

February 2018



FREWAY/EXPRESSWAY PROJECT

*FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT WITH
FINDING OF NO SIGNIFICANT IMPACT AND DRAFT FINAL REMEDIAL ACTION PLAN*



Volume 1 of 2

City of Modesto, Stanislaus County, California

State Route 132 - Dakota Avenue to east of State Route 99

State Route 99 - Kansas Avenue to I Street

DISTRICT 10 – STA – 132 (PM 11.0/15.0)

DISTRICT 10 – STA – 99 (PM 15.7/17.5)

EA 10-40350

Project ID 1000000424

SCH # 2010012010



Prepared by the
State of California Department of Transportation



The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

General Information about this Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Final Environmental Impact Report/Environmental Assessment (EIR/EA) and Draft Final Remedial Action Plan (Draft Final RAP) for the proposed project located in Stanislaus County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA) and under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures. The Draft Environmental Impact Report/Environmental Assessment was circulated for public review for 59 days between January 18, 2017 and March 17, 2017. Comments received during this period are included in Appendix J. Elsewhere throughout this document, a vertical line in the margin indicates a change made since circulation of the Draft EIR/EA. Minor editorial changes and clarifications have not been so indicated. Additional copies of this document and the related technical studies are available for review at the Caltrans District 10 Office in Stockton (1976 E. Martin Luther King Boulevard, Stockton, CA 95205); the Stanislaus Council of Governments in Modesto (1111 I Street #308, Modesto, CA 95354); the Stanislaus County Library in Modesto (1500 I Street, Modesto, CA 95354); and the Department of Toxic Substances Control office in Sacramento (8800 Cal Center Drive, Sacramento, CA 95826). This document may be downloaded at <http://www.dot.ca.gov/d10/x-project-sr132west.html> and at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626.

As a CEQA responsible agency, the California Department of Toxic Substances Control (DTSC) worked closely with Caltrans during development of the Environmental Impact Report/Environmental Assessment to ensure that it included an analysis of all of the activities considered to address the Caltrans Modesto Stockpiles. DTSC will make a final determination regarding Draft Final RAP Alternative 4, Containment, after Caltrans certifies the Final Environmental Impact Report. [Based on an analysis of the alternatives, Draft Final RAP Alternative 4, Containment, is proposed as the recommended alternative in the Draft Final RAP because of the effectiveness in providing long-term and overall protection of human health and the environment, technical feasibility, cost-effectiveness, and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.] If DTSC determines that the EIR/EA has adequately addressed all of the activities proposed in the Draft Final RAP, DTSC will prepare a Statement of Findings documenting that decision. Contingent on Draft Final RAP approval, DTSC would prepare a Notice of Determination (NOD) as the final documentation in DTSC's CEQA analysis process. The NOD would be filed with the State Clearinghouse.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Haesun Lim, Acting Branch Chief, Central Sierra Environmental Analysis Branch, 855 M Street, Suite 200, Fresno, California 93721; 559-445-6172 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

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Construct a four-lane freeway/expressway along the adopted route for State Route (SR) 132 from near Dakota Avenue to SR 99 (post mile [PM] 11.0 to PM 15.0) in the City of Modesto in Stanislaus County. The proposed project includes remediation of three soil stockpiles (the Caltrans Modesto Soil Stockpiles) within Caltrans right-of-way.

**Final Environmental Impact Report/
Environmental Assessment with Finding of No Significant Impact and
Draft Final Remedial Action Plan for the Caltrans Modesto Soil Stockpiles**


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

THE STATE OF CALIFORNIA
Department of Transportation
and

Responsible Agencies: California Department of Toxic Substances Control and
Central Valley Regional Water Quality Control Board

Cooperating Agencies: Stanislaus Council of Governments, City of Modesto, and Stanislaus County

3/2/2018
Date of Approval


Dennis T. Agar
District 10 Director
California Department of Transportation
NEPA and CEQA Lead Agency –
State Route 132 West Freeway/Expressway Project

The following person may be contacted for additional information concerning this document:

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CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

State Route 132 West Freeway/Expressway Project

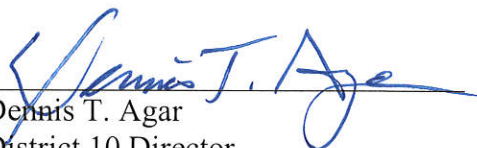
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The California Department of Transportation (Caltrans) has determined that Alternative 2 will have no significant impact on the human environment. This FONSI is based on the attached Environmental Assessment (EA), which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA (and other documents as appropriate).

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by Federal Highway Administration and Caltrans.

3/2/2018

Date


Dennis T. Agar
District 10 Director
California Department of Transportation

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Summary

The California Department of Transportation (Caltrans), working in cooperation with the Stanislaus Council of Governments (StanCOG), the City of Modesto and Stanislaus County, proposes to construct a four-lane freeway/expressway along the adopted route south of Kansas Avenue from Dakota Avenue (post mile [PM] 11.0) to east of State Route (SR) 99 at the Needham Street Bridge Overcrossing (PM 15.0), located in Stanislaus County and the City of Modesto. The total length of the State Route 132 West Freeway/Expressway Project (project) would be approximately 4 miles and would include connections on SR 99 from PM 15.7 to PM 17.5. Selection of either of the build alternatives would result in the containment of the Caltrans Modesto Soil Stockpiles behind retaining walls, bridge abutments, and beneath the highway pavement.

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Barack Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with the Federal Highway Administration (FHWA). The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016 for a term of five years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the U.S. Department of Transportation (USDOT) Secretary’s responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The purpose and need of the proposed project are to improve regional and interregional circulation within Modesto and Stanislaus County because the deficiencies of the existing highway and increases in regional and interregional traffic are anticipated to result in continued traffic congestion. Secondly, the proposed project would also relieve traffic congestion along existing SR 132 (Maze Boulevard)

because the existing SR 132 (Maze Boulevard) currently experiences, and would continue to be burdened by, increased traffic. Lastly, the proposed project would improve operations for the existing and proposed transportation network because the operational efficiency is reduced by the proximity and direct access to schools, churches, businesses, and residences by way of existing driveways along existing SR 132 (Maze Boulevard).

The proposed project involves the phased construction of one of the two build alternatives (Alternative 1 or Alternative 2) or the decision to implement a No-Build Alternative. Both build alternatives would include two phases (Phase 1: Expressway and Phase 2: Freeway) to construct a four-lane freeway/expressway on a new alignment. The proposed project would begin at the intersection of existing SR 132 (Maze Boulevard) and Dakota Avenue and would extend north along North Dakota Avenue for roughly half a mile. At the proposed intersection with North Dakota Avenue, the new alignment would extend east to SR 99 at the Needham Street Overcrossing Bridge. The proposed project would also involve improvements to the 5th and 6th street connections to SR 99. The major differences between Alternative 1 and Alternative 2 involve the construction of a southbound SR 99 Needham Street off-ramp (Alternative 1) compared to reconstruction of a southbound SR 99 Kansas Avenue off-ramp (Alternative 2). Section 1.3, Project Description, provides a detailed description of the work and project phasing under both build alternatives. Under the No-Build Alternative, existing SR 132 (Maze Boulevard) would remain a two-lane, conventional highway. The Project Development Team (Caltrans, StanCOG, Stanislaus County, City of Modesto, and consultant staff) has recommended Alternative 2 as the preferred alternative.

Currently, only Phase 1 has programmed funding, which was identified in fiscal years 2018/2019. Phase 1 funding sources include the Regional Improvement Program (RIP), Federal Demonstration Program (DEMO), Stanislaus County's share of the Regional Surface Transportation Program (RSTP) and other local funds from the City of Modesto and Stanislaus County. As shown in the following table, Phase 1 is estimated to cost approximately \$82 million. Phase 2 is estimated to cost approximately \$132 million. The total project cost is estimated up to \$214 million.

Summary Comparison of Project Phasing and Funding

Criterion	Phase 1	Phase 2
Start of construction	2018	2026
Completion of construction	2020	2028
Project cost by phase	\$82 million	\$128 million to \$132 million
Total Project Cost	\$210 million to \$214 million ^a	

^a The range represents the estimated cost of Alternative 1 (\$210 million) and the cost of Alternative 2 (\$214 million) for comparison purposes. The total project cost includes \$1.57 million for remediation (containment) of the soil stockpiles. Phase 1 value is escalated (2018 dollar value); Phase 2 values are based on 2016 dollar values).

Route Adoption and Right-of-Way Acquisition

In 1956, the proposed freeway corridor for SR 132 was adopted by the state with resolutions of support from Stanislaus County and the City of Modesto. In 1958, the state proceeded with property acquisition. To date, 79 acres of the project area are right-of-way owned by Caltrans. Both Alternative 1 and Alternative 2 would use the adopted route to realign the segment of existing SR 132 (Maze Boulevard) between Dakota Avenue and SR 99 (see Appendix F).

Caltrans Modesto Soil Stockpiles

The soil that comprises the Caltrans Modesto Soil Stockpiles was generated in the 1960s during excavation of industrial property acquired by Caltrans from Food Machinery and Chemical Corporation (FMC). The property was acquired for the new alignment of the Modesto Bypass project (i.e., the construction of SR 99). Soil excavated during construction of the Modesto Bypass project, including soil from the former FMC parcel, was stockpiled within Caltrans right-of-way at three locations south of Kansas Avenue between Carpenter Avenue and SR 99, and immediately east of northbound SR 99. The three stockpiles total approximately 160,000 cubic yards and are contaminated mostly with varying concentrations of barium, strontium, and lead. The stockpiles were intended for use in the construction of the future SR 132 West Project. In either of the build alternatives, stockpile soil would be contained behind retaining walls, bridge abutments, and beneath highway pavements. The California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board are responsible agencies under the California Environmental Quality Act (CEQA) for agency oversight and administration of regulatory requirements pertaining to contaminants in the stockpiles. The recommended alternative in the Draft Final Remedial Action Plan (Draft Final RAP)

is Draft Final RAP Alternative 4, Containment. DTSC will make a final determination regarding Draft Final RAP Alternative 4 (Containment) after Caltrans certifies the Final Environmental Impact Report. The Draft Final RAP for the stockpiles as described in Section 2.2.5.1, Hazardous Waste/Materials is included as Appendix H of this document.

Under the No-Build Alternative, the three soil stockpiles would not be contained within a highway structure; however, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of DTSC and the Central Valley Regional Water Quality Control Board.

Existing Highway Description and Constraints

Existing SR 132 (Maze Boulevard) is a two-lane, undivided conventional highway, which passes through residential, commercial, and agricultural areas west of SR 99. The existing right-of-way varies from 60 to 100 feet wide and is constrained by urban development as the highway approaches the City of Modesto and SR 99 from the west.

Existing SR 132 (Maze Boulevard) is part of the regional expressway system and is the main east-west corridor in Stanislaus County. The existing highway provides interregional connection between Interstate 5 near the City of Tracy and SR 99 in Modesto. The segment of SR 132 and the existing SR 132/SR 99 connection within the project area are of particular importance to regional and interregional circulation because of the extensive farm-to-market, recreational, and other commerce-related travel that use the highway daily.

Public Scoping/Areas of Controversy

A Notice of Preparation was sent to numerous state and local agencies and recorded at the State Clearinghouse on January 7, 2010. The Notice of Preparation informed the recipients of Caltrans' and the StanCOG's intent to prepare an Environmental Impact Report and provided the project description, alternatives under consideration, and the environmental resources the project has the potential to affect. Recipients were also alerted to the state law requiring submittal of their comments to Caltrans no later than 30 days after receipt of the Notice of Preparation. A Scoping meeting was held on January 25, 2010. Meeting attendees were encouraged to provide written and oral comments. Comments provided at the Scoping meeting related to property values, construction impacts and cost, air quality, noise and agricultural impacts. Several attendees voiced support or need for the project and recommended that the

proposed project include improvements for bicyclists and pedestrians and access to businesses near Carpenter Road (see Section 4.2, Public Participation).

Joint CEQA/NEPA Document

The proposed project is a joint project by 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). The Department is the lead agency under NEPA. The Department is the lead agency under CEQA. In addition, FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

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, often a "lower level" document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA), which this document is.

The Draft EIR/EA with attached Draft Final RAP was circulated for public review from January 18, 2017 to March 17, 2017. Written and verbal comments were collected and reviewed. After receiving comments from the public and reviewing agencies on the Draft EIR/EA, this Final EIR/EA was prepared. The Final EIR/EA includes responses to comments received on the Draft EIR/EA (Appendix J) and identifies the preferred alternative for the project. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and Caltrans will issue a Finding of No Significant Impact (FONSI) for compliance with NEPA. A Notice of Availability of the FONSI will be published in the Federal Register, and will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

Similarly, as a CEQA responsible agency, DTSC will make a final determination regarding Draft Final RAP Alternative 4, Containment, based on the analysis provided in the Final EIR/EA. DTSC worked closely with Caltrans to ensure that activities detailed in the Draft Final RAP, were analyzed in the EIR/EA. Once

Caltrans Certifies the Final EIR, DTSC will decide whether to approve the Draft Final RAP based on the analysis contained in the Final EIR/EA. DTSC will prepare a Statement of Findings documenting that decision. Contingent on the Draft Final RAP approval, DTSC would prepare a Notice of Determination (NOD) as the final documentation in DTSC's CEQA analysis process. The NOD would be filed with the State Clearinghouse.

Project Impacts

The following table summarizes the potential impacts that would result from construction and operation of the two proposed build alternatives. For comparison purposes, the impacts of the No-Build Alternative are also included. This table summarizes the potential impacts of the proposed project, as described throughout Chapter 2 in the Environmental Consequences sections within each resource subchapter. For a summary of significant impacts and mitigation measures in compliance with CEQA see Chapter 3.2, Discussion of Significant Impacts and Chapter 3.3, Mitigation Measures for Significant Impacts under the California Environmental Quality Act.

Summary of Potential Impacts from Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Meets Purpose and Need		Yes	Yes	No
Land Use	Consistency with the Modesto General Plan	<p>Consistent. The proposed project is in the General Plan and would be consistent with applicable General Plan goals and policies, except for <i>Circulation and Transportation Policy V-B.6[c]</i> related to Traffic Demand Management measures.</p>		<p>Inconsistent. The No-Build Alternative would not result in a transportation project. Therefore, no Transportation Demand Management measures would be applied.</p>
	Consistency with the Stanislaus County General Plan	<p>Consistent. The proposed project is in the General Plan and is consistent with applicable General Plan goals and policies, except for the <i>Agricultural Element Policy 2.3</i> and <i>Land Use Element Policy 2</i> related to conversion of agricultural land.</p>		<p>Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would degrade mobility within the study area and larger region. This would have a negative impact on economic and community prosperity.</p>
	Consistency with StanCOG Regional Transportation Plan/Sustainable Communities Strategy	<p>Consistent. The proposed project is in the 2014 Regional Transportation Plan/Sustainable Communities Strategy and is consistent with applicable Plan goals and policies.</p>		<p>Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would have the potential to degrade air quality and mobility within the study area and larger region. This would have a negative impact on economic and community vitality, environmental quality, mobility, and social equity.</p>

Summary of Potential Impacts from Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Parks and Recreational Facilities		Temporary increases in construction noise and equipment emissions would be minor. There would be no Section 4(f) use of any park or recreational resources.		No impact
Growth		Both build alternatives are unlikely to have a measurable effect on growth and would result in minimal growth-related impacts beyond what has already been planned.		No impact
Farmlands/Agriculture/ Timberlands		Conversion of 38.92 acres of prime farmland and 6.7 acres of Williamson Act contract lands would occur. Farmland access would be maintained throughout the project.		No impact
Community Character and Cohesion		No impact		No impact
Relocations/ Property Acquisitions	Business Displacements	9	7	0
	Residential Displacements	29	28	0
	Residential & Business Partial Acquisitions	58	62	0
Environmental Justice		Impacts associated with noise, visual quality, relocations, and construction would predominately occur within environmental justice populations and are considered a disproportionate adverse impact.	Impacts associated with noise, visual quality, relocations, and construction impacts would predominately occur within environmental justice populations and are considered a disproportionate adverse impact. However, a smaller degree of visual impacts would occur compared to Alternative 1.	Benefits not realized under the No-Build Alternative, including traffic congestion relief and improved access to businesses, would disproportionately adversely affect environmental justice populations.
Utilities/Emergency Services		Utility service could be temporarily disrupted during construction, but no long-term or permanent impacts would occur. Local road lane closures and detours would occur during construction, but emergency service providers would benefit after completion of Phase 1 by increased mobility, reduced congestion, and improved access.		No utility relocations or abandonments would occur. Emergency service response times may increase because of increased traffic congestion.

Summary of Potential Impacts from Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
<p>Traffic and Transportation/ Pedestrian and Bicycle Facilities</p>	<p>Decreased travel times, increased traffic speeds, and improved levels of service along existing SR 132 (Maze Boulevard) and for most of the major intersections would be realized. The proposed new alignment would provide another east-west travel option for motorists.</p> <p>Neither build alternative would directly or indirectly impact existing or planned pedestrian/bicycle facilities, except at the proposed single-point urban interchange of the new alignment with North Carpenter Road. Both build alternatives propose a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project.</p>		<p>Travel times would increase and level of service and vehicle speeds would degrade to unacceptable levels.</p> <p>Limited pedestrian and bicycle facilities exist within the study area, and no facilities are located west of SR 99 within Modesto's city limits.</p>
<p>Visual/Aesthetics</p>	<p>High visual impact— Certain structures would degrade the visual quality of some residential areas, as well as new highway lighting, signs, tree removal (591 trees), and business and residential relocations.</p>	<p>Moderately high visual impact—While fewer structures and two fewer trees would be removed, Alternative 2 would still degrade visual quality of some residential areas from highway lighting, signs, tree removal (589 trees), and business and residential relocations.</p>	<p>No impact</p>
<p>Cultural Resources</p>	<p>The State Route 132 Historic Property Survey Report was completed in December 2011. Following changes in the project's area of potential effects, additional areas were evaluated, and a supplemental Historic Property Survey Report was completed in October 2014. Extended Phase I Geoarchaeological Testing was completed in May 2017.</p> <p>Both build alternatives would require the acquisition of 0.13 acre of the northwest corner of 3530 Maze Boulevard. The potential acquisition is located outside the historic property boundary. There are no known direct impacts on Section 4(f) uses of any known resources.</p> <p>There are no historic properties affected by either of the project alternatives.</p>		<p>No impact</p>

Summary of Potential Impacts from Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Hydrology and Floodplain	Impervious surfaces would increase by 55.8 acres, which could affect the area's watershed by increasing the flow and volume of stormwater runoff entering the watershed.	Impervious surfaces would increase by 57.5 acres, which could affect the area's watershed by increasing the flow and volume of stormwater runoff entering the watershed.	No impact
Water Quality and Storm Water Runoff	<p>Both build alternatives would result in an increase in stormwater flow and runoff volumes, therefore infiltration and retention/detention basins would be built. The increase in stormwater flow and runoff volumes, resulting from the increased impervious surface area due to construction of the proposed freeway/expressway, could negatively affect water quality. Direct impacts may involve water contamination and excessive sedimentation, nutrients, and construction debris entering receiving water bodies.</p> <p>Containment of the Caltrans Modesto Soil Stockpiles would mitigate potential water quality impacts.</p>		The soil stockpiles would not be contained within a highway structure; however, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.
Geology/Soils/Seismic/ Topography	Both build alternatives would result in minimal geologic, soil, seismic, or topographic impacts relative to geotechnical hazards associated with liquefaction, seismic settlement, and slope stability.		No impact

Summary of Potential Impacts from Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
<p>Paleontology</p>	<p>The Modesto Formation occurs throughout the study area and is identified as high sensitivity for paleontological resources. Project excavation has the potential to impact paleontological resources.</p>	<p>The Modesto Formation occurs throughout the study area and is identified as high sensitivity for paleontological resources. Project excavation for Alternative 2 has a greater potential to impact paleontological resources than Alternative 1.</p>	<p>No impact</p>
<p>Hazardous Waste/Materials</p>	<p>For these alternatives, 19 parcels that would be partially or fully acquired are known to have recognized environmental conditions (potential for contamination).</p> <p>Potential impacts from the acquisition of parcels with recognized environmental conditions, presence of agricultural chemicals, aerially deposited lead, and groundwater contamination would be less than substantial with the implementation of the appropriate avoidance, minimization, and mitigation measures.</p> <p>While there may be potential impacts from the presence of barium contaminants in three soil stockpiles, ongoing monitoring has indicated that no significant impacts have or would occur from airborne dispersion or migration to groundwater. Containment of the three soil stockpiles as construction fill material would mitigate these impacts.</p>		<p>The soil stockpiles would not be contained within a highway structure; however, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.</p>

Summary of Potential Impacts from Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Caltrans Modesto Soil Stockpiles	Stockpile soil would be contained behind retaining walls, bridge abutments and beneath highway pavements. Monitoring of the stockpiles and stormwater runoff constituents of potential concern would continue until the project and full containment of all three soil stockpiles are complete. An Operation and Maintenance Plan and Operation and Maintenance Agreement will be required to monitor the containment remedy (e.g., the SR 132 West Project) This requires annual inspections and five year reviews of the containment remedy. In addition to stormwater monitoring, groundwater monitoring would continue. A land use covenant restricting land use and certain activities will also be required.		A remedial action plan would be developed, as soil stockpile containment via a highway structure would not be implemented. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.
Air Quality	The proposed project would not lead to new or worsened violations of national and state air quality standards for particulate matter or carbon monoxide. Operational improvements would reduce precursor and criteria pollutant emissions, as well as the chemicals that cause them, relative to the No-Build Alternative. A temporary increase in precursor and criteria pollutants would occur during construction. Dust generated during stockpile excavation would be monitored by an air monitoring plan approved by the Department of Toxic Substances Control.		Higher traffic congestion and lower average traffic speeds may increase precursor and criteria pollutant emissions. No air quality impacts from non-contained stockpiles would occur under the No-Build Alternative.
Noise	Predicted future (2048) noise levels would impact 260 receivers.	Predicted future (2048) noise levels would impact 276 receivers.	Noise levels for 162 receivers would approach or exceed the noise abatement criteria in 2048.
Energy	The build alternatives would reduce overall fuel consumption when compared to existing conditions. Energy would be consumed during construction, but both build alternatives would not have substantial energy impacts.		The No-Build Alternative would cause adverse impacts related to energy consumption.
Wetlands and Other Waters	Potential direct and permanent impacts to 0.65 acre of non-jurisdictional wetlands (waters of the State).		No impact

Summary of Potential Impacts from Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Animal Species	For this alternative, 21 acres of potential burrowing owl habitat would be impacted, and removal of 591 trees could impact migratory birds.	For this alternative, 21 acres of potential burrowing owl habitat would be impacted, and removal of 589 trees could impact migratory birds.	No impact
Threatened and Endangered Species	Potential impacts to the Swainson's hawk would include removal of up to 70 acres of possible foraging habitat and up to 414 trees (with low potential to support Swainson's hawk nesting and roosting).		No impact
Invasive Species	The area may benefit from covering existing invasive species with impervious surfaces (paving) and preventing further dispersal.		The area would remain predominantly covered by invasive species.
Cumulative Impacts	A cumulative impact to agriculture could occur. Cumulative visual/aesthetics and noise impacts could occur if avoidance, minimization, or mitigation measures are not incorporated.		No impact

Coordination with Public and Other Agencies

The following permits, reviews, and approvals would be required for project construction.

Permits, Reviews, and Approvals Needed

Agency	Permit/Approval	Status
California Transportation Commission	Approval of New Public Road Connection at Needham Street	Submittal and approval after Final EIR certification
California Regional Water Quality Control Board	Section 401 Water Quality Certification	Submittal and approval prior to construction
	Section 402 National Pollutant Discharge Elimination System/Caltrans National Pollutant Discharge Elimination System Permit CAS000003 and CAS000002 (General Construction Permit)	Construction General Permit effective July 1, 2010; Caltrans National Pollutant Discharge Elimination System Permit effective July 1, 2013
	Approval of the stockpile Final Remedial Action Plan, Remedial Design Implementation Plan, and other approvals deemed necessary	A decision on the Draft Final Remedial Action Plan will be made after certification of the Final EIR/EA. A decision on the Remedial Design Implementation Plan will be made during the final design phase of the Project.

Permits, Reviews, and Approvals Needed

Agency	Permit/Approval	Status
	Approval and acceptance of hazardous waste investigations and remediation associated with discovery of soil or groundwater contamination discovered during construction	Work plans for hazardous waste investigations will be developed following Right of Way acquisition. Investigations will be conducted prior to and during construction
State Historic Preservation Officer	Determinations of eligibility and effects upon cultural resources	<p>Concurrence letters received May 16, 2012 and March 16, 2015 (National Register of Historic Places eligibility for architectural properties); a supplemental archaeological survey, geo-archaeological investigation was completed in May 2017. The conclusion of the survey was that <i>“the APE is recommended as having a low potential for buried archaeological deposits and archaeological monitoring is not recommended.”</i></p> <p>As a result of the investigations, it was determined that there are no historic properties affected; therefore, no further action with SHPO is required.</p>
Various Utilities	Utility modification/relocation agreements	Agreements would be executed prior to construction
City of Modesto	Street tree removal permit	Submittal and approval prior to construction
City of Modesto and Caltrans	Cooperative Agreement for final design of Phase 1	To be developed during the final design phase of the project
California Department of Toxic Substances Control	Approval of the stockpile Final Remedial Action Plan and Remedial Design Implementation Plan	A decision on the Draft Final Remedial Action Plan will be made after certification of the Final EIR/EA. A decision on the Remedial Design Implementation Plan will be made during the final design phase of the Project.
San Joaquin Valley Air Pollution Control District	Air Quality Dust Control Plans	Contractor responsible to submit and obtain approval prior to construction
	Air Impact Assessment Indirect Source Review as required (Rule 9510)	City of Modesto to comply with the requirements prior to construction
San Joaquin Valley Air Pollution Control District	Asbestos National Emission Standards for Hazardous Air Pollutants Notification	Notification to be postmarked or delivered to the San Joaquin Valley Air Pollution Control District no later than 10 working days prior to beginning asbestos removal activities and/or demolition
Stanislaus County Department of Public Works	Encroachment Permit	Submittal and approval prior to construction

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans, working in cooperation with the Stanislaus Council of Governments (StanCOG), proposes to construct a four-lane freeway/expressway in two phases along the adopted route south of Kansas Avenue from Dakota Avenue (post mile [PM] 11.0) to east of State Route (SR) 99 at the Needham Street Bridge Overcrossing (PM 15.0). The total length of the State Route 132 West Freeway/Expressway project (project) would be approximately 4 miles and would include connections on SR 99 from PM 15.7 to PM 17.5. Figures 1-1 and 1-2 show the project vicinity and location.

As part of the project, the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board are responsible agencies under CEQA for agency oversight of the Caltrans Modesto Soil Stockpiles located within Caltrans right-of-way south of Kansas Avenue and within the proposed location for the project. The California Department of Toxic Substances Control will make a final determination regarding Draft Final RAP Alternative 4 (Containment). This is discussed in the summary on page ii and further detailed in Section 2.2.5.1. The Draft Final RAP is included as Appendix H of this document. Implementation of the Draft Final RAP is detailed in Section 1.4.1, Build Alternatives.

The proposed project involves the phased construction of one of the two build alternatives (Alternative 1 or Alternative 2) or the decision to implement the No-Build Alternative. Both build alternatives would include two phases (i.e., Phase 1: Expressway and Phase 2: Freeway) to construct a four-lane freeway/expressway on a new alignment. The proposed project would begin at the intersection of existing SR 132 (Maze Boulevard) and Dakota Avenue and extend north along North Dakota Avenue for roughly half a mile. At the proposed intersection with North Dakota Avenue, the new alignment would extend east to SR 99 at the Needham Street Overcrossing Bridge. The proposed project would also involve improvements to the 5th and 6th street connections to SR 99. Phase 1 is anticipated to begin in 2018, be completed within 12 to 15 months, and be open to traffic by 2020. Both build alternatives (Alternative 1 and Alternative 2) would be the same under Phase 1. Phase 2 is expected to begin in 2026, be completed by 2028, and would involve the construction of either Alternative 1 or Alternative 2 (Figures 1-4, 1-5, and 1-6).

Phase 1 includes the construction of a new two-lane expressway on the southern half of proposed alignment from Dakota Avenue on the west end of the project to the Needham Street Overcrossing Bridge on the east end of the project. At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue to Maze Boulevard. The expressway would not have a center median separating east and west. At the completion of Phase 2, the proposed project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west direction of travel and a single-point urban interchange at North Carpenter Road. The proposed project segment under both Alternative 1 and Alternative 2 along North Dakota Avenue to Maze Boulevard would remain an expressway. Under Phase 2, the major differences between Alternative 1 and Alternative 2 would involve the construction of a southbound SR 99 Needham Street off-ramp (Alternative 1) compared to the reconstruction of a southbound SR 99 Kansas Avenue off-ramp (Alternative 2). Under the No-Build Alternative, existing SR 132 (Maze Boulevard) would remain a two-lane, conventional highway.

The proposed project is included in the 2017 Federal Transportation Improvement Program (project identification number 98STA0221), the fiscally constrained 2014 Regional Transportation Plan/Sustainable Communities Strategy (project identification numbers M01 for Phase 1 and RE01 for Phase 2), and the 2016 Regional Transportation Improvement Program (project identification numbers 3027 and 0944M). Project funding is based on a combination of local, state, and federal sources. Currently, funding has been identified only for Phase 1. The recent approval of Measure L will allow Stanislaus County to leverage funds, which can be put toward Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design.

Phase 1 is estimated to cost approximately \$82 million for both Alternative 1 and 2 (of which \$1.57 million is for remediation of the soil stockpiles. This estimate is escalated (2018 dollar value). Phase 2 is estimated to cost \$128 million (Alternative 1) to \$132 million (Alternative 2), depending on the build alternative selected. Phase 2 values are based on 2016 dollar values. Construction of Phase 2 is anticipated to begin in 2026 and be completed in 2028. The total project cost is estimated at \$210 million (Alternative 1) to \$214 million (Alternative 2).

The proposed project would improve two vital transportation corridors within Stanislaus County, existing SR 132 (Maze Boulevard) and SR 99. Existing SR 132 (Maze Boulevard) is part of the regional expressway system and is the main east-west corridor in

Stanislaus County. The two-lane, conventional highway provides interregional connection between Interstate 5 near the City of Tracy to the west and SR 99 in Modesto to the east. The existing highway is the only east-west highway with access across the Tuolumne, San Joaquin, and Stanislaus rivers from Modesto. As such, SR 132 has increasingly served the San Joaquin Valley and has become a major truck route between Interstate 5 and SR 99.

In 1956, the proposed freeway corridor for SR 132 was adopted by the State of California with resolutions of support from Stanislaus County and Modesto. In 1958, the State of California proceeded with property acquisition. To date, 79 acres in the project area are right-of-way owned by Caltrans. The two build alternatives under consideration in this Environmental Impact Report/Environmental Assessment are consistent with the adopted freeway corridor. Caltrans prepared three Project Study Reports (in 1991, 1993, and 1997) to determine alternatives for consideration. From 1998 to 2003, efforts were made to achieve consensus on a buildable segment, but later in 2003, the project was placed on hold to resolve SR 132 connectivity concerns. In 2008, StanCOG identified a number of improvements for east-west connectivity through Modesto in its *Feasibility Study for SR 132 East/West Connectivity Project* (SR 132 Feasibility Study). In 2009, StanCOG completed a local Project Initiation Document for use in planning the next formal studies for the Project Approval and Environmental Document Phase.

The Caltrans Modesto Soil Stockpiles, which have been in their present location within state right-of-way since the 1960s and which contain contamination with potential to impact human health and the environment, are regulated by the Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. In order to consider remediation of the stockpiles via the SR 132 West project, Caltrans prepared a Final Feasibility Study and subsequent Draft Final Remedial Action Plan. Based on the screening criteria and comparative evaluation processes documented in these reports, containing the stockpiles behind retaining walls, bridge abutments, and beneath highway pavements (Draft Final RAP Alternative 4, Containment) is the recommended alternative in the Draft Final RAP. The alternative would be implemented by using the three stockpiles for project construction. Draft Final RAP Alternative 4 (Containment) is the recommended alternative in the Draft Final RAP because of the effectiveness in providing long-term and overall protection of human health and the environment; technical feasibility; cost-effectiveness; and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff. Both build alternatives include Draft Final RAP Alternative 4 (Containment).

The proposed use of the soil required Caltrans to prepare two documents under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board titled 1) the *Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Modesto, Stanislaus County, California* (Soil Stockpiles Feasibility Study) -Appendix G and 2) the Draft *Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Modesto, Stanislaus County, California* - Appendix H. A detailed discussion of the stockpiles and their contaminants is located in Section 2.2.5.1, Caltrans Modesto Soil Stockpiles Site.

1.2 Purpose and Need

1.2.1 Purpose

The purpose and objectives of the proposed project are as follows:

- Improve regional and interregional circulation within Modesto and Stanislaus County
- Relieve traffic congestion along existing SR 132 (Maze Boulevard)
- Improve operations for the existing and proposed transportation network

1.2.2 Need

Improve Regional and Interregional Circulation

The existing highway passes through residential (including school zones), commercial, and agricultural areas west of SR 99. The existing right-of-way varies from 60 to 100 feet wide and is constrained by urban development as the highway approaches Modesto and SR 99 from the west. The segment of SR 132 and the existing SR 132/SR 99 connection within the project area are of particular importance to regional and interregional circulation because of the extensive farm-to-market, recreational, and other commerce-related travel that uses the highway daily.

Within the project area, existing SR 132 (Maze Boulevard) is a two-lane, undivided, conventional highway with shoulders and isolated left- and right-turn lanes at some intersections (see Figure 1-4). The current average daily traffic volumes within the project area range between 10,230 and 12,400 vehicles. Between Carpenter Road and Meadow Lane, trucks make up 21 percent of the total traffic. Traffic analysis of this existing segment of SR 132 (including Maze Boulevard and the SR 132/SR 99 connection) anticipates an increase in congestion because of the deficiencies of the existing highway and increases in regional traffic and interregional commuter and truck traffic. Table 1-1

lists the current and projected average daily traffic for the segments along the existing highway and other local roadways/highways in the area.

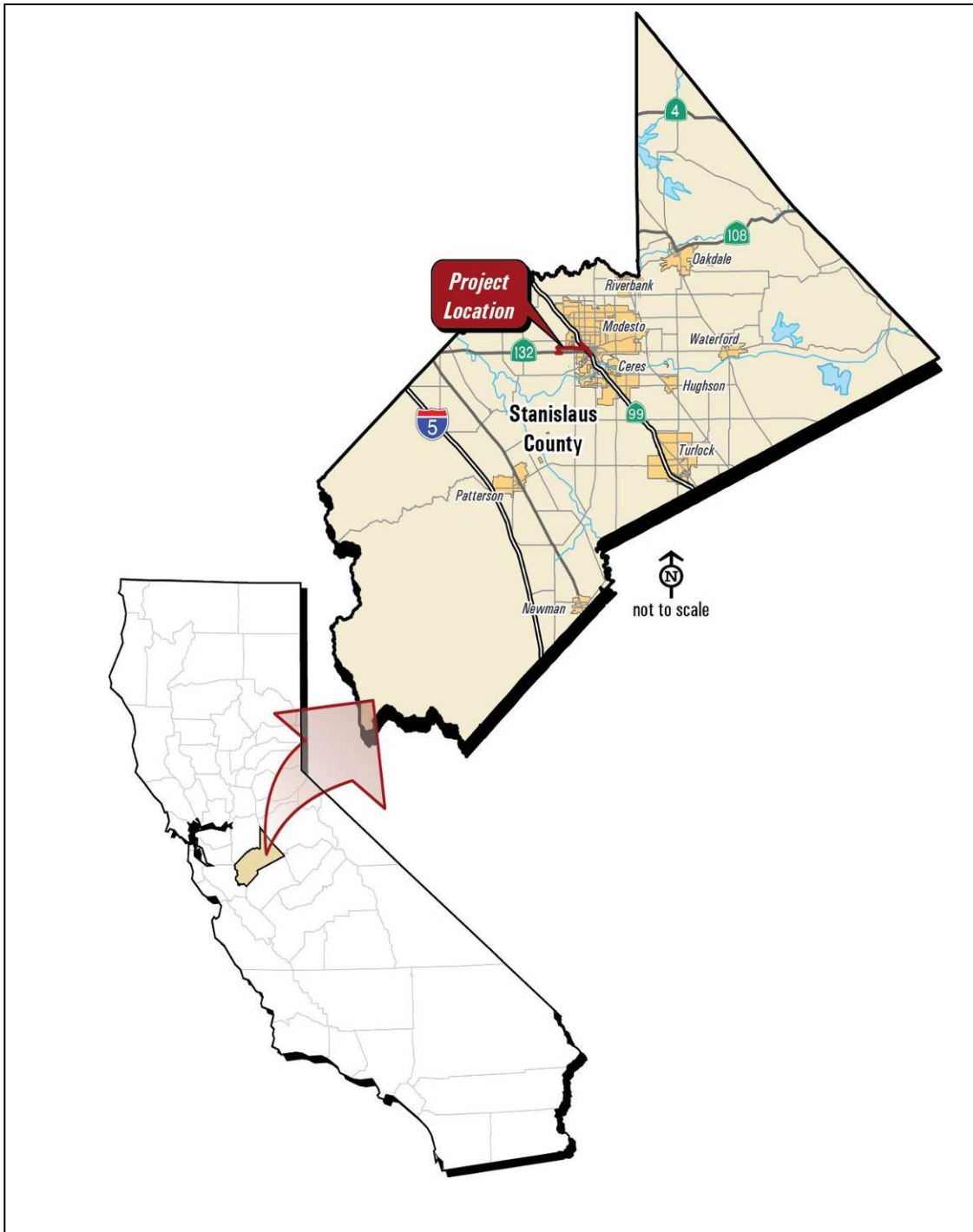


Figure 1-1: Project Vicinity Map

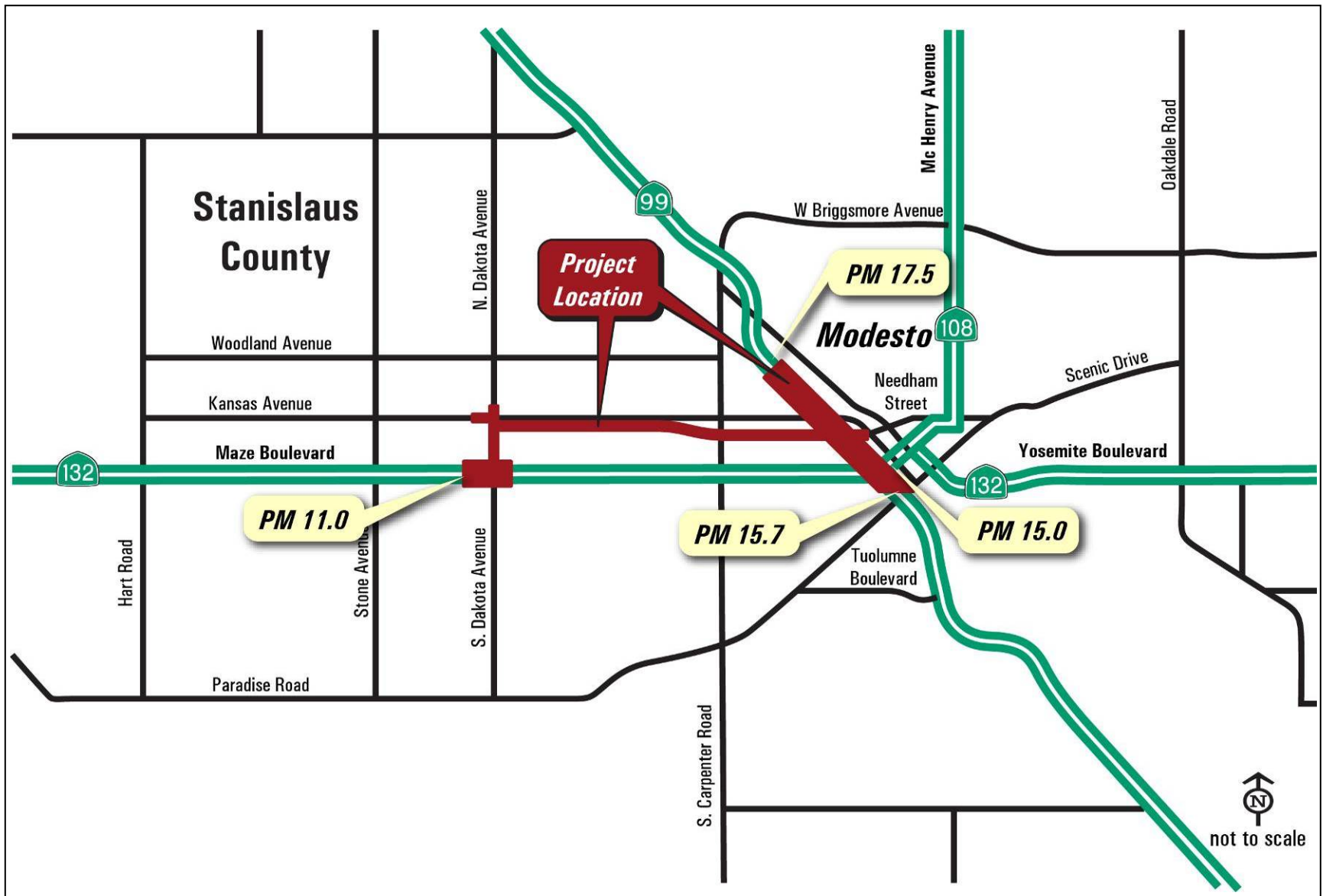


Figure 1-2: Project Location Map

According to the 2010 American Community Survey, 43.3 percent of workers commute to cities outside of Stanislaus County. This high percentage of interregional commuting trips coupled with forecasted population increases throughout Stanislaus County would lead to increasingly congested interregional and regional circulation if conditions on existing SR 132 (Maze Boulevard) are not improved. Furthermore, as traffic on existing SR 132 (Maze Boulevard), identified in Table 1-1 as three segments, is expected to increase by an average of 67 percent by 2048, highway conditions throughout SR 99 in the project area are expected to worsen.

Table 1-1: Current and Projected Average Daily Traffic along Existing SR 132 and Other Local Roadways/Highways

Area	2009 ^a (vehicles)	2018 ^b (vehicles)	2028 ^b (vehicles)	2048 ^b (vehicles)
Existing SR 132 (Maze Boulevard) between Grimes Avenue and Carpenter Road	11,500	15,200	17,700	19,700
Existing SR 132 (Maze Boulevard) between Carpenter Road and Emerald Avenue	10,230	14,500	17,000	18,800
Existing SR 132 (Maze Boulevard) between Emerald Avenue and Martin Luther King Drive	12,400	15,400	17,700	18,400
Carpenter Road between Elm Avenue and Hillview Drive	21,130	23,700	27,600	32,700
Kansas Avenue between Carpenter Road and Reno Avenue	12,430	16,400	18,100	19,300
5th Street between J Street and K Street	9,360	10,600	11,100	12,400
6th Street between J Street and K Street	5,740	7,000	7,400	9,800
SR 99 between Kansas Avenue and existing SR 132 (Maze Boulevard)	123,000	148,600	190,000	213,800
SR 99 between existing SR 132 Maze Boulevard and K Street	117,000	140,400	181,500	205,000

^a 2009 represents the existing condition for traffic, noise, and air quality analyses.

^b The other three years represented in the table are the average daily traffic under no-build conditions for 2018, 2028, and 2048.

Source: Final Traffic Operations Analysis Report (July 2012)

Relieve Traffic Congestion along Existing SR 132 (Maze Boulevard)

Congestion is often measured in terms of level of service, which is an indicator of driving conditions on a roadway segment or at an intersection. As shown in Figure 1-3, levels are defined in categories ranging from “A” to “F” for two-lane highways, intersections with traffic signals, and two-way stop intersections. Level “A” indicates free-flowing traffic with no hindrance to driving speed caused by traffic conditions; level “F” indicates substantial congestion with slow, stop-and-go traffic.

According to Modesto’s General Plan, in addition to Caltrans and Federal Highway Administration standards, the level of service rating goal for a highway/local roadway similar to existing SR 132 (Maze Boulevard) is “D.” Existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service “D” or better between Dakota Avenue and SR 99, and is anticipated to deteriorate to unacceptable levels in the future (Table 1-2). Traffic operations would degrade over time such that by 2028 the intersection of the existing highway and Carpenter Road would operate at level “F,” an unacceptable service level (Table 1-3). By 2048, the intersections of the existing highway at Rosemore Avenue, Carpenter Road, and Emerald Avenue would operate at unacceptable service level “F” (Table 1-3).

**Table 1-2: Existing and Future No-Build Level of Service
SR 132 (Maze Boulevard) Segments**

Location	2009		2020		2028		2048	
	AM	PM	AM	PM	AM	PM	AM	PM
SR 99 to Emerald Avenue (Eastbound)	B	B	B	C	B	C	B	C
SR 99 to Emerald Avenue (Westbound)	B	B	B	B	B	B	C	B
Emerald Avenue to Carpenter Road (Eastbound)	B	B	B	C	B	C	C	F
Emerald Avenue to Carpenter Road (Westbound)	D	C	E	D	F	D	F	D
Carpenter Road to Dakota Avenue	D	D	D	D	E	E	E	E
West of Dakota Avenue	C	D	D	D	D	E	E	E

Table 1-3: Existing and Future No-Build Level of Service Intersections with SR 132 (Maze Boulevard)

Location	2009		2020		2028		2048	
	AM	PM	AM	PM	AM	PM	AM	PM
SR 132 at Dakota Avenue	A	A	A	B	A	C	B	D
SR 132 at Rosemore Avenue	A	A	A	B	B	C	F	F
SR 132 at Carpenter Road	C	C	D	D	F	F	F	F
SR 132 at Emerald Avenue	B	B	B	C	B	C	F	F
SR 132 at Martin Luther King Jr. Drive	B	C	B	D	B	D	C	D
SR 132 at southbound SR 99 off-ramp	B	B	C	B	C	B	D	C







^a Existing SR 132 (Maze Boulevard) was analyzed using both the Highway Capacity Manual's urban street level of service methodology and two-lane highway level of service methodology because the highway is considered an urban roadway on its eastern end and a two-lane highway on its western end. Also see Figure 1-3 for a graphic representation of level of service.

Notes: Results in bold indicate unacceptable operations. The years represented in the table match the years for Phase 1 (2020), Phase 2 (2028), and the design year (2048). LOS = level of service. The traffic analysis for Future No-Build and Phase 1 assumed an opening year of 2018, but that is now projected to be 2020.




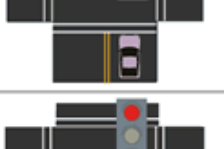

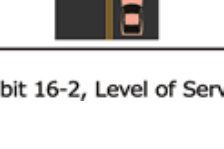
Source: Final Traffic Operations Analysis Report (July 2012)

As Modesto continues to grow, both locally from new area development and regionally from adjacent communities, existing SR 132 (Maze Boulevard) would continue to be burdened by increased traffic. Additional local and regional traffic, in combination with higher truck volumes, would only increase congestion and further deteriorate roadway and intersection level of service.

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LEVELS OF SERVICE for Two-Lane Highways			
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		55+	Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. No delays
B		50	Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. No delays
C		45	Stable traffic flow, but less freedom to select speed, change lanes or pass. Minimal delays
D		40	Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. Minimal delays
E		35	Unstable traffic flow. Speeds change quickly and maneuverability is low. Significant delays
F			Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. Considerable delays

Source: 2000 HCM, Exhibit 20-2, LOS Criteria for Two-Lane Highways in Class 1

LEVELS OF SERVICE for Intersections with Traffic Signals		
Level of Service	Delay per Vehicle (seconds)	
A	 ≤10	
B	 11-20	
C	 21-35	
D	 36-55	
E	 56-80	
F	 >80	

Factors Affecting LOS of Signalized Intersections

Traffic Signal Conditions:

- Signal Coordination
- Cycle Length
- Protected left turn
- Timing
- Pre-timed or traffic activated signal
- Etc.







Geometric Conditions:

- Left- and right-turn lanes
- Number of lanes
- Etc.

Traffic Conditions:

- Percent of truck traffic
- Number of pedestrians
- Etc.

Source: 2000 HCM, Exhibit 16-2, Level of Service Criteria for Signalized Intersections

LEVELS OF SERVICE for Two-Way Stop Intersections			
Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
A		≤10	Very short delays
B		11-15	Short delays
C		16-25	Minimal delays
D		26-35	Minimal delays
E		36-50	Significant delays
F		>50	Considerable delays

Source: 2000 HCM, Exhibit 17-2, Level of Service Criteria for TWSC Intersections

Figure 1-3: Levels of Service for Two-lane Highways, Intersections with Traffic Signals, and Two-way Stop Intersections

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Improve Operations

No fatalities have occurred on the existing SR 132 (Maze Boulevard) in the most recent three-year period studied (2012–2014). The statewide average rate of accident fatalities for similar facilities is 0.016 accidents per million vehicle miles traveled. Along existing SR 132 (Maze Boulevard), most accidents (34 percent) were broadside accidents, followed by rear-end (32 percent), hit-object (15 percent), head-on (9 percent), sideswipe (6 percent), and auto/pedestrian (4 percent) accidents. The high percentage of broadside and rear-end accidents on the existing highway is associated, in part, with characteristics such as relatively high traffic volumes and speeds, a large number of conflict points, and lack of turning lanes. The data also shows a higher percentage of head-on collisions compared to the previous three-year reporting period, which reported one head-on accident (1.9 percent).

Based on the *Highway Safety Manual* published by the American Association of State Highway and Transportation Officials, there is a direct correlation between crash frequency and average daily traffic volumes. Lower traffic volumes would result in greater spacing between vehicles, allowing drivers more time to react to sudden changes in traffic flow, such as a stopped vehicle. Fewer vehicles would also result in fewer conflicts at intersections and driveways.

Operational efficiency is reduced by the proximity and direct access to schools, churches, businesses, and residences by way of existing driveways along existing SR 132 (Maze Boulevard), all of which increase the potential for conflicts between bicyclists, pedestrians, and vehicles. The existing highway averages more than nine intersections per mile in the area of the project; most of the intersections have stop signs for side streets, while the existing highway does not have stop signs or stop lights at most of the intersections between Dakota Avenue and SR 99. Along the existing SR 132 (Maze Boulevard and “L” Street) from Dakota Avenue to east of SR 99 at the SR 132/“L” Street/6th Street intersection, there are 12 unsignalized, two-way stop-controlled intersections, 5 signalized intersections, and over 60 private driveways. The signalized intersections include the following: Carpenter Road, Emerald Avenue, Martin Luther King Drive, 5th Street, and 6th Street. SR 132 also has several direct-access driveways to schools, churches, businesses, and residences along this section of the roadway.

1.2.3 Independent Utility and Logical Termini

Federal Highway Administration regulations (23 Code of Federal Regulations 771.111 [f]) require that a proposed project:

- Have a rational beginning and ending point (i.e., logical termini) and be of sufficient length to address environmental matters on a broad scope.
- Be a functional and reasonable expenditure even if no additional transportation improvements are made in the area (i.e., independent utility).
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The proposed project's eastern end ties directly into SR 99, a major thoroughfare that serves the main population centers and rural agricultural areas in Stanislaus County and the larger San Joaquin Valley. The proposed project's western end at Dakota Avenue is where the need for improvements ends because Dakota Avenue is the last major north-south roadway from the existing SR 132 (Maze Boulevard) to the Modesto city limits and SR 99 north of the project until North Hart Road, more than 3 miles west of Dakota Avenue. The 2008 City of Modesto Final Urban Area General Plan also designates North Dakota Avenue as a six-lane expressway. The SR 99/Pelandale interchange is located approximately 2 miles north of the project's eastern end at North Dakota Avenue/Kansas Avenue, providing an important connection to the expressway at North Dakota Avenue.

Also, future-year traffic volumes for the no-build and build scenarios west of Dakota Avenue are identical. Forecasted traffic volumes for the no-build and build scenarios are 19,900 and 27,500 in 2028 and 2048, respectively. As such, the proposed project would not have an impact on traffic volumes west of the existing SR 132 (Maze Boulevard)/Dakota Avenue intersection. This demonstrates that the need for transportation improvements does not extend further west along the existing SR 132 corridor. Therefore, ending roadway improvements near the Maze Boulevard/Dakota Avenue intersection is not anticipated to result in indirect effects west of the proposed project area. The entire 4-mile stretch of the proposed new alignment and the areas crossed by the new alignment would provide both a complete picture of the affected area and a broad discussion of environmental issues.

Project implementation would result in improvements to circulation and congestion from both a local and regional perspective along existing SR 132 (Maze Boulevard), even if no additional transportation improvements are made. This would satisfy the need for independent utility. Lastly, the proposed project would not restrict consideration of alternatives for other reasonably foreseeable transportation improvements, as the project has been designed to integrate into and improve access

for the other projects noted in the 2014 Regional Transportation Plan/Sustainable Communities Strategy.

Currently, only Phase 1 has identified funding, and construction of Phase 2 is anticipated to begin in 2026 and be completed in 2028. Elements of project work and each phase are described in Section 1.3, Project Description.

1.3 Project Description

This section describes the proposed action, project phasing, and the build alternatives developed to meet the proposed project's purpose and need and to avoid or minimize environmental impacts. The alternatives under evaluation are Alternative 1, Alternative 2, and the No-Build Alternative.

The proposed project lies on SR 132 in the City of Modesto in Stanislaus County and involves the ultimate construction of a four-lane freeway south of Kansas Avenue from Dakota Avenue (post mile [PM] 11.0) to east of SR 99 at Needham Street (PM 15.0). The total length of the proposed project would be approximately 4 miles with 10-foot-wide outside shoulders, 5-foot-wide inside shoulders, 12-foot-wide general-purpose lanes, and a 36-foot-wide median. In addition to constructing a new alignment for SR 132 between Dakota Avenue and Needham Street, the proposed project would include improvements on SR 99 from PM 15.7 to PM 17.5. These elements would improve system connectivity between SR 132 and SR 99 and are described later in this section under the Phase 1 and Phase 2 sections.

As shown in Figure 1-4, the freeway would cross under North Rosemore Avenue and North Carpenter Road and cross over North Emerald Avenue.

The proposed project would include connection improvements along SR 99, as well as a direct-connector flyover ramp from northbound SR 99 to westbound SR 132. The purpose of the proposed project is to improve regional and interregional circulation, relieve traffic congestion along existing SR 132 (Maze Boulevard), and enhance operations for the existing and proposed transportation network.



Figure 1-4: Project Overview Map

The project includes remediation of three hazardous soil stockpiles (Caltrans Modesto soil stockpiles, see Chapter 2, Section 2.2.5.1, Caltrans Modesto Soil Stockpiles). The three separate and distinct Caltrans Modesto soil stockpiles total 160,000 cubic yards and are located within the Caltrans right-of-way, south of the SR 99/Kansas Avenue interchange. A Soil Stockpiles Feasibility Study was prepared to identify remedial action objectives, general response actions, and process options for the three soil stockpiles. Following California Department of Toxic Substances Control acceptance of the Soil Stockpiles Feasibility Study, a Draft Final RAP was prepared. Based on the screening of alternatives and comparative analysis, the recommended alternative in the Draft Final RAP is containment, which contains the soil behind retaining walls, bridge abutments, and beneath highway pavements.

Project Phasing

The proposed project would consist of two construction phases—Phase 1 and Phase 2—described below. Both build alternatives include Draft Final RAP Alternative 4 (Containment).

Phase 1

Phase 1 is anticipated to begin construction in 2018, be completed within 12 to 15 months, and open to traffic by 2020. Phase 1 is planned to be fully funded with approximately \$82 million to be programmed in 2018 for right-of-way acquisition and construction. Figure 1-5 shows the work in Phase 1 for both build alternatives.

Both build alternatives (Alternatives 1 and 2) would be the same under Phase 1 and would include construction of a two-lane expressway on the southern half of the proposed alignment from Dakota Avenue on the west end of the project to the Needham Street Overcrossing Bridge on the east end of the project. At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue to Maze Boulevard. The expressway would not have a center median separating each direction of travel. Full standard lane and shoulder widths are proposed (i.e., 10-foot-wide shoulders and 12-foot-wide general-purpose lanes) for most of the expressway. Although each of the expressway's overcrossings and undercrossings would be built large enough to accommodate four lanes of travel for Phase 2, only two lanes of travel would be paved and striped as part of Phase 1 (see Figure 1-6). Appendix F shows typical cross sections and provides preliminary engineering drawings for Phase 2. The following describes the design features for both build alternatives, which would be the same under Phase 1.

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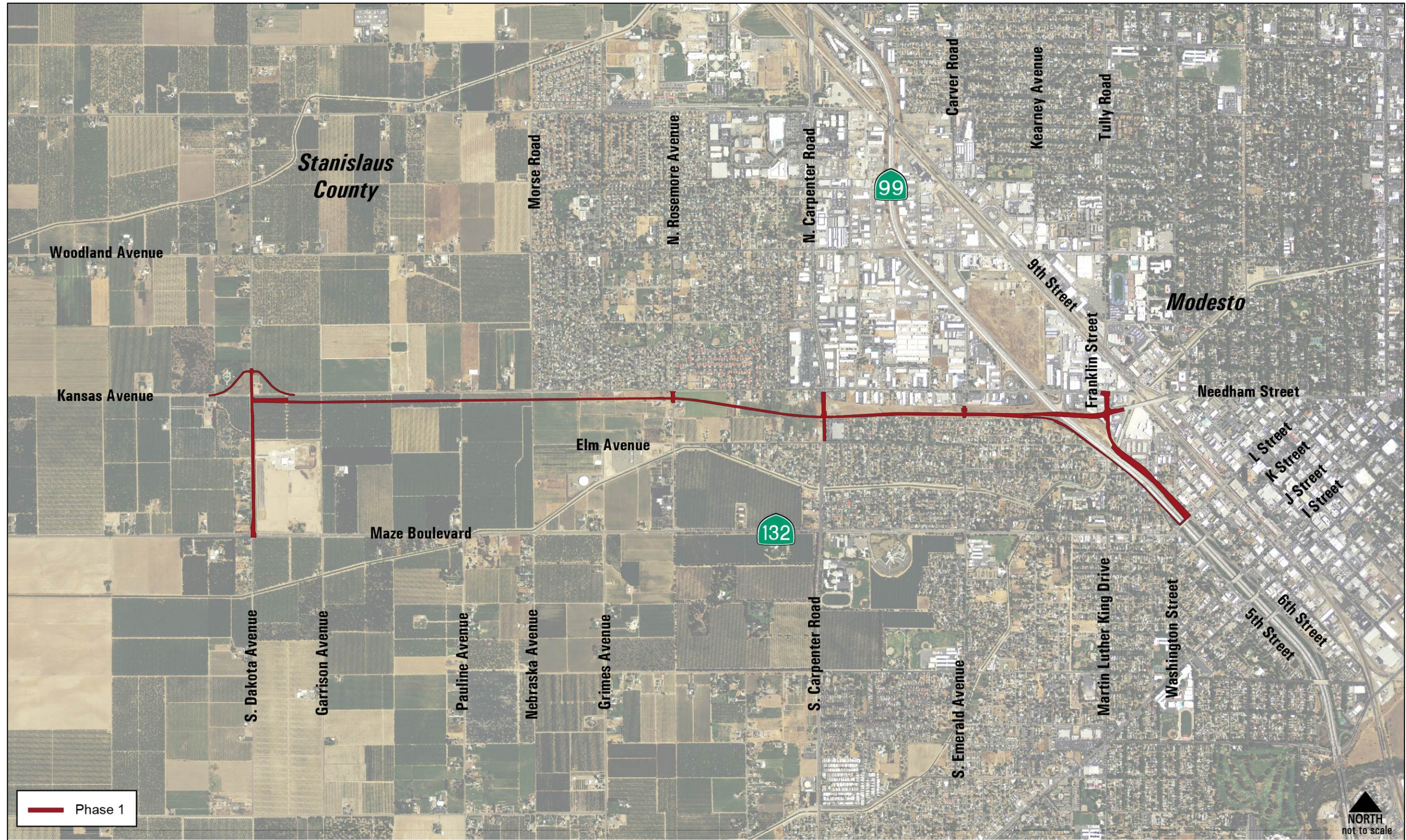


Figure 1-5: Phase 1

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Profiles of the Grades along the New Alignment

Traveling west to east, the profiles for Phase 1 would begin at grade from North Dakota Avenue until just east of Morse Road. The profile would then transition below grade (be depressed) west of the North Rosemore Avenue Overcrossing and continue below grade past the North Carpenter Road Overcrossing. East of this overcrossing, the profile would rise above grade (be elevated) to cross over the North Emerald Avenue Undercrossing and would continue this way over the proposed SR 132/SR 99 interchange. Along SR 99, the profile would match the current profile of SR 99 (see Figure 1-6).

SR 99 and Other Roadway Improvements

In addition to constructing a new alignment for SR 132, Phase 1 would improve SR 132 and SR 99 system connectivity and other local street intersections at both ends of the project by adding the following:

- A northbound auxiliary lane along SR 99 from the 6th Street off-ramp to the Kansas Avenue off-ramp
- A northbound SR 99 on-ramp from 6th Street

Other area roadway improvements would include the following:

- A Needham Street Overcrossing at SR 99
- A traffic signal at Dakota Avenue and existing SR 132 (Maze Boulevard)
- Realignment of the Kansas Avenue intersection with Dakota Avenue north of its existing location
- A Kansas Avenue extension to replace North Franklin Street

Proposed Retaining Walls

Retaining walls are proposed at the following locations to limit permanent and temporary right-of-way impacts to residences and commercial properties (see Figure 1-6):

- Southerly side of the project, just east of North Carpenter Road
- Southerly side of the project, just west of North Emerald Avenue
- Between the eastbound SR 132 to southbound SR 99 direct-connector ramp and 5th Street

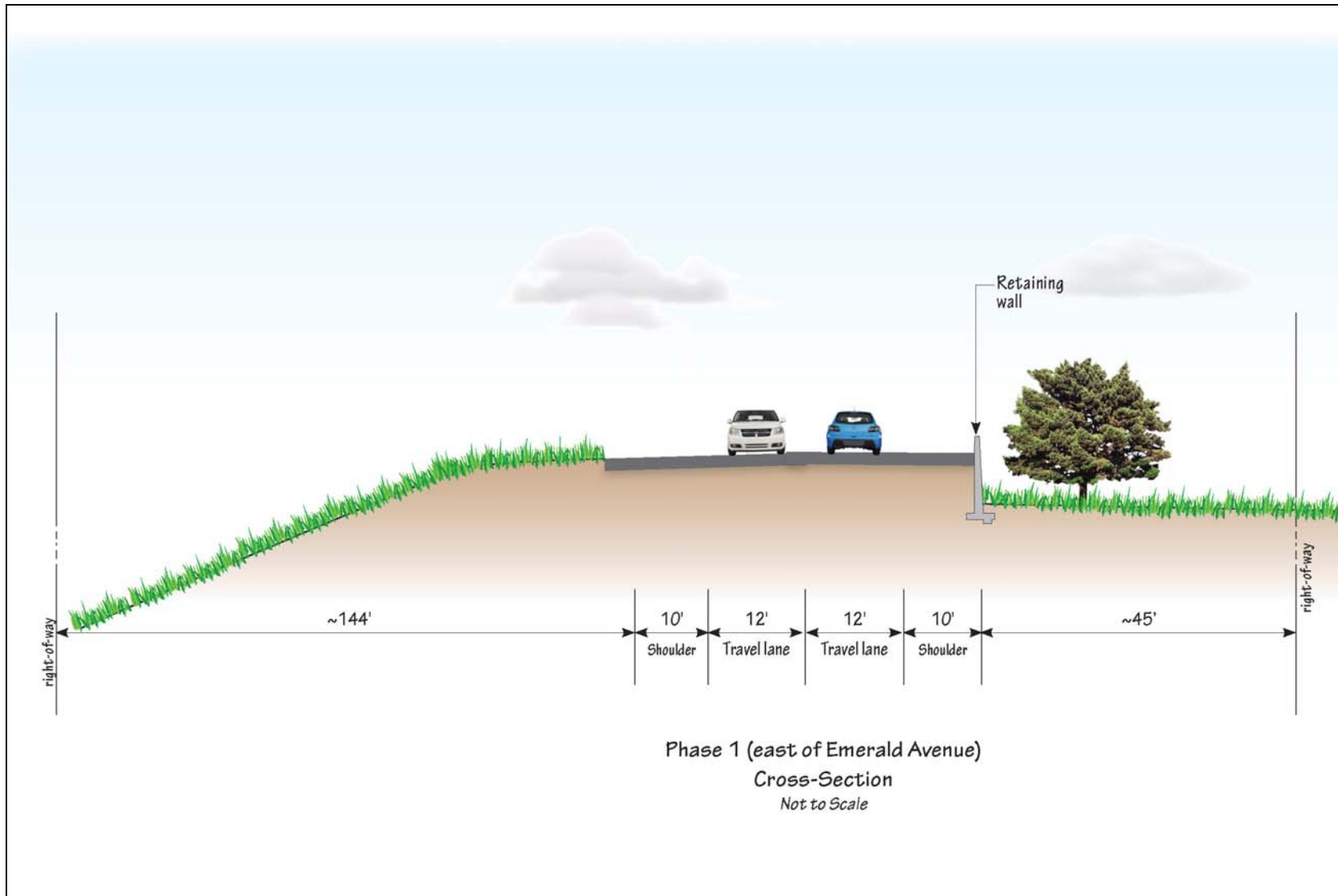


Figure 1-6: Phase 1 Cross-Section

Drainage

Along the proposed new alignment, Phase 1 would introduce new paved surfaces and would increase the amount of stormwater runoff in the area. To the greatest extent possible, Phase 1 would minimize stormwater runoff from Caltrans right-of-way by implementing roadside bioswales, infiltration basins, and retention/detention basins. Basins will be located at the Dakota and Kansas Avenue intersection (the northeast, southwest, and southeast quadrants); along the southern edge of Kansas Avenue between Dakota Avenue and Rosemore Avenue; Rosemore Avenue intersection (southeast and southwest quadrants); and the Carpenter Road intersection (northeast quadrant) (see Appendix F). Because a portion of the proposed project would be depressed, a pumping plant to remove runoff from the depressed section and to discharge the runoff into a retention/detention basin would be constructed west of North Rosemore Avenue, just south of the proposed new alignment.

Soil Stockpiles Remediation

Three soil stockpiles are within the Caltrans right-of-way limits of the proposed project. The soil stockpiles, which have been in their present location since the 1960s, contain soil with varying, but elevated concentrations of barium and lead. Under the oversight of the California Department of Toxic Substances Control and Central Valley Regional Water Quality Control Board, the Soil Stockpiles Feasibility Study (see Appendix G) was prepared to identify remedial action objectives, general response actions, and process options for the stockpiles. In accordance with Comprehensive Environmental Response, Compensation and Liability Act guidance, including criteria that screened and comparatively analyzed the remedial technologies, the study identified four remedial alternatives: Stockpile Alternative 1 – No Action; Stockpile Alternative 2 – Institutional Controls; Stockpile Alternative 3 – Removal (excavation and off-site disposal); and Stockpile Alternative 4 – Containment. The alternatives were then evaluated based on nine additional criteria to support a decision on the most appropriate remedial option.

Following the California Department of Toxic Substances Control acceptance of the Soil Stockpiles Feasibility Study, a Draft Final RAP was prepared (see Appendix H). The purpose of the Draft Final RAP was to 1) summarize all contaminant-impact studies at the stockpile site, 2) provide an assessment of potential risks to human health and the environment, 3) develop a remedial action alternative to reduce those risks, and 4) provide the information to the public for review and comment. As a CEQA responsible agency, the California Department of Toxic Substances Control will make a final determination regarding Draft Final RAP Alternative 4,

Containment, based on the analysis provided in the Final EIR/EA. The California Department of Toxic Substances Control worked closely with Caltrans to ensure that activities detailed in the Draft Final RAP were analyzed in the EIR/EA. Once Caltrans certifies the Final EIR, DTSC will decide whether to approve the Draft Final RAP based on the analysis contained in the Final EIR/EA. DTSC will prepare a Statement of Findings documenting that decision. Contingent on the Draft Final RAP approval, DTSC would prepare a Notice of Determination (NOD) as the final documentation in DTSC's CEQA analysis process. The NOD would be filed with the State Clearinghouse.

In the Draft Final RAP Alternative 4 (Containment), stockpile soil would be contained behind retaining walls and bridge abutments and beneath highway pavements. Phase 1 would construct pavement over the southern portions of soil stockpiles 1 and 2 and place cover material over the northern portions. Phase 1 will also contain Stockpile 3. During this phase, Stockpile 3 would be consolidated within the eastern abutment of the proposed SR 132/SR 99 interchange (see Figures 2-17 and 2-18). Any leftover soil from consolidation of Stockpile 3 would be placed within the stockpile fill consolidation zone of Stockpile 2.

