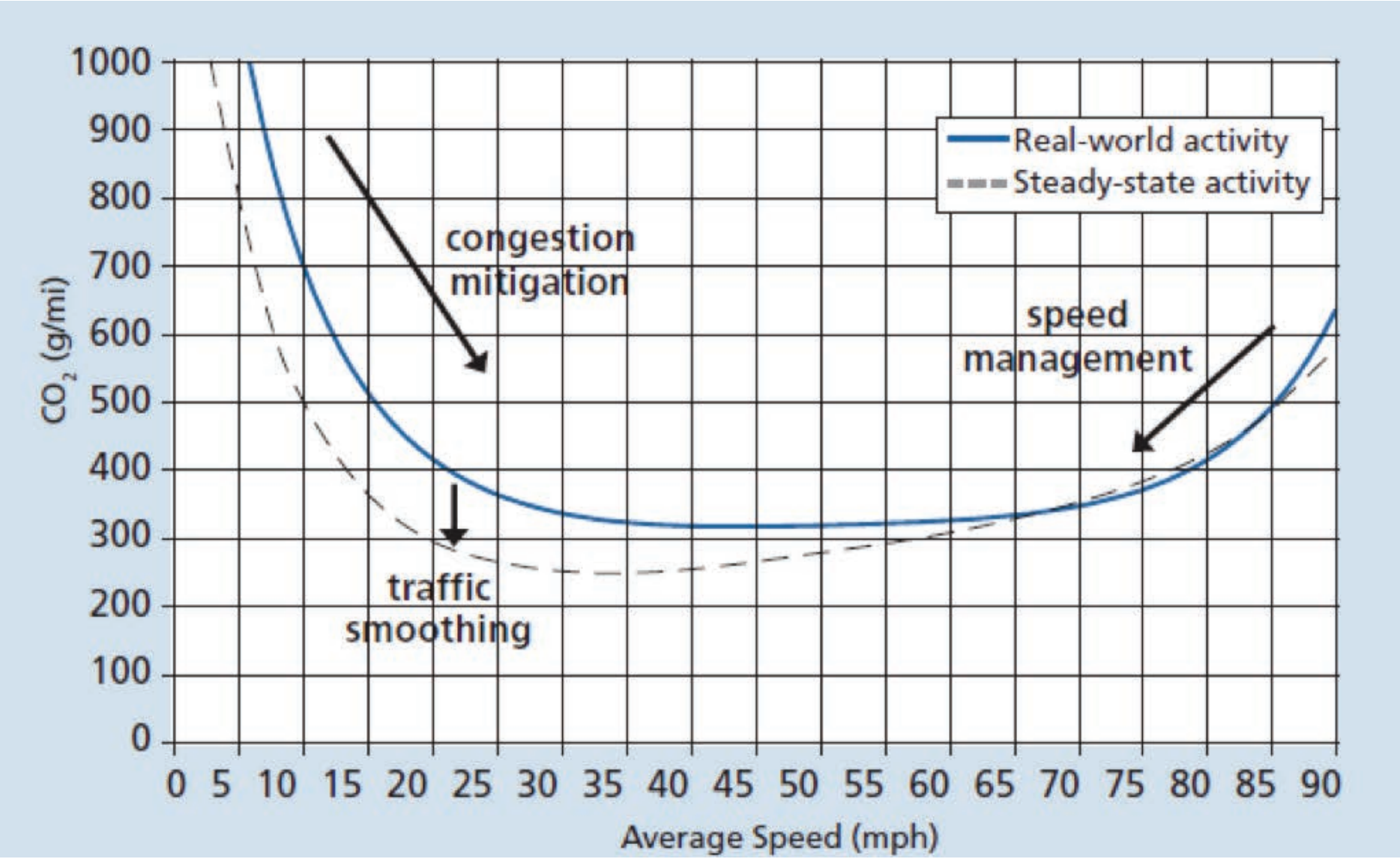
Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during

[6] The EMFAC model emission rates can vary dramatically depending on the amount of additives like ethanol and the source of the fuel components.




**California Greenhouse Gas Forecast** Figure **3-1**

*Source: California Air Resources Board, 2010.*




**Possible Effects of Traffic Operation Strategies in reducing On-road CO2 Emissions**

**Figure 3-2**

*Source: Matthew Barth and Kanok Boriboonsomsin, Traffic Congestion and Greenhouse Gases, TR News 268 May-June 2010.*

construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. Currently, neither the Department nor the Bay Area Air Quality Management District (BAAQMD) have adopted significance thresholds that apply to construction projects.

**CEQA Conclusion**

*Greenhouse Gas Reduction Strategies*

AB 32 Compliance

The Department continues to be actively involved on the Governor's Climate Action Team as CARB works to implement the Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Former Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a $222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including $100.7 billion in transportation funding during the next decade. The Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together are expected to reduce congestion. The Strategic Growth Plan relies on a complete systems approach to attain $CO_2$ reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as depicted in **Figure 3-3.**

The Department is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. The Department is working closely with local jurisdictions on planning activities; however, the Department does not have local land use planning authority. The Department is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by U.S. EPA and ARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

**Table 3-2** summarizes the Department and statewide efforts that the Department is implementing in order to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at the Department (December 2006).

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures discussed on the pages following will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project.

**Mobility Pyramid** Figure **3-3**

*Source: California Department of Transportation, 2011.*

### Adaptation Strategies

"Adaptation strategies" refer to how the Department and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the Federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency report October 14, 2010 outlining recommendations to President Obama for how Federal Agency policies and programs can better prepare the United States to respond to the impacts of climate change. The Progress Report of the Interagency Climate Change Adaptation Task Force recommends that the Federal Government implement actions to expand and strengthen the Nation's capacity to better understand, prepare for, and respond to climate change.

Climate change adaption must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, Governor Schwarzenegger signed Executive Order S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This Executive Order set in motion several agencies and actions to address the concern of sea level rise.

The California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop. The California Climate Adaptation Strategy (Dec 2009)[7], which summarizes the best known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

[7] http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF

Table 3-2 Climate Change/$CO_2$ Reduction Strategies

| Strategy | Program | Partnership | | Method/Process | Estimated $CO_2$ Savings (MMT) | |
|---|---|---|---|---|---|---|
| | | Lead | Agency | | 2010 | 2020 |
| **Smart Land Use** | Intergovernmental Review (IGR) | The Department | Local Governments | Review and seek to mitigate development proposals | Not Estimated | Not Estimated |
| | Planning Grants | The Department | Local and regional agencies & other stakeholders | Competitive selection process | Not Estimated | Not Estimated |
| | Regional Plans and Blueprint Planning | Regional Agencies | The Department | Regional plans and application process | 0.975 | 7.8 |
| **Operational Improvements & Intelligent Trans. System (ITS) Deployment** | Strategic Growth Plan | The Department | Regions | State ITS; Congestion Management Plan | 0.007 | 2.17 |
| **Mainstream Energy & GHG into Plans and Projects** | Office of Policy Analysis & Research; Division of Environmental Analysis | Interdepartmental effort | | Policy establishment, guidelines, technical assistance | Not Estimated | Not Estimated |
| **Educational & Information Program** | Office of Policy Analysis & Research | Interdepartmental, CalEPA, CARB, CEC | | Analytical report, data collection, publication, workshops, outreach | Not Estimated | Not Estimated |
| **Fleet Greening & Fuel Diversification** | Division of Equipment | Department of General Services | | Fleet Replacement<br>B20<br>B100 | 0.0045 | 0.0065<br>0.45<br>0.0225 |
| **Non-vehicular Conservation Measures** | Energy Conservation Program | Green Action Team | | Energy Conservation Opportunities | 0.117 | .34 |
| **Portland Cement** | Office of Rigid Pavement | Cement and Construction Industries | | 2.5 % limestone cement mix<br>25% fly ash cement mix<br>> 50% fly ash/slag mix | 1.2<br>0.36 | 4.2<br>3.6 |
| **Goods Movement** | Office of Goods Movement | Cal EPA, CARB, BT&H, MPOs | | Goods Movement Action Plan | Not Estimated | Not Estimated |
| **Total** | | | | | 2.72 | 18.67 |

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010[8] to advise how California should plan for future sea level rise. The report is to include:

- relative sea level rise projections for California, Oregon and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates;
- the range of uncertainty in selected sea level rise projections;
- a synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems; and
- a discussion of future research needs regarding sea level rise.

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

Until the final report from the National Academy of Sciences is released, interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation (NOP), and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects as of the date of Executive Order S 13 08 may, but are not required to, consider these planning guidelines. The NOP for the project was filed in January 2011.

Furthermore Executive Order S-13-08 directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level affecting safety, maintenance and operational improvements of the system and economy

[8] The Sea Level Rise Assessment report is currently due to be completed in 2012 and will include information for Oregon and Washington State as well as California.

of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Currently, the Department is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change impacts, the Department has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Department will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. The Department is an active participant in the efforts being conducted in response to Executive Order S-13-08 and is mobilizing to be able to respond to the National Academy of Science report on Sea Level Rise Assessment which is due to be released in 2012.

Given that the project is not located in an area vulnerable to future sea level rise and that the NOP for the project was filed in January 2011, it is not necessary for the proposed project to consider a range of sea level rise scenarios.

## Mitigation Measures for Significant Impacts Under CEQA

### Mitigation Measure PAL-1: Monitoring and Mitigation Program

A qualified paleontologist shall design a monitoring and mitigation program and implement the program during project-related excavation and earth disturbance activities prior to construction. The paleontological resource monitoring and mitigation program shall include preconstruction coordination, construction monitoring, emergency discovery procedures, and sampling and data recovery. Prior to the start of construction, the paleontologist shall conduct a field survey of exposures of sensitive stratigraphic units within the study area that would be disturbed. Finally, construction personnel would be informed that fossils could be discovered during excavation, that these fossils are protected by laws, on the appearance of common fossils, and on proper notification procedures.

Both the Great Valley Sequence and Holocene Alluvium have low sensitivity for paleontological resources. However, Holocene Alluvium typically occurs as thin layer overlying Pleistocene Alluvium, which has a high potential for paleontological resources. Excavation in areas covered by Holocene Alluvium would likely encounter sediments of the Pleistocene Alluvium in the shallow subsurface. As such, construction activities within Pleistocene Alluvium areas covered by the Holocene

- where Rindler Creek is being shifted 1,333 feet to the east
- where augering and excavations for lighting, roadside sign poles, closed circuit television poles, and signal foundations occur,
- where excavations for retaining walls and sound walls occur,
- where Fairgrounds Drive will be widened

**Mitigation Measure BIO-1: Compensatory Mitigation for Jurisdictional Water Features**

Any impacts jurisdictional water features that cannot be procured on-site as part of the relocation of Rindler Creek shall be subject to formalized mitigation requirements of the regulatory agencies. A conceptual restoration and mitigation plan shall be prepared prior to permit applications to regulatory agencies. The on-site restoration of Waters of the U.S. combined with the implementation of other components of the conceptual restoration and mitigation plan will ensure no net loss of functions and values of Waters of the U.S.

The off-site mitigation ratio proposed for Waters of the U.S., including wetlands, under jurisdiction of the USACE, is 3:1 acres of mitigation per acre of permanent impact. Temporary impacts are proposed for mitigation at 1:1 acres of mitigation to impact.

Compensatory mitigation requirements among agencies are not cumulative. Mitigation acreage can be used to satisfy the requirements of multiple agencies, just as a single acre of impact to an existing resource may result in multiple requirements by agencies with varying jurisdictions. In summary, a single acre of wetland mitigation may satisfy both State and Federal agency mitigation requirements, if the characteristics of the wetland meet the definitions of each agency.

An estimate of the mitigation requirement is presented in **Table 3-3**.

Table 3-3 Proposed Wetland Mitigation for Estimated Impacts to USACE Jurisdictional Areas

| Impacts | Impact | | Mitigation (acres) | |
|---|---|---|---|---|
| | Permanent Impact | Temporary Impact | 3:1 ratio (Off Site) | 1:1 ratio (On Site) |
| Rindler Creek Realignment | 0 | 0.621 | - | 0.621 |
| All Other Build Alternative Improvements | 0.039 | 0 | 0.117 | - |
| *TOTAL* | *0.039* | *0.621* | *0.117* | *0.621* |

Source: Department, 2011g.

# 4.0 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps the Department determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for the Build Alternative have been accomplished through a variety of formal and informal methods, including: project development team meetings, interagency coordination meetings, and public meetings. This chapter summarizes the results of the Department's efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

## 4.1 DOCUMENT COORDINATION

### 4.1.1 PUBLIC AND AGENCY SCOPING PROCESS

English and Spanish newspaper ads notifying the general public of a scoping meeting for the project were placed in the Vallejo Times Herald and the Crónicas on January 11, 2011 and January 15, 2011, respectively. The public scoping meeting was held for the project on January 26, 2011 at Cooper Elementary School in Vallejo between 6:30 pm and 8:30 pm. Approximately 37 people attended the meeting. The scoping meeting was organized as an open house, with informational stations displaying exhibit boards staffed by representatives from the Solano Transportation Authority (STA), the Department, the County of Solano, and the City of Vallejo. The exhibit boards portrayed the following subjects: project improvements and location; project purpose and need; current transportation issues; environmental issues and constraints; overview of the environmental review process; and anticipated project schedule.

There were eight written comments submitted at the January 26 scoping meeting. Two comment sheets were mailed to the STA and six e-mails were received via fairgroundsdriveproject@gmail.com. The following agencies provided comment letters : the California Department of Fish and Game, the Governor's Office of Planning and Research, and the California Transportation Commission. Common issues raised were about environmental concerns, the scope of the project, property acquisition, community participation, and the availability of environmental documents.

### 4.1.2 Project Development Team and Agency Consultation Meetings

A Project Development Team (PDT) was established consisting of the Department, STA, City of Vallejo and Solano County. PDT meetings have occurred regularly over the past twelve months and will continue to occur throughout the remainder of the environmental and project approval process. The PDT represents various fields of expertise including design, environmental review, traffic operations, and project management and convenes to review the project status, address issues as they arise and provide overall direction throughout the project development process.

In addition to the PDT there are several other public agencies involved in environmental clearance and permitting of the Build Alternative. These agencies include the U.S Army Corps of Engineers, U.S Fish and Wildlife Service, and Regional Water Quality Control Board.