Phase 2

Phase 2 is expected to begin construction in 2026 and be completed by 2028. Phase 2 would be constructed when funding becomes available. The recent approval of Measure L will allow Stanislaus County to leverage funds that can be put toward Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design. Figures 1-7 and 1-8 show the elements of work for Phase 2 for Alternatives 1 and 2, respectively.

Phase 2 would involve the construction of the two northernmost lanes within the new alignment from North Dakota Avenue on the west end of the project to the Needham Street Overcrossing Bridge on the east end of the project. The two existing southern lanes constructed in Phase 1 would be restriped to serve as the eastbound lanes, while the two new northern lanes would serve westbound traffic. At the completion of Phase 2, the freeway would have full access control, grade separations at intersections, and a center median separating each direction of travel from SR 99 to North Dakota Avenue. The segment along North Dakota Avenue to Maze Boulevard would remain an expressway. The freeway would have 10-foot-wide outside shoulders, 5-foot-wide inside shoulders, 12-foot-wide general-purpose lanes, and a

36-foot-wide median. Appendix F provides cross sections and preliminary engineering drawings for Phase 2.

The following describes the similar design features of both build alternatives under Phase 2. Section 1.4.1, Build Alternatives, describes the unique features of Alternative 1 and Alternative 2.

SR 99 and Other Roadway Improvements

Phase 2 would improve SR 132 and SR 99 system connectivity by adding the following:

- A southbound auxiliary lane with ends at different locations for each alternative. The lane would be from approximately a half-mile north of Kansas Avenue to the SR 132/Needham Street off-ramp (Alternative 1) or the Central Modesto/5th Street off-ramp (Alternative 2)
- A direct-connector ramp from eastbound SR 132 to southbound SR 99
- A southbound auxiliary lane from the eastbound SR 132 to southbound SR 99 direct connector ramp to the L Street Overcrossing

Other area roadway improvements would include the following:

- Removal of the northbound SR 99 on- and off-ramps at Kansas Avenue and southbound ramps at L and I streets
- Construction of the northbound SR 99 on- and off-ramps at Needham Street and a direct-connector flyover ramp between northbound SR 99 and westbound SR 132
- Construction of the eastbound SR 132 off-ramp and westbound SR 132 on-ramp at North Carpenter Road via a single-point urban interchange
- Reconfiguration of the on-ramp from 6th Street, so that the ramp would access SR 99 about 2,000 feet north of its current location, and an auxiliary lane would be provided for the on-ramp

Also, both build alternatives propose a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project

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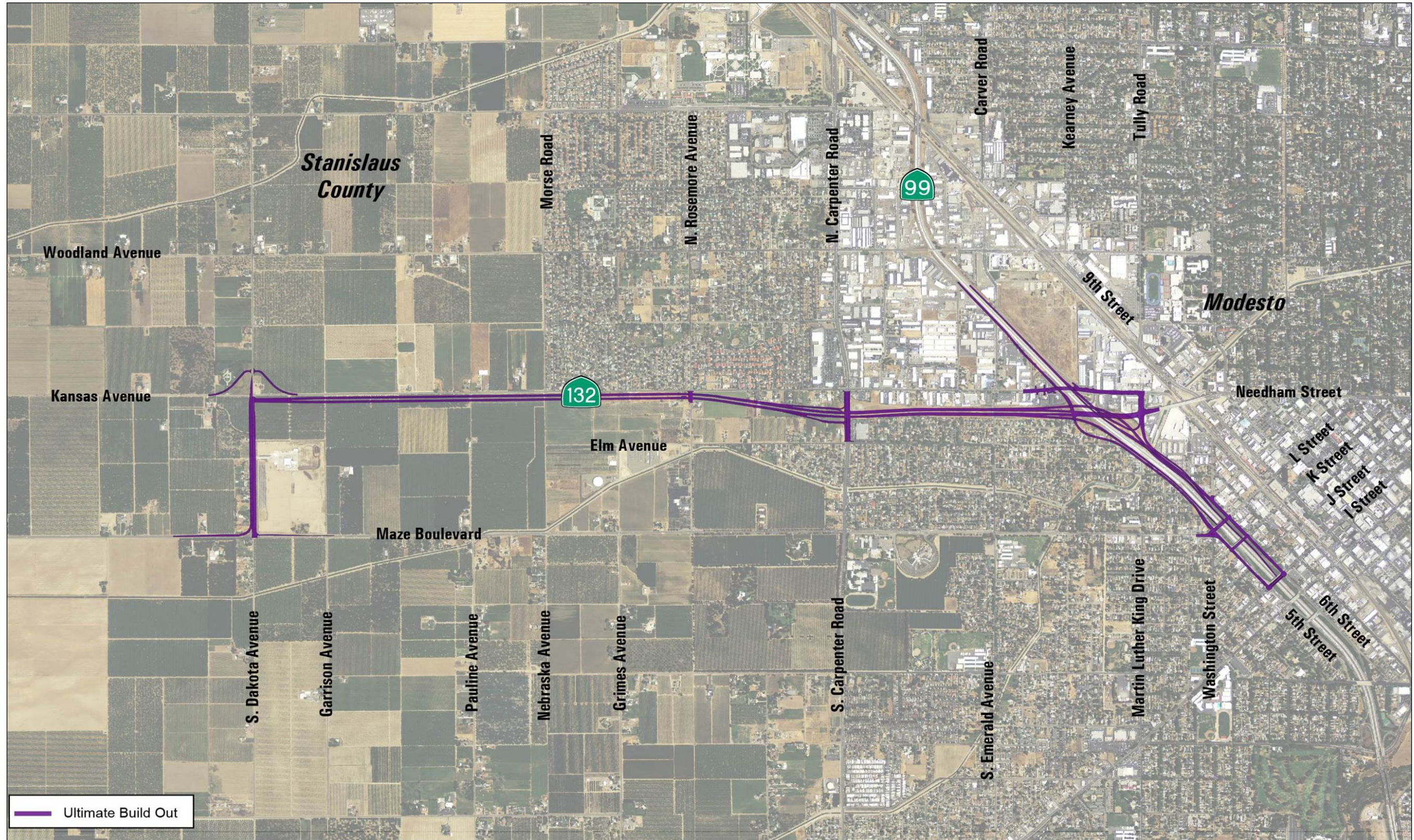


Figure 1-7: Phase 2 (Alternative 1)

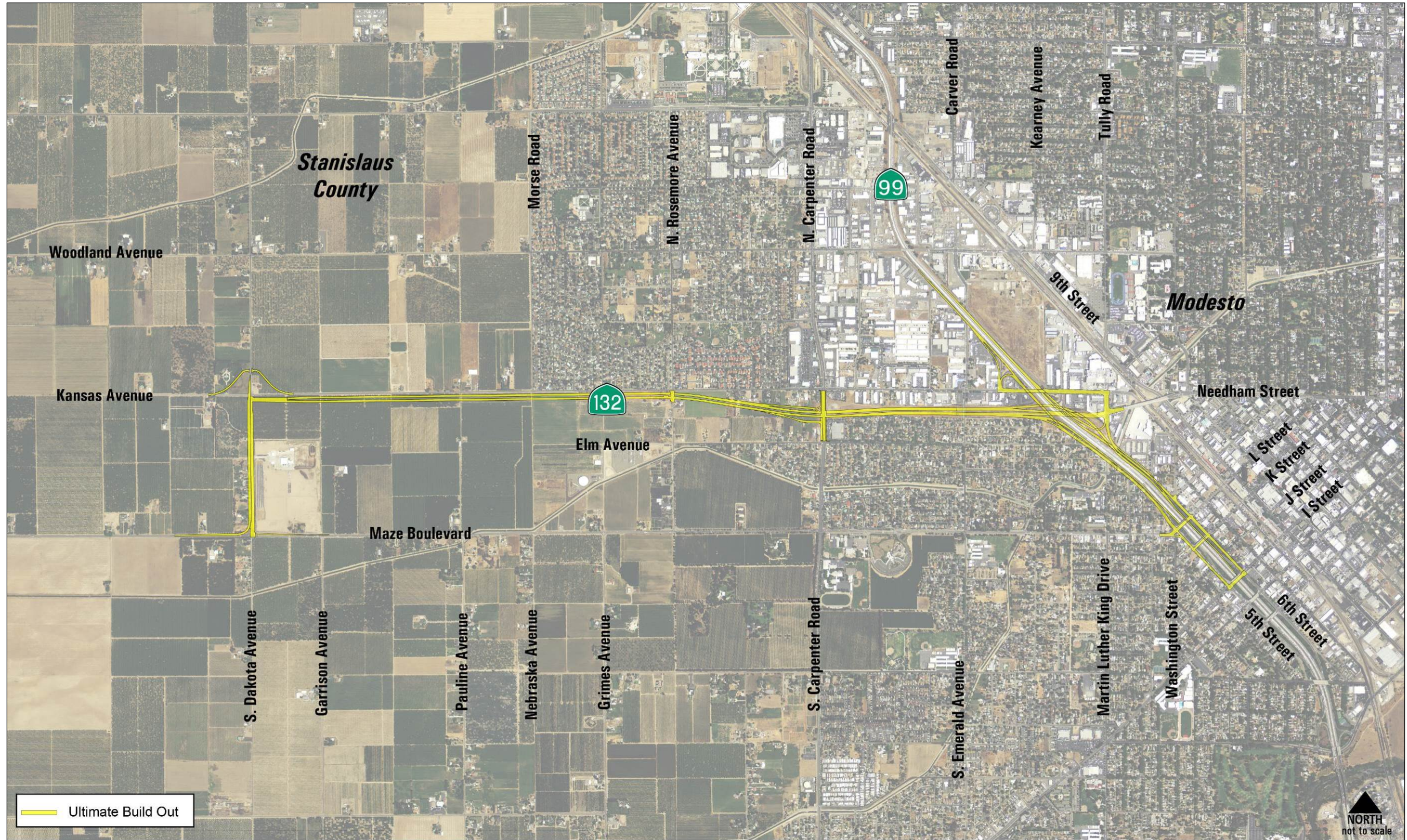


Figure 1-8: Phase 2 (Alternative 2)

Proposed Retaining Walls

When Phase 2 is built, additional retaining walls are proposed at the following locations (see Appendix F):

- Northerly side of the project from west of North Rosemore Avenue to North Carpenter Road
- Northerly side of the project, just west of North Emerald Avenue
- Northerly side of the project near the proposed touchdown of the northbound SR 99 to westbound SR 132 direct-connector ramp
- Between SR 99 and the proposed northbound SR 99 to westbound SR 132 direct-connector ramp
- Between the proposed northbound SR 99 to westbound SR 132 direct-connector ramp and the northbound SR 99 on-ramp from M Street
- Between the northbound SR 99 on-ramp from M Street and the SR 99 northbound SR 99 off-ramp to Needham Street

Drainage

Along the SR 99 alignment, Phase 2 would introduce slightly more paved surface, but the added stormwater runoff would be minimal. Similar to Phase 1, Phase 2 would incorporate bioswales and retention/detention basins to infiltrate the groundwater table with stormwater runoff. Basins will be located southwest of the Needham overpass (see Appendix F). The proposed northbound SR 99 on-ramp from Needham Street would require the relocation of the existing pumping station at SR 99 and Kansas Avenue. The proposed pumping plant would be relocated approximately 150 feet east of the existing plant. The relocated plant would be constructed within the same parcel as the existing plant.

Soil Stockpile Remediation

After Phase 1 is complete (paving the southern half of Stockpiles 1 and 2 and covering the northern half with 6 to 12 inches of clean soil), Phase 2 will pave the northern half of Stockpiles 1 and 2. At the completion of Phase 2, all of the soil would be contained within the proposed new alignment per Draft Final RAP Alternative 4 (Containment), the recommended alternative in the Draft Final RAP.

Table 1-4 lists construction start, duration, and completion dates and estimates the cost considerations under Phase 1 compared to Phase 2. The table also includes a cost comparison for each build alternative under Phase 2 only.

Table 1-4: Summary Comparison of Project Phasing and Funding

Criterion	Phase 1	Phase 2
Start of construction	2018	2026
Completion of construction	2020	2028
Project cost by phase	\$82 million	\$128 million to \$132 million
Total Project Cost	\$210 million to \$214 million ^a	

^a The range represents the estimated cost of Alternative 1 (\$210 million) and the cost of Alternative 2 (\$214 million) for comparison purposes. The total project cost includes \$1.57 million for remediation (containment described in the Draft Final RAP) of the soil stockpiles. Values reflect escalation (Phase 1 value is based on 2018 dollars; Phase 2 values are based on 2026 dollars).

1.4 Project Alternatives

This section describes the alternatives under consideration and compares differences between the alternatives. This section also explains why some initial alternatives were dropped from further consideration. The two build alternatives that were developed by the Project Development Team (which consists of Caltrans, StanCOG, Stanislaus County, and City of Modesto representatives) are evaluated by how well each meets the project's purpose and need and avoids and/or minimizes environmental impacts. Criteria used to evaluate each of the alternatives were potential impacts to human and natural resources, project feasibility, ability to meet the project's purpose and need, and overall project cost.

1.4.1 Build Alternatives

Unique Features of the Build Alternatives

Alternative 1

Alternative 1 would realign, lengthen, and raise the Kansas Avenue Overcrossing (Bridge Number 38 0086) at SR 99 and would remove the existing southbound SR 99 off-ramp to Kansas Avenue and the southbound SR 99 loop on-ramp from Kansas Avenue. Alternative 1 would also construct a 1,900-foot off-ramp from southbound SR 99 to Needham Street, which would serve as an off-ramp from southbound SR 99 to the 5th Street connector at Needham Street. The eastbound SR 132 to southbound SR 99 direct-connector ramp would cross beneath the 5th Street connection.

Figure 1-9 and Appendix F show the differences between the build alternatives.

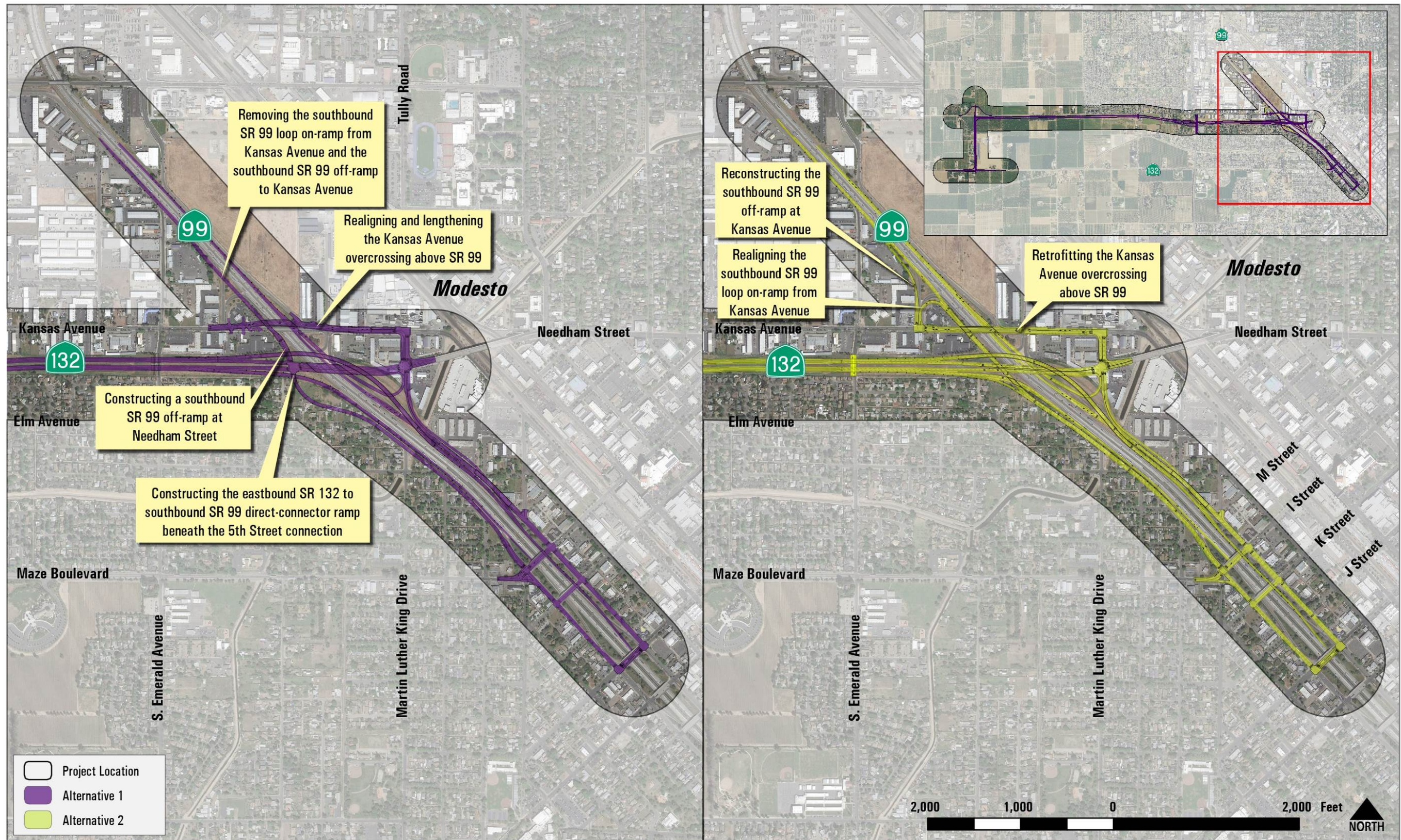


Figure 1-9: Unique Features of the Build Alternatives

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Specific to Alternative 1, this build alternative would construct retaining walls to limit right-of-way acquisition at the following locations:

- Along the southerly side of the project near the divergence of the eastbound SR 132 to southbound SR 99 direct-connector ramp
- Along the left shoulder of the southbound SR 99 off-ramp to Needham Street, wrapping around to the proposed Needham Street bridge abutment

Alternative 2

Instead of realigning, lengthening, and raising Kansas Avenue (as proposed under Alternative 1), Alternative 2 would retrofit and reconstruct the Kansas Avenue overpass above SR 99. The existing southbound SR 99 on- and off-ramps at Kansas Avenue would remain open with some design adjustments, but this build alternative would realign the existing southbound SR 99 loop on-ramp from Kansas Avenue. This build alternative would also realign the southbound off-ramp under Kansas Avenue to the 5th Street two-lane, collector-distributor roadway on the west side of SR 99. Figure 1-9 and Appendix F show the differences between the build alternatives.

Specific to Alternative 2, this build alternative would construct retaining walls to limit right-of-way acquisition along SR 99 at the following locations:

- Along the right shoulder of the southbound SR 99 loop on-ramp
- Along the left shoulder of the ramp from the eastbound SR 132 to southbound SR 99 direct-connector ramp to 5th Street
- Between the eastbound SR 132 to southbound SR 99 direct-connector ramp to SR 99 and 5th Street

Transportation Demand Management, Transportation System Management, and Mass Transit Alternatives

Transportation Demand Management Alternative

Transportation Demand Management strategies are designed to influence an individual's behavior by reducing the demand for single occupancy vehicle use (especially during peak commute periods) to maximize the existing transportation system. A Transportation Demand Management alternative normally focuses on *regional strategies* for reducing the number of vehicle trips and vehicle miles traveled, as well as increasing vehicle occupancy.

For the proposed project, this alternative considered how to accommodate projected traffic volumes on existing SR 132 (Maze Boulevard) by supporting regional agencies to promote ride sharing and by offering other transportation mode choices by way of improving bicycle/pedestrian facilities and transit facilities and services operated and maintained by the area's current transit providers.

Transit improvements would include improvements for transit riders (such as expanded bus service, the creation of a bus route and stations along the existing highway), as well as transit operators (such as bus turnouts), and shuttle service for the area. These improvements may include multi-modal projects, such as StanCOG's *Non-Motorized Transportation Plan* and other projects identified in StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy.

Traffic volumes on existing SR 132 (Maze Boulevard) are anticipated to increase substantially, despite ongoing efforts to promote ridesharing and programs to encourage more transit use and other transportation mode choices (such as bicycle/pedestrian routes). If the existing highway is not widened to accommodate future traffic volumes, severe congestion would occur that would lead to degraded operations. The Transportation Demand Management alternative also would not improve system connectivity between the existing highway and SR 99. The existing on- and off-ramp configuration would remain as currently configured and would not improve interregional and regional connectivity. Therefore, the alternative fails to meet the project's purpose and need.

Transportation System Management Alternative

Transportation System Management strategies aim to maximize the number of persons traveling in a corridor or on a facility. These strategies include traffic flow improvements, ramp metering, and traffic signal optimization. Transportation System Management emphasizes reducing traffic congestion by increasing the efficiency of existing transportation systems through infrastructure, technological and operational improvements.

This alternative considered implementing cost-effective, minor improvements to existing SR 132 (Maze Boulevard) to eliminate or close driveways, install a new median and signals, construct dedicated bicycle lanes, optimize signals, and restrict turning movements. The intent of the improvements would be to increase highway capacity to accommodate traffic volumes along the existing highway. The alternative would be similar to Alternative 5, described in Section 1.7, Alternatives Considered

but Eliminated from Further Discussion, as it would involve eliminating driveway access, installing median barriers, providing dedicated bicycle lanes, and optimizing signals.

Removing or reconfiguring driveway access would adversely impact residential and commercial properties along the existing highway, resulting in the relocation of adjacent properties in some locations. Even if driveway access issues could be resolved, the alternative could not sufficiently accommodate increases in traffic volumes, which would lead to severe congestion along the existing highway. Also, the alternative would not improve system connectivity between existing SR 132 (Maze Boulevard) and SR 99. The existing on- and off-ramp configuration would remain, and the increase in traffic volumes and deterioration of service levels would cause traffic to overflow onto SR 99, which is currently at capacity and projected to experience congestion under future conditions.

The Transportation System Management alternative would not meet the project's purpose and need. However, transportation system management improvements are assumed as part of the regional network, so each are incorporated into future conditions (2048) for all of the alternatives, including the No-Build Alternative. Some of StanCOG's additional and supporting Transportation System Management strategies are described below.

StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy details a number of Transportation System Management improvements for intersections, traffic signal installations, roadway preservation and rehabilitation, auxiliary lanes, and railroad crossings along multiple travel corridors in the vicinity of the project. The total estimated cost for all proposed roadway projects would be \$2.7 billion, with 37 percent of the total roadway budget accounting for Transportation System Management-related projects.

StanCOG completed its *Non-Motorized Transportation Master Plan* in October 2013. The plan describes the existing and proposed countywide priority bicycle and pedestrian networks, in addition to the recommended network for the unincorporated portions and each of the nine cities within the county. The plan proposed a total countywide bicycle network of 719 miles, with an estimated cost of \$234 million. Because of funding constraints, the plan identified the 10 priority projects as either Tier 1 or Tier 2 priority projects. Tier 1 projects are estimated to cost \$24.5 million for 99.7 miles, and Tier 2 would cost \$5 million for 31.5 miles. The 2014 Regional

Transportation Plan/Sustainable Communities Strategy (Amendment Number 2) has programmed \$226 million for various bicycle and pedestrian improvements, including the construction of multi-modal paths and Class IV bikeways, signage, and roadway striping. Almost half of the plan's total programmed cost (or \$122 million) would be bicycle/pedestrian improvements in Modesto. Funding sources for these improvements include Congestion Management and Air Quality Improvement Program funds, Bicycle Transportation Account funds, Safe Routes to Schools Grants, Modesto's capital facilities fees, Proposition 84 (Sustainable Community Planning grants), Community Development Block grants, local transportation funds, Regional Surface Transportation Program funds, Highway Safety Improvement Program fees, Stanislaus County public facilities fees, and development fees.

In 2009, StanCOG's Policy Board approved the *Northern San Joaquin Valley Regional Ramp Metering and High Occupancy Vehicle Lane Master Plan*, which outlined ramp metering and high occupancy vehicle lanes in San Joaquin, Stanislaus, and Merced counties. The plan would guide improvements to the region's major corridors, such as Interstate 5, Interstate 205, and SR 99. For SR 99, a number of ramp metering and high occupancy vehicle lanes were identified as medium priority projects needed in the next 10 to 20 years.

Mass Transit Alternative

The Mass Transit alternative would improve or add mass transit (for example, bus or rail) facilities to provide a broader range of transportation options to the traveling public. The alternative would require mass transit improvements on existing SR 132 (Maze Boulevard) by adding bus service routes, adding buses, and installing bus turnouts near major intersections.

Bus service is provided in the area by Modesto Area Express and Stanislaus Regional Transit. Modesto Area Express operates local and intercity bus service year-round and serves the cities of Modesto and Ceres and the communities of Salida and Empire. Stanislaus Regional Transit is operated by Stanislaus County to provide intercity and intercounty fixed route bus services to the cities of Modesto, Riverbank, Oakdale, Turlock, Patterson, Grayson, Westley, Newman, Gustine, and Merced. Currently, no bus service runs along the existing highway. The existing east-west bus routes are situated along SR 99 to either Grayson Road or West Marin Avenue/Las Palmas Avenue to serve the western areas of the county.

The Mass Transit alternative does not accommodate the projected volumes of truck traffic (21 percent of total traffic volumes) and regional commuters who are traveling to points outside of the study area along existing SR 132 (Maze Boulevard). Related to truck volumes, the alternative would not enhance the ability to transport goods and services. Because there are no direct connections, auxiliary lanes, and improved on- and off-ramps between the existing highway and SR 99, the Mass Transit alternative does not improve system connectivity. The alternative, by itself, is not consistent with local and regional land use goals and policies that have identified the project as a Tier 1 High Priority project as programmed by the 2014 Regional Transportation Plan/Sustainable Communities Strategy.

Reversible Lanes

Assembly Bill 2542 amended the California Streets and Highways code to require, effective January 1, 2017, that Caltrans or a regional transportation planning agency demonstrate that reversible lanes were considered when submitting a capacity-increasing project or a major street or highway lane realignment project to the California Transportation Commission for approval (California Streets and Highways Code, Section 100.015). The operation of reversible lanes involves switching the direction of lanes to allow traffic to flow in either direction. This approach is considered as a means of increasing traffic capacity on streets and highways during peak hours. A well-known example of reversible lanes is the Golden Gate Bridge in San Francisco. In general, reversible lanes require strong traffic patterns with clearly defined peak hours corresponding to opposite directions of travel, such as commute travel patterns. Existing and future levels of service along SR 132 between Emerald Avenue and Dakota Avenue indicate high traffic volumes in both the AM and PM peak hours (see Section 2.1.6, Table 2-17). Heavy traffic volumes in both directions regardless of the time of day, which may be the result of a combination of regional and interregional traffic combined with the high volume of truck traffic, make reversible lanes an infeasible alternative for the proposed project.

1.4.2 No-Build Alternative

The No-Build Alternative does not meet the purpose and need because existing SR 132 (Maze Boulevard) would remain a two-lane, conventional highway. The No-Build Alternative would not improve regional and interregional circulation, would not relieve traffic congestion along both existing SR 132 (Maze Boulevard) and eastward to SR 99, and would not improve operations of the existing transportation network.

No soil stockpile containment via a highway structure would be implemented under the project's No-Build Alternative. Currently, the perimeter of all three soil stockpiles is enclosed with security fencing, walls, and structures, which under the No-Build Alternative would continue to be maintained by Caltrans. Caltrans would also continue water quality monitoring and maintain the vegetative cover on each stockpile. Under the No-Build Alternative and under the oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board, Caltrans would be required to develop a separate remedial action plan for the stockpiles.

1.5 Comparison of Alternatives

The criteria used to evaluate each of the alternatives included the following: ability to meet the project's purpose and need, potential impacts to human and natural resources, project feasibility, and overall project cost.

As noted in Table 1-5, both build alternatives would meet the purpose and need by shifting most of the truck and commuter traffic onto the proposed new alignment, and improving regional circulation and operations on the local transportation network. The two build alternatives would have similar potential impacts to the surrounding area. The No-Build Alternative would have limited additional impacts to the surrounding area.

Section 1.4, Project Alternatives, provides a full description of the alternatives, as shown in Figures 1-4 through 1-9. Chapter 2, Affected Environment, Environment Consequences, and Avoidance, Minimization, and/or Mitigation Measures, explains the potential impacts for each of the alternatives.

Table 1-5: Summary Comparison of Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Meets Purpose and Need	Yes	Yes	No

Table 1-5: Summary Comparison of Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Land Use	Consistency with the Modesto General Plan	Consistent. The proposed project is in the General Plan and would be consistent with applicable General Plan goals and policies, except for <i>Circulation and Transportation Policy V-B.6[c]</i> related to Traffic Demand Management measures.		Inconsistent. The No-Build Alternative would not result in a transportation project. Therefore, no Transportation Demand Management measures would be applied.
	Consistency with the Stanislaus County General Plan	Consistent. The proposed project is in the General Plan and is consistent with applicable General Plan goals and policies, except for the <i>Agricultural Element Policy 2.3</i> and <i>Land Use Element Policy 2</i> related to conversion of agricultural land.		Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would degrade mobility within the study area and larger region. This would have a negative impact on economic and community prosperity.
	Consistency with StanCOG Regional Transportation Plan/Sustainable Communities Strategy	Consistent. The proposed project is in the 2014 Regional Transportation Plan/Sustainable Communities Strategy and is consistent with applicable Plan goals and policies.		Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would have the potential to degrade air quality and mobility within the study area and larger region. This would have a negative impact on economic and community vitality, environmental quality, mobility, and social equity.
Parks and Recreational Facilities		Temporary increases in construction noise and equipment emissions would be minor. There would be no Section 4(f) use of any park or recreational resources.		No impact
Growth		Both build alternatives are unlikely to have a measurable effect on growth and would result in minimal growth-related impacts beyond what has already been planned.		No impact
Farmlands/Agriculture/Timberlands		Conversion of 38.92 acres of prime and unique farmland and 6.7 acres of Williamson Act contract lands would occur. Farmland access would be maintained throughout the project.		No impact
Community Character and Cohesion		No impact		No impact

Table 1-5: Summary Comparison of Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Relocations/ Property Acquisitions	Business Displacements	9	7	0
	Residential Displacements	29	28	0
	Residential & Business Partial Acquisitions	58	62	0
Environmental Justice		Impacts associated with noise, visual quality, relocations, and construction would predominately occur within environmental justice populations and are considered a disproportionate adverse impact.	Impacts associated with noise, visual quality, relocations, and construction would predominately occur within environmental justice populations and are considered a disproportionate adverse impact. However, a smaller degree of visual impacts would occur compared to Alternative 1.	Benefits not realized under the No-Build Alternative, including traffic congestion relief and improved access to businesses, would disproportionately adversely affect environmental justice populations.
Utilities/Emergency Services		Utility service could be temporarily disrupted during construction, but no long-term or permanent impacts would occur. Local road lane closures and detours would occur during construction, but emergency service providers would benefit after completion of Phase 1 by increased mobility, reduced congestion, and improved access.		No utility relocations or abandonments would occur. Emergency service response times may increase because of increased traffic congestion.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Decreased travel times, increased traffic speeds, and improved levels of service along existing SR 132 (Maze Boulevard) and for most of the major intersections would be realized. The proposed new alignment would provide another east-west travel option for motorists.	Neither build alternative would directly or indirectly impact existing or planned pedestrian/bicycle facilities, except at the proposed single-point urban interchange of the new alignment with North Carpenter Road. Both build alternatives propose a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project.	Travel times would increase and level of service and vehicle speeds would degrade to unacceptable levels. Limited pedestrian and bicycle facilities exist within the study area, and no facilities are located west of SR 99 within Modesto's city limits.

Table 1-5: Summary Comparison of Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Visual/Aesthetics	High visual impact— Certain structures would degrade the visual quality of some residential areas, as well as new highway lighting, signs, tree removal (591 trees), and business and residential relocations.	Moderately high visual impact— While fewer structures and two fewer trees would be removed, Alternative 2 would still degrade visual quality of some residential areas from highway lighting, signs, tree removal (589 trees), and business and residential relocations.	No impact
Cultural Resources	<p>The State Route 132 Historic Property Survey Report was completed in December 2011. Following changes in the project's area of potential effects, additional areas were evaluated, and a supplemental Historic Property Survey Report was completed in October 2014. Extended Phase I Geoarchaeological Testing was completed in May 2017.</p> <p>Both build alternatives would require the acquisition of 0.13 acre of the northwest corner of 3530 Maze Boulevard. The potential acquisition is located outside the historic property boundary. There are no known direct impacts on Section 4(f) uses of any known resources.</p> <p>There are no historic properties affected by either of the project alternatives.</p>		No impact
Hydrology and Floodplain	Impervious surfaces would increase by 55.8 acres, which could affect the area's watershed by increasing the flow and volume of stormwater runoff entering the watershed.	Impervious surfaces would increase by 57.5 acres, which could affect the area's watershed by increasing the flow and volume of stormwater runoff entering the watershed.	No impact

Table 1-5: Summary Comparison of Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Water Quality and Storm Water Runoff	<p>Both build alternatives would result in an increase in stormwater flow and runoff volumes, therefore infiltration and retention/detention basins would be built. The increase in stormwater flow and runoff volumes, resulting from the increased impervious surface area due to construction of the proposed freeway/expressway, could negatively affect water quality. Direct impacts may involve water contamination and excessive sedimentation, nutrients, and construction debris entering receiving water bodies.</p> <p>Containment of the Caltrans Modesto Soil Stockpiles would mitigate potential water quality impacts.</p>		<p>The soil stockpiles would not be contained within a highway structure; however, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.</p>
Geology/Soils/Seismic/ Topography	<p>Both build alternatives would result in minimal geologic, soil, seismic, or topographic impacts relative to geotechnical hazards associated with liquefaction, seismic settlement, and slope stability.</p>		<p>No impact</p>
Paleontology	<p>The Modesto Formation occurs throughout the study area and is identified as high sensitivity for paleontological resources. Project excavation has the potential to impact paleontological resources.</p>	<p>The Modesto Formation occurs throughout the study area and is identified as high sensitivity for paleontological resources. Project excavation for Alternative 2 has a greater potential to impact paleontological resources than Alternative 1.</p>	<p>No impact</p>

Table 1-5: Summary Comparison of Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Hazardous Waste/Materials	<p>For these alternatives, 19 parcels that would be partially or fully acquired are known to have recognized environmental conditions (potential for contamination).</p> <p>Potential impacts from the acquisition of parcels with recognized environmental conditions, presence of agricultural chemicals, aerially deposited lead, and groundwater contamination would be less than substantial with the implementation of the appropriate avoidance, minimization, and mitigation measures.</p> <p>While there may be potential impacts from the presence of barium contaminants in three soil stockpiles, ongoing monitoring has indicated that no significant impacts have or would occur from airborne dispersion or migration to groundwater. Containment of the three soil stockpiles as construction fill material would mitigate these impacts.</p>		<p>The soil stockpiles would not be contained within a highway structure; however, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.</p>
Caltrans Modesto Soil Stockpiles	<p>Stockpile soil would be contained behind retaining walls, bridge abutments and beneath highway pavements. Monitoring of the stockpiles and stormwater runoff constituents of potential concern would continue until the project and full containment of all three soil stockpiles are complete. An Operation and Maintenance Plan and Operation and Maintenance Agreement will be required to monitor the containment remedy (e.g., the SR 132 West Project) This requires annual inspections and five year reviews of the containment remedy. In addition to stormwater monitoring, groundwater monitoring would continue. A land use covenant restricting land use and certain activities will also be required.</p>		<p>A remedial action plan would be developed, as soil stockpile containment via a highway structure would not be implemented. Caltrans would maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain vegetative cover of the soil stockpiles until remediation of the stockpiles is completed.</p>

Table 1-5: Summary Comparison of Alternatives

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Air Quality	<p>The proposed project would not lead to new or worsened violations of national and state air quality standards for particulate matter or carbon monoxide. Operational improvements would reduce precursor and criteria pollutant emissions as well as the chemicals that cause them, relative to the No-Build Alternative. A temporary increase in precursor and criteria pollutants would occur during construction.</p> <p>Dust generated during stockpile excavation would be monitored by an air monitoring plan approved by the Department of Toxic Substances Control.</p>		<p>Higher traffic congestion and lower average traffic speeds may increase precursor and criteria pollutant emissions.</p> <p>No air quality impacts from non-contained stockpiles would occur under the No-Build Alternative.</p>
Noise	Predicted future (2048) noise levels would impact 260 receivers.	Predicted future (2048) noise levels would impact 276 receivers.	Noise levels for 162 receivers would approach or exceed the noise abatement criteria in 2048.
Energy	The build alternatives would reduce overall fuel consumption when compared to existing conditions. Energy would be consumed during construction, but both build alternatives would not have substantial energy impacts.		The No-Build Alternative would cause adverse impacts related to energy consumption.
Wetlands and Other Waters	Potential direct and permanent impacts to 0.65 acre of non-jurisdictional wetlands (Waters of the State).		No impact
Animal Species	For this alternative, 21 acres of potential burrowing owl habitat would be impacted, and removal of 591 trees could impact migratory birds.	For this alternative, 21 acres of potential burrowing owl habitat would be impacted, and removal of 589 trees could impact migratory birds.	No impact
Threatened and Endangered Species	Potential impacts to the Swainson's hawk would include removal of up to 70 acres of possible foraging habitat and up to 414 trees (with low potential to support Swainson's hawk nesting and roosting).		No impact
Invasive Species	The area may benefit from covering existing invasive species with impervious surfaces (paving) and preventing further dispersal.		The area would remain predominantly covered by invasive species.
Cumulative Impacts	A cumulative impact to agriculture could occur. Cumulative visual/aesthetics and noise impacts could occur if avoidance, minimization, or mitigation measures are not incorporated.		No impact

1.6 Identification of a Preferred Alternative

The Project Development Team (Caltrans, StanCOG, Stanislaus County, City of Modesto, and consultant staff) reviewed comments provided by the public and various agencies and recommended Alternative 2 as the preferred alternative during an April 25, 2017 Project Development Team meeting. Alternative 2 has been identified as the preferred alternative because it provides the best balance between avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need. Specifically, the decision to select Alternative 2 as the preferred alternative was based upon the following:

- Alternative 2 will result in fewer impacts relative to land use, business relocations, visual quality and tree removal in comparison to Alternative 1.
- Alternative 2 would maintain the southbound SR 99 off-ramp to Kansas Avenue.

As a CEQA responsible agency, the California Department of Toxic Substances Control will make a final determination regarding Draft Final RAP Alternative 4, Containment, after Caltrans certifies the Final Environmental Impact Report. Draft Final RAP Alternative 4, Containment, is the recommended alternative in the Draft Final RAP because of the effectiveness in providing long-term and overall protection of human health and the environment, technical feasibility, cost-effectiveness, and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

1.7 Alternatives Considered but Eliminated from Further Discussion

Initially Proposed Alternative 1

The initially proposed Alternative 1 would have constructed approximately 3.5 miles of new roadway from the west abutment of the Needham Street Overcrossing Bridge to North Dakota Avenue, ultimately connecting to existing SR 132 (Maze Boulevard) via a new alignment with an S-curve as initially proposed or via the Dakota Avenue alignment as refined during the preliminary design process. Construction would have also included above-grade (elevated) segments of the highway, interchange

improvements, branch connectors, separated grade structures, the modification/replacement of existing roadway facilities, and at-grade intersections.

While this build alternative would have met the purpose and need, Alternative 1 would have had three distinct limitations. First, the initially proposed Alternative 1 would have caused additional environmental and community impacts beyond those that would result from the construction of either of the build alternatives, mainly due to the additional conversion of agricultural lands and farmlands. The build alternative would have converted 9.7 additional acres of Stanislaus County-designated agricultural land and 15.3 additional acres of prime farmland. Second, the S-curve design at the west end of the proposed project would not have been a feasible design solution for traffic operations and potential future expansion of the highway to the west, due to the potential realignment of SR 132 and construction of a new two-lane facility from Dakota Avenue to Gates Road, which is currently in the planning phase. Third, the initially proposed Alternative 1 would have had substantially higher costs. The costs associated with the construction of the S-curve are estimated at \$3.25 million (\$1.3 million capital costs and \$1.95 million right of way costs). As such, the cost of the initially proposed Alternative 1 is estimated at \$3.25 million above the cost estimated for either of the build alternatives. Therefore, the initially proposed Alternative 1 was eliminated from further discussion by the Project Development Team in March 2014.

Alternative 3

Alternative 3 would have constructed approximately 4 miles of new roadway from the west abutment of the Needham Street Overcrossing Bridge to North Dakota Avenue, ultimately connecting to existing SR 132 (Maze Boulevard) via a new alignment with an S-curve. Construction would have also included above-grade (elevated) segments of the highway, interchange improvements, branch connectors, separated grade structures, the modification/replacement of existing highway facilities, at-grade intersections, and a new public road connection.

Similar to the initially proposed Alternative 1, Alternative 3 would have met the purpose and need, but would have had three distinct limitations. First, the build alternative would have caused additional environmental and community impacts beyond those that would result from the construction of either of the build alternatives, mainly due to the additional conversion of agricultural lands and farmlands. The build alternative would have converted 9.7 additional acres of Stanislaus County-designated agricultural land and 15.6 additional acres of prime

farmland. Second, the S-curve design at the west end of the proposed project would not have been a feasible design solution for traffic operations and potential future expansion of the highway to the west, due to the potential realignment of SR 132 and construction of a new two-lane facility from Dakota Avenue to Gates Road, which is currently in the planning phase. Third, Alternative 3 would have had substantially higher costs. The costs associated with the construction of the S-curve are estimated at \$3.25 million (\$1.3 million capital costs and \$1.95 million right of way costs). As such, construction of Alternative 3 is estimated at \$3.25 million above the cost estimated for either of the build alternatives. Therefore, Alternative 3 was eliminated from further discussion by the Project Development Team in March 2014.

Alternative 5 (Widen the Existing SR 132 [Maze Boulevard])

Alternative 5 would have widened existing SR 132 (Maze Boulevard) from a two-lane, conventional highway to a four-lane highway. Construction would have also included a raised median, the modification or elimination of driveways, the implementation of left- and right-turn lanes, and at-grade signalized intersections at all major local roadways. Alternative 5 would not have used the existing Caltrans right-of-way within the route adopted for the project and would not have resulted in the containment of the soil stockpiles within a highway structure. As such, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board.

As described in the Project Development Procedures Manual (Chapter 8, Section 6), the early identification of significant environmental impacts, use of protected resources, and impacts on hazardous wastes is a crucial step in project development. The Project Development Team for the proposed project reviewed project design elements and potential environmental effects throughout the course of developing this environmental document, which began with the release of the Notice of Preparation on January 7, 2010.

Following the development of a preliminary design of Alternative 5, Environmental and Planning staff studied the design and used qualitative and quantitative analysis to determine the potential environmental effects anticipated with the construction and operation of Alternative 5. The results were presented to the Project Development Team to determine if Alternative 5 should be removed from consideration or studied further. The results of that analysis are described below in further detail. Alternative 5

would have had five distinct limitations in addition to not meeting the project's purpose and need.

First, the alternative would have substantially impacted local residents, businesses, and utilities along the existing highway. It would have impacted more than 160 properties, which would be 100 more properties than either of the two build alternatives. Also, Alternative 5 would have required an estimated 60 residential relocations in comparison to the 30 residential relocations proposed under Alternatives 1 and 2. Of the 60 residential relocations, 5 of the properties are multi-family properties. Only one multi-family property under Alternatives 1 and 2 was proposed for relocation. More than 40 business relocations would be required under Alternative 5 in comparison to the 11 and 10 proposed business relocations under Alternatives 1 and 2, respectively. Business relocations under Alternative 5 include three gas stations, two churches (the Unified Pentecostal Church and Saint Paul's Missionary Baptist Church), the Salvation Army Child Development Center and the Small World Christian School. The Saint James Orthodox Church on SR 132 (Maze Boulevard) may also require relocation if a minor change in alignment could not occur. Under Alternative 5, additional partial acquisitions would be required from Franklin Elementary School, Modesto City School, Saint Stanislaus Parish School and the Stanislaus Catholic Church, in addition to several other residential and business properties. In total, relocations proposed under Alternative 5 would be more than twice as many compared to those relocations proposed under Alternatives 1 and 2 (see Figure 1-10).

The total value of properties that would be acquired as a result of Alternative 5 is estimated at \$70.7 million. Right-of-way acquisition costs associated with Alternatives 1 and 2 are estimated to be \$22 million for each alternative.

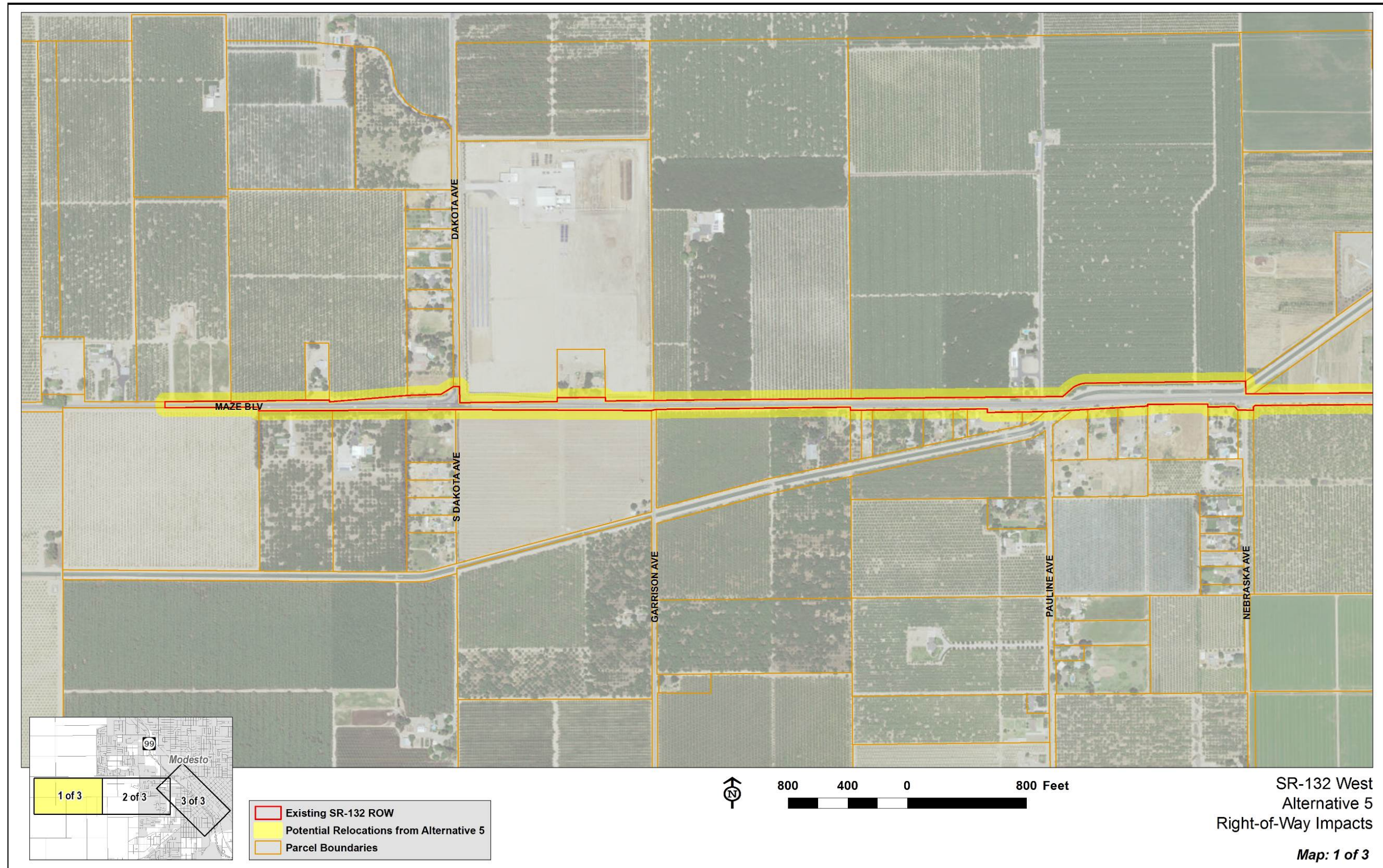
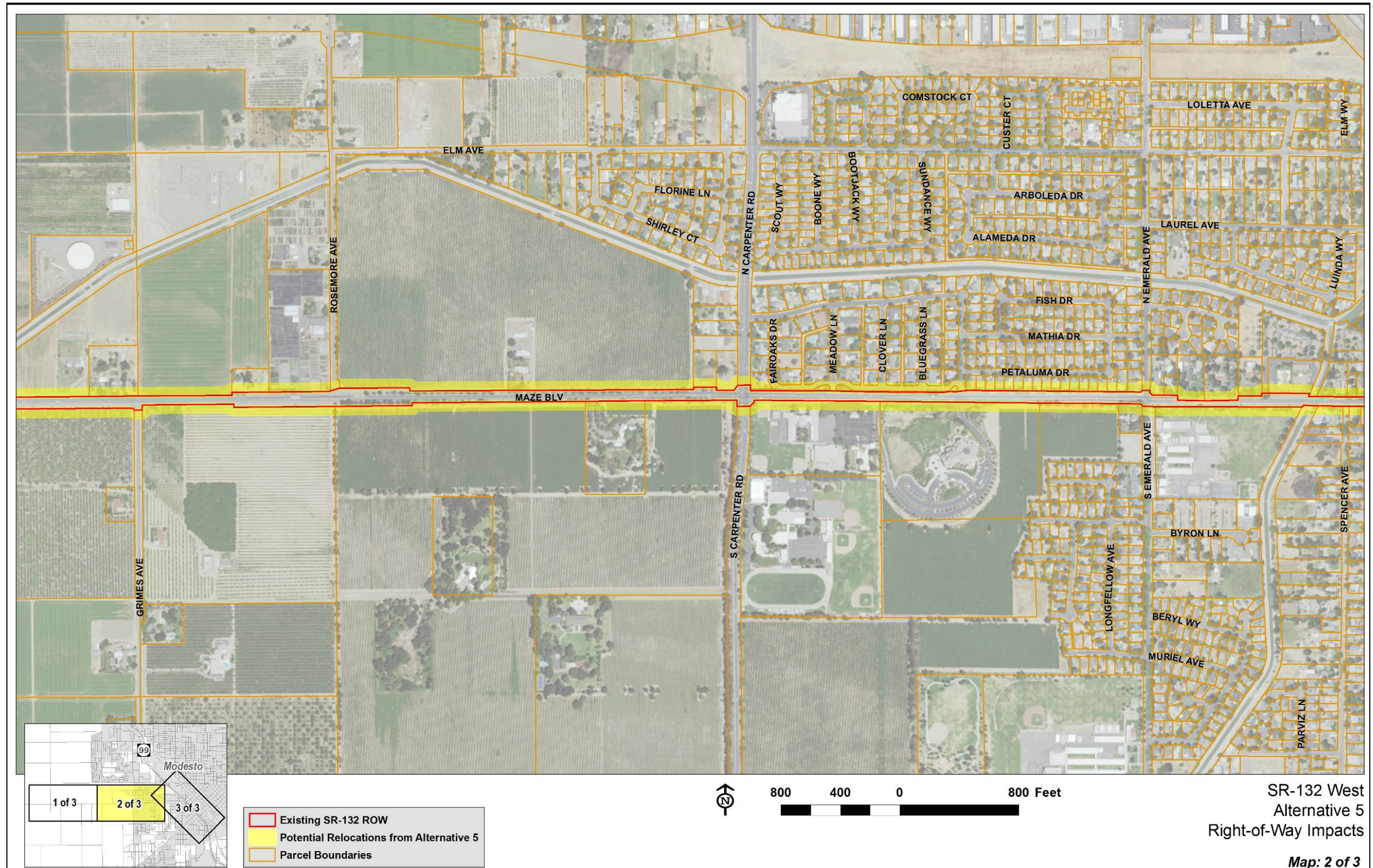
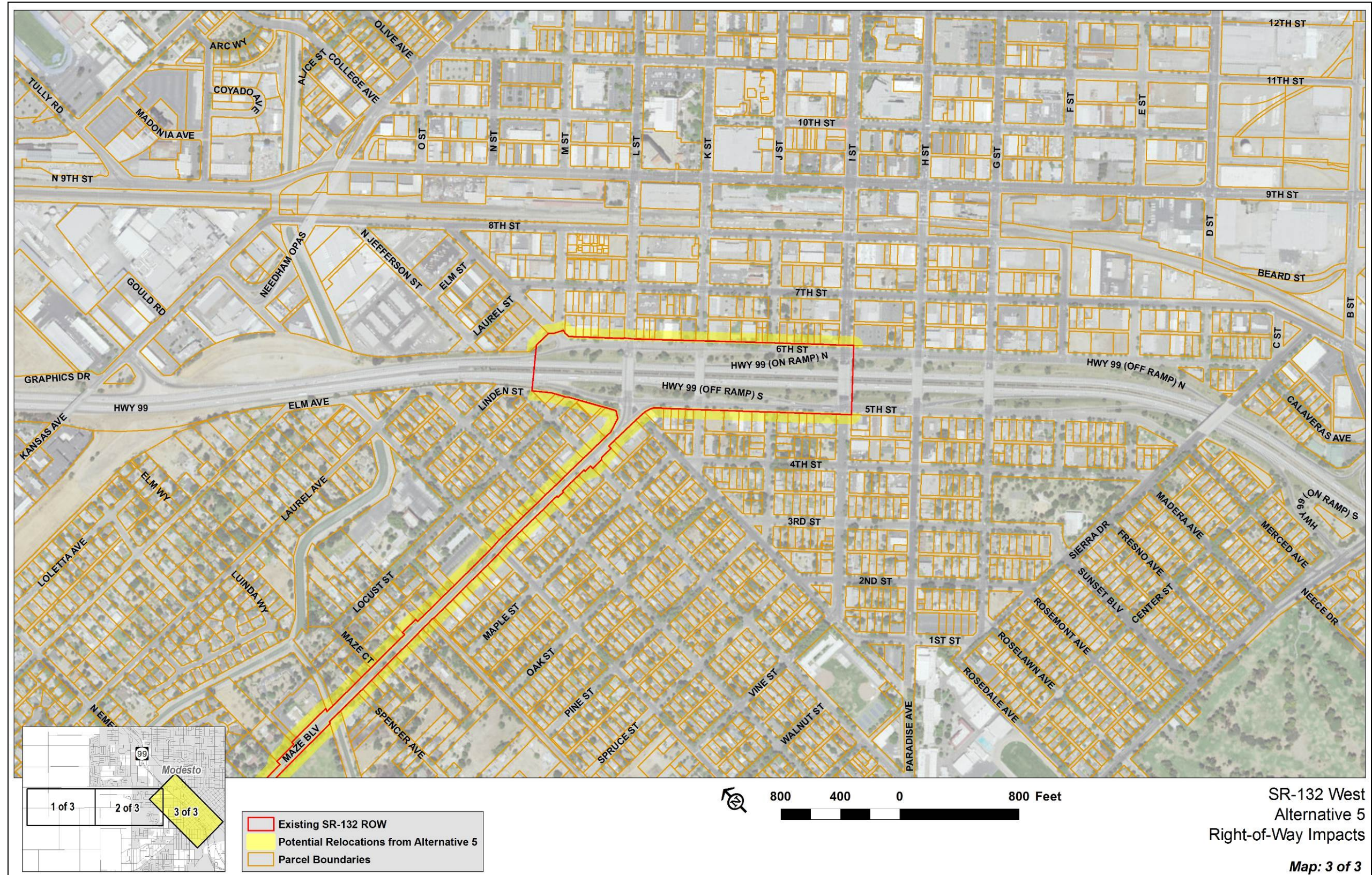


Figure 1-10: Alternative 5 Potential Relocations





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Second, Alternative 5 would not have provided system connectivity between SR 132 and SR 99 and, therefore, would not have improved regional and interregional travel. Constructing highway-to-highway connectors at the existing SR 132 (Maze Boulevard) connection to SR 99 in downtown Modesto would not have been feasible because of the substantial right-of-way impacts to downtown development and the conflicts with existing SR 99 ramps.

Third, Alternative 5 would not have accommodated a four-lane freeway/expressway facility with full access control, as identified in Caltrans and Stanislaus County planning reports, which is needed to relieve current and projected traffic congestion on the existing highway. Traffic on existing SR 132 (Maze Boulevard) is expected to increase 67 percent by 2048, and highway conditions throughout the region (conditions on SR 99, for example) would likely worsen. As detailed in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, future congestion in 2048 along the 3.3-mile stretch between Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied.

Fourth, Alternative 5 would not improve operations along the existing highway. Higher traffic volumes would result in less spacing between vehicles so that drivers would have less time to react to sudden changes in traffic flow, such as a stopped vehicle on a highway with already high levels of congestion, numerous intersections, and driveways.

Fifth, Alternative 5 would convert 10.98 acres of Natural Resources Conservation Service (NRCS) defined prime farmland (this alternative would not impact unique farmland). Although the converted acres associated with Alternative 5 would be fewer than the acres considered under Alternative 1 or Alternative 2, the soil is of much higher value than the two build alternatives. This is based on Form NRCS-CPA 106 (Farmland Conversion Impact Rating Form) submitted to Modesto Natural Resources Conservation Service that consists of impact evaluation using the following criteria: percent of a site being farmed, protection provided by state and local governments, and availability of agricultural support services nearby. The potential conversion of 38.92 acres of prime farmland anticipated under Alternatives 1 and 2 was assigned a farmland conversion impact rating of 158 points. Alternative 5, which would result in a conversion of 16.87 acres of farmland, was assigned a

farmland impact rating of 172. Alternative 5 is found to have a higher score relative to Alternative 1 and 2 in terms of the criteria listed above, thus warranting Alternative 5 as a greater risk to valuable existing agricultural operations and potential impacts to Williamson Act contract land. Therefore, the farmland conversion impact would be greater for Alternative 5 in comparison to the other alternatives.

Alternative 5 was eliminated from further discussion by the Project Development Team in July 2011 for the reasons stated above and the alternative's inability to meet the proposed project's purpose and need relative to the following:

- Improving regional and interregional circulation within Modesto and Stanislaus County
- Relieving traffic congestion along existing SR 132 (Maze Boulevard)
- Improving operations for the existing and proposed transportation network.

A technical memo documenting these factors was approved by the Project Development Team (see Appendix I).

1.8 Permits, Reviews, and Approvals Needed

The following table shows the permits, reviews, and approvals that would be required for project construction.

Table 1-6: Permits, Reviews, and Approvals Needed

Agency	Permit/Approval	Status
California Transportation Commission	Approval of New Public Road Connection at Needham Street	Submittal and approval after Final EIR certification
California Regional Water Quality Control Board	Section 401 Water Quality Certification	Submittal and approval prior to construction
	Section 402 National Pollutant Discharge Elimination System/Caltrans National Pollutant Discharge Elimination System Permit CAS000003 and CAS000002 (General Construction Permit)	Construction General Permit effective July 1, 2010; Caltrans National Pollutant Discharge Elimination System Permit effective July 1, 2013
	Approval of the stockpile Final Remedial Action Plan, Remedial Design Implementation Plan, and other approvals deemed necessary	A decision on the Draft Final Remedial Action Plan will be made after certification of the Final EIR/EA. A decision on the Remedial Design Implementation Plan will be made during the final design phase of the Project.
	Approval and acceptance of hazardous waste investigations and remediation associated with discovery of soil or groundwater contamination discovered during construction	Work plans for hazardous waste investigations will be developed following Right of Way acquisition. Investigations will be conducted prior to and during construction
State Historic Preservation Officer	Determinations of eligibility and effects upon cultural resources	<p>Concurrence letters received May 16, 2012 and March 16, 2015 (National Register of Historic Places eligibility for architectural properties); a supplemental archaeological survey, geo-archaeological investigation was completed in May 2017. The conclusion of the survey was that <i>“the APE is recommended as having a low potential for buried archaeological deposits and archaeological monitoring is not recommended.”</i></p> <p>As a result of the investigations, it was determined that there are no historic properties affected, therefore, no further action with SHPO is required.</p>
Various Utilities	Utility modification/relocation agreements	Agreements would be executed prior to construction

Table 1-6: Permits, Reviews, and Approvals Needed

Agency	Permit/Approval	Status
City of Modesto	Street tree removal permit	Submittal and approval prior to construction
City of Modesto and Caltrans	Cooperative Agreement for final design of Phase 1	To be developed during the final design phase of the project
California Department of Toxic Substances Control	Approval of the stockpile Final Remedial Action Plan and Remedial Design Implementation Plan	A decision on the Draft Final Remedial Action Plan will be made after certification of the Final EIR/EA. A decision on the Remedial Design Implementation Plan will be made during the final design phase of the Project.
San Joaquin Valley Air Pollution Control District	Air Quality Dust Control Plans	Contractor responsible to submit and obtain approval prior to construction
	Air Impact Assessment Indirect Source Review as required (Rule 9510)	City of Modesto to comply with the requirements prior to construction
San Joaquin Valley Air Pollution Control District	Asbestos National Emission Standards for Hazardous Air Pollutants Notification	Notification to be postmarked or delivered to the San Joaquin Valley Air Pollution Control District no later than 10 working days prior to beginning asbestos removal activities and/or demolition
Stanislaus County Department of Public Works	Encroachment Permit	Submittal and approval prior to construction

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter discusses the potential environmental impacts the proposed project may have on the existing environment. Avoidance, minimization, and mitigation measures are included and are listed as abbreviations in the avoidance, minimization, and/or mitigation sections. As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered, but no adverse impacts were identified. As a result, there is no further discussion of these issues in this document.

- Coastal Zones: The proposed project study area is not located near any coastal zones.
- Forested Resources (Timberlands): No timberlands are located within or near the project study area (Community Impact Assessment, June 2017).
- Mineral Resources: The proposed project would not impact any known mineral resources in the project study area (Geotechnical/Geologic Summary Report, October 2010).
- Sensitive Natural Communities: No sensitive natural communities are located within the project study area. The *State Route 132 West Freeway/Expressway Natural Environment Study* (October 2016) provides more details.
- Special-Status Plant Species: No special-status plant species were identified in the project study area. The *State Route 132 West Freeway/Expressway Natural Environment Study* (October 2016) provides more details.
- Wild and Scenic Rivers: No wild and scenic rivers are located within or near the project study area.

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017).

City of Modesto and Stanislaus County Existing Land Use Patterns

Land uses within the project study area are identified in both Stanislaus County and Modesto's general plans. Stanislaus County's General Plan identifies all land west of Morse Road as Agriculture (see Figure 2-1). The land use study area also included the existing SR 132 (Maze Boulevard) corridor from Dakota Avenue to SR 99. Land uses include rural residential farmsteads, large mechanized farms, confined animal facilities, and food and fiber processing facilities. East of Morse Road, the County has designated the area south of Kansas Avenue and west of Carpenter Road as Urban Transition (a designation designed to ensure that land remains in agricultural use until urban development consistent with a city's general plan designation is approved). Pockets of Residential (low-density housing) and Industrial land uses within Stanislaus County also exist within Modesto's General Plan boundary.

Also shown in Figure 2-1, Modesto's General Plan identifies two land uses in the study area: the Redevelopment Planning District (mostly east of North Carpenter Road) and Residential (mostly north of Kansas Avenue between Morse Road and North Carpenter Road). The Redevelopment Planning District designation focuses on Modesto's economic and community development. The Residential designation includes single-family detached and attached housing, multi-family housing, and mobile homes. Compatible uses under the Residential designation may also include schools, parks, and religious or community facilities.

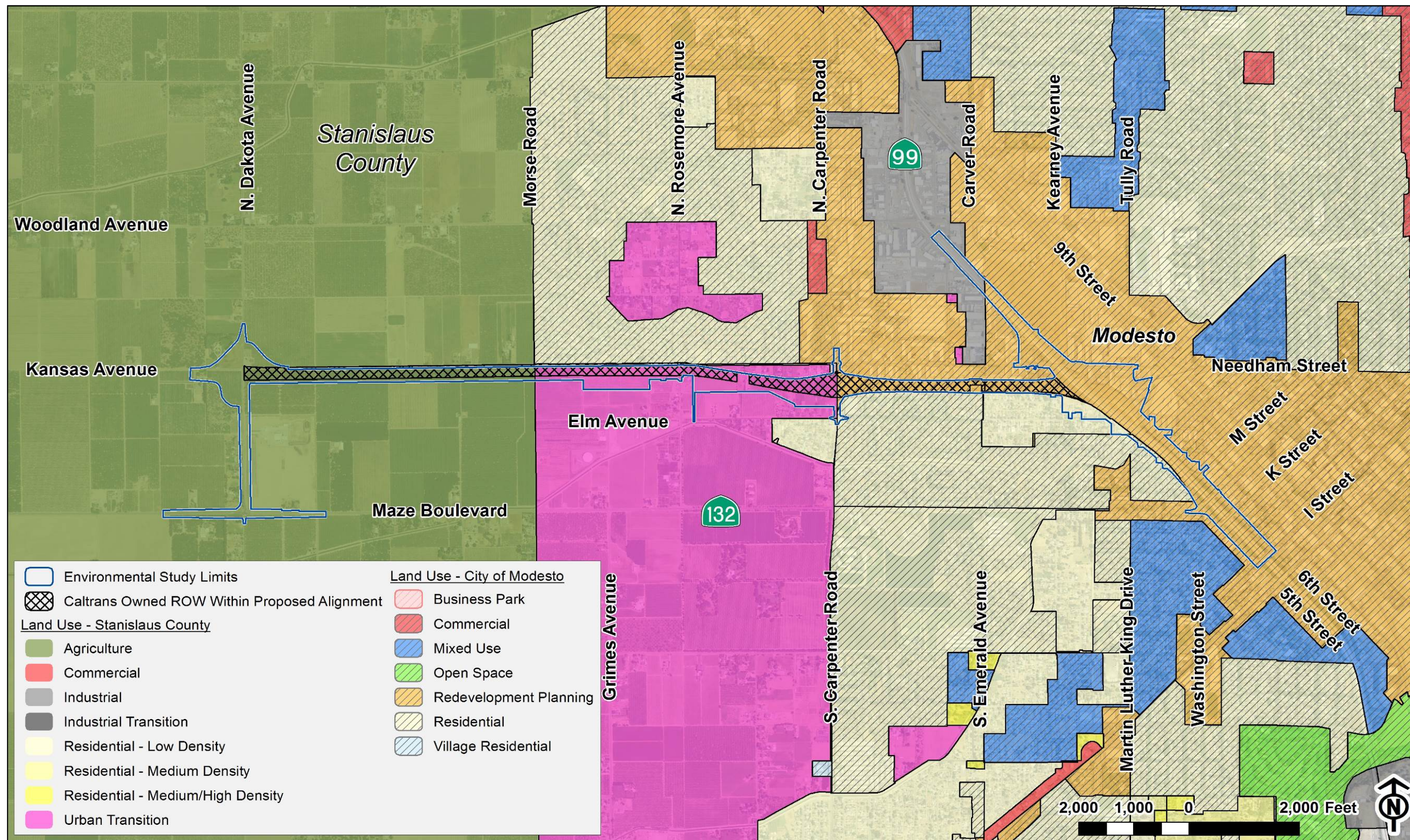


Figure 2-1: Stanislaus County and Modesto Land Use Designations

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Table 2-1 lists land use designations and acreages within the study area for Stanislaus County and Modesto.

Table 2-1: Land Use within the Project Study Area

Land Use Designation	Acreage
Stanislaus County	
Agriculture	68.60 ^a
Urban Transition	43.80 ^a
Industrial	5.90
Residential	7.04
Modesto	
Redevelopment Planning District	106.30 ^a
Residential	2.64
Business Park	0.43
Total	234.71

^a Includes Caltrans right-of-way (totaling 79 acres of the total project study area).

Source: Community Impact Assessment (August 2017)

Between North Dakota Avenue and Morse Road, Kansas Avenue crosses unincorporated Stanislaus County. This land is zoned for agricultural use on both the north and south side of Kansas Avenue. The zoning designation is intended for areas that are presently or potentially desirable for agricultural use. Land included in this designation typically possesses favorable agricultural characteristics. Residential building density normally ranges from zero to two dwellings per 40 acres in this zone. A Planned Development zone may also be consistent with this designation when it is used for agriculturally related uses or for uses of a demonstrably unique character. The portion of the project study area that is within Modesto includes areas zoned for Residential, Commercial, Industrial, and Planned Development.

City of Modesto and Stanislaus County Development Trends

Development trends within the study area and Modesto and Stanislaus County are based on information from both the City and County’s planning departments. Additional information regarding growth trends in and around the study area is further discussed in Section 2.1.2, Growth.

According to the Stanislaus County Planning Department, there are no plans for significant urban development in the northern unincorporated areas of the county except for what is noted in the Salida Community Plan, which focuses on an area

approximately 7 miles north of the project. Only two minor projects would potentially occur near the study area:

- In 2008, Stanislaus County adopted and passed a resolution approving a conservation easement for the California Department of Conservation Farmland Conservancy Program located on the Menghetti Ranch, west of Stone Avenue.
- In 2009, Stanislaus County adopted and passed a resolution approving a conservation easement for the California Department of Conservation Farmland Conservancy Program located on the Ulm Farm, east of North Dakota Avenue and near the intersection of existing SR 132 (Maze Boulevard) and Texas Avenue. The easement included two parcels and approximately 159 acres.