A field review of the preliminary wetland delineation was conducted with the USACE on December 8, 2011. A map of those jurisdictional aquatic features has been submitted to the USACE for verification. The results of biological review for the project, which are presented in **2.3, Biological Environment**, of this EIR/EA, support a no effect determination for federally-listed species of wildlife and flora. Therefore, no coordination with the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS) regarding potential effect to wildlife species is required at this time. During the final design phase of the project, the USFWS will be asked to issue a formal concurrence with the "no effect" determination approved by the Department's biologists. Coordination with the Regional Water Quality Control Board and the CDFG regarding the streambed alteration agreement (Section 1602) and Section 401 Certification would also be conducted during the detailed design phase prior to submitting a permit application.

### 4.1.3 Public Participation

#### Notice of Availability of the Draft Environmental Document

A Notice of Availability was circulated to the project mailing list and to the various parties listed in the Distribution List (see **Chapter 6.0**, **Distribution List**). The notice provided information on the project, where the environmental document can be reviewed, the address to which comments should be sent, and the close of the comment period.

#### Public Meetings

A public meeting was held on January 18, 2012 to provide information and answer questions about the Build Alternative. Invitation letters were sent to property owners whose residence or business may potentially be directly impact by the project. Thirteen property owners and residents signed in at the meeting and one written comment was received.

A public meeting will also be held on October 11, 2012 during the 45-day review period of this document. The intent of the public meeting is to solicit comments and receive input from the public and agencies on the environmental analyses and conclusions presented in this environmental document. Comments will be taken into consideration for the final draft of this document.

### 4.1.4 Native American Consultation

In February 2011, a Sacred Lands File search was conducted by the Native American Heritage Commission (NAHC) to determine if there were known cultural sites within or near the Build Alternative's area of potential affect (APE). Following the records search, the NAHC stated that the file search showed no recorded resources within the APE.

The NAHC also provided list of interested Native American groups and individuals in the project area and region. Letters requesting input from interested parties were sent to the Native American groups and individuals in April 2011. Mr. Reno Keoni Franklin, Director of Cultural Resources and Tribal Historic Preservation Officer for the Yocha Dehe Wintun Nation, requested more specific information about the project, including a more detailed project description, which was provided. Mr. Marshall McKay, Yocha Dehe Wintun Tribal Chairman, stated that the Yocha Dehe have a cultural in the project area and stated their intention to initiate consultation with the Department and STA. Mr. McKay requested a project timeline and the latest cultural study. The Department provided Mr. McKay with the draft cultural resources report. In response to the request for formal consultation, the project was discussed at the quarterly meeting of the Department's Office of Cultural Resource Studies and the Yocha Dehe Wintun Nation. Discussion of the project focused on the cultural resource report prepped to date, post mile 317, and the potential for archaeological testing for buried resources in the APE.

Mr. Kesner Flores of the Cortina Band of Indians responded, stating that they would like to monitor construction activities at the location of sensitive resources, noting that there is a potential that more material could be encountered. Mr. Flores also requested that Patwin Wintun Cultural Management Response Plan be followed if unexpected cultural resources are encountered, and if cultural resources are discovered during project activities that he be notified. The Department responded with a letter that discussed their procedures for monitoring, and how they ensure the dignified treatment and disposition of Native American Human remains and associated grave artifacts.

Mr. Dave Jones of the Wintun Environmental Protection Agency stated that the project area is on the south edge of their ancestral territory, and that they have little information of that area. He asked that if cultural materials are encountered during the project, that they be notified.

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# 6.0 Distribution List

The following agencies, organizations, and individuals received printed or electronic copies of this document. Agencies, organizations, and individuals on the project mailing list were notified of the availability of this document and public meetings as described in **Chapter 4.0, Comments and Coordination**. Agency names marked with an asterisk (*) received copies through the State Clearinghouse.

Certain private individuals may not be included in the project's Distribution List due to privacy concerns; these individuals received either an electronic or a written notice of the document's availability.

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Department. 2011d. Paleontological Evaluation Report.

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Department. 2012e. Historic Property Survey Report.

Department. 2012f. Noise Abatement Decision Report.

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Department. 2012h. Preliminary Determination of Jurisdictional Waters.

Department. 2012i. Preliminary Geotechnical & Foundations Report.

Department. 2012j. Preliminary Site Investigation and Aerially Deposited Lead Survey Report.

Department. 2012k. Traffic Operations Analysis Report.

Department. 2012l. Visual Impact Assessment.

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# Appendix A

# CEQA Checklist

## Appendix A: CEQA Environmental Checklist

| DISTRICT 04-SOL | PM 4.0/4.9 04-Sol-37<br>PM10.6/11.2 | 4A4410 |
|---|---|---|
| Dist.-Co.-Rte. | P.M/P.M. | E.A. |

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| **I. AESTHETICS**: Would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista | ☐ | ☐ | ☒ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | ☐ | ☐ | ☐ | ☒ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☒ | ☐ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |
| **II. AGRICULTURE AND FOREST RESOURCES**: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| **III. AIR QUALITY**: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☒ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |
| **IV. BIOLOGICAL RESOURCES**: Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☒ | ☐ | ☐ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |
| **V. CULTURAL RESOURCES**: Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☐ | ☒ | ☐ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☒ | ☐ |
| **VI. GEOLOGY AND SOILS**: Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | ☐ | ☐ | ☒ | ☐ |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? | ☐ | ☐ | ☒ | ☐ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| iv) Landslides? | ☐ | ☐ | ☒ | ☐ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☒ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☒ | ☐ |

**VII. GREENHOUSE GAS EMISSIONS**: Would the project:

| | |
|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?<br><br>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document. |

**VIII. HAZARDS AND HAZARDOUS MATERIALS**: Would the project:

| | | | | |
|---|---|---|---|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☒ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☒ | ☐ |

**IX. HYDROLOGY AND WATER QUALITY**: Would the project:

| | | | | |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☒ | ☐ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☒ | ☐ |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☒ |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☒ | ☐ |
| j) Inundation by seiche, tsunami, or mudflow | ☐ | ☐ | ☐ | ☒ |
| **X. LAND USE AND PLANNING**: Would the project: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☒ | ☐ |
| b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☒ |
| **XI. MINERAL RESOURCES**: Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ☒ |
| **XII. NOISE**: Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |
| ) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |
| **XIII. POPULATION AND HOUSING**: Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☒ | ☐ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☒ | ☐ |
| **XIV. PUBLIC SERVICES**: | | | | |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | ☐ | ☐ | ☐ | ☒ |
| Fire protection? | ☐ | ☐ | ☐ | ☒ |
| Police protection? | ☐ | ☐ | ☐ | ☒ |
| Schools? | ☐ | ☐ | ☐ | ☒ |
| Parks? | ☐ | ☐ | ☐ | ☒ |
| Other public facilities? | ☐ | ☐ | ☐ | ☒ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. RECREATION**: | | | | |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☒ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |
| **XVI. TRANSPORTATION/TRAFFIC**: Would the project: | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☒ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☐ | ☐ | ☒ | ☐ |
| **XVII. UTILITIES AND SERVICE SYSTEMS**: Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☐ | ☒ |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |

| | Potentially Significant Impact | Less Than Significant with Mitigation | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☐ | ☒ |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☒ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☐ | ☒ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

| | | | | |
|---|---|---|---|---|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☒ | ☐ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ☐ | ☒ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

# Appendix B

# Summary of Relocation Benefits

# Appendix B: Summary of Relocation Benefits

## DECLARATION OF POLICY

"The purpose of this title is to establish a uniform policy for fair and equitable treatment of persons displaced as a result of federal and federally assisted programs in order that such persons shall not suffer disproportionate injuries as a result of programs designed for the benefit of the public as a whole."

The Fifth Amendment to the U.S. Constitution states, "No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation." The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations, Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

## FAIR HOUSING

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require the Department to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

## RELOCATION ASSISTANCE ADVISORY SERVICES

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are "decent, safe and sanitary." Nonresidential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable "decent, safe and sanitary" replacement dwelling, available on the market, is offered to them by the Department.

## RESIDENTIAL RELOCATION PAYMENTS

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

### MOVING COSTS

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

## Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is $22,500. If the total entitlement (without the moving payments) is in excess of $22,500, the Last Resort Housing Program will be used (See the explanation of the Last Resort Housing Program below).

## Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable "decent, safe and sanitary" replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is $5,250. If the total entitlement for rent supplement exceeds $5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or rent and occupy a "decent, safe and sanitary" replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

## Down Payment

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans' initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of $5,250. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

## Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the $22,500 and $5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;
- Preferences in area of relocation;
- Location of employment or school.

# NONRESIDENTIAL RELOCATION ASSISTANCE

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

## Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the Right of Way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.

- Expenses related to searching for a new business site, up to $2,500, for reasonable expenses actually incurred.

### Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to $10,000 for reasonable expenses actually incurred.

### Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than $1,000 nor more than $20,000.

## ADDITIONAL INFORMATION

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any Federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Department relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a pubic project. A list of ineligible expenses can be obtained from Caltrans Right of Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

# Your Rights and Benefits as a Displacee Under the Uniform Relocation Assistance Program (Residential) 2007

Caltrans

California Department of Transportation

# Introduction

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.

Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

## Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 As Amended "The Uniform Act"

The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

> To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

*While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.*

## Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

Comparable Replacement: means a dwelling which is:

(1) Decent, safe, and sanitary. (See definition below)

(2) Functionally equivalent to the displaced dwelling.

(3) Adequate in size to accommodate the family being relocated.

(4) In an area not subject to unreasonable adverse environmental conditions.

(5) In a location generally not less desirable than the location of your displacement dwelling with respect to public utilities and commercial and public facilities, and reasonably accessible to the place of-employment.

(6) On land that is typical in size for residential development with typical improvements.

Decent, Safe and Sanitary (DS&S): Replacement housing must be decent, safe, and sanitary...which means it meets all of the minimum requirements established by federal regulations and conforms to applicable housing and occupancy codes. The dwelling shall:

(1) Be structurally sound, weather tight, and in good repair.

(2) Contain a safe electrical wiring system adequate for lighting and other devices.

(3) Contain a heating system capable of sustaining a healthful temperature (of approximately 70 degrees) for a displaced person, except in those areas where local climatic conditions do not require such a system.

(4) Be adequate in size with respect to the number of rooms and area of living space needed to accommodate the displaced person. The Caltrans policy is that there will be no more than 2 persons per room unless the room is of adequate size to accommodate the normal bedroom furnishings for the occupants.

(5) Have a separate, well-lighted and ventilated bathroom that provides privacy to the user and contains a sink, bathtub or shower stall, and a toilet, all in good working order and properly connected to appropriate sources of water and to a sewage drainage system.

*Note: In the case of a housekeeping dwelling, there shall be a kitchen area that contains a fully usable sink, properly connected to potable hot and cold water and to a sewage drainage system, and adequate space and utility service connections for a stove and refrigerator.*

(6) Contains unobstructed egress to safe, open space at ground level. If the replacement dwelling unit is on the second story or above, with access directly from or through a common corridor, the common corridor must have at least two means of egress.

*(7) For a displaced person who is handicapped,* be free of any barriers which would preclude reasonable ingress, egress, or use of the dwelling by *such displaced person.*

Displaced Person or Displacee: Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, in whole or in part, or as the result of a written notice from the agency to vacate the real property needed for a transportation project. In the case of a partial acquisition, Caltrans shall determine if a person is displaced as a direct result of the acquisition.

Residents **not lawfully present** in the United States are not eligible to receive relocation payments and assistance

Relocation benefits will vary, depending upon the type and length of occupancy. As a residential displacee, you will be classified as either a:

- An owner occupant of a residential property (includes mobile homes)
- A tenant occupant of a residential property (includes mobile homes and sleeping rooms)

Dwelling: The place of permanent or customary and usual residence of a person, according to local custom or law, including a single family house; a single family unit in a two-family, multi-family, or multi-purpose property; a unit of a condominium or cooperative housing project; a non-housekeeping unit; a mobile home; or any other residential unit.

Owner: A person is considered to have met the requirement to own a dwelling if the person purchases or holds any of the following interests in real property:

(1) Fee title, a life estate, a land contract, a 99-year lease, oral lease including any options for extension with at least 50 years to run from the date of acquisition; or

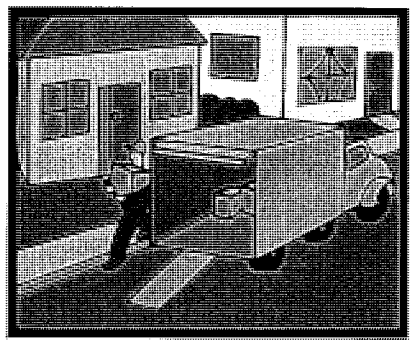
(2) An interest in a cooperative housing project which includes the right to occupy a dwelling; or

(3) A contract to purchase any interests or estates; or

(4) Any other interests, including a partial interest, which in the judgment of the agency warrants consideration as ownership.

Tenant: A person who has the temporary use and occupancy of real property owned by another.

# Moving Expenses



If you qualify as a displaced person, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. The methods of moving and the various types of moving cost payments are explained. Below.

Displaced individuals and families may choose to be paid on the basis of actual, reasonable moving costs and related expenses, or according to a fixed moving cost schedule. However, to ensure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

## You Can Choose Either:

**Actual Reasonable Moving Costs -** You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses <u>may</u> include:

- Transportation
- Packing and unpacking personal property.
- Disconnecting and reconnecting household appliances.
- Temporary storage of personal property.
- Insurance while property is in storage or transit.

**OR**

**Fixed Moving Cost Schedule -** You may be paid on the basis of a fixed moving cost schedule. Under this option, you will not be eligible for reimbursement of related expenses listed above. The fixed schedule is designed to cover such expenses.

Examples (Year 2005 Rate):
4 Rooms - $ 950
7 Rooms - $1,550

If the furniture is moved with the mobile home, the amount of the fixed payment is based on Schedule B.

Examples (Year 200 Rate):
4 Rooms - $1,175
7 Rooms - $1,900

Under the Fixed Move Schedule for a furnished unit (e.g. you are a tenant of an apartment that is furnished by your landlord) is based on Schedule B.

Example (Year 2005 Rate):
1 Room - $400

Under the Fixed Move Schedule, you will not receive any additional payments for temporary storage, lodging, transportation or utility hook-ups.

## Replacement Housing Payments

The type of Replacement Housing Payment (RHP) depends on whether you are an owner or a tenant, and the length of occupancy in the property being acquired.

If you are a qualified **owner occupant** of more than 180 days prior to the initiation of negotiations for the acquisition of your property, you may be entitled to a RHP that consists of:

**Price Differential, and**

**Mortgage Differential, and**

**Incidental Expenses;**

**OR**

**Rent Differential**

If you are a qualified **owner occupant** of more than 90 days but less than 180 days, OR you are a qualified **tenant occupant** of at least 90 days, you may be entitled to a RHP as follows:

**Rent Differential**

**OR**

**Downpayment Option**

Length of occupancy simply means counting the number of days that you actually occupied a dwelling before the date of initiation of negotiations by Caltrans for the purchase of the property. The term "initiation of negotiations" means the date Caltrans makes the first personal contact with the owner of real property, or his/ her representative, to give him/her a written offer for the property to be acquired.

*Note: If you have been in occupancy less than 90 days before the initiation of negotiations and the property is subsequently acquired, or if you move onto the property after the initiation of negotiations and you are still in occupancy on the date of acquisition, you may or may not be eligible for a Replacement Housing Payment. Check with your Relocation Agent before you make any decision to vacate your property.*

## For Owner Occupants of 180 Days or More

If you qualify as a 180-day owner occupant, you may be eligible -- in addition to the fair market value of your property -- for a Replacement Housing Payment that consists of a Price Differential, Mortgage Differential and/or Incidental Expenses.

The **Price Differential** payment is the amount by which the cost of a replacement dwelling exceeds the acquisition cost of the displacement dwelling. This payment will assist you in purchasing a comparable decent, safe, and sanitary (DS&S) replacement dwelling. Caltrans will compute the maximum payment you may be eligible to receive.

In order to receive the full amount of the calculated price differential, you must spend at least the amount calculated by Caltrans on a replacement property

The **Mortgage Differential** payment will reimburse your for any increased mortgage interest costs you might incur because the interest rate on your new mortgage exceeds the interest rate on the property acquired by Caltrans The payment computation is complex as it is based on prevailing rates, your existing loan and your new loan. Also, a part of this payment may be prorated such as reimbursement for a portion of your loan origination fees and mortgage points.

To be eligible to receive this payment, the acquired property must have been encumbered by a bona fide mortgage which was a valid lien for at least 180 days prior to the initiation of negotiations.

You may also be reimbursed for any actual and necessary **Incidental Expenses** that you incur in relation to the purchase of your replacement property. These expenses may be those costs for title search, recording fees, credit report, appraisal report, and certain other closing costs associated with the purchase of property. You will not be reimbursed for any recurring costs such as prepaid real estate taxes and property insurance.

If the total amount of your **Replacement Housing Payment** (Price Differential, Mortgage Differential and Incidental Expenses) exceeds $22,500, the payment must be deposited directly into an escrow account or paid directly to the mortgage company.

## EXAMPLES OF PRICE DIFFERENTIAL PAYMENT COMPUTATION:

Assume that Caltrans purchases your property for $98,000. After a thorough study of available, decent, safe and sanitary dwellings on the open market, Caltrans determines that a comparable replacement property will cost you $100,000. If your purchase price is $100,000, you will receive $2,000 *(see Example A).*

If your actual purchase price is more than $100,000, you pay the difference (see *Example B).* If your purchase price is less than $100,000, the differential payment will be based on actual costs *(see Example C).*

How much of a differential payment you receive depends on how much you actually spend on a replacement dwelling as shown in these examples:

**Caltrans' Computation**

| | |
|---|---|
| Comparable Replacement Property and Mobile Home | $100,000 |
| Acquisition Price of Your Property and Mobile Home | -$ 98,000 |
| Maximum Price Differential | $ 2,000 |

**Example A**

| | |
|---|---|
| Purchase Price of Replacement | $100,000 |
| Comparable Replacement Property | $100,000 |
| Acquisition Price of Your Property | -$ 98,000 |
| Maximum Price Differential | $ 2,000 |

**Example B**

| | |
|---|---|
| Purchase Price of Replacement Property | $105,000 |
| Comparable Replacement Property | $100,000 |
| Acquisition Price of Your Property | $ 98,000 |
| Maximum Price Differential | $ 2,000 |
| You Must Pay the Additional | $ 5,000 |

**Example C**

| | |
|---|---|
| Comparable Replacement Property | $100,000 |
| Purchase Price of Replacement | $ 99,000 |
| Acquisition Price of Your Property | $ 98,000 |
| Price Differential | $ 1,000 |

*In Example C you will only receive $1,000 - not the full amount of the Caltrans "Comparable Replacement Property" because of the "Spend to Get" requirements.*

**IN ORDER FOR A "180 DAY OWNER OCCUPANT" TO RECEIVE THE FULL AMOUNT OF THEIR REPLACEMENT HOUSING *PAYMENT*** *(Price Differential, Mortgage Differential and Incidental Expenses)*, **you must:**

A) Purchase and occupy a DS&S replacement dwelling within one year after the later of:

(1) The date you first receive a notification of an available replacement house, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the closing of escrow on State's acquisition),

**AND**

B) Spend at least the amount of the Caltrans "Comparable Replacement Property" for a replacement property,

**AND**

C) File a claim for relocation payments within 18 months of the later:

(1) The date you vacate the property acquired by Caltrans, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the close of escrow on State's acquisition)

**You will not be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. Also, you will also receive at least 90 days' written notice before you must move.**

## For Owner Occupants and Tenants of 90 Days or More

If you qualify as a 90-day occupant (either as an owner or tenant), you may be eligible for a Replacement Housing Payment in the form of a Rent Differential.

The **Rent Differential** payment is designed to assist you in renting a comparable decent, safe and sanitary replacement dwelling. The payment is based on the difference between the base monthly Rent for the property acquired by Caltrans (including average monthly cost for utilities) and the lesser of:

a) The monthly rent and estimated average monthly cost of utilities for a comparable replacement dwelling as determined by Caltrans, **OR**

b) The monthly rent and estimated average monthly cost of utilities for the decent, safe and sanitary dwelling that you actually rent as a replacement dwelling.

Utility costs are those expenses you incur for heat, lights, water and sewer - regardless of the source (e.g. electricity, propane, and septic system). It does not include garbage, cable, telephone, or security. The utilities at your property are the average costs over the last 12 months. The utilities at the comparable replacement property are the estimated costs for the last 12 months for the type of dwelling and area used in the calculation.

This difference is multiplied by 42 months and may be paid to you in a lump sum payment or in periodic installments in accordance with policy and regulations.

In order to receive the full amount of the calculated Rent Differential, you must spend at least the amount calculated by Caltrans on a replacement property.

This payment may - with certain limitations - be converted to a **Downpayment Option** to assist you in purchasing a replacement property.

**Example of Rent Differential Payment Computation:**

After a thorough study of comparable, decent, safe and sanitary dwellings that are available for rent, Caltrans determines that a comparable replacement property will rent for $325.00 per month.

**Caltrans Computation (rates are per month)**

| | |
|---|---|
| Rental Rate for Comparable Replacement Property | $ 325 |
| PLUS average estimated utilities costs | + 100 |
| TOTAL Cost to Rent Comparable Replacement Property | = $ 425 |
| | |
| Rental Rate for Your Current Property | $ 300 |
| PLUS average utilities costs | + 90 |
| TOTAL Cost to Rent Current Property | = $ 390 |
| | |
| Comparable Replacement Property including utilities | $ 425 |
| Cost you pay to rent your property including utilities | + 390 |
| Difference | = $ 35 |

Multiplied by 42 months = $1,470 Rent Differential

**Example A:**

| | |
|---|---|
| Rental Rate for a Replacement Property including Estimated average utilities costs | $ 525 |
| Comparable Replacement Property including utilities | $ 425 |
| Cost you pay to rent your property including utilities | $ 390 |

Since $425 is less than $525, the Rent Differential is based on the difference between $390 and $425.

<u>Rent Differential ($35 x 42 months = $1,470)</u>

*In this case you spent "at least" the amount of the Comparable Replacement Property on the replacement property and will receive the full amount.*

**Example B:**

| | |
|---|---|
| Rental Rate for a Replacement Property including Estimated average utilities costs | $ 400 |
| Comparable Replacement Property including utilities | $ 425 |
| Cost you pay to rent your property including utilities | $ 390 |

Since $400 is less than $525, the Rent Differential is based on the difference between $400 and $390.

Rent Differential ($10 x 42 months = $420)

*In this case you spent "less than" the amount of the Comparable Replacement Property on the replacement property and will not receive the full amount.*

**IN ORDER FOR A "90 DAY OWNER OCCUPANT" TO RECEIVE THE FULL AMOUNT OF THEIR REPLACEMENT HOUSING PAYMENT** *(Rent Differential)*, **you must:**

A) Rent and occupy a DS&S replacement dwelling within one year after the later of:

(1) The date you first receive a notification of an available replacement house, **OR**

(2) The day you vacate the property acquired by Caltrans.

**AND**

B) Spend at least the amount of the Caltrans "Comparable Replacement Property" to rent a replacement property,

**AND**

C) File a claim for relocation payments within 18 months of the later of:

(1) The date you vacate the property acquired by Caltrans, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the close of escrow on State's acquisition)

**You will not be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. And, you will also receive at least 90 days' written notice before you must move.**

*Note1: The time periods for a 90-day owner occupant are different than a 180-day owner occupant.*

*Note 2: If the Rent Differential is converted to a Downpayment Option, there is no "spend-to-get" requirement.*

## DOWN PAYMENT OPTION

The Rent Differential payment may - with certain limitations - be converted to a **Down Payment Option** to assist you in purchasing a replacement property. The down payment option is a direct conversion of the Rent Differential payment.

If the Caltrans calculated Rent Differential is between $0 and $5,250, your down payment option will be $5,250, which can be used towards the purchase of a replacement decent, safe and sanitary dwelling.

If the Rent Differential is over $5,250, you may be able to convert the entire amount of the Rent Differential to a downpayment option.

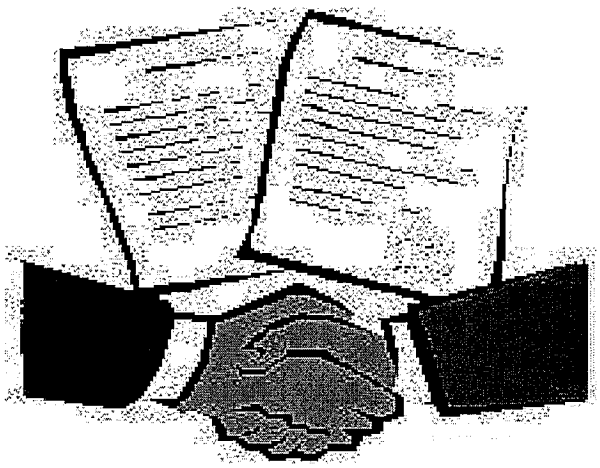
The down payment option must be used for the acquisition of the replacement dwelling, plus any eligible incidental expenses (see "180-day Owner Occupants Incidental Expenses") related to the purchase of the property. You must work closely with your Relocation Agent to ensure you can utilize the full amount of your down payment option towards the purchase.

If any portion of the Rent Differential was used prior to the decision to convert to a down payment option, those advance payments will be deducted from the entire benefit.

## LAST RESORT HOUSING

On most projects, an adequate supply of housing will be available for sale and for rent, and the benefits provided will be sufficient to enable you to relocate to comparable housing. However, there may be projects in certain locations where the supply of available housing is insufficient to provide the necessary housing for those persons being displaced. In such cases, Caltrans will utilize a method called Last Resort Housing. Last Resort Housing allows Caltrans to construct, rehabilitate or modify housing in order to meet the needs of the people displaced from a project. Caltrans can also pay above the statutory limits of $5,250 and $22,500 in order to make available housing affordable.

# Relocation Advisory Assistance



Any individual, family, business or farm displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your housing needs and desires will be determined as well as your need for assistance. You cannot be required to move unless at least one comparable replacement dwelling is made available to you.

You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Explain the relocation benefits and eligibility requirements.
- Provide the amount of the replacement housing payments in writing.
- Assure the availability of a comparable property before you move.
- Inspect possible replacement residential units for DS&S compliance.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- VA and FHA loan requirements
- Real property taxes.
- Consumer education literature on housing

If you desire, your Relocation Agent will give you current listings of other available replacement housing. Transportation will be provided to inspect available housing, especially if you are elderly or handicapped. Though you may use the services of a real estate broker, Caltrans cannot provide a referral.

Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local housing programs offering assistance to displaced persons. If you have special problems, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans will establish a temporary Relocation Field Office on or near the project. Project relocation offices will be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember - YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions. And be sure you fully understand all of your rights and available benefits.

## YOUR RIGHTS AS A DISPLACEE

All eligible displacees have a freedom of choice in the selection of replacement housing, and Caltrans will not require any displaced person to accept a replacement dwelling provided by Caltrans. If you decide not to accept the replacement housing offered by Caltrans, you may secure a replacement dwelling of your choice, providing it meets DS&S housing standards. Caltrans will not pay more than your calculated benefits on any replacement property.

The most important thing to remember is that the replacement dwelling you select must meet the basic "decent, safe, and sanitary" standards. Do not execute a purchase agreement or a rental agreement until a representative from Caltrans has inspected and certified in writing that the dwelling you propose to occupy meets the basic standards. **DO NOT jeopardize** your right to receive a replacement housing payment by moving into a substandard dwelling.

It is important to remember that your relocation benefits will not have an adverse affect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes

In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Whenever possible, minority persons shall be given reasonable opportunities to relocate to decent, safe, and sanitary replacement dwellings, not located in an area of minority concentration, and that is within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you always have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal with the head of the responsible agency if that person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

# NOTES

# Sus Derechos y Beneficios Como Una Persona Desplazada Bajo el Programa Uniforme De Asistencia Para Reubicación (Residencial)

## Introducción

En la construcción de un sistema moderno de transportación, el desplazamiento de un pequeño porcentaje de la población es a menudo necesario. Sin embargo, la política de Caltrans es que las personas desalojadas no tengan que sufrir innecesariamente como resultado de los programas diseñados para el beneficio del público en general.

Los individuos y familias desplazadas pueden ser elegibles para recibir servicios de asesoramiento y pagos de reubicación.

Este folleto provee información acerca de los servicios y pagos de reubicación disponibles. Si usted es requerido a mudarse como resultado de un proyecto de transportación, un Agente de Reubicación se comunicará con usted. El Agente de Reubicación le contestará preguntas específicas y le proveerá información adicional.

## Ley de Procedimiento Uniforme de Asistencia para Rubicación y Adquisición de Bienes Raíces de 1970, Enmendada “La Ley Uniforme”

El propósito de esta Ley es proveer tratamiento igual y uniforme para las personas que son desplazadas de sus hogares, negocios, u operaciones agrícolas por programas federales o programas que son asistidos con fondos federales y para establecer uniformidad e igualdad en la política de adquisición de tierras por programas federales y programas asistidos con fondos federales.