The only planned development within Modesto is the Kansas-Woodland Business Park, which would be just north of the study area between Kansas and Woodland avenues and along the east side of SR 99. The proposed project is currently inactive, but this remains an area for potential future development. Although Modesto's Redevelopment Planning District is designated for higher-density, mixed-use development that stimulates economic development, no major development is planned in the area.

Environmental Consequences

Build Alternatives

Both build alternatives would convert existing agricultural and scattered Urban Transition uses in Stanislaus County and vacant land (designated for redevelopment planning) in Modesto to a transportation use, thus resulting in minor direct impacts. Despite the changes, neither build alternative would greatly alter the overall land use patterns. Conversion of the land would improve mobility for both regional and local traffic and provide congestion relief.

Table 2-2 lists the total acreages to be converted under each build alternative.

Table 2-2: Land Use Conversion by Build Alternative

Land Use	Alternative 1 (acres)	Alternative 2 (acres)
Stanislaus County		
Agriculture	49.96	49.96
Urban Transition	39.01	39.01
Industrial	1.48	1.48
Residential	6.84	6.84
Modesto		
Redevelopment Planning District	71.83	71.11
Residential	2.29	2.29
Business Park	0.33	0.33
Total	171.75	171.04

Source: Community Impact Assessment (August 2017)

Impacts to land use would be similar for both build alternatives. However, Alternative 1 would result in slightly greater impacts to Redevelopment Planning District land uses. Direct project impacts for both build alternatives would include operation-related noise, air quality, and visual impacts, as well as temporary construction-related impacts to surrounding land uses. These impacts are described in the applicable sections of this document.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not convert any existing land use to a transportation use.

Avoidance, Minimization, and/or Mitigation Measures

Despite the land use changes resulting from construction of either of the build alternatives, the proposed project would not greatly alter the overall land use patterns. Benefits of the proposed project include improving regional and interregional circulation and providing congestion relief within the study area. The City of Modesto General Plan and the Stanislaus County General Plan include policies designed to improve circulation and minimize traffic congestion, and these goals cannot be accomplished without impacting some agricultural land. The analysis of farmlands impacts, addressed in Section 2.1.3, Farmlands, differs from the analysis of land use impacts, which considers land use conversion as well as consistency with applicable plans and policies for regional growth and redevelopment. Based on these

factors, neither build alternative would result in adverse impacts to land use. Therefore, no avoidance, minimization, or mitigation measures are proposed.

2.1.1.2 Consistency with State, Regional and Local Plans and Programs

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017).

The proposed project study area lies within both Stanislaus County and Modesto. The County and City jurisdictions develop and manage land use policy in the area through the use of general plans and zoning. Those documents and other regional and federal transportation reports relevant to the project's development were also reviewed.

Stanislaus County General Plan

The Stanislaus County General Plan describes improvements to SR 132 in the Circulation Element, which details that a federal grant has been secured to study ways to connect the portion of SR 132 east of SR 99 to its new proposed alignment.

Modesto General Plan

The Community Services and Facilities Element of Modesto's General Plan identifies a four-lane expressway generally aligned with Kansas Avenue. The plan also notes the area surrounding existing SR 132 (Maze Boulevard) as a future 660-acre business park. On March 25, 2014, the City Council finalized the proposed changes to the Modesto Urban Area General Plan Land Use diagram. The proposed land use diagram establishes the project description for purposes of the required environmental studies for the General Plan Amendment. Included in the amendment is an update to the transportation diagram which reflects the proposed project.

StanCOG 2014 Regional Transportation Plan/Sustainable Communities Strategy and Regional Transportation Improvement Program

StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy was approved in June 2014. The proposed project is programmed into the plan within the 2016 Regional Transportation Improvement Program, which outlines StanCOG's transportation projects eligible for funding under the state's Regional Transportation Improvement Program.

Regional Concept of Transportation Operations and ITS/Operational Improvement Plan

The Caltrans District 10 Regional Concept of Transportation Operations and ITS/Operational Improvement Plan (District 10 ITS/Ops Plan), approved in May 2017, is a strategic plan (for the counties of Stanislaus, San Joaquin, Mariposa, Merced, Alpine, Amador, Calaveras, and Tuolumne) aimed at optimizing performance and improving the safety of highway facilities through the implementation of intelligent transportation systems. The SR 132 West Freeway/Expressway Project is consistent with goals and objectives of the District 10 ITS/Ops Plan; however, given that the project is already programmed for the final design phase, it was not included in the ITS/Ops Improvements Projects Database.

Transportation Concept Reports for State Route 132

The 2014 Caltrans Transportation Concept Report is a system planning document that includes an analysis of the transportation corridor and establishes a 20-year planning concept. The Ultimate Transportation Corridor is the facility envisioned beyond the 20-year planning horizon and is identified to assist in the preservation of future right-of-way. The Ultimate Transportation Corridor is identified as a roadway segment (between Interstate 5 and SR 99) that should be expanded to a four-lane expressway, with the segment from Stone Avenue to SR 99 as a four-lane freeway.

2017 Federal Transportation Improvement Program

StanCOG's 2017 Federal Transportation Improvement Program was prepared in cooperation with Caltrans and the Federal Highway Administration to document transportation projects that require or use federal funding or are considered regionally significant, non-federal projects. The proposed project is considered a regionally significant project and is included in the 2017 Federal Transportation Improvement Program with programmed federal funding.

Environmental Consequences

Build Alternatives

Both build alternatives would be consistent with most policies in the plans listed above and in Table 2-3. Both the Stanislaus County General Plan Circulation Element and the Modesto Community Services and Facilities Element identify SR 132 in the location of the proposed project. As such, general plan amendments would not be required prior to the jurisdictions entering into a freeway agreement with Caltrans. However, the build alternatives would not be consistent with two Stanislaus County General Plan policies related to the conversion of agricultural land and Williamson

Act contract land and one Modesto General Plan policy concerning Transportation Demand Management measures. Section 2.1.3, Farmland, describes how the measures proposed to ensure the conservation of farmland and Transportation Demand Management measures, as a stand-alone alternative, were considered but eliminated from further analysis (Section 1.4, Project Alternatives). Therefore, the build alternatives would not have adverse impacts related to state, regional, or local plans and programs.

Avoidance, Minimization, and/or Mitigation Measures

Although both build alternatives could result in the conversion of agricultural land, which would be inconsistent with two land use policies in the Stanislaus County General Plan, measures are proposed under Section 2.1.3, Farmlands, to avoid, minimize, and mitigate impacts. The only other inconsistency with state, regional, and local plans and programs would be not including Transportation Demand Management measures. No avoidance, minimization, and/or mitigation measures would be required.

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
Stanislaus County General Plan		
<i>Agricultural Element Policy 2.3:</i> The County shall ensure all lands enrolled in the Williamson Act are devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land.	Inconsistent. Both build alternatives would result in the conversion of 6.7 acres of Williamson Act contract land to a transportation use.	Consistent. The No-Build Alternative would not result in the conversion of Williamson Act contract land to non-agricultural use.
<i>Agricultural Element Policy 2.7:</i> Proposed amendments to the General Plan Diagram (map) that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the County's conversion criteria.	Consistent. Both build alternatives would be consistent with all of the agricultural conversion criteria outlined in the Stanislaus County General Plan.	Consistent. The No-Build Alternative would not result in the conversion of farmland to non-agricultural use.
<i>Agricultural Element Policy 2.11:</i> The County recognizes the desire of cities and unincorporated communities to grow and prosper and shall not oppose reasonable requests consistent with city and county agreements to expand, provided the resulting growth minimizes impacts to adjacent agricultural land.	Consistent. Both build alternatives would relieve traffic congestion along an important regional and interregional route. Both build alternatives were designed to minimize impacts to adjacent agricultural lands, while still meeting the project's purpose and need.	Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would degrade mobility within the study area and larger region. This would have a negative impact on economic and community prosperity.
<i>Land Use Element Policy 2:</i> Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation and enjoyment of scenic beauty.	Inconsistent. Both build alternatives would result in the conversion of 38.92 acres of prime and unique farmland and 6.7 acres of Williamson Act contract land to a transportation use.	Consistent. The No-Build Alternative would not result in the conversion of farmland to non-agricultural use.
<i>Circulation Element Policy 2:</i> Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion.	Consistent. The purpose of both build alternatives is to enhance operations, relieve congestion, and improve regional and interregional circulation within Modesto and Stanislaus County.	Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels throughout the study area.
<i>Circulation Element Policy 4:</i> The circulation system shall provide for roads in all classifications (Freeway, Expressway, Major, Collector, Local, Minor and Private) as necessary to provide access to all parts of the County and shall be expanded or improved to provide acceptable levels of service based on anticipated land use.	Consistent. Both build alternatives would decrease travel times, increase speeds, and improve level of service along existing SR 132 (Maze Boulevard) and for most major intersections in the study area.	Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds, would further degrade to unacceptable levels throughout the study area.

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
<p><i>Circulation Element Policy 5:</i> Transportation requirements of commercial and industrial development shall be considered in all planning, design, construction, and improvements.</p>	<p>Consistent. Both build alternatives would go through commercial and industrial areas and would be designed to relieve congestion for commercial and industrial use.</p>	<p>Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels throughout the study area. This would negatively impact commercial and industrial development and transportation use.</p>
<p><i>Circulation Element Policy 7:</i> Bikeways and pedestrian facilities shall be designed to provide reasonable access from residential areas to major bicycle and pedestrian traffic destinations such as schools, recreation and transportation facilities, centers of employment, and shopping areas.</p>	<p>Consistent. Both build alternatives propose a 12-foot-wide pedestrian/ bicycle path along the east side of North Carpenter Road within the limits of the project.</p>	<p>Inconsistent. Limited pedestrian and bicycle facilities exist within the study area, with no facilities located west of SR 99 within Modesto’s city limits. The rural nature of the western portion of the study area generally necessitates that bicyclists share the roadways with motor vehicles.</p>
<p><i>Circulation Element Policy 9:</i> The County shall promote the development of inter-city and interregional transportation facilities that more efficiently moves goods and freight within and through the region.</p>	<p>Consistent. The purpose of both build alternatives is to promote intercity and interregional circulation, which would facilitate the movement of goods and freight within the study area and larger region.</p>	<p>Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels throughout the study area. This would negatively impact regional movement of goods and freight.</p>
<p>Modesto General Plan</p>		
<p><i>Community Growth Policy II-B.1[b]:</i> As the City expands and vacant land becomes developed, infrastructure such as roads, sewer, water, and storm drainage is necessary to support that development. As the City directs the extension of this infrastructure, economic development opportunities within the City’s limits should receive the highest priority for receiving such infrastructure. The City shall establish the timely provision of infrastructure to support the policies in Section II-B.2.</p>	<p>Consistent. As identified in the General Plan Amendment, proposed land uses for land next to SR 132 within the study area would be re-designated as a Business Park land use. Both build alternatives would provide improved circulation and traffic congestion relief along existing SR 132 (Maze Boulevard).</p>	<p>Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels throughout the study area. This would negatively impact economic development.</p>

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.6[a]:</i> The streets and highways system should be coordinated with Caltrans', the County's, and other jurisdictions' existing facilities and plans. The adoption of a regional expressway system by the Stanislaus Council of Governments should be supported, and the components of the regional system that lie within the City's Sphere of Influence shall be incorporated into the City's Circulation and Transportation Diagram. The expressway system shall be designed to accommodate mass transit. The City shall develop an efficient, and well-coordinated, multi-modal (rail/air/bus/bicycle/ pedestrian) transportation system.</p>	<p>Consistent. Both build alternatives would be consistent with the Caltrans-sponsored Transportation Concept Report and StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy. Although mass transit was considered as an alternative for the project, it would not accommodate goods movement, which is a vital element of the project. Accommodations for mass transit (specifically buses) traveling through the corridor and along local streets within the area would be determined during final design.</p>	<p>Not applicable.</p>
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.6[b]:</i> Transportation Control Measures shall be implemented where feasible or mandated by their agencies, to reduce vehicle miles traveled, vehicle idling, or traffic congestion. Alternatives to the drive-alone auto mode, such as mass transit, ride sharing, non-motorized transportation, and telecommuting, should be encouraged. In addition, the City shall encourage innovative means to reduce traffic congestion and enhance air quality.</p>	<p>Consistent. Although neither of the build alternatives proposes specific transportation control measures, both build alternatives would reduce vehicle miles traveled, idling, and congestion, while not leading to new or worsened violations of national or state air quality standards. Both build alternatives would also encourage non-motorized transportation in the form of pedestrian and bicycle use in the area of North Carpenter Road.</p>	<p>Inconsistent. The No-Build Alternative would lead to increased vehicle miles of travel, hours of delay, idling, and congestion, all of which could potentially increase air quality impacts and degrade mobility within the study area and larger region.</p>
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.6[c]:</i> Transportation Demand Management measures are encouraged to directly affect trip makers' choice of travel mode and the routes and time of day for trips. Transportation Demand Management has as its purpose the reduction in the number of vehicle trips being made on the street network. Typical types of Transportation Demand Management measures would be promotion of transit, carpooling or van pooling, non-motorized transportation, and pricing of parking to make these alternative modes of transportation more attractive and cost competitive.</p>	<p>Inconsistent. Neither build alternative would apply Transportation Demand Management measures. Such measures were considered as a separate alternative but they would not meet the project's purpose and need to improve system connectivity.</p>	<p>Inconsistent. The No-Build Alternative would not apply Transportation Demand Management measures.</p>

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.6[f]</i>: The highest possible levels of service for all transportation modes (vehicle, transit, pedestrian, and bicycle) shall be maintained on City roadways, consistent with the financial resources reasonably available to the City and without unreasonably burdening property owners or developers with excessive roadway improvement costs. On roadways where the level of service is expected to exceed level F, the City should consider mitigation measures other than road widening, such as the addition of bicycle lanes, improved pedestrian access, improved transit service, and the establishment of walkable development patterns.</p>	<p>Consistent. Both build alternatives would decrease travel times, increase speeds, and improve level of service along existing SR 132 (Maze Boulevard) and for most major intersections in the study area. Both build alternatives propose a 12-foot-wide pedestrian/ bicycle path along the east side of North Carpenter Road within the limits of the project.</p>	<p>Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels throughout the study area.</p>
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.6[o]</i>: The City shall provide a balanced, feasible, and well-maintained system of transportation for motorized and non-motorized modes.</p>	<p>Consistent. Both build alternatives propose a 12-foot-wide pedestrian/ bicycle path along the east side of North Carpenter Road within the limits of the project.</p>	<p>Inconsistent. Limited pedestrian and bicycle facilities exist within the study area, with no facilities west of SR 99 within Modesto’s city limits. The rural nature of the western portion of the study area generally necessitates that bicyclists share the roadways with motor vehicles.</p>
<p><i>Community Services and Facilities: Circulation and Transportation Policy V-B.7[b]</i>: The City may allow individual locations to fall below the City’s level of service standards in instances where the construction of physical improvements would be infeasible, be prohibitively expensive, significantly impact adjacent properties or the environment, significantly impact non-motorized transportation systems, or have a significant adverse effect on the character of the community. To the extent feasible, the City shall strive for level of service D on all streets and intersections.</p>	<p>Consistent. Both build alternatives would decrease travel times, increase speeds, and improve level of service along existing SR 132 (Maze Boulevard) and for most major intersections in the study area.</p>	<p>Inconsistent. Under the No-Build Alternative, travel times would increase and level of service and vehicle speeds would further degrade to unacceptable levels for most major intersections throughout the study area.</p>

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
<p><i>Environmental Resources and Open Space: Agricultural Resources Policy VII-D.4[d]:</i> Where necessary to promote planned City growth, the City shall encourage development of those agricultural lands that are already compromised by adjacent urban development or contain property required for the extension of infrastructure or other public facilities, before considering urban development on agricultural lands that are not subject to such urban pressures.</p>	<p>Consistent. Both build alternatives would use existing Caltrans right-of-way south of Kansas Avenue and land next to existing roadways and developments to minimize the impacts to agricultural lands.</p>	<p>Consistent. The No-Build Alternative would not result in the conversion of farmland to non-agricultural use.</p>

Table 2-3: Consistency with State, Regional, and Local Plans and Programs

Land Use/Transportation Goal	Build Alternatives	No-Build Alternative
StanCOG 2014 Regional Transportation Plan/Sustainable Communities Strategy		
<p><i>Mobility.</i> Improve the ability of people and goods to move between desired locations; and provide a variety of transportation choices.</p> <p><i>Social Equity.</i> Promote and provide equitable opportunities to access transportation services for all populations and ensure all populations share in the benefits of transportation improvements and provide a range of transportation and housing choices.</p> <p><i>Economic and Community Vitality.</i> Foster job creation and business attraction, retention, and expansion by improving quality of life through new and revitalized communities.</p> <p><i>Environmental Quality.</i> Consider the environmental impacts when making transportation investments and minimize direct and indirect impacts on clear air and the environment.</p> <p><i>Health & Safety.</i> Operate and maintain the transportation system to ensure public safety and security; and improve the health of residents by improving air quality and providing more transportation options.</p> <p><i>System Preservation.</i> Maintain the transportation system in a state of good repair, and protect the region’s transportation investments by maximizing the use of existing facilities.</p>	<p>Consistent. Both build alternatives would be consistent with the goals of the Plan by providing improved mobility of people and goods and fostering economic and community vitality via improved regional and interregional circulation within Stanislaus County and Modesto. Improved circulation and enhanced transportation access would also relieve congestion for local residents, leading to improved social equity for those traveling in and around the study area. Both build alternatives would not lead to new or worsened violations of national or state air quality standards.</p>	<p>Inconsistent. Increased traffic congestion and lower average traffic speeds associated with the No-Build Alternative would have the potential to degrade air quality and mobility within the study area and larger region. This would have a negative impact on economic and community vitality, environmental quality, mobility, and social equity.</p>
StanCOG 2017 Federal Transportation Improvement Program		
<p>The program is a compilation of transportation projects that require or utilize federal funding or are considered regionally-significant, non-federal projects. Non-federal projects are included in the Federal Transportation Improvement Program for federal informational and air quality analysis purposes.</p>	<p>Consistent. The proposed project is considered a regionally-significant project and is included in the 2017 Federal Transportation Improvement Program with programmed federal funding.</p>	<p>Inconsistent. The No-Build Alternative is not included in the Federal Transportation Improvement Program.</p>

2.1.1.3 Parks and Recreational Facilities

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017). Parks and recreational resources are defined as any park, recreational facility, open space area, recreational bikeway, and other recreational trail in or around (within a half-mile of) the project study area.

Four parks lie within a half-mile of the project study area, as noted in Table 2-4. Two of the four parks have associated recreational facilities (a youth center, auditorium, or other recreational facility). The study area also has one Class I bike route, which is a paved path separated from a street or roadway.

Table 2-4: Parks and Recreational Resources within the Study Area

Facility	Name	Location	Amenities
Park and Recreational Facility	Mellis Park/King-Kennedy Memorial Center	601 South Martin Luther King Drive (2,300 feet from the project)	Approximately 9 acres with a lighted softball field, youth ball field, two basketball courts, picnic facilities, playground, and restrooms. The center has an auditorium, kitchen, and a classroom.
	Cesar E. Chavez Park/Maddux Youth Center	619 Sierra Drive (1,000 feet from the project)	Approximately 7 acres with two basketball courts, picnic facilities, playground, and restrooms. The Maddux Youth Center includes a youth boxing facility, indoor basketball court, and game room.
Park	J.M. Pike Park	1601 Princeton Avenue (1,900 feet from the project)	Approximately 6.5 acres. Facilities include a baseball field, two basketball half courts, picnic facilities, a playground, softball and soccer fields.
	Charles M. Sharp Park	1900 Torrid Avenue (900 feet from the project)	Approximately 7 acres. Amenities include a basketball court, picnic facilities, playground, restrooms, softball field, and volleyball court.
Class I Trail Bike Route	Virginia Corridor Trailway	College Avenue - Woodrow Avenue (1,500 feet from the project)	Not applicable

Source: Community Impact Assessment (August 2017)

Environmental Consequences

Build Alternatives

Access to parks, recreational facilities, and trails would be maintained during construction and future operations of either build alternative. As noted in Table 2-4, each of the park facilities and the trail would be a minimum of 900 feet from the project. Therefore, construction-related activities would result in temporary increases

in noise and equipment emissions as described in Section 2.2.6, Air Quality, and Section 2.2.7, Noise. Potential impacts to parks are also evaluated pursuant to Section 4(f) of the U.S. Department of Transportation Act. See Appendix B of this document for specific information about Section 4(f).

Any construction-related noise or air quality impact would be minor, however, given the distance of the project to each resource and the temporary nature of disturbance. Applying the standard rule of noise reduction when a distance is doubled, the loudest piece of construction equipment (such as the hydraulic brake ram that would produce 90 A-weighted decibels of noise at 50 feet) would result in noise levels less than 66 A-weighted decibels at 800 feet. The existing noise level in this area (at Noise Analysis Area 3) is 67 A-weighted decibels (see Section 2.2.7, Noise). Construction equipment use would be intermittent throughout the course of a normal workday. Standard best management practices for construction-related air quality and noise impacts would be implemented to reduce any temporary construction impacts as described in Section 2.2.6, Air Quality and Section 2.2.7, Noise. Operation of the proposed project would not have any impacts on parks, recreational facilities, or trails. Therefore, the build alternatives would not directly or indirectly affect parks, recreational facilities, or trails within the study area.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and would, therefore, not have direct or indirect impacts on parks and recreational areas within the study area.

Avoidance, Minimization, and/or Mitigation Measures

Because neither build alternative would result in permanent adverse impacts to parks, recreational facilities, or trails, no additional avoidance, minimization, and mitigation measures are required.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which established the steps necessary to comply with NEPA, require evaluation of the potential environmental effects of all proposed federal activities and programs. This includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action or at some time in the future. Council on Environmental Quality

regulations (40 Code of Federal Regulations 1508.8) refer to these consequences as indirect effects. Indirect effects may include changes in land use, economic vitality, and population density, which are all elements of growth.

CEQA also requires the analysis of a project's potential to induce growth. The CEQA Guidelines (Section 15126.2[d]), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment...."

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017). The proposed project would go through urban, urban fringe, and rural (agricultural) land uses through Stanislaus County and Modesto.

Stanislaus County does not have future land use designations, but the County's General Plan has several growth-related policies, most of which are connected to environmental and service constraints. Regarding proposed development, two minor projects (listed in Section 2.1.1, Land Use) could potentially occur near the study area. These two projects are conservation easements that protect farmland from future development. There are no other county projects currently planned near the study area.

Growth and future development in Modesto are guided by two policies: economic development and maintaining a sound fiscal base. Modesto also does not have future land use designations; however, the City is in the process of preparing a General Plan Amendment to identify transportation corridors that have economic development potential, are primarily mixed-use development, and can provide improved travel mode options. Most changes to the land use diagram would be within the northern portion of Modesto, which would be northeast and outside the geographic area of the project. Changes to land uses near the project study area include land within the eastern portion of the study area that would be re-designated from a Redevelopment Planning District to an Industrial land use. Also, land west of Morse Road (outside Modesto's city limits but within the City's sphere of influence) and east of North Dakota Avenue would be re-designated to a Business Park land use. (The sphere of influence is an area that Modesto intends to annex and develop at some point in the future.) Based on the proposed General Plan Amendment, Modesto would encourage

future commercial and industrial development within these areas; however, no development has been proposed at this time, as noted in Section 2.1.1, Land Use.

To ensure that Modesto is responding appropriately to growth pressures, the City regularly conducts a review of its Urban Area Growth Policy to assess Modesto's inventory of vacant and agricultural land with infrastructure for future development. As part of its review, Modesto evaluates comprehensive planning districts, which are areas identified for future analysis and considered as locations with growth potential. Two of these districts sit within the vicinity of the project study area. The College West Comprehensive Planning District is roughly 2 miles north of the project study area along the west side of SR 99 between Standiford Avenue and Briggsmore Avenue. The second district, the Highway 132 Comprehensive Planning District, includes a portion of the project study area and sits between Kansas Avenue and California Avenue (to the north and south) and Nebraska Avenue and South Carpenter Road (to the west and east).

Growth pressures and anticipated growth within Stanislaus County, while still high compared to the rest of the state, have slowed in recent years with current projections forecasting population to be 589,000 persons by 2020. The estimated population growth rate for Stanislaus County from 2010 to 2020 is projected to be 1.1 percent, whereas the population growth rate for the State of California is 0.9 percent. Previous growth projections indicated a county population of 700,000 persons by 2020. Current projections forecast the population to be 589,000 persons by 2020.

Although the City of Modesto has experienced growth over the past two decades with a 14.6 percent increase in population between 1990 and 2000, growth slowed to a 6.5 percent increase between the years 2000 and 2010. Despite the slowed growth rates in Stanislaus County and the City of Modesto, they are still projected to be greater than the overall growth rate for the state. However, it is expected that incorporated cities would have higher population growth rates than Stanislaus County.

According to the StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy, growth would be centered within existing urban areas, and StanCOG would strive to create more mixed-use developments and increase multi-modal transportation funding.

Environmental Consequences

Growth inducement, the environmental consequence of growth, is the relationship between constructing a project and the opportunity for growth within both the project study area and the larger geographical area. This relationship can either support planned growth or lead to unplanned growth. Although a transportation project may affect the amount, location, and rate of growth in an area, market demand for new development, the availability of infrastructure (such as sewers and water), local and regional economic trends, and governmental policies would also contribute to potential growth. All of these factors are necessary when assessing the growth potential for an area.

Table 2-5 lists the first-cut screening factors developed to determine the likelihood of growth-inducing impacts from the project. Based on the following assessment, it was determined that further analysis for either a no-build or build future development scenario was necessary (see Table 2-5).

Table 2-5: Growth-related Screening Factors and Evaluation

Screening Factor	Evaluation Discussion
Accessibility	The proposed project would construct a new alignment on Caltrans right-of-way north of existing SR 132 (Maze Boulevard). The new alignment (with improved circulation, congestion relief, and enhanced operations) would create new access to less developed areas in the western portion of the study area and increase access efficiency throughout the study area by improving travel speeds and times and increasing the level of service for area roadways and intersections (see Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities). However, the new facility would be access controlled, thus general accessibility to, from, and within the study area would not change. Additionally, a shift in accessibility to development in the area (for example, employment and shopping centers) would not occur, and the existing highway would remain accessible under its current configuration.
Project type, location, and growth pressure	The proposed project type would be a new highway on new alignment. The location of the project study area consists mostly of an urban setting (built-out land use) in the eastern portion to urban/suburban fringe (undeveloped parcels next to an urban area) and a rural setting in the western portion of the study area. Transportation projects in urban areas surrounded by rural or fringe land uses generally have higher growth pressures as population and economic development generates demand to convert rural areas to developed uses. On the eastern end of the project study area, growth pressure would be low because the urban area is already built out, and no new development is proposed in the foreseeable future (see Step 2 following the table). As for the western portion of the study area, since route adoption in 1956, the area has not experienced substantial growth. Although growth pressure is anticipated to occur with the project, land conversion restrictions within agricultural zones and on Williamson Act contract lands are expected to minimize growth pressures.

Table 2-5: Growth-related Screening Factors and Evaluation

Screening Factor	Evaluation Discussion
Foreseeable growth	The proposed project could induce minimal growth under either build alternative. There is limited existing and planned infrastructure in the area, regional and local population and economic projections are less than previously forecasted, and land use controls (Williamson Act contract land and agricultural development land use policies) are in place within Stanislaus County to prevent growth beyond what is already planned within the county and city. Also, only minor development is being proposed at the current time and would occur with or without the project. Under the no-build scenario (detailed following the table), increased congestion, constrained mobility, degrading level of service, and access restrictions would limit growth-induced impacts.
Growth and its impact on resources of concern	Growth-related impacts to surrounding resources of concern would likely involve impacts to cultural resources, farmlands, natural communities, and special-status species.

Note: The assessment of screening factors is based on the “first-cut” screening process outlined in Caltrans’ *Guidance for Preparers of Growth-related, Indirect Impact Analyses*.

Step 1: Review Previous Project Information and “Right-Size” the Analysis

A qualitative analysis was completed based on both the Stanislaus County and Modesto general plans and interviews with the County and City planning departments. The qualitative analysis evaluated potential growth in and around the project study area.

Step 2: Identify the Potential for Growth for Each Alternative

Two future development scenarios were analyzed for growth potential.

Future Development Scenario, No-Build Alternative

Under the No-Build Alternative, the eastern portion of the project study area would continue to experience low-growth potential because of its urban and developed nature. The only foreseeable change in land use would be the re-designation of land from a Redevelopment Planning District to an Industrial use. The western portion of the study area would remain mostly rural in nature, but Modesto’s urban fringe would push farther into Stanislaus County’s agricultural land. Land west of Morse Road and land east of North Dakota Avenue would be re-designated to a Business Park land use for development at some undefined time in the future. Modesto would continue to assess its inventory of vacant and agricultural lands for future development through its Urban Area Growth Policy, and both the College West and Highway 132 Comprehensive Planning districts would be evaluated as areas for potential economic development.

Future Development Scenario, Build Alternatives

Both build alternatives are analyzed together because of the similarities concerning accessibility; type, location, and growth pressure; foreseeable growth; and potential impact on resources of concern. Both build alternatives would result in changes to existing land use designations by converting current land uses to a transportation use that could potentially result in growth-related impacts on sensitive resources (such as cultural resources, farmlands, natural communities, and special-status species) within the study area and the larger geographical area of the project. Both build alternatives would improve circulation, decrease congestion, and enhance operations, which would increase access efficiency throughout the study area. Within Modesto, the build alternatives could improve access to the College West Comprehensive Planning District, the Highway 132 Comprehensive Planning District, and any future development within the Redevelopment Planning District or Business Park land uses. Through improving travel speeds and times and increasing the level of service for area roadways and intersections, improved access could lead to potential future economic growth or development (growth-related impacts) in these areas. For Stanislaus County, improved access could lead to growth pressure on the urban fringe and rural land in the western portion of the study area.

Planned land use changes as part of Modesto's General Plan Amendment in the eastern, more urbanized portion of the project study area could benefit from improved regional and interregional circulation, reduced traffic congestion, and enhanced operations under either build alternative. But, this area would likely not experience growth-related impacts because it is already fully developed. The western portion of the study area, which is mostly designated for agricultural land use and a portion of which is proposed as a Business Park land use at some undetermined time in the future, could experience an increased rate of planned growth because of the project.

However, growth-related impacts under both build alternatives would be minimal based on both Modesto's and Stanislaus County's general plans and interviews of staff at each respective planning department. For the western portion of the study area, there is limited existing infrastructure (sewer and water) that would support development, and future expansion of this infrastructure is not planned for the area. Stanislaus County also has only two foreseeable projects/developments proposed at this time—two conservation easements. Within Modesto, there are no formal development plans for the two comprehensive planning districts. Furthermore, the proposed Kansas-Woodland Business Park is currently on hold, and no developments are planned within the Redevelopment Planning District. Also, regional population

and economic projections are lower than previously forecasted, and the County has noted that urban development in the area is planned to occur in only the Community of Salida, which is outside the project's geographical area.

Lastly, the western portion of the project study area (an area more likely to experience growth pressure) is not open to development because of agricultural zoning and Williamson Act contracts. The Stanislaus County General Plan protects agricultural land (particularly prime and statewide important farmland) and allows conversion only for exceptional needs.

As such, neither build alternative is likely to have a measurable effect on growth for the foreseeable future. Therefore, both build alternatives would result in minimal growth-related impacts beyond what has already been planned within Stanislaus County and Modesto and would have no impact on the listed resources of concern in the area.

Avoidance, Minimization, and/or Mitigation Measures

Both build alternatives would result in minimal growth-related impacts. Therefore, no avoidance, minimization, and mitigation measures are required.

2.1.3 Farmlands

Regulatory Setting

NEPA and the Farmland Protection Policy Act (7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance (see Appendix I, Farmland Conversion Impact Rating Form).

CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017). Accordingly, coordination with the Natural Resources Conservation Service was conducted throughout the planning process for the project.

It was determined that the proposed project study area includes prime farmland, but does not include unique farmland or farmland of statewide or local importance. In addition, there are farmland parcels within the study area that are encumbered by a Williamson Act preserve contract, which provides property tax relief to owners of farmland and open-space land in exchange for a 10-year agreement that the land would not be developed or converted to another use. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops. Land of statewide or local importance is farmland other than prime or unique, that is of statewide or local importance for the production of food feed, fiber, forage, or oilseed crops, as determined by the state. The study area is composed mostly of established and fruiting walnut and almond trees. The land also consists of silage and hay crops. Figure 2-2 shows these agricultural lands. A complete methodology for calculating acreages is included in the *State Route 132 Community Impact Assessment Report*.

Stanislaus County encompasses 1,515 square miles, or 969,600 acres of land. According to the California Department of Conservation Farmland Mapping and Monitoring Program's 2015 Farmland Conversion Report, Stanislaus County includes 346,910 acres of prime and unique farmland. According to the California Land Conservation Act's 2014 Status Report, Williamson Act contracts within Stanislaus County accounted for 683,619 acres, more than half of the land within the county.

Environmental Consequences

Build Alternatives

Implementation of either build alternative would result in the conversion of prime farmland to non-agricultural use. Both build alternatives would also conflict with existing agricultural operations and impact Williamson Act contract land. In June 2017, Form NRCS-CPA-106 (Farmland Conversion Impact Rating Form) was submitted to the Modesto Natural Resources Conservation Service to calculate the relative impacts of each build alternative on farmlands (see Appendix I). The site

assessment evaluation is based on criteria, such as the percent of a site being farmed, the protection provided by state and local governments, and the availability of agricultural support services nearby. Site assessment scores are used to estimate the value of the impacted farmland and can add up to a maximum of 260 points.

Both build alternatives would result in the conversion of 38.92 acres of prime farmland and 6.7 acres of farmland encumbered under Williamson Act contracts. This represents a 0.01 percent and 0.002 percent decrease in countywide totals of prime and unique farmland and Williamson Act contract lands, respectively. Table 2-6 lists direct acreage impacts to prime and unique farmland and Williamson Act land and compares these impacts to the total acres within Stanislaus County.

Table 2-6: Farmland Conversion by Build Alternative

Build Alternative	Total Land Converted (acres)	Prime Farmland (acres)	Percentage of Prime Farmland	Williamson Act Contract Land (acres)	Percentage of Williamson Act Contract Lands	Farmland Conversion Impact Rating
Alternative 1	173.62	38.92	0.01%	6.7	0.002%	158
Alternative 2	172.99	38.92	0.01%	6.7	0.002%	158

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-Type Projects) (June 2017) in the *State Route 132 Community Impact Assessment* (August 2017).

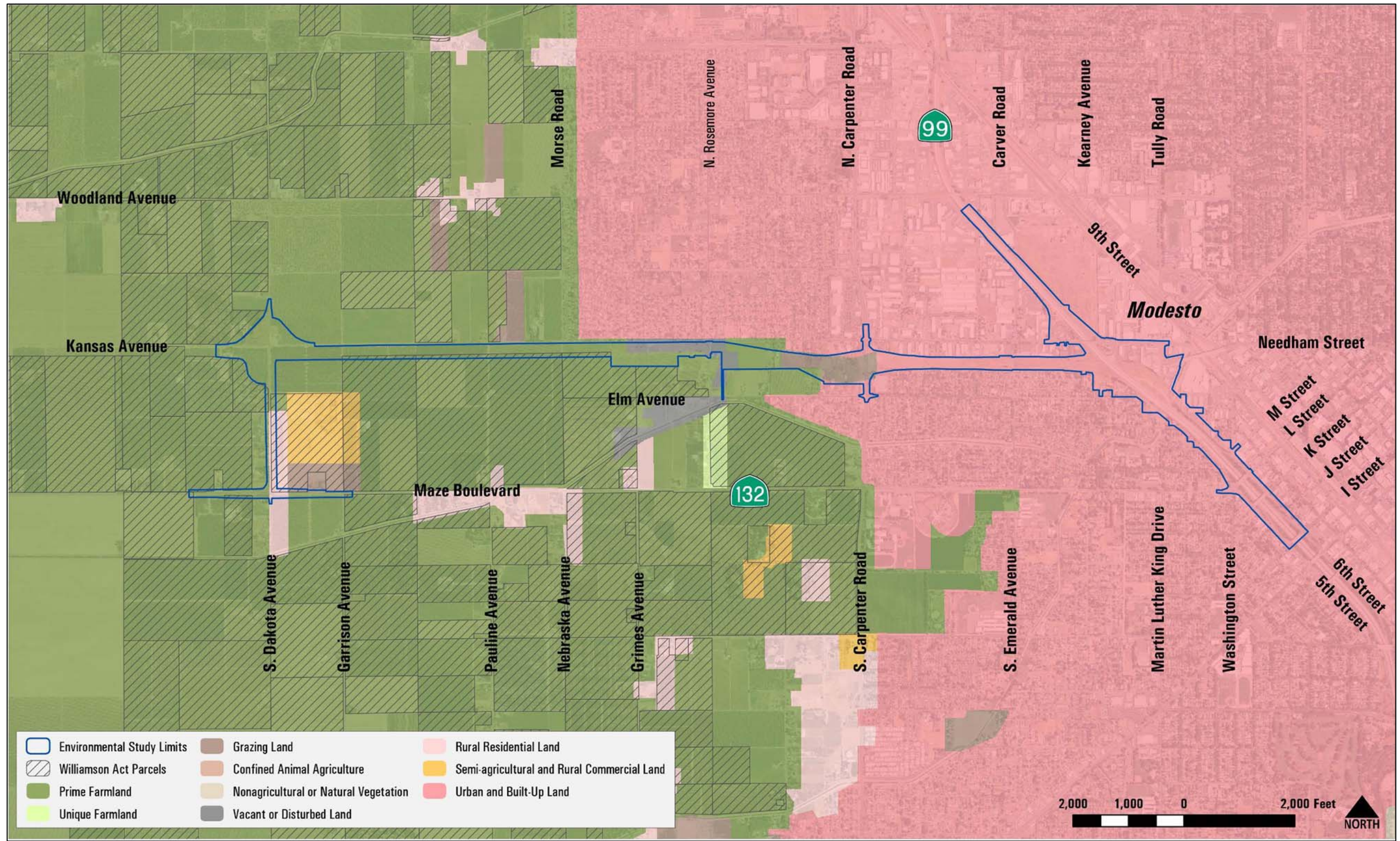


Figure 2-2: California Important Farmlands and Williamson Act Land in the Study Area

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While there are no farmlands of statewide importance in the study area, both Alternative 1 and Alternative 2 would result in a Farmland Conversion Impact Rating score of 158. The score is based on 12 criteria related to factors such as farm size, on-farm investments, availability of farm support services, distance to urban areas, percentage of land currently being farmed, state and local government protection, and other factors. The maximum score possible is 260 points. A score of 160 points is used as the minimum impact rating indicator for the Natural Resources Conservation Service and others to evaluate and consider the impacts to farmland as a result of a proposed alternative. For scores 160 and above, there is the potential for an adverse impact. The measures detailed below would minimize farmland impacts in the study area.

Nine parcels under Williamson Act contracts were identified within the project limits. Both build alternatives would acquire 6.7 acres from parcels under Williamson Act contracts. The conversion of small slivers, or linear strips, of land to transportation use should not affect the Williamson Act contract status of the remainder parcels because the amount of acreage remaining on the parcel is substantial enough to avoid cancellation of the contract.

Both build alternatives would impact irrigation ditches at some locations. The build alternatives would also split some existing agricultural operations, which may result in increased access times for farm equipment and livestock. Bisected parcels would be identified during the project's final design, and design features would be incorporated to minimize the impact and maintain access to affected properties.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and, therefore, would not contribute to direct or indirect impacts related to prime farmland, unique farmland, farmland of statewide or local importance, or Williamson Act contract land.

Avoidance, Minimization, and/or Mitigation Measures

Both build alternatives would result in the conversion of 38.92 acres of prime farmland and 6.7 acres of farmland protected under Williamson Act contracts. This represents a 0.01 percent and 0.002 percent decrease in countywide totals of prime and unique farmland and Williamson Act contract lands, respectively. Given the total acreage of prime and unique farmlands and Williamson Act contract lands and the

farmland impact rating score of 158 for both build alternatives, this is a minimal impact within Stanislaus County.

During construction of the proposed project, temporary impacts related to access and irrigation ditches are anticipated. Implementation of the following measures would reduce temporary impacts to farmland, which may occur during construction:

- FARM-1 The contractor would restrict all construction materials, tools, and vehicles within the right-of-way for the project.
- FARM-2 The contractor will evaluate each irrigation facility and re-construct and/or upgrade irrigation ditches, and install irrigation pipelines damaged during construction.
- FARM-3 During final design, the City of Modesto would coordinate with property owners and agricultural operators to incorporate design features to maintain property access and operation.
- FARM-4 The contractor would compensate for the loss or damage to crops resulting from construction activities within areas temporarily impacted during construction.

2.1.4 Community Impacts

2.1.4.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969 (NEPA) 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. Code 4331[b][2]). The Federal Highway Administration in its implementation of NEPA (23 U.S. Code 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.

Per the California Environmental Quality Act, an economic or social change by itself is not considered a significant effect on the environment. But, 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 the proposed project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report*, completed in August 2017. The affected environment of a community is largely based on boundaries, subdivision, demographics (population, housing, income, and economics), and community features, all of which are described further below.

Neighborhoods/Community

A community represents a group of people rooted in a defined geographic place and whose daily lives involve contact with and dependencies on other members of the community. Such contact and relationships may be shared at community facilities (schools, common paths of travel, and use of daily shopping and services) or by common social characteristics that help establish formal or informal organizations or activities. Community cohesion is the degree to which residents have a “sense of belonging” to their neighborhood or a strong attachment to neighbors, groups, or institutions, usually as a result of continued association over time. New transportation projects can potentially bisect and disrupt cohesive communities.

During the 1980s, residential development occurred mostly in the eastern portion of the study area, while the western portion contained mostly agricultural properties along existing SR 132 (Maze Boulevard), as it does today. Because the State had already purchased some of the land for a future realignment of SR 132, development to the east took place mostly north of Kansas Avenue where there are two residential neighborhoods from east of Morse Road to North Carpenter Road. Another neighborhood sits to the south along Elm Avenue from east of Shirley Court to SR 99 (the Elm Tract neighborhood). Though other residential developments lie in and near the study area, these three neighborhoods best represent the concept of community.

Based on addresses gathered during the four public information/neighborhood meetings/open houses for the project and data from the U.S. Census, all three neighborhoods have roughly the same number of residents, housing units (most of which are single-family structures), and households with two or more people residing in each unit, all of which can be indicators of community cohesion. Other potential indicators are the number of owner-occupied houses compared to renter-occupied houses, in addition to the number of families and ethnic characteristics of each neighborhood. About two-thirds of the homes within the Elm Tract neighborhood and the neighborhood north of Kansas Avenue and east of North Rosemore Avenue are owner-occupied. This compares to over three-fourths of the homes being owner-

occupied in the neighborhood north of Kansas Avenue and west of North Rosemore Avenue. Families (two or more people in a home) make up about four out of every five households in each of the three neighborhoods, and the ethnic characteristic of each neighborhood is approximately the same as the larger study area (see Table 2-7). Based on these indicators, the three neighborhoods provide a framework for a community and a sense of place and commonality for residents. Living in close proximity, neighbors share not only roads and transportation services but also community facilities; they also have a common social character and engage in local activities together.

Population and Ethnicity Characteristics

Table 2-7 lists the total population, race, and ethnic characteristics of the study area in comparison to Modesto and Stanislaus County.

Table 2-7: Area Population, Race, and Ethnicity Characteristics

Demographic	Study Area	Modesto	Stanislaus County
Total Population	17,672	201,165	514,453
White	55.4%	65.0%	65.5%
Black or African American	5.8%	4.2%	2.9%
American Indian and Alaska Native	2.3%	1.2%	1.1%
Asian	6.2%	6.7%	5.1%
Native Hawaiian and Other Pacific Islander	0.9%	1.0%	0.7%
Some Other Race	22.8%	15.5%	19.3%
Two or More Races	6.6%	6.3%	5.4%
Total Minority	44.6%	35.0%	34.5%
Hispanic or Latino	49.2%	35.5%	41.9%
Not Hispanic or Latino	50.8%	64.5%	58.1%

Note: The 2010 Census asked respondents to identify their race and ethnicity based on their own perception of their racial and ethnic identity. Ethnicity is defined as a population that shares common characteristics such as religion, traditions, culture, language, and/or tribal or national origin. As such, people who identify themselves as Hispanic or Latino can be of any race. For the purposes of this study, the minority population is all “non-white racial groups only,” based on the 2010 Census Tract categorization that Hispanic/Latino is not a race.

Source: Community Impact Assessment (August 2017)

Housing Characteristics

Table 2-8 defines the overall housing characteristics for Stanislaus County and Modesto.

Table 2-8: 2012 Area Housing Characteristics

Geographic Area	Number of Housing Units	Vacancy Rate	Number of Housing Units Projected in 2023 ^a	Percentage of Single-family Homes ^b	Median Rent
Modesto	73,918	7.6%	82,711	72.9% ^c	\$997
Stanislaus County	179,176	7.4%	205,396	78.6%	\$978

^a Projected housing units in 2023 are based on the 2014 to 2023 Net New Housing Units calculated by the Department of Housing and Community Development and StanCOG's Housing Needs Assessment.

^b This percentage includes both attached and detached single-family homes. The remainder of the total includes multi-units, mobile homes, and farm labor/migrant housing units.

^c Per Modesto's draft *Housing Element*, the average home price in Modesto is approximately \$140,000.

Source: Community Impact Assessment (August 2017)

The California Department of Housing and Community Development administers housing allocations for each region in California as part of a statewide mandate to address housing issues related to future growth. From January 1, 2014 to June 30, 2023, an additional 21,330 housing units would be needed to accommodate projected household growth within Stanislaus County. This represents a 9.6 percent increase in units for Modesto and an 11.9 percent increase in units for Stanislaus County. Stanislaus County anticipates the following housing unit distribution: 5,225 very low-income housing units, 3,350 low-income housing units, 3,670 moderate-income housing units, and 9,085 above moderate-income housing units.

Economic, Income, and Business Characteristics

The economy within the project area can be characterized as relating to both agriculture and professional services. While the agricultural industry dominates the unincorporated areas of the project study area, the retail (13.6 percent), education and health care (25.5 percent), manufacturing (10.8 percent), and arts, entertainment, recreation and accommodation and food service (8.8 percent) industries are most prominent in Modesto. Major manufacturing employers in the region include E&J Gallo Winery, Memorial Medical Center, Modesto City Schools, and Seneca Foods. As for other economic indicators, Table 2-9 lists the overall labor force and unemployment rates for the area.

Table 2-9: 2012 Area Economic Characteristics

Economic Indicator	Modesto	Stanislaus County
Labor Force	95,519	242,072
Unemployment	14,738 (9.6%)	37,836 (9.8%)

Source: Community Impact Assessment (August 2017)

Table 2-10 presents income information for the project study area, Modesto, and Stanislaus County.

Table 2-10: Area Household Income and Population Below the Poverty Level

Geographic Area	Median Household Income^a	Percentage of Population Below Poverty Level
Study Area	\$41,179	23.6%
Modesto	\$49,205	19.5%
Stanislaus County	\$49,866	19.2%

^a Median household income is in 2012 inflation-adjusted dollars.

Source: Community Impact Assessment (August 2017)

Established businesses in the study area are generally east of North Carpenter Road, and many of these businesses depend on freeway and roadway access. Business types are typically retail, including restaurants, automotive, and lodging. One commercial manufacturing business (Foster Farms Dairy) is next to the study area. As noted above, agricultural-related businesses make up most of the economy in the western portion of the study area.

Community Facilities

Numerous community facilities (schools, emergency services, and utilities) sit within a half-mile of the study area. As shown in Figure 2-3, most of these facilities are within Modesto and the eastern portion of the study area. It should be noted that the community impacts study area also included the existing SR 132 (Maze Boulevard) corridor from Dakota Avenue to SR 99.



Figure 2-3: Community Services and Facilities in the Study Area

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Environmental Consequences

Neighborhoods/Community Impacts: Build Alternatives

Because it would sit on existing Caltrans right-of-way for most of the new alignment, neither build alternative would bisect the existing subdivisions/neighborhoods within the project study area. While both build alternatives would require the relocation and acquisition of some businesses and residences (see Section 2.1.4.2, Relocations and Real Property Acquisition), displacements and acquisitions would occur on the periphery of the neighborhoods (primarily the Elm Tract neighborhood) and within areas west of SR 99. The relocations would not introduce a geographical gap or division to existing neighborhoods.

Also, neither build alternative would separate local residents from community facilities or prevent access to community services. Local residents and the surrounding community would experience a change in (potentially enhanced) quality of life from increased circulation, congestion relief, and improved operations of the transportation network. This would, in turn, improve access to businesses, residences, and community services and facilities.

Neighborhoods/Community Impacts: No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and would not create any new physical barriers to community cohesion that would divide, disrupt, or isolate neighborhoods or residents. Therefore, the No-Build Alternative would not impact community cohesion or local neighborhoods in the study area.

Housing Impacts: Build Alternatives

Both build alternatives would result in tenant- and owner-occupied residential relocations and partial acquisitions (see Section 2.1.4.2, Relocations and Real Property Acquisition). Because of the project's urban setting, the acquisition and removal of existing housing would not likely have an effect on the total housing stock in Modesto or its neighborhoods. Both build alternatives may result in a decrease of residential property values where partial acquisitions would occur because of the encroachment of the project's right-of-way, the reduction in property square footage, and/or the increase in traffic noise. Properties next to residences that would be acquired may also have property values affected. However, beneficial impacts to property values would result from less truck traffic on residential streets and congestion relief throughout the study area.

Housing Impacts: No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not result in additional housing needs or changes in property values other than what may result because of increased traffic congestion and decreased circulation within and near the study area.

Economic, Income, and Business Impacts: Build Alternatives

Implementation of either build alternative would improve east-west travel within the study area, which would enhance regional and interregional circulation and highway operations. These improvements would benefit local and regional commerce by providing faster and more efficient transportation of goods and services throughout the region. However, short-term economic and business impacts would occur from business displacements, potential loss of tax revenue, and changes to business access.

Alternatives 1 and 2 would displace nine and seven businesses, respectively, including a governmental agency, several automotive shops and commercial warehouses, and a restaurant, all of which are further described in Section 2.1.4.2, Relocations and Real Property Acquisition. Because businesses would be relocated, whether within Modesto or the unincorporated portions of Stanislaus County, impacts to long-term employment are not anticipated.

Businesses in the project study area, both on the east and west sides of SR 99 and along Kansas Avenue, have been established with the existing freeway access ramps in mind. Phase 1 of the project involves construction of a new connection between SR 99 and SR 132 in Modesto just south of the Kansas Avenue Overcrossing. The proposed project would require closure of some existing ramps, modification of some existing ramps, and construction of some new ramps, all of which may affect surrounding businesses because of the change in freeway traffic circulation patterns.

Relocation outside the immediate vicinity of the project study area would be considered if replacement property were not available because of zoning or other constraints. A decrease in local and business tax revenue could occur, potentially leading to a loss of revenue from permanent and partial acquisitions of residential and business properties. However, the loss of city or county taxes would be very small in proportion to current tax revenues. Until the relocation decisions are finalized, impacts to tax revenue as a result of businesses relocations cannot be quantified.

Access to businesses in the eastern portion of the study area has been oriented to SR 99 and the existing on- and off-ramps. The two build alternatives would require changing or closing some existing ramps and constructing new ramps. Surrounding businesses would be impacted from the change in freeway traffic circulation patterns. The northern driveway for the Harley Davidson Motorcycle dealership would be closed, but the driveway along North Carpenter Road would remain open. Access to Westamerica Bank on North Carpenter Road may also need to be closed. A design exception may be considered to allow the driveways to remain open or modified to mitigate impacts, but exceptions would not be determined until final design. The changes to existing ramps are necessary to provide acceptable freeway traffic operations and to maintain the local road access to SR 99.

Alternative 1

Alternative 1 would realign, lengthen, and raise the Kansas Avenue Overcrossing. The build alternative would also remove the existing southbound SR 99 off-ramp to Kansas Avenue and the southbound SR 99 loop on-ramp from Kansas Avenue. Removing the SR 99 off-ramp could affect access for businesses in the vicinity. A new SR 99 access configuration at the Needham Street Overcrossing would result in out-of-direction travel for patrons and employees of businesses located nearby. Businesses may also experience a potential reduction in freeway-related traffic.

Because the Kansas Avenue overpass would be replaced, the profile of Kansas Avenue would be raised several feet, which would possibly require driveways close to the bridge to be closed or moved. This could make access to the affected properties more difficult.

Alternative 2

Under Alternative 2, the southbound SR 99 off-ramp to Kansas Avenue would remain open, but the northbound SR 99 on- and off-ramps would be closed. Southbound freeway traffic would be affected as the existing southbound SR 99 on-ramp from Kansas Avenue would be changed with an on-ramp to a collector-distributor ramp (a type of road that parallels and connects a freeway's or highway's main travel lanes to a frontage road or on-ramp) that would become 5th Street. From 5th Street, traffic continuing onto southbound SR 99 would have to enter at the H Street on-ramp. Businesses in this location may be impacted if motorists choose to use services with more traditional freeway access rather than the new access.

Economic Impacts: No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not directly affect the local or regional economy. Indirect and long-term economic effects could result from worsening congestion, loss of mobility, and reduced access to businesses in the project study area. This would likely have an adverse impact on local and regional businesses and the overall economy in the area.

Community Facilities Impacts: Build Alternatives

No community facilities would be directly impacted by either build alternative. Access to community services and facilities would be maintained throughout construction. Alternative 1 and Alternative 2 would not adversely affect local residents from accessing community services and would not have any impact on the number of students attending school. Local residents and commuters would benefit from increased mobility and access improvements to businesses, residences, and community services and facilities.

Community Facilities Impacts: No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not directly impact any community facilities within the project study area.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of measures to reduce impacts to housing and businesses is discussed in Section 2.1.4.2, Relocations and Real Property Acquisitions.

2.1.4.2 Relocations and Real Property Acquisition

Regulatory Setting

Caltrans' Relocation Assistance Program 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 Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons would not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. See Appendix D for a summary of the Relocation Assistance Program.

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. Code 2000d, et seq.). See Appendix C for the Caltrans Title VI Policy Statement.

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report* (August 2017) and the revised *Relocation Impact Report (Universal Field Services, Inc., August 2017)*.

Property types found within the project study area (and located within Modesto's city limits) are composed of residential (mostly single-family residences) and commercial properties (e.g., warehouses, restaurants, hotel), with a small number of industrial properties and places of worship. Section 2.1.4.1, Community and Character Cohesion, describes the general family characteristics (minority, ethnic, family, and income levels) of the households being potentially relocated or partially acquired. The area just west of Modesto, which is under Stanislaus County jurisdiction, is mostly agricultural and single-family residential properties. Right-of-way acquisition would affect the Elm Tract neighborhood, businesses and residents northeast of SR 99 and west of North Washington Street, and the area south of Kansas Avenue along the proposed new alignment right-of-way.

Environmental Consequences

Build Alternatives

Relocation impacts are among the most sensitive of community-related impacts associated with transportation projects. The relocation of families from neighborhoods, or businesses from their existing locations, affects not only the relocatees, but also those who remain in the affected neighborhood and those who live in the new areas where the relocatees would live. Determination of a partial acquisition versus a full acquisition (a relocation impact) was completed by experienced right-of-way staff after evaluation of proposed project impacts on each parcel in accordance with Caltrans right-of-way manual policies. Right-of-way impact maps are attached in Appendix F and provide further details on the locations to be impacted.

Table 2-11 lists the proposed full residential relocations for both build alternatives. A full residential relocation is required when access to the property would be removed by the project or the proximity of the project's structures would encroach on the property's setbacks as determined by Stanislaus County and Modesto.

Table 2-11: Residential Relocations by Build Alternative

Residential Unit Type	Alternative 1	Alternative 2
Owner occupants of single-family residences	10	10
Tenant occupants of single-family residences	12	11
Tenant occupants of multi-unit residences*	2*	2*
Owner occupants of mobile homes	0	0
Tenant occupants of mobile homes	5	5
Total Units	29	28

* There is only one multi-unit property (a duplex), but two residences will be impacted per alternative.

Source: Relocation Impact Report (August 2017)

Table 2-12 lists the proposed full business relocations for both build alternatives. Similar to residential relocations, a full business relocation is required when access to the property would be removed by the project or the proximity of the project’s structures would encroach on the property’s setbacks as determined by Stanislaus County and Modesto.

Table 2-12: Business Relocations by Build Alternative

Business Type	Alternative 1	Alternative 2
Construction	0	0
Manufacturing	3	3
Retail	0	0
Commercial/Industrial	5	3
Government	1	1
Agriculture (Farms)	0	0
Vacant	0	0
Total	9	7

Source: Relocation Impact Report (August 2017)

In addition, 58 partial acquisitions will be required for Alternative 1 and 62 partial acquisitions for Alternative 2. This number includes both residential and business parcels, but does not include parcels owned by the State of California, Stanislaus County, City of Modesto, or Modesto Irrigation District. Partial acquisitions result when only a portion of a property may be needed for the project, and that portion would not be enough to close access, encroach on the property’s setback, or require relocation.

Concerning business relocations or acquisitions, there are numerous warehouse facilities available for rent and purchase in the greater Modesto area. But, auto body and auto repair shops may have a more difficult time finding sites for relocation because very few sites are currently listed for sale or rent in the Modesto area. Finding an appropriate relocation site for the City of Modesto storage/maintenance facilities may also be difficult because no similar types of properties are for sale or lease in Modesto.

Because of the current real estate market, purchasing a replacement business site may be more difficult for owners that purchased property during the height of the market. For business tenants, increased rental rates may also be a hardship for businesses that have been in the same location for many years paying below-market rental rates. If the businesses are relocated far from the displacement site, employees may need to relocate with the business or find new employment.

The extent of these impacts cannot be determined at this time, but would be given due consideration once relocations are finalized. Once a preferred alternative is selected, an interview process with each of the business owners would be initiated to determine the type of business and occupancy, the size of the business, and the extent of the impacts on the business.

The proposed project would impact the housing stock in the project area. Both Alternative 1 and Alternative 2 would eliminate residential units in the study area. While this may negatively affect the housing stock in the immediate project area, there are available homes for rent in the City of Modesto outside the project area. Because many residential tenants may be required to relocate outside the study area, comparability, in terms of amenities and public utilities would need to be evaluated on an individual basis during the relocation process. While finding suitable replacement housing in the immediate area may pose a problem, rentals and homes for sales in the surrounding area are available. Relocations during Phase 1 would occur mostly along SR 132; the remaining relocations would occur during Phase 2.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not result in any impacts caused by residential or business relocations or partial acquisitions.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce impacts caused by relocations and partial acquisitions:

CI-1 For any person(s) whose real property interests may be impacted by the project, the acquisition of those property interests would comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from federal or federally assisted programs or projects. It was created to provide for and ensure the fair and equitable treatment of all such persons (see Appendix D).

Also, the Fifth Amendment of the U.S. Constitution provides that private property may not be acquired for a public use without payment of “just compensation.” All impacted owners would be provided notification of the acquiring agency’s intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist would be assigned to each property owner to assist them with this process.

CI-2 All impacted owners would be provided notification of the acquiring agency’s intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist would be assigned to each property owner to assist them with this process.

CI-3 Caltrans would be responsible for assisting with relocations for individuals and businesses that are undergoing a difficult transition, consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Measures would be taken to ensure that nearby adequate, comparable housing for all displaced residents would be utilized before looking beyond the existing neighborhood.

CI-4 The Project Engineer would ensure that design refinements are incorporated in the process to minimize impacts to existing land uses related to the temporary use and/or permanent acquisition of property.

CI-5 Prior to and during construction, the Project Engineer would ensure that the design refinements to minimize impacts to existing land uses related to temporary use and/or permanent acquisition of property are properly implemented by the contractor.

2.1.4.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Bill Clinton on February 11, 1994. This 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 2012, the low-income threshold for Stanislaus County was \$19,090.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' 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

The following section is based on the revised *State Route 132 Community Impact Assessment Report*, which was completed in August 2017, and the revised Relocation Impact Report (August 2017).

The environmental justice analysis was conducted using 1) demographic data from the 2010 Census (at the census tract and block levels), 2) the 2008 to 2012 American Community Survey 5-year estimates (at the census tract level), and 3) general observations of the community. As listed in Table 2-13 and shown in Figure 2-4, the project study area consists of mostly minority and low-income populations. Table 2-14 presents the population, race, and ethnicity characteristics in the study area. Table 2-15 presents the household income and the population below poverty for the study area, City of Modesto, and Stanislaus County.

Table 2-13: Area Minority and Poverty Status

Geographic Area	Total Percentage of Minority Population ^a	Percentage of Population Below Poverty Level
Study Area	44.6%	23.6%
City of Modesto	35.0%	19.5%
Stanislaus County	34.5%	19.2%

^a For the purposes of this study, the minority population is all “non-white racial groups only,” based on the 2010 Census Tract categorization that Hispanic/Latino is not a race.

Source: Community Impact Assessment (August 2017)

Table 2-14: Area Population, Race, and Ethnicity Characteristics

Demographic	Study Area	Modesto	Stanislaus County
Total Population	17,672	201,165	514,453
White	55.4%	65.0%	65.5%
Black or African American	5.8%	4.2%	2.9%
American Indian and Alaska Native	2.3%	1.2%	1.1%
Asian	6.2%	6.7%	5.1%
Native Hawaiian and Other Pacific Islander	0.9%	1.0%	0.7%
Some Other Race	22.8%	15.5%	19.3%
Two or More Races	6.6%	6.3%	5.4%
Total Minority	44.6%	34.9%	34.5%
Hispanic or Latino	49.2%	35.5%	41.9%
Not Hispanic or Latino	50.8%	64.5%	58.1%

Note: The 2010 Census asked respondents to identify their race and ethnicity based on their own perception of their racial and ethnic identity. Ethnicity is defined as a population that shares common characteristics such as religion, traditions, culture, language, and/or tribal or national origin. As such, people who identify themselves as Hispanic or Latino can be of any race.

Table 2-15: Household Income and Population Below the Poverty Level for the Study Area, City of Modesto and Stanislaus County

Geographic Area	Median Household Income ^a	Percentage of Population Below Poverty Level
Study Area	\$41,179	23.6%
City of Modesto	\$49,205	19.5%
Stanislaus County	\$49,866	19.2%

Source: U.S. Census 2012c.

^a Median household income is in 2012 inflation-adjusted dollars.

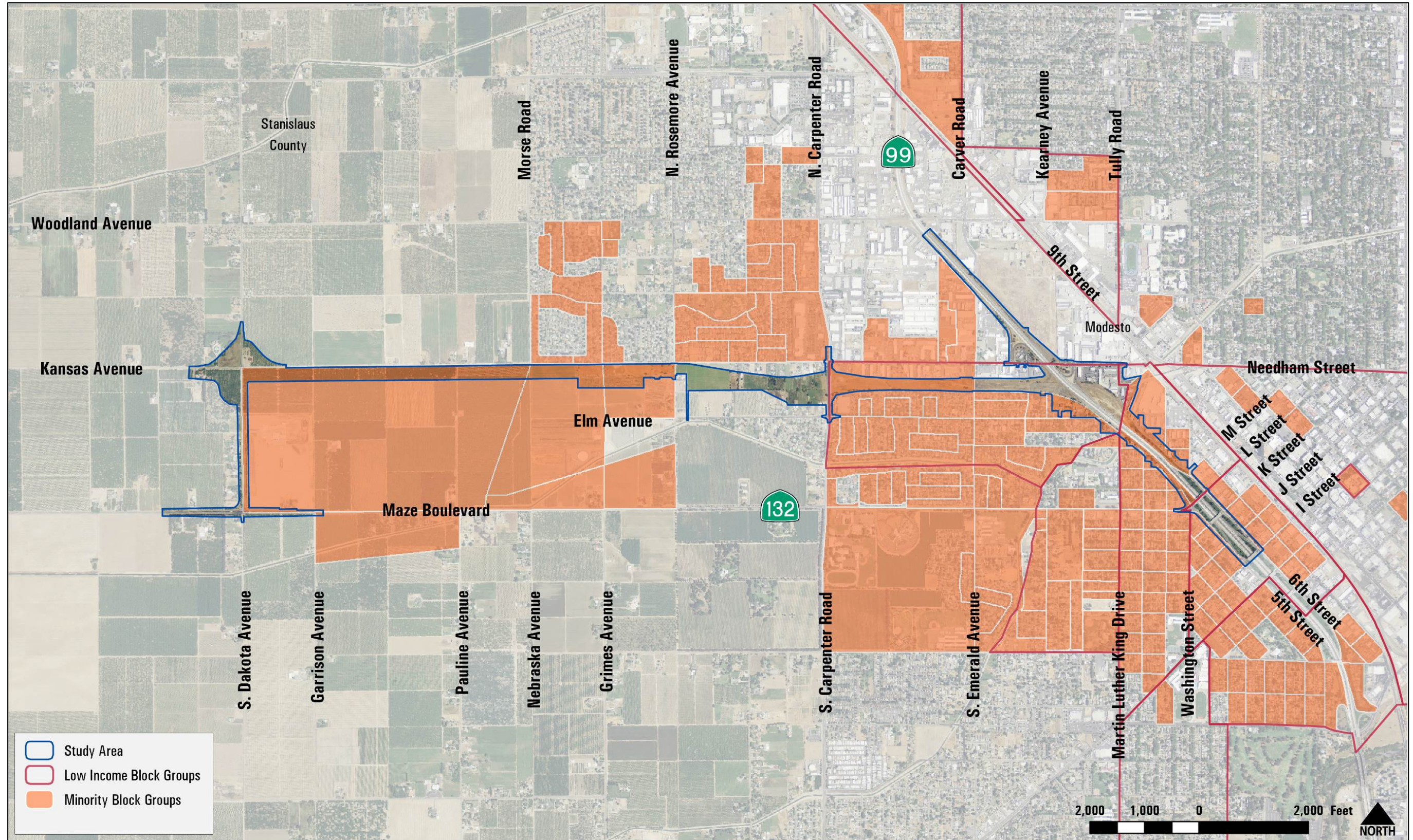


Figure 2-4: Minority and Low-income Populations within the Study Area

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Most of the census blocks with minority populations are concentrated south of Kansas Avenue and west of SR 99, mostly in the Elm Tract neighborhood. Smaller clusters of minority populations sit north of Kansas Avenue between North Rosemore Avenue and North Carpenter Road, as well as in the census blocks south of Kansas Avenue between North Dakota Avenue and Morse Road. There are no relocations or acquisitions proposed in these two areas. A large area of low-income populations exists between North Carpenter Road and SR 99, north and south of the Caltrans right-of-way for the proposed new alignment. While the proposed project study area is representative of the overall San Joaquin Valley, the study area has a greater percentage of minority and low-income populations when compared to Stanislaus County and the City of Modesto.

Environmental Consequences

The environmental justice analysis evaluated both build alternatives to determine whether there is a potential for disproportionately high and adverse impacts to minority or low-income populations when compared to populations that are not minority or low-income. A disproportionate impact is defined by the Federal Highway Administration as one that is:

- Predominantly borne by a minority and/or low-income population, or
- Suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority/non-low-income population

Both negative and beneficial impacts common to Alternatives 1 and 2, as well as impacts specific to each alternative, have been evaluated and are described below.

Build Alternatives

Both build alternatives would provide benefits for the overall community and for minority and low-income populations by improving regional and interregional circulation, relieving congestion, and enhancing traffic operations within the study area. However, prior to the implementation of avoidance, minimization and mitigation measures, both build alternatives would cause disproportionately high and adverse effects on any minority or low-income populations per Executive Order 12898 regarding environmental justice, as described in the sections below.

Noise

While noise impacts are anticipated to occur throughout the project study area as a result of either of the build alternatives, most noise impacts would affect receivers (locations representing land uses where frequent human activity occurs, such as residences) located in the areas next to SR 99 and north of Elm Avenue, where minority and low-income populations reside. Most noise impacted receivers for both Alternative 1 and Alternative 2 are in the area on the south side of the project, east of North Carpenter Road, west of SR 99, and north of L Street. (Section 2.2.7, Noise, further explains noise impacts caused by the build alternatives.) As a result, noise impacts in these residential areas would be borne mostly by environmental justice populations and therefore are considered a disproportionate adverse impact on minority and low-income populations.

Visual

The proposed new highway configuration for SR 99, the retaining walls, and the noise barriers associated with both build alternatives would generally not result in substantial or permanent visual impacts to most of the study area. In fact, adverse visual impacts to agricultural areas would not occur, and improvements would occur in industrial areas (see Section 2.1.7, Visual/Aesthetics for further details on visual impacts caused by the build alternatives). However, the two build alternatives would result in substantial permanent visual changes to residential areas, specifically near the SR 132/SR 99 connection and the Elm Tract neighborhood, a neighborhood that has mostly low-income and minority populations.