La ley trata de asegurar que las personas desplazadas directamente como resultado de proyectos federales o proyectos asistidos con fondos federales sean tratados con igualdad, consistencia y equidad para que esas personas no sufran

daños desproporcionados como resultado de proyectos designados para el beneficio del público en general.

*Aunque se ha hecho un esfuerzo para asegurar la precisión de este folleto, debe de ser entendido que no tiene la fuerza o efectos de la ley, regla, o regulación que gobierna el pago de los beneficios. Si hay diferencias o error, la ley tomará precedencia.*

## Algunas Definiciones Importantes…

Sus beneficios de reubicación pueden ser entendidos mejor si usted entiende los siguientes términos:

***Vivienda de Restitución comparable:*** significa una propiedad que es:

(1) Decente, segura y sanitaria. (Vea la definición abajo.)
(2) Equivalente funcionalmente a la propiedad desplazada.
(3) Adecuada en tamaño para acomodar a la familia que esta siendo reubicada.
(4) En un área que no esté sujeta a condiciones irrazonablemente adversas.
(5) En una localidad generalmente no menos deseable que la localidad de su propiedad desplazada con respecto a servicios públicos, y acceso razonable al lugar de empleo.
(6) En una parcela de tamaño típico para el desarrollo de una residencia de tamaño normal.

***Decente, Segura y Sanitaria (DS&S):*** La vivienda de restitución debe de ser decente, segura y sanitaria … que significa que llena todos los requisítos mínimos establecidos por las regulaciones federales y conforme a los códigos de ocupación de viviendas aplicables. La propiedad será:

(1) Buena estructuralmente, cerrada a las condiciones climáticas y en buen estado de reparación.

(2) Contiene un sistema eléctrico adecuado para iluminación y otros aparatos.

(3) Contiene un sistema de calefacción capáz de mantener una temperatura saludable (de aproximadamente 70 grados) para la persona desplazada,

con excepción en aquellas áreas donde las condiciones climáticas no requieren dicho sistema.

(4) Debe de ser adecuada en tamaño con respecto al número de cuartos y áreas para vivir necesarias para acomodar a las personas desplazadas. Es política de Caltrans que más de dos personas no deben de estar en un solo cuarto, a menos que que el tamaño del cuarto sea suficientemente adecuado para acomodar los muebles de dormitorios necesarios de los ocupantes.

(5) Tener un baño separado, bien iluminado y ventilado que sea privado a los usuarios y que contenga un lavamanos, una tina o regadera, y un excusado, todos en buenas condiciones y apropiadamente conectados a los sistemas de aguas negras y aguas potables.

***Nota:*** *En el caso de una propiedad residencial, debe de haber una área de cocina que contenga un lavatrastos usable, propiamente conectado a agua caliente y agua fría, y al sistema de drenaje, y con espacio adecuado para utilizar los servicios y connecciones para una estufa y un refrigerador.*

(6) Que contenga salidas sin obstrucción y seguros espacio abierto al nivel del suelo. Si la propiedad de restitución está en el segundo piso o más arriba, que tenga acceso directamente desde o a travéz de un corredor, y que éste corredor común debe de tener al menos dos salidas.

(7) Si la persona desplazada es incapacitada físicamente, debe de ser libre de cualquier barrera que le impidan la entrada o salida, o uso razonable de la propiedad por dicha persona incapacitada.

***Persona Desplazada:*** Cualquier individuo o familia que se mueva de una propiedad o mueva sus bienes personales de una propiedad como resultado de la adquisición de bienes raíces, en todo o en parte, o como resultado de una notificación escrita de una agencia pidiéndole que desocupe la propiedad que se necesita para un proyecto de transportación. En el caso de una adquisición parcial, Caltrans debe de determinar si la persona es desplazada directamente como resultado de esta adquisición.

Los residentes **que no están legalmente** en los Estados Unidos no son elegibles para recibir pagos y asistencia de reubicación.

Los beneficios de reubicación van a variar dependiendo del tipo y tiempo de ocupación. Como una persona desplazada de una unidad residencial usted puede ser clasificado como:

- Un dueño ocupante de una propiedad residencial (incluyendo casas movibles)
- Un inquilino ocupante de una propiedad residencial (incluyendo casas movibles y cuartos para dormir)

***Vivienda:*** El lugar de permanencia o residencia regular y usual de una persona, de acuerdo a las costumbres locales o la ley, incluyendo una unidad familiar, una unidad familiar en un complejo doble o multi-familiar, o una propiedad de uso múltiple, una unidad de condominio o proyecto de vivienda en cooperativa, una unidad libre de mantenimiento doméstico, una casa movible, o cualquier otra unidad residencial.

***Dueño:*** Una persona es considerada que llena los requisitos de dueño de una casa, si esta persona compra, tiene título o tiene algunos de los siguientes intereses en una propiedad:

(1) Una escritura de propiedad, un interés de por vida en una propiedad, un contrato de renta por 99 años, un contrato oral de renta incluyendo una opción para extensión con al menos 50 años que queden después de la fecha de adquisición; o

(2) El interés en un proyecto de vivienda en cooperativa que incluya el derecho de ocupar una vivienda; o

(3) Un contrato de compra de interés, o bienes raíces.

(4) Algún otro interés, incluyendo intereses parciales, qua a juicio de la agencia garanticen los pagos como dueño.

***Inquilino:*** Una persona que tiene el uso y la ocupación temporal de una propiedad de la que otro es dueño.

# Gastos de Mudanza

Si usted califica como persona desplazada, usted tiene derecho a reembolso de sus gastos de mudanza y a ciertos gastos relacionados incurridos durante el traslado. Los métodos de traslado y los distintos tipos de pagos para gastos de mudanza son explicados abajo.

Los individuos y familias desplazadas pueden escoger un pago basado en los gastos reales, razonables y los gastos relacionados, o de acuerdo a una lista de costos fijos de mudanza. Sin embargo, para asegurar su elegibilidad y el pago rápido de sus gastos de mudanza, usted debe de ponerse en contacto con su Agente de Rubicación antes de mudarse.

## Usted Puede Elegir Entre:

**Los Gastos Razonables de Mudanza –** A usted se le puede pagar por los gastos razonables de mudanza y gastos relacionados cuando una compañia comercial de mudanza hace la mudanza. Los reembolsos deberán ser limitados a una mudanza de 50 millas o menos. Los gastos relacionados pueden incluir:

- Transportación.
- Empaque y desempaque de propiedades personales.
- Desconexión y reconexión de aparatos eléctricos.
- Almacenaje temporal de propiedades personales.
- Seguros cuando la propiedad está almacenada o en tránsito.

Ó

**Lista de Costos Fijos de Mudanza –** A usted se le puede pagar basado en una lista de costos fijos de mudanza. Bajo esta opción, usted no puede ser elegible para reembolsos de gastos relacionados incluídos en la lista de arriba. Esta lista de gastos fijos está designada a cubrir todos esos gastos.

Por ejemplo (Tarifa para el año 2001)

4 Cuartos - $ 950
7 Cuartos - $1,550

Los costos fijos de mudanza para una unidad amueblada (ejemplo, usted es inquilino en un apartamento donde los muebles pertenecen al dueño de la vivienda) estan basados en la Tabla de Honorarios B.

Ejemplos (Taza en el año 2001):

4 Cuartos - $475
7 Cuartos - $625

Bajo la lista de Pago Fijos de Mudanza, usted no puede recibir ningun pago adicional por almacenamiento temporario, vivienda temporaria, transportación o conexiones de servicios públicos.

# Pagos Para Vivienda de Restitución

El tipo de Pago Para Vivienda de Restitución (RHP) depende de si usted es dueño o un inquilino, y en el tiempo de ocupación que tiene de la propiedad que será adquirida.

Si usted es calificado **como dueño ocupante** de más de 180 días antes de la iniciación de negociaciones para la adquisición de su propiedad, usted puede tener derecho a recibir RHP que consiste en:

**Diferencia de Precio, y**

**Diferencia para Hipoteca, y**

**Gastos Incidentales**

**O**

**Diferencia Para Rentar**

Si usted es calificado como **dueño ocupante** de más de 90 días, pero menos de 180 días, O si usted es calificado como **inquilino ocupante** de al menos 90 días, usted puede tener derecho a recibir RHP así:

**Diferencia Para Rentar**

**U**

**Opción para Enganche**

Tiempo de ocupación simplemente significa contar el número de días que usted actualmente ocupó la vivienda antes de la fecha de iniación de negociaciones por Caltrans para la compra de la propiedad. El término “iniciación de negociaciones” significa la fecha que Caltrans hizo el primer contacto personal con el dueño de bienes raíces, o su representante, para darle a el/ella una oferta escrita para la adquisición de la propiedad.

*Nota: Si usted ocupó una vivienda por **menos de 90 días** antes de la iniciación de negociaciones y la propiedad es posteriormente adquirida, o si usted se mudó a la propiedad después de la iniciación de negociaciones y usted todavía*

*ocupaba la propiedad a la fecha de adquisición, usted puede ser elegible para un Pago para Restitución de Vivienda, basado en una guía de elegibilidad establecida. Consulte con su Agente de Reubicación antes de que haga cualquier decisión de mudarse de su propiedad.*

## Para Ocupantes de 180 Días o Más

Si usted califica como dueño ocupante de 180 días, puede ser elegible – además del valor equitativo en el mercado de su propiedad – para un Pago de Restitución de Vivienda que consiste en un pago de Diferencia de Precio y/o Gastos Incidentales.

El Pago de **Diferencia de Precio** es la cantidad por la que el costo de una vivienda de restitución excede el costo de adquisición de la vivienda desplazada. Este pago le asistirá en la compra de una vivienda decente, segura, y sanitaria (DS&S). Caltrans computará el pago máximo que usted puede ser elegible para recibir. (Vea un ejemplo en la página 15.)

Para recibir la cantidad total de la diferencia de precio calculadas, usted debe de gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

El pago de **Diferencia de Hipoteca** le será reembolsado por cualquier aumento del costo de interés en la hipoteca que usted haya incurrido porque la taza de interés en su nueva hipoteca excede la taza de interés de la propiedad adquirida por Caltrans. La computación del pago es complicada ya que está basada en las tazas típicas entre su préstamo anterior y su préstamo nuevo. También, una parte de los pagos pueden ser prorrateado como reembolso por una porción de los honorarios de su préstamo y los puntos (intereses) de la hipoteca.

Para ser elegible para recibir este pago, la propiedad adquirida debe de ser hipotecada con una hipoteca de buena fé, la cual fue un crédito válido de por lo menos 180 días antes de la iniciación de negociaciones.

Usted también puede ser reembolsado por cualquier **Gasto Incidental** actual y necesario que usted incurra en relación con la compra de su propiedad de restitución. Estos gastos pueden ser los costos por búsqueda de título, honorarios de copia en el Registro, reporte de crédito, reporte de evaluación, y ciertos otros gastos de cierre de escritura. Usted no puede ser reembolsado por ningún gasto frequente como pre-pagos de impuesto de bienes raíces y seguro de propiedad.

Si la cantidad total de su **Pago de Vivienda de Restitución** (Diferencia de Precio, Diferencia Para Hipoteca y Gastos Incidentales) excede $22,500, el pago debe de ser depositado directamente en una cuenta fiduciaria o ser pagado directamente a la compañía financiera.

**EJEMPLO DE COMO SE CALCULA LA DIFERENCIA DE PAGO:**

Suponga que Caltrans compra su propiedad por $98,000. Después de un estudio completo de viviendas disponibles en el mercado, que sean decentes, seguras y sanitarias, Caltrans determina que la propiedad de restitución comparable en el mercado abierto le costará $100,000. Si su precio de compra es $100,000 usted recibirá $2,000 (*Vea el Ejemplo A)*

Si su precio de compra es de más de $100,000, usted paga la diferencia (vea el *Ejemplo B*). Si su precio de compra es menos de $100,000, el pago se basará en los costos actuales (vea el *Ejemplo C).*

La cantidad que usted recibe en un pago diferencial dependerá de cuanto usted realmente gasta en una vivienda de restitución, como se muestra en estos ejemplos.

**Computación de Caltrans**

| | |
|---|---|
| Precio Comparable de la Propiedad de Restitución | $100,000 |
| Precio de Adquisición de su Propiedad | – $ 98,000 |
| Diferencia Máxima de Precio | $ 2,000 |

**Ejemplo A**

| | |
|---|---|
| Precio de Compra de Restitución | $100,000 |
| Propiedad Comparable de Restitución | $100,000 |
| Precio de Adquisición de su Propiedad | – $ 98,000 |
| Diferencia Máxima de Precio | $ 2,000 |

**Ejemplo B**

| | |
|---|---|
| Precio de Compra de Restitución | $105,000 |
| Propiedad Comparable de Restitución | $100,000 |
| Precio de Adquisición de su Propiedad | – $ 98,000 |
| Diferencia Máxima de Precio | $ 2,000 |
| Usted Debe de Pagar el Precio Adicional de | $ 5,000 |

**Ejemplo C**

| | |
|---|---|
| Propiedad Comparable de Restitución | $100,000 |
| Precio de Compra de Restitución | $ 99,000 |
| Precio de Adquisición de su Propiedad | – $ 98,000 |
| Diferencia de Precio | $ 1,000 |

*En el ejemplo C usted solo recibirá $1,000 – no la cantidad completa de "La propiedad Comparable de Restitución" por los requisítos de "Gastar para Obtener" de Caltrans.*

**PARA QUE UN "DUENO OCUPANTE DE 180 DÍAS" RECIBA LA CANTIDAD TOTAL DE SUS BENEFICIOS DE PAGOS PARA VIVIENDA** (*Diferencia de Precio, Diferencia de Hipoteca y Gastos Incidentales), usted debe:*

A) Comprar y ocupar una vivienda de restitución que sea DS&S dentro de al menos un año desde la fecha más tarde de:

(1) La fecha en que recibió la primera notificación de una casa de restitución, **O**

(2) La fecha que Caltrans pagó los costos de adquisición de su vivienda actual (usualmente los gastos de cierre de escritura en la adquisición del Estado.)

**Y**

B) Haber gastado al menos la cantidad que Caltrans estableció para "La Propiedad Comparable de Restitución" para la propiedad de restitución.

**Y**

C) Reportar un reclamo para pago para reubicación dentro de los 18 meses de la fecha más tarde de:

(1) La fecha en que se mudó de la propiedad adquirida por Caltrans, **O**

(2) La fecha en que Caltrans le pagó los costos de adquisición de su vivienda actual (usualmente al cierre de escritura en la adquisición del Estado.)

Usted no será elegible para recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta por escrito de la compra de la propiedad. Usted también recibirá una notificación escrita por lo menos 90 días antes de tener que mudarse.