Under Alternative 1, visual degradation to some residential areas would be slightly higher than under Alternative 2 because the noise barriers would be closer to existing residences and because more homes would be removed. Under Alternative 2, visual impacts would be comparably less because of the location of the noise barriers. Alternative 2 would have greater impacts to existing trees outside Modesto, and both build alternatives would impact the same number of street trees within Modesto.

As a result, visual impacts to residents would be borne mostly by environmental justice populations and therefore are considered a disproportionate adverse impact on minority and low-income populations.

Relocations/Acquisitions

Residential and business relocations and partial acquisitions would also occur as a result of both build alternatives. Most impacts would be borne mostly by environmental justice populations and therefore are considered a disproportionate adverse impact on minority and low-income populations.

Construction

Temporary detours, out-of-direction travel, construction dust, equipment emissions, and construction-related noise would affect residents and businesses throughout the study area as described in Section 2.2.6, Air Quality, and 2.2.7, Noise, of this document. Because most construction would occur in environmental justice communities, construction-related impacts would be borne mostly by environmental justice populations and therefore are considered a disproportionate adverse impact on minority and low-income populations.

No-Build Alternative

Traffic congestion would worsen throughout the study area, limiting access to housing, businesses, and community facilities for both minority and low-income populations, as well as for the general public. While there would be no displacement of minority or low-income residents, businesses, or employees, both minority and low-income populations would be impacted by increased congestion and degrading traffic conditions throughout the study area. The community would not experience the benefits of improved circulation, reduced congestion, and enhanced operations. Benefits not realized under the No-Build Alternative would be borne mostly by environmental justice populations and therefore are considered a disproportionate adverse impact on minority and low-income populations.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce the adverse noise, visual, relocation, and construction impacts borne by minority and low-income populations to levels equal to that of the general population.

Noise

Section 2.2.7, Noise, presents the noise abatement measures for both build alternatives. With implementation of these measures, noise impacts would not result in disproportionate adverse impacts on minority and low-income populations.

Visual

Implementing measures VA-1 through VA-8 in Section 2.1.7, Visual/Aesthetics, would reduce disproportionate adverse impacts on minority and low-income populations. However, with the measures implemented, minority and low-income communities (especially residents in the Elm Tract neighborhood) would still experience substantial permanent visual impacts and temporary construction-related impacts because of their proximity to the project. The substantial permanent visual impacts in the residential areas would be borne mostly by an environmental justice population and therefore are considered a disproportionate adverse impact on minority and low-income populations.

Relocations

Implementing measures CI-1 through CI-5 in Section 2.1.4.2, Relocations and Real Property Acquisition, would reduce disproportionate adverse impacts on minority and low-income populations. After these measures are implemented, relocation impacts would not result in disproportionate adverse impacts on minority and low-income populations.

Construction

The implementation of standard best management practices, as described in Section 2.2.6, Air Quality, Section 2.2.7, Noise, and Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, would reduce disproportionate adverse impacts on minority and low-income populations. With the implementation of measures CI-1 through CI-5, the build alternatives would not cause disproportionately high and adverse effects on any minority or low-income populations per Executive Order 12898 regarding environmental justice.

2.1.5 Utilities/Emergency Services

Affected Environment

The following section is based on the revised *State Route 132 Community Impact Assessment Report*, completed in August 2017.

Utilities

Utilities within the study area include but are not limited to aboveground power and telephone lines, underground gas lines, and underground fiber optic communication cables. The major utility providers in the area are Bay Area Water Supply Conservation Agency, Pacific Gas and Electric, the Modesto Irrigation District, the City of Modesto, and various private cable and television providers (Comcast, Sprint,

Level 3, and AT&T/Pacific Bell communications). Table 2-16 lists the major utilities within the project study area.

Table 2-16: Major Utilities within the Study Area

Type	Location
Overhead Electric	Existing SR 132 (Maze Boulevard) near Dakota Avenue
	Kansas Avenue between North Dakota Avenue and 9 th Street
	East of North Carpenter Road
	North Emerald Avenue
	Near the intersection of North Franklin Street and Beech Street
	Near SR 99 and Elm Avenue
	South of K Street and the intersection of SR 99
Overhead Telephone	North Dakota Avenue between existing SR 132 (Maze Boulevard) and Kansas Avenue
	Kansas Avenue between North Dakota Avenue and 9 th Street
	North Emerald Avenue
	Southwest of SR 99 between Linden Street and South Washington Street
	Southwest of SR 99 between Laurel Avenue and L Street
Water	Underground line west of North Dakota Avenue between existing SR 132 (Maze Boulevard) and Kansas Avenue
	Underground line south of Kansas Avenue near the intersection of Kansas Avenue and Morse Road
	Underground line within new alignment right-of-way (vacant land) south of Kansas Avenue between North Carpenter Road and Custer Court
	Underground line along North Carpenter Road between Kansas Avenue and Elm Avenue
	Underground line along North Emerald Avenue
	Underground line within new alignment right-of-way (vacant land) south of Kansas Avenue between Bennett Avenue and SR 99
	Underground line along Kansas Avenue between North Carpenter Road and North Franklin Street
	Underground line northeast of Graphics Road, north of Kansas Avenue
	Aboveground water canal near SR 99 and Elm Avenue
	Underground line along North Jefferson Street near the intersection of North Jefferson Street and SR 99
	Underground line southwest of SR 99 between Linden Street and South Washington Street
	Underground main along L Street over SR 99
	Natural Gas
Underground line along North Emerald Avenue	
Sewer	Underground line along Kansas Avenue between Altamont Court and North Rosemore Avenue
	Underground line along North Emerald Avenue
	Underground line near the intersection of North Jefferson Street and SR 99
	Underground line west of SR 99 near Linden Street
	Underground line along the west side of SR 99 near the intersection of Laurel Avenue and SR 99
	Underground line along the east side of SR 99 between Laurel Street and North Washington Street

Source: Community Impact Assessment (August 2017)

Emergency Services

Portions of the study area within Modesto are protected by the Modesto Fire Department, which has 11 fire stations throughout the Modesto area. Fire Station No. 1, about half a mile from the project study area at 610 11th Street, provides fire and emergency service for the study area. The portions of the study area outside Modesto are protected by the Woodland Avenue Fire Protection District, which has a station at 3300 Woodland Avenue, about a quarter-mile north of the study area.

Police services for Modesto are provided by the Modesto Police Department, which has a station at 600 10th Street, about half a mile from the study area. Beyond Modesto city limits, police services are provided by the Stanislaus County Sheriff's Department. The California Highway Patrol also has jurisdiction over the state routes (SR 132 and SR 99) within the study area.

Emergency medical services are provided by Mountain-Valley Emergency Services and American Medical Response within the study area.

Environmental Consequences

Build Alternatives

Both build alternatives would result in construction-related impacts to utilities within the project study area. However, no long-term utility impacts would occur. All construction-related impacts (potential service disruptions) would be temporary in nature, and no utility services to the community would be permanently affected. Utilities impacted by either build alternative would be abandoned in place, protected in place, or relocated. Based on the current project design, the following impacts would likely occur, but these impacts are subject to change based on final design.

The following utilities would be abandoned:

- Sewer lines along Laurel Avenue west of SR 99 and within an industrial subdivision east of SR 99 near an alley south of Laurel Street
- Water lines near the intersection of Franklin Street and Beech Street, as well as the water lines east of SR 99 near Elm
- Sewer lines along North Emerald Avenue at the intersection of North Emerald Avenue and the study area (south of Kansas Avenue), in addition to sewer lines along North Jefferson Street at the intersection with SR 99
- Water line along L Street over SR 99

Relocation of the following utilities would be required:

- Natural gas lines along North Rosemore Avenue and Kansas Avenue near the intersection of Kansas Avenue and SR 99
- Sewer lines along SR 99 near Linden Street and Laurel Street, as well as along Kansas Avenue at the intersection with SR 99
- Water lines along North Carpenter Road and North Jefferson Street within the study area and along Kansas Avenue at the intersection of Kansas Avenue and SR 99
- All overhead power and communication lines within the study area
- All underground phone lines within the study area

While the proposed project would not create long-term access impacts for emergency vehicles, temporary, construction-related impacts would include use of local roads by construction vehicles, lane closures, and detours. The exact location and impacts of potential use of local roads, lane closures, and detours would be determined during final design of the project. Temporary impacts to emergency services would be the same for both build alternatives. As described in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, implementation of a traffic management plan would include advance notification for emergency service personnel of any expected delay or detour thereby minimizing temporary, construction-related impacts to emergency service providers. Despite the short-term nature of the impacts, emergency service providers (and the traveling public) would benefit from the project through increased mobility, reduced congestion, and improved access to businesses, residences, and community facilities and services.

All impacted owners and tenants would be provided notification prior to temporary interruption of utilities during project construction.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and, therefore, would not require any utility relocations or abandonments. Emergency service response times may increase because of increased traffic congestion that would occur under the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Neither build alternative would result in long-term impacts to utilities and emergency services.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (23 Code of Federal Regulations 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.

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

Affected Environment

The following section is based on the *Final Traffic Operations Analysis Report: State Route 132 West Freeway/Expressway PA/ED* (completed in July 2012), the *Final State Route 132 West Freeway/Expressway Traffic Analysis Addendum to Reflect SPUI Design at SR 132/Carpenter Road Interchange* (completed in March 2014), and the *Design Year 2048-Southbound State Route 99/I Street Off-Ramp Relocation Operation Analysis* (completed in August 2015).

The proposed project study area for the traffic analysis extends along existing SR 132 (Maze Boulevard) from SR 99 to Dakota Avenue and along SR 99 from West Briggsmore Avenue to Tuolumne Boulevard in Modesto. Figure 1-4 shows all four

roadways in relationship to the project's location. The study area also includes local street intersections on both the west and east sides of SR 99 within the vicinity of the project. The traffic analysis evaluated existing and future conditions with and without the project. Existing conditions represent the year 2009. Future conditions were projected for the years 2020 (Phase 1), 2028 (Phase 2), and 2048 (the design year). The No-Build Alternative is the baseline for comparing environmental impacts; the baseline represents future year (2020, 2028, and 2048) conditions if the project were not built.

As described in the *Final Traffic Operations Analysis Report*, traffic volume forecasts for the new SR 132 freeway/expressway and existing SR 132 (Maze Boulevard) were based on the StanCOG Travel Demand Model. The model was updated to account for changes in land use and the roadway network to reflect year 2009 conditions. Model demand volumes were adjusted to account for differences between base year model volumes and traffic counts conducted for this project.

Existing and Future Year No-Build Traffic Conditions

Four of the best indicators of existing (2009) conditions and predictors for future conditions are traffic volumes, travel times, travel speeds, and level of service along the various roadway/highway segments in the project study area. Comparison of each dataset not only establishes current traffic conditions, but it allows for a more robust evaluation of environmental consequences with and without the project.

Table 2-17 lists average daily traffic volumes and morning (AM peak period, 7:00 a.m. to 9:00 a.m.) and evening (PM peak period, 4:00 p.m. to 6:00 p.m.) peak hour volumes for the existing SR 132 (Maze Boulevard) under current and future No-Build Alternative conditions. The data in the following table are based on regional projections of land use growth and reflect future travel demand that would be expected on the existing highway if the project were not built.

Table 2-17: Existing and Future No-Build Traffic Volumes along Existing SR 132 (Maze Boulevard)

Location	Existing (2009)			Future No-Build (2020)			Future No-Build (2028)			Future No-Build (2048)		
	ADT	AM ^a	PM ^a	ADT	AM ^a	PM ^a	ADT	AM ^a	PM ^a	ADT	AM ^a	PM ^a
Existing SR 132/ Maze Boulevard between Grimes Avenue and Carpenter Road	11,500	696	949	15,200	960	1,210	17,700	1,230	1,300	19,700	1,930	1,900
Existing SR 132/ Maze Boulevard between Carpenter Road and Emerald Avenue	10,230	523	896	14,500	740	1,170	17,000	940	1,370	18,800	1,620	1,890
Existing SR 132/ Maze Boulevard between Emerald Avenue and Martin Luther King Drive	12,400	749	1,091	15,400	970	1,340	17,700	1,120	1,480	18,400	1,710	2,000

^a Peak hours represent the greatest number of vehicles using a roadway or highway in one hour during the morning peak period (7:00 a.m. to 9:00 a.m.) and evening peak period (4:00 p.m. to 6:00 p.m.). The peak of traffic usually occurs when most commuters are traveling to and from work.

Notes: Trucks represent 21 percent, 22 percent, and 14 percent of the daily morning and evening peak hour volumes, respectively, for each segment. ADT = average daily traffic. The traffic analysis for Future No-Build and Phase 1 assumed an opening year of 2018, but that is now projected to be 2020.

Source: Final Traffic Operations Analysis Report (July 2012)

As listed in Table 2-18, travel time, which represents minutes of driving time, and travel speed, shown in miles per hour, are two sets of data that compare and predict performance on existing SR 132 (Maze Boulevard). Slower travel times and speeds often indicate greater congestion and worsening traffic conditions.

Table 2-18: Existing and Future No-Build Travel Times and Speeds along Existing SR 132 (Maze Boulevard)

Location	Existing (2009)		Future No-Build (2020)		Future No-Build (2028)		Future No-Build (2048)	
	AM	PM	AM	PM	AM	PM	AM	PM
Eastbound SR 132 between Dakota Avenue and SR 99 (3.3 miles)	6.2 mins. (32.2 mph)	6.0 mins. (33.0 mph)	6.2 mins. (32.2 mph)	6.7 mins. (29.6 mph)	6.4 mins. (31.2 mph)	7.1 mins. (28.0 mph)	7.0 mins. (28.4 mph)	9.6 mins. (20.7 mph)
Westbound SR 132 between SR 99 and Dakota Avenue (3.3 miles)	6.4 mins. (30.8 mph)	5.9 mins. (33.4 mph)	7.1 mins. (28.0 mph)	6.7 mins. (29.9 mph)	7.9 mins. (25.2 mph)	6.8 mins. (29.2 mph)	10.6 mins. (18.7 mph)	7.7 mins. (26.0 mph)

Notes: Data presented includes travel time in minutes (and average speed in mph).

mins. = minutes; mph = miles per hour. The traffic analysis for Future No-Build and Phase 1 assumed an opening year of 2018, but that is now projected to be 2020.

Source: Final Traffic Operations Analysis Report (July 2012)

Level of service is a measure of traffic operating conditions that vary from level of service A (indicating free-flow traffic conditions with little or no delay) to level of service F (representing over-saturated conditions where traffic flow exceeds design capacity resulting in long queues and delays) (see Figure 1-3 for level of service of the two-lane highway). The level of service classifications represent driver perception and are an indication of comfort and convenience associated with driving.

According to Modesto's General Plan, in addition to Caltrans and Federal Highway Administration standards, the goal level of service rating for a highway/local roadway similar to existing SR 132 (Maze Boulevard) is D. Table 2-19 shows current and projected level of service ratings for a number of segments along the existing highway, as well as for applicable intersections in the area.

Existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service D or better between Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable level of service C or better. But, traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and Carpenter Road would operate at level F, an unacceptable service level, and, by 2048, the intersections of the existing highway with Rosemore Avenue, Carpenter Road, and Emerald Avenue would operate at unacceptable service level F.

A total of 30 intersections were evaluated for the proposed project, including six intersections along existing SR 132 (Maze Boulevard). Only one study intersection not along the existing highway currently operates at unacceptable levels. The intersection of Briggsmore Avenue/SR 99 southbound ramps is not represented in Table 2-19, but is included in the *Final Traffic Operations Analysis Report*. Traffic operations at the other study intersections are anticipated to degrade as traffic volumes increase so that, by 2020, there would be four intersections in the study area as a whole operating at unacceptable service levels. By 2028, there would be six intersections operating at unacceptable service levels and, by 2048, there would be 12 intersections operating at unacceptable service levels under future no-build conditions.

Table 2-19: Existing and Future No-Build Level of Service along Existing SR 132 (Maze Boulevard) and at Intersections in the Study Area

Location	Existing (2009) LOS		Future No-Build (2020) LOS		Future No-Build (2028) LOS		Future No-Build (2048) LOS	
	AM	PM	AM	PM	AM	PM	AM	PM
Existing SR 132 (Maze Boulevard) Highway/Roadway Segments^a								
Eastbound between SR 99 and Emerald Avenue	B	B	B	C	B	C	B	C
Westbound between SR 99 and Emerald Avenue	B	B	B	B	B	B	C	B
Eastbound between Emerald Avenue and Carpenter Road	B	B	B	C	B	C	C	F
Westbound between Emerald Avenue and Carpenter Road	D	C	E	D	F	D	F	D
Between Carpenter Road and Dakota Avenue	D	D	D	D	E	E	E	E
West of Dakota Avenue	C	D	D	D	D	E	E	E
Area Intersections								
Existing 132 (Maze Boulevard) and Dakota Avenue	A	A	A	B	A	C	B	D
Existing 132 (Maze Boulevard) and Rosemore Avenue	A	A	A	B	B	C	F	F
Existing 132 (Maze Boulevard) and Carpenter Road	C	C	D	D	F	F	F	F
Existing 132 (Maze Boulevard) and Emerald Avenue	B	B	B	C	B	C	F	F
Existing 132 (Maze Boulevard) and Martin Luther King Jr. Drive	B	C	B	D	B	D	C	D
Existing 132 (Maze Boulevard) and southbound SR 99 off-ramp	B	B	C	B	C	B	D	C

^a Existing SR 132 (Maze Boulevard) was analyzed using both the Highway Capacity Manual's urban street level of service methodology and two-lane highway level of service methodology because the highway is considered an urban roadway on its eastern end and a two-lane highway on its western end. Also see Figure 1-3 for a graphic representation of level of service.

Notes: Results in bold indicate unacceptable operations. The years represented in the table match the years for Phase 1 (2020), Phase 2 (2028), and the design year (2048). LOS = level of service. The traffic analysis for Future No-Build and Phase 1 assumed an opening year of 2018, but that is now projected to be 2020.

Source: Final Traffic Operations Analysis Report (July 2012)

Table 2-20 presents the existing and future no-build, peak hour level of service and peak period vehicle hours of delay on SR 99 in the study area. Under existing conditions, SR 99 operates at level of service D or better, except in the southbound direction during the evening peak hour, where some segments operate at level of service E or F. Traffic operations on SR 99 would degrade as traffic volumes increase so that, by 2028, most of the segments on SR 99 would operate at a level of service E

or F during the morning and evening peak hours. By 2048, most of the study segments would operate at level of service F during the morning and evening peak hours. Vehicle delay is also anticipated to increase over time as traffic congestion on SR 99 worsens because of regional and local traffic increases.

Table 2-20: Existing and Future No-Build Peak Hour Level of Service and Peak Period Vehicle Hours of Delay along SR 99 in the Study Area

Location	Existing (2009) LOS		Future No-Build (2020) LOS		Future No-Build (2028) LOS		Future No-Build (2048) LOS	
	AM	PM	AM	PM	AM	PM	AM	PM
Traveling Northbound SR 99								
Tuolumne Boulevard on-ramp to 6th Street off-ramp	D	C	D	F	F	F	F	F
6th Street off-ramp to I Street on-ramp	D	C	D	F	F	F	F	F
I Street On-Ramp to L Street (SR 132) On-Ramp	D	D	D	F	F	F	F	F
SR 132 on-ramp to Kansas Avenue off-ramp	D	D	E	E	F	F	F	F
Kansas Avenue on-ramp to West Briggsmore Avenue off-ramp	C	D	D	E	D	F	F	F
Peak Period Vehicle Hours of Delay	7	12	17	303	290	1,043	1,502	1,823
Traveling Southbound SR 99								
West Briggsmore Avenue on-ramp to Kansas Avenue off-ramp	C	D	D	F	D	F	F	F
Kansas Avenue on-ramp to SR 132 off-ramp	C	D	E	F	E	F	F	F
SR 132 off-ramp to I Street off-ramp	C	D	D	F	F	F	F	F
I Street off-ramp to H Street on-ramp	C	F	D	F	D	F	F	F
H Street on-ramp to 5th Street on-ramp	C	E	E	E	E	E	E	E
5th Street on-ramp to Tuolumne Boulevard off-ramp	B	D	C	D	C	C	C	C
Peak Period Vehicle Hours of Delay (VHD)	0	31	51	421	142	617	1,317	1,783

Notes: See Figure 1-3 for a graphic representation of level of service. The years represented in the table match the years for Phase 1 (2020), Phase 2 (2028), and the design year (2048). LOS = level of service. The traffic analysis for Future No-Build and Phase 1 assumed an opening year of 2018, but that is now projected to be 2020. The I Street off-ramp would be closed in Phase 2.

Source: Final Traffic Operations Analysis Report (July 2012)

Pedestrian/Bicycle Facilities

Limited pedestrian and bicycle facilities exist within the study area, with no facilities west of SR 99 within Modesto's city limits. The study area has one Class I bike route (the Virginia Corridor Trailway), which is a paved path separated from a street or roadway. The study area also has four Class III bike routes, defined as an on-street, shared-use facility (pedestrians or motor vehicles) identified by signage. The rural nature of the western portion of the study area generally necessitates that bicyclists share the roadways with motor vehicles.

Environmental Consequences

Build Alternatives

The proposed project would consist of two construction phases. To be completed in 2020, Phase 1 would involve construction of a two-lane facility on a new alignment between North Dakota Avenue and SR 99. Both build alternatives (Alternative 1 and Alternative 2) would be the same under Phase 1.

To be completed in 2028, Phase 2 would involve construction of a four-lane facility between North Dakota Avenue and SR 99 with a single-point urban interchange at North Carpenter Road. From a traffic operations perspective and under Phase 2, Alternative 1 and Alternative 2 are nearly identical except for the study area where the build alternatives intersect SR 99.

Traffic operations on existing SR 132 (Maze Boulevard) would be the same for both build alternatives. Table 2-21 compares future travel times and speeds along the existing highway for both the No-Build and build alternatives.

For both build alternatives, travel times would decrease and speeds would increase when compared to future no-build conditions. Therefore, both build alternatives would have a beneficial impact on travel times and speeds along existing SR 132 (Maze Boulevard).

A number of best management practices would be used during construction as part of the proposed project. These practices include implementation of a traffic management plan; provision of advanced notification of temporary access and parking modifications to owners, residents, and businesses; and advance notification of detours to emergency service providers. These practices are described below in further detail.

- The contractor would implement a traffic management plan that would identify signage to facilitate local and through-traffic movement and the locations of potential temporary detours (if needed). The plan would support the continued access for local residences and businesses, as well as bus and emergency service vehicle access during construction. The plan would specify timeframes for temporary detours and street closures (if needed) and the process for notifying residents, businesses, emergency service providers, and the general public of the construction schedule and any required detours.
- The contractor would provide emergency service providers (i.e., law enforcement, fire protection, and ambulance services) with adequate advance notice of any street closures during the construction phases of the project.
- The contractor would coordinate construction activities to avoid blocking or limiting access to homes and businesses. Residents would be notified in advance through mail and newspaper notices about potential access or parking effects before construction activities begin.
- To the extent possible, the contractor would limit interchange, ramp, or road closures during construction to nighttime hours to reduce impacts to businesses in the area.

Table 2-21: No-Build and Build Travel Times and Speeds along Existing SR 132 (Maze Boulevard)

Existing SR 132 (Maze Boulevard)		2020 No-Build	2020 Build	2028 No-Build	2028 Build	2048 No-Build	2048 Build
Eastbound between Dakota Avenue and SR 99	AM	6.2 mins. (32.2 mph)	6.0 mins. (32.9 mph)	6.4 mins. (31.2 mph)	6.0 mins. (33.0 mph)	7.0 mins. (28.4 mph)	6.4 mins. (30.9 mph)
	PM	6.7 mins. (29.6 mph)	6.4 mins. (30.9 mph)	7.1 mins. (28.0 mph)	6.2 mins. (32.0 mph)	9.6 mins. (20.7 mph)	6.7 mins. (29.6 mph)
Westbound SR 132 between SR 99 and Dakota Avenue	AM	7.1 mins. (28.0 mph)	6.3 mins. (31.6 mph)	7.9 mins. (25.2 mph)	6.3 mins. (31.5 mph)	10.6 mins. (18.7 mph)	7.1 mins. (28.1 mph)
	PM	6.7 mins. (29.9 mph)	6.1 mins. (32.3 mph)	6.8 mins. (29.2 mph)	6.0 mins. (33.3 mph)	7.7 mins. (26.0 mph)	6.4 mins. (31.3 mph)

Notes: Data includes travel time in minutes (and average speed in miles per hour). The table represents the design year (2048) for both the No-Build and build alternatives. Both build alternatives are shown in the table as one alternative because Alternative 1 and Alternative 2 are nearly identical from a traffic operations perspective. mins. = minutes; mph = miles per hour. The traffic analysis for the Phase 1 No-Build and build alternatives assumed an opening year of 2018, but that is now projected to be 2020. Source: *Final Traffic Operations Analysis Report (July 2012)*

Table 2-22 expands on the future no-build conditions of Table 2-17. Both build alternatives would reduce peak hour demand volumes and improve level of service on existing SR 132 (Maze Boulevard).

**Table 2-22: No-Build and Build Level of Service along
Existing SR 132 (Maze Boulevard)**

Location	2020 No-Build		2020 Build		2028 No-Build		2028 Build		2048 No-Build		2048 Build	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Existing SR 132 (Maze Boulevard) Highway/Roadway Segments												
Eastbound between SR 99 and Emerald Avenue	B	C	B	B	B	C	B	C	B	C	B	C
Westbound between SR 99 and Emerald Avenue	B	B	B	B	B	B	B	B	C	B	B	B
Eastbound between Emerald Avenue and Carpenter Road	B	C	B	C	B	C	C	C	C	F	C	C
Westbound between Emerald Avenue and Carpenter Road	E	D	D	C	F	D	D	C	F	D	E	C
Between Carpenter Road and Dakota Avenue	D	D	C	D	E	E	C	C	E	E	D	D
Between Dakota Avenue and Stone Avenue	D	D	D	D	D	E	D	E	E	E	E	E
Area Intersections												
Existing 132 (Maze Boulevard) and Dakota Avenue	A	B	B	B	A	C	A	A	B	D	A	B
Existing 132 (Maze Boulevard) and Rosemore Avenue	A	B	A	A	B	C	A	A	F	F	B	B
Existing 132 (Maze Boulevard) and Carpenter Road	D	D	C	D	F	F	C	C	F	F	F	F
Existing 132 (Maze Boulevard) and Emerald Avenue	B	C	B	B	B	C	B	B	F	F	D	C
Existing 132 (Maze Boulevard) and Martin Luther King Jr. Drive	B	D	B	C	B	D	C	C	C	D	C	C
Existing 132 (Maze Boulevard) and southbound SR 99 off-ramp	C	B	B	B	C	B	C	C	D	C	C	C

Notes: Results in bold indicate unacceptable operations. The table represents the design year (2048) for both the No-Build and build alternatives. Both build alternatives are represented in the table as one alternative because Build Alternative 1 and Build Alternative 2 are nearly identical from a traffic operations perspective. The results presented reflect Project Alternative 4 from the traffic operations analysis report (same as Build Alternative 1). The traffic analysis for the Phase 1 No-Build and build alternatives assumed an opening year of 2018, but that is now projected to be 2020.

Source: Final Traffic Operations Analysis Report (July 2012)

As shown in Table 2-22, both build alternatives would have the most benefit in 2028 and 2048 when traffic volumes on the existing highway are expected to exceed available capacity. Notable roadway improvements include the following segments:

- Eastbound existing SR 132 (Maze Boulevard) between Emerald Avenue and Carpenter Road would improve from level of service F (2048) to C (2048) during the evening peak hour.
- Westbound existing SR 132 (Maze Boulevard) between Emerald Avenue and Carpenter Road would improve from level of service F (2028 and 2048) to D (2028) and E (2048) during the AM peak hour.
- Existing SR 132 (Maze Boulevard) between Carpenter Road and Dakota Avenue would improve from level of service E (2028 and 2048) to C (2028) and D (2048) during the morning and evening peak hours.

Notable intersection improvements would include the following:

- The intersection of existing SR 132 (Maze Boulevard) and Dakota Avenue would improve from level of service D (2048) to B (2048) during the evening peak hour.
- The intersection of existing SR 132 (Maze Boulevard) and Rosemore Avenue would improve from level of service F (2048) to B (2048) during the morning and evening peak hours.
- The intersection of existing SR 132 (Maze Boulevard) and Carpenter Road would improve from level of service F (2028) to C (2028) during morning and evening peak hours. Although this intersection would operate at level of service F in 2048 under the build alternatives, both Alternative 1 and Alternative 2 would reduce the average intersection delay by more than 40 percent.
- The intersection of existing SR 132 (Maze Boulevard) and Emerald Avenue would improve from level of service F (2048) to C/D (2048) during the morning and evening peak hours.
- The intersection of existing SR 132 (Maze Boulevard) and Martin Luther King Jr. Drive would improve from level of service D (2048) to C (2048) during the evening peak hour.
- The intersection of existing SR 132 (Maze Boulevard) and the southbound SR 99 off-ramp would improve from level of service D (2048) to C (2048) during the morning peak hour.

Despite the reduced delay and improved service levels for a number of intersections, some of the intersections would still operate at unacceptable levels in the future. However, reduced delay and improved level of service under both build alternatives would be beneficial and would not lead to direct or indirect impacts on traffic in the study area.

Table 2-23 presents the level of service for the proposed new alignment, which would operate at level of service B in 2020 and level of service A in 2028 and 2048. The single-point urban interchange would operate at level of service A in 2028 and 2048. All of the new intersections under both build alternatives are anticipated to operate at level of service C or better.

Table 2-23: Level of Service along the Proposed New Alignment of SR 132

Location	2020 Build		2028 Build		2048 Build	
	AM	PM	AM	PM	AM	PM
Proposed New Alignment						
Westbound SR 132 between SR 99 and North Carpenter Road	B	B	A	A	A	A
Westbound SR 132 between North Carpenter Road and North Dakota Avenue	B	B	A	A	A	A
Eastbound SR 132 between North Dakota Avenue and North Carpenter Road	B	B	A	A	A	A
Eastbound SR 132 between North Carpenter Road and SR 99	B	B	A	A	A	A
New Interchange						
SR 132/North Carpenter Road Single-point Urban Interchange	N/A	N/A	A	A	A	A
New Intersections						
New SR 132/North Dakota Avenue	A	A	B	A	B	B
Proposed SR 132/SR 99 Southbound Off-Ramp (Build Alternative 1 Only)	N/A	N/A	C	C	C	D

Notes: Both build alternatives are represented in the table as one alternative because Alternative 1 and Alternative 2 are nearly identical from a traffic operations perspective. N/A = not applicable. The traffic analysis for the Phase 1 build alternatives assumed an opening year of 2018, but that is now projected to be 2020.

Sources: Final Traffic Operations Analysis Report (July 2012). Supplemental Traffic Memorandum (August 2015)

All of the proposed on-ramps under either build alternative would involve ramp metering. Based on the results of the ramp metering queuing analysis, all of the on-ramps would provide adequate vehicle storage, and no impacts are anticipated from the ramp meters.

As discussed in Section 1.2.2, Need, one of the project's needs is to improve operations along existing SR 132 (Maze Boulevard). The existing highway has had no fatalities in the most recent period studied (November 2010 to October 2013), compared to a statewide average rate for similar facilities of 0.016 accidents per million vehicle miles traveled, and a 2 percent lower fatality/injury accident rate than the statewide average. Most accidents (34 percent) were broadside accidents, followed by rear-end (32 percent), hit-object (15 percent), head-on (9 percent), sideswipe (6 percent), and auto/pedestrian (4 percent) accidents. Based on the *Highway Safety Manual* published by the American Association of State Highway and Transportation Officials, there is a direct correlation between crash frequency and average daily traffic volumes. So, the number of accidents on existing SR 132 (Maze Boulevard) is anticipated to drop as a result of decreased traffic volumes under both build alternatives. Lower traffic volumes would result in greater spacing between vehicles, allowing drivers more time to react to sudden changes in traffic flow, such as a stopped vehicle. Fewer vehicles would also result in fewer conflicts at intersections and driveways.

Existing roadways that would run parallel to (for example, Kansas Avenue and the existing highway) and intersect the project (for example, North Carpenter Road) would likely be impacted during construction. Construction of either build alternative would create temporary traffic delays when work that requires detours or lane reductions is being performed on existing roadways. Because the project involves mainly construction of a new alignment, most construction work would affect only existing crossings, not existing roadways. Any construction-related impact would not be substantial because of its temporary nature and the use of construction staging, detours, and traffic management (explained below) to minimize disruption.

The proposed work on SR 99 under Phase 1 and for both build alternatives would construct auxiliary lanes to improve traffic movements (merging) and ramp access through the study area. Under Phase 1, a southbound auxiliary lane is proposed along SR 99 from the proposed new alignment's on-ramp onto SR 99 to the existing SR 132 (Maze Boulevard) off-ramp. In the northbound direction, an auxiliary lane would run from the 6th Street on-ramp to the Kansas Avenue off-ramp. Under both build alternatives, the on-ramp from 6th Street would be reconfigured in Phase 2, so that the ramp would access SR 99 about 2,000 feet north of its current location and an auxiliary lane would be provided for the on-ramp. The Phase 2 improvements would also include removal of the northbound SR 99 on- and off-ramps at Kansas Avenue and southbound ramps at L and I streets.

Table 2-24 presents the future no-build and build peak hour level of service and peak period vehicle hours of delay for SR 99 in the study area. As shown, neither of the build alternatives would increase overall traffic volumes on SR 99, but both Alternative 1 and Alternative 2 would change several locations where traffic can access SR 99. Though the build alternatives would not change the overall peak hour level of service on SR 99, both would reduce the peak period vehicle hours of delay as a result of eliminating and/or reconfiguring some ramps and by providing additional capacity through auxiliary lanes described above. The reduced vehicle hours of delay under both build alternatives would be beneficial and would not lead to direct or indirect impacts on SR 99.

Complete Streets

A “complete street” is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to roadways in all contexts, including local roads and state highways in rural, suburban, and urban areas. The proposed project would not preclude a complete streets facility from being designed approaching the project. The proposed project is compatible with Caltrans’ intended complete streets goals for transportation facilities within Stanislaus County and is also compatible with the regional bikeway projects in the StanCOG Non-Motorized Transportation Master Plan.

Pedestrian/Bicycle Facilities

According to Modesto’s *Non-Motorized Transportation Master Plan*, Class I bicycle paths are planned along segments of existing SR 132 (Maze Boulevard), Carpenter Road, 9th Street, and Dakota Avenue within the study area. Class II bicycle lanes are planned along segments of Morse Road, Carpenter Road, and Needham Street within the study area. Neither build alternative would directly or indirectly impact existing or planned pedestrian/bicycle facilities, except at the proposed single-point urban interchange of the new alignment with North Carpenter Road. Both build alternatives propose a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project. The pedestrian/bicycle facility would be consistent with Modesto’s General Plan and comply with all Americans with Disabilities Act requirements.

Both build alternatives would reduce traffic on the existing highway, resulting in fewer potential conflicts of bicyclists and pedestrians with vehicles.

Table 2-24: Peak Hour Level of Service and Peak Period Vehicle Hours of Delay on SR 99 for Both Future Build and No-Build Scenarios

Location	2020 No-Build		2020 Build		2028 No-Build		2028 Alternative 1		2028 Alternative 2		2048 No-Build		2048 Alternative 1		2048 Alternative 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Traveling Northbound SR 99																
Tuolumne Boulevard on-ramp to 6th Street off-ramp	D	F	D	F	F	F	E	F	E	F	F	F	F	F	F	F
6th Street off-ramp to I Street on-ramp	D	F	D	F	F	F	E	F	E	F	F	F	E	F	E	F
I Street on-ramp to SR 132 on-ramp	D	F	D	F	F	F	Not Applicable				F	F	Not Applicable			
SR 132 on-ramp to Kansas Avenue off-ramp	E	E	D	F	F	F	Not Applicable				F	F	Not Applicable			
Kansas Avenue on-ramp to Briggsmore Avenue off-ramp	D	E	D	E	D	F	E	F	E	F	F	F	F	F	F	F
Peak Period Vehicle Hours of Delay	17	303	14	289	290	1,043	40	754	40	754	1,502	1,823	1,048	1,452	1,048	1,452
Traveling Southbound on SR 99																
Briggsmore Avenue on-ramp to Kansas Avenue off-ramp	D	F	D	F	D	F	D	D	D	D	F	F	E	D	E	F
Kansas Avenue on-ramp to SR 132 off-ramp	E	F	E	F	E	F	Not Applicable				F	F	Not Applicable			
SR 132 off-ramp to I Street off-ramp	D	F	D	F	D	F	C	F	C	F	F	F	F	F	F	F
I Street off-ramp to H Street on-ramp	D	F	D	F	F	F	C	F	C	F	F	F	F	F	F	F
H Street on-ramp to 5th Street on-ramp	E	E	E	E	E	E	D	E	D	E	E	E	E	E	E	E
5th Street on-ramp to Tuolumne Boulevard off-ramp	C	D	C	D	C	C	D	C	D	C	C	C	D	C	D	C
Peak Period Vehicle Hours of Delay	51	421	51	421	142	617	39	73	38	262	1,317	1,783	996	1,268	1,015	1,576

Notes: See Figure 1-3 for a graphic representation of level of service. The years represented in the table are the years for Phase 1 (2020), Phase 2 (2028), and the design year (2048). The traffic analysis for the Phase 1 No-Build and build alternatives assumed an opening year of 2018, but that is now projected to be 2020. The I Street off-ramp would be closed in Phase 2.

Source: Final Traffic Operations Analysis Report (July 2012)

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements, and the existing SR 132 (Maze Boulevard) would remain as it is presently configured. Travel times would increase, and level of service and vehicle speeds would deteriorate to unacceptable levels throughout the study area based on projected future growth. There is also a direct correlation between crash frequency and average daily traffic volumes, as noted earlier, so the number of accidents is expected to increase as average daily traffic volumes increase under the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

There are no temporary or permanent impacts on traffic, and transportation, pedestrian and bicycle facilities, therefore, no avoidance, minimization, and/or mitigation measures would be required.

2.1.7 Visual/Aesthetics

Regulatory Setting

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

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

Affected Environment

The following section is based on the *State Route 132 Visual Impact Assessment Report*, completed in November 2015.

Visual Setting and Scenic Resources

In the western portion of the study area, the visual setting includes elements that represent Stanislaus County's history and principal industry of agriculture and includes visual elements such as orchards, row crops, and pasturelands that represent Stanislaus County's principal industry of agriculture. In the eastern portion of the study area, agriculture transitions to an urban setting with noticeable residential and commercial-industrial uses.

Stanislaus County is an agricultural community in transition. The population growth experienced in the past decade has converted agricultural land uses to commercial and residential developments. The County's economic base is diversifying to include more office, residential, commercial and industrial employment opportunities. The landscape character found within the SR 132 West project area reflects this diversification of land use and population growth.

There are no designated state scenic highways or vistas on Stanislaus County or Modesto city lands within the study area. However, Chapter III of the Stanislaus County General Plan notes that previous studies identified existing SR 132 (Maze Boulevard) west of Modesto to be a potential scenic route. The existing highway and other roads listed in the plan were characterized by "open, undeveloped areas, in either a natural condition or devoted to agricultural production much like the area along Interstate 5" (a state designated scenic highway).

Visual Assessment Units (Landscape Units)

Table 2-25 defines and Figure 2-5 shows the four landscape units identified within the study area. As described in the table, each landscape unit has a distinct visual character whose elements are characteristic of agriculture, residential, highway, and commercial/industrial. The visual quality of each landscape unit was assessed using the criteria of vividness, intactness, and unity, defined as follows:

- **Vividness** is the visual power or memorability of landscape components as they combine in distinctive visual patterns.
- **Intactness** is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

- **Unity** is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual human-built components in the landscape.

While existing visual quality varies from one landscape unit to the next, as shown in Table 2-25, the Agricultural Landscape Unit exhibited moderately high visual quality while the other landscape units were moderate to moderately low and low.

Table 2-25: Landscape Units within the Study Area

Landscape Unit and Location	Typical Visual Elements ^a	Existing Visual Quality ^b
The Agricultural Landscape Unit is on both sides of the project area between existing SR 132 (Maze Boulevard) and Morse Road and is on the south side of the project area to Elm Avenue.	<p>FG: Two-lane country road pavement with grass ditches or dirt shoulders; fencing</p> <p>MG: Country road intersections; stop signs; orchards; crop fields; farm buildings and homes; utility poles and wires</p> <p>BG: Flat agricultural land; foothills; Modesto buildings and city lights; tree tops and sky</p>	Moderately high
The Residential Landscape Unit is on the north side of the project area between Morse Road and North Carpenter Road and is on the south side of the project area between Shirley Court and I Street.	<p>FG: Residential streets and front yards of homes</p> <p>MG: Street trees; pavement; cars; highway noise barriers; utility poles and wires; landscaping</p> <p>BG: Multi-story buildings; tree tops; utility poles and wires</p> <p>Noteworthy visual elements include mature trees along neighborhood streets.</p>	Moderate to moderately low
The Highway Landscape Unit is within SR 99 right-of-way between Kansas Avenue and H Street.	<p>FG: Highway pavement; bridge railing; fencing; vacant land; weedy landscape vegetation</p> <p>MG: Highway; vacant land; retaining walls; highway noise barriers; slope pavement; highway signs; utility poles and wires; vehicle barriers; lighting</p> <p>BG: Noise barriers; building tops; tree canopy</p>	Low
The Commercial/Industrial Landscape Unit is centered on Kansas Avenue between North Carpenter Road and SR 99. Industrial land uses are also between SR 99 and the railroad from Kansas Avenue to H Street.	<p>FG: Street pavement; buildings frontages; cars; on-street parking</p> <p>MG: Cars; street pavement; building frontages; utility poles and wires; industrial buildings; parking lots; vacant land</p> <p>BG: Equipment yards; commercial and industrial buildings; tree tops</p> <p>Noteworthy visual elements include the Needham Street Bridge</p>	Moderately low

^a Typical visual elements are described in terms of foreground (FG), middle-ground (MG), and background (BG) views.

^b As defined, the existing visual quality of each landscape unit was evaluated based on the criteria of vividness, intactness, and unity on a scale of very low to very high.

Source: Visual Impact Assessment (November 2015)

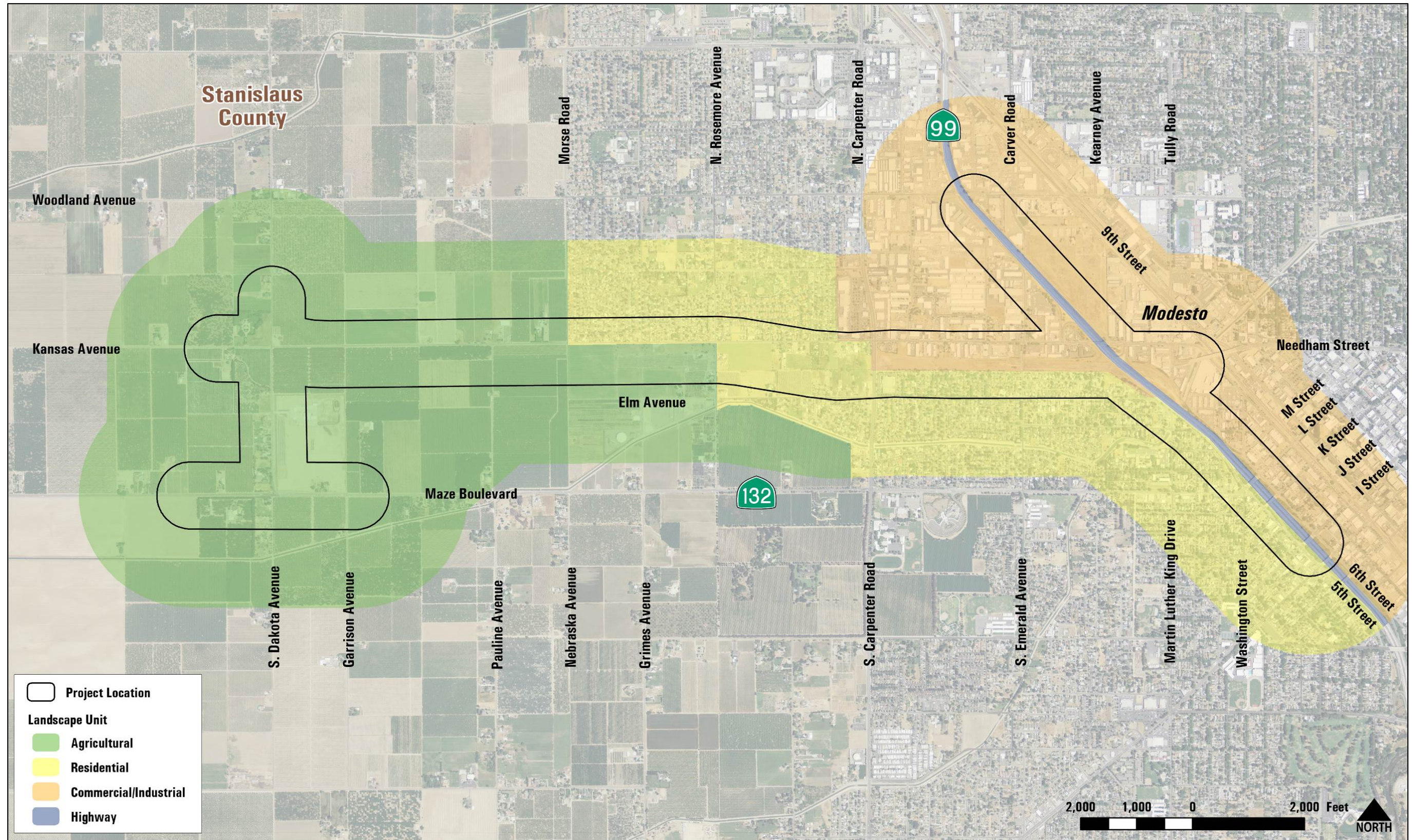


Figure 2-5: Existing Landscape Units

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Key Views (Viewsheds)

Figure 2-6 shows the six key views (or viewsheds) that represent the landscape units identified in the visual study area. Similar to the assessment of visual quality for each landscape unit, the existing visual quality of each viewshed was assessed based on vividness, intactness, and unity on a scale of very low to very high. Table 2-26 summarizes the visual quality evaluation for each key view.

Table 2-26: Existing Visual Quality Rating for Key Views in the Study Area

Viewshed	Vividness	Intactness	Unity	Existing Visual Quality ^a
#1: Rosemore Avenue	Moderate	Moderate	Moderate	Moderate
#2: Carpenter Road	Moderately low	Moderate	Moderate	Moderate
#3: Emerald Avenue	Moderate	Low	Low	Moderately low
#4: SR 99	Low	Moderate	Low	Low
#5: Needham Street	Low	Moderate	Low	Moderately low
#6: Elm Avenue	Moderate	Moderately high	Moderately high	Moderately high

^a The existing visual quality of each landscape unit was evaluated on a scale of very low to very high.

Viewer Groups

Three viewer groups were identified for the project study area:

- **Highway travelers** would view the study area from SR 99 and the new SR 132 freeway/expressway. Their sensitivity to visual changes would be lower than other viewer groups.
- **Local travelers** (motorists, bicyclists, and pedestrians) live or work in the residential, industrial, and commercial districts along Kansas Avenue, North Emerald Avenue, 6th Street, or Needham Street. Their sensitivity to visual changes would be higher than highway travelers.
- **Local residents** and employees live and work on Kansas Avenue or are residents in the Elm Tract or North Rosemore Avenue neighborhoods. This group would have the highest sensitivity to visual changes among the viewer groups.

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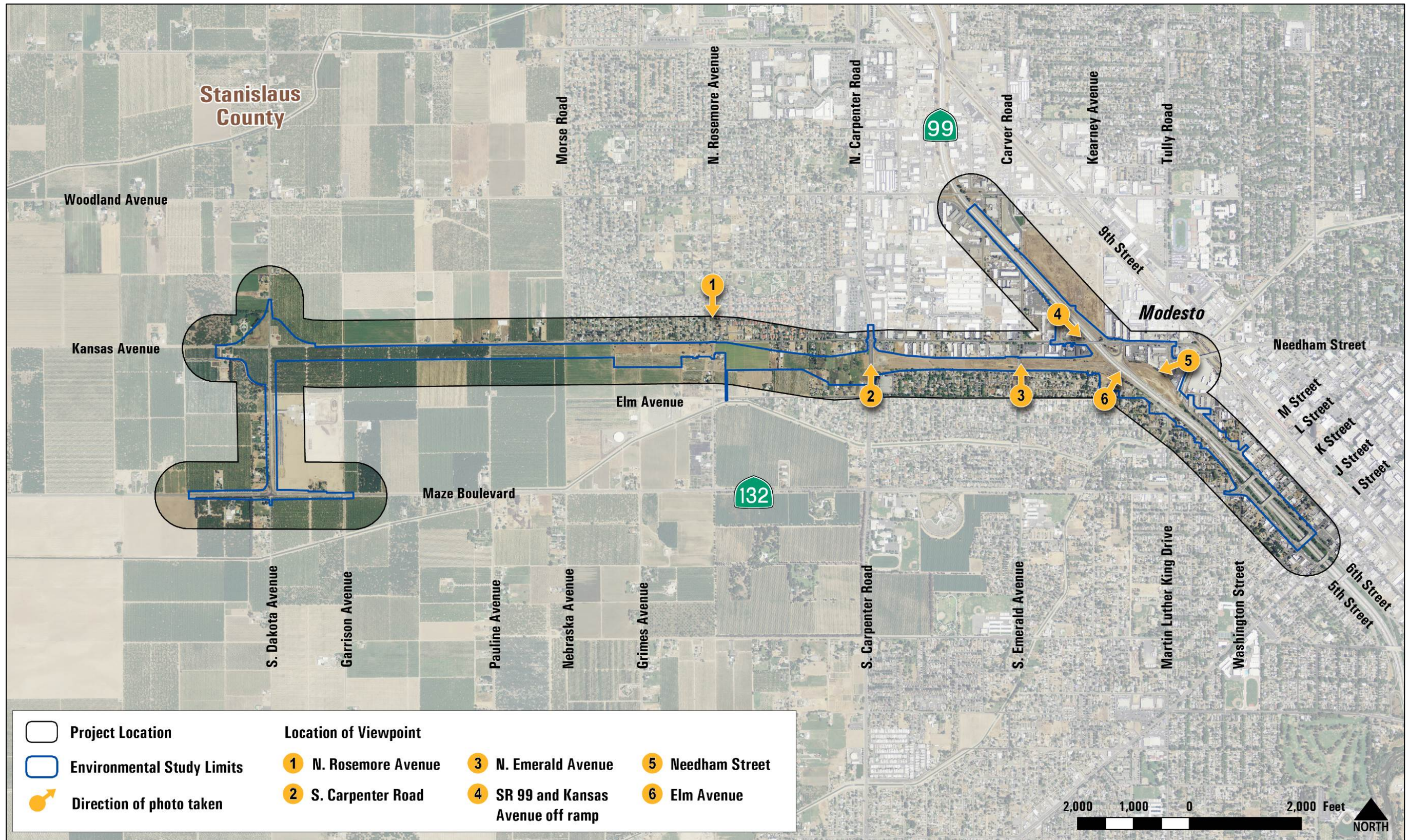


Figure 2-6: Key Views in the Study Area

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An analysis of a viewer groups' reaction to change can be predicted through understanding a community's goals and values as reflected in the land use plans, policies, and ordinances established by local governments. The Stanislaus County General Plan strives to conserve agricultural land and protect the area's agricultural heritage and principal industry, stressing the importance of preserving open space and scenic vistas wherever possible. Modesto places special value on its street trees, as evidenced by Modesto's street tree ordinance and the city being named a *Tree City USA* community every year since 1980.

Viewshed #1 Rosemore Avenue

As seen in Figure 2-7, Viewshed #1 shows views from the Residential Landscape Unit north of Kansas Avenue looking south toward the proposed new alignment and shows how the proposed depressed section would appear to residents and local motorists. The proposed new alignment would be at least 45 feet from the southern edge of Kansas Avenue and located between 20 to 22 feet below current street level at this location. A depressed portion of the new alignment proposed under both build alternatives would essentially preserve the existing visual quality of south-facing views for Kansas Avenue and North Rosemore Avenue residents and local motorists.

Overall, the visual impact of a depressed new alignment crossing under North Rosemore Avenue, would change some of the visual elements. If sound walls are required, they could have more visual impact than a see-through rail type barrier, and would be less consistent with the existing rural character of the Agricultural landscape unit. Views of open land in the middle ground would be replaced with views of an improved North Rosemore Avenue with curb and gutter, sidewalks, pavement striping, striped bicycle lane, and a see-through railing-type barrier. Views of agricultural landscape character would be replaced with urban residential street character. However, with mitigation, the changes would not be enough to change the overall visual quality and impacts would be considered less than significant. Visual quality for Viewshed #1 would remain as moderate.

Figure 2-7: Viewshed #1: Rosemore Avenue



Viewshed #1: Rosemore Avenue. Local travelers' existing view from North Rosemore Avenue looking south. Kansas Avenue is seen in the foreground.



Viewshed #1: Rosemore Avenue. Simulated view of either build alternative at the completion of Phase 1. Note: The noise barrier on the right half of the simulation is no longer recommended; instead, there would be the same see-through railing-type barrier as shown on the overcrossing.

Viewshed #2 Carpenter Road

Figure 2-8 shows the proposed new alignment as depressed in this area with both build alternatives. The new alignment would pass under North Carpenter Road, and the road's on- and off-ramps would be parallel and close to the proposed new alignment. The northbound North Carpenter Road to westbound SR 132 movement would be provided from a left-turn lane and ramp. A barrier-separated bicycle lane would exist along the east side of North Carpenter Road. The existing curb and gutter on the west side of the road would be removed, and a grassy ditch would be installed for roadway runoff, which would make the roadway edge somewhat less defined. Views of the pavement area would increase slightly, but overall the arterial street elements (pavement striping, signals, no overhead power lines, and poles) help organize and unify the street scene. With a see-through railing-type barrier along the top edge of the new alignment, visual changes from these improvements would be consistent with the existing urban street setting. These modifications would not change the vividness, intactness, and unity ratings for this viewshed. Therefore, the visual quality rating for this viewshed would not change and would remain moderate.

Figure 2-8: Viewshed #2: Carpenter Road



Viewshed #2: North Carpenter Road. Local travelers' existing view from North Carpenter Road looking north.



Viewshed #2: North Carpenter Road. Simulated view of either build alternative at the completion of Phase 1.

Viewshed #3 Emerald Avenue

Both build alternatives would include a bridge for the new alignment to cross over North Emerald Avenue as shown in Figure 2-9. The elevated expressway would create a visual barrier that would obstruct residents' views to Kansas Avenue, resulting in a feeling of enclosure and separation between the residential neighborhood and the commercial district. The new bridge abutment and slope pavement would enclose the existing soil stockpile on the east side of North Emerald Avenue. The new alignment's overcrossing span would be sized to allow Modesto to improve North Emerald Avenue with new sidewalks, curb and gutter, and bicycle lanes as appropriate. Figure 2-9 shows the new alignment's overcrossing as a visual portal to the Commercial/Industrial Landscape Unit north of the project.

Aesthetic treatments to the overcrossing, such as the use of textured wall treatments and compatible hardscape color scheme, would be determined after the preferred alternative is selected, during final project design and in coordination with local stakeholders.

Also, adding sidewalks, curb, and gutter would make the street more inviting for use by pedestrians and bicyclists. While the proposed project would provide new infrastructure that could bring more order to the built landscape, the improvements would be limited to the immediate study area.

Looking north along North Emerald Avenue (from viewpoint #3), the viewshed would be altered by the addition of a highway bridge and bridge abutments. Though the viewshed would be altered, the overall visual quality rating would remain moderately low and therefore would not be impacted. Aesthetic treatments on the structure could improve the vividness rating by providing visual cohesion with other SR 132 structures. Landscaping planted on the embankments could also improve the vividness rating by softening the visual effect of the project.

Figure 2-9: Viewshed #3: Emerald Avenue



Viewshed #3: Emerald Avenue. Local travelers' existing view from North Emerald Avenue looking north.



Viewshed #3: Emerald Avenue. Simulated view of either build alternative at the completion of Phase 1. Note: The noise barrier recommended for the overpass is not shown, and it would further block views of high-profile vehicles on the overpass.

Viewshed #4 State Route 99

Viewshed #4 represents the views of regional highway motorists as they travel south along SR 99 (Figure 2-10). The visual changes resulting from both build alternatives would be similar in this view. However, Alternative 1 would remove the existing on-ramp from Kansas Avenue, and Alternative 2 would slightly change the ramp's location. Other ramps proposed under both build alternatives would be in the distance and would not be visible beyond the Kansas Avenue bridge in this view. Pavement widths would increase, and the grassy side slope would be replaced by a retaining wall. Some of the trees on the highway side slope would be removed by the new Kansas Avenue Overcrossing.

The *Route 99 Corridor Enhancement Master Plan* recommends aesthetic treatment consideration for projects in urban portions of SR 99. Modesto's corridor enhancement plan for SR 99 is in progress, and final aesthetic concepts for this interchange have not been determined. However, a potential structural aesthetic treatment for the Kansas Avenue Overcrossing is shown in Viewshed #4. Aesthetic treatments would be determined after the preferred alternative is selected, during final project design and in coordination with local stakeholders.

Views of grass areas would decrease and highway pavement area would increase, but overall, the highway elements (median barrier, retaining walls, noise walls, pavement, and landscaped slopes) would help organize and unify the scene. Overall, the visual quality of Viewshed #4 would improve slightly from low to moderately low.

Figure 2-10: Viewshed #4: SR 99



Viewshed #4: SR 99. Highway travelers' existing view from SR 99 looking south toward the Kansas Avenue overpass.



Viewshed #4: SR 99. Simulated view of Alternative 1 at the completion of Phase 2.



Viewshed #4: SR 99. Simulated view of Alternative 2 at the completion of Phase 2.

Viewshed #5 Needham Street

The visual simulation for Viewshed #5 shows views experienced by regional and local travelers on Needham Street as well as views experienced by business owners and employees in this commercial/industrial district. As shown in Figure 2-11, one or two buildings would be replaced by a new roadway connection between Needham Street and a new alignment structure over SR 99. Aesthetic treatments to the overpass are under consideration by project stakeholders, so detailed aesthetic treatments are not shown in the visual simulation for Viewshed #5. Aesthetic treatments would be determined after the preferred alternative is selected, during final project design and in coordination with local stakeholders.

The existing view is enclosed and focused on the architecture of the commercial/industrial district. The proposed project would open this enclosed view to objects in the distance, such as the highway interchange, the new alignment, and tall street trees in the Elm Tract neighborhood to improve the visual quality of Viewshed #5. Overall, the visual quality of Viewshed #5 would improve slightly from moderately-low to a solid moderate rating.

Figure 2-11: Viewshed #5: Needham Street



Before

Viewshed #5: Needham Street. Local travelers' existing view of the intersection of Needham Street and North Franklin Street looking west.



After

Viewshed #5: Needham Street. Simulated view of either build alternative at the completion of Phase 2.

Viewshed #6 Elm Street

Two visual simulations were prepared for Viewshed #6 to show the visual changes caused by two different alternatives for the proposed SR 132/SR 99 interchange (Figure 2-12). For both build alternatives, a flyover ramp on a structure with a noise barrier would be constructed above SR 132 and SR 99 to connect northbound SR 99 to westbound SR 132. The flyover ramp would be a major feature for the northeast view from Elm Avenue and nearby streets. The fact that SR 99 is immediately adjacent to Elm Avenue homes would be made more visually obvious.

The interchange design proposed under Alternative 1 would require a new overpass structure to connect the new alignment to 5th Avenue. This overpass would require the construction of approach roads on fill. The area required to construct the roadway on fill requires securing additional right-of-way, removing 5 homes and 16 large trees on the north side of Elm Avenue, and relocating the SR 99 noise barrier toward the southwest. The visual quality rating for Viewshed #6 would be degraded from moderately-high to moderately-low by Alternative 1.

For Alternative 2, the proposed realignment of the 5th Avenue connection would be constructed as an exit ramp from the SR 132 off-ramp to SR 99. Ramp construction would require a smaller area of right-of-way, and fewer homes and trees would be removed compared to Alternative 1 (3 homes instead of 6 and 15 trees instead of 16). The SR 99 noise barrier would be relocated toward the southwest, but not as far southwest as proposed under Alternative 1. The visual quality rating for Viewshed #6 would be degraded from moderately-high to moderately-low by Alternative 2.

Figure 2-12: Viewshed #6: Elm Avenue



Viewshed #6: Elm Avenue. Residents' existing view from Elm Avenue looking northeast.



Viewshed #6: Elm Avenue. Simulated view of Alternative 1 at the completion of Phase 2. Note: ground-level noise barrier is shown.



Viewshed #6: Elm Avenue. Simulated view of Alternative 2 at the completion of Phase 2.

The visual impacts described above were assessed based on both the full build-out of one of the two build alternatives and separately under Phase 1 (2020) and Phase 2 (2028). Phase 1 would construct only the elements described in Section 1.4, Project Alternatives. As a result, Phase 1 would result in a lower degree of visual changes than what would occur under Phase 2.

Environmental Consequences

Build Alternatives

Visual impacts from the build alternatives were determined by combining the change in visual quality for each viewshed with the predicted viewer response to those changes. If minor visual changes occurred in a viewshed that did not alter its visual quality rating, some level of visual impact could still occur for that viewshed, depending on the level of viewer sensitivity to visual changes.

Table 2-27 summarizes potential changes to the study area’s visual quality. The two build alternatives would result in similar alterations to each viewshed and landscape unit, as described further below, but differences are noted.

Table 2-27: Changes in Visual Quality Ratings for the Build Alternatives

Viewshed (Landscape Unit)	Existing Visual Quality	Expected Visual Quality^a	Change in Visual Quality Rating
#1: Rosemore Avenue (Residential and Agricultural)	Moderate	Moderate	No change. The minor visual changes did not change rating.
#2: Carpenter Road (Commercial/Industrial)	Moderate	Moderate	No change. The minor visual changes did not change rating.
#3: Emerald Avenue (Residential)	Moderately low	Moderately low	No change. The minor visual changes did not change rating.
#4: SR 99 (Highway)	Low	Moderately low	Improved
#5: Needham Street (Commercial/Industrial)	Moderately low	Moderate	Improved
#6: Elm Avenue (Residential)	Moderately high	Moderately low	Degraded

^a The expected visual quality is the anticipated visual quality of each landscape unit and key view after project construction.

Source: Visual Impact Assessment (November 2015)

Combining the change in visual quality ratings with the predicted viewer response determines the visual impacts. Table 2-28 summarizes the potential impacts.

Table 2-28: Visual Impacts for the Build Alternatives

Viewshed (Landscape Unit)	Change in Visual Quality Rating (Vividness + Intactness + Unity = Visual Quality)	Viewer Response	Visual Impact
#1: Rosemore Avenue (Residential and Agricultural)	Vividness: Remains moderate. Intactness: Remains moderate. Unity: Remains moderate. Visual quality: Remains moderate. Minor visual changes that would occur would not change rating.	High	Moderate ^a
#2: Carpenter Road (Commercial/Industrial)	Vividness: Remains moderately low. Intactness: Remains moderate. Unity: Remains moderate. Visual quality: Remains moderate. The minor visual changes that would occur would not change rating.	High	Moderate ^a
#3: Emerald Avenue (Residential)	Vividness: Remains moderate. Intactness: Remains low. Unity: Remains low. Visual quality: Remains moderately low. The minor visual changes that would occur would not change rating.	High	Moderately low ^a
#4: SR 99 (Highway)	Vividness: Improves from low to moderate. Intactness: Improves from moderate to moderately high. Unity: Remains low. Visual quality: Improves from low to moderately low.	Moderately high	Moderately low
#5: Needham Street (Commercial/Industrial)	Vividness: Improves from low to moderate. Intactness: Remains moderate. Unity: Improves from low to moderate. Visual quality: Improves from moderately low to moderate.	Moderately high	Moderate
#6: Elm Avenue (Residential)	Alternative 1: Vividness: Remains moderate. Intactness: Degrades from moderately high to low. Unity: Degrades from moderately high to low. Visual quality: Degrades from moderately high to “lower” end of the moderately low rating. Alternative 2: Vividness: Remains moderate. Intactness: Degrades from moderately high to low. Unity: Degrades from moderately high to low. Visual quality: Degrades from moderately high rating to “higher” end of the moderately low rating.	High	Alternative 1: High Alternative 2: Moderately High

^a Because the viewer response to the visual change would be high, the overall visual impact from the minor visual changes would be moderate to moderately low.

Source: Visual Impact Assessment (November 2015)

The design for both build alternatives would be the same in the western portion of the study area and would be similar in the eastern portion, so that Alternative 1 and Alternative 2 would result in very similar visual changes throughout the study area.

Both build alternatives would relocate the intersection of Kansas Avenue and North Dakota Avenue to the north. The new SR 132 intersection with North Dakota Avenue would be just south of the current Kansas Avenue/North Dakota Avenue intersection, adversely affecting views for residents facing Kansas Avenue west of the intersection. One home on the south side of Kansas Avenue, at 4104 Kansas Avenue, would lose the vegetative screen between the residence and the existing road. An access road would be constructed closer to one home, at 4054 Kansas Avenue, in the northwest quadrant of the Kansas Avenue/North Dakota Avenue intersection, bringing roadway

infrastructure closer to that home and making it more immediately visible to those residents. Replacing or preserving trees near the intersection through design modification would help preserve the visual integrity of the Agricultural Landscape Unit.

Both build alternatives would also include a flyover ramp structure as part of the proposed SR 132/SR 99 interchange. Existing mature trees that currently screen views of SR 99 would be replaced with vertical structures, such as the proposed flyover ramp structure. The flyover ramp would be a new highway element visible to Elm Avenue residents and would be incompatible with the existing setting of the Elm Tract neighborhood. Up to six homes would be removed from the north side of Elm Avenue, changing the consistent pattern of homes facing the street and degrading the visual unity and intactness of the neighborhood. The visual degradation would be slightly higher under Alternative 1 because it would remove more homes than Alternative 2 and because the proposed flyover ramp structure and ground-level noise barriers would be closer to the residential area than under Alternative 2. Figure 2-12 shows before and after images for the two build alternatives.

Improvements along the new North Carpenter Road/SR 132 interchange would involve an area on the south side of SR 132 between the on- and off-ramps that would be planted with street trees. This would reduce the visual intrusion from the proposed new alignment, enhance the visual continuity of North Carpenter Road, and support Modesto's land use policy to "create safe and attractive tree-lined environments." Within the urbanized area of Modesto, both build alternatives would generally provide a more unified, cohesive human-built landscape that would be consistent with the goals and policies adopted in Modesto's General Plan.

Neither build alternative would change the following:

- The existing visual quality in the Agricultural Landscape Unit (Viewpoint #1 at North Rosemore Avenue) because the visual changes associated with both build alternatives would not be substantial enough to change the visual quality rating in this area
- The visual quality of the Residential Landscape Unit next to North Rosemore Avenue and North Emerald Avenue (Viewpoints #1 and #3) because the visual changes associated with both build alternatives would not be substantial enough to change the visual quality ratings in these areas

The visual simulations in Figure 2-7 through Figure 2-12 show changes that would result from the two build alternatives. The visual impacts from the recommended noise barriers were included in the evaluation of visual changes. The precise placement and visual treatment would be determined after the preferred alternative is selected, during final project design.

For areas that would have replacement planting, it would take time for the vegetation to grow and lessen the visual impact. Replacement planting would occur as part of Phase 2. Visual impacts would be greatest during the first 10 years after construction and after replacement planting is complete. In 10 to 20 years, newly planted trees would grow to be 50 to 70 percent of their mature size and would replace the screening, filtering, and softening functions provided by the original trees. As a result, the loss of vegetation and its function would be temporary, and any negative viewer response would be lessened over time.

Caltrans supports enrichment of the cultural and visual environment for transportation system users and local communities by using a collaborative approach to the design and selection of aesthetic treatments.

Aesthetic treatments may integrate elements that reflect a community's identity and values. StanCOG, Stanislaus County and the City of Modesto would collaborate with stakeholders through community meetings or workshops to select treatments to be applied to noise barriers, overcrossings and other structural elements of the proposed project. Following selection of the aesthetic treatments, the applicable local agency would issue a resolution or other official document recommending approval of the proposed design to Caltrans.

Lighting and Glare

Both build alternatives would introduce new highway lighting and illuminated signage along the length of the new alignment, at bridge overpasses and underpasses, and at the proposed SR 132/SR 99 interchange. New lighting and glare would occur in areas currently unlit, most notably west of North Carpenter Road and south of the proposed new alignment. This would be a major visual change for residents with views of the project.

Trees

As indicated in Table 2-29, both build alternatives would impact most of the 713 trees (including 92 Modesto street trees) identified within the project study area.