## Para Dueños Ocupantes e Inquilinos de 90 Días o Más

**Si usted califica como un ocupante (ya sea como dueño o inquilino) de 90 días, usted puede ser elegible para un Pago de Vivienda de Restitución en la forma de Diferencia para Rentar.**

El pago de la **Diferencia para Rentar** es designado para asistirle en la renta de una vivienda comparable que sea decente, segura y sanitaria. El pago será basado en la diferencia entre la renta básica mensual por la propiedad adquirida por Caltrans (incluyendo el promedio del costo mensual de servicios públicos) y el menor de:

a) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda comparable de restitución determinada por Caltrans, **O**

b) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda decente, segura y sanitaria que usted rente como vivienda de restitución.

Gastos de servicios públicos son esos gastos que usted incurre por calefacción, luz, agua, aguas negras y basura – sin importar quien los provea (ejemplo, electricidad, gas propano, y sistema séptico.) No incluye cable de televisión, teléfono, o seguridad. Los servicios públicos en su propiedad de restitución será el estimado del promedio de costos por los 3 últimos meses para el tipo de vivienda y área usados en los cálculos.

Esta diferencia es multiplicada por 42 meses y le puede ser pagado en una sola suma o en pagos periódicos de acuerdo con la política y regulaciones. (Vea un ejemplo en la página 21.)

Para recibir la cantidad calculada total de la diferencia para rentar, usted debe gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

Este pago puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución (Vea la página 25 para una explicación completa.)

**EJEMPLO DE LA COMPUTACIÓN DEL PAGO DE LA DIFERENCIA PARA RENTAR:**

Después de hacer un estudio completo de viviendas comparables, decentes, seguras y sanitarias que estén disponibles para rentar, Caltrans determina que una propiedad comparable de restitución podría ser rentada por $325 al mes.

**Computación de Caltrans**

| | |
|---|---|
| Renta por una Propiedad Comparable de Restitución | $ 325 al mes |
| MÁS: estimado de costos de servicios públicos | 100 al mes |
| TOTAL Costo de renta por una Propiedad Comparable de Restitución | $ 425 al mes |
| Renta por su Propiedad Actual | $ 300 al mes |
| MÁS: costos de servicios públicos | 90 al mes |
| TOTAL Costo para pagar la renta de su propiedad actual | $ 390 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos | $ 425 al mes |
| Costo para pagar la renta de su propiedad incluyendo servicios públicos | 390 al mes |
| Diferencia | $ 35 al mes |

Multiplicado por 42 meses = $1,470 Diferencia para Rentar

**Ejemplo A:**

| | |
|---|---|
| Renta para una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos | $ 525 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos | $ 425 al mes |
| Costos de pago de la renta de su propiedad incluyendo servicios públicos | $ 390 al mes |

Ya que $425 es menos que $525, la diferencia para rentar está basada en la diferencia entre $390 y $425.

Diferencia para Rentar ($35 x 42 meses = $1,470)

En este caso usted gasta “al menos” la cantidad de la Propiedad de Restitución Comparable en la propiedad de restitución y así recibirá la cantidad total.

**Ejemplo B:**

| | |
|---|---|
| Renta por una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos | $ 400 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos | $ 425 al mes |
| Costos de pago de la renta de su propiedad incluyendo servicios públicos | $ 390 al mes |

Ya que $400 es menos que $525, la diferencia para rentar está basada en la diferencia entre $400 y $390.

Diferencia para Rentar ($10x 42 meses = $420)

En este caso usted va a gastar “menos que” la cantidad de Propiedad de Restitución Comparable en la restitución de la vivienda y usted no recibirá la cantidad total.

**PARA QUE UN “DUENO OCUPANTE DE 90 DÍAS” RECIBA LA CANTIDAD TOTAL DE PAGO PARA SU VIVIENDA DE RESTITUCION** (Diferencia para Rentar), **usted debe de:**

A) Rentar y ocupar una vivienda de restitución DS&S dentro de un año después de la última fecha de:

(1) La fecha en que usted recibió la primera notificación de una casa de restitución disponible, **O**

(2) El día en que usted su mudó de la propiedad adquirida por Caltrans.

**Y**

B) Gastar al menos la cantidad de la “Propiedad Comparable de Restitución” de Caltrans para rentar una vivienda de restitución.

**Y**

C) Reportar un reclamo para pagos de reubicación dentro de los 18 meses de la fecha más tarde:

(1) La fecha en que usted se mudó de la propiedad adquirida por Caltrans, **O**

(2) La fecha en que Caltrans le pagó los costos de adquisición de su propiedad actual (usualmente al cierre de escritura de la adquisición del Estado.)

Usted no será elegible para recibir ningún pago de reubicación hasta que haya hecho la primera oferta escrita para comprar la propiedad. Además, usted recibirá al menos una noticia por escrito 90 días antes de tener que mudarse.

# OPCIÓN PARA ENGANCHE

El pago de Diferencia para Rentar puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución. La Opción para Enganche es una conversión directa del pago de la diferencia para rentar.

Si la diferencia para rentar es calculada entre $0 y $5,250, su Opción Para Enganche será de $5,250 la cual puede ser usada para la compra de una vivienda de restitución decente, segura y sanitaria.

Si la diferencia para rentar es más de $5,250 usted podrá convertir la cantidad completa de diferencia para rentar a una Opción Para Enganche.

La Opción Para Enganche debe de ser usada para el enganche requerido, la cual usualmente es un porcentage del precio total de compra, más cualquier gasto incidental elegible (vea la página 14, “Gastos Incidentales para Dueños Ocupantes de 180 días”) relacionado con la compra de la propiedad. Usted debe trabajar junto con su Agente de Reubicación para asegurarse de que puede utilizar la cantidad total de su Opción Para Enganche en su compra.

Si alguna porción de la diferencia para rentar fue usada antes de su decisión de convertirla a una Opción Para Enganche, los pagos avanzados serán deducidos de los beneficios completos.

# CASA DEL ÚLTIMO RECURSO

En la mayoría de los proyectos de Caltrans, existe una cantidad adecuada de viviendas de venta y alquiler, y los beneficios serán suficientes para que usted pueda reubicarse a una vivienda comparable. Sin embargo, en ciertas localidades pueden haber proyectos donde el número de viviendas disponibles no son suficientes para proveer viviendas a todas las personas desplazadas. En estos casos, Caltrans utiliza un método llamado Casa del Último Recurso. La Casa del Último Recurso permite a Caltrans construir, rehabilitar, o modificar viviendas para cumplir con las necesidades de las personas desplazadas por un proyecto. Caltrans puede también pagar arriba de los límites legales de $5,250 y $22,500 para hacer posible viviendas con precios razonables.

## Asistencia de Consulta Para Reubicación

A cualquier individuo, familia, negocio u operación agrícola desplazada por Caltrans deberá ofrecérsele servicios de asistencia con el propósito de localizar una propiedad de restitución. Los servicios de reubicación son proveídos por empleados calificados de Caltrans. Es la meta de ellos y el deseo de estos empleados de servirle y asistirle de cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se pondrá en contacto con usted personalmente. Los servicios de reubicación y pagos se le explicarán de acuerdo con su elegibilidad. Durante la entrevista inicial, sus necesidades de vivienda y deseos se determinarán así como sus necesidades de asistencia. No se le puede pedir que se mude a menos que una vivienda comparable de restitución le sea disponible.

Usted puede esperar recibir los siguientes servicios, consejos y asistencia de su Agente de Reubicación quien le:

- Explicará los beneficios de reubicación y los requesitos de elegibilidad.
- Proveerá por escrito la cantidad de pago por su vivienda de restitución.
- Asegurará la disposición de una propiedad comparable antes de que se mude.
- Inspeccionará las posibles unidades residenciales de restitución para el cumplimiento de DS&S.

- Proveerá información y aconsejará como puede obtener ayuda para minimizar las adversidades en ajustarse a su nueva localidad.
- Ayudará en completar los documentos de préstamos, aplicaciones de rentas o las Formas de Reclamo para Reubicación.

Y proveerle información de:

- Seguro de Depósitos
- Taza de intereses y términos
- Pagos típicos de enganches
- Requisitos de préstamos de la Administración de Veteranos (VA) y la Administración de Vivienda Federal (FHA)
- Impuestos sobre bienes raíces
- Literatura de educación en viviendas para el consumidor

Si usted lo desea, el Agente de Reubicación le dará una lista actual de otras viviendas de restitución disponibles.

Se proveerá transportación para inspeccionar viviendas disponibles, especialmente si usted es mayor de edad o con impedimiento físico. Aunque usted puede utilizar los servicios de un agente de bienes raíces, Caltrans no lo podrá referir.

Su Agente de Reubicación está familiarizado con los servicios proveídos por otras agencias de su comunidad y le proveerá información de otros programas de viviendas federales, estatales y locales que ofrecen programas de asistencia para personas desplazadas. Si usted tiene algun problema especial, su Agente de Reubicación hará su mejor esfuerzo para asegurarle los servicios de esas agencias con personal capacitado y con experiencia que le ayudarán.

Si el proyecto de transportación requiere un número considerable de personas que sean reubicados, Caltrans establecerá una Oficina Temporal de Reubicación en, o cerca del proyecto. Las oficinas de proyectos de reubicación deberán de abrirse durante horas convenientes y en horas tempranas de la noche, si es necesario.

Además de estos servicios, Caltrans es requirido que coordine las actividades de otras agencias que causen desplazamientos para asegurar que todas esas personas desplazadas reciban beneficios de reubicación equitativos y consistentes.

Recuerde – SU AGENTE DE REUBICACIÓN está para aconsejarle y asistirle. No vacile en hacer preguntas, y asegúrese de que entiende completamente sus derechos y beneficios de reubicación disponibles.

# SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Todas las personas elegibles como personas desplazadas tienen la libertad de escoger dentro de la selección de viviendas de restitución, y Caltrans no requerirá a ninguna persona que sea desplazada que acepte una vivienda de restitución proveída por Caltrans. Si usted decide no aceptar la vivienda de restitución ofrecida por Caltrans, usted puede elegir una vivienda de restitución de su propia selección, mientras que cumple con los requisítos de DS&S. Caltrans no pagará más que los beneficios calculados por una vivienda de restitución.

Lo más importante que usted debe de recordar es que la vivienda de restitución que usted seleccione debe de llenar los requisítos básicos de "decente, segura y sanitaria". No ejecute los documentos de compra o el contrato de renta hasta que un representante de Caltrans haya inspeccionado y certificado por escrito que la vivienda que usted se propone ocupar cumple con los requisítos básicos. **NO ARRIESGUE** su derecho de recibir los pagos de vivienda de restitución por mudarse a una vivienda que no sea "decente, segura y sanitaria."

Es importante recordar que sus beneficios de reubicación no van a tener ningún efecto adverso en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Impuestos sobre ingresos

Además, el Título VIII de los Derechos Civiles, Ley de 1968 y luego otras leyes y enmiendas hacen descriminatoria la práctica de compra y renta de unidades de vivienda si es basada ilegalmente en la raza, color, religión, sexo u origen nacional.

Cuando sea posible, a personas de minorías se les debe de dar oportunidades razonables para reubicarse a viviendas de restitución que sean decentes, seguras y sanitarias, no localizadas en áreas de concentración de minorías, y que estén dentro de sus recursos económicos. Esta política, sin embargo, no requiere que Caltrans provea a una persona pagos más grandes de lo que sean necesarios para permitir que la persona sea reubicada a una vivienda de restitución comparable.

La política No-Descriminatoria de Caltrans asegura que todos los servicios y/o los beneficios deben de ser administrados al público en general sin importar la raza, color, origen nacional, o sexo en cumplimiento con el Título VI de la Ley de Derechos Civiles de 1964 (42 USC 2000 d. et seq.)

Usted siempre tendrá el Derecho de Apelar cualquier decisión hecha por Caltrans relacionada a los beneficios de reubicación y elegibilidad.

Su Derecho de Apelar está garantizado en la “Ley Uniforme” la cual establece que una persona puede apelar al jefe de la agencia responsable, si ella cree que la agencia ha fallado en determinar correctamente su elegibilidad, o la cifra del pago autorizado por la Ley.

Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans le asistirá en hacer su demanda de apelación y le explicará el procedimiento que debe de seguir. Usted tiene derecho de ser representado por un asesor legal u otro representante en conexión con su apelación (pero solamente por su propia cuenta.)

Caltrans considerará toda justificación y materia pertinente que usted entregue u otra información disponible, necesaria para asegurar una audiencia equitativa. Caltrans le proveerá una determinación por escrito del resultado de su apelación, con una explicación sobre la base de la decisión. Si usted aún no está satisfecho con la decisión otorgada, Caltrans le aconsejará que usted puede pedir una audiencia judicial.

**Noticiero de la Ley para Americanos con Incapacidades Físicas (ADA):**

> **Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para Información llame al número (916) 654-5413 Voz, CRS: 1-800-735-2929, o escriba a Derecho de Vía, MS 37, 1120 N Street, Sacramento, CA 95814.**

# NOTAS

# Your Rights and Benefits as a Displaced Business, Farm or Nonprofit Organization Under the Uniform Relocation Assistance Program

## Introduction

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.

Displaced businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

## Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 As Amended "The Uniform Act"

The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their business, farm or nonprofit organization, by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

> To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

*While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.*

## Relocation Services

The California Department of Transportation has two programs to aid businesses, farms and nonprofit organizations which must relocate.

These are:

1. The Relocation Advisory Assistance Program, which is to aid you in locating a suitable replacement property, and

2. The Relocation Payments Program, which is to reimburse you for certain costs involved in relocating. These payments are classified as:

    - Moving and Related Expenses (costs to move personal property not acquired).

    - Reestablishment Expenses (expenses related to the replacement property).

    - In-Lieu Payment (a fixed payment in lieu of moving and related expenses, and reestablishment expenses).

**NOTE:** *Payment of loss of goodwill is considered an acquisition cost. California law and the federal regulations mandate that relocation payments cannot duplicate other payments such as goodwill. You will* **not** *be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. You will also receive at least 90 days' written notice before you must move.*

## Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

***Business:*** Any lawful activity, with the exception of a farm operation, conducted primarily for the purchase, sale, lease and rental of personal or real property, or for the manufacture, processing, and/or marketing of products, commodities, or any other personal property, or for the sale of services to the public, or solely for the purpose of this Act, and outdoor advertising display or displays, when the display(s) must be moved as a result of the project.

***Displaced Person or Displacee:*** Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, in whole or in part, or as the result of a written notice from the agency to vacate the real property needed for a transportation project. In the case of a partial acquisition, Caltrans shall determine if a person is displaced as a direct result of the acquisition.

Owners and tenants **not lawfully present** in the United States are not eligible to receive relocation payments and assistance.

***Contributes Materially:*** A business or farm operation must have had average annual gross receipts of at least $5,000 **or** average annual net earnings of at least $1,000, or their income must have contributed at least 33 1/3 percent of the owner's or operator's average annual gross income form all sources, in order to qualify as a bona-fide operation.

***Farm Operation:*** Any activity conducted solely or primarily for the production of one or more agricultural products or commodities, including timber, for sale and home use, and customarily producing such products or commodities in sufficient quantity to be capable of contributing materially to the operator's support.

***Nonprofit Organization:*** A public or private entity that has established its nonprofit status under applicable law.

# MOVING EXPENSES

If you qualify as a displaced business, farm or nonprofit organization, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. To qualify you must legally occupy the property as the owner or lessee/tenant when Caltrans initiates negotiations for the acquisition of the property **OR** at the time Caltrans acquires title or takes possession of the property. However, to assure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

## You Can Choose Either:

**Actual Reasonable Moving Costs** – You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses, with limitations, ***may*** include:

- Transportation.
- Packing and unpacking of personal property.
- Disconnecting and reconnecting personal property related to the operation.
- Temporary storage of personal property.
- Insurance while property is in storage or transit, or the loss and damage of personal property if insurance is not reasonably available.
- Expenses in finding a replacement location.
- Professional services to plan and monitor the move of the personal property to the new location.
- Licenses, permits and fees required at the replacement location.

## OR

**Self-Move Agreement** – You may be paid to move your own personal property based on the lower of two acceptable bids obtained by Caltrans.

Under this option, you will still be eligible for reimbursement of related expenses listed above that were not included in the bids.

## OR

**In-Lieu Payment** – You can accept a fixed payment between $1,000 and $20,000, based on your annual earnings IN LIEU OF the moving cost, related expenses and reestablishment cost.

## Actual Reasonable Moving Costs

You may be paid the actual reasonable and necessary costs of your move when a professional mover performs the move. All of your moving costs must be supported by paid receipts or other evidence of expenses incurred. In addition to the transportation costs of your personal property, certain other expenses may also be reimbursable, such as packing, crating, unpacking and uncrating, and the disconnecting, dismantling, removing, reassembling, and reinstalling relocated machinery, equipment, and other personal property.

Other expenses such as professional services necessary for planning and carrying out the move, temporary storage costs, and the cost of licenses, permits and certifications may also be reimbursable. This is not intended to be an all-inclusive list of moving related expenses. Your Relocation Agent can provide you with a complete explanation of reimbursable expenses.

## Self-Move Agreement

If you agree to take full responsibility for all or part of the move of your business, farm, or nonprofit organization, the Department may approve a payment not to exceed the lower of two acceptable bids obtained by the Department from qualified moving firms or a qualified Department staff employee. A low-cost or uncomplicated move may be based on a single bid or estimate at the Department's discretion. The advantage of this moving option is the fact that it relieves the displaced business, farm or nonprofit organization operator from documenting all moving expenses. The Department may make the payment without additional documentation as long as the payment is limited to the amount of the lowest acceptable bid or estimate. Other expenses, such as professional services for planning, storage costs, and the cost of licenses, permits, and certifications may also be reimbursable if determined to be necessary. These latter expenses must be pre approved by the Relocation Agent.

## Requirements:

Before you move, you must provide Caltrans with the:

- Certified inventory of all personal property to be moved.
- Date you intend to vacate the property.
- Address of the replacement property.
- Opportunity to monitor and inspect the move from the acquired property to the replacement property.

## Related Expenses

1. **Searching Expenses for Replacement Property:** Displaced businesses, farms and nonprofit organizations are entitled to reimbursement for actual reasonable expenses incurred in searching for a replacement property, not to exceed $2,500. Expenses may include transportation, meals, and lodging when away from home; the reasonable value of the time spent during the search; fees paid to the real estate agents, brokers or consultants; and other expenses determined to be reasonable and necessary by the Department.

2. **Direct Loss of Tangible Personal Property:** Displaced businesses, farms, and nonprofit organizations may be eligible for a payment for the actual direct loss of tangible personal property which is incurred as a result of the move or discontinuance of the operation. This payment will be based upon the lesser of:

   a. The fair market value of the item for continued use at the displacement site minus the proceeds from its sale.

   **OR**

   b. The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expense4s, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

EXAMPLE:
You determine that the "document shredder" cannot be moved to the new location because of its condition, and you will not replace it at the new location.

| | | |
|---|---|---|
| Fair Market Value of the Document Shredder Based on its use at the current location | | $ 1,500 |
| Proceeds: Price received from selling the Document Shredder | - | $ 500 |
| Net Value | | $ 1,000 |

OR

| | |
|---|---|
| Estimated cost to move | $ 1,050 |
| Based on the "lesser of", the amount of the "Loss of Tangible Personal Property" = | **$ 1,000** |

Note: You are also entitled to all reasonable costs incurred in attempting to sell the document shredder (e.g. advertisement).

3. Purchase of Substitute Personal Property: If an item of personal property, which is used as part of the business, farm, or nonprofit organization, is not moved but is promptly replaced with a substitute item that performs a comparable function at the replacement site, the displacee is entitled to payment of the lesser of:

   a. The cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item;

   **OR**

   b. The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expenses, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

**EXAMPLE A:**

You determine that the copying machine cannot be moved to the new location because it is now obsolete and you will replace it.

| | | |
|---|---|---|
| Cost of a substitute copy machine Including installation costs at the replacement site | | $ 3,000 |
| Trade-in Allowance | - | $ 2,500 |
| Net Value | | $ 500 |

OR

| | |
|---|---|
| Estimated cost to move | $ 550 |
| Based on the "lesser of", the amount of the "Substitute Personal Property" = | **$ 500** |

**EXAMPLE B:**

You determine that the chairs will not be used at the new location because they no longer match the décor and you will replace them.

| | | |
|---|---|---|
| Cost of substitute chairs | | $ 1,000 |
| Proceeds from selling the chairs | - | $ 100 |
| Net Value | | $ 900 |

OR

| | |
|---|---|
| Estimated cost to move | $ 200 |
| Based on the "lesser of", the amount of the "Substitute Personal Property" = | **$ 200** |

Note: You are also entitled to all reasonable costs incurred in attempting to sell the copy machine and/or chairs.

4. **Disconnecting and Reinstallation:** You will be reimbursed for your actual and reasonable costs to disconnect, dismantle, remove, reassemble and reinstall any machinery, equipment or other personal property in relation to its move to the new location. This includes connection to utilities available nearby and any modifications to the

personalty that is necessary to adapt it to utilities at the replacement site.

5. **Physical changes at the new location:** You may be reimbursed for certain physical changes to the replacement property if the changes are necessary to permit the reinstallation of machinery or equipment necessary for the continue operation of the business. ***Note:*** *The changes cannot increase the value of the building for general purposes, nor can they increase the mechanical capability of the buildings beyond its normal requirements.*

6. The cost of installing utilities from the right of way line to the structure(s) or improvements on the replacement site.

7. Marketing studies, feasibility surveys and soil testing.

8. Professional real estate services needed for the purchase or lease of a replacement site.

9. One-time assessments or impact fees for anticipated heavy utility usage.

## Reestablishment Expenses

A small business, farm or nonprofit organization may be eligible for a payment, not to exceed $10,000, for expenses actually incurred in relocating and reestablishing the enterprise at a replacement site.

Reestablishment expenses may include, but are not limited to, the following:

1. Repairs or improvements to the replacement real property required by Federal, State or local laws, codes or ordinances.

2. Modifications to the replacement real property to make the structure(s) suitable for the business operation.

3. Construction and installation of exterior signing to advertise the business.

4. Redecoration or replacement such as painting, wallpapering, paneling or carpeting when required by the condition of the replacement site or for aesthetic purposes.

5. Advertising the new business location.

6. The estimated increased costs of operation at the replacement site during the first two years, for items such as:

    a) Lease or rental charges
    b) Personal or real property taxes
    c) Insurance premiums, and
    d) Utility charges (excluding impact fees).

7. Other items that the Department considers essential for the reestablishment of the business or farm.

***Note:*** *A nonprofit organization must substantiate that it cannot be relocated without a substantial loss of existing patronage (membership or clientele). The payment is based on the average of two years annual gross revenues less administrative expenses.*

## In-Lieu Payment (Fixed)

Displaced businesses, farms and nonprofit organizations may be eligible for a fixed payment in lieu of (in place of) actual moving expenses, personal property losses, searching expense, and reestablishment expenses. The fixed payment may not be less than $1,000 or more than $20,000.

For a business to be eligible for a fixed payment, the Department must determine the following:

1. The business owns or rents personal property that must be moved due to the displacement.

2. The business cannot be relocated without a substantial loss of existing patronage.

3. The business is not part of a commercial enterprise having more than three other businesses engaged in the same or similar activity, which are under the same ownership and are not being displaced by the department.

4. The business contributed materially to the income of the displaced business operator during the two taxable years prior to displacement.

Any business operation that is engaged solely in the rental of space to others is not eligible for a fixed payment. This includes the rental of space for residential or business purposes.

Eligibility requirements for farms and nonprofit organizations are slightly different than business requirements. If you are being displaced from a farm or your represent a nonprofit organization and are interested in a fixed payment, please consult your relocation counselor for additional information.

## The Computation of Your In-Lieu Payment:

The fixed payment for a displaced business or farm is based upon the average annual net earnings of the operation for the two taxable years immediately preceding the taxable year in which it is displaced. Caltrans can use a different two year period if it is determined that the last two taxable years do not accurately reflect the earnings of the operation.

**EXAMPLE:** Caltrans acquires your property and you move in 2005:

| | |
|---|---|
| 2003 Annual Net Earnings | $ 10,500 |
| 2004 Annual Net Earnings | $ 12,500 |
| TOTAL | $ 23,000 |
| **Average over two years** | **$ 11,500** |

This would be the amount of your in-lieu payment. Remember – this is in-lieu of all other moving benefits, including reestablishment expenses. You must provide the Department with proof of net earnings to support your claim.

Proof of net earnings can be documented by income tax returns, certified financial statements, or other reasonable evidence of net earnings acceptable to the Department.

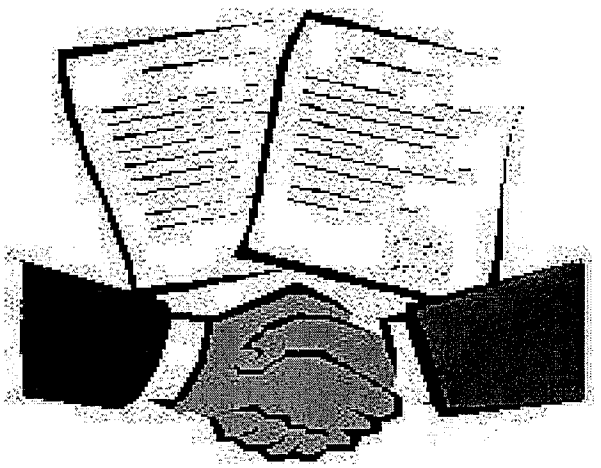
*Note: The computation for nonprofit organizations differs in that the payment is computed on the basis of average annual gross revenues less administrative expenses for the two year period specified above.*

## Before You Move:

A. Request a determination of entitlement for in-lieu payment from your Relocation Agent.
B. Include a written statement of the reasons the business cannot be relocated without a substantial loss in net earnings.

C. Provide certified copies of tax returns for the two tax years immediately preceding the tax year in which you move. (If you move anytime in the year 2005, regardless of when negotiations began or the State took title to the property, the taxable years would be 2003 and 2004).
D. You will be notified of the amount you are entitled to after the application is received and approved.
E. You cannot receive the payment until after you vacate the property, AND submit a claim for the payment within 18 months of the date of your move.

## Relocation Advisory Assistance



Any business, farm or nonprofit organization displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your needs and desires will be determined as well as your need for assistance.

You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Determine your needs and preferences.
- Explain the relocation benefits and eligibility requirements.
- Provide information on replacement properties for your consideration.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- Permits, fees and local planning
- SBA loan requirements
- Real property taxes.
- Consumer education literature

If you desire, your Relocation Agent will give you current listings of other available replacement property. Transportation will be provided to inspect available property, especially if you are elderly or handicapped. Though you may use the services of a real estate broker, Caltrans cannot provide a referral.

Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local programs offering assistance to displaced persons. If you have special needs, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans will establish a temporary Relocation Field Office on or near the project. Project relocation offices will be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember - YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions. And be sure you fully understand all of your rights and available benefits.

## YOUR RIGHTS AS A DISPLACEE

It is important to remember that your relocation benefits will not have an adverse affect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes

In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you always have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal with the head of the responsible agency if that

person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

# NOTES

# Sus Derechos y Beneficios Como Negocio, Operación Agrícola o Organización No Lucrativa Desplazada Bajo el Departmento de Transportación de California, Programa para Asistencia de Reubicación

## Introducción

Cuando se está construyendo un sistema de transporte moderno, el desplazamiento de un pequeño porcentaje de la población es a veces necesario. Sin embargo, es el procedimiento de Caltrans que las personas desplazadas no deben de sufrir innecesariamente como resultado de los programas diseñados para el benificio del público en general.

Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para servicios de reubicación y pagos.

Este libreto le provee información acerca de los servicios y pagos de reubicación disponibles. Si usted tiene que mudarse como resultado de un proyecto de transportación de Caltrans, un Agente de Reubicación lo contactará. El Agente de Reubicación estará disponible para responderle preguntas específicas y darle información adicional.

# Acta de Procedimiento Uniforme de Asistencia para Reubicación y Adquisición de Bienes Raíces de 1970, Emendada
# “El Acta Uniforme”

El propósito de esta Acta es de proveer uniformidad e igualdad de tratamiento a personas desplazadas de sus negocios, operaciones agrícolas, u organización no-lucrativa, por programas federales o programas asistidos con fondos federales, y de establecer uniformidad e igualdad en los procedimientos para adquisión de tierras para los programas federales y programas asistidos con fondos federales.

El Código de Regulaciones Federales 49, Parte 24 implementa el “Acta Uniforme” de acuerdo a los siguientes objetivos de asistencia de relocalización:

> Para asegurar que las personas desplazadas como resultado directo de proyectos federales o proyectos asistidos con fondos federales sean tratados con justicia, consistencia e igualdad de tal manera que esas personas no sufran daños desproporcionados como resultado de los proyectos diseñados para el beneficio del público en general.