Table 2-29: Tree Impacts by Build Alternative

Build Alternative	Total Trees Impacted	Modesto Street Trees Impacted
Alternative 1	591	35
Alternative 2	589	33

Source: Visual Impact Assessment (November 2015)

Both build alternatives would remove up to 16 trees next to the Elm Tract neighborhood and in front of homes facing North Dakota Avenue. Tree removal, which would open up residents' views of the new alignment, may result in highly sensitive responses from residents in the two neighborhoods. The number of impacted orchard trees would be negligible relative to the surrounding orchards in Stanislaus County.

Vegetation and trees would be replaced, but it would take time for the vegetation to grow and lessen the visual impact. Visual impacts would be greatest during the first ten years after construction and replacement planting is complete. In ten to twenty years, newly planted trees would grow to be 50 to 70 percent of their mature size, replacing the screening, filtering and softening functions provided by the original trees. As a result, the loss of vegetation and its function would be temporary.

Consistency with Local Plans and Scenic Resource Impacts

Both build alternatives would comply with the visual and scenic preservation policies contained in the County's and City's general plans.

Construction

During Phase 1, all viewer groups would experience temporary visual changes during construction, including new views of heavy equipment and vehicles (such as bulldozers, graders, scrapers, pile drivers, and trucks). The viewer groups would also see construction material stockpiling, vegetation removal within construction areas, dust, and construction signage.

Construction activities would typically occur during daytime hours, though there may be times of nighttime activity. Nighttime work may occur in and around SR 99. If nighttime work is required, viewer groups would see high-wattage lighting used to illuminate the construction site. This would result in nighttime glare and light pollution.

During Phase 2, viewers would experience similar temporary visual impacts during construction.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not contribute to direct or indirect impacts on visual resources.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce visual impacts as determined during final project design and in coordination with local stakeholders:

- VA-1 The City of Modesto street tree ordinance stipulates that trees removed within the City's right-of-way would be replaced in kind, if appropriate. The contractor would conform to local tree ordinances for construction projects. The ratios and location of replacement would be determined in coordination with the City of Modesto.
- VA-2 Vegetation and trees removed by the contractor would be replaced in accordance with the California Department of Transportation's Project Development Procedures Manual, Chapter 29, which specifies policies for new highway planting, required mitigation planting, highway planting replacement, and highway planting revegetation. The policy specifies conditions under which planting is appropriate. Landscape policies developed as part of the Route 99 Corridor Enhancement Plan within Modesto city limits would also be a guide for tree replacement and new highway planting. Replacement planting and new highway planting would occur as part of Phase 2. Contractor activities would include, but not be limited to, site grading and seeding, trimming trees and shrubs lightly damaged by construction, site clean-up, and replacement of trees, shrubs, and ground cover.
- VA-3 To minimize glare from State Route 132 lighting, lamps that direct light toward the roadway would be used where required to minimize glare and light spillover. Examples of these features include light shields or low level lighting to redirect light away from motorists, homes, businesses and the sky. If night-time construction is needed, causing a temporary degradation of visual quality, procedures would be taken to direct the light inward toward the construction site and minimize glare for motorists and residents near the site.
- VA-4 The contractor would employ a common aesthetic theme to all proposed structures along the new alignment, as determined during final project

design and in coordination with local stakeholders, to visually unify the highway's image with other Modesto structures (e.g., Needham Bridge and the proposed Pelandale Bridge) and to strengthen the landscape character of districts on either side of the highway.

- VA-5 The contractor would landscape the highway embankment to enhance homeowners' views of the proposed new alignment.
- VA-6 The contractor would replace trees near the relocated intersection of Kansas Avenue and North Dakota Avenue or modify intersection design to preserve trees in their current location.
- VA-7 The contractor would plant street trees at the property edge next to Elm Avenue and align the right-of-way fencing with the noise barriers, which would be set back from the property line.
- VA-8 The contractor would apply a corridor-wide aesthetic theme to proposed project elements (e.g., walls and structures), developed during final design, and implement a functional planting style that respects the visual context of the Agricultural Landscape Unit, which is characterized by orchards, crop fields, grass ditches, and farm buildings.
- VA-9 The contractor would install roadway lighting features that direct light downward and away from adjacent residential properties or the night sky.
- VA-10 The contractor would direct light inward toward the construction site during nighttime construction.

2.1.8 Cultural Resources

Regulatory Setting

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

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of

Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic 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 Code of Federal Regulations 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The PA implements the Advisory Council on Historic Preservation's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties (in Section 4(f) terminology—historic sites). See Appendix B for specific information about Section 4(f).

The California Environmental Quality Act requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historical Resources and, therefore, a historical resource. Historical resources are defined in Public Resources Code Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to the California Environmental Quality Act, and AB 52 is commonly referenced instead of the California Environmental Quality Act when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in Public Resources Code Section 21083.2.

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

Affected Environment

The following section is based on the *State Route 132 Extended Phase I Geoarchaeological Testing Results Report* completed in August 2017, *State Route 132 Archaeological Survey Report* completed in October 2011, the *State Route 132 Historic Resources Evaluation Report* completed in December 2011, and the *State Route 132 Historic Property Survey Report* completed in December 2011. Following changes in the project's Area of Potential Effects (APE), additional areas were evaluated, and a supplemental *Historic Property Survey Report* was completed in October 2014. The additional areas identified in the supplemental Historic Property Survey Report included primarily narrow portions of parcels adjacent to the proposed alignment between North Dakota Avenue and North Carpenter Road. These areas were added due to design refinements relating to minor roadway improvements and the creation of roadside bioswales and infiltration basins for stormwater runoff.

Record searches, literature reviews, map reviews, consultation with Native American and historical organizations, and a site survey were conducted in 2010 and 2014 for the project. Sources consulted included base maps marked with the locations of previous cultural resource studies and known cultural resources. In addition, the Native American Heritage Commission was contacted in June 2010 and June 2014. The commission noted that a Sacred Lands File search was negative for the presence of Native American cultural resources in the project study area.

Archaeological Resources

To determine if any significant archaeological resources are present within the project study area, an archaeological area of potential effects was established to represent

both build alternatives and the maximum possible area of direct impacts resulting from the project. The horizontal and vertical limits of the area of potential effects were defined according to the limits of proposed construction work. The vertical area of potential effects would vary from 3 to 5 feet for road grading to 35–40 feet below existing grade. The depressed freeway option includes constructing a new at-grade freeway from North Dakota Avenue to west of North Rosemore Avenue, a depressed roadway from west of North Rosemore Avenue to west of Emerald Avenue, and an elevated roadway from west of Emerald Avenue to SR 99. The area of potential effects also entails all existing right-of-way and those parcels from which new right-of-way would be acquired. As such, the area of potential effects encompasses 1) approximately 4 miles of the proposed new alignment, 2) the footprints for the proposed interchange locations (including the associated on- and off-ramps), and 3) any construction staging areas or locations where ground disturbance would occur.

Over 80 percent of the area of potential effects was inventoried for cultural resources more than 5 years ago, and about 50 percent of the area was surveyed within the last 5 years. Within a half-mile radius of the area of potential effects, 40 cultural resources studies have been previously conducted.

Two previously known historic-era archaeological resources were found within the area of potential effects. Site CA-STA-408H (Hadley Site) was originally recorded in 2000 and consists of nine features, including concrete foundations and a pile of rubble located on the south side of the site near and within the remains of a concrete fountain. The site is estimated to have been constructed after 1914. Site CA-STA-407H (Emerald Site) was also originally recorded in 2000. The site was described as residential, consisting of a concrete pad foundation, remnants of a brick wall, landscaping remnants, and modern refuse. The property was developed in the 1920s, but all structures were gone when Caltrans acquired the property in 1963. Current site conditions show that all structures have been destroyed.

Geoarchaeological investigations were conducted in May 2017 to assess the potential for buried archaeological deposits present within the area of potential effects and to identify intact archaeological deposits and features. The geoarchaeological investigations included the excavation of 26 mechanical trenches and a review of the geotechnical studies to determine if buried surfaces with the potential to contain archaeological sites were present. No evidence of buried surfaces or buried archaeological sites were encountered and therefore the area of potential effects was determined to have a low potential for buried intact archaeological deposits.

Historic Architectural Resources

The proposed project's historic architectural area of potential effects includes all existing right-of-way and those parcels from which new right-of-way would be acquired. In addition, some parcels in proximity to the proposed right-of-way are included because of potential indirect impacts (visual and noise-related impacts). The historic architectural area of potential effects extends along existing SR 132 (Maze Boulevard) just west and east of Dakota Avenue. The area of potential effects also covers the area south of Kansas Avenue from west of Dakota Avenue to east of SR 99. Lastly, the area of potential effects follows SR 99 from Lone Palm Avenue at the northern end of the project to H Street at the southern end.

The area of potential effects consists mostly of residential and agricultural buildings, but also includes industrial and commercial buildings and a segment of an irrigation canal (Modesto Irrigation District's Lateral Canal No. 4). In total, the area of potential effects has 167 properties containing built-environment resources constructed in 1969 or earlier that were formally evaluated under National Register of Historic Places and California Register of Historic Resources criteria. The Historic Property Survey Report documented 163 properties, and the supplemental report documented an additional four properties. Of the 167 properties, 165 were found to not be eligible for the National Register of Historic Places, nor were they considered historical resources for purposes of the California Environmental Quality Act.

Two of the properties evaluated appear to meet the criteria for listing in the National Register of Historic Places and the California Register of Historic Resources. The property at 3530 Maze Boulevard is a residential and farm complex located south of the existing highway between Dakota Avenue and Carpenter Road, on the western end of the area of potential effects. Constructed in 1918, the historic property consists of a Craftsman-style single-family residence with a garage/shed, barn, water tower, outhouse, and associated landscaping on a 15.46-acre parcel. The property appears to meet the criteria for listing in the National Register of Historic Places at the local level of significance under Criterion C in the area of architecture. Consequently, the property would also appear to be a historical resource for the purposes of CEQA.

The property at 416/418 I Street is a two-story commercial structure built between 1924 and 1925. Also known as Dania Hall, the property sits on a 0.11-acre parcel on the south side of I Street near the intersection of 5th and I streets on the eastern end of the area of potential effects. The property appears to qualify for listing in the National Register of Historic Places under Criterion A for its association with the Danish-

American settlement in Stanislaus County and as an example of Danish-American fraternal organization.

Environmental Consequences

Build Alternatives

Both historic-era archaeological resources (site CA-STA-407H and CA-STA-408H) were evaluated and determined to not be eligible for inclusion in the National Register of Historic Places or the California Register of Historic Resources. This recommendation is in concurrence with survey results. Therefore, there will be no adverse effect on any known archaeological properties eligible for the National Register of Historic Places or the California Register of Historic Resources as there are no historic properties affected at these sites. The proposed project would not require the temporary or permanent acquisition of any land from the 416/418 I Street parcel. No construction activities are proposed on or adjacent to the property, and there would be no temporary or permanent use of land from the parcel. Therefore, there will be no adverse effect on the resources at 416/418 I Street as there are no historic properties affected at these sites. Therefore, Caltrans is not required to submit a Section 106 finding of effect on the 416/418 I Street property to the State Historic Preservation Officer.

Since there would be no temporary or permanent use of land from the parcel, there would be no 4(f) property affected at this location and the provisions of Section 4(f) would not be triggered as described in Appendix B of this document.

Both build alternatives would require the acquisition of a portion of the northwest corner of 3530 Maze Boulevard (totaling approximately 0.13 acre of the 15.46-acre parcel) to widen the right-of-way in this area. The potential acquisition is located where a contemporary almond orchard exists outside the historic property boundary. The historic boundary containing eligible buildings and landscaping would not be affected by acquisition.

Construction activities near the Maze Boulevard property could include traffic control, temporary traffic signs during construction, installation of new permanent traffic signs along the roadside, and possibly asphalt concrete resurfacing and restriping the existing pavement. Construction-related activities east of the acquired portion of the parcel would occur within existing SR 132 (Maze Boulevard) right-of-way. The historic boundary containing the National Register of Historic Places-eligible buildings and landscaping would not be affected by use of this portion of the larger parcel. Access to the historic property from the existing highway would be

maintained during construction. There are no adverse effects on the resources at 3530 Maze Boulevard and therefore no historic properties affected. Caltrans is not required to submit a Section 106 finding of effect on the 3530 Maze Boulevard property to the State Historic Preservation Officer for concurrence.

As detailed in Appendix B of this document, incorporation of the 0.13 acre of land from 3530 Maze Boulevard into the transportation facility would not result in a Section 4(f) use.

A Historic Property Survey Report was submitted to the State Historic Preservation Officer on March 16, 2012 for concurrence on eligibility determinations for the sites identified in the 2011 area of potential effects. A concurrence letter was received from the State Historic Preservation Officer dated May 16, 2012. A Supplemental Historic Property Survey Report was prepared to evaluate eligible properties within the expanded area of potential effects and submitted to the State Historic Preservation Officer on February 6, 2015. A concurrence letter was received from the State Historic Preservation Officer dated May 16, 2015. As summarized below, Caltrans received letters of concurrence on the following findings under Section 106 from the State Historic Preservation Officer (the letters are included in Appendix I):

- 2012 Area of Potential Effects: two eligible properties and 165 ineligible properties
- 2014 Supplemental Area of Potential Effects: four ineligible properties

Because the results of the May 2017 geoarchaeological investigations were negative, concurrence by the State Historic Preservation Officer is not required to complete the identification and effects determination for archaeological and historic architectural resources for the proposed undertaking. A report summarizing the results of the field investigation has been submitted to the Caltrans Office of Cultural Resources and is included in Appendix I.

To summarize the paragraphs above, no historic properties will be affected as a result of the project.

Because there would be a potential to discover buried cultural resources, including human remains, during construction grading and excavation, best management practices would be employed during construction in the event that unknown buried cultural resources are encountered. 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, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to Public Resources Code Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains would contact the California Department of Transportation's District 10 Native American Coordinator so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

No-Build Alternative

The No-Build Alternative would not include any roadway improvements and would not have an impact on the two historic architectural resources because no physical disturbance would occur at either property. Therefore, no historic properties would be affected by the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

There are no adverse effects on known historic or archaeological resources; therefore, no avoidance, minimization, and/or mitigation measures are required.

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. Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.

- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the 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 following section is based on the *State Route 132 Floodplain Study* (October 2015) and *Preliminary Drainage Report* (September 2014).

The proposed project study area is located in California’s Central Valley Basin, the largest hydrologic basin in the state. The San Joaquin River is about 16 miles west of the study area. The Stanislaus River (about 6 miles north of the study area) and the Tuolumne River (about 0.5 mile south of the study area) are two of the San Joaquin River’s main tributaries.

The proposed project study area is also within the San Joaquin Watershed (Natural Resources Conservation Service’s California Watershed Region 6), specifically the Riverbank Hydrologic Area of the San Joaquin Valley Floor Hydrologic Unit.

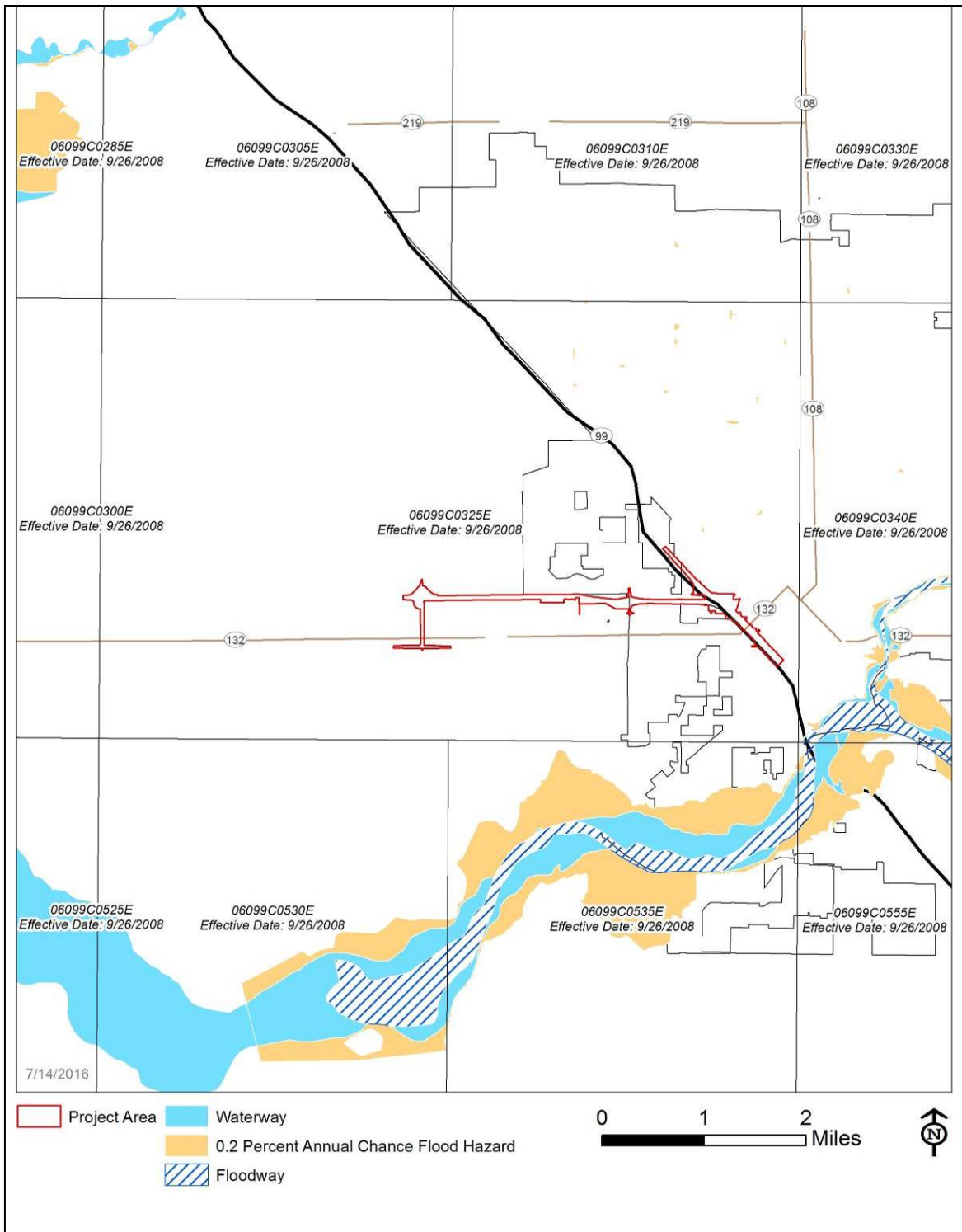
The project study area is generally flat, with residential and commercial/industrial development in the eastern portion and agricultural fields in the western portion. There are no traditional storm drainage conveyance facilities (inlet and drain pipe systems, detention basins, or pumping plants) in the western portion of the study area, so runoff generally flows from existing roadways into adjacent shallow roadside ditches, onto the agricultural fields, and/or into drywells.

The runoff is allowed to permeate into soils suitable for infiltration and into the underlying aquifer. Most soils within the project area have very low to moderate infiltration rates (about 0.08 to 4.34 inches per hour). Some of the flow enters the Modesto Irrigation District’s lateral canals (mainly Lateral Canal No. 4) and is eventually used by the Modesto Irrigation District as reclaimed water when needed for peak demand. Some runoff enters drywells and permeates into the soils within the western portion of the study area. The eastern portion of the project study area includes an inlet and drain pipe system within SR 99 and stormwater drain inlets for the residential and commercial development in the area. Stormwater collected in the depressed portion of SR 99 within the project limits is pumped to a stormwater basin just east of SR 99 and south of Kansas, where it evaporates or infiltrates the ground. If the capacity of the basin is exceeded, a valve can be opened to transmit basin-held

stormwater to the median collection system, which ultimately conveys stormwater to the Tuolumne River about half a mile to the south. Based on information provided by the Caltrans Maintenance Division, the valve has not been opened.

The proposed project study area is within the unprinted panel number 06099C0325E of the Federal Emergency Management Agency's Flood Insurance Rate Maps (Figure 2-13) dated September 26, 2008.

Encroachment on a floodplain is not expected because the proposed corridor would be in an unshaded Zone X area. Unshaded Zone X areas are defined by the Federal Emergency Management Agency as areas of minimal flood hazard, areas outside of the Special Flood Hazard Area, or areas higher in elevation than a 0.2-percent annual chance (500-year) flood elevation. The nearest mapped flood areas are next to the Stanislaus and Tuolumne rivers, north and south of the project study area, respectively.



Note: MID = Modesto Irrigation District

Figure 2-13: Federal Emergency Management Agency’s Flood Insurance Rate Map Index 06099C0325E

Environmental Consequences

Build Alternatives

The addition of impervious surface could affect the area's watershed through increasing the flow and volume of stormwater runoff. This could cause localized flooding downstream, which would affect both local and regional hydrology and peak flows. Alternative 1 and Alternative 2 would result in approximately 55.8 and 57.5 acres, respectively, of increased impervious surface that could result in higher peak flows and volumes entering receiving water bodies. Implementation of the project's drainage plan would ease flows and reduce potential direct or indirect impacts to local or regional hydrology.

Because the proposed project would not be within a Federal Emergency Management Agency-identified flood zone, there would be no flood zone impacts from project construction or operation. The proposed project would not encroach on a floodplain or have any direct or indirect impacts to a floodplain. Also, the chance of annual flooding in the study area would be less than 0.2 percent per year, which would not be considered substantial. Therefore, the project would not result in a significant floodplain encroachment.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements or any additional impervious surfaces that would affect regional or local hydrology. The No-Build Alternative is not located within a Federal Emergency Management Agency-identified flood zone. Therefore, no hydrology or floodplain impacts would result from the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measure would reduce impacts to the regional and local hydrology.

HY-1 All drainage and hydrological improvements would be detailed in the project drainage plan, which would be approved prior to the start of project construction. The plan would include drainage features, where appropriate, such as new drainage inlets, gutters, roadside ditches, pump stations, storm drain pipes, and detention basins. Preliminary drainage basin locations are included in Appendix F.

2.2.2 Water Quality and Storm Water Runoff

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 U.S. from any point source¹ unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System permit. This act and its amendments are known today as the Clean Water Act, Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/ construction point sources to comply with the National Pollutant Discharge Elimination System permit scheme. The following are important Clean Water Act sections:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires 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 would comply with other provisions of the act. (This is most frequently required in tandem with a Section 404 permit request. See below).
- Section 402 establishes the National Pollutant Discharge Elimination System, 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 administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems.
- 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.

The objective of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The U.S. Army Corps of Engineers issues two types of 404 permits: General and Standard permits. For General permits, there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar

¹ A point source is any discrete conveyance such as a pipe or a man-made ditch.

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 U.S. Army Corps of Engineers Standard permits. For Standard permits, the decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers, 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 that would have less adverse effects. The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative, to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. According to the guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The guidelines also restrict permitting activities that violate water quality or toxic effluent² 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 U.S. Army Corps of Engineers, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 Code of Federal Regulations 320.4.

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 Clean Water Act 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. Also, it prohibits discharges of "waste" as defined, and this definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge

² The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act, and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable Regional Water Quality Control Board Basin Plan.

In California, Regional Boards designate beneficial uses for all water body segments, and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the State Water Resources Control Board identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with the Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (National Pollutant Discharge Elimination System permits or Waste Discharge Requirements), the Clean Water Act requires the establishment of total maximum daily loads. These loads 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 State Water Resources Control Board administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, total maximum daily loads, and National Pollutant Discharge Elimination System permits. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System Program Municipal Separate Storm Sewer Systems

Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of stormwater discharges, including municipal separate storm sewer systems. The U.S. Environmental

Protection Agency defines a municipal separate storm sewer system 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 stormwater, that are designed or used for collecting or conveying stormwater.” The State Water Resources Control Board has identified Caltrans as an owner/operator of a municipal separate storm sewer system pursuant to federal regulations. Caltrans’ municipal separate storm sewer system permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or the Regional Water Quality Control Board issues National Pollutant Discharge Elimination System permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans’ Municipal Separate Storm Sewer System Permit was adopted on September 19, 2012, and became effective on July 1, 2013. The permit has three basic requirements:

- Caltrans must comply with the requirements of the Construction General Permit (see below).
- Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges.
- Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) best management practices, to the maximum extent practicable, and other measures that the State Water Resources Control Board determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Storm Water Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Storm Water Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of best management practices. The proposed project would be programmed to follow the

guidelines and procedures outlined in the latest Statewide Storm Water Management Plan to address stormwater runoff.

Affected Environment

The following section is based on the *State Route 132 Water Quality Assessment Report* (April 2016), *Preliminary Drainage Report* (September 2014), and the section includes technical information regarding soils and groundwater from the *State Route 132 Preliminary Geotechnical Report* (2010), *Caltrans Modesto Soils Stockpiles Groundwater Monitoring Report* (June 2015), and the *Draft Geotechnical Design Report Basin Infiltration Rates for State Route 132 West Expressway* (March 2012).

The proposed project study area sits within California's Central Valley Basin, the largest hydrologic basin in the state, draining nearly two-thirds of California and containing the state's two largest rivers—Sacramento River and San Joaquin River. As noted earlier, the San Joaquin River is approximately 16 miles west of the project. Located approximately 6 miles north and 0.5 mile south of the study area (respectively), the Stanislaus and Tuolumne rivers are two of the San Joaquin River's main tributaries. Beneficial uses for these three waters, as defined in the Central Valley Regional Water Quality Control Board's Basin Plan, include protecting water quality for municipal, domestic, and agricultural uses; water contact recreation; non-contact water recreation; warm and cold freshwater habitat; wildlife habitat, and industrial services and supplies.

As described in Section 2.2.1, Hydrology and Floodplain, no storm drainage conveyance facilities currently exist in the western portion of the project study area. However, the study area's soils do provide an opportunity for infiltration and evaporation of stormwater runoff. The Modesto Irrigation District's Lateral Canal No. 4 is the only perennial waterway within the project limits, and it eventually discharges into the Stanislaus River. The eastern portion of the study area includes an inlet and drain pipe system within SR 99 and stormwater drain inlets for the residential and commercial development in the area. The existing SR 99 roadway corridor includes a storm drainage system that features a longitudinal pipe system, starting north of Kansas Avenue and draining south to a pumping plant in the southeast quadrant of the SR 99/Kansas Avenue interchange. The pumping plant discharges into a concrete-lined channel and then into a detention/retention basin, which is east of and next to the SR 99 northbound lanes, about 800 to 1,000 feet south of Kansas Avenue. Stormwater that enters the detention/retention basin typically evaporates or infiltrates into the ground. This detention/retention basin is also equipped with a valve-

controlled drainage system. If the capacity of the basin is exceeded, the valve can be opened to transmit basin-held stormwater to the median collection system, which ultimately conveys stormwater to the Tuolumne River about 0.5 miles to the south. Based on information provided by the Caltrans Division of Maintenance, the valve has not been opened.

The Stanislaus and the Tuolumne rivers, which drain into the San Joaquin River, are both currently listed as impaired or not meeting water quality standards for various pollutants from primarily agricultural sources. Flows from the realigned portion of SR 132 west of SR 99 would enter infiltration trenches and retention basins for infiltration and evaporation.

A depressed portion of the new alignment would cross under North Carpenter Road and extend to North Rosemore Avenue. This portion of the new alignment would be greater than 10 feet above the groundwater surface. A pump station would be installed at the crossing to pump stormwater runoff out of the depressed section, which would ultimately discharge to a proposed detention basin. The pump station would pump not only runoff at the surface, but also any groundwater within 10 feet of the subgrade. Pumps would run only as necessary.

The study area is underlain by the Modesto Groundwater Sub-basin of the San Joaquin Valley Groundwater Basin. Groundwater recharge for the sub-basin is provided mostly from surface water infiltration and subsurface inflow from adjacent sub-basins. Test borings conducted in 1958 and 1959 indicated that the depth to groundwater was 47.0 and 41.0 feet mean sea level, respectively. More recent subsurface exploration conducted on July 14 and July 15, 2009 encountered static groundwater at elevations of 47.0 and 49.5 feet mean sea level, respectively (about 32 feet below the existing grade). Differences in the depth to groundwater is likely due to non-rainy versus rainy seasons, variations in creek or river levels, and/or irrigation or pumping of wells. The pattern of change in groundwater depth is expected to be unaffected by the stormwater runoff produced by the proposed new SR 132 alignment.

Stormwater runoff associated with the Caltrans Modesto soil stockpiles was most recently sampled in January 2016. Stormwater samples were collected from four locations next to the stockpiles and two background locations away from the stockpiles and analyzed for dissolved metals, chloride, nitrate as nitrogen, sulfate, sulfide, total alkalinity, bicarbonate alkalinity and carbonate alkalinity, total dissolved

solids, and total suspended solids. The results were generally consistent with background values, except for barium for a runoff sample collected next to the south side of soil stockpile 2, and strontium for all four stormwater samples. Results measured for both barium and strontium were higher than those reported for background samples. None of the concentrations in these samples exceeded their primary or secondary Maximum Containment Levels and all were within the same general range of concentrations recorded in previous sampling events.

Groundwater was most recently sampled in April 2017. None of the reported dissolved metals concentrations for the groundwater samples collected exceeded their respective numeric water quality threshold values. Except for nitrate in the samples collected from two wells, none of the reported general minerals for the groundwater samples collected equaled or exceeded their respective California primary Maximum Contaminant Levels. Barium and strontium were reported at concentrations similar to historical levels and remained significantly less than their numeric water quality thresholds. The remaining dissolved metals were also reported at concentrations similar to historical levels.

Environmental Consequences

Build Alternatives

Because the proposed project would consist mostly of constructing a new highway on a new alignment, the proposed project would result in a permanent (long-term) increase in impervious surfaces and permanent increase in runoff and the amount of pollutants in that runoff. Alternative 1 would increase impervious surfaces by an estimated 55.8 acres, while Alternative 2 would increase impervious surfaces by an estimated 57.5 acres.

The addition of impervious surfaces would affect the integrity and patterns of the local watershed by increasing stormwater peak flows and runoff volumes. This could lead to localized flooding with a potential to introduce pollutants generated as a result of the project into the environment and potentially impact surface or groundwater quality. These increases, if left untreated, could negatively affect the water quality of receiving water bodies, including the Stanislaus, Tuolumne, and San Joaquin rivers. However, the Stanislaus and San Joaquin rivers are located far enough away (16 miles) that no impacts are anticipated.

Although the Tuolumne River is closer (half a mile) to the project area, the proposed design of the SR 99 portion of the proposed project would construct a series of

detention/ retention basins designed to accommodate a 25-year storm event (the current basin was designed for a 10-year, 24-hour event). Within the recent past, the existing basin has not reached capacity, and no recent instances of stormwater are known to have collected within the SR 99 corridor and been transmitted to the Tuolumne River. Therefore, although it is possible that a large rain event could result in the release of water from the SR 99 detention/retention basins to the Tuolumne River, it is unlikely to occur. Also, the build alternatives would include best management practices as appropriate to treat runoff from the project site and reduce pollutants of concern.

During operation and maintenance of the proposed project, stormwater runoff would generally be contained within the project area through a series of detention/retention basins and/or infiltrate the groundwater to the greatest extent practical. Stormwater runoff along at-grade roadways and SR 132 would generally be contained through the use of graded swales and retention/detention basins. Stormwater collected within the SR 99 corridor would generally be contained through detention/retention basins and pumping plants. Additionally, erosion control (e.g., hydroseed) would be applied to the basins to prevent erosion and facilitate biofiltration of any sediment within the basins. Under the build alternatives, the existing SR 99 pumping plant and detention/retention basin would be removed and replaced with a new pumping plant and multiple, larger basins. The implementation of best management practices, final design features, and right-of-way acquisition to increase the amount of area for water infiltration would help minimize the potential impacts to water quality.

Potential direct impacts to water quality would be similar for both build alternatives:

- **Sediment.** The increase in impervious surface, as well as the expected increase in vehicles along the project corridor, could lead to more sediment in the runoff. Excessive sedimentation degrades aquatic habitat by stunting aquatic plant productivity. Suspended sediment (particles that are carried by the water and/or accumulate on the bottom of natural water bodies) can also cause a reduction in dissolved oxygen levels, which can be fatal to aquatic species.
- **Metals.** Metals that attach to these particles (the suspended sediments) and decayed organic matter can persist in the environment for long periods. These metals can be transferred from one organism to another in aquatic species and cause contamination of water supplies.

- **Nutrients.** Project paving and landscaping activities can increase nutrients in stormwater from sources such as vehicle exhaust and fertilizers. Excessive nutrients, particularly nitrogen and phosphorous, can cause extreme algal growth that could be toxic to certain aquatic organisms. Algal blooms and subsequent die-off can cause large variations in dissolved oxygen levels and, in some cases, can kill fish.
- **Storm Water Velocity and Volume.** Increases in impervious surfaces may lead to increased stormwater runoff flow, velocity, and volume. The impervious area collects increased pollutant loading, and the increased velocity easily transports contaminants to waterways. Increased velocity in channelized waterways also intensifies erosion and sedimentation.
- **Caltrans Modesto Stockpile Impacts.** Potential impacts to water quality would be mitigated through implementation of the containment remedy identified as the recommended alternative in the Draft Final Remedial Action Plan. The containment remedy would be accomplished through a Remedial Design Implementation Plan prepared under oversight and approval of the California Department of Toxic Substances Control and Central Valley Regional Water Quality Control Board.

As part of the project, treatment best management practices would be implemented to target pollutants of concern in stormwater runoff. Design Pollution Prevention and Treatment Control best management practices would be incorporated per the requirements of Caltrans' statewide National Pollutant Discharge Elimination System Permit and in accordance with the requirements of Caltrans' Project Planning and Design Guide and Stormwater Management Plan.

Through implementation of avoidance, minimization, and mitigation measures (explained below), the proposed project would result in no adverse impacts to water quality or stormwater runoff. No indirect water quality or stormwater impacts would occur under either build alternative.

Short-term construction-related impacts that could occur to water quality and from stormwater runoff may include the following elements:

- **General Construction.** Vegetation removal at construction sites can increase stormwater runoff velocity and volume, causing accelerated erosion. Construction

vehicles can deposit sediment onto surrounding roadway, which can later wash into local water bodies.

- **Construction Debris.** Construction site debris, if not contained or removed regularly, can blow away in the wind and/or wash into local water bodies.

Under the General Construction National Pollutant Discharge Elimination System Permit, a Stormwater Pollution Prevention Plan and the implementation of erosion and sediment control best management practices would be required. Preparation and implementation of construction site best management practices would be in accordance with the State of California Construction General Permit (Order 2012-011-DWQ) as amended by Order WQ 2014-0006-EXEC, Order WQ 2014-0077-DWQ, and Order WQ 2015-0036-EXEC, National Pollutant Discharge Elimination System Permit Number CAS000003) and any subsequent permit related to construction activity for the project. This would include submission of the Notice of Intent to the online Storm Water Multiple Application and Report Tracking System database at least 30 days prior to project construction commencement; preparation and implementation of a Stormwater Pollution Prevention Plan, including monitoring and reporting; and submission of a Notice of Termination to the Central Valley Regional Water Quality Control Board upon completion of the project. If best management practices are properly selected and implemented, then no adverse water quality impacts are anticipated to occur during construction.

Dewatering may be necessary because the proposed project includes the construction of undercrossings at existing roadways. However, groundwater was encountered at elevations of 47.0 and 49.5 feet mean sea level. The amount of dewatering associated within construction is anticipated to be minimal, if it is required at all, and would not deplete groundwater supplies or interfere with recharge. Dewatering activities are subject to the requirements of the Central Valley Regional Water Quality Control Board and the local jurisdiction (Stanislaus County).

Caltrans Modesto Soil Stockpiles

Stockpile soil would be contained behind retaining walls, bridge abutments and beneath highway pavements. Phase 1 of the proposed project would consist of a two-lane roadway, which would be constructed over the southern portions of soil stockpiles 1 and 2. The northern portions of soil stockpiles 1 and 2, which would not be contained beneath the highway and behind retaining walls and bridge abutments,

would be graded for drainage and capped with a minimum of a 6- to 12-inch-thick clean, vegetated soil cap.

Soil stockpile 3 would be treated differently than soil stockpiles 1 and 2, in that the stockpile would be entirely contained within the initial construction phase of the project. Much of soil stockpile 3 would be placed in the stockpile fill consolidation zone within the eastern abutment of the proposed SR 132/SR 99 interchange. The remainder of soil stockpile 3 would be placed in the stockpile fill consolidation zone of soil stockpile 2.

Monitoring of the stockpiles and stormwater runoff constituents of potential concern would continue during Phase 1 and Phase 2. Following full containment of the three stockpiles, and Operation and Maintenance Plan and Operation and Maintenance Agreement will be required to monitor the containment remedy of the stockpile segment of the SR 132 West project. The operation plans and agreement will require annual inspections and five year reviews to assess the effectiveness of the containment remedy. Containment of the soil stockpiles would eliminate direct exposure and would be protective of groundwater and surface water. Therefore, no impacts to water quality from the soil stockpiles are anticipated under either build alternative, since both alternatives would contain the soils.

None of the reported dissolved metals concentrations for the groundwater samples collected exceeded their respective numeric water quality threshold values. Barium and strontium were reported at concentrations similar to historical levels and remained significantly less than their numeric water quality thresholds. The remaining dissolved metals were also reported at concentrations similar to historical levels. Due to adsorption of heavy metals to soil, their potential to infiltrate the groundwater is very low.

Upon full containment and with implementation of the construction best management practices described in this section as well as avoidance, minimization, and mitigation measures SHAZ-1 through SHAZ-10, either build alternative would ensure no direct or indirect adverse impacts to water quality or stormwater runoff with respect to the soil stockpiles.

No-Build Alternative

The No-Build Alternative would not result in construction of any of the proposed improvements or any increase in impervious surfaces that would increase stormwater runoff volumes and concentration of pollutants entering the water system.

Soil stockpile containment via a highway structure would not be implemented under the project's No-Build Alternative. But, impacts to the environment posed by the continued presence of the soil stockpiles would be mitigated by a remedial action developed under oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Currently, the perimeter of all three soil stockpiles is enclosed with security fencing, walls, and structures. Under the No-Build Alternative, Caltrans would continue to maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain each of the soil stockpile's vegetative cover until remediation of the stockpiles is completed under the oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board.

Avoidance, Minimization, and/or Mitigation Measures

Project design and construction must adhere to the requirements in the National Pollutant Discharge Elimination System Permit, the Caltrans Stormwater Management Plan, the Caltrans Project Planning and Design Guide, and the best management practices outlined above. Implementation of the following measures would reduce impacts to water quality and from stormwater runoff:

WQ-1 Because dewatering activities may be necessary, the Central Valley Regional Water Quality Control Board and Stanislaus County requirements for dewatering and discharge of non-stormwater would be followed.

WQ-2 The contractor would conduct groundwater and stormwater monitoring on and adjacent to the soil stockpiles until the proposed project is complete or the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board indicate that it is no longer necessary.

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.

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

Affected Environment

The following section is based on the *State Route 132 Geotechnical/Geologic Summary Report*, which was completed in October 2010. The “Geologic Hazard and Seismic Impacts” section of Modesto’s General Plan was also reviewed, and the project conforms to the standards described therein.

The proposed project study area sits in the Great Valley Geomorphic Province that includes the Sacramento and San Joaquin valleys. It is generally bounded by the Sierra Nevada Mountains to the east and the Coast Ranges to the west. The site lies in the San Joaquin Valley, which is a structural trough containing the southern portion of the Great Valley.

The relatively flat surface of the San Joaquin Valley is underlain by deposits that have accumulated as the structural trough formed and the adjacent mountain ranges were elevated. The thickness of the sediments varies from thin along the valley margins to thousands of feet thick at the center (approximately 15 miles east of the project study area).

The U.S. Department of Agriculture Soil Survey of Eastern Stanislaus has not mapped the study area; however, nearby areas have been mapped. These areas consist

of clay and sandy loams. The Modesto clay loam has a high shrink-swell potential, moderate to high corrosion potential for steel, a low corrosion potential for concrete, and low permeability. (Shrink-swell is the extent to which a soil expands when wet and retracts when dry. Corrosion potential is the disintegration of an engineered material into its constituent atoms. Permeability is the rate of flow of a liquid through a porous material.) The other soil units have low shrink-swell potential, moderate corrosion potential for steel, a low corrosion potential for concrete, and are moderately permeable.

Six shallow soil borings and two deep borings (101 feet and 106.5 feet) were sampled as part of the *State Route 132 Geotechnical/Geologic Summary Report*. In general, the borings indicated that the project study area is underlain by layers of very stiff to hard lean clay and sandy clay; medium dense to very dense, poorly graded sand and silty sand; and poorly graded sand with clay within the upper 40 to 49 feet. Underlying the near surface soil is dense to very dense, poorly graded sand to depths of 66 to 70 feet below the surface (elevations of 12 to 13 feet above mean sea level). Below the poorly graded sand, layers of hard silt, sandy silt, lean clay with sand, sandy clay, and very dense, poorly graded sand are encountered to the maximum depths explored. The soils have low to non-existent potential for landslides and slope instability, respectively.

Based on historic records, groundwater occurred at an elevation of 47 feet above mean sea level in 1958 and 41 feet above mean sea level in 1959. Subsurface exploration, conducted for the project in 2009, determined that static groundwater elevations ranged from 47 to 49.5 feet above mean sea level (about 32 feet below the existing grade).

No active faults sit in or next to the project study area, and the area does not occur within an Alquist-Priolo Earthquake Fault Zone. Field reconnaissance and review of geologic literature did not disclose the potential presence of faulting within or next to the project study area.

According to the *State Route 132 Geotechnical/Geologic Summary Report*, there are no known geologic hazards, including seismic or non-seismic hazards that would impact the project.

Environmental Consequences

Build Alternatives

The build alternatives would not affect any natural geologic landmarks and landforms. During final design, additional seismic and geotechnical studies would be conducted to address potential geotechnical hazards associated with liquefaction, seismic settlement, and slope stability. If localized geologic concerns are identified in the geotechnical investigation, requirements would be provided therein for grading and foundation design. Recommendations from the investigation would be implemented during project construction.

Faulting and Ground Shaking

The potential for surface rupture from faulting is considered low under both build alternatives. Ground rupture and/or fault creep is not expected to occur, but some degree of ground motion is expected from seismic activity in the region. However, risk of loss, injury, or death because of seismic activity is unlikely to occur and the proposed project is not anticipated to increase the risk to workers during construction or the traveling public during operation of the roadway.

Liquefaction and Seismic Settlement Potential

Based on the soil profile, soils within the study area are non-liquefiable or have a very low potential for liquefaction (a condition where soil turns to a jellylike consistency). Therefore, risk of loss, injury, or death because of liquefaction is unlikely to occur and the proposed project is not anticipated to increase the risk to workers during construction or the traveling public during operation of the roadway.

According to the *State Route 132 Geotechnical/Geologic Summary Report*, the potential for seismic settlement from loose granular soil above the water table and from seismic slope instability are both considered low. However, a seismic settlement analysis and the stability of existing embankments would be addressed during final design.

Landslides and Slope Stability

Because of the low topographic relief throughout the study area, the potential for land sliding or failure of natural slopes would be non-existent for both build alternatives. The potential for seismic slope instability is low for properly constructed embankments because of the subsurface soil conditions and relatively low anticipated peak ground acceleration. The proposed project is not anticipated to increase the risk

to workers during construction or the traveling public during operation of the roadway.

Expansive Soil

Shallow, highly expansive clay soils were not observed for either build alternative. Therefore, near-surface soils would have a low expansion potential and the proposed project is not anticipated to increase the risk to workers during construction or the traveling public during operation of the roadway.

No-Build Alternative

The No-Build Alternative would not result in construction of any of the proposed improvements and therefore would not contribute to direct or indirect impacts related to geologic, soil, seismic, and topographical conditions.

Avoidance, Minimization, and/or Mitigation Measures

Both build alternatives would result in minimal geologic, soil, seismic, or topographic impacts. Therefore, no avoidance, minimization, or mitigation measures are required.

2.2.4 Paleontology

Regulatory Setting

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

- 16 U.S. Code 431-433 (the “Antiquities Act”) prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered “objects of antiquity” by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies.
- 16 U.S. Code 461-467 (the National Registry of Natural Landmarks) establishes the National Natural Landmarks program. Under this program, property owners agree to protect biological and geological resources such as paleontological features. Federal agencies and their agents must consider the existence and location of designated National Natural Landmarks, and of areas found to meet

the criteria for national significance, in assessing the effects of their activities on the environment under the National Environmental Policy Act (NEPA).

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

Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

Affected Environment

The following section is based on the *State Route 132 West Paleontological Identification Report*, completed in February 2011, which is an appendix to the *State Route 132 Paleontological Evaluation Report/Preliminary Paleontological Mitigation Plan*, completed in October 2015. The latter report was prepared because of the presence of a known paleontological resource that could be impacted by the project.

Stanislaus County is in the San Joaquin Valley, which is bounded by the low mountains of the Coast Ranges to the west, the San Emigdio and Tehachapi ranges to the south, and the foothills of the Sierra Nevada Mountains to the east. The area is also in the Great Valley geomorphic province of California, a flat to gently sloping alluvial plain (sediment deposited by flowing water) that is approximately 50 to 60 miles wide and 400 miles long in central California. The sediment consists of approximately 6 vertical miles of marine, fluvial, alluvial, and lacustrine deposits spanning the Jurassic period, which dates from approximately 160 million years old to recent time.

The fluvial and alluvial continental deposits of Pleistocene age present at the near-surface and surface in the eastern side of the San Joaquin Valley within the project study area belong to the Modesto Formation. Several fossil localities from this formation occur within or near the study area. These contain organisms that provide valuable information, such as stratigraphic indicators for correlation of deposits containing them, relative geologic age determination, past life forms providing information on the course of evolutionary trends of plants and animals, and evidence of changing paleo-environments (see Figure 2-14). This formation is known to contain significant paleontological resources that have included mammoth, camel,

vole, wood rat, coyote, dog, fox, jackal, wolf, giant kangaroo rat, western pocket gopher, amphibian, lizard, snake, horse, tree frog, hare, and rabbit.

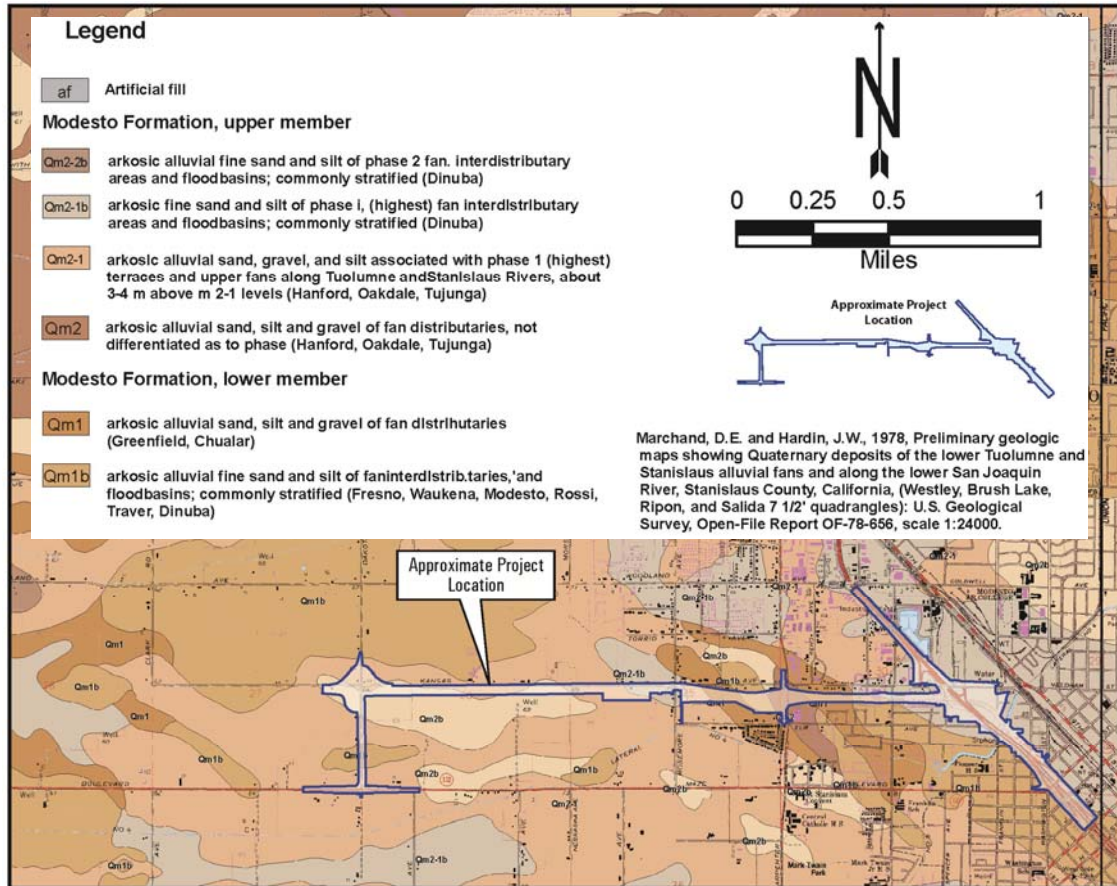


Figure 2-14: Geologic Map of the Study Area

Source: State Route 132 Paleontological Evaluation Report/Preliminary Paleontological Mitigation Plan (October 2015)

Based on Caltrans guidelines, the study area has been assigned a “High Potential (High Sensitivity)” to contain paleontological resources of national or scientific importance. Geologic deposits of similar age and in similar formations elsewhere in the San Joaquin Valley have yielded the fossil remains of Pleistocene vertebrates, invertebrates, and plants. It has also been documented that several extinct vertebrate fossil locations are within half a mile of the study area.

Environmental Consequences

Build Alternatives

The Modesto Formation, which underlies both build alternatives, would be impacted because of ground disturbance during general construction activities, excavation, and

construction of retaining walls, structural foundations, and the pump station for the proposed new highway.

The primary mechanism for impacts on paleontological resources would be ground disturbance during construction. There is a potential for significant impacts in the entire project alignment, where the highly sensitive Pleistocene Modesto Formation has previously been mapped at or near the surface. Construction of the proposed project would require disturbance of large areas of soil and excavation in areas to depths between 15 and 40 feet depending on the design option selected and the element of the project being constructed. Grading would occur throughout the project footprint.

Excavation would range from 15 to 40 feet below the existing ground surface. Table 2-30 lists the total cut and fill requirements for construction of the proposed project. In general, an increased number of cubic yards of soil cut would likely increase impacts on the Modesto Formation.

Table 2-30: Total Cut and Fill Requirements by Build Alternative

Alternative	Total Cut	Total Fill	Net
Alternative 1	716,000 cubic yards	254,000 cubic yards	462,000 cubic yards
Alternative 2	738,000 cubic yards	246,000 cubic yards	492,000 cubic yards

Note: These totals are approximate based on modeling results.

Source: Draft Project Report (July 2016)

Excavation for Alternative 1 would involve less soil cut when compared to Alternative 2, and while Alternative 1 could result in impacts on paleontological resources within the study area, this build alternative is less likely to impact resources compared to Alternative 2.

Proposed grading and excavation for the proposed build alternatives would most likely encroach into the known fossiliferous Modesto Formation. If important paleontological vertebrate fossil resources are present at the project site then construction activities could cause adverse impacts under NEPA and significant impacts under CEQA, such as destruction and loss of scientifically significant paleontological vertebrate fossil resources. Implementation of the mitigation described in this report would reduce this impact to less-than-significant levels under CEQA and would ensure that adverse impacts under NEPA would not occur.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not directly or indirectly impact the Modesto Formation or associated paleontological resources because no construction excavation or grading would occur.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce and/or eliminate potential project-related impacts on paleontological resources. The measures would help avoid destruction of, and mitigate other potential effects on, significant paleontological resources that may be present in Pleistocene-age deposits in the subsurface of the study area. In some instances, construction equipment may have to operate at night. Paleontological monitoring during nighttime hours is usually not productive for the collection of fossils, as the paleontological remains are not as visible as they are during daylight hours, even under artificial light. Therefore, it is recommended that no monitoring occur at night.

If grading must occur at night, it is recommended that all work be limited to those areas identified as having low sensitivity for paleontological resources, or within areas that, although identified as having high sensitivity, have been approved by the Principal Paleontologist to have reduced monitoring levels because the units are not producing scientifically significant paleontological remains. If needed, the areas that receive approval from the Principal Paleontologist to be graded at night can be surveyed by the monitors the following morning. A Preliminary Paleontological Mitigation Plan has been prepared for the proposed project. If there are no changes to the depths of excavation, the plan would be finalized. If there are changes to the depths of excavation made during final design, the Plan would be updated. The plan would be implemented prior to, during, and/or after construction. Measures could include, but are not limited to the following:

PR-1 Special Provision 14-7.03 and 19-1.01A for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to conduct paleontological salvage.

A qualified professional paleontologist would be retained to prepare and implement a final Paleontological Mitigation Plan prior to construction.

PR-2 The professional paleontologist would designate a paleontological monitor to be present during qualifying earthmoving activities, as described in the

Paleontological Evaluation Report and Preliminary Paleontological Mitigation Plan.

- PR-3 The professional paleontologist and paleontological monitor(s) would be notified by the Resident Engineer in advance of the start of construction activity and would attend any safety training programs for the proposed project.
- PR-4 The full-time paleontological monitor would have at least 5 years of paleontological resources construction monitoring experience.
- PR-5 The proposed project paleontologist would meet with the Resident Engineer and construction contractor at a preconstruction meeting to develop an agreed-upon communication plan and provide for worker safety. All project personnel would receive a paleontological awareness training session prior to commencement of work.
- PR-6 If paleontological resources are discovered during earthmoving activities, the construction crew would immediately cease work within a 60-foot radius of the find, and immediately notify the Resident Engineer.
- PR-7 For sediments containing microfossils (pollen, freshwater ostracods), the monitor would take bulk samples for off-site processing at a later time to recover any fossils.
- PR-8 Macro fossils (large enough to view with the unaided eye) could include tusks and other vertebrate remains. Some of these resources may be fragile and require hardening before moving, and may require encasing within a plaster jacket for later preparation and conservation in a laboratory.
- PR-9 Oriented samples must be preserved for paleomagnetic analysis. Samples of fine matrices would be obtained and stored for pollen analysis.
- PR-10 Recovered specimens would be prepared for identification (not exhibition) and stabilized.
- PR-11 Specimens would be identified by competent qualified specialists to a point of maximum specificity. Ideally, identification is of individual specimens to element, genus, and species.

- PR-12 Where appropriate, specimens would be analyzed by stratigraphic occurrence, and by size, taxa, or taphonomic conditions. The results would be presented in a faunal list, a stratigraphic distribution of taxa, or evolutionary, ecological, or depositional deductions.
- PR-13 Adequate storage in a recognized repository institution for the recovered specimens would be required. Specimens would be cataloged and a complete list would be prepared of specimens introduced into the collections or a repository by the curator of the museum or university.
- PR-14 In the event that paleontological resources are discovered, fossil specimens would be properly collected and sufficiently documented to be of scientific value.
- PR-15 A Paleontological Mitigation Report would be prepared by the project paleontologist, including a summary of the field and laboratory methods, site geology and stratigraphy, faunal list, and a brief statement of the significance and relationship of the site to similar fossil localities. Full copies of the final Paleontological Mitigation Report are deposited with the repository institution.

2.2.5 Hazardous Waste/Materials

Regulatory Setting

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

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

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

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

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code Division 20, Chapter 6.5 (Hazardous Waste Control) and Chapter 6.8 (Hazardous Substance Account) and is also authorized by the federal government to implement the Resource Conservation and Recovery Act. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact groundwater and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

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

Affected Environment

The hazardous waste/materials analysis is based on the following reports prepared for the project:

- *Initial Site Assessment, SR 132 West Expressway* (October 2010) (a second Initial Site Assessment was prepared in October 2015 due to changes in projects limits and affected parcels)
- *Limited Phase II Site Assessment, SR 132 West Expressway* (April 2012)
- *Aerially Deposited Lead Assessment, SR 132 West Expressway* (December 2012)
- *Asbestos-Containing Material/Lead-Containing Paint Hazardous Material Survey Reports* (May 2015)
- *Aerially Deposited Lead Assessment, Maze Boulevard, SR 132 West Expressway* (October 2015)
- *Phase II Environmental Site Assessment, SR 132 West Freeway/Expressway Project* (October 2015)
- *Addendum to SR132 Final Phase II Report Recommendations* (June 2017)

The Initial Site Assessments identified recognized environmental conditions (potential for contamination) related to potential historical and/or current contamination, storage, use, or handling of hazardous material contaminants within and/or next to the project. The Initial Site Assessments determined the risk level that each of these parcels could pose upon project schedule, human health and the environment and categorized that risk level as low, medium, or high. Some of the methods used to determine potential hazards include determining both past and present land use, review of federal, state, and county databases for use, misuse, or storage of hazardous substances, and limited site inspections of publicly visible portions of parcels that may be impacted by the proposed project. Site inspections may also include owner interviews.

Within the proposed right-of-way, the Initial Site Assessments identified a total of 19 parcels proposed for partial or full acquisition as having a recognized environmental condition. Twelve of the parcels are characterized as high risk due to the historical, existing or suspected presence of underground storage tanks as well as agricultural chemicals, solvents and heavy metals. Four parcels have a medium risk for the presence of on-site contamination, based on the current use of petroleum or hydrocarbon-based products, solvents, or metals on-site. Three of the parcels were characterized as having a low risk due to on-site waste oil storage within a proper containment area.

The Initial Site Assessments also identified potential project wide hazardous materials conditions including aerially deposited lead, pesticides, asbestos containing material, and lead based paint. These conditions were further evaluated as part of the Phase II Assessment process.

Phase II Environmental Site Assessments were also conducted, most recently in 2015. Assessments include screening site conditions using data collected from soil borings located at each site. Whenever possible, borings were located where future excavation is planned or expected, as well as in distinct areas of historical contamination. Soil samples were collected at varying depths below ground surface from 31 boring locations within and/or adjacent to identified parcels.

The Phase II Assessment was conducted for those parcels with a medium or high risk designation, as defined in the Initial Site Assessment. Except as described below, these parcels were generally subject to soil sampling, and analysis. Three of the identified parcels (815 Kansas Avenue, 301 North Washington Street and 524 Kansas Avenue) did not have right-of-entry access and could not be directly assessed for asbestos containing material and lead based paint. Therefore, these three sites were characterized by soil samples collected from adjacent Caltrans right-of-way.

The following four high-risk-level parcels were not evaluated in the Phase II Assessment (2015) because either excavation at these locations may not occur, or if excavation is to occur, would be shallow and the risk of encountering contaminants was considered minimal:

- 818 N. Carpenter Road
- 529 Kansas Avenue
- 415 Kansas Avenue
- 820 Kansas Avenue

Additionally, two medium-risk-level parcels also were not evaluated. The parcel at 700 N. Franklin Street was a former car dealership; however, the dealership was removed for construction of the Needham Street overpass, and there is no indication of unauthorized releases. There are also no indications of unauthorized releases at 127 Laurel.

In addition to the 19 parcel sites, the project area includes four sites within the existing right-of-way that were identified to have recognized environmental conditions. Location and potential risk is listed below:

- Former northeast corner of 5th Street and I Street – High
- State Route 99 off-ramp at Kansas Avenue north of gas station – Medium
- State Route 99 at North Emerald Avenue – Medium
- State Route 132 right-of-way (proposed alignment) south of Kansas Avenue – Medium

The former corner of 5th and I Streets is now part of the SR 99 freeway and it is not expected that the proposed project would impact this area. Both the SR 99 off-ramp at Kansas and the route north of North Emerald were included in Phase II boring analysis. The SR 132 right-of-way is where the Caltrans Modesto Soil Stockpiles are located and these are discussed in Section 2.2.5.1.

Data generated during Phase II is used to evaluate and document current site conditions, to the extent practicable. Analytical data is compared to background conditions and/or relevant screening levels to aid in determining the need for additional assessment of the parcels, and to address potential exposure concerns during excavation and/or grading of contaminated soil that could result in exposure to on-site workers and end users.

Environmental Consequences

Build Alternatives

Predominant land use in the local region has historically been agricultural, including almond and walnut orchards and row crops. Agricultural practices, including the application of pesticides and machinery maintenance are potential sources of contamination. In addition, the project area includes historic industrial land uses such as the FMC facility, which occupied approximately 40 acres located north of Kansas Avenue predominantly east of SR 99, and is the subject of Section 2.2.5.1, Caltrans Modesto Soil Stockpiles Site. The proposed alignment of Alternative 1 and Alternative 2 occupy the same corridor between Dakota Avenue and State Route 99. As such, the acquisition of parcels with recognized environmental conditions is unavoidable under either alternative. The acquisition of land characterized as contaminated would be consistent with the requirements and approval process defined in Caltrans Project Delivery Directive 02.

Specific parcels with recognized environmental conditions that require partial or full acquisition are summarized in Table 2-31, and depicted in Figure 2-15. Each parcel summary includes the type of potential contamination, level/extent of contamination, and Phase II recommendations and findings. Direct and indirect impacts related to

recognized environmental conditions would be the same for both build alternatives. Assessments for potential environmental conditions that may exist project wide or include multiple acquisition parcels and/or right-of-way areas, such as aerially deposited lead, pesticides, asbestos-containing material and lead based paint are similarly summarized below.

In the event that future investigations and cleanup of these parcels or sites within the existing right-of-way are necessary, oversight from various agencies, including but not limited to, California Department of Toxic Substances Control, Central Valley Regional Water Quality Control Board, Stanislaus County, and the City of Modesto, may be required. Depending upon the extent of the contamination and the cleanup, further action may be required to comply with CEQA, which could impact project cost and schedule.

Table 2-31: Recognized Environmental Conditions within Parcels that Require Partial or Full Acquisition^a

Address	Land Use	Recognized Environmental Conditions ^b	Partial/Full Acquisition	Construction Phase When Acquired	2015 Phase II Findings and Recommendations
700 Rosemore Avenue	Agricultural/residence	Underground storage tank and petroleum hydrocarbons (High)	Partial	Phase 1	Minor total petroleum hydrocarbon (total petroleum hydrocarbons)-mo (motor oil) at shallow soil depth at one boring. Levels are below regulatory benchmarks. Results are consistent with site use as active farming operation. No further assessment is recommended.
800 North Carpenter Road	Car wash	Oil/water separator (Low)	Partial	Phase 2	Not evaluated (low risk)
818 North Carpenter Road	Auto repair/gas station	Underground storage tank and petroleum hydrocarbons (High)	Partial	Phase 2	Not evaluated (excavation would be shallow with minimal risk of encountering contamination)
815 Kansas Avenue	Gas station	Documented soil and groundwater contamination from leaking underground storage tank and petroleum hydrocarbons (High)	Partial	Phase 2	Three 10,000-gallon underground storage tanks remain on-site. Closure Report: Minor groundwater impacts for methyl tertbutyl ether only at one location. Soil impacts localized and attenuating. Potential for unidentified release unrelated to fuel system piping or leaking underground storage tank from 1996. Recommendation: Detailed work plan and site investigation when right-of-entry is obtained. Obtain regulatory direction on soil management.
529 Kansas Avenue	Corporate office	Underground storage tank, petroleum hydrocarbons, and solvents (High)	Partial	Phase 2	Not evaluated (excavation would be shallow with minimal risk of encountering contamination)
531 Kansas Avenue	Cycle shop	Petroleum hydrocarbons and solvents (Low)	Partial	Phase 2	Not evaluated (low risk site)
415 Kansas Avenue	Foster Farms (former Borden Plant)	Petroleum hydrocarbons and heavy metals (High)	Partial	Phase 2	Not evaluated (excavation would be shallow with minimal risk of encountering contamination)
820 Kansas Avenue	Former gas station	Leaking underground storage tank and petroleum hydrocarbons (High)	Partial	Phase 2	Not evaluated (excavation would be shallow with minimal risk of encountering contamination)
611 North Franklin Street	Auto and other repair shops	Underground storage tank, petroleum hydrocarbons, solvents, and metals (High)	Full	Phase 1	No results above detection limits. Recommendation: No further assessment.

Table 2-31: Recognized Environmental Conditions within Parcels that Require Partial or Full Acquisition^a

Address	Land Use	Recognized Environmental Conditions ^b	Partial/Full Acquisition	Construction Phase When Acquired	2015 Phase II Findings and Recommendations
812 Kansas Avenue	Car lot (former gas station)	Underground storage tank, volatile organic compounds and petroleum hydrocarbons (High)	Partial	Phase 2	Unidentified trace amount of total petroleum hydrocarbon-d (diesel) range organic detected at one location. Results are inconclusive. Recommendation: No further assessment unless additional site acquisition occurs.
524 Kansas Avenue	Commercial supply company	Waste oil (Low)	Partial	Phase 2	Not evaluated (low risk)
824 North Dakota Avenue	Former agricultural barn	Possible underground storage tank, agricultural chemicals, and petroleum hydrocarbons (High)	Partial	Phase 1	No detectable levels of persistent pesticides. Minor total petroleum hydrocarbon-d impacts. Levels are below regulatory benchmarks; likely due to minor historical releases. Recommendation: Once final excavation limits of future drainage basin are known, conduct detailed site assessment for diesel where basin footprint is defined. Potential Non-Standard Special Provisions (NSSP) for soil management.
612 North Franklin Street	Body shop	Petroleum hydrocarbons, solvents, and metals (Medium)	Full	Phase 1	Minor traces of total petroleum hydrocarbon-mo were detected at one location. Results indicate site development as an auto body welding and maintenance shop. Recommendation: No further assessment.
309 Beech Street	Body shop (former bus storage yard)	Petroleum hydrocarbons, solvents, oil, grease and metals (Medium)	Full	Phase 1	Minor total petroleum hydrocarbon-d, total petroleum hydrocarbon-mo and OG (oil and grease). Results are consistent with site development. Indication that there is a potential to encounter total petroleum hydrocarbon and OG contamination throughout the site. Recommendation: Once final excavation limits of future drainage basin are known, conduct further assessment of OG and total petroleum hydrocarbon in soils and groundwater. Potential NSSP for soil management.
522 North Franklin Street	Auto/truck repair (former truck washing station and holding pond)	Leaking underground storage tank, petroleum hydrocarbons, solvents, and metals (High)	Full	Phase 1	Minor traces of total petroleum hydrocarbon-d and OG detected at all locations indicate potential impacts from former truck washing/maintenance operations. Recommendation: Due to proposed use as a drainage basin, conduct further assessment of OG and total petroleum hydrocarbon in soils and groundwater where basin footprint is defined. Potential NSSP for soil management.

Table 2-31: Recognized Environmental Conditions within Parcels that Require Partial or Full Acquisition^a

Address	Land Use	Recognized Environmental Conditions ^b	Partial/Full Acquisition	Construction Phase When Acquired	2015 Phase II Findings and Recommendations
501 North Jefferson Street	Modesto corporation yard	Leaking underground storage tank, pesticides, petroleum hydrocarbons, solvents, and metals (High)	Full ^c	Phase 1 and Phase 2 ^c	Minor total petroleum hydrocarbon-d detected at three sample locations. Results are all below regulatory benchmarks. Results may be from residual impacts of former underground storage tanks, operating aboveground storage tanks or from minor releases during site history. Recommendation: After final design, conduct additional shallow soil assessment for diesel. Potential NSSP for soil management.
301 North Washington Street	Tin manufacturer	Underground storage tank, petroleum hydrocarbons, and metals (High)	Full	Phase 1	Site assessment was conducted from the adjacent parcel due to denial of property access by owner. Minor total petroleum hydrocarbon-d detected at one location. Elevated total petroleum hydrocarbon levels may be present within the acquisition parcel. Recommendation: When right-of-entry is obtained, conduct soil assessment at former underground storage tank location. Potential NSSP for soil management.
127 Laurel Street	Motorcycle shop	Petroleum hydrocarbons and solvents (Medium)	Full	Phase 1	Records reference small quantities of petroleum hydrocarbons and solvents. Out of business. No indication of unauthorized releases.
700 North Franklin Street ^d	Former car dealership	Petroleum hydrocarbons and automotive fluids (Medium)	Full	Phase 1 ^d	A car dealership was removed for construction of the Needham Street overpass. Records reference small quantities of waste. No indication of unauthorized releases.

^a Both Alternative 1 and Alternative 2 would be equally affected by the listed recognized environmental conditions.

^b Potential for discovery of on-site contamination is noted in parentheses. High, medium, and low refer to the potential for discovery of on-site contamination.

^c There are two parcels with recognizable environmental conditions at 501 North Jefferson Street. See Figure 2-15.

^d The parcel at 700 North Franklin Street is owned by the City of Modesto, though it does not have an assessor's parcel number.

Source: Phase II Environmental Site Assessment (October 2015), Phase II Environmental Site Assessment Addendum (June 2017)

Soil Investigation of Existing Caltrans Right-of-Way

In addition to the 19 parcels summarized above, the project area includes four sites within the existing Caltrans right-of-way, identified to have recognized environmental conditions (Table 2-32). The first site was a historic gas and oil facility with a high potential for on-site contamination; however, the proposed project is not anticipated to impact this site. The second site at the SR 99 off-ramp at Kansas Avenue is immediately north of a gas station (Chevron) that has documented soil and groundwater contamination. The third site is the location of a former Food Machinery and Chemical Corporation (FMC) disposal pond near SR 99, with may potentially be impacted with heavy metals. The fourth site includes the three soil stockpiles, created during the construction of SR 99. The three stockpiles are referred to as the Caltrans Modesto Soil Stockpiles and are discussed further in Section 2.2.5.1, Caltrans Modesto Soil Stockpiles Site.

Table 2-32: Recognized Environmental Conditions within the Existing SR 99 or SR 132 Right-of-Way^a

Location	Land Use	Description of RECs ^b
Former northeast corner of 5th Street and I Street	SR 99 (freeway) and a former “gas & oil” facility	Underground storage tank and petroleum hydrocarbons (High)
SR 99 off-ramp at Kansas Avenue north of a gas station	Identified for drainage basin	Adjacent underground storage tank (Medium)
SR 99 at North Emerald Avenue	SR 99 (freeway) and former disposal pond for the FMC ^c processing plant	Soil with heavy metals (Medium)
SR 132 right-of-way (proposed alignment) south of Kansas Avenue	Historic soil stockpiles and miscellaneous debris	Soil with heavy metals (Medium) ^d

^a Both Alternative 1 and Alternative 2 would be impacted by the listed recognized environmental conditions.

^b Potential for discovery of on-site contamination is noted in parentheses. High, medium, and low refer to the potential for discovery of on-site contamination.

^c Food Machinery and Chemical Corporation, Modesto Processing Plant

^d See Section 2.2.5.1, Caltrans Modesto Soil Stockpiles site for a full description and analysis of this location and the recognized environmental conditions.

Source: Initial Site Assessment (October 2015)

Soil sampling was conducted in the following two areas within the existing Caltrans right-of-way within the project limits. The results are as follows:

SR 99 at Emerald Avenue

Soil samples were assessed to determine if subsurface contamination is present due to the former industrial waste pond. This assessment focuses on metals. Though the levels of barium, chromium, cobalt, copper, nickel, vanadium and zinc encountered in

this assessment are elevated compared to natural background levels, they are below regulatory screening levels and do not warrant further assessment.

The tested concentrations of lead at this location are consistent with findings of the aerially deposited lead survey conducted for SR 99, described below. According to sampling results, soil in the upper six inches contains lead ranging from below the detection limit of 3.0 mg/kg to 100 mg/kg. If substantial off-site disposal is necessary it could have a significant effect on the project schedule.

Once the final excavation limits are determined, the aerially deposited lead report for SR 99, including this location, would be reviewed to determine if additional sampling would be conducted. Based on the findings of the aerially deposited lead studies, applicable regulatory disposal criteria, including preparation of non-standard special provisions and management in accordance with the statewide agreement, would be incorporated into the project plans and specifications.

SR 99 at Kansas Avenue

Soil samples were assessed to determine if subsurface conditions due to potential releases from underground storage tanks at the adjacent Chevron station are present within the proposed improvement area. This assessment focused on petroleum hydrocarbons and volatile organic compounds, mainly the constituents benzene, toluene, ethylbenzene, and xylenes and methyl tertiary-butyl ether. Soil sample concentrations were below the detection limit for all tested constituents. No further investigation or action is required.

Aerially Deposited Lead within Caltrans Right-of-Way

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016 ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Surveys for aerially deposited lead in surface and shallow subsurface soils were conducted in the project limits along Maze Boulevard in 2014 and SR 99 in 2012. Aerially deposited lead concentrations in the samples collected along Maze

Boulevard are below regulatory screening levels, while samples collected along SR 99 contained elevated concentrations of aerially deposited lead. According to sampling results, soil in the upper 6 inches contains lead ranging from below the detection limit of 3.0 mg/kg to 100 mg/kg. If substantial off-site disposal is necessary it could have a significant effect on the project schedule.

Once the final excavation limits are determined, the aerially deposited lead report for SR 99 would be reviewed to determine if additional sampling would be conducted. Based on the findings of the aerially deposited lead studies, applicable regulatory disposal criteria, including preparation of non-standard special provisions and management in accordance with the July 1, 2016 ADL Agreement, would be incorporated into the project plans and specifications. Applicable cleanup levels for aerially deposited lead in commercial use and solubility levels for residential use, at the time of project construction, would apply to the proposed project.

Asbestos-containing Material and Lead-based Paint Survey

The Phase II Site Assessment also included an asbestos and lead-based paint survey conducted at the following sites:

Kansas Avenue Bridge over Highway 99

The results of the survey indicate asbestos is present in the gasket beneath the rail. The gasket material contains 80–90 percent chrysotile. The total estimated quantity of gasket material throughout the bridge structure is approximately 675 square feet. The results of the survey indicate the existing paint on the bridge structure (grey paint existing on the metal rails) does not contain detectable lead.

Structures at six private parcels

Three of the identified parcels (815 Kansas Avenue, 301 North Washington Street, and 524 Kansas Avenue) did not authorize access, so they were not surveyed as part of the Phase II Assessment. The remaining three parcels authorized partial access; these sites were not evaluated in their entirety. These parcels would be assessed for asbestos-containing material and lead-based paint during final design to minimize further disruption to the property owners.

Table 2-32 summarizes and Figure 2-15 shows recognized environmental conditions within the existing SR 99 and SR 132 right-of-way. As previously listed, these recognized environmental conditions have a medium to high risk of on-site contamination, which could adversely affect the project depending on the extent of

contamination and the depth of soil disturbance. The extent of contamination is directly correlated to the cost of remediation.

In the event that final design alters the proposed right-of-way limits within the parcels identified herein as partial acquisitions, further site-specific assessments may be warranted for the affected parcels. The assessments may include updated site inspection, regulatory files review, interviews with current owners and occupants, and building material and soil sample collection and analysis.

General Hazardous Materials Issues

Direct and indirect impacts related to the use of agricultural chemicals (low potential for occurrence and low likelihood to adversely impact the project), aerially deposited lead (moderate potential for occurrence but less likely to adversely impact the project), and groundwater contamination (low potential for occurrence and low likelihood to impact the project) would be the same for both build alternatives. The assessment did not include an investigation of groundwater conditions.

The assessment did not include an inventory of past and present electrical transformers in the study area. However, ground and pole-mounted transformers and power lines were observed within the proposed right-of-way. If power facilities or high-voltage power lines are to be relocated, existing transformers would be checked for the presence of polychlorinated biphenyls or other hazardous materials that would require proper remediation and disposal.

Yellow traffic stripes are present at various locations and may contain heavy metals such as lead and chromium at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. Consequently removal or disturbance of any yellow traffic striping within the project area would require development and implementation of an appropriate Lead Compliance Plan.

Evidence of buried distribution lines for natural gas was observed. No record of contamination resulting from these lines was discovered in this assessment; however, there is the potential for unidentified leaks along buried pipelines. Due to its explosive potential, natural gas is considered a hazardous material. Unless further information becomes available regarding the type and location of distribution lines, assessment and potential relocation of any lines would be addressed during construction.

Older commercial and residential structures in rural areas often have associated aboveground or below ground heating oil and/or motor vehicle fuel tanks. Septic tanks are also commonly associated with these types of structures. If heating oil tanks, fuel tanks, or septic tanks are (or were previously) associated with the structures, there is the potential for recognized environmental conditions to be present. Septic and fuel tanks would be addressed if discovered during construction.

Storm drainage in the Modesto area is provided by both hard-piped storm drains and dry wells. Dry wells drain directly into permeable subsurface sediments in the immediate vicinity of the well. According to the Modesto Department of Public Works, there are an estimated 11,000 dry wells located in city right-of-way and an estimated additional 10,000 dry wells on private property. The dry wells are recognized by federal and state regulatory agencies as a potential source of soil and groundwater contamination. Dry wells located on private parcels would be addressed if discovered during construction.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not result in direct or indirect impacts related to hazardous wastes or materials.

As discussed in the following section (2.2.5.1), impacts to the environment posed by the continued presence of the soil stockpiles would be mitigated by a remedial action developed under the oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board.

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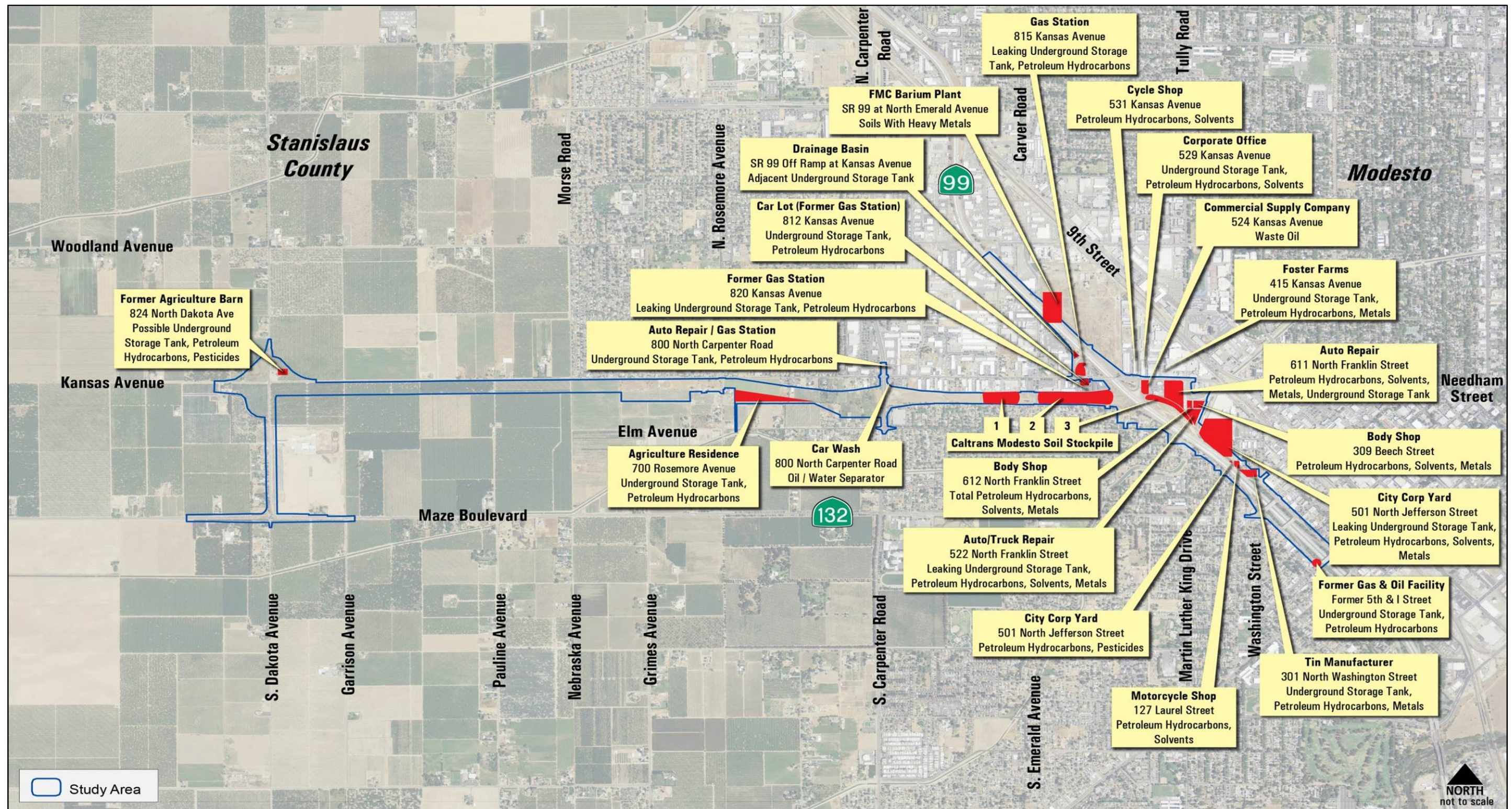


Figure 2-15: Recognized Environmental Conditions in the Study Area

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Construction Impacts

The risk of encountering potential recognized environmental conditions would depend on the type of construction activities and the location relative to the previously identified recognized environmental conditions in Table 2-31 and Table 2-32. In areas where significant excavation would not be expected (such as shallow utility relocations), the recognized environmental condition risk to construction personnel would be low. In areas where significant excavation would be expected (such as bridge replacement, deep subsurface utility replacement, and drilled caissons), the potential to encounter a recognized environmental condition would increase for excavated soils and any groundwater that would be displaced to the surface during construction.

Hazardous materials associated with structures that may be impacted during construction could pose a risk to residents and construction personnel. Potential lead-based paint or asbestos-containing materials may be encountered under both of the build alternatives due to the alteration and/or demolition of a bridge, buildings, guardrails, or signs. However, impacts would be reduced by implementing measures HAZ-1 through HAZ-14.

Because many of the properties identified for acquisition have the potential for elevated levels of petroleum hydrocarbons, and/or metals in soil, monitoring for adherence to the Materials Management Plan, Health and Safety Plan, and a Spill Prevention Countermeasures and Control Plan, as described in measures HAZ-5, HAZ-6 and HAZ-8, would reduce impacts related to the handling of materials or contaminated soil.

Project construction would require the use and transport of chemical agents, fuels, lubricants, solvents, paints, and other hazardous materials that could pose a risk to construction personnel and residents in the vicinity of project. Although the proposed project would use hazardous materials, the amount would be limited, and the release of any such substance would be unlikely. Therefore, associated construction-related impacts would be considered minimal and construction activities would comply with existing government regulations.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would reduce potential impacts related to hazardous wastes and materials during construction of the project:

- HAZ-1 As soon as access is acquired, but prior to construction, any building structures that would be renovated or demolished would be investigated for asbestos, lead-based paint, and polychlorinated biphenyls by a certified consultant.
- HAZ-2 If analytical results indicate building materials contain asbestos, the contractor would prepare an Asbestos Operations and Maintenance Plan in accordance with applicable regulations. The plan would address worker training and safety measures to be taken when disturbing asbestos-containing materials during abatement activities.
- HAZ-3 The contractor would ensure that proper removal and disposal of asbestos-containing material is conducted by a licensed contractor registered with the California Occupational Safety and Health Administration for asbestos-related work, or by a licensed and certified asbestos abatement contractor.
- HAZ-4 If the analytical results indicate that lead-based paint and/or polychlorinated biphenyls are present, the contractor would ensure that demolition materials are handled and disposed of in accordance with applicable regulations.
- HAZ-5 Prior to construction, the contractor would prepare a Materials Management Plan that identifies potential recognized environmental conditions, locations, extent of impact, proposed remediation work, waste management procedures, and avoidance measures, investigation measures and a contingency plan for addressing unforeseen conditions. Documentation of completed waste profiles, manifest forms, and bill-of-lading forms for proper transportation and disposal of materials off-site would be maintained by the contractor. The plan would include the following provisions:
- Characterization and handling of contaminated soils requiring off-site disposal
 - Soils to be stockpiled for further characterization
 - Process for identifying soils with waste concentrations below regulatory thresholds that can be reused without restriction
 - Process for identifying and handling wastewater requiring off-site disposal and/or treatment
 - Procedures for handling asbestos-containing material discovered during construction activities

- HAZ-6 Prior to initiating construction activities, the contractor would prepare a site-specific Health and Safety Plan that identifies key personnel and provides a summary risk assessment for workers, the community, and the environment. The Health and Safety Plan would include an Air Monitoring Plan and Emergency Response Plan.
- HAZ-7 Prior to construction, the contractor would prepare a Sampling and Analysis Plan to identify and characterize potential recognized environmental conditions that may be encountered. The plan would provide for monitoring/screening during construction activities to provide safety controls in areas previously not identified. The plan would include:
- Data quality objectives
 - Sample collection procedures (e.g., field screening, borehole drilling/abatement, monitoring well construction, soil, groundwater, and decontamination)
 - Quality control
 - Quality assurance objectives (data)
- HAZ-8 Prior to construction, the contractor would prepare a Spill Prevention Control and Countermeasures Plan to ensure that construction best management practices are adequate for site conditions and to prevent discharge of any sediment or pollutants into any storm drains, receiving waters, or drywells.
- HAZ-9 Prior to construction, the contractor would inspect all utility pole-mounted and pad-mounted electrical transformers within the project limits for leaks. Leaking transformers would be considered a potential polychlorinated biphenyl hazard (unless tested) and would be handled in accordance with applicable laws and regulations.
- HAZ-10 The contractor would ensure that all wooden utility poles that are to be removed or relocated as part of the project, as well as the soils at the bases of the utility poles (unless documentation from the utility company indicates that creosote was not used), would be handled as treated wood waste in accordance with the California Department of Transportation's Standard Special Provision 14-11.14.

- HAZ-11 Before construction, the contractor would notify all utility companies to ensure that the locations of underground transmission lines and facilities are marked. In addition, Underground Service Alert would be contacted at least two working days before subsurface excavation.
- HAZ-12 The contractor would adhere to the requirements of San Joaquin Valley Air Pollution Control District and applicable National Emission Standards for Hazardous Air Pollutants during demolition/renovation activities. Any demolition or renovation of a building structure would require notification and submittal fees to the San Joaquin Valley Air Pollution Control District at least 10 days before proceeding with the demolition work.
- HAZ-13 The contractor would adhere to the procedures outlined in the California Department of Transportation's Unknown Hazards Procedures for Construction in the event that unknown hazardous contamination from above/below ground oil/motor vehicle fuel tanks and septic tanks is revealed or unknown hazardous waste/material is encountered during construction.
- HAZ-14 The contractor would prepare a Lead Compliance Plan to prevent or minimize worker exposure to lead from handling material containing aerielly deposited lead (California Code of Regulations, Title 8, and Section 1532.1). The plan would also be required for work performed on painted structures. The contractor would prepare a written, project-specific Excavation and Transportation Plan establishing procedures the contractor would use for excavating, stockpiling, transporting, and placing (or disposing) of material containing aerielly deposited lead and lead-based paint. The plan would conform to the California Department of Toxic Substances Control and California Occupational Safety and Health Administration regulations. For samples where lead levels exceed hazardous waste criteria, the excavated soil would be either managed or disposed of as a California hazardous waste or stockpiled and resampled to confirm waste classification and potential to recycle soil on-site. The appropriate Standard Special Provision would be included in the Plans, Specifications, and Estimate. Special handling, treatment, or disposal of aerielly deposited lead in soils during construction activities would be consistent with the July 1, 2016, Aerielly Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control.

2.2.5.1 Caltrans Modesto Soil Stockpiles Site

Affected Environment

The hazardous waste/materials analysis of the Caltrans Modesto Soil Stockpiles Site is based on site investigations of the three soil stockpiles, which have been completed under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board (see Appendix K for a complete list of technical studies).

The Caltrans Modesto soil stockpiles site consists of three separate and distinct stockpiles in Modesto, totaling 160,000 cubic yards. The site is within Caltrans right-of-way, south of the SR 99/Kansas Avenue interchange. The following summarizes the configuration, orientation, size, and surrounding vicinity of each soil stockpile:

- Soil stockpile 1 occupies approximately 2.5 acres and lies south of Kansas Avenue and west of North Emerald Avenue. The stockpile is approximately 600 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 34,000 cubic yards. The stockpile is bounded by commercial/light industrial development to the north and single-family residential uses to the south. Undeveloped right-of-way exists both west and east of the stockpile with the eastern end bounded by North Emerald Avenue. Soil stockpile 1 is enclosed by security fence.
- Soil stockpile 2 occupies approximately 7.6 acres and lies south of Kansas Avenue, between North Emerald Avenue and SR 99. The stockpile is approximately 1,650 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 102,000 cubic yards. It is bounded by commercial/light industrial development to the north and single-family residential uses to the south. To the west is North Emerald Avenue and to the east is SR 99. Soil stockpile 2 is enclosed by security fence.
- Soil stockpile 3 occupies approximately 2.5 acres and lies south of Kansas Avenue and east of SR 99. The stockpile has a curvilinear shape extending northwest to southeast (concave to the southwest) with a length of approximately 1,100 feet and a width of approximately 120 feet. The stockpile has an estimated volume of approximately 24,000 cubic yards. Soil stockpile 3 is bounded by SR 99 to the south and west and commercial/light industrial development to the north and east. The concrete box culvert for the Modesto Irrigation District's Lateral Canal No. 4 extends beneath the stockpile's southeastern end. Soil stockpile 3 is enclosed by security fence.

The stockpiles were generated in the early 1960s when the 4.3-acre parcel at the southwest corner of the FMC Corporation, Modesto Processing Plant, was purchased by Caltrans to construct the SR 99 Modesto bypass. Soil in and around FMC's former disposal pond was excavated during construction and stockpiled within the eastern portion of the project study area. Figure 2-16 shows the three soil stockpiles, right-of-way boundaries, monitoring well locations, and surrounding vicinity.

FMC and its predecessors operated a chemical processing facility at this location from 1929 to approximately 1985. The facility processed barium, strontium minerals (barite and celestite), and other materials to produce a variety of industrial chemicals. From the early 1950s to the late 1970s, liquid wastes were discharged to seven unlined ponds.

Since 2004, numerous site investigations of the three soil stockpiles have been completed under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Investigations included stockpile characterization and a risk assessment. Regulatory involvement was solicited after preliminary investigation of the stockpiles detected contamination associated with barite and celestite processing. The preliminary studies were conducted as part of the environmental discovery process associated with re-initiation of the proposed project. The investigations and associated reports are described in the Draft Final RAP in Appendix H.

A 2004 preliminary site investigation was conducted to characterize each of the stockpiles. The investigation collected soil samples from 50 stockpile borings. The samples were analyzed for heavy metals, polycyclic aromatic hydrocarbons, nitrate, and pH. The analytical results indicated elevated barium concentrations in stockpile soil samples that exceed commercial/industrial California human health screening levels.

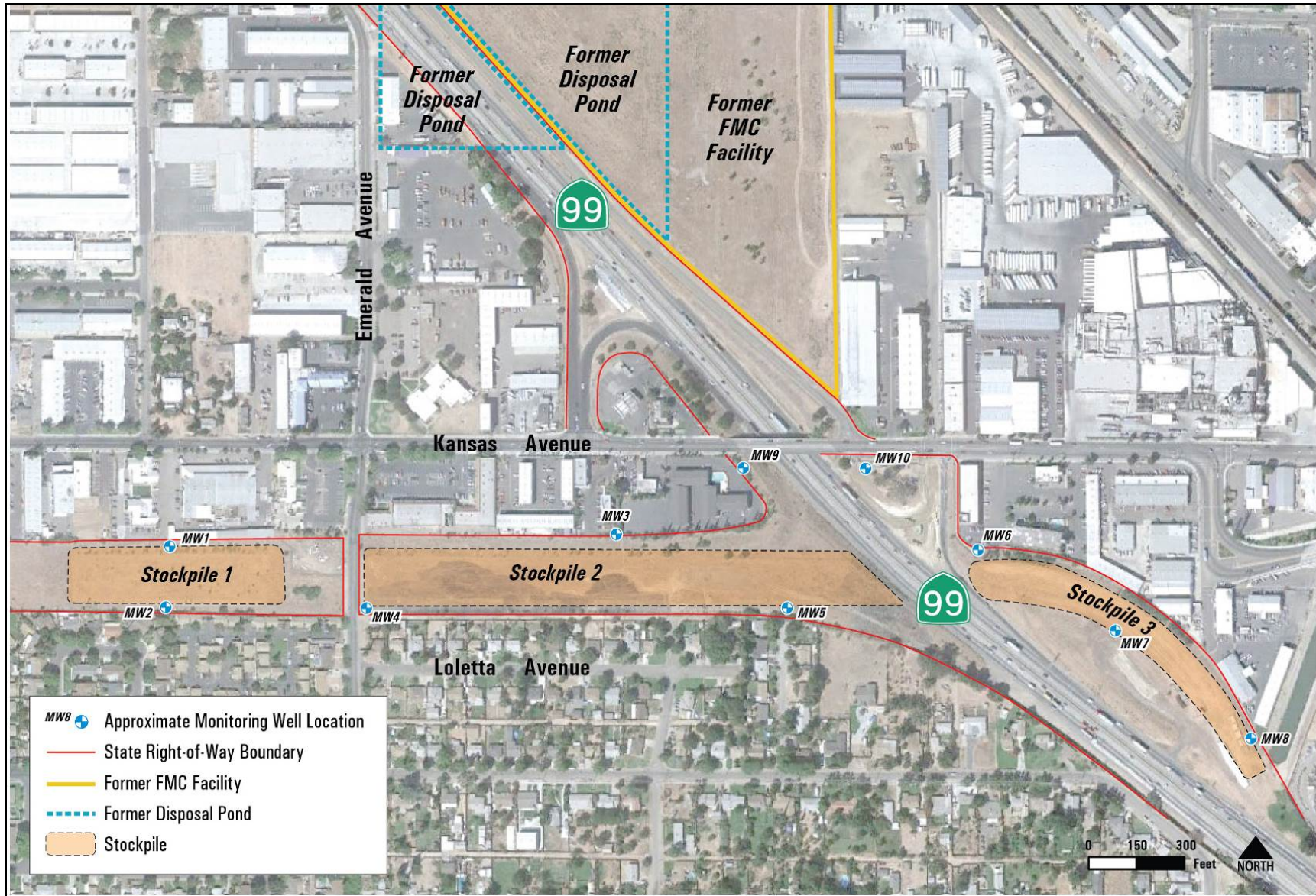


Figure 2-16: Caltrans Modesto Soil Stockpiles Locations

An initial site assessment was conducted in 2003 for the soil stockpiles. The assessment identified a potential for the three soil stockpiles to contain residual chemicals associated with the former FMC impoundments. A 2004 preliminary site investigation was conducted to characterize each of the stockpiles. The investigation collected soil samples from 50 stockpile borings. The samples were analyzed for heavy metals, polycyclic aromatic hydrocarbons, nitrate, and pH. Based on sampling results, elevated concentrations of constituents of concern were found at depths below 5 feet or greater. Based on 2004 data, cadmium was only detected in stockpile 2. The maximum concentration of barium in surface soils was below health-based U.S. EPA threshold values.

In 2006, an additional 278 soil samples were collected for comparison to background conditions and California human health screening levels. The 2004 and 2006 investigations found that the stockpiles have an average thickness of 20 feet and are composed mostly of layered, poorly graded sand and silty sand similar to underlying native alluvial deposits of the Modesto Formation. Antimony, selenium, and silver were not detected in any of the 278 soil samples analyzed. Beryllium, cadmium, mercury, molybdenum, and thallium were detected in the stockpile soil samples at low concentrations. Arsenic, chromium, cobalt, and copper were detected in the stockpile soil samples at concentrations slightly exceeding background concentrations. Barium, lead, nickel, vanadium, and zinc were detected in the stockpile soil samples at concentrations considerably higher than background values. Based on 2004 sample results, barium, the primary constituent of potential concern, was detected at maximum concentrations of 1,730 milligrams per kilograms (mg/kg) in soil stockpile 1; 196,000 mg/kg in soil stockpile 2; and 126,000 mg/kg in soil stockpile 3. Barium concentrations reported for the background soil samples ranged from 17 to 120 mg/kg.

To assess groundwater quality next to the site, eight groundwater monitoring wells were installed in 2006. Groundwater was encountered in the vicinity of the project at depths between 30 and 40 feet (below natural grade), with flow toward the southeast. The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 indicated that groundwater, which is not a source of municipal drinking water, did not exceed drinking water standards for the constituents analyzed.

In 2007, a human health risk assessment was prepared to calculate risk associated with constituents of potential concern in the soil stockpiles and groundwater using

multiple exposure scenarios. Metals (notably barium) and polycyclic aromatic hydrocarbons were identified as the primary constituents of potential concern in the soil stockpiles, and metals and general minerals (for example, nitrate and total dissolved solids) were the primary constituents of potential concern in groundwater. The results of the human health risk assessment indicated that the three soil stockpiles do not pose an unacceptable risk or hazard to current or future off-site residents, trespassers, construction workers, or hypothetical future shallow groundwater users, based on current soil management practices, including vegetation maintenance and groundwater monitoring.

Following the California Department of Toxic Substances Control's review of the human health risk assessment, a final preliminary endangerment assessment was prepared in 2009 to summarize the findings of previous reports prepared for the soil stockpiles and provide the additional clarification requested by the California Department of Toxic Substances Control. The Department concurred that the stockpiles do not pose a risk to human health for State workers (who mow vegetation on the stockpiles), trespassers, and adjacent residents. The Department also determined that until the proposed project is constructed, soil stockpile access must be limited, existing security fencing be maintained, excavation/grading or additional soil placement be prohibited, and the grade and vegetative cover be maintained.

In conjunction with activities associated with the proposed project, groundwater monitoring was reinitiated and conducted bi-monthly from March 2012 to March 2013. From March 2013 to September 2014, monitoring was conducted quarterly. Since then, groundwater samples have been collected annually. Analytical results from the 2012 to present groundwater monitoring are similar to the results from 2006, with primary constituents reported at concentrations less than maximum contaminant levels.

Additional soil sampling was conducted in 2012 prior to preparing the Soil Stockpiles Feasibility Study and the Draft Final Remedial Action Plan. Sampling evaluated fence line migration and stockpile perimeter and confirmation testing. Results of the sampling were used to update the 2007 Human Health Risk Assessment. Following review of the supplemental data, the California Department of Toxic Substances Control concurred with the findings of the Human Health Risk Assessment 2013 Update, which did not change the results originally determined in 2007.

Environmental Consequences

The Soil Stockpiles Feasibility Study (see Appendix G) was prepared to identify remedial action objectives, general response actions, and process options for the three soil stockpiles. The study also developed and screened remedial alternatives and presented an individual and comparative analysis of each retained remedial alternative for the three soil stockpiles. The options were then evaluated based on nine criteria to support an informed decision for the most appropriate remedy for the stockpiles.

Following California Department of Toxic Substances Control acceptance of the Soil Stockpiles Feasibility Study, a Draft Final RAP was prepared. The purpose of the Draft Final RAP was to 1) summarize in one document all of the studies that have analyzed contaminant impacts at the Caltrans Modesto Soil Stockpiles site, 2) provide an assessment of potential risks to human health and the environment associated with the impacts, 3) develop a remedial action alternative to reduce those risks, and 4) provide the information to the public for review and comment. The Draft Final RAP is provided in Appendix H of this document.

Based on the screening of alternatives and comparative analysis, Draft Final RAP Alternative 4 (Containment) is the recommended alternative in the Draft Final Remedial Action Plan. The alternative would be implemented by using the three stockpiles for project construction, which would require a significant amount of fill for the embankments of the proposed SR 132/SR 99 interchange.

Draft Final RAP Alternative 4 (Containment) is the recommended alternative in the Draft Final RAP because of the alternative's effectiveness in providing long-term and overall protection of human health and the environment; technical feasibility; cost-effectiveness; and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

The Draft Final RAP was circulated for public review and comment with the Draft EIR/EA. As a CEQA responsible agency, the California Department of Toxic Substances Control (DTSC) will make a final determination regarding Draft Final RAP Alternative 4, Containment, after Caltrans certifies the Final EIR. If DTSC determines that the EIR/EA has adequately addressed all of the activities proposed in the Draft Final RAP, DTSC will prepare a Statement of Findings documenting that decision. Contingent on Draft Final RAP approval, DTSC would prepare a Notice of Determination (NOD) as the final documentation in DTSC's CEQA analysis process.

The NOD would be filed with the State Clearinghouse. Project construction details would be presented in a Remedial Design Implementation Plan during the detailed design phase.

Build Alternatives

Stockpile soil would be contained behind retaining walls, bridge abutments and beneath highway pavements. The proposed project's initial construction phase (Phase 1) would consist of a two-lane roadway, which would be constructed over the southern portions of soil stockpiles 1 and 2. The northern portions of soil stockpiles 1 and 2, which would not be contained beneath the highway and behind retaining walls and bridge abutments, would be graded for drainage and capped with a minimum of a 6- to 12-inch-thick clean, vegetated soil cap. Figure 2-17 shows a typical cross-section of the initial construction phase and shows the portion of the stockpiles that would be temporarily covered by the clean soil cap until the ultimate build-out is completed. Figure 2-18 shows a typical cross-section of the ultimate build-out (Phase 2) and shows the complete containment of the stockpiles within the project's retaining walls and beneath highway pavements. Also shown in Figure 2-17 is the median between the eastbound and westbound lanes, which would be covered by either pavement or a synthetic liner and clean soil layer.

Soil stockpile 3 would be treated differently than soil stockpiles 1 and 2: the stockpile would be entirely contained within the initial construction phase of the project. Much of soil stockpile 3 would be placed in the stockpile fill consolidation zone within the eastern abutment of the proposed SR 132/SR 99 interchange. The remainder of soil stockpile 3 would be placed in the stockpile fill consolidation zone of soil stockpile 2 (Figure 2-18).

Phase 1: Typical Soil Stockpile Cross-Section

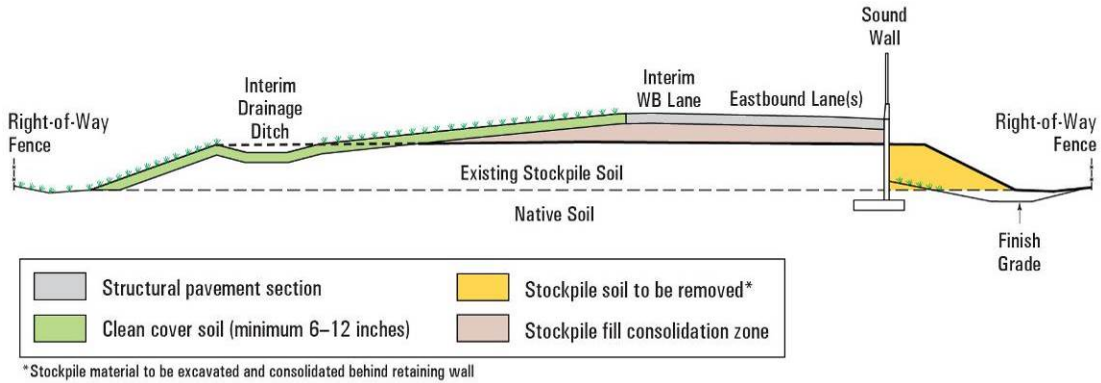


Figure 2-17: Phase 1 - Typical Stockpile Cross-Section

Phase 2: Typical Soil Stockpile Cross-Section

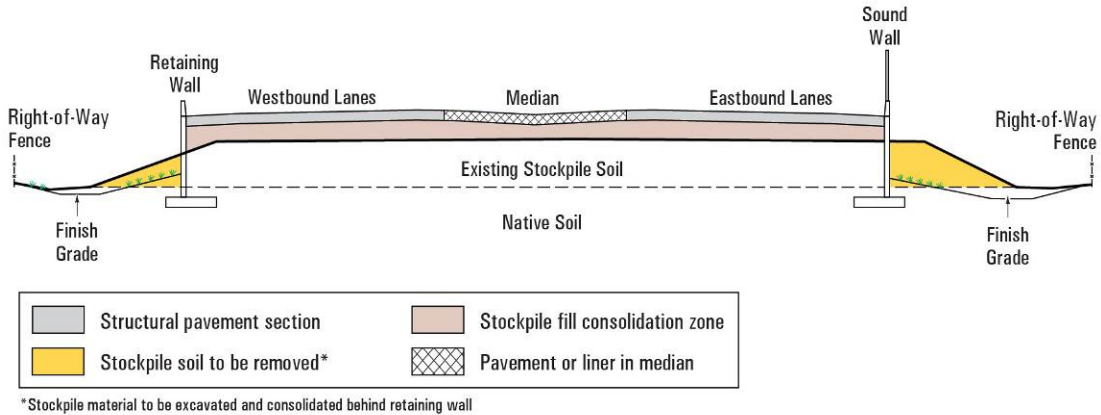


Figure 2-18: Phase 2 - Typical Stockpile Cross-Section

Monitoring of the stockpiles and stormwater runoff constituents of potential concern would continue during Phase 1 and Phase 2. Following full containment of the three stockpiles, an Operation and Maintenance Plan and Operation and Maintenance Agreement will be required to monitor the containment remedy of the stockpile segment of the SR 132 West Project. The operation plans and agreement will require annual inspections and five year reviews to assess the effectiveness of the containment remedy. The frequency of groundwater monitoring would be subject to change until the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board indicate that monitoring is no longer required. Past and continued maintenance, in accordance with the California

Department of Toxic Substances Control and Central Valley Regional Water Quality Control Board requirements, would continue and include monitoring the condition and effectiveness of the vegetative cover on the portions of the stockpiles not yet contained or capped by the project. Maintaining perimeter fencing would ensure access is restricted to each stockpile to prevent soil transport off-site from the Caltrans right-of-way and for the continued monitoring for potential erosion.

No-Build Alternative

Soil stockpile containment via a highway structure would not be implemented under the project's No-Build Alternative. However, impacts to the environment posed by the continued presence of the soil stockpiles would be mitigated by a remedial action developed under the oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board. Currently, the perimeter of all three soil stockpiles is enclosed with security fencing, walls, and structures. Under the No-Build Alternative, Caltrans would continue to maintain the perimeter fence, restrict access to authorized personnel, continue water quality monitoring, and maintain each of the soil stockpile's vegetative cover until remediation of the stockpiles is completed under the oversight and approval of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board.

Avoidance, Minimization, and/or Mitigation Measures

Following the California Department of Toxic Substances Control final determination regarding Draft Final RAP Alternative 4 (Containment), the details of project construction would be presented in a Remedial Design Implementation Plan.

The following avoidance and minimization measures would reduce potential impacts related to hazardous waste and materials in the three soil stockpiles during construction and implementation of the Draft Final Remedial Action Plan:

- SHAZ-1 Prior to any earthmoving or construction activities related to the soil stockpiles, a grading permit from the City of Modesto would be secured by the construction contractor. Additionally, prior to any earthmoving or construction activities related to the soil stockpiles, a Health and Safety Plan that addresses all hazards associated with the movement and disposition of stockpile soil related to construction of the containment features would also be prepared by the construction contractor. The hazards associated with the movement and disposition of stockpile soil to

be included in the Health and Safety Plan would be identified in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. As described in Section 2.2.6, Air Quality, the contractor would comply with the San Joaquin Valley Air Pollution Control District's Rule 9510. As described in Section 2.2.2, Water Quality, the contractor would prepare and implement construction site best management practices in accordance with the California Department of Transportation's Stormwater Management Plan and National Pollutant Discharge Elimination System Permit (Order No. 99-06-DWQ National Pollutant Discharge Elimination System No. CAS000003).

- SHAZ-2 The contractor would remove all debris on or adjacent to the soil stockpiles prior to grading. The contractor would dispose of it accordance with regulations pertaining to the type of waste encountered.
- SHAZ-3 If any vegetation grubbing is required, the contractor would minimize dust generation consistent with standard best management practices described in Section 2.2.6, Air Quality. The contractor would implement the California Department of Transportation's Standard Specifications control measures Section 14-9.02 (Air Pollution Control) and Section 14-9.03 (Dust Control). The contractor would apply water under Section 17 and dust palliative under Section 18.
- SHAZ-4 The contractor would minimize reconfiguration of the soil stockpiles to the minimum extent possible to meet project design criteria for fill placement, thereby reducing the potential for stormwater and/or wind erosion and stormwater infiltration into the soil stockpiles.
- SHAZ-5 Perimeter air quality monitoring would occur during any earthmoving or construction activities related to the soil stockpiles, including clearing and grubbing or other site grading activities performed by the construction contractor. Perimeter air quality monitoring would occur according to an Air Monitoring Plan that would describe monitoring locations, equipment, sampling and analysis methods, hazardous exposure threshold values, etc. All elements of the Air Quality Monitoring Plan would be identified in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. The contractor

would provide monitoring results to the California Department of Toxic Substances Control for its review and approval. If the results of air monitoring demonstrate that dust control measures are effective and that there is no exposure to constituents of potential concern in the soil stockpiles via airborne dust, then the frequency of monitoring may be decreased with the California Department of Toxic Substances Control's approval.

- SHAZ-6 The contractor would submit requests to the California Department of Toxic Substances Control for approval prior to modifying procedures for soil excavation, relocation, dust control, air monitoring, or other field activities.
- SHAZ-7 The contractor would maintain detailed records related to movement, placement, and inspection of the stockpile soil.
- SHAZ-8 As required by California Code of Regulations, Title 22, section 67391.1, the California Department of Transportation would prepare and record a land use covenant to restrict the types of land use that are allowed on the site. The land use covenant would identify that the proposed transportation land use is compatible and acceptable with respect to health risk. The land use covenant would be prepared in compliance with California Department of Toxic Substances Control policies and finalized and recorded after remedial measures are implemented and before the soil stockpile site is certified by the California Department of Toxic Substances Control as remediated.
- SHAZ-9 A groundwater and storm water quality monitoring program for the contained Caltrans Modesto Soil Stockpiles would be proposed and included in the Remedial Design Implementation Plan to be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. In addition to design specifications for construction of the containment features, the Remedial Design Implementation Plan would address water quality monitoring for the initial and final construction phases of the project. Until the groundwater and surface water quality monitoring program is approved, groundwater and storm water quality monitoring would continue as currently conducted in accordance with the 2006 and 2012 (amendment) sampling and analysis plans approved by the California

Department of Toxic Substances Control and the Regional Water Quality Control Board.

SHAZ-10 The functionality and condition of each stockpile containment feature (pavement, retaining walls, abutments, vegetated soil cover, etc.) would be evaluated in accordance with an operation and maintenance plan established in accordance with an operation and maintenance agreement between the California Department of Transportation and the California Department of Toxic Substances Control and the California Regional Water Quality Control Board. The proposed operation and maintenance plan and operation and maintenance agreement would be included in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. The operation and maintenance plan would address containment feature assessment, management, and reporting to ensure the ongoing integrity of the containment feature for the protection of human health and the environment. The operation and maintenance plan would address containment feature assessment for the initial and final construction phases of the project.

2.2.6 Air Quality

Regulatory Setting

The federal Clean Air Act, as amended, is the main federal law that governs air quality. The California Clean Air Act is its companion state law. These laws and related regulations by the U.S. Environmental Protection Agency and the California Air Resources Board, set standards for the concentration of pollutants in the air.

At the federal level, these standards are called National Ambient Air Quality Standards. National Ambient Air Quality Standards and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter, which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}). In addition, national and state standards exist for lead, and state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

National Ambient Air Quality Standards and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory requirements also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic framework for project-level air quality analysis under the National Environmental Policy Act. In addition to this environmental analysis, a parallel “conformity” requirement under the federal Clean Air Act also applies.

Conformity

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to state implementation plans for attaining National Ambient Air Quality Standards. “Transportation conformity” applies to highway and transit projects and takes place on two levels: the regional—or, planning and programming level—and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for National Ambient Air Quality Standards, and only for the specific National Ambient Air Quality Standards that are or were violated. U.S. Environmental Protection Agency regulations at 40 Code of Federal Regulations Part 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for National Ambient Air Quality Standards and do not apply for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining National Ambient Air Quality Standards for carbon monoxide, nitrogen dioxide, ozone, PM₁₀, PM_{2.5}, and, in some areas (although not in California), sulfur dioxide. California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except sulfur dioxide, and also has a nonattainment area for lead; however, lead is not currently required by the Federal Clean Air Act to be covered in transportation conformity analysis.

Regional conformity is based on emission analysis of Regional Transportation Plans and Federal Transportation Improvement Programs that include all transportation

projects planned for a region over a period of at least 20 years (for the Regional Transportation Plan) and a minimum of 4 years (for the Federal Transportation Improvement Program). Regional Transportation Plan and Federal Transportation Improvement Program conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the state implementation plan are met. If the conformity analysis is successful, the Metropolitan Planning Organization, Federal Highway Administration, and Federal Transit Administration make the determinations that the Regional Transportation Plan and Federal Transportation Improvement Program are in conformity with the state implementation plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan and/or Federal Transportation Improvement Program 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 Regional Transportation Plan and the Transportation Improvement Program, then the proposed project meets regional conformity requirements for the purpose of project level analysis.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a “hot-spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide and/or particulate matter (PM₁₀ or PM_{2.5}). A region is “nonattainment” if one or more of the monitoring stations in the region measure a violation of the relevant standard and the U.S. Environmental Protection Agency 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 the U.S. Environmental Protection Agency, and are then called “maintenance” areas. “Hot-spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act 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 carbon monoxide 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 section is based on the *State Route 132 Air Quality Study Report* (May 2016), the *State Route 132 Air Quality Conformity Analysis* (May 2016), and the *State Route 132 Air Quality Study Report Addendum* (July 2017).

The project study area sits within the San Joaquin Valley Air Basin, which includes all or part of seven counties, including Stanislaus County. The San Joaquin Valley Air Pollution Control District is principally responsible for air pollution control within the basin through monitoring air quality and through planning, implementing, and enforcing programs designed to reach and maintain state and federal ambient air quality standards in the San Joaquin Valley Air Pollution Control District.

The project study area is in the northern portion of the San Joaquin Valley Air Basin, a basin known for an “inland Mediterranean” climate, characterized by dry summers and cool winters. Summer high temperatures often exceed 100 degrees Fahrenheit. The surrounding mountain ranges restrict air movement through and out of the basin. While prevailing wind patterns, periodic high-pressure systems, and inversion layers contain air pollutants within the area, wind speed and direction can influence how air pollutants (such as ozone precursors, PM₁₀, and carbon monoxide) are dispersed by winds moving pollutants out of the area. Precipitation and fog, somewhat common in the basin and study area, also tend to reduce or limit pollutant concentrations. Annual precipitation in the basin decreases from north to south. Roughly 20 inches of rain falls annually in the basin’s northern portion.

Existing air quality standards areas are classified as either attainment, attainment with maintenance, or nonattainment with respect to state and federal ambient air quality standards. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified.

Table 2-33 shows applicable standards and area attainment statuses for each relevant pollutant.

Table 2-33: State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State ¹ Standard	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Project Area Attainment Status
Ozone (O ₃) ²	1 hour 8 hours	0.09 ppm 0.070 ppm	--- ³ 0.075 ppm (4 th highest in 3 years)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.	Federal: Extreme nonattainment (8-hour) State: Nonattainment (8-hour) Severe nonattainment (1-hour)
Carbon Monoxide (CO)	1 hour 8 hours 8 hours (Lake Tahoe)	20 ppm 9.0 ppm ⁴ 6 ppm	35 ppm 9 ppm ---	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Federal: Moderate Maintenance (Designation applies to urbanized portions of the San Joaquin Valley) State: Attainment
Respirable Particulate Matter (PM ₁₀) ²	24 hours Annual	50 µg/m ³ 20 µg/m ³	150 µg/m ³ --- ² (expected number of days above standard < or equal to 1)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic and other aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.	Federal: Serious Maintenance (24-hour) State: Non-attainment

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Pollutant	Averaging Time	State ¹ Standard	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Project Area Attainment Status
Fine Particulate Matter (PM _{2.5}) ²	24 hours Annual 24 hours (conformity process ⁵) Secondary Standard (annual; also for conformity process ⁵)	--- 12 µg/m ³ --- ---	35 µg/m ³ 12.0 µg/m ³ 65 µg/m ³ 15 µg/m ³ (98 th percentile over 3 years)	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many toxic and other aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROG.	Federal: Non-attainment State: No-n attainment (annual)
Nitrogen Dioxide (NO ₂)	1 hour Annual	0.18 ppm 0.030 ppm	0.100 ppm ⁶ (98 th percentile over 3 years) 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain and nitrate contamination of stormwater. Part of the “NO _x ” group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.	Federal: Attainment State: Attainment
Sulfur Dioxide (SO ₂)	1 hour 3 hours 24 hours	0.25 ppm --- 0.04 ppm	0.075 ppm ⁷ (99 th percentile over 3 years) 0.5 ppm ⁸	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Federal: Attainment State: Attainment

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Pollutant	Averaging Time	State ¹ Standard	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Project Area Attainment Status
Lead (Pb) ⁹	Monthly Rolling 3-month average	1.5 µg/m ³ ---	--- 0.15 µg/m ³ ¹⁰	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.	Federal: Unclassified State: Attainment ¹¹
Sulfate	24 hours	25 µg/m ³	---	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Federal: n/a State: Attainment ¹¹
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	---	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	Federal: Attainment State: Unclassified

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Pollutant	Averaging Time	State ¹ Standard	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Project Area Attainment Status
Visibility-Reducing Particles (VRP)	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70%	---	Reduces visibility. Produces haze. Note: Not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.	Federal: n/a State: Unclassified
Vinyl Chloride ²	24 hours	0.01 ppm	---	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes	Federal: n/a State: Attainment

Adapted from City of Bakersfield 24th Street Improvement Project Draft EIR and California ARB Air Quality Standards chart (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>).

Notes: ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppb=parts per billion (thousand million); Greenhouse Gases and Climate Change: Greenhouse gases do not have concentration standards for that purpose. Conformity requirements do not apply to greenhouse gases.

- 1 State standards are "not to exceed" or "not to be equaled or exceeded" unless stated otherwise. Federal standards are "not to exceed more than once a year" or as described above.
- 2 Annual PM_{10} NAAQS revoked October 2006; was $50 \mu\text{g}/\text{m}^3$. 24-hr. $\text{PM}_{2.5}$ NAAQS tightened October 2006; was $65 \mu\text{g}/\text{m}^3$. Annual $\text{PM}_{2.5}$ NAAQS tightened from $15 \mu\text{g}/\text{m}^3$ to $12 \mu\text{g}/\text{m}^3$ December 2012 and secondary annual standard set at $15 \mu\text{g}/\text{m}^3$.
- 3 Prior to 6/2005, the 1-hour ozone NAAQS was 0.12 ppm. Emission budgets for 1-hour ozone are still in use in some areas where 8-hour ozone emission budgets have not been developed, such as the S.F. Bay Area.
- 4 Rounding to an integer value is not allowed for the State 8-hour CO standard. A violation occurs at or above 9.05 ppm.
- 5 The $65 \mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$ (24-hr) NAAQS was not revoked when the $35 \mu\text{g}/\text{m}^3$ NAAQS was promulgated in 2006. The $15 \mu\text{g}/\text{m}^3$ annual $\text{PM}_{2.5}$ standard was not revoked when the $12 \mu\text{g}/\text{m}^3$ standard was promulgated in 2012. The 0.08 ppm 1997 ozone standard is revoked FOR CONFORMITY PURPOSES ONLY when area designations for the 2008 0.75 ppm standard become effective for conformity use (7/20/2013). Conformity requirements apply for all NAAQS, including revoked NAAQS, until emission budgets for newer NAAQS are found adequate, SIP amendments for the newer NAAQS are approved with an emission budget, EPA specifically revokes conformity requirements for an older standard, or the area becomes attainment/unclassified. SIP-approved emission budgets remain in force indefinitely unless explicitly replaced or eliminated by a subsequent approved SIP amendment. During the "Interim" period prior to availability of emission budgets, conformity tests may include some combination of build vs. no build, build vs. baseline, or compliance with prior emission budgets for the same pollutant.
- 6 Final 1-hour NO_2 NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause redesignation to nonattainment in some areas after 2016.

- 7 EPA finalized a 1-hour SO₂ standard of 75 ppb in June 2010. Nonattainment areas have not yet been designated as of 9/2012.
- 8 Secondary standard, set to protect public welfare rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.
- 9 The ARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM₁₀ and, in larger proportion, PM_{2.5}. Both the ARB and U.S. EPA have identified lead and various organic compounds that are precursors to ozone and PM_{2.5} as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.
- 10 Lead NAAQS are not considered in Transportation Conformity analysis.

Source: <http://www.valleyair.org/aqinfo/attainment.htm>

In accordance with the U.S. Environmental Protection Agency's 2010 guidance, a PM₁₀ and PM_{2.5} hot-spot analysis is necessary to show that the project conforms to the state implementation plan and would not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of National Ambient Air Quality Standards for the criteria pollutants. The state implementation plan is composed of the *2007 PM₁₀ Maintenance Plan and Request for Redesignation*, adopted by the San Joaquin Valley Air Pollution Control District on September 20, 2007, the *2008 PM_{2.5} Plan* to address attainment of the PM_{2.5} annual standard, adopted in April 2008, and the *2012 PM_{2.5} Plan* concerning attainment of the PM_{2.5} 24-hour standard, adopted in December 2012. The U.S. Environmental Protection Agency approved the PM₁₀ redesignation of the San Joaquin Air Basin portion of the San Joaquin Valley Air Pollution Control District, which includes the project study area, on November 12, 2008.

The California Air Resources Board and the U.S. Environmental Protection Agency maintain and operate various monitoring stations to measure ambient air quality. The air quality monitoring station nearest the project study area is the California Air Resources Board's Modesto-14th Street monitoring station at 814 14th Street in Modesto. The station monitors for ozone, carbon monoxide, PM₁₀, and PM_{2.5}. Table 2-36 lists the air quality monitoring data for pollutants over the last four-year period (2011 to 2014). An asterisk notes a value where data was insufficient to determine a value; however, a minimum of three years of complete data for each pollutant is reported over this period.

**Table 2-34: Ambient Air Quality Monitoring Data Measured at the Modesto
14th Street Monitoring Station**

Standards	Year Monitored			
	2011	2012	2013	2014
1-HOUR OZONE				
Maximum 1-hour concentration (ppm)	0.091	<u>0.104</u>	0.088	<u>0.103</u>
1-hour California designation value	0.090	0.100	0.100	0.100
1-hour expected peak day concentration	0.101	0.098	0.097	0.096
Number of Days Standard Exceeded ^a				
CAAQS 1-hour (>0.09 ppm)	0	2	0	1
8-HOUR OZONE				
National maximum 8-hour concentration (ppm)	0.078	0.091	0.082	0.90
National second-highest 8-hour concentration (ppm)	0.077	0.086	0.076	0.084
National fourth-highest 8-hour concentration (ppm)	0.074	0.078	0.075	0.081
California maximum 8-hour concentration (ppm)	<i>0.078</i>	<i>0.091</i>	<i>0.082</i>	<i>0.091</i>
California second-highest 8-hour concentration (ppm)	<i>0.078</i>	<i>0.086</i>	<i>0.077</i>	<i>0.084</i>
8-hour National design value	0.075	0.075	0.075	<i>0.078</i>
8-hour California designation value	<i>0.082</i>	<i>0.086</i>	<i>0.086</i>	<i>0.086</i>
8-hour California expected peak day concentration	0.087	0.086	0.086	0.088
Number of Days Standard Exceeded ^a				
NAAQS 8-hour (>0.075 ppm)	3	6	2	12
CAAQS 8-hour (>0.070 ppm)	7	12	13	24
CARBON MONOXIDE (CO)				
National maximum 1-hour concentration (ppm)	2.9	2.6	2.5	2.4
National second-highest 1-hour concentration (ppm)	2.9	2.6	2.3	2.2
National ^b maximum 8-hour concentration (ppm)	2.71	2.10	1.9	1.7
National ^b second-highest 8-hour concentration (ppm)	2.15	2.07	1.8	1.6
California ^c maximum 8-hour concentration (ppm)	2.71	2.10	*	*
California ^c second-highest 8-hour concentration (ppm)	2.15	2.07	*	*
Number of Days Standard Exceeded ^a				
NAAQS 1-hour (≥35 ppm)	0	0	0	0
CAAQS 1-hour (≥20 ppm)	0	0	0	0
NAAQS 8-hour (≥9 ppm)	0	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0	0
PARTICULATE MATTER (PM10)^d				
National annual average concentrations (µg/m ³)	<u>25.5</u>	<u>25.1</u>	<u>30.4</u>	<u>29.1</u>
National 3-year average concentration (µg/m ³)	<u>24</u>	<u>24</u>	<u>27</u>	*
California annual average concentration (µg/m ³) ^e	*	25.6	30.9	*
California 3-year annual average concentration (µg/m ³)	27	26	31	*
National ^b maximum 24-hour concentration (µg/m ³)	69.4	74.1	73.0	122.5
National ^b second-highest 24-hour concentration (µg/m ³)	63.1	59.9	67.2	94.9
California ^c maximum 24-hour concentration (µg/m ³)	73.5	74.6	77.5	*
California ^c second-highest 24-hour concentration (µg/m ³)	68.6	63.5	70.0	*
Number of Days Standard Exceeded ^a				
NAAQS 24-hour (>150 µg/m ³) ^f	0.0	0.0	0.0	0.0
CAAQS 24-hour (>50 µg/m ³) ^f	*	30.9	57.7	*

**Table 2-34: Ambient Air Quality Monitoring Data Measured at the Modesto
14th Street Monitoring Station**

Standards	Year Monitored			
	2011	2012	2013	2014
PARTICULATE MATTER (PM2.5)				
National annual average concentration ($\mu\text{g}/\text{m}^3$)	14.7	11.9	14.3	11.4
California annual average concentration ($\mu\text{g}/\text{m}^3$) ^e	14.7	11.9	14.4	11.4
National annual design value ($\mu\text{g}/\text{m}^3$)	13.3	12.9	13.6	12.5
California annual designation value ($\mu\text{g}/\text{m}^3$)	15	15	15	14
National ^b maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	71.7	62.3	83.2	58.2
National ^b second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	70.2	57.2	73.5	58.0
National 3-year Average 24-hour 98 th Percentile	54.7	40.8	56.4	49.5
National 24-hour design value	49	44	51	49
California ^c maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	71.7	62.3	83.2	58.2
California ^c second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	70.2	57.2	73.5	58.0
Number of Days Standard Exceeded ^a				
NAAQS annual ($>12\mu\text{g}/\text{m}^3$) ^f	25	13	37	17

Notes: CAAQS = California ambient air quality standards; NAAQS = national ambient air quality standards.

* = insufficient data available to determine the value.

^a = An exceedance is not necessarily a violation.

^b = National statistics are based on standard conditions data. Also, national statistics are based on samplers using federal reference or equivalent methods.

^c = State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, State statistics are based on California-approved samplers.

^d = Measurements usually are collected every 6 days.

^e = State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

^f = Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.

Bold, *italics* and underlined values exceed the national, *state* and revoked standards, accordingly.

Sources: California Air Resources Board 2015; U.S. Environmental Protection Agency 2015.

Environmental Consequences

Regional Conformity

The proposed project is listed in StanCOG's financially constrained 2014 Regional Transportation Plan/Sustainable Communities Strategy, which was adopted and found to regionally conform by StanCOG via Resolution 13-46 on June 18, 2014 and by the Federal Highway Administration and the Federal Transit Administration on December 15, 2014. The proposed project is also included in StanCOG's financially constrained 2017 Federal Transportation Improvement Program, page A-14. The 2017 Federal Transportation Improvement Program was adopted by StanCOG and a conformity determination via Resolution 13-49 was made on June 18, 2014. The

Federal Highway Administration and Federal Transit Administration reviewed the StanCOG conformity determination and, after consultation with Environmental Protection Agency Region IX, made a conformity determination on December 15, 2014. The design concept and scope of the proposed project are consistent with the project description in the 2014 Regional Transportation Program/Sustainable Communities Strategy, 2017 Federal Transportation Improvement Program, and the “open to traffic” assumptions of StanCOG’s regional emissions analysis.

Project-level Conformity

Project-level conformity is demonstrated by showing that a project would not cause or contribute to a localized exceedance of National Ambient Air Quality Standards in a nonattainment or maintenance area and that it would not interfere with “timely implementation” of transportation control measures identified in the state implementation plan. The project also received a project-level conformity determination from the Federal Highway Administration on June 5, 2017, concluding that the project conforms with the State Implementation Plan in accordance with 40 Code of Federal Regulations Part 93. In the conformity determination letter, the Federal Highway Administration stated that the project-level conformity analyses submitted by Caltrans on April 21, 2017 demonstrates that the project will not create any new violations of standards or increase the severity or number of existing violations. The Federal Highway Administration conformity determination letter can be found in Appendix I.

Carbon Monoxide Hot-Spot Analysis

The effects of localized carbon monoxide hot spots were evaluated through carbon monoxide dispersion modeling consistent with the Transportation Project-Level Carbon Monoxide Protocol. Carbon monoxide hot spots were evaluated at intersections within the project study area for the No-Build Alternative at the completion of Phase 1 in 2020. Analysis was also done for the No-Build Alternative and two build alternatives at the completion of the ultimate build-out in 2028 and the No-Build Alternative and two build alternatives for the 2048 design year. These years were selected to evaluate the combined effect of increasing traffic volumes and improving vehicle emissions for carbon monoxide concentrations in the project study area.

Carbon monoxide modeling was conducted at the four most-congested intersections in the project study area:

- Existing SR 132 (Maze Boulevard) and Carpenter Road
- Kansas Avenue and North Carpenter Road
- North Carpenter Road and the southbound SR 99 on- and off-ramps
- North Carpenter Road and the northbound SR 99 on- and off-ramps

Carbon monoxide concentrations were estimated at eight receptor locations (32 total receptors) at the approximate beginning and end of each turning queue for each of the four intersections. Figure 2-19 shows the intersection and receptor locations. The air quality study limits also included the existing SR 132 (Maze Boulevard) corridor from Dakota Avenue to SR 99. Additional details on the modeling approach and assumptions per U.S. Environmental Protection Agency and California Air Resources Board guidelines are presented in the *Air Quality Study Report*.

Modeling Results: Tables 2-37 through 2-39 list the results for the two build alternatives and the No-Build Alternative. Carbon monoxide concentrations are not anticipated to exceed the 1- or 8-hour National Ambient Air Quality Standards, 35 parts per million (ppm) and 9 ppm (respectively), under the two build alternatives or the No-Build Alternative. The maximum predicted concentrations for the 2020 No-Build and Phase 1 scenarios are 4.5 ppm (1-hour) and 3.3 ppm (8-hour). The maximum predicted concentrations for the 2028 No-Build Alternative and both build alternatives is 2.8 ppm (1-hour) and 2.0 ppm (8-hour). For the 2048 scenario, the maximum predicted concentrations for the No-Build and build alternatives are 2.6 ppm (1-hour) and 1.9 (8-hour).

The proposed project is, therefore, not expected to cause or contribute to new or worsened violations of the National Ambient Air Quality Standards, and project-level carbon monoxide conformity determination requirements are satisfied. In addition, the predicted maximum concentrations are below the 1-hour (20 ppm) and 8-hour (9 ppm) California ambient air quality standards, satisfying the California Environmental Quality Act.

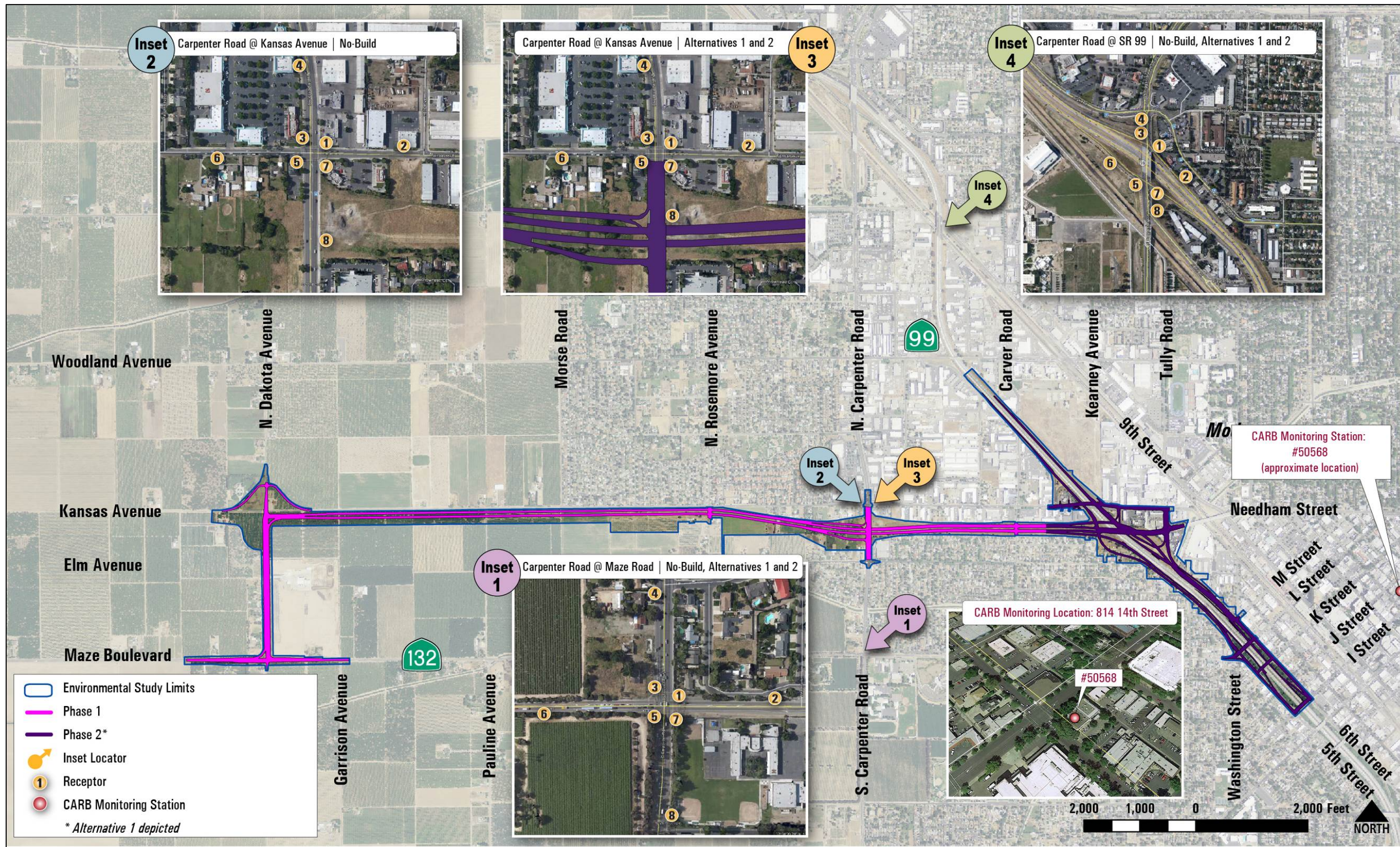


Figure 2-19: Carbon Monoxide Hot-Spot Analysis Intersection and Receptor Locations

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Table 2-35: Modeled Carbon Monoxide Levels at Receptors for the No-Build Alternative and Two Build Alternatives (Phase 1 - 2020)

Intersection	Receptor ^a	2020 No-Build		2020 Phase 1	
		1-hr ^b	8-hr ^b	1-hr ^b	8-hr ^b
Existing SR 132 (Maze Boulevard) and Carpenter Road	1	3.0 ppm	2.2 ppm	3.2 ppm	2.4 ppm
	2	2.9 ppm	2.1 ppm	3.0 ppm	2.2 ppm
	3	3.0 ppm	2.2 ppm	3.2 ppm	2.4 ppm
	4	3.1 ppm	2.2 ppm	3.2 ppm	2.4 ppm
	5	3.1 ppm	2.2 ppm	3.2 ppm	2.4 ppm
	6	2.9 ppm	2.1 ppm	3.1 ppm	2.3 ppm
	7	3.0 ppm	2.2 ppm	3.2 ppm	2.4 ppm
	8	3.1 ppm	2.2 ppm	3.1 ppm	2.3 ppm
Kansas Avenue and North Carpenter Road	1	3.0 ppm	2.2 ppm	3.0 ppm	2.2 ppm
	2	3.0 ppm	2.2 ppm	3.0 ppm	2.2 ppm
	3	3.2 ppm	2.4 ppm	3.2 ppm	2.3 ppm
	4	3.1 ppm	2.3 ppm	3.1 ppm	2.3 ppm
	5	3.1 ppm	2.3 ppm	3.1 ppm	2.3 ppm
	6	3.1 ppm	2.3 ppm	3.0 ppm	2.2 ppm
	7	3.2 ppm	2.4 ppm	3.2 ppm	2.3 ppm
	8	3.0 ppm	2.2 ppm	3.2 ppm	2.3 ppm
North Carpenter Road and the Southbound SR 99 on- and off- ramps	1	4.1 ppm	3.0 ppm	3.5 ppm	2.6 ppm
	2	3.7 ppm	2.7 ppm	3.3 ppm	2.7 ppm
	3	3.5 ppm	2.6 ppm	3.1 ppm	2.4 ppm
	4	3.6 ppm	2.6 ppm	3.2 ppm	2.4 ppm
	5	4.6 ppm	3.3 ppm	3.7 ppm	2.7 ppm
	6	3.6 ppm	2.6 ppm	3.2 ppm	2.4 ppm
	7	3.9 ppm	2.8 ppm	3.3 ppm	2.7 ppm
	8	4.0 ppm	2.9 ppm	3.4 ppm	2.5 ppm
North Carpenter Road and the Northbound SR 99 on- and off- ramps	1	3.4 ppm	2.5 ppm	3.4 ppm	2.5 ppm
	2	3.1 ppm	2.3 ppm	3.1 ppm	2.3 ppm
	3	3.1 ppm	2.3 ppm	3.1 ppm	2.3 ppm
	4	3.1 ppm	2.3 ppm	3.1 ppm	2.3 ppm
	5	3.4 ppm	2.5 ppm	3.4 ppm	2.5 ppm
	6	3.0 ppm	2.2 ppm	3.0 ppm	2.2 ppm
	7	3.2 ppm	2.4 ppm	3.2 ppm	2.4 ppm
	8	3.3 ppm	2.4 ppm	3.3 ppm	2.4 ppm

Notes: For the purposes of evaluating impacts, Phase 1 represents both build alternatives for traffic conditions in 2020. ppm = parts per million.