*Mientras se ha hecho todo esfuerzo para asegurar la veracidad de este folleto, debe entenderse que no tiene la fuerza ni efecto de la ley, regla o regulaciones que gobiernan el pago de los beneficios.  Si alguna diferencia o error resulta, la ley tomará precedencia.*

# Servicios de Reubicación

El Departamento Transportación tiene dos programas para de ayudar a negocios, granjas y organizaciones no-lucrativas que tienen que reubicarse. Estas son:

1. El Programa de Consejos de Asistencia de Reubicación, que es para ayudarle en localizar una propiedad de reemplazo conveniente, y

2. El Programa de Pagos para Reubicación, que le reembolsará de ciertos costos envueltos en la reubicación. Estos pagos están clasificados como:

   - Gastos Relacionados a Mudanza (costos de mover propiedad personal no adquirida).
   - Gastos de Reestablecimiento (gastos relacionados a la propiedad de reemplazo.)
   - Pagos Fijos (pago fijo en vez de los gastos de mudanzas y otros gastos relacionados, y gastos de reestablecimiento).

***Nota:*** *Pagos por pérdida de clientela es considerado un costo de adquisición. La ley de California y las regulaciones federales mandan que los pagos de reubicación no pueden duplicar otros pagos, como los pagos de pérdida de clientela.*

Usted **no** puede ser elegible a recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta escrita para comprar su propiedad. Usted tambien recibirá un aviso escrito por lo menos 90 días antes que se tenga que mover.

## Algunas Definiciones Importantes…

Sus beneficios de relocalización pueden ser entendidos mejor si usted se familiariza con los siguientes términos:

***Negocio:*** Cualquier actividad legal, con la excepción de operaciones agrícolas, conducida principalmente para la compra, venta, arrendamiento, y alquiler de bienes personales o bienes raices, o para la fabricación, elaboración y/o mercadotecnia de productos, mercancías, u otros bienes personales, o solamente para el propósito de ésta Acta, un rótulo con anuncio o anuncios, cuando el rótulo(s) tenga(n) que ser movido(s) como resultado del proyecto.

***Negocios Pequeños:*** Un negocio que tenga no más de 500 empleados trabajando en el lugar que esta siendo adquirido o desplazado por un programa o proyecto.

***Contribuye Materialmente:*** Un negocio u operación agrícola debe de haber tenido un ingreso bruto en recibos de al menos $5,000 o un promedio anual de ingreso netos de al menos $1,000, para poder calificar como una operación de buena fé.

***Operación Agrícola:*** Cualquier actividad conducida sola o primarialemente para la producción de uno o más productos de agricultura o mercancías, incluyendo venta de madera, para la venta y uso en casa, y producción ordinaria de tales productos o mercancía en cantidades suficientes para tener la capacidad de contribuir materialmente al soporte del operario.

***Organización No-lucrativa:*** Una entidad pública o privada que haya establecido su estado de organización no-lucrativa bajo las leyes aplicables.

***Persona desplazada:*** Cualquier individuo o familia que se muda de una propiedad o mueva sus bienes personales de una propiedad como resultado de la acquisición de bienes raíces, en todo o en parte, o como resultado de una notificación escrita de una agencia para desocupar la propiedad que se necesita para un proyecto de transportación. En el caso de una adquisición parcial, Caltrans determinará si la persona es desplazada directamente como resultado de la adquisición.

Los residentes que no están legalmente en los Estados Unidos no son elegibles para recibir pagos y asistencia de reubicación.

Los beneficios de reubicación varían según el tipo y tiempo de ocupación. Como una persona desplazada de un unidad residencial usted puede ser clasificado como:

- Un dueño ocupante de una propiedad residencial (incluye casas movibles)
- Un inquilino ocupante de una propiedad Residencial (incluye casas movibles y cuartos para dormir)

# GASTOS DE MUDANZA

Si usted califica como un negocio, operación agrícola, u organización no-lucrativa desplazada, usted puede recibir reembolso de los gastos de mudanza y ciertos gastos relacionados incurridos en la mudanza. Para calificar, usted tiene que ocupar la propiedad legalmente como dueño o inquilino cuando Caltrans inicie negociaciones para la adquisición de la propiedad, O al tiempo que Caltrans adquiera título, o tome posesión de la propiedad. Sin embargo, para asegurar su elegibilidad y el pronto pago de los gastos de mudanza, usted tiene que haber contactado a su Agente de Reubicación antes de que se mude.

## Usted Puede Escoger Entre:

**Gastos Razonables de Mudanza Actual** – Usted tiene que haber pagado por sus gastos de mudanza razonables y gastos relacionados cuando una compañia comercial hace la mudanza.

El reembolso será limitado a mudanza de 50 millas o menos. Los gastos relacionados, con limitaciones, ***pueden*** incluir:

- Transportación.
- Empacamiento y desempacamiento de la propiedad personal.
- Desconnección y reconneción relacionada a la operación de la propiedad personal.
- Almacenamiento temporal de la propiedad personal.

Seguros mientras la propiedad está en almacenamiento o en tránsito, o la propiedad personal es perdida y dañada, si los seguros no son razonablemente disponible.

- Gastos en encontrar un lugar de reemplazamiento.
- Servicios profesionales para planificar y supervisar la mudanza de la propiedad personal al nuevo lugar.
- Licencias, permisos y honorarios requiridos en el lugar de reemplazamiento.

Ó

**Contrato de Mudanza Propia** – Usted puede ser pagado por mover su propia propiedad personal basado en la más baja de dos ofertas aceptables obtenidas por Caltrans. Bajo esta opción, usted deberá todavía ser elegible para el reembolsamiento de los gastos arriba relacionados que no fueron incluídos en la oferta

Ó

**Pago Fijo** – Usted puede aceptar un pago fijo entre $1,000 y $20,000 basado en sus ganancias anuales EN VEZ de los costos y gastos relacionados de la mudanza.

## Costos Actuales Razonables de Mudanza:

Pueden pagársele los gastos actuales razonables y necesarios de su mudanza si lo transporta con una compañía comercial de muebles y mudanzas. Todos sus gastos deben de ser respaldados con recibos u otra evidencia de gastos incurridos. Además de los gastos de transportación de su propiedad personal, ciertos otros gastos también pueden ser reembolsados, tales como empaque, embalaje, desempaque y desembalaje, desconexión, desmantelación, removimiento, reensamblamiento, y reinstalación de maquinaria relocalizada, equipos y otras propiedades personales. Otros gastos necesarios tales como servicios profesionales para planificar y supervisar la mudanza, almacenaje temporal y el costo para licencias, permisos y certificados también pueden ser reembolsables. Esta no es la intención de ser una lista inclusiva de todos los gastos relacionados de mudanza. Su Agente de Reubicación puede proveerle una explicación completa de los gastos reembolsables.

## Contrato de Mudanza Propia

Si usted elige tomar la responsabilidad total o parcial para la mudanza de su negocio, operación agrícola, u organización no-lucrativa, Caltrans puede aprobar un pago sin exceder el presupuesto mas bajo de dos ofertas aceptables de una compañía comercial de muebles y mudanzas o por el Agente de Reubicación. Una mudanza a costo bajo o sin complicaciones puede ser basada en una sola oferta o estimado. En realidad, la ventaja de esta opción es que releva de la obligación al operador del negocio, operación agrícola u organización no-lucrativa desplazadas de documentar todos los gastos de mudanza. Caltrans puede hacer el pago sin documentación adicional siempre y cuando el pago sea limitado a la cantidad más baja aceptable de la oferta o del estimado. Otros gastos tales como servicios profesionales para planificar, costos de almacenaje y el costo de licencias, permisos, y certificados también pueden ser reembolsables si son necesarios. Estos gastos tienen que ser aprobados de ante mano por el Agente de Reubicación.

### Requisitos:

Antes de que se mueva, usted tiene que proveer a Caltrans con:

- El inventario certificado de toda la propiedad personal que va a mover.
- La fecha que usted intenta desalojar la propiedad.
- La dirección de la propiedad de reemplazamiento.
- La oportunidad de supervisar e inspeccionar la mudanza desde la propiedad adquirada a la propiedad de reemplazo.

## Gastos Relacionados

(1) **Gastos Para la Búsqueda de una Propiedad de Reemplazo** – Negocios, operaciones agrícolas, y organizaciones no-lucrativas tienen derecho a un reembolso por gastos actuales razonables, incurridos en la búsqueda de una propiedad de reemplazo, sin exceder $1,000. Los gastos pueden incluir transportación, alimento y alojamiento cuando esté lejos de su casa; el valor razonable del tiempo que ha gastado buscando una propiedad de reemplazo; los honorarios pagados a agentes de bienes raíces o asesores; y otros gastos determinados por Caltrans como razonables y necesarios.

(2) **Pérdidas Directas de Bienes Personales Tangibles:** Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para un pago por pérdidas directas de bienes personales tangibles incurrido como resultado de la mudanza o descontinuación de la operación. Este pago deberá ser basado en el menor de:

(a) El valor de mercado de un producto para uso continuo en el sitio de desplazamiento menos la ganancia por su venta.

O

(b) El costo estimado de mudanza y reinstalación de los objetos reemplazados es basado en la oferta mas baja o el estimado obtenido por Caltrans para mudanza elegible y costos relacionados, incluyendo desmantelamiento y reemsamblaje, pero sin pago por almacenamiento.

POR EJEMPLO:

Usted determina que el "cortador de documentos" no puede ser movido a la nueva localidad por su condición, y usted no lo va a reemplazar en la nueva localidad.

| | |
|---|---|
| El Valor de Mercado del Cortador de Documentos basado en su uso actual en la localidad actual es de | $1,500 |
| Ganancia: Precio recibido por la venta del Cortador de Documentos | – $ 500 |
| Valor Neto | $1,000 |
| Ó | |
| El costo estimado de moverlo | $ 1,050 |
| Basado en el "menor de", la cantidad de la "Perdida de Propiedad Personal Tangible" | = **$ 1,000** |

***Nota:*** *Usted tambien tiene derecho a todos los costos rasonables incurrido en su esfuerzo por vender el cortador de documentos (por ejemplo, anuncio commercial)*

**(3) Compra de Substitución de la Propiedad Personal:** Si un objeto de propiedad personal, el cual es usado como parte del negocio, la operación agrícola, o la organización no-lucrativa, no es movido pero es prontamente reemplazado con un objeto substituto que hace una función comparable en el sitio de reemplazo, el desplazado tiene derecho al menor de:

(a) El costo de un objeto substituto, incluyendo los costos de instalación en el sitio de reemplamiento, menos cualquier ganacia por la venta o intercambio del objeto reemplazado.

O

(b) El costo estimado de mudanza y reinstalación del objeto de reemplazo, basado en la oferta mas baja aceptable o el estimado obtenido por Caltrans para una mudanza elegible y gastos relacionados, incluyendo el desmantelamiento y reensamblaje, pero sin pago por almacenamiento

EJEMPLO A:

Usted puede determinar que la máquina copiadora no puede ser movida a la nueva localidad porque es ahora obsoleta y la va a reemplazar.

| | |
|---|---|
| Costo de substuitir una Máquina Copiadora incluyendo costos de instalación en el sitio de reemplazamiento. | $ 3,000 |
| Pago por el Intercambio | – $ 2,500 |
| Valor Neto | $ 500 |
| O | |
| Costo estimado de la mudanza | $ 550 |
| Basado en el “menor de” la cantidad de “La Propiedad Personal Substituida” | **$ 500** |

EJEMPLO B:

Usted determina que las sillas no van a ser usadas en la nueva localidad, porque ya no combinan con la decoración, y usted las quiere reemplazar.

| | |
|---|---|
| Costo de la sillas substitutas | $ 1,000 |
| Ganancias: Por la venta de las Sillas | – $ 100 |
| Valor Neto | $ 900 |
| O | |
| Costo estimado de la mudanza | $ 200 |
| Basado en el “menor de”, la cantidad de “La Propiedad Personal de Substitución” | **$ 200** |

***NOTA:*** *Usted tambien tiene derecho a todos los gastos razonables incurridos en su esfuerzo por vender la copiadora (Ejemplo A) o las sillas (Ejemplo B).*

(4) **Desconección y Reinstalación:** Usted va a ser reembolsado por los costos actuales y razonables de desconección, desmantelamiento, mudanza, reemsamblaje, e reinstalación de cualquier maquinaria, equipo u otra propiedad personal en relación a la mudanza a su nuevo local. Esto incluye conección a los servicios públicos disponibles en el lugar y a cualquier modificación de los objectos personales que sean necesario para adaptar a los servicios públicos en el sitio de reemplazamiento.

(5) **Cambios Físicos en el nuevo local:** Usted puede ser reembolsado por ciertos cambios físicos de la propiedad de reemplazamiento si los cambios son necesarios para permitir la reinstalación de la maquinaria o equipo necesario para la continua operación del negocio.

***Nota:*** *Los cambios no pueden incrementar el valor del edificio para propósitos generales, tampoco pueden incrementar la capacidad mecánica de los edificios más alla de los requerimientos normales.*

## Gastos De Reestablecimiento

Un pequeño negocio, operación agrícola, u organización no-lucrativa puede ser elegible para un pago, que no exceda $10,000, para los gastos actuales incurridos en la reubicación y el reestablecimiento en el sitio de reemplazo.

Gastos de reestablecimiento pueden incluir, pero no están limitados a, lo siguiente:

1. Reparación y mejoramiento de la propiedad de reemplazamiento requerido por las leyes, códigos, u ordenanzas federales, estatales o locales.

2. Modificaciones de la propiedad de reemplazamiento para hacer la estructura(s) apropiado para la operación del negocio.

3. Construcción e instalación de los letreros exteriores para anunciar el negocio.

4. El costo de instalación de servicios públicos desde la línea del derecho de vía a la estructura(s) o mejoramientos en el sitio de reemplazamiento.

5. Redecoración o reemplazamiento como pintura, tapizado de pared, paneles, o carpetas cuando sean requeridas por la condición del sitio de reemplazo o con propósitos estéticos.

6. El costo de licencias, honorarios, y permisos cuando no sean cubiertos como gastos de mudanza.

7. Estudios de mercado, estudios de factibilidad y exámen de suelo.

8. Anunciar la localidad del nuevo negocio.

9. Servicios profesionales de bienes raíces necesarios para la compra o la renta de un lugar de reemplazo.

10. El aumento del costo estimado de operación en el lugar de reemplazo durante los primeros dos años, por objectos como:

    a. Cargas de rentas,
    b. Impuestos de propiedad personal o propiedad real
    c. Prima de seguros, y
    d. Carga de servicios públicos (excluyendo honorarios de impacto).

11. Evaluación de una-vez o honorarios de impacto por alta utilización de servicios públicos.

12. Otros objetos que el Departmento considere esenciales para el reestablecimiento del negocio ú operación agrícola.

## Pago De Una Vez (O Pago Fijo)

Negocios que han sido desplazados, operaciones agrícolas, y organizaciones no-lucrativas podrían ser elegibles para un pago fijo (en vez de) por los gastos actuales de mudanza, pérdida de propiedad personal, gastos de búsqueda, y gastos de reestablecimiento. Los pagos fijos no podrán ser menos de $1,000 o más de $20,000.

Para que un negocio sea elegible por un pago fijo, Caltrans debe de determinar lo siguiente:

1. El negocio posee o renta propiedad personal que debe de ser movida debido al desplazamiento.

2. El negocio no puede ser relocalizado sin una pérdida substancial de la clientela existente.

3. El negocio no es parte de un empresa comercial que tiene mas de tres otros negocios conectados en una misma o actividad similar, las cuales están bajo el mismo dueño y no están siendo desplazadas por el Departamento.

4. El negocio contribuyó materialmente a las ganancias del operador del negocio desplazado durante los dos años anteriores al desplazamiento.

Cualquier operación del negocio que está conectado solamente en la renta del espacio de otros, no es elegible para un pago fijo. Esto incluye la renta de espacio con propósitos residenciales o de negocios.

Los requerimientos de elegibilidad para las operaciones agrícolas y organizaciones no-lucrativas son un poco diferentes a los requerimientos para negocios. Si usted está siendo desplazado de una granja o usted representa una organización no-lucrativa y está interesado en un pago fijo, por favor consulte con su consejero de reubicación para información adicional.

## La computación de Su Pago Fijo

El pago fijo para un negocio desplazado o una operación agrícola es basado en el promedio anual neto de ganancias de la operación por los dos años immediatamente precedentes al año en el cual fue desplazado. Caltrans puede usar un período de dos años diferentes, si se determina que los dos últimos años no reflejan con certeza las ganacias de la operación.

**EJEMPLO:** Caltrans adquiere su propiedad y usted se mueve en el 2001:

| | |
|---|---|
| 1999 Ganancias Netas Anuales | $10,500 |
| 2000 Ganancias Netas Anuales | $12,500 |
| TOTAL | $23,000 |
| Promedio de los dos años | $11,500 |

Este podría ser la cantidad de su pago fijo. Recuerde – esto es “en vez de” todos los otros beneficios de mudanza. Usted tendrá que proveer Caltrans pruebas de las ganacias netas para verificar su reclamo.

Prueba de las ganancias netas pueden ser documentas con sus declaraciones de impuestos, cartas financieras certificadas, u otra evidencia razonable de las ganancias netas aceptables por Caltrans.

***Nota:*** *La computación de las organizaciones no-lucrativas difiere en que los pagos son computados en la base del promedio anual grueso de las ganancias menos los gastos administrativos por el período de los dos años especificados arriba.*

## Antes de que se Mueva:

A. Complete una forma de “Aplicación para Determinación de sus Derechos” que la puede obtener de su Agente de Reubicación, y devuélvala con la mayor prontitud posible.

B. Incluya una declaración escrita de las razones por las cuales su negocio no puede ser reubicado sin una pérdida substancial en la ganancias netas.

C. Provea una copia certificada de su declaración de impuestos de los dos años immediatamente precedentes al año en el que se va a mover. (Si usted se mueve en cualquier momento en el año 2001, sin importar de cuando comenzaron las negociaciones o cuando el Estado tomó título de su propiedad, los años serán el de 1999 y el 2000.

D. Usted deberá ser notificado de la cantidad a la que tiene derecho después que la aplicación es recibida y aprobada.

E. Usted no puede recibir un pago hasta que se haya movido de la propiedad, Y que haya entregado un reclamo de pago dentro de los 18 meses de la fecha de mudanza.

# Asistencia de Asesoría de Reubicación

A cualquier negocio, operación agrícola, u organización no-lucrativa, desplazado por Caltrans debe de ofrecerle los servicios de asistencia de reubicación con el propósito de localizar una propiedad de reemplazamiento. Los servicios de reubicación deben de ser proveídos por un empleado de Caltrans. Es la meta y el deseo de nosotros de servirle y asistirle en cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se comunicará con usted personalmente. Los servicios de reubicación y los pagos deberán ser explicados a usted de acuerdo con su elegibilidad. Durante la entrevista inicial con usted, sus necesidades y deseos deberán determinarse así como su necesidad de asistencia.

Usted puede esperar recibir los siguientes servicios, consejos, y asistencia de su Agente de Reubicación quien le:

- Determinará sus necesidades y preferencias.
- Explicará los beneficios de reubicación y su elegibilidad.
- Proveerá información en las propiedades de reemplazo para su consideración.
- Proveerá información en aconsejarle como puede obtener ayuda para minimizar la adversidad en ajustarse a su nuevo local.
- Asistirá en completar los documentos de préstamos, aplicaciones de rentas o Formas de Reclamos de Reubicación.

Y puede proveerle información en:

- Depósitos de seguridad.
- Taza de intereses y términos.
- Pagos típicos de enganches.
- Permisos, honorarios, y ordenanzas locales.
- Requirimientos de préstamos SBA
- Impuestos de bienes raíces.
- Literatura de educación al consumidor.

Si usted desea, su Agente de Reubicación le dará una lista actual de otras propiedades de reemplazamiento que esten disponibles. Se le proveerá transportación para inspeccionar la propiedad disponible, especialmente si usted es anciano o desabilitado. Aunque usted puede usar los servicios de un vendedor de bienes raíces, Caltrans no lo puede referir a un agente específico.

Su Agente de Reubicación está familiarizado con los servicios proveído por otros en su comunidad y le proveerá información de otros programas federales, estatales y locales que ofrecen asistencia a las personas desplazadas. Si usted tiene necesidades especiales, su Agente de Reubicación hará un esfuerzo para asegurar los servicios del personal entrenado de estas agencias que tienen la experiencia para ayudarle.

Si el proyecto de carreteras requiere que un número considerable de personas sean reubicadas, Caltrans establecerá Oficinas temporales de Reubicación en o cerca del proyecto. Las oficinas de projectos de reubicación serán abiertas durante las horas convenientes y hasta horas de la noche si es necesario.

Además de estos servicios, Caltrans será requerido a coordinar las actividades de reubicación con otras agencias causantes de desplazamiento para asegurar que todas las personas desplazadas reciban beneficios de reubicación iguales y consistentes.

Recuerde – Su Agente de Reubicación está ahí para ofrecer consejos y asistencia. No tenga dudas en preguntar. Y esté seguro que usted entiende completamente todos los derechos y beneficios disponibles.

# SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Es importante que recuerde que los beneficios de reubicación no tendrán un efecto adverson en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Declaración de Impuestos.

Además, el **Título VIII del Acta de Derechos Civiles de 1968**, y las actas anteriores y sus enmiendas hacen ilegal las prácticas en la venta y renta de las unidades residenciales que estén basadas en la raza, color, religion, sexo, u origen nacional.

**Los Procedimientos No-Descriminatorios** de Caltrans aseguran que todos los servicios y/o beneficios sean administrados al público en general sin diferencia de raza, color, origen nacional, o sexo en cumplimiento con el Título VI del Acta de Derechos Civiles de 1964. (42 USC 2000 (d.) et seq.).

Y usted siempre tiene el **Derecho de Apelar** una decisión de Caltrans en relación a sus beneficios de reubicación y elegibilidad.

Su Derecho de Apelación es garantizado en la “Ley Uniforme” que establece que una persona puede apelar con el responsible de la agencia si esta persona cree que la agencia ha fallado en determinar apropiadamente la elegibilidad de la persona o la cantidad de un pago autorizado por la Ley.

Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans puede asistirle en entregar su caso y explicar los procedimientos a seguir. A usted le darán la oportunidad de ser oído pronta y totalmente. Usted tiene el derecho de ser representado por un consejero legal u otro representante en conección con la apelación (pero solamente a su propio costo.)

Caltrans puede considerar todas las justificaciones pertinentes y materiales entregadas por usted y cualquier otra información disponible que sea necesaria para asegurar una revisión justa. Caltrans le proveerá con una determinación de la apelación por escrito con una explicación de la base de la decisión. Si usted todavía no está satisfecho con la asistencia prestada, Caltrans le aconsejará que usted puede buscar una revisión judicial.

**Noticiero de la Ley para Americanos con Incapacidades Físicas (ADA):**

**Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para Información llame al número (916) 654-5413 Voz, CRS: 1-800-735-2929, o escriba a Derecho de Vía, MS 37, 1120 N Street, Sacramento, CA 95814.**

# NOTAS:

# Appendix C

# Title VI Policy Statement

**DEPARTMENT OF TRANSPORTATION**
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov

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March 16, 2012

## NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Mario Solis, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353, TTY 711, fax (916) 324-1869, or via email: *mario_solis@dot.ca.gov*.

MALCOLM DOUGHERTY
Acting Director

# Appendix D

# SHPO Concurrence

**OFFICE OF HISTORIC PRESERVATION**
**DEPARTMENT OF PARKS AND RECREATION**
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

March 1, 2012 Reply To: FHWA120203A

Elizabeth Krase Greene
Acting Chief, Office of Cultural Resource Studies
Caltrans District 4
PO Box 23660
Oakland, CA 94623-0660

Re: Determination of Eligibility for the Proposed Redwood Parkway-Fairground Drive Improvement Project, Solano County, CA

Dear Ms. Krase:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Caltrans has determined that the following properties are not eligible for the National Register of Historic Places:

- 67 Emerald Circle, Vallejo
- 501-511 Fairgrounds Drive, Vallejo
- 510-534 Fairgrounds Drive, Vallejo
- 435 Fairgrounds Drive, Vallejo
- 437 Fairgrounds Drive, Vallejo
- 444 Moorland Street, Vallejo
- 436 Moorland Street, Vallejo
- 424 Moorland Street, Vallejo
- 2612 Redwood Street, Vallejo
- 2618 Redwood Street, Vallejo
- 2624 Redwood Street, Vallejo
- 20 Howard Avenue, Vallejo
- 18 Howard Avenue, Vallejo
- 337 Moorland Street, Vallejo
- 328 Moorland Street, Vallejo
- 711 Admiral Callaghan Lane, Vallejo

Based on review of the submitted documentation, I concur.

Caltrans has also found that no historic properties will be affected by this undertaking. I concur. I do recommend however that Caltrans monitor in the area near CA-SOL-317, including the secondary deposit locus.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or email at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

# Appendix E

# Threatened and Endangered Species List

**United States Department of the Interior**

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

June 27, 2012

Document Number: 120627010554

Jason Minton
Garcia and Associates
1512 Franklin Street
Oakland, Ca 94612

Subject: Species List for Redwood Parkway - Fairgrounds Drive Improvement

Dear: Interested party

We are sending this official species list in response to your June 27, 2012 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be September 25, 2012.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found here.

Endangered Species Division

TAKE PRIDE IN AMERICA

# U.S. Fish & Wildlife Service

# Sacramento Fish & Wildlife Office

## Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 120627010554

Database Last Updated: September 18, 2011

---

## Quad Lists

### Listed Species

#### Invertebrates

*Branchinecta conservatio*
Conservancy fairy shrimp (E)

*Branchinecta lynchi*
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*
valley elderberry longhorn beetle (T)

*Elaphrus viridis*
delta green ground beetle (T)

*Lepidurus packardi*
Critical habitat, vernal pool tadpole shrimp (X)

*Speyeria callippe callippe*
callippe silverspot butterfly (E)

*Syncaris pacifica*
California freshwater shrimp (E)

#### Fish

*Acipenser medirostris*
green sturgeon (T) (NMFS)

*Eucyclogobius newberryi*
tidewater goby (E)

*Hypomesus transpacificus*
Critical habitat, delta smelt (X)
delta smelt (T)

*Oncorhynchus kisutch*
coho salmon - central CA coast (E) (NMFS)

*Oncorhynchus mykiss*
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*
Central Valley spring-run chinook salmon (T) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Ambystoma californiense*
California tiger salamander, central population (T)

*Rana draytonii*
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

## Reptiles

*Masticophis lateralis euryxanthus*
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

*Thamnophis gigas*
giant garter snake (T)

## Birds

*Charadrius alexandrinus nivosus*
western snowy plover (T)

*Pelecanus occidentalis californicus*
California brown pelican (E)

*Rallus longirostris obsoletus*
California clapper rail (E)

*Sternula antillarum (=Sterna, =albifrons) browni*
California least tern (E)

*Strix occidentalis caurina*
northern spotted owl (T)

## Mammals

*Reithrodontomys raviventris*
salt marsh harvest mouse (E)

## Plants

*Arctostaphylos pallida*
pallid manzanita (=Alameda or Oakland Hills manzanita) (T)

*Castilleja affinis ssp. neglecta*
Tiburon paintbrush (E)

*Cirsium hydrophilum var. hydrophilum*
Suisun thistle (E)

*Cordylanthus mollis ssp. mollis*
soft bird's-beak (E)

*Holocarpha macradenia*
Critical habitat, Santa Cruz tarplant (X)
Santa Cruz tarplant (T)

*Lasthenia conjugens*
Contra Costa goldfields (E)
Critical habitat, Contra Costa goldfields (X)

*Oenothera deltoides ssp. howellii*
Antioch Dunes evening-primrose (E)

*Suaeda californica*
California sea blite (E)

*Trifolium amoenum*
showy Indian clover (E)

# Proposed Species

## Plants

*Cirsium hydrophilum var. hydrophilum*
Critical habitat, Suisun thistle (PX)

*Cordylanthus mollis ssp. mollis*
Critical habitat, soft bird's-beak (PX)

## Quads Containing Listed, Proposed or Candidate Species:

WALNUT CREEK (465A)
BRIONES VALLEY (465B)
RICHMOND (466A)
FAIRFIELD SOUTH (482A)
CORDELIA (482B)
BENICIA (482C)
VINE HILL (482D)
CUTTINGS WHARF (483A)
MARE ISLAND (483D)
MT. GEORGE (499C)
FAIRFIELD NORTH (499D)
NAPA (500D)

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# County Lists

No county species lists requested.

## Key:

(E) *Endangered* - Listed as being in danger of extinction.
(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
*Critical Habitat* - Area essential to the conservation of a species.
(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
(C) *Candidate* - Candidate to become a proposed species.
(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
(X) *Critical Habitat* designated for this species

# Important Information About Your Species List

## How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

## Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

## Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

## Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

## Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

## Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

## Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

## Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

## Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be September 25, 2012.