^a Receptors were approx. 10 feet from the outer edge of adjacent lanes at the boundary of the mixing zone and at the estimated beginning and end of right-turn movements on each leg of the intersection.

^b Background concentrations of 2.7 ppm and 2.0 ppm were added to the modeling 1-hour and 8-hour results, respectively, based on the second maximum background concentration in each of the last 2 years extrapolated to the 2020 traffic year. The federal and state 1-hour standards are 35 and 20 ppm, respectively. The federal and state 8-hour standards are 9 ppm.

Source: Air Quality Study Report (May 2016)

Table 2-36: Modeled Carbon Monoxide Levels at Receptors for the No-Build and Build Alternatives (Phase 2 - 2028)

Intersection	Receptor ^a	No-Build		Alternative 1		Alternative 2	
		1-hr ^b	8-hr ^b	1-hr ^b	8-hr ^b	1-hr ^b	8-hr ^b
Existing SR 132 (Maze Boulevard) and Carpenter Road	1	2.2 ppm	1.7 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	2	2.0 ppm	1.5 ppm	1.9 ppm	1.4 ppm	1.9 ppm	1.4 ppm
	3	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	4	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	5	2.3 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	6	2.0 ppm	1.5 ppm	1.9 ppm	1.4 ppm	1.9 ppm	1.4 ppm
	7	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	8	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
Kansas Avenue and North Carpenter Road	1	2.1 ppm	1.6 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	2	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	3	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	4	2.1 ppm	1.6 ppm	2.0 ppm	1.5 ppm	2.0 ppm	1.5 ppm
	5	2.3 ppm	1.7 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	6	2.2 ppm	1.7 ppm	2.0 ppm	1.5 ppm	2.0 ppm	1.5 ppm
	7	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	8	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
North Carpenter Road and the Southbound SR 99 on- and off-ramps	1	2.7 ppm	2.0 ppm	2.7 ppm	2.0 ppm	2.7 ppm	2.0 ppm
	2	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	3	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm	2.2 ppm	1.7 ppm
	4	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	5	2.8 ppm	2.0 ppm	2.8 ppm	2.0 ppm	2.8 ppm	2.0 ppm
	6	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	7	2.4 ppm	1.8 ppm	2.4 ppm	1.8 ppm	2.4 ppm	1.8 ppm
	8	2.5 ppm	1.9 ppm	2.5 ppm	1.9 ppm	2.5 ppm	1.9 ppm
North Carpenter Road and the Northbound SR 99 on- and off-ramps	1	2.6 ppm	1.9 ppm	2.6 ppm	1.9 ppm	2.6 ppm	1.9 ppm
	2	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	3	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	4	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	5	2.7 ppm	2.0 ppm	2.7 ppm	2.0 ppm	2.7 ppm	2.0 ppm
	6	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	7	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	8	2.5 ppm	1.9 ppm	2.5 ppm	1.9 ppm	2.5 ppm	1.9 ppm

Notes: ppm = parts per million.

^a Receptors were approx. 10 feet from the outer edge of adjacent lanes at the boundary of the mixing zone and at the estimated beginning and end of right-turn movements on each leg of the intersection.

^b Background concentrations of 1.7 ppm and 1.3 ppm were added to the modeling 1-hour and 8-hour results, respectively, based on the second maximum background concentration in each of the last 2 years extrapolated to the 2028 traffic year. The federal and state 1-hour standards are 35 and 20 ppm, respectively. The federal and state 8-hour standards are 9 ppm.

Source: Air Quality Study Report (May 2016)

Table 2-37: Modeled Carbon Monoxide Levels at Receptors for the No-Build and Build Alternatives (Design Year 2048)

Intersection	Receptor ^a	No-Build		Alternative 1		Alternative 2	
		1-hr ^b	8-hr ^b	1-hr ^b	8-hr ^b	1-hr ^b	8-hr ^b
Existing SR 132 (Maze Boulevard) and Carpenter Road	1	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	2	2.0 ppm	1.5 ppm	1.9 ppm	1.4 ppm	1.9 ppm	1.4 ppm
	3	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	4	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	5	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	6	2.0 ppm	1.5 ppm	1.8 ppm	1.3 ppm	1.9 ppm	1.4 ppm
	7	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.0 ppm	1.5 ppm
	8	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
Kansas Avenue and North Carpenter Road	1	2.0 ppm	1.5 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
	2	2.0 ppm	1.5 ppm	2.0 ppm	1.5 ppm	2.0 ppm	1.5 ppm
	3	2.2 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	4	2.0 ppm	1.5 ppm	1.9 ppm	1.4 ppm	1.9 ppm	1.4 ppm
	5	2.2 ppm	1.6 ppm	2.0 ppm	1.5 ppm	2.0 ppm	1.5 ppm
	6	2.1 ppm	1.6 ppm	1.9 ppm	1.4 ppm	1.9 ppm	1.4 ppm
	7	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
	8	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
North Carpenter Road and the Southbound SR 99 on- and off- ramps	1	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm
	2	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	3	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	4	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	5	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm
	6	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	7	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm	2.3 ppm	1.7 ppm
	8	2.4 ppm	1.9 ppm	2.4 ppm	1.9 ppm	2.4 ppm	1.9 ppm
North Carpenter Road and the Northbound SR 99 on- and off- ramps	1	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm	2.5 ppm	1.8 ppm
	2	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	3	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
	4	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm	2.1 ppm	1.6 ppm
	5	2.6 ppm	1.9 ppm	2.6 ppm	1.9 ppm	2.6 ppm	1.9 ppm
	6	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
	7	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm	2.2 ppm	1.6 ppm
	8	2.4 ppm	1.9 ppm	2.4 ppm	1.9 ppm	2.4 ppm	1.9 ppm

Notes: ppm = parts per million.

^a Receptors were approx. 10 feet from the outer edge of adjacent lanes at the boundary of the mixing zone and at the estimated beginning and end of right-turn movements on each leg of the intersection.

^b Background concentrations of 1.6 ppm and 1.2 ppm were added to the modeling 1-hour and 8-hour results, respectively, based on the second maximum background concentration in each of the last 2 years extrapolated to the 2048 traffic year. The federal and state 1-hour standards are 35 and 20 ppm, respectively. The federal and state 8-hour standards are 9 ppm.

Source: Air Quality Study Report (May 2016)

PM₁₀/PM_{2.5} Hot-Spot Analyses

On March 10, 2006, the U.S. Environmental Protection Agency published a final rule that requires particulate matter hot-spot analyses to be performed for any project of air quality concern or any other project identified by the PM₁₀ and/or PM_{2.5} state implementation plan(s) as a localized air quality concern. The Federal Highway Administration and the U.S. Environmental Protection Agency's *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas* further defines a project of air quality concern as certain highway and transit projects that involve significant levels of diesel traffic or any other project identified in the state implementation plan as a localized air quality concern.

The *Air Quality Study Report* presents a comparison of the traffic operations of the No-Build Alternative and the two build alternatives for Phase 1 (2020), Phase 2 (2028), and the design year (2048) under the five criteria provided in 40 Code of Federal Regulations 93.123(b)(1) for defining a project of air quality concern. The criteria are listed below.

1. New or expanded highway projects that have a significant number of or significant increase in diesel vehicles, such as facilities with greater than 125,000 average daily traffic, where 8% or more is diesel truck traffic;
2. Projects affecting intersections that are at a level of service D, E, F, with a significant number of diesel vehicles, or that that would change to level of service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
3. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
4. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; or
5. Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM_{2.5} implementation plan or implementation plan submission, as appropriate, as sites of possible violation.

An analysis was completed to compare the two build alternatives to the 40 Code of Federal Regulations 93.123(b)(1) criteria for a project of air quality concern. Based

on anticipated change in traffic volumes and truck percentages from the no build condition, the two build alternatives are not considered a project of air quality concern. Categories 3 and 4, listed above, do not apply to the project. Relative to Category 5, the project site is not in or affecting an area or location identified in the San Joaquin Valley Air Pollution Control District's 2012 PM_{2.5} Plan, the 2008 PM_{2.5} Plan or the 2007 PM₁₀ Maintenance Plan and Request for Redesignation as in violation or possible violation.

Provided below is a summary of the results of the analysis completed for the first two categories.

Diesel vehicles, including trucks, are predicted to decrease on the existing highway (Maze Boulevard) from a maximum 3,234 vehicles per day in 2020 to a minimum 2,331 vehicles per day in 2048. In addition, average daily traffic and truck traffic on SR 99 is expected to decrease under both build alternatives. These reduced truck volumes, and a reduction in overall congestion, would reduce localized PM₁₀/PM_{2.5} concentrations over this period along the existing highway. The proposed projected maximum increase in diesel truck traffic on SR 132 in Phase 1 (2020) is 1,827 vehicles per day in comparison to the no-build scenario. Similarly, the maximum increase in diesel truck traffic on SR 132 in Phase 2 (2028) and the design year (2048) is 2,499 and 3,507 vehicles per day in comparison to the no-build scenario. These increases would not be considered significant per the 40 Code of Federal Regulations 93.123(b)(1) guidelines.

Implementation of the two build alternatives would reduce the number of intersections operating at an unacceptable level of service. Nineteen intersections are expected to operate at level of service D, E, or F under 2048 no-build conditions for either the morning (AM) or evening (PM) peak hour, whereas only 8 of those intersections would continue to operate at unacceptable levels of service under Alternative 2. The two build alternatives would reduce overall vehicle delay, relative to no-build conditions. Accordingly, the proposed project is not expected to cause a deterioration of future traffic conditions. Rather, it would alleviate overall congestion, including diesel vehicles, in the project area, serving to reduce localized particulate concentrations at surrounding land uses.

Stanislaus County is designated by the U.S. Environmental Protection Agency as a serious maintenance area for the federal PM₁₀ standard and a nonattainment area for the federal PM_{2.5} standard. In accordance with the U.S. Environmental Protection

Agency's 2010 guidance, a PM₁₀ and PM_{2.5} hot-spot analysis would be necessary to show that the project conforms to the state implementation plan and would not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards for these criteria pollutants. Because of its location in a designated nonattainment area and maintenance area for the federal PM_{2.5} and PM₁₀ standards, respectively, a determination must be made as to whether the proposed project qualifies as a project of air quality concern.

The proposed project has undergone interagency consultation initiated through StanCOG. A technical memorandum summarizing the Air Quality Study Report findings was circulated on April 1, 2016. Concurrence was received from the U.S. Environmental Protection Agency Region 9 on April 25, 2016 and the Federal Highway Administration on April 26, 2016, concluding that the proposed project is not a project of air quality concern (see Appendix I).

Because the proposed project is not considered a project of air quality concern, a detailed particulate matter hot-spot analysis is not required to demonstrate that the proposed project would not create any new local violations or increase the severity of any existing violations of the National Ambient Air Quality Standards per 40 Code of Federal Regulations 93.116.

Criteria Pollutants

Federal and state governments have established ambient air quality standards for six criteria pollutants: carbon monoxide (CO), ozone (O₃), particulate matter, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). Ozone and particulate matter are generally seen as regional pollutants because they or their precursors affect air quality across a region. Pollutants such as carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead are local pollutants in that they tend to accumulate in the air locally. In addition to being a regional pollutant, particulate matter is also considered a local pollutant. In the area of the proposed project site, particulate matter, ozone precursors, and carbon monoxide are of particular concern.

Long-term air quality impacts of the project are those associated with motor vehicles operating on the roadway network affected by the project, mainly within the project vicinity.

Emissions of ozone precursors (reactive organic gases and nitrogen oxides), carbon monoxide, PM₁₀, and PM_{2.5} for 2020 (when Phase 1 would be completed), 2028

(when Phase 2 would be completed), and 2048 (the design year) with and without the project were evaluated through modeling conducted using vehicle activity traffic data. Analysis of existing conditions was not performed because existing vehicle miles traveled was not available. Table 2-38 shows projections of annual vehicle miles traveled by 5 miles per hour speed increments (or speed bins). For the purposes of evaluating impacts, Phase 1 represents both build alternatives for traffic conditions in 2020.

Alternative 1

Table 2-39 lists the annual tons of emissions in 2020, 2028, and 2048 for ozone precursors (reactive organic gases and nitrogen oxides), carbon monoxide, and particulate matter under Alternative 1. Alternative 1 would result in a decrease of every pollutant relative to the No-Build Alternative except for an increase in reactive organic gases in 2020. The increase is due to emissions from vehicles operating at speeds above 30 miles per hour.

Table 2-38: Annual Vehicle Miles Traveled Projections for 2020, 2028, and 2048

Speed Bin	2020				2028						2048					
	No-Build		Phase 1		No-Build		Alternative 1		Alternative 2		No-Build		Alternative 1		Alternative 2	
	VMT	% ^a	VMT	% ^a	VMT	% ^a	VMT	% ^a	VMT	% ^a	VMT	% ^a	VMT	% ^a	VMT	% ^a
5	496,985	0	497,970	0	621,231	0	620,978	0	736,822	0	511,187	0	516,097	0	519,692	0
10	925,781	0	768,139	0	1,157,226	0	1,143,661	0	951,363	0	3,101,141	0	2,975,521	0	1,978,946	0
15	6,006,013	2	5,116,380	1	7,507,517	2	7,538,356	2	6,561,926	1	20,890,945	3	19,427,210	3	20,109,986	3
20	16,876,116	5	13,274,249	4	21,095,145	5	21,456,404	5	20,434,945	5	66,340,934	11	65,548,842	11	65,716,171	11
25	83,320,251	23	78,507,123	22	104,150,314	23	101,599,961	23	101,104,779	23	173,165,588	28	171,943,923	28	164,652,186	27
30	104,691,537	29	99,627,432	28	130,864,421	29	130,341,777	29	131,927,559	30	164,428,882	26	158,933,082	26	160,179,815	26
35	70,219,585	20	74,482,226	21	87,774,481	20	88,571,940	20	88,422,933	20	94,370,076	15	89,765,972	15	95,306,457	16
40	39,579,432	11	41,999,721	12	49,474,290	11	49,101,063	11	47,354,977	11	57,519,650	9	55,441,702	9	56,680,181	9
45	23,642,061	7	21,269,628	6	29,552,576	7	29,627,762	7	29,205,024	7	32,928,619	5	29,093,093	5	32,053,234	5
50	10,072,537	3	13,185,071	4	12,590,671	3	11,400,592	3	11,530,783	3	12,349,719	2	10,418,444	2	12,147,181	2
55	1,308,631	0	6,070,248	2	1,635,789	0	1,762,225	0	1,790,862	0	1,594,262	0	1,696,151	0	1,567,091	0
60	0	0	1,454,395	0	0	0	697,789	0	709,367	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	357,138,931	100	356,252,583	100	446,423,664	100	443,862,508	100	440,731,338	100	627,201,002	100	605,760,036	100	610,910,940	100

Note: VMT = vehicle miles traveled.

^a The percentile represents the percentage of vehicles traveling in the 5-miles-per-hour speed increment (or speed bin).

Source: Air Quality Study Report (May 2016)

Table 2-39: Operational Criteria Pollutant Emissions (tons per year)

Scenario	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
2020 No-Build Alternative	34.0	272.7	553.2	3.8	3.5
2020 Phase 1	32.4	265.5	541.3	3.8	3.5
2028 No-Build Alternative	26.9	184.7	468.2	4.1	3.8
2028 Alternative 1	26.7	183.2	465.6	4.1	3.8
2028 Alternative 2	26.4	181.6	461.9	4.0	3.7
2048 No-Build Alternative	37.4	250.8	611.7	6.1	5.6
2048 Alternative 1	36.3	243.6	586.9	5.9	5.4
2048 Alternative 2	36.2	242.9	594.7	5.9	5.5
Comparison of Build Alternatives to the No-Build Alternative					
2020 Phase 1 Build to 2020 No-Build Alternative	-1.6	-7.2	-11.9	0.0	0.0
2028 Alternative 1 to 2028 No-Build Alternative	-0.2	-1.5	-2.6	0.0	0.0
2028 Alternative 2 to 2028 No-Build Alternative	-0.5	-3.1	-6.3	-0.1	-0.1
2048 Alternative 1 to 2048 No-Build Alternative	-1.1	-7.2	-24.8	-0.2	-0.2
2048 Alternative 2 to 2048 No-Build Alternative	-1.2	-7.9	-17.0	-0.2	-0.1

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulates less than 10 micrometers in diameter or less; PM_{2.5} = particular matter that is 2.5 micrometers in diameter or less; ROG = reactive organic gases.

Source: Air Quality Study Report (May 2016)

Although operation of Alternative 1 would generate emissions of carbon monoxide, ozone precursors (reactive organic gases and nitrogen oxides) and particulates (PM₁₀ and PM_{2.5}), emissions would be less than if the project were not completed (except for reactive organic gases in 2020).

Conformity demonstrations indicate that the build alternative would not cause, contribute to, or worsen any new localized violation of the National Ambient Air Quality Standards or California ambient air quality standards for carbon monoxide and particulates (PM₁₀ and PM_{2.5}). In addition, California ambient air quality standards would be met for these pollutants, satisfying the California Environmental Quality Act.

Alternative 2

As shown in Table 2-39, Alternative 2 would result in a decrease of every pollutant relative to the No-Build Alternative conditions except for an increase in reactive organic gases in 2020. Conformity demonstrations indicate that the build alternative would not cause, contribute to, or worsen any new localized violation of the National Ambient Air Quality Standards for carbon monoxide and particulates (PM₁₀ and PM_{2.5}). In addition, California ambient air quality standards would be met for these pollutants, satisfying the California Environmental Quality Act.

Construction Impacts

Construction activities would not last for more than five years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)). Construction activity is a source of dust and exhaust emissions that can have substantial temporary impacts on local air quality (exceeding state air quality standards for ozone, carbon monoxide, NO_x, PM₁₀, and PM_{2.5}). Such emissions would result from earthmoving and the use of heavy equipment, as well as land clearing, ground excavation, cut-and-fill operations, and the construction of roadways. A major portion of dust emissions for the proposed project would likely be caused by construction traffic in construction areas. Dust generated during stockpile excavation would be monitored consistent with an air monitoring plan approved by the Department of Toxic Substances Control.

The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (Version 7.1.2) was used to estimate emissions of reactive organic gases, nitrogen oxides, carbon monoxide, PM₁₀, and PM_{2.5}. The model estimates emissions for load hauling (on-road heavy-duty vehicle trips), worker commute trips, construction site fugitive dust (PM₁₀ and PM_{2.5}), and off-road construction vehicles. Dust estimates do not account for control measures required by the San Joaquin Air Pollution Control District. Analysis requirements for construction-related (and operations-related) pollutant emissions are outlined in the San Joaquin Air Pollution Control District's *Guide for Assessing and Mitigating Air Quality Impacts*.

Phase 1 is anticipated to begin in 2018 and be completed within 12 to 15 months. Phase 2 would last 21 months and be completed by 2028. The proposed project footprint for Alternative 1 would be approximately 232 acres with an estimated maximum temporary disturbance of 0.8 acre and 1,240 cubic yards of soil exported per construction day for the entire construction period. The proposed project footprint

for Alternative 2 would be approximately 233 acres with an estimated maximum temporary disturbance of 0.7 acre and 1,652 cubic yards of soil exported per construction day for the entire construction period.

Phase 1 Impacts: Table 2-40 shows the results of the modeled emissions estimates for Phase 1 for both build alternatives. Construction activities were divided into distinct sub-phases (Year 1: grubbing/land clearing, grading/excavation, drainage/utilities/sub-grade; Year 2: paving) and analyzed separately with no construction overlap of the sub-phases. Phase 1 would not trigger the need for mitigation offsets through the requirements of the San Joaquin Valley Air Pollution Control District’s Rule 9510, as estimated construction emissions of nitrogen oxides are not in excess of 10 tons per year in 2018 or 2019 for both build alternatives.

Phase 2 Impacts: Assuming a 21-month construction duration and the same sub-phasing as Phase 1, Phase 2 would also not trigger the need for the San Joaquin Valley Air Pollution Control District’s Rule 9510 mitigation offsets, as estimated construction emissions of nitrogen oxides are not in excess of 10 tons per year in 2026 or 2027 for both build alternatives (see Table 2-41). Table 2-42 summarizes the estimated mitigation requirements pursuant to Rule 9510. Under Phase 1, nitrogen oxide emissions generated by Alternative 2 would exceed the San Joaquin Valley Air Pollution Control District’s threshold because of Phase 1 in 2018 and 2019. However, after compliance with Rule 9510, mitigated nitrogen oxide emissions generated by both build alternatives would not exceed the San Joaquin Valley Air Pollution Control District’s threshold of 10 tons per year for Phase 1 or 2.

Table 2-40: Criteria Pollutant Emissions from Phase 1 (tons per year)

Phase	ROG	CO	NO _x	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Phase 1 (2018)									
Alternative 1	1.2	8.9	8.3	1.6	0.4	1.2	0.6	0.3	0.3
Alternative 2	1.3	9.3	8.7	1.6	0.5	1.1	0.6	0.4	0.2
Phase 1 (2019)									
Alternative 1	0.3	0.9	1.5	0.1	0.1	0	0.1	0.1	0
Alternative 2	0.3	0.8	1.4	0.1	0.1	0	0.1	0.1	0

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter that is 10 micrometers in diameter or less; PM_{2.5} = particular matter that is 2.5 micrometers in diameter or less; ROG = reactive organic gases.

Source: Air Quality Study Report (May 2016)

Table 2-41: Criteria Pollutant Emissions from Phase 2 (tons per year)

Phase	ROG	CO	NOx	PM ₁₀			PM _{2.5}		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Phase 2 (2026)									
Alternative 1	0.9	8.3	3.9	1.8	0.3	1.5	0.5	0.2	0.3
Alternative 2	0.9	7.9	3.6	1.8	0.3	1.5	0.5	0.2	0.3
Phase 2 (2027)									
Alternative 1	0.2	1.1	0.9	0	0	0	0	0	0
Alternative 2	0.2	1.1	0.9	0	0	0	0	0	0

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter that is 10 micrometers in diameter or less; PM_{2.5} = particular matter that is 2.5 micrometers in diameter or less; ROG = reactive organic gases.

Source: Air Quality Study Report (May 2016)

Table 2-42: Estimated NOx and PM₁₀ Reductions Associated with Rule 9510 (tons per year)

Alternative	Years	Unmitigated Emissions ^a		Required Reductions ^c		Mitigated Emissions ^a	
		NOx	PM ₁₀ ^b	NOx	PM ₁₀ ^b	NOx	PM ₁₀ ^b
Phase 1							
Alternative 1	2018 + 2019	9.8	1.7	1.96	0.77	7.84	0.93
Alternative 2	2018 + 2019	10.1	1.7	2.02	0.77	8.08	0.93
Phase 2							
Alternative 1	2026 + 2027	4.8	1.8	0.96	0.81	3.84	0.99
Alternative 2	2026 + 2027	4.5	0.3	0.9	0.14	3.6	0.16

Notes: NOx = nitrogen oxides; PM₁₀ = particulate matter that is 10 micrometers in diameter or less.

^a This represents total construction emissions over the 2-year period.

^b PM₁₀ exhaust.

^c Per the requirements of Rule 9510, nitrogen oxide emissions would be reduced by 20 percent. PM₁₀ exhaust emissions would be reduced by 45 percent.

Source: Air Quality Study Report (May 2016)

The San Joaquin Valley Air Pollution Control District considers PM₁₀ to be the primary pollutant of concern from construction activities, and compliance with Regulation VIII constitutes sufficient mitigation to reduce PM₁₀ emissions to less-than-significant levels. All construction projects must abide by Regulation VIII. Since the publication of its guidance, the San Joaquin Valley Air Pollution Control District has revised some of the rules for Regulation VIII. Guidance from staff stated that implementation of a dust control plan would satisfy all of the requirements of

Regulation VIII. Although no explicit thresholds for construction-related emissions of ozone precursors are found in the 2002 guide, the San Joaquin Valley Air Pollution Control District's *Guidance for Assessing and Mitigating Air Quality* considers a significant impact to occur when construction emissions of nitrogen oxides exceed 10 tons per year, reactive organic gases exceed 10 tons per year, or PM₁₀ or PM_{2.5} exceed 15 tons per year. The proposed project would not exceed 10 tons per year of nitrogen dioxide, and would be below the limits for reactive organic gases and particulate matter.

In addition to compliance with Regulation VIII, the proposed project would also be subject to Rule 9510, Indirect Source Review. Rule 9510 fulfills the San Joaquin Valley Air Pollution Control District's emission reduction commitments through required design features and on-site measures. Transportation or transit projects exceeding the limits are required to reduce nitrogen oxide emissions by 20 percent and PM₁₀ exhaust emissions by 45 percent, compared to the statewide fleet average. Compliance with Rule 9510 is separate from the California Environmental Quality Act process, though the control measures used to comply with the rule may be used to mitigate California Environmental Quality Act impacts. Standard best management practices for construction-related air quality impacts, as described below, would be implemented.

- The contractor would implement the California Department of Transportation's Standard Specifications control measures Section 14-9.02 (Air Pollution Control) and Section 14-9.03 (Dust Control). The contractor would apply water under Section 17 and dust palliative under Section 18. If ordered, the contractor would apply water, dust palliative, or both to control dust caused by public traffic.
- The contractor would prepare and submit for approval a dust control plan to the San Joaquin Valley Air Pollution Control District at least 30 days prior to any earthmoving or construction activities and implement a plan to control the generation of construction-related PM₁₀ emissions to comply with the San Joaquin Valley Air Pollution Control District's Regulation VIII. Measures that might be included in the dust control plan are listed in the *Air Quality Study Report*.
- The contractor would implement measures to reduce construction-related exhaust emissions, such as maintaining properly tuned engines, minimizing the idling time of diesel-powered construction equipment to 2 minutes, using

alternative-powered construction equipment (i.e., compressed natural gas, biodiesel, electric), using add-on mitigation devices such as diesel oxidation catalysts or particulate filters, using equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy-duty diesel engines, phasing project construction, and limiting the operating hours of heavy-duty equipment.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements. Continued operation of existing SR 132 (Maze Boulevard) would generate carbon monoxide, ozone precursors (reactive organic gases and nitrogen oxides), and particulates (PM₁₀ and PM_{2.5}), which are estimated to be higher than if the project were built (except for reactive organic gases in 2020). However, conformity demonstrations indicate that the No-Build Alternative would not cause, contribute to, or worsen any new localized violation of the National Ambient Air Quality Standards or California ambient air quality standards for carbon monoxide and particulates (PM₁₀ and PM_{2.5}).

MSAT Emissions

Mobile source air toxics are a subset of the 188 air toxics defined in the Clean Air Act. The toxics are now federally regulated under 40 Code of Federal Regulations 1502.22 by the U.S. Environmental Protection Agency. These substances are also known as hazardous air pollutants. The seven main toxics are acrolein, polycyclic organic matter, diesel particulate matter/diesel exhaust organic gases, benzene, 1-3 butadiene, naphthalene, and formaldehyde.

The Federal Highway Administration issued interim guidance on September 30, 2009 for analysis of mobile source air toxics in National Environmental Policy Act documents, which was updated on December 6, 2012. There are no existing ambient air standards for the seven main air toxics. Currently available technical tools do not enable the prediction of project-specific health impacts, so only a qualitative analysis is conducted. However, Federal Highway Administration has identified the following three levels of analysis:

- Level 1: No analysis for projects with no potential for meaningful mobile source air toxic effects
- Level 2: Qualitative analysis for projects with low potential mobile source air toxic effects. Projects included in this category serve to improve operations of highway, transit, or freight without adding substantial new capacity.
- Level 3: Quantitative analysis for projects with higher potential mobile source air toxic effects. Projects included in this category would create or significantly alter a major intermodal freight facility with the potential to concentrate high levels of diesel particulate matter in a single location, or significantly increase capacity of urban highways with traffic volumes where the annual average daily traffic is projected to be 140,000 or greater by the design year.

A qualitative analysis (level 2) was conducted for the proposed project, which compared the anticipated effect of the project and the no-build alternative on traffic volumes and the associated changes in mobile source air toxic emissions. On the new SR 132 freeway/expressway, the annual average daily traffic would increase for the two build alternatives compared to the No-Build Alternative. Despite these shifts in future annual average daily traffic, overall vehicle miles traveled, which are a proxy for mobile source air toxics emissions, are projected to decrease as a result of the project. Although future SR 99 traffic within the project study area would exceed the 140,000 in annual daily traffic thresholds for a project with a high potential for mobile source air toxic effects, the two build alternatives would reduce the annual average daily traffic on SR 99 compared to the No-Build Alternative. Based on Federal Highway Administration guidance, the proposed project would not generate an appreciable difference in overall mobile source air toxic emissions and is therefore considered a project with low potential for mobile source air toxic effects.

Build Alternatives

The estimated vehicle miles traveled total for Alternative 1 is slightly lower than for the No-Build Alternative (see Table 2-38). The decrease relative to no-build conditions would lead to lower mobile source air toxic emissions under Alternative 1, particularly along existing SR 132 (Maze Boulevard) and SR 99. According to the U.S. Environmental Protection Agency's model, emissions of every priority mobile source air toxic decrease as speed increases. Emissions would be further reduced under Alternative 1 from decreased delay times and improved level of service.

Emissions in 2020 would likely be lower than present emissions as a result of the U.S. Environmental Protection Agency's national control programs, which are projected to reduce annual mobile source air toxic emissions. While local conditions may differ from the national projections in terms of fleet mix and turnover, vehicle miles traveled, growth rates, and local control measures, the magnitude of the U.S. Environmental Protection Agency-projected reductions is so great (even after accounting for vehicles miles traveled and growth rates) that mobile source air toxic emissions in the project study area are likely to be lower in the future.

The proposed new alignment would have the effect of moving some traffic closer to nearby homes, schools, and businesses. Therefore, there may be localized areas where ambient concentrations of mobile source air toxics could increase from existing levels under Alternative 1. However, the magnitude and the duration of these potential increases cannot be reliably quantified because of incomplete or unavailable information in forecasting project-specific mobile source air toxic health impacts. Toxics could be lower in other locations when traffic would be shifted away from a given location.

Mobile source air toxic emissions are estimated to be lower overall than if the project were not completed and would likely be lower than present emissions as a result of the U.S. Environmental Protection Agency's national control programs. Therefore, no direct impacts would result from Alternative 1.

While mobile source air toxic emissions would occur as a result of future increases in vehicles miles traveled (Table 2-38), emissions are estimated to be lower than if the project were not completed and would likely be lower than present emissions as a result of the U.S. Environmental Protection Agency's national control programs.

Potential Exposure to Naturally Occurring Asbestos

According to the California Department of Conservation's *A General Location Guide for Ultramafic Rock in California*, there are no geologic features normally associated with naturally occurring asbestos (serpentine rock or ultramafic rock near fault zones) in or near the project study area. So, there is no potential for impacts related to naturally occurring asbestos emissions during construction activities. However, construction activities that involve the demolition of any building or structure containing asbestos would be subject to the U.S. Environmental Protection Agency's National Emissions Standards for Hazardous Air Pollutants and the California Air Resources Board's Airborne Toxic Control Measures.

No-Build Alternative

While mobile source air toxic emissions would occur as a result of future increases in vehicle miles traveled on the existing highway, emissions would be reduced from present levels as a result of the U.S. Environmental Protection Agency's national control programs. Therefore, no impacts would result from the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

No substantial air quality effects are anticipated as a result of construction and operation of the proposed project, therefore, no avoidance, minimization, and/or mitigation measures would be required.

Climate Change

Neither the U.S. Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. The Federal Highway Administration emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in Chapter 3, California Environmental Quality Act Evaluation. The California Environmental Quality Act analysis may be used to inform the National Environmental Policy Act determination for the project.

2.2.7 Noise

Regulatory Setting

The California Environmental Quality Act and the National Environmental Policy Act 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 the California Environmental Quality Act and the National Environmental Policy Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly baseline-versus-build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be

incorporated into the project unless those measures are not feasible. The rest of this section will focus on the National Environmental Policy Act 23 Code of Federal Regulations Part 772 noise analysis; see Chapter 3, California Environmental Quality Act Evaluation, for further information on noise analysis under the California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations Part 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criterion for residences (67 A-weighted decibels) is lower than the noise abatement criterion for commercial areas (72 A-weighted decibels).

Table 2-43 lists the noise abatement criteria for use in the National Environmental Policy Act 23 Code of Federal Regulations Part 772 analysis.

Table 2-43: Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, Hourly A-Weighted Noise Level, Decibels $L_{eq}(h)$	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 ¹	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A to D or F.
F	No noise abatement criteria—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 noise abatement criteria—reporting only	Undeveloped lands that are not permitted.

¹ Includes undeveloped lands permitted for this activity category.

Source: Noise Study Report (January 2016)

Figure 2-20 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.

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	
Quiet Urban Daytime	50	Large Business Office
		Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night, Concert Hall (Background)
	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Figure 2-20: Noise Levels of Common Activities

According to Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011*, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as an increase of 12 A-weighted decibels or more) or when the future noise level with the project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 A-weighted decibel of the noise abatement criteria. (A-weighted decibels are adjusted to approximate the way humans perceive sound.)

If it is determined that the proposed project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated

into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated into the project.

Caltrans *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 reduction of 7 A-weighted decibels in the future noise level must be achieved for at least one benefited receiver 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 the residents' acceptance and the cost per benefited residence.

Affected Environment

The following section is based on the *State Route 132 Noise Study Report*, completed in January 2016 and amended in July 2017, and the *State Route 132 Noise Abatement Decision Report*, completed in January 2016.

As shown in Figure 2-21, land uses in the project study area were grouped into numbered noise analysis areas. The noise analysis areas are based on land use density, with larger areas representing only a few land uses and smaller areas representing a higher number of land uses. Existing noise levels were documented through short- and long-term measurements at representative sites in the project area. Table 2-44 shows the nine noise analysis areas in terms of noise abatement criteria activity category and existing noise levels. The *State Route 132 Noise Study Report* provides more detailed information.

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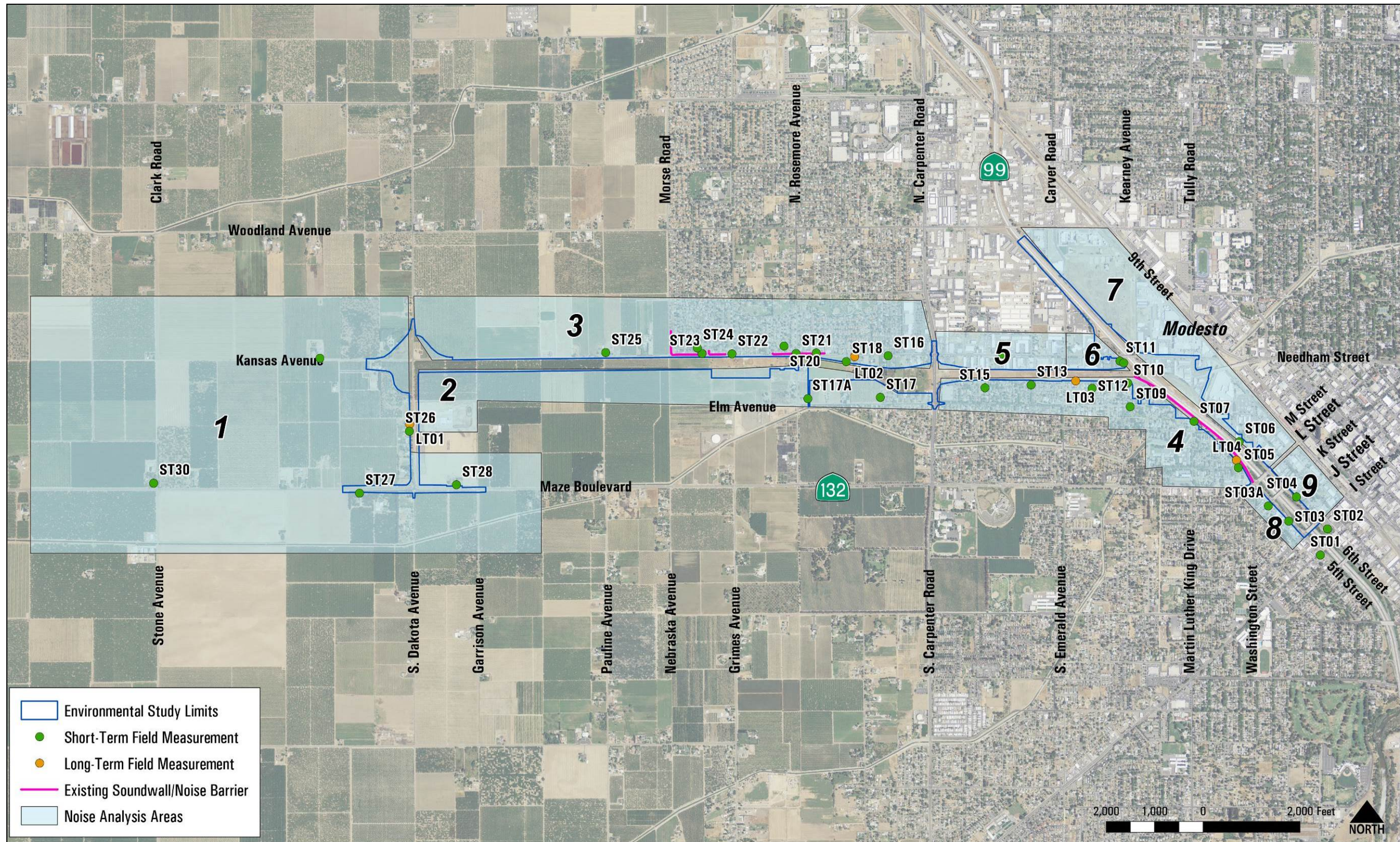


Figure 2-21: Noise Analysis Areas

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Table 2-44: Noise Analysis Areas

Noise Analysis Area	Description of Noise Abatement Criteria Activity Category (Activity Category)	Existing Noise Walls/Berms
Area 1	Single-family residences (B) and agricultural land uses (F)	None
Area 2	Single-family residences (B) and mix of agricultural land and commercial uses (F)	None
Area 3	Single-family and multi-family residential (B) and commercial retail (F)	Existing privacy walls approximately 6 feet in height
Area 4	High-density, single-family residential community (B) with associated schools, parks, and places of worship (C) and commercial and retail uses (F)	Existing noise barrier approximately 13 feet in height and existing earthen berm approximately 14 feet in height
Area 5	Single-family residences (B) and commercial and retail land uses (F)	None
Area 6	A hotel (E) and commercial and retail land uses (F)	None
Area 7	Single-family residences (B), restaurants and a hotel (E), and commercial and industrial land uses (F)	None
Area 8	Single-family residences (B) and commercial and retail land uses (F)	None
Area 9	Single-family residences (B), playgrounds associated with schools and places of worship (C), and commercial uses (F)	None

Source: Noise Study Report (January 2016)

Environmental Consequences

Because the proposed project would result in a new highway on a new alignment and increase the number of through-traffic lanes, the proposed project would be considered a Type 1 project by the Federal Highway Administration. All Type 1 projects require noise impact analysis. For the proposed project, that applies to both build alternatives.

Short-term (15 minutes) and long-term (24 hours) noise measurements were conducted. Short-term monitoring was performed at 33 locations and results ranged from 45.0 Leq (equivalent sound level) to 76.1 Leq. Long-term monitoring was performed at three locations and results ranged from 49.7 to 68.2 Leq.

Traffic noise levels were modeled using Federal Highway Administration-approved Traffic Noise Model Version 2.5 software. Peak hour traffic volumes were used to model and compare baseline conditions in 2009 and design year (2048) conditions with and without the project. A traffic noise impact would occur when there is a 12 A-weighted decibel or more increase over baseline conditions or when noise levels would approach or exceed the noise abatement criteria.

Because the proposed project would be constructed on a new alignment where no highway currently exists, numerous receivers (locations representing land uses where frequent human activity occurs, such as residences) are predicted to be impacted. West of SR 99, the proposed new alignment would be close to receivers, resulting in higher traffic noise levels for nearby receivers (see Figures 2-22a through 2-22c). The *State Route 132 Noise Study Report* provides further detailed information, including results for each receiver evaluated.

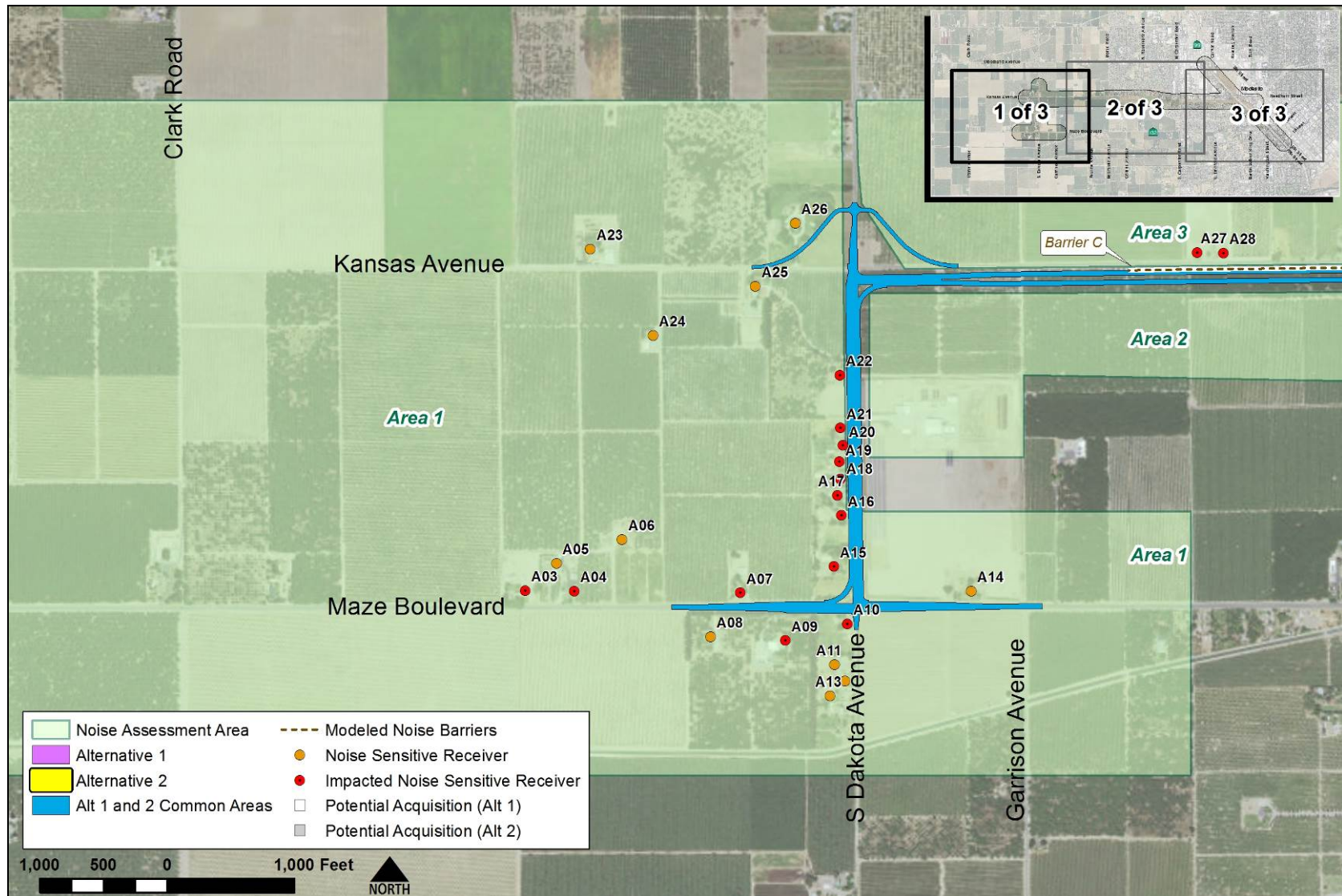


Figure 2-22a: Receiver and Modeled Noise Barrier Locations (Western Portion of the Study Area)

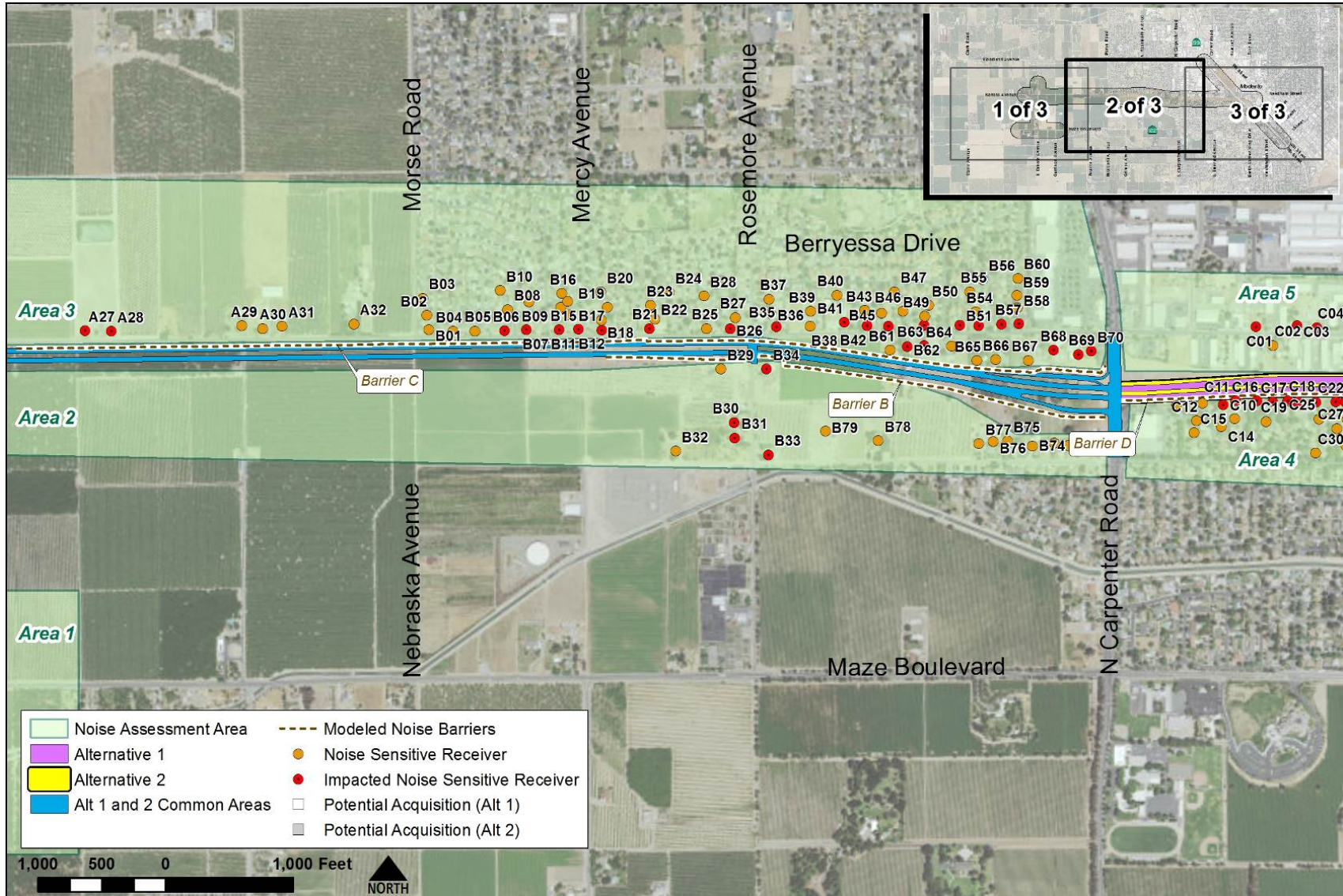


Figure 2-22b: Receiver and Modeled Noise Barrier Locations (Central Portion of the Study Area)

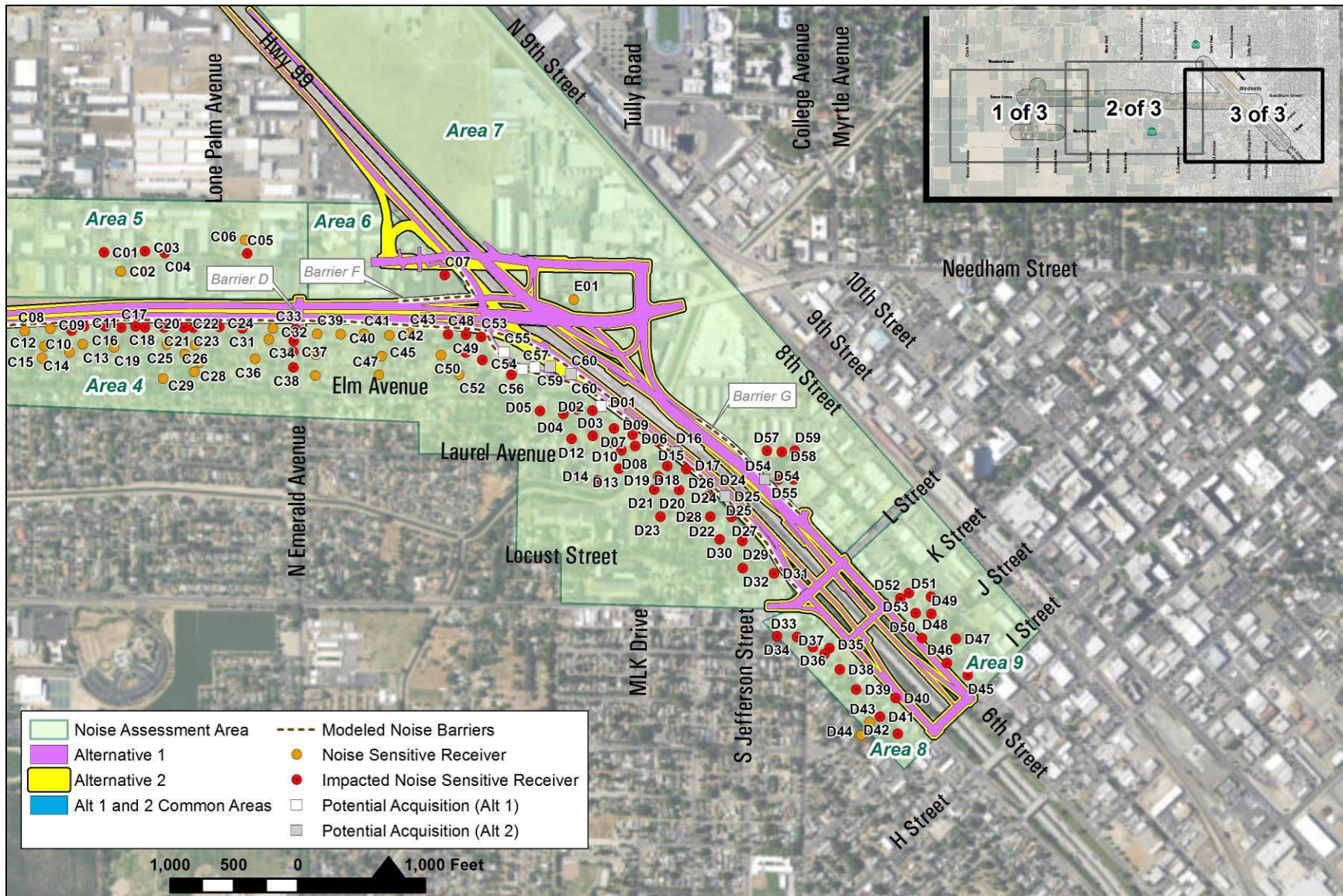


Figure 2-22c: Receiver and Modeled Noise Barrier Locations (Eastern Portion of the Study Area)

Alternative 1

Table 2-45 shows the modeling results with predicted design year traffic noise levels for Alternative 1, which would result in noise impacts to 260 noise-sensitive receivers. Note that the “Both” category in the table lists instances when a substantial increase would occur and when levels would approach or exceed the noise abatement criteria. If a receiver falls within this category, it is counted only in the “Both” column.

Table 2-45: Predicted Future (2048) Noise Impacts of Alternative 1

Area	Receiver Impact Counts			Total Receivers Impacted by Area
	Approach or Exceed Noise Abatement Criteria ^a	Substantial Increase ^b	Both ^c	
1	10	0	3	13
2	2	3	1	6
3	49	0	0	49
4	91	6	26	123
5	9	0	0	9
6	1	0	0	1
7	8	0	0	8
8	36	0	0	36
9	15	0	0	15
Total	221	9	30	260

^a Approaching or exceeding the noise abatement criteria is defined as exceeding or coming within 1 A-weighted decibel of the noise abatement criteria.

^b A substantial increase impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 A-weighted decibel or more increase).

^c The “Both” category notes when a substantial increase would occur and when levels would approach or exceed the noise abatement criteria. If a receiver falls within this category, it is counted only in the “Both” column.

Source: Noise Study Report (January 2016)

Alternative 2

Table 2-46 shows the modeling results with predicted design year traffic noise levels for Alternative 2, which would result in noise impacts to 276 noise-sensitive receivers.

Table 2-46: Predicted Future (2048) Noise Impacts of Alternative 2

Area	Receiver Impact Counts			Total Receivers Impacted by Area
	Approach or Exceed Noise Abatement Criteria ^a	Substantial Increase ^b	Both ^c	
1	10	0	3	13
2	2	3	1	6
3	49	0	0	49
4	103	6	30	139
5	9	0	0	9
6	1	0	0	1
7	8	0	0	8
8	36	0	0	36
9	15	0	0	15
Total	233	9	34	276

^a Approaching or exceeding the noise abatement criteria is defined as exceeding or coming within 1 A-weighted decibel of the noise abatement criteria.

^b A substantial increase impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 A-weighted decibel or more increase).

^c The “Both” category notes when a substantial increase would occur and when levels would approach or exceed the noise abatement criteria. If a receiver falls within this category, it is counted only in the “Both” column.

Source: Noise Study Report (January 2016)

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements, but there would still be noise impacts even without the project.

Modeling results indicate that predicted traffic noise levels along existing SR 132 (Maze Boulevard) for the No-Build Alternative in 2048 would result in impacts to 162 noise-sensitive receivers (see the *State Route 132 Noise Study Report, Appendix B* for details). All noise impacts would be because of noise levels approaching or exceeding the noise abatement criteria.

Noise Abatement Considered

Noise barriers are the most common noise abatement measure. Each noise barrier considered (in this case, a soundwall) has been evaluated for feasibility based on constructability and an achievable noise reduction of at least 5 A-weighted decibels. For each noise barrier found to be acoustically feasible, the noise barriers were evaluated for reasonableness based on cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. At each location, barriers were modeled up to 16 feet tall. Table 2-47 provides the noise barrier analysis results for each build alternative.

Table 2-47: Summary of Noise Barrier Analysis

Barrier	Location	Length (feet)	Height (feet)	Acoustically Feasible?	Noise Reduction Range ^a	Number of Benefited Receivers	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance?
A (Alts 1 & 2)	Existing SR 132 (Maze Blvd) West of Garrison Ave and area West of N Dakota Ave	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A
B (Alts 1 & 2)	South of New SR 132, between N Dakota Ave and N Carpenter Road	3,921	16	No	0.2 – 5.1	N/A	N/A	N/A	N/A
C (Alts 1 & 2)	North of New SR 132, between N Dakota Ave and N Carpenter Rd	8,591	16	Yes	0 – 6.1	N/A	N/A	N/A	N/A
D (Alt 1)	South of New SR 132, east of N Carpenter Rd, and West of SR 99, North of L St	6,390	8	Yes	0.3 – 8.1	29	\$1,595,000	\$3,711,312	No
			10	Yes	0.5 – 10.2	62	\$3,410,000	\$4,639,140	No
			12	Yes	0.5 – 11.4	90	\$4,950,000	\$5,566,968	No
			14	Yes	0.6 – 12.7	121	\$6,655,000	\$6,494,796	Yes^b
D (Alt 2)	South of New SR 132, east of N Carpenter Rd, and West of SR 99, North of L St	7,760	8	Yes	0.3 – 7.5	31	\$1,705,000	\$4,882,592	No
			10	Yes	0.4 – 13.2	77	\$4,235,000	\$6,103,240	No
			12	Yes	0.7 – 15.6	127	\$6,985,000	\$7,323,888	No
			14	Yes	0.8 – 17.2	171	\$9,405,000	\$8,544,536	Yes^b
E (Alts 1 & 2)	North of New SR 132, between N Carpenter Rd and N Emerald Ave	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A
F (Alt 1)	North of New SR 132, between N Emerald Ave and SR 99	888	16	No	2	N/A	N/A	N/A	N/A
F (Alt 2)	North of New SR 132, between N Emerald Ave and SR 99	595	16	No	0	N/A	N/A	N/A	N/A
G (Alts 1 & 2)	East of SR 99, between northern project terminus and L St	1,103	16	No	1.3 – 4.9	N/A	N/A	N/A	N/A

Notes: Alt = Alternative; N/A = not applicable as the noise barrier would not be feasible because of access requirements. **Bolded text** signifies the noise barriers considered reasonable and feasible for traffic noise abatement and, therefore, these barriers are recommended.

^a The range is in A-weighted decibels.

^b In Phase 1, a portion of Noise Barrier D would be constructed from Carpenter Road to SR 99 under either build alternative. The other section would be constructed in Phase 2 along SR 99. There is an existing noise barrier along SR 99 that would tie into the proposed noise barrier along the new alignment in Phase 2.

Source: Noise Study Report (January 2016)

In Noise Analysis Areas 1, 2, 5, 8, and 9, impacted receivers would require driveway access to local roadways. Openings in noise barriers for driveways or intersecting streets reduce the effectiveness of barriers, making the noise barriers acoustically infeasible. In addition, for Noise Analysis Areas 3, 6, 7, the noise barriers do not meet the minimum 5 dB of noise reduction. Therefore, noise barriers are not considered to be feasible noise abatement options for receivers in these areas.

Because of the configuration and location of the project, noise barriers were the only feasible measure considered. Noise barrier reasonableness was determined by comparing the estimated cost of building the noise barrier against the total reasonable allowance. The engineer's cost estimate includes costs required to construct the noise barrier, including the materials for the wall in addition to the foundation (safety barrier or piles) on which the noise barriers would be constructed. Wall construction costs were based on masonry construction, in accordance with Caltrans' standard specifications.

The design of the noise barriers presented is only preliminary and has been conducted at a level appropriate for environmental review, but not for final design of the project. The opinions expressed by affected residents during the environmental review process would be a major consideration in reaching a final decision on the reasonableness of abatement measures to be provided.

Approximately 295 receptors within Area 4 represent noise sensitive receptors located north of L Street, east of North Carpenter Road, south of the proposed SR 132 expressway alignment, and west of SR 99 in Stanislaus County. Measurements taken in Area 4 show that the existing noise levels range from 46 decibels to 67 decibels. The future noise levels in Area 4 with the project are predicted to range from 57 decibels to 80 decibels for both Alternatives 1 and 2. Because the predicted future noise level exceeds the noise abatement criteria for residential uses (67decibels), approximately 123 and 139 noise sensitive receptors (out of a total of 295 receptors) represented in Area 4 would be adversely affected by noise as a result of Alternatives 1 and 2, respectively. To achieve a 5-decibel reduction and a design goal of 7 decibels for at least 1 receptor, a 14-foot noise wall would be needed. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the project. The total cost allowance, calculated as directed by Caltrans Traffic Noise Analysis Protocol, is \$175,000. The current estimated cost of the wall is \$6,494,796 for Alternative 1 and \$8,544,536 for Alternative 2. Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of a barrier (i.e., Noise Barrier D) on the south side of the proposed new alignment and east of North

Carpenter Road continuing on the west side of the frontage road along SR 99 between the proposed SR 132/SR 99 interchange and the L Street crossing (see Figures 2-22b and 2-22c).

The barrier for Alternative 1 would be approximately 6,390 feet long with an average height of 14 feet. Calculations based on preliminary design data show that the barrier would reduce noise levels by 5 to 13 decibels (7 decibels for at least one receptor) for 121 residences at a cost of \$6,494,796. The barrier for Alternative 2 would be approximately 7,760 feet long with an average height of 14 feet. Calculations based on preliminary design data show that the barrier would reduce noise levels by 5 to 17 decibels (7 decibels for at least one receptor) for 171 residences at a cost of \$8,544,536.

In Phase 1, a portion of Noise Barrier D would be constructed along the proposed new alignment under either build alternative. The other section of the proposed barrier would be constructed in Phase 2 along SR 99. There is an existing noise barrier along SR 99 that would tie into the proposed noise barrier along the new alignment in Phase 2. Therefore, the noise barriers would provide attenuation in the interim between Phase 1 and Phase 2.

Construction Impacts

Noise from construction activities may be short term and temporarily dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8, "Sound Control Requirements," which states that noise levels generated during construction must comply with applicable local, state, and federal regulations and that all equipment must be fitted with adequate mufflers according to the manufacturers' specifications.

Noise levels from demolition and construction activities would vary depending on the activity periods, location of activities, and the number and types of equipment used. Construction activities would generate noise from diesel-powered earthmoving equipment, such as dump trucks and bulldozers, back-up alarms on certain equipment, and pile drivers.

Table 2-48 shows the noise levels produced by construction equipment commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 101 decibels at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 decibels per doubling of distance.

Table 2-48: Construction Equipment Noise Levels

Equipment	Maximum Noise Level (A-weighted decibels at 50 feet)
Scrapers	84
Bulldozers	82
Dump Truck	76
Backhoe	78
Pneumatic Tools	85
Concrete Pump Truck	81
Compactor	83
Concrete Batch Plant	83
Crane	81
Excavator	81
Front End Loader	79
Jack Hammer	89
Grader	85
Hydraulic Brake Ram	90
Impact Pile Driver	95
Pile Driving	101

Source: Noise Study Report (January 2016)

Construction noise at off-site receptor locations would depend on the loudest piece of equipment operating at the moment. Most noise sensitive receptors identified for the project and those most affected by construction noise sit north of the new SR 132 alignment and Kansas Avenue between Morse Road and North Carpenter Road, south of the proposed new SR 132 alignment between Carpenter Road and SR 99, and west of SR 99. However, for the receptors west of SR 99, construction noise is anticipated to be overshadowed by SR 99 traffic noise.

Construction is expected to last about 24 to 30 months. Construction activities would be temporary and occur mostly during normal daytime hours. Stanislaus County’s noise ordinance exempts construction activities during the hours of 7:00 a.m. to 7:00 p.m. with a sound level threshold not to exceed 75 dB. If construction activities exceed the sound level threshold specified in the noise ordinance, coordination with the County would be required, including potential measures to reduce noise levels to maximum thresholds. Some construction activities may require limited work during nighttime hours. A variance or waiver would be required from the County before starting construction activities during nighttime hours.

Standard best management practices to be implemented during construction include:

- The contractor would ensure that all construction equipment would have sound-control devices that are no less effective than those provided on the original equipment. No equipment would have an un-muffled exhaust.
- The contractor would implement appropriate additional noise control measures, where feasible, including changing the location of stationary construction equipment away from noise-sensitive receivers, turning off idling equipment, scheduling construction activity to workday hours, notifying adjacent residents in advance of construction work, and installing noise blankets or other muffling devices on stationary construction noise sources.

The noise levels presented represent maximum noise levels adjusted for time-usage factors and would not be experienced as continuous noise emissions. Construction equipment use would be intermittent throughout a normal workday. Therefore, noise levels generated from construction equipment would not be cumulative.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8 and applicable local noise standards.

Avoidance, Minimization, and/or Abatement Measures

Caltrans intends to incorporate noise abatement in the form of a barrier (i.e., Noise Barrier D) on the south side of the proposed new alignment and east of North Carpenter Road continuing on the west side of the frontage road along SR 99 between the proposed SR 132/SR 99 interchange and the L Street crossing (see Figures 2-22b and 2-22c).

2.2.8 Energy

Regulatory Setting

The National Environmental Policy Act (42 U.S. Code 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

Appendix F of the California Environmental Quality Act Guidelines, Energy Conservation, state that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Affected Environment

Establishing the affected environment for energy involves presenting general statewide energy trends and how the project study area is currently used as a transportation corridor.

In 2012, Californians consumed approximately 43 percent less energy per person than the average person in the U.S. and California's per person energy consumption is the second lowest in the country. However, while per capita consumption is low, the state's overall consumption of energy (in the form of electricity, coal, natural gas, and petroleum) is the second highest in the U.S. because of California's population and economy.

Because California is one of the top oil-producing states in the U.S., the state has historically met a large portion of its internal energy demands through its in-state sources. However, demand for resources has risen steadily over the past decades, while production capacity and extraction volume have decreased. The declining supply of in-state petroleum products, coupled with increasing demand, has resulted in an increased need for imported oil resources. According to the California Energy Commission, California's reliance on crude oil imports would increase from 405 million barrels in 2005 to between 585 million (low forecast) and 685 million (high forecast) barrels in 2025.

Within the project study area, existing SR 132 (Maze Boulevard) is part of the regional expressway system and is the main east-west corridor in Stanislaus County. The existing highway and the SR 132/SR 99 connection under evaluation are of particular importance to regional and interregional circulation because of the extensive farm-to-market, recreational, and other commerce-related travel on the highway daily. The current average daily traffic volumes for this segment of SR 132 (Maze Boulevard) range between 10,230 and 12,400 vehicles, of which 21 percent of the total traffic is trucks. (Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, provides further information on the traffic data for the study area.)

Environmental Consequences

Impacts to energy use were evaluated based on traffic operations (such as vehicle hours of travel and vehicle hours of delay), local roadway and freeway/highway congestion, vehicle miles of travel, and construction and future maintenance activities.

Build Alternatives

The two build alternatives would improve travel conditions and reduce energy use through capacity and operational improvements in 2020 (completion of Phase 1) and 2028 (completion of Phase 2). The number of intersections projected to operate at level of service

D or worse compared to the No-Build Alternative conditions would be reduced by more than half, with speeds and energy efficiency increasing during the peak periods on local roadways throughout the study area. Both build alternatives would also improve average travel speeds, which would reduce travel times during the peak periods and increase energy efficiency on area roadways.

As shown in Table 2-49, when compared to the No-Build Alternative, the two build alternatives would cut total vehicle travel times between 450 and 640 hours, or 0.98 and 1.40 percent for the central Modesto area in 2028. By 2048 (the design year), total vehicle travel time would be reduced by 1,970 hours or 2.84 percent for both build alternatives compared to the No-Build Alternative.

Table 2-49: Vehicle Hours of Travel and Delay by Alternative for the Central Modesto Area^a

Alternative	Daily Vehicle Hours of Travel		Daily Vehicle Hours of Delay	
	2028	2048	2028	2048
No-Build Alternative	45,830	69,450	6,370	13,620
Alternative 1	45,380	67,480	6,210	13,360
Alternative 2	45,190	67,480	6,220	13,120

^a This section of Modesto extends from just north of Kiernan Avenue to Whitmore Avenue and from Claus Road on the east to Hart Road on the west.

Source: Final Traffic Operations Analysis Report (July 2012)

Similarly, total vehicle delay would decrease between 150 and 160 hours, or 2.35 and 2.51 percent, in 2028. By 2048, total vehicle delay would be cut by 260 to 500 hours, or 1.91 and 3.67 percent, when compared to the No-Build Alternative.

The two build alternatives would also improve traffic operations, thereby easing congestion at some of the bottleneck areas along Carpenter Road at existing SR 132 (Maze Boulevard), Kansas Avenue, and SR 99. Both build alternatives would also improve traffic operations by encouraging motorists to use the new alignment for east-west travel, leaving local roads for short trips and allowing SR 99 to accommodate long-distance travel. Improvements associated with both build alternatives would allow traffic on the regional roadway network to travel faster, thereby reducing energy consumption.

Energy in the form of fuel consumed by a vehicle is directly proportional to the number of miles a vehicle travels. Table 2-50 shows that in 2028 the total vehicle miles traveled in the study area would decrease slightly (between 9,080 and 16,270 total miles, or 0.71 and 1.28

percent) for the two build alternatives compared to the No-Build Alternative. Larger decreases (between 46,500 and 61,260 total miles per day, or 2.58 and 3.42 percent) are predicted in 2048.

Table 2-50: Vehicle Miles of Travel by Alternative for the Central Modesto Area^a

Alternative	Daily Vehicle Miles of Travel	
	2028	2048
No-Build Alternative	1,275,500	1,792,000
Alternative 1	1,266,420	1,730,740
Alternative 2	1,259,230	1,745,460

^a This section of Modesto extends from just north of Kiernan Avenue to Whitmore Avenue and from Claus Road on the east to Hart Road on the west.

Source: Final Traffic Operations Analysis Report (July 2012)

As shown, when balancing energy used against energy saved by relieving congestion and other transportation inefficiencies, neither build alternative would have substantial operational energy impacts.

Energy would also be needed for construction in the form of raw materials and equipment used to build the new highway. The build alternatives would require energy for on-site construction work, such as grading and bridge construction, and for off-site manufacturing of pavement and bridge components. Roadway maintenance (such as resurfacing and patching) would also require energy. The additional energy use would be consumed in the short term by construction equipment required to build the project and by added congestion caused by construction-related traffic delays.

Energy consumption during construction would be mainly from petroleum fuels and electricity use. Fuel would be needed for vehicles and construction equipment, as well as to run electrical generators for lighting, welding machines, and power tools. Fuel would also be consumed during the production and transport of raw materials. Therefore, construction-related activities would result in a permanent consumption of finite energy resources. However, construction would consist of temporary activities that would not result in long-term demand for energy. The following standard best management practices would be employed to minimize energy usage:

- The contractor would consolidate material delivery whenever possible to promote efficient vehicle and energy use. The contractor would schedule material deliveries during non-rush hours to minimize fuel lost during traffic congestion.

- The contractor would maintain equipment and machinery in good working condition and inspect it regularly. Inspection records would be maintained by the contractor.
- Operators would avoid leaving equipment and vehicles idling when parked or not in use.
- Equipment found operating on the project that has not been inspected or has oil leaks would be shut down and subject to citation.
- The contractor would implement, to the extent feasible, the following measures to reduce greenhouse gas emissions from construction equipment:
 - Use alternative-fueled (e.g., biodiesel and electric) construction vehicles/equipment, comprising at least 15 percent of the fleet
 - Use at least 10 percent local building materials during construction
 - Recycle at least 50 percent of construction waste or demolition materials

Overall, when balancing energy used during construction against energy saved by relieving congestion and other transportation inefficiencies, neither build alternative would have substantial construction-related energy impacts.

No-Build Alternative

Because total vehicle hours, total vehicle delay, and total vehicle miles traveled in the Modesto area would be greater under the No-Build Alternative, there would be a direct impact on energy use as a result of future traffic operations. The excessive volume of traffic that existing SR 132 (Maze Boulevard) would not be able to accommodate would be diverted onto other local roadways, such as Kansas Avenue and Carpenter Road. This would result in unacceptable operations on those roadways and an increased use of energy due to inefficient travel. The No-Build Alternative would not result in the construction of any of the proposed improvements that would relieve congestion or other transportation inefficiencies. Therefore, there would be adverse impacts related to energy consumption under the No-Build Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Construction and operation of the proposed project is not anticipated to result in a substantial increase in energy usage; therefore, no avoidance, minimization, and/or mitigation measures would be required.

2.3 Biological Environment

2.3.1 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 (33 U.S. Code 1344), is the main law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, 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 Clean Water Act.

Section 404 of the Clean Water Act 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 with oversight by the U.S. Environmental Protection Agency.

The U.S. Army Corps of Engineers issues two types of 404 permits: General and Standard 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 allow 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 U.S. Army Corps of Engineers' Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the U.S. Army Corps of Engineers decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (Environmental Protection Agency 40 Code of Federal Regulations Part 230), and whether permit approval is in the public interest. The 404 (b)(1) Guidelines (guidelines) were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers 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 that would have less adverse effects. The guidelines

state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this order states that a federal agency, such as the Federal Highway Administration 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 mainly by the State Water Resources Control Board, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife. 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 would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Wildlife 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 U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. See Section 2.2.2, Water Quality, for more details.

Affected Environment

The following section is based on the *State Route 132 West Freeway/Expressway Natural Environment Study*, completed in October 2016 and a Wetlands Determination and Delineation of Waters of the U.S. Report was completed in May 2011, which is included in the Natural Environment Study. A re-verification of the jurisdictional determination was issued by the U.S. Army Corps of Engineers on May 26, 2015.

As shown in Figure 2-23, the project study area includes two wetland features (labeled as Seasonal Wetlands 1 and 2) and one irrigation canal (Modesto Irrigation District's Lateral Canal No. 4). Seasonal Wetlands 1 and 2 are wet pastures that do not meet the definition of a water of the U.S. because each is isolated, is solely supported by human-made hydrology, and/or does not contain hydric soils. However, Seasonal Wetlands 1 and 2 may be waters of the state under the jurisdiction of the Central Valley Regional Water Quality Control Board.

Seasonal Wetlands 1 and 2 have hydrology supported by flood irrigation pipes and are found in grazed pastures leased in the Caltrans right-of-way west of North Carpenter Road; they provide low-quality habitat for wildlife because each wetland is highly disturbed from flood irrigation and grazing. In sum, the seasonal wetland features total 0.65 acre.

The canal was verified as a jurisdictional water of the U.S. The canal is a 50-foot-wide, concrete-lined irrigation canal that flows mostly southwest to northeast outside of the study area. The canal bisects the study area north of the Martin Luther King Drive and Laurel Avenue intersection and extends under SR 99 for approximately 500 feet, until it reaches the eastern side of SR 99, south of the Needham Street Overcrossing. The canal functions to provide irrigation water to agricultural land and eventually discharges into the Stanislaus River west of the project study area.



Figure 2-23: Location of Wetland Features and “Other” Waters in the Study Area

Notes: SW = season wetland; OW = “other” water; MID = Modesto Irrigation District; WUS = waters of the U.S. Non-waters of the U.S. (Seasonal Wetlands 1 and 2) are under the jurisdiction of the Regional Water Quality Control Board. “Other” Waters of the U.S. are under the jurisdiction of the U.S. Army Corps of Engineers.

Environmental Consequences

Build Alternatives

Construction of the proposed project would directly impact the seasonal wetlands, which may be regulated by the Central Valley Regional Water Quality Control Board, as non-waters of the U.S. This would be determined by the Central Valley Regional Water Quality Control Board during the final design and permitting phase. Both build alternatives would have the same impacts because the project’s design would be the same throughout the portion of the study area where the two seasonal wetlands are located. Removal or disturbance of the wetland features is not anticipated to result in a reduction in wildlife habitat quality within the study area because of the poor condition of the wetlands. Both build alternatives would result in permanent and direct impacts to 0.65 acre of seasonal wetlands, or non-waters of the U.S.; however, no indirect or direct impacts to wetlands or “other waters,” pursuant to the jurisdiction of the U.S. Army Corps of Engineers, would occur under either build alternative (Table 2-51).

No temporary or indirect impacts are anticipated to non-waters of the U.S. or waters of the U.S., as no other seasonal wetlands were identified within the study area.

Table 2-51: Impacts to Wetlands and “Other” Waters by Alternative

Build Alternative	Wetland Feature	
	Season Wetland 1 ^a	Season Wetland 2 ^a
Alternative 1	0.17 acre	0.48 acre
Alternative 2	0.17 acre	0.48 acre

^a Under the potential jurisdiction of the Regional Water Quality Control Board.

Notes: There are no indirect impacts to wetlands or direct impacts to “other waters” in the project study area.

Source: State Route 132 Natural Environment Study (October 2016)

Neither build alternative would directly or indirectly impact the Modesto Irrigation District’s Lateral Canal No. 4. The proposed project would result in the removal and replacement of an existing detention basin, which is connected to the canal. The new detention facility, which would consist of three connected basins, would be constructed northwest of the canal. The new basins would serve to retain the stormwater runoff that would infiltrate into the ground, and the basins would not discharge into the canal. No adverse impacts to the canal are anticipated as a result of the new basins. An approved jurisdictional determination was issued by the U.S. Army Corps of Engineers on July 29, 2011 (402 permit file number SPK-2010-01481), and a re-verification of the jurisdictional determination was issued on May 26, 2015 to confirm the U.S. Army Corps of Engineers’ agreement with Caltrans removal of SW4X as a wetland. The feature was delineated in 2011 as a shallow wetland/pond located adjacent to Canal No. 4; however, during surveys conducted in 2015, the feature was observed as regraded and filled and thus was no longer subject to the U.S. Army Corps of Engineers’ jurisdiction.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not contribute to direct or indirect impacts related to wetlands or “other” waters.

Agency Coordination and Permits

Caltrans staff coordinated with U.S. Army Corps of Engineers staff in January 2011 to conduct field verification in support of a jurisdictional determination. Additional data was requested by the U.S. Army Corps of Engineers and was provided on May 5, 2011 and June 21, 2011. The jurisdictional determination was verified on July 29, 2011 and again on May

26, 2015 in response to a change in field conditions in which a seasonal wetland had been removed and was no longer present. To date, no consultation with the California Department of Fish and Wildlife has occurred.

Clean Water Act, Section 404

The proposed project would not result in the deposition of dredge or fill material within waters of the U.S. Therefore, no Clean Water Act Section 404 permit would be required.

Clean Water Act, Section 401

The proposed project would not result in the deposition of dredge or fill material within waters of the U.S. Therefore, no Clean Water Act Section 401 permit would be required.

Porter-Cologne Water Quality Control Act

The two seasonal wetlands may be considered waters of the state and protected under the Porter-Cologne Water Quality Control Act. If it is determined that these features are waters of the state, then a Regional Water Quality Control Board permit would be required to authorize the discharge of fill material to these seasonal wetlands.

Avoidance, Minimization, and/or Mitigation Measures

To minimize erosion and the resulting influx of fine sediments into the canal, standard best management practices described in Section 2.2.2, Water Quality shall be implemented, which would include the preparation of a Stormwater Pollution Prevention Plan.

Implementation of the following measures would mitigate direct impacts on non-waters of the U.S. should the seasonal wetlands be determined to be waters of the State:

- WET-1 Caltrans will consult with the Central Valley Regional Water Quality Board during the final design and permitting phase. If the seasonal wetland features are determined to be waters of the State, Caltrans will mitigate for their discharge and fill as directed by the Central Valley Regional Water Quality Board under the Porter Cologne Water Quality Control Act.

2.3.2 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act.

Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.3, Threatened and Endangered Species. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern, and U.S. Fish and Wildlife Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

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

Affected Environment

The following section is based on the *State Route 132 West Freeway/Expressway Natural Environment Study*, completed in October 2016.

The proposed project study area is extremely disturbed because of agricultural practices, land development, and previous construction activities. There are no remnant natural communities in the study area, and most of the study area consists of agricultural lands, residential and commercial development, and highly disturbed ruderal vegetated sites.

Although the vegetated areas in the project study area are highly disturbed and frequently manipulated, common animal and wildlife species were observed. Mammals including ground squirrels and raccoons were identified in the disturbed/ruderal areas and along the edges of the orchards in the study area. Bird species observed during the field surveys included the red-tailed hawk, Cooper's hawk, western bluebird, killdeer, house finch, robin, Audubon's warbler, western kingbird, and lesser yellow legs.

Data from the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDDB) were reviewed to identify all special-status animal species that occur or have the potential to occur in the study area (see Figure 2-24). Table 2-52 shows the status and general habitat requirements of the special-status animal species identified.

Table 2-52: Special-Status Animal Species with Potential to Occur in the Study Area

Scientific name	Common Name	Status ^a	Habitat	Habitat Present/Absent ^b	Rationale
<i>Athene cunicularia</i>	Burrowing owl	SC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation	Present	Marginal suitable habitat is present in the study area. Species not observed during burrow survey.
Migratory Birds		MBTA	Various	Present	Migratory birds were observed, including: red-tailed hawk, Cooper's hawk, western bluebird, killdeer, house finch, American robin, yellow-rumped warbler, western kingbird, lesser yellow legs.

^a Status Codes: SC = State species of concern (California Department of Fish and Wildlife), MBTA = Migratory Bird Treaty Act.

^b Present: Habitat is, or may be, present. The species may be present.

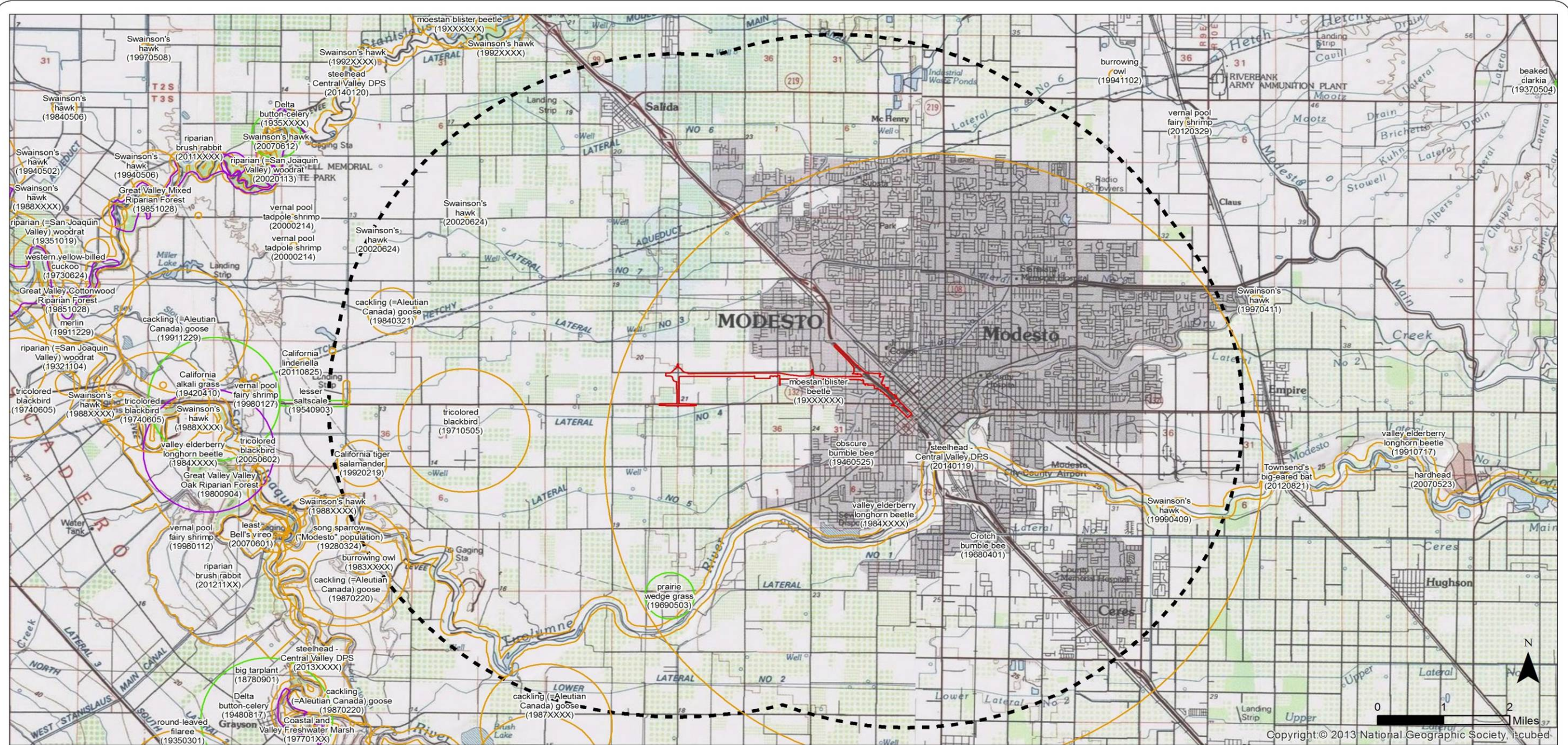
Source: State Route 132 Natural Environment Study (October 2016)

After analysis of the identified special-status species' habitat requirements and completion of field reconnaissance surveys, it was determined that the only special-status species with a potential to occur in the study area are the burrowing owl and migratory birds.

Burrowing Owl

Burrowing owls (*Athene cunicularia*) are listed as a California Species of Special Concern. Burrowing owl nesting habitat consists of open areas with mammal burrows and includes dry open rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub with gullies, washes, arroyos, and edges of human-disturbed lands. Burrowing owls typically inhabit golf courses, airports, cemeteries, vacant lots, and road embankments where there is non-compacted soil for a nesting burrow. Threats to burrowing owls include habitat loss and degradation from rapid urbanization of farmland, extermination of ground squirrels that create the burrows that the burrowing owls occupy, dissection of farmland, and road and ditch maintenance.

A burrowing owl habitat assessment (Phase I) and burrow survey (Phase II) were conducted within the proposed project limits on February 9 and 14, and March 30, 2011 as well as on February 12, 2014. No burrowing owl or any signs of burrowing owls (such as whitewash and feathers) were observed during the surveys performed by Jacobs, nor were any burrowing owls observed during previous biological surveys conducted in the spring, summer, and fall of 2010.



cnddb_10222015
9 Quad CNDDDB Search & Date Element was last sited*

 Special-status Plants	 Special-status Wildlife	 5 Mile Radius of BSA
 Sensitive Terrestrial Community	 Sensitive Aquatic Community	 USGS 7.5-minute Quadrangle Boundaries
	 Biological Study Area	

* The accuracy of the reported species' location is inversely proportional to the size of the polygon (i.e., the larger the polygon or circle size, the lower the accuracy of the known location of the species).
 Data Source: CNDDDB 9-quadrangle search of USGS quads- Salida, Manteca, Avena, Escalon, Ripon, Riverbank, Westley, Brush Lake, Ceres. June 2016

Special-Status Species Locations
 Reported to the Department of Fish & Wildlife
 California Natural Diversity Database (CNDDDB)
 June 2016

Figure 2-24: Threatened, Endangered, and Other Special-status Species' Occurrences Reported within a 5-mile Radius of the Study Area

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Because of the presence of mammal burrows in low-growing vegetated areas or in bare ground, and because one burrowing owl occurrence has been recorded within a 5-mile radius of the study area, there is potential habitat in the study area. Several mammal burrows were identified during the burrowing owl survey.

Burrows (potential habitat) were found in the following land cover types: non-native grassland, short ruderal vegetation, bare ground, agricultural access roads, levees, and crop and pasture lands. Land cover types that were considered to be unsuitable habitat and where no burrows were identified include tall disturbed ruderal vegetation, established orchards, landscaped roadsides found along SR 99, roadways, and developed areas. These land cover types were determined to be unsuitable because of the presence of dense and tall vegetation, observation of dogs and feral cats, pesticide/herbicide use, and/or the proximity to SR 99 shoulders that are actively mowed and managed.

Potential habitat was mapped and calculated by drawing a 300-foot-radius buffer zone, equal to 6.5 acres of foraging habitat, around each identified burrow found within the study area. Burrows were mapped in the larger burrowing owl study area; however, only burrows and foraging habitat within the construction footprint were included in determining the potential habitat impacts. As a result, approximately 21.8 acres of suitable habitat were identified in the study area. The potential habitat is fragmented throughout the study area.

Migratory Birds

The study area contains 713 trees that may provide potential nesting habitat for birds protected under the Migratory Bird Treaty Act. The following bird species protected under the Migratory Bird Treaty Act were observed during field surveys conducted in 2010 and 2014.

- red-tailed hawk (*Buteo jamaicensis*)
- Cooper's hawk (*Accipter cooperii*)
- western bluebird (*Sialia mexicana*)
- killdeer (*Charadrius vociferous*)
- house finch (*Haemorhous mexicanus*)
- American robin (*Turdus migratorius*)
- yellow-rumped warbler (*Setophaga coronata*)
- western kingbird (*Tyrannus verticalis*)
- lesser yellow legs (*Tringa flavipes*)

These birds may forage and/or nest in non-native grassland or other vegetation communities within or next to the study area.

Environmental Consequences

Build Alternatives: Burrowing Owls

Both build alternatives have the potential to directly and permanently affect up to 20.8 acres and temporarily affect up to 0.2 acre of burrowing owl habitat.

Construction of the proposed new alignment would include grading and ground compaction and construction-related activities (noise, disturbance, ground vibrations, and dust) that may directly affect burrowing owls because of the removal of potential nesting and foraging habitat and because of an increase in human-related disturbance in the study area. Continued human-related disturbances, including noise and an increase in traffic after construction, may indirectly affect burrowing owls as well. Highway operations would be a permanent impact, while disruptions from construction activities would be temporary. Implementation of measure AS-1 (explained below) would minimize potential impacts to burrowing owls during construction.

Protocol-level (Phase III) burrowing owl census surveys were not conducted as part of the Natural Environment Study but will be conducted preceding the initiation of construction (i.e., the nesting and winter season before construction begins). A negative finding for burrowing owl after protocol level surveys would negate the current assumption that burrowing owl habitat is present in the biological study area. If burrowing owls are identified during surveys, the habitat area would be refined, and therefore, the total acreage of impacts to burrowing owl may change substantially. If impacts to burrows are unavoidable, a burrow exclusion plan would be prepared and submitted to the California Department of Fish and Wildlife per the 2012 Staff Report on Burrowing Owl Mitigation. Burrowing owls would be excluded from their burrows once owlets have fledged and per approved burrow exclusion methods. Implementation of measure AS-1 (explained below) would minimize permanent impacts to burrowing owls.

Build Alternatives: Migratory Birds

Removal of trees, shrubs and other vegetation, operation of the roadway, and construction-related activities (noise, disturbance, ground vibrations, and dust) may directly affect migratory birds because of the possible loss of nests and associated eggs and/or nestlings and because of an increase in human-related disturbance in the study area. Continued human-related disturbances, including noise and an increase in

traffic after completion of construction, may also indirectly affect migratory birds. Tree removal and roadway operations would be a permanent impact; disruptions from construction activities would be temporary.

There are 713 trees within the project study area, of which 151 are native to California. Many were planted as landscaped ornamental plants. Trees native to the state include valley oak, coast live oak, interior live oak, Modesto ash, cottonwood, western sycamore, and coast redwood. Approximately 92 street trees are located within City of Modesto right-of-way, and some of the trees are part of orchards. Alternative 1 may impact up to 591 trees, including 35 street trees. Alternative 2 may impact up to 589 trees, including 33 street trees. However, because Modesto has approximately 110,000 street trees and numerous surrounding orchards, impacts to trees for migratory birds would be negligible.

Implementation of measures AS-2, AS-3, and AS-4 (explained below) would minimize temporary impacts to Migratory Bird Treaty Act-protected species during construction. Because of the degraded quality of the habitat, any permanent reduction of habitat or long-term increases in disturbance would not be considered substantial. This conclusion would be reconfirmed or amended after protocol surveys are completed in the year prior to construction.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not directly or indirectly impact potential burrowing owl or migratory bird habitat.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce impacts on special-status animal species:

- AS-1 Burrowing owl surveys would be conducted following the guidelines outlined in the California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl Mitigation during the year prior to the initiation of construction. If burrowing owls are detected within the biological study area, the California Department of Fish and Wildlife would be consulted to determine specific avoidance and minimization measures appropriate for the site. Likely avoidance and minimization measures may include preconstruction surveys prior to ground disturbance, establishment of no-work

buffer, and/or having a qualified biologist present to monitor an active nest during construction activities to ensure that no interference with the burrowing owl breeding activities would occur. Additional avoidance and minimization for permanent impacts to burrowing owl habitat could also include the preservation of surrounding foraging habitat, passive relocations, and off-site mitigation. Mitigation of nesting burrows and associated burrowing owl habitat may involve purchasing mitigation lands adjacent to the project or purchasing burrowing owl mitigation credits at an approved conservation bank in the region.

- AS-2 Shrub and tree trimming and/or tree removal for the proposed project would be conducted outside the nesting season (generally between February 1 and August 31). If shrub and tree removal is scheduled to occur during the nesting season, a qualified wildlife biologist, familiar with the species and habitats in the study area, would conduct preconstruction surveys for nesting birds within suitable nesting habitat in the study area as described in AS-3.
- AS-3 Nesting bird surveys would be conducted prior to initiation of construction activities. If no active nests are detected during surveys, construction may proceed. If active nests are detected, then AS-4 would be implemented.
- AS-4 A no-work buffer would be established around nests identified during preconstruction surveys. A 100-foot buffer would be established for migratory birds and a 300-foot buffer would be established for most raptors. In the case of burrowing owl nests and Swainson's hawk see AS-1 and TES-1, respectively. The extent of the no-work buffers would be determined by a wildlife biologist in consultation with California Department of Fish and Wildlife and would depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographic or artificial barriers. The purpose of the buffer is to avoid disturbance or destruction of the nest until after the breeding season, or until a wildlife biologist determines that the young have fledged.
- AS-5 The City of Modesto Street Tree Ordinance stipulates that trees removed within the City's right-of-way would be replaced in kind if appropriate. Contractor work would conform to local tree ordinances for construction projects. The ratios and location of replacement would be determined in

coordination with the City of Modesto. The specific replacement would be determined during the permit review process.

2.3.3 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act, 16 U.S. Code Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of the Federal Endangered Species Act 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, California Fish and Game Code Section 2050, et seq. The California Endangered Species Act 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 Wildlife is the agency responsible for implementing the California Endangered Species Act. 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." The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Wildlife. For species listed under both the Federal Endangered Species Act and the California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the

California Department of Fish and Wildlife may also authorize impacts to California Endangered Species Act 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, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

The following section is based on the *State Route 132 West Freeway/Expressway Natural Environment Study*, completed in October 2016.

The proposed project study area was surveyed and evaluated for the potential to support threatened and endangered plant and wildlife species. Data from the U.S. Fish and Wildlife Service, California Natural Diversity Database (CNDDDB), and the California Native Plant Society were reviewed to identify threatened or endangered species that occur or have the potential to occur in the study area. Prior to certification of this document, a final records search of the aforementioned biological databases was conducted. As a result, it was discovered that an additional species, the Northern California legless lizard (*Anniella pulchra*) was added to the CNDDDB in 2017 and was reported approximately 8 miles northeast of the study area in 2002. The species is not anticipated to occur in, or be impacted by, the project as it is found in moist soils within chaparral, coastal dunes, coastal scrub, sandy washes, and/or stream terraces, none of which are available in the study area.

The project study area is also located within the jurisdiction of the National Marine Fisheries Service (see Appendix I). Table 2-53 shows the status and general habitat requirements of the threatened or endangered animal species identified.

Table 2-53: Threatened or Endangered Animal Species with Potential to Occur in the Study Area

Scientific Name	Common Name	Status ^a	Habitat	Habitat Present/Absent ^b	Rationale
<i>Buteo swainsoni</i>	Swainson's hawk	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch habitats.	Present	Marginal suitable foraging and nesting habitat present in the biological study area. Species not observed during field surveys.

^a Status Codes: ST = State Threatened (California Department of Fish and Wildlife).

^b Present: Habitat is, or may be, present. The species may be present.

Source: Natural Environment Study (October 2016)

After analysis of the threatened and endangered species' habitat requirements and completion of floristic and wildlife field reconnaissance surveys, it was determined that only the Swainson's hawk (a state-threatened species) has the potential to occur in the study area. No federally listed species and no other state-threatened or endangered species have a potential to occur in the study area due to the lack of suitable habitat.

Swainson's Hawk

The Swainson's hawk occurs throughout much of the western U.S., Canada, and northern Mexico. In California, breeding populations occur in desert, shrub-steppe, grassland, and agricultural habitats. However, most of the breeding sites are in two distinct populations. The largest population is in the midsection of the Central Valley between Sacramento and Modesto and in the northern San Joaquin Valley. Most Swainson's hawks are migratory birds that arrive in the Central Valley in March to nest and breed, and then migrate south in October.

Breeding Swainson's hawks have three general habitat requirements: 1) suitable foraging habitat, 2) nest sites, and 3) isolation from disturbances that may disrupt breeding activities. Nest trees are typically found on the edges between woodland and either grass or shrubland habitat, or in isolated trees or clumps of trees in open terrain. The Swainson's hawks have also been recorded nesting in urban landscapes in the Central Valley. The birds have adapted to hunting in open grasslands and shrublands and are more abundant in areas of moderate agricultural development. Agricultural fields, such as irrigated pasture, row crops, and alfalfa fields, provide them with foraging habitat. Orchards, vineyards, rice, and cotton fields are generally not suitable

foraging habitat. Habitat loss through development and incompatible agricultural crops represent the largest threat to the Swainson's hawk.

Formal surveys for this species have not yet been conducted, but would be conducted during the breeding season preceding the beginning of construction to accurately assess their presence or absence. However, the site was visited by biologists in 2010 during the spring (April 23-24), summer (August 12), and fall (October 6), and no Swainson's hawks were observed during any of the field site visits.

The study area is composed entirely of highly disturbed areas within and next to the City of Modesto. Approximately 33 percent is composed of agricultural fields, most of which consists of orchards that are not considered to be a compatible crop for foraging Swainson's hawks. Although no Swainson's hawks were observed during the field reconnaissance surveys, it was determined that the study area may contain potentially suitable nesting and foraging habitat.

Environmental Consequences

Build Alternatives: Swainson's Hawks

The proposed project would not affect any federally listed species, and no consultation under the Federal Endangered Species Act would be needed. Section 2080 of the Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Consultation with the California Department of Fish and Wildlife would occur prior to initiation of the project if either the nesting Swainson's hawk or western burrowing owl is observed during the preconstruction surveys. (Section 2.3.2, Animal Species, analyzes impacts related to the burrowing owl.) No consultation with the California Department of Fish and Wildlife has occurred to date.

Removal of trees, shrubs, and other vegetation, other construction-related activities (noise, disturbance, ground vibrations, and dust), and operation of the new highway may directly impact the Swainson's hawk because of the removal of potential nesting and foraging habitat and because of an increase in human-related disturbance in the study area. Continued human-related disturbances from noise and an increase in traffic after construction may also indirectly affect the Swainson's hawk. Tree removal and highway operations would be a permanent impact; disruptions from construction activities would be temporary. Implementation of TES-1, discussed

below, would minimize temporary impacts to the Swainson's hawk during construction.

Potential direct and permanent project-related impacts to Swainson's hawk habitat would be the permanent removal of up to 70 acres and temporary impacts to one acre of marginal foraging and/or poor quality nesting habitat and the removal of 414 trees with a low potential to support nests or roosting hawks. Also, the precise number of impacted trees supporting the birds would be verified by protocol surveys preceding construction.

The tree impact calculation for hawks included valley oaks, cottonwoods, willows, sycamore, walnuts, Modesto ash, eucalyptus, pines, and redwoods. The calculation did not account for other factors including location or height of trees.

Both build alternatives would result in temporary impacts of up to 1 acre of marginal foraging and/or poor quality nesting habitat. Although low in quality, the permanent removal of up to 70 acres of potential foraging habitat would cumulatively impact this species' available habitat. However, despite the relatively large amount of acreage that would be impacted, the impact is not detrimental to the species as a whole because the potential habitat is highly degraded and of poor quality. In addition, the study area is bordered by higher quality habitat that is relatively close to existing riparian corridors (of the Tuolumne, San Joaquin, and Stanislaus rivers) to the south, west, and north, respectively. The California Natural Diversity Database reported occurrences along the Tuolumne, San Joaquin, and Stanislaus rivers. Therefore, because of the degraded quality of the habitat, any permanent habitat reduction or long-term increase in disturbance is not considered substantial. This conclusion would be confirmed or amended after protocol surveys are completed the year prior to construction.

With the implementation of TES-1, take of Swainson's hawk is not anticipated to occur.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements and therefore would not contribute to direct or indirect impacts to potential and existing Swainson's hawk habitat or any other threatened and endangered species.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measure would reduce project-related impacts to the state-threatened Swainson's hawk under the California Endangered Species Act:

TES-1 Protocol-level surveys will be conducted within a 0.5-mile radius around the biological study area preceding the initiation of construction and would follow the Swainson's Hawk Technical Advisory Committee's 2000 *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*. If an active Swainson's hawk nest is detected, minimization efforts would be coordinated with the California Department of Fish and Wildlife. Potential minimization measures would include establishing a 600-foot no-work buffer zone around an active nest, and/or having a qualified biologist present to monitor an active nest during construction activities to ensure that no interference with the hawks breeding activities would occur.

2.3.4 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the U.S. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." The Federal Highway Administration guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

The following section is based on the *State Route 132 West Freeway/Expressway Natural Environment Study*, completed in October 2016.

The proposed project study area is highly disturbed from agricultural practices and land development and infrastructure, and provides an environment for the spread of invasive plant species. Botanical surveys and field studies from 2007 to 2014 identified invasive plant species in the project study area. The species ranked as the

highest priority are yellow starthistle (*Centaurea solstitialis*), fennel (*Foeniculum vulgare*), and English ivy (*Hedera helix*).

Environmental Consequences

Build Alternatives

Non-native invasive plant species currently impact the study area. Sections of the study area that are not used for agriculture are typically dominated entirely by invasive plant species, particularly mustards and non-native grasses, which are not currently managed to control their spread or growth. Therefore, both build alternatives have the potential to positively impact the existing cover of weeds by reducing their spread through the elimination of large areas of uncontrolled sources of their seed by converting the unmanaged land to paved roadway.

Construction-related activities and soil disturbance from both build alternatives could result in the introduction and spread of noxious weeds and other invasive plants. Invasive plant species could also be spread through inappropriate erosion control measures. Erosion control measures, such as use of straw bales and seed, could result in the inadvertent introduction of invasive plant species into the project study area. In compliance with the Executive Order 13112, Invasive Species, and subsequent guidance from the Federal Highway Administration, landscaping and erosion control elements of the proposed project would not use plant species listed on the California Invasive Species List as noxious weeds.

In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasive species be found.

Also, the measures described below are proposed to reduce construction-related impacts from the project regarding the introduction and spread of noxious weeds and other invasive plants.

With the incorporation of the avoidance, minimization, and mitigation measures listed below, no adverse direct impacts would occur regarding the spread of invasive weeds under either build alternative.

No-Build Alternative

The No-Build Alternative would not result in the construction of any of the proposed improvements, and the study area would remain undeveloped and in its current state

relative to the presence of invasive plant species. Therefore, the study area would continue to have large areas that allow unrestricted growth and spread of invasive weeds.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measures would reduce impacts by invasive species:

- IS-1 To minimize the risk of introducing additional non-native species into the area, weed-free erosion control applications would be used. No dry-farmed straw would be used, and certified weed-free straw would be required where erosion control straw is to be used. In addition, hydro-seed mulch or any other erosion control application must also be certified weed-free. Any revegetation seed mix to be used would also be certified weed-free and contain native species appropriate for the project area.
- IS-2 All off-road construction equipment would be inspected and cleaned of potential noxious weed sources (e.g., mud and vegetation) before entry into the project area to prevent noxious weed introduction. The contractor would employ cleaning methods (typically with the use of a high-pressure water hose) to ensure that equipment is free of noxious weeds.

2.4 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of a proposed 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 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 to migration corridors, changes in water quality, and introduction or promotion of predators. Such developments can collectively contribute to potential community impacts, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are to be discussed. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations Part 1508.7 of the Council on Environmental Quality regulations.

Per Caltrans guidance, a cumulative impact analysis assesses only the net impact (i.e., impact minus avoidance, minimization, and/or mitigation) on a resource. If there is no impact on a resource or if the impact is fully offset by avoidance, minimization, and/or mitigation measures, there would be no contribution to cumulative impacts. Caltrans identifies the following steps to serve as guidelines for identifying and assessing cumulative impacts:

Step 1: Identify Resources to Consider in the Impact Analysis

Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures has evaluated project-specific impacts to human, physical, and biological resources within and around the project study area. Based on the evaluation, the following resources may be cumulatively affected by the project.

- Agriculture (Farmlands)
- Visual/Aesthetics
- Noise

Step 2: Define the Study Area for Each Resource

Table 2-54 defines the resource-specific study areas applied to analyze potential cumulative impacts.

Table 2-54: Resource Study Areas Considered for the Cumulative Impact Analysis

Resource	Area Studied
Agriculture (Farmlands)	The proposed new alignment of SR 132 extending from Modesto Irrigation District's Lateral Canal No. 3 to the north, the Tuolumne River to the south, SR 99 to the east, and the San Joaquin River to the west.
Visual/Aesthetics	The proposed new alignment of SR 132 extending from West Briggsmore Avenue to the north, Tuolumne Boulevard to the south, 9th Street to the east, and Stone Avenue to the west.

Table 2-54: Resource Study Areas Considered for the Cumulative Impact Analysis

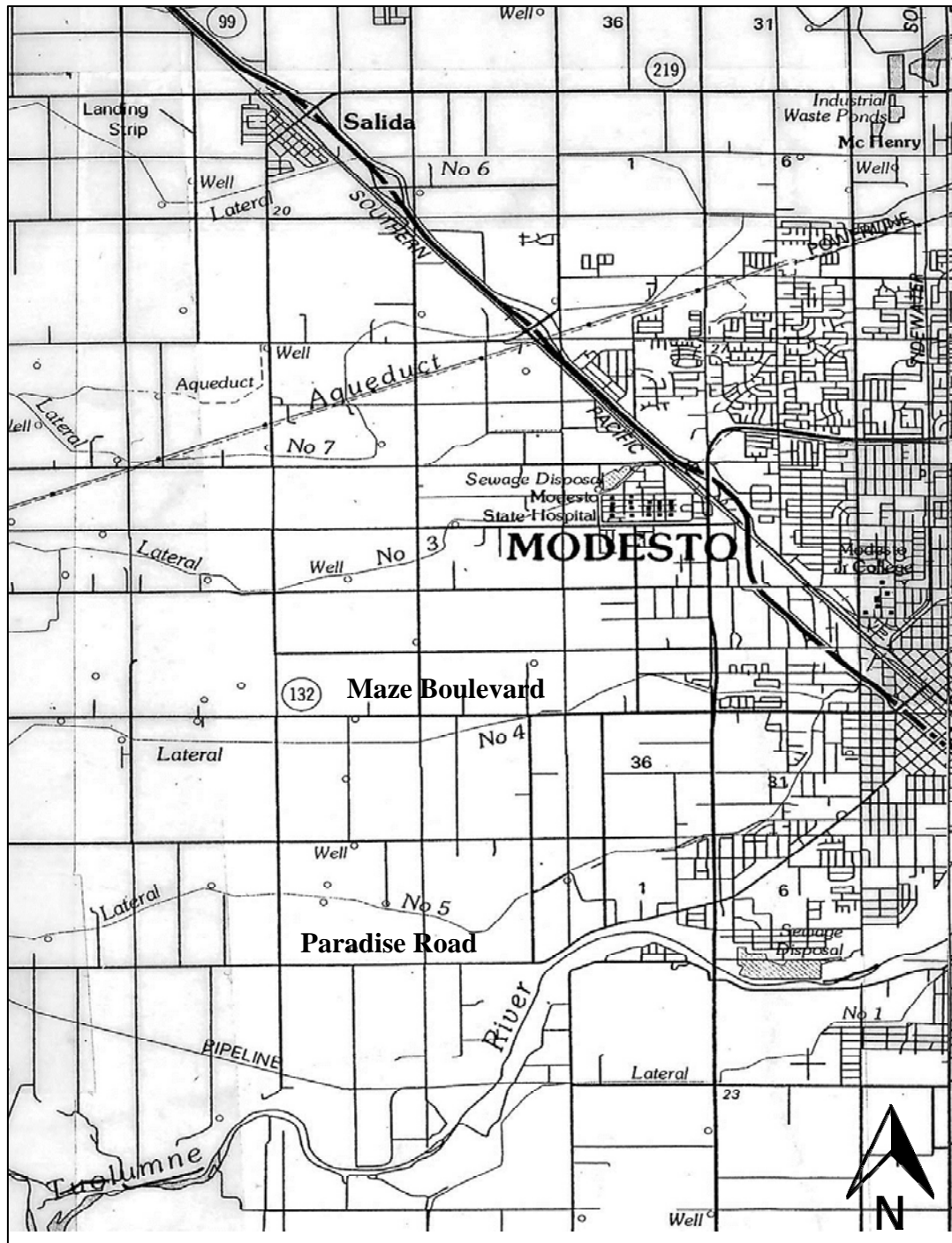
Resource	Area Studied
Noise	The proposed new alignment of SR 132 extending from existing SR 132 (Maze Boulevard) and Dakota Avenue to SR 99, and SR 99 between Kansas Avenue and I Street.

The three resource study areas were selected to analyze the health of the resource and offer a proper perspective to assess potential cumulative impacts. The agriculture resource study area represents land use patterns in the area bounded by two geographical features (two rivers) a long-established community (Modesto), and a canal that supports irrigation to the resource study area (Modesto Irrigation District’s Lateral Canal No. 3). The visual/aesthetics resource study area represents the “commute shed” evaluated for the project’s traffic analysis, which focuses on the more traveled and viewed areas by travelers and residents. The noise study area represents noise-sensitive receivers within the project limits, including residences, schools, playgrounds, places of worship, and public parks.

Step 3: Describe the Current Health and Historical Context for Each Resource

Agriculture (Farmlands)

Based on historical mapping, urban development has not substantially encroached on the resource study area over the last 45 years. Figure 2-25 shows the approximate resource study area in 1970, and Figure 2-26 shows the current resource study area.



Source: U.S. Geological Survey

Figure 2-25: Agriculture (Farmlands) Resource Study Area circa 1970

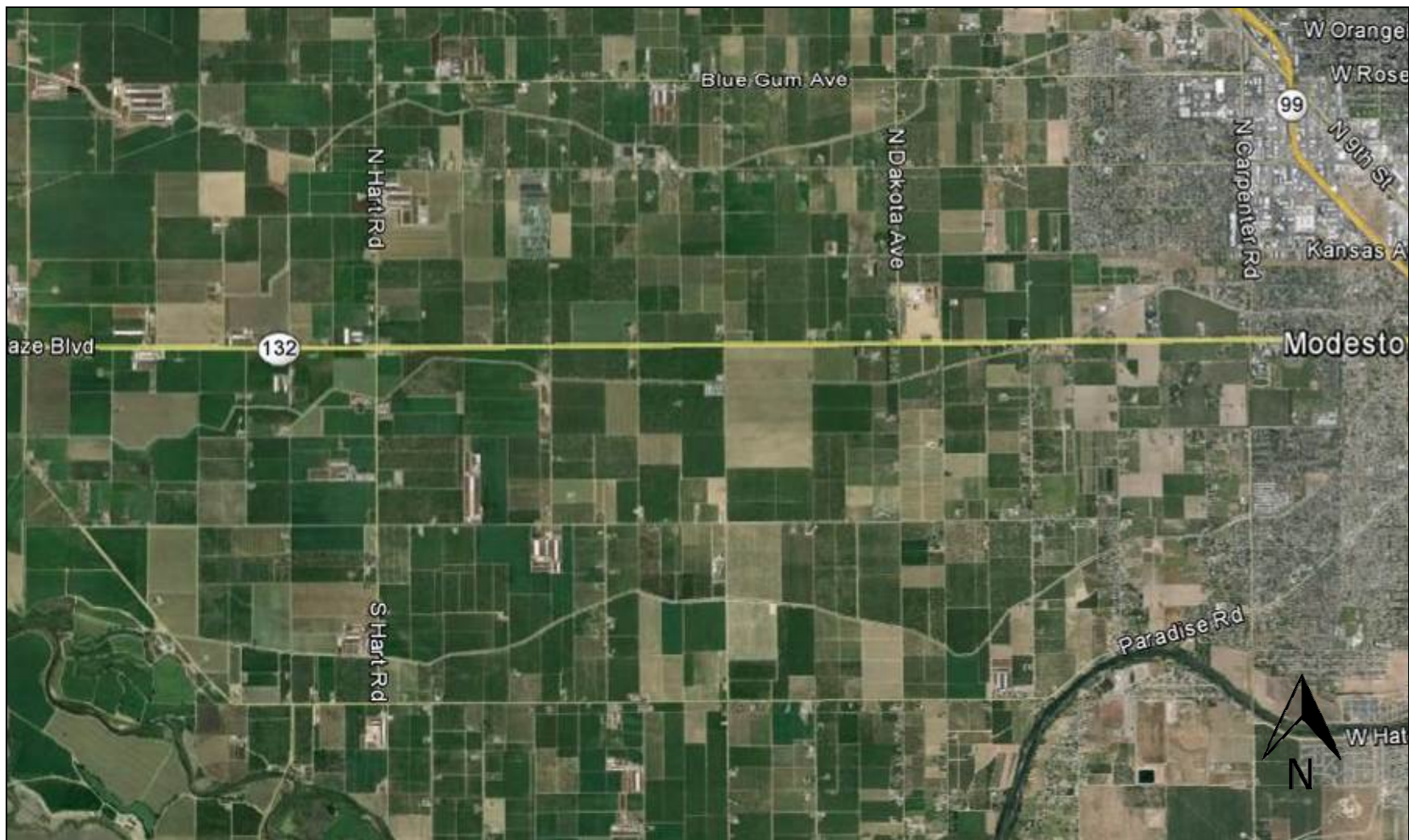


Figure 2-26: Agriculture (Farmlands) Resource Study Area circa 2014

As shown in the two figures above, residential, commercial and some industrial development has extended west of SR 99 to South Carpenter Road (south of existing SR 132 [Maze Boulevard]) and to Morse Road (north of Kansas Avenue). All of the development has occurred within Modesto's city limits and sphere of influence. However, the overall health of agriculture within the resource study area has remained relatively fixed since 1970 because of conversion restrictions within agricultural zones and on Williamson Act contract lands.

Visual/Aesthetics and Noise

Figure 2-27 shows an overview map of the approximate visual/aesthetics and noise resource study area in 1969.

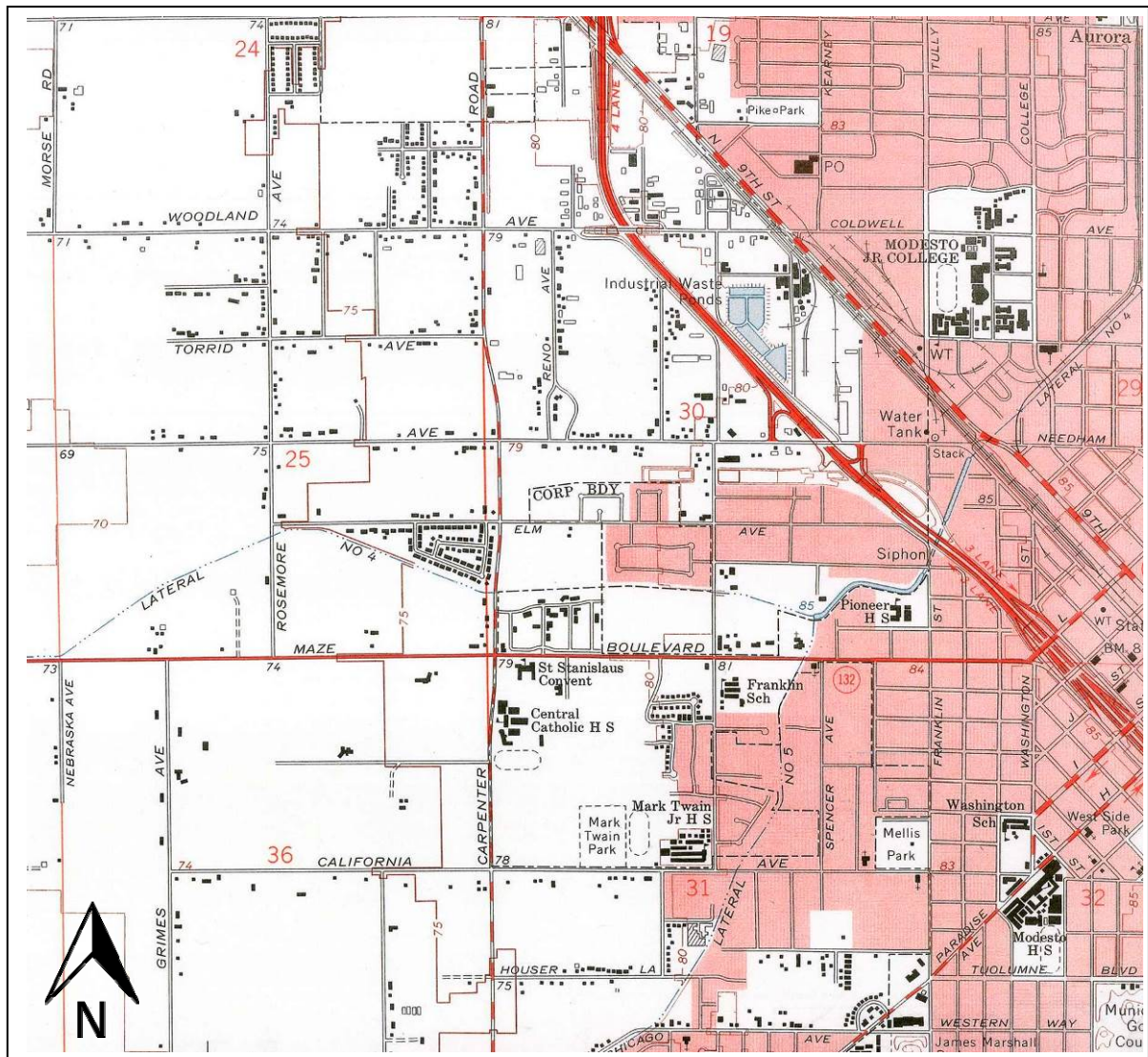


Figure 2-27: Visual/Aesthetics and Noise Resource Study Area circa 1969

Development has occurred in Modesto's city limits and sphere of influence throughout the visual/aesthetics and noise resource study area. This includes an increase in single-family residential units east of Morse Road and South Carpenter Road, an increase in the amount of commercial development along Kansas Avenue and, to a lesser extent, along existing SR 132 (Maze Boulevard), and further industrial development north of Kansas Avenue. While changes to the urban landscape on the west and east of SR 99 south of the existing highway to Tuolumne Boulevard have also occurred, the overall residential, commercial, and industrial makeup of the area has not changed much beyond what it was in 1969 (see Figure 2-27).

In all, the overall health of visual/aesthetic resources within the resource study area has slightly declined since 1969 because of increased residential and industrial development in the area. Ambient noise levels have also increased over time because of the development in the area, as well as increasing traffic volumes with expanding population and commerce, both locally and regionally.

Step 4: Identify Direct and Indirect Impacts of the Project

Table 2-55 shows the direct and indirect impacts of both build alternatives on both agriculture and visual/aesthetic resources.

Table 2-55: Project Impact Summary

Resource	Direct and Indirect Impacts
Agriculture (Farmlands)	Both build alternatives would result in the direct conversion of 38.92 acres of prime and unique farmland and 6.7 acres of Williamson Act contract lands. Although existing agricultural operations may be altered from modified access for farmers and livestock, access would be maintained throughout the project.
Visual/Aesthetics	Structures (notably, the proposed SR 132/SR 99 direct-connector flyover ramp) would degrade the visual quality of some residential areas to moderately low, causing a high visual impact. New highway lighting and signs would be introduced, and most trees in the project study area would be impacted.
Noise	Because the proposed project would be constructed on a new alignment where no highway currently exists, numerous receivers (land uses where frequent human activity occurs, such as residences) would be impacted. West of SR 99, the proposed new alignment would be close to receivers, resulting in higher traffic noise levels. Up to 276 receivers would be affected by increased noise. One noise barrier (a soundwall) has been recommended.

Step 5: Identify Other Reasonably Foreseeable Actions

As described in Section 2.1.2, Growth, the eastern, more urbanized portion of the project study area is already fully developed, and no reasonably foreseeable actions would alter agricultural land or the visual/aesthetic makeup of the area. As for the western portion of the study area, Stanislaus County has only two foreseeable projects/developments (two conservation easements) proposed at this time. Within Modesto, no formal development plans for either comprehensive planning district have been created; the proposed Kansas-Woodland Business Park is currently on hold, and no developments are planned within the Redevelopment Planning District.

Within the three larger resource study areas, there are seven Tier I and five Tier II actions per StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy. Per the plan, Tier I actions represent projects expected to be fully funded; while many Tier II actions are not funded, the projects represent the "long-term" desires within the region. The following describes the seven Tier I actions, including a reference to the applicable resource based on where the action would occur in respect to each resource study area:

- Street improvements are planned along Brink Avenue in Modesto, paralleling SR 99 (Agriculture and Visual/Aesthetics).
- Street improvements are planned along South Carpenter Road in Modesto from existing SR 132 (Maze Boulevard) to Paradise Road (Agriculture, Visual/Aesthetics, and Noise).
- Reconstruction of the interchange on SR 99 at Briggsmore Avenue is planned in Modesto (Agriculture, Visual/Aesthetics, and Noise).
- Further extension of SR 132 West as a new two-lane highway from Dakota Avenue to Gates Road is planned in Stanislaus County (Agriculture, Visual/Aesthetics, and Noise).
- Construction of Class I trails is planned along Modesto Irrigation District's Lateral Canal No. 3, No. 4, and No. 7 (Agriculture).
- The Tuolumne River Restoration Project plans to improve trails from Mitchell Road to South Carpenter Road (Agriculture).
- Construction of a Class I bicycle trail is planned to extend the Virginia Corridor Trailway west of SR 99 (Agriculture).

The following describes the five Tier II actions:

- SR 99 is planned to be widened to eight lanes from North Carpenter Road to Tuolumne Boulevard (Visual/Aesthetics and Noise).
- Blue Gum Avenue is planned to be widened to four lanes from Poust Road to North Rosemore Avenue in Modesto (Agriculture, Visual/Aesthetics, and Noise).
- Existing SR 132 (Maze Boulevard) is planned to be widened to four lanes from SR 99 to Carpenter Road in Modesto (Visual/Aesthetics and Noise).
- Paradise Road is planned to be widened to four lanes from Sutter Avenue to South Carpenter Road in Modesto (Agriculture, Visual/Aesthetics, and Noise).
- Woodland/Coldwell Avenue is planned to be widened to four lanes from Kearney Avenue to North Carpenter Road in Modesto (Agriculture, Visual/Aesthetics, and Noise).

Steps 6 and 7: Assess Potential Cumulative Impacts and Report Results

Agriculture (Farmlands)

When you compare Figure 2-25 to Figure 2-26, development has occurred since 1970, but it has not extended beyond Modesto's city limits or sphere of influence and has not encroached further onto agriculture land in the western portion of the resource study area. Since 1970, the western portion of the resource study area has remained dedicated to agricultural uses. The Stanislaus County General Plan protects agricultural land (particularly prime and statewide important farmland), only allowing conversion for exceptional needs. The only foreseeable action in an area not already developed would be the realignment of SR 132 and construction of a new two-lane facility from Dakota Avenue to Gates Road in Stanislaus County. The action would occur in a heavily farmed portion of the resource study area. Though the corridor for the realignment has not been identified, future infrastructure projects would be reviewed and managed for compliance with applicable policies concerning the conversion of farmland. Natural Resources Conservation Service coordination to determine potential impacts to prime and unique farmland would also be conducted. Based on this analysis, the build alternative would contribute to a cumulative impact to agriculture.

Visual/Aesthetics

Structures for the proposed new alignment (notably, the proposed SR 132/SR 99 direct-connector flyover ramp) would degrade the visual quality of Elm Street

neighborhood to moderately low, causing a high visual impact for the local residents and travelers. However, neither build alternative would alter and, in the case of two views, improve the visual quality of the other views throughout the project study area.

The proposed Kansas-Woodland Business Park would have been the only foreseeable action that could have led to further degrading of the resource study area's visual/aesthetic quality. But, the action is currently on hold, with no foreseeable start-up date. The remainder of the Tier I and Tier II actions listed above are expected to cause only minor visual changes to the resource study area because the projects would be at grade and in already developed areas or areas with an existing highway/roadway. None of the projects would construct intrusive visual structures or completely reconfigure the area's landscape units. But, incremental alterations could lead to a cumulative impact on visual/aesthetic resources if avoidance, minimization, or mitigation measures similar to those outlined in this document (VA-1 through VA-8) are not incorporated. If proposed, these measures would reduce and, in some cases, improve the visual quality for local residents and the traveling public.

Noise

Traffic is the main noise source affecting noise-sensitive land uses in the study area. The proposed project would have the greatest noise impacts in two areas: 1) the residential area south of Berryessa Drive and west of North Carpenter Road, and 2) the residential area on the west side of SR 99 and north of Elm Avenue.

Other reasonably foreseeable actions that could lead to a cumulative impact on noise-sensitive land uses in the study area are the Tier I and Tier II arterial improvements, freeway interchange reconstruction, and the future widening of SR 99. However, depending on the location, these projects would be subject to City of Modesto, Stanislaus County or Caltrans noise control requirements for both design and construction. If best management practices relative to noise impacts similar to those outlined in this document (inclusion of noise barriers in project design and implementation of construction noise controls) are incorporated into these other projects, these measures would minimize and, in some cases, reduce noise levels experienced by local residents.

Step 8: Assess the Need for Mitigation

Stanislaus County has an adopted farmland mitigation program, though it is presently applicable only to the conversion of farmland to a residential use. While conversion of farmland is controlled by Stanislaus County and impacts to existing farmland can

be reduced, there are no feasible measures that can fully mitigate the loss of farmland. The replacement impacted farmland using off-site mitigation is cost prohibitive and the productivity of off-site mitigation may not be equivalent to the level provided within the project area.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance under the California Environmental Quality Act

The proposed project is a joint project by Caltrans and the Federal Highway Administration 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). The Federal Highway Administration's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for the proposed project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327. Caltrans is the lead agency under CEQA and NEPA.

One of the main differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, would be required. NEPA requires that an Environmental Impact Statement (EIS) be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report (EIR) must be prepared. Every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA guidelines list 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 mandatory findings of significance of CEQA. This chapter

discusses the effects of the project and CEQA significance. A summary of the CEQA Checklist completed for the proposed project is provided in Appendix A of this document. The CEQA impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.” CEQA impact findings for the proposed project are provided below in Section 3.2, Discussion of Significant Impacts.

3.2 Discussion of Significant Impacts

3.2.1 No Effects from the Proposed Project

As discussed at the beginning of Chapter 2, the following environmental issues were considered, but no adverse impacts were identified:

- **Coastal Zones:** The proposed project study area is not near any coastal zones.
- **Forested Resources (Timberlands):** No timberlands are in or near the project study area (Community Impacts Assessment, April 2016).
- **Mineral Resources:** The proposed project would not impact any known mineral resources in the project study area (Geotechnical/Geologic Summary Report, October 2010).
- **Sensitive Natural Communities:** No sensitive natural communities are in the project study area. The *State Route 132 West Freeway/Expressway Natural Environment Study* (October 2016) provides more details.
- **Special-Status Plant Species:** No special-status plant species were identified in the project study area. The *State Route 132 West Freeway/Expressway Natural Environment Study* (October 2016) provides more details.
- **Wetlands:** The proposed project will have no effect on federally protected wetlands (waters of the U.S.) 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.
- **Wild and Scenic Rivers:** No wild and scenic rivers are in or near the project study area.

3.2.2 Less-than-Significant Effects of the Proposed Project

Pursuant to CEQA, the following resources would be anticipated to experience less than significant impacts (Chapter 2, Affected Environment, Environmental

Consequences, and Avoidance, Minimization, and/or Mitigation Measures provides further information on each of the listed resources):

- **Agricultural Resources** (see Section 2.1.3, Farmlands): Both build alternatives would result in the conversion of 38.92 acres of prime farmland, and 6.7 acres of farmland encumbered under a Williamson Act contract. This represents a 0.01 percent and 0.002 percent decrease in countywide totals of prime farmland and Williamson Act contract lands, respectively. Given the total acreage of prime and unique farmlands and Williamson Act contract lands and the farmland impact rating score of 158 for both build alternatives, this is a minimal impact within Stanislaus County.
- **Air Quality** (see Section 2.2.6, Air Quality): Implementation of the proposed project may result in a cumulatively considerable net increase of criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. A temporary increase in precursor and criteria pollutants would occur during construction; however, with the implementation of standard best management practice, as described in Section 2.2.6, Air Quality, the impact would be less than significant. These best management practices would include the submittal of a dust control plan to San Joaquin Valley Air Pollution Control District prior to earthmoving, the implementation of dust control measures, and the control of construction-related PM10 and exhaust emissions. Measures would include maintaining properly tuned engines, minimizing the idling time of diesel-powered construction equipment to 2 minutes, using alternative-powered construction equipment (i.e., compressed natural gas, biodiesel, electric), using add-on mitigation devices such as diesel oxidation catalysts or particulate filters, using equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy-duty diesel engines, phasing project construction, and limiting the operating hours of heavy-duty equipment.
- **Cultural Resources** (see Section 2.1.8, Cultural Resources): Both historic-era archaeological resources (site CA-STA-407H and CA-STA-408H) were evaluated and determined to not be eligible for inclusion in the National Register of Historic Places or the California Register of Historic Resources. This recommendation is in concurrence with survey results. Therefore, there will be no adverse effect on any known archaeological properties eligible for the National Register of Historic Places or the California Register of Historic

Resources as there are no historic properties affected at these sites. The proposed project would not require the temporary or permanent acquisition of any land from the 416/418 I Street parcel. No construction activities are proposed on or adjacent to the property, and there would be no temporary or permanent use of land from the parcel. Therefore, there will be no adverse effect on the resources at 416/418 I Street as there are no historic properties affected at these sites.

- The potential discovery of buried cultural resources, including human remains, during construction grading and excavation could be considered a significant impact pursuant to CEQA; however, avoidance and minimization measures identified in Section 2.1.8, Cultural Resources would minimize adverse impacts to unknown buried cultural resources. These measures would be employed during construction in the event that unknown buried cultural resources are encountered. If previously recorded cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area would be stopped until a qualified archaeologist could 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 must 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 would notify the Native American Heritage Commission, who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact the California Department of Transportation's District 10 Native American Coordinator so that he or she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.
- Geology and Soils (see Section 2.2.3, Geology/Soils/Seismic/Topography): According to geologic data for the project area, there is a low potential for strong seismic ground shaking, liquefaction and soil erosion. Also, embankments constructed for the project may have a low potential for soil instability issues, such as landslide and subsidence.
- Land Use and Planning (see Section 2.1.1, Land Use): Both build alternatives would convert existing mostly agricultural and scattered Urban Transition uses in Stanislaus County and mostly vacant land (designated for

redevelopment planning) in Modesto to a transportation use. The build alternatives would not be consistent with two Stanislaus County General Plan policies related to the conversion of agricultural land and one Modesto General Plan policy concerning Transportation Demand Management measures.

- Population and Housing (see Section 2.1.4.1, Community Character and Cohesion): Both build alternatives would result in minimal growth-related impacts beyond what has already been planned in Stanislaus County and Modesto.
- Public Services (see Section 2.1.5, Utilities/Emergency Services): Impacts to emergency services would be the same for both build alternatives. While the proposed project would not create long-term access impacts for emergency vehicles, temporary, construction-related impacts would include use of local roads by construction vehicles, lane closures, and detours.
- Transportation/Traffic (see Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities): The build alternatives would not be consistent with a Modesto General Plan Policy V-B.6(c) concerning the application of Transportation Demand Management measures, which can directly affect trip makers' choice of travel mode and the routes and time of day for trips.
- Utilities and Service Systems (see Section 2.1.5, Utilities/Emergency Services): Neither build alternative would result in long-term impacts to utilities and emergency services. But, construction-related impacts are anticipated. As described in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, implementation of a traffic management plan would include advance notification for emergency service personnel of any expected delay or detour thereby minimizing temporary, construction-related impacts to emergency service providers.

3.2.3 Significant Environmental Effects of the Proposed Project

The proposed project could have significant effects on the following environmental resources. However, with implementation of measures identified below, these impacts would be reduced to less-than-significant levels. The determination of level of significance is based on the CEQA Checklist, provided in Appendix A of this document. Please refer to Chapter 2, Affected Environment, Environmental

Consequences, and Avoidance, Minimization, and/or Mitigation Measures for further information, including a description of the mitigation measures.

- **Biological Resources:** Both build alternatives have the potential to directly and permanently affect up to 20.8 acres and temporarily affect up to 0.2 acre of burrowing owl habitat. This conclusion would be confirmed or amended after protocol surveys are completed the year before construction (see Section 2.3.2, Animal Species). If burrowing owls are detected within the biological study area, the California Department of Fish and Wildlife would be consulted to determine specific avoidance and minimization measures appropriate for the site. Implementation of mitigation measure AS-1 would compensate for the loss of nesting burrows and associated burrowing owl habitat and may involve purchasing mitigation lands adjacent to the project or purchasing burrowing owl mitigation credits at an approved conservation bank in the region. This measure would reduce the impacts to burrowing owl to a less than significant level.
- Both build alternatives would result in a total loss of 0.65 acre of seasonal wetlands considered to be waters of the state. As described in mitigation measure WET-1, Caltrans will consult with the Central Valley Regional Water Quality Board during the final design and permitting phase. If the seasonal wetland features are determined to be waters of the State, Caltrans will mitigate for their discharge and fill as directed by the Central Valley Regional Water Quality Board under the Porter Cologne Water Quality Control Act. Implementation of mitigation measure WET-1 would reduce this impact to a less than significant level.

- Also, project-related impacts to Swainson's hawk habitat would include the removal of up to 70 acres of marginal foraging and/or poor quality nesting habitat and the removal of 414 trees with a low potential to support nests or roosting hawks. Implementation of mitigation measure TES-1 would compensate for project impacts to Swainson's hawk habitat through the completion of protocol-level surveys and adherence to minimization measures coordinated with the California Department of Fish and Wildlife. Potential minimization measures would include establishing a 600-foot no-work buffer zone around an active nest, and/or having a qualified biologist present to monitor an active nest during construction activities to ensure that no interference with the hawks breeding activities would occur. Implementation of mitigation measure TES-1 would reduce this impact to a less than significant level.
- Hazards and Hazardous Materials: Potential impacts from the accidental release of hazardous materials into the environment would be less than significant with implementation of mitigation measures HAZ-1 through HAZ-14, described in Section 2.2.5, Hazardous Waste/Materials. These measures include numerous routine hazardous materials management practices such as the preparation of sampling and analysis plans, materials management plans, health and safety plans, and spill prevention plans, and the proper removal and disposal of asbestos-containing material, lead based paint, and other hazardous building materials in accordance with applicable regulations.
- Caltrans Modesto Soils Stockpiles: While there may be potential impacts from the presence of barium contaminants in three soil stockpiles, containment of the three soil stockpiles through use as construction materials for the new proposed highway, as described in the Draft Final RAP and in Section 2.2.5.1, and implementation of mitigation measures SHAZ-1 through SHAZ-10 would mitigate impacts to less than significant levels. These measures include the preparation of safety and management plans along with a land use covenant to restrict the types of land use allowed on the site. The plans would address containment assessment, management, and reporting to ensure the ongoing integrity of the containment feature for the protection of human health and the environment. Additional measures include the disposal of waste in accordance with applicable regulations, the minimization of soil stockpile reconfiguration, and conducting perimeter air quality monitoring and groundwater and storm

water quality monitoring during construction to minimize hazardous materials impacts related to the soil stockpiles to less than significant levels.

- **Hydrology and Water Quality:** Alternative 1 would increase impervious surface by 55.8 acres, and Alternative 2 would increase impervious surface by 57.5 acres. The addition of impervious surface could affect the area's watershed through increasing the flow and volume of stormwater runoff entering the watershed. If left untreated, the increase in flow and runoff could negatively affect the water quality of receiving water bodies. Caltrans would create a detailed project drainage plan, identifying storm drain features to address the impact of increasing impervious surfaces areas within the project area. Caltrans would comply with applicable Central Valley Regional Water Quality Control Board and Stanislaus County requirements for dewatering and discharge of non-stormwater. In addition, the contractor would conduct groundwater and stormwater monitoring on and adjacent to the soil stockpiles until the proposed project is complete or the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board indicate that it is no longer necessary. Implementation of mitigation measure HY-1, as described in Section 2.2.1, Hydrology and Floodplain, and mitigation measures WQ-1 through WQ-2 in Section 2.2.2, Water Quality and Storm Water Runoff, would reduce this impact to a less than significant level.
- **Noise:** Construction of the proposed project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; however, implementation of standard best management practices as described in Section 2.2.7, Noise would reduce this impact to a less than significant level. These practices include the use of sound-control devices on construction equipment, the requirement that all equipment include muffled exhaust systems, turning off idling equipment, scheduling construction activity to workday hours, notifying adjacent residents in advance of construction work, and moving stationary construction equipment away from noise-sensitive receivers.
- **Paleontological Resources:** Excavation for both Alternatives 1 and 2 would impact the Modesto Formation, thereby having an impact on paleontological resources throughout the study area. Implementation of mitigation measures PR-1 through PR-15 described in Section 2.2.4, Paleontology, would reduce impacts to less than significant levels. These measures would include the preparation of a Paleontological Mitigation Plan prior to construction, the

designation of a paleontological monitor to be present during qualifying earthmoving activities, as described in the Paleontological Evaluation Report and Preliminary Paleontological Mitigation Plan, and providing a paleontological awareness training session to contractors. The paleontological monitor would halt work within a 60-foot radius of paleontological resources discovered during earthmoving activities. Resources would be prepared for identification, proper documentation, collection and storage in a recognized repository institution. The paleontological monitor would also collect and analyze samples for microfossils. Lastly, a Paleontological Mitigation Report would be prepared by the project paleontologist and filed with the repository institution.

3.2.4 Mandatory Findings of Significance

The proposed project would not substantially degrade 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.

The proposed project would cause significant cumulative impacts to agricultural (farmlands), visual resources, and noise as described in Section 2.4.

The proposed project would cause substantial adverse effects on human beings through the reduction in farmland (see Section 2.1.3), degradation of visual quality (see Section 2.1.7), and noise impacts (see Section 2.2.8).

3.2.5 Unavoidable Significant Environmental Effects

The proposed project would have an unavoidable significant impact relative to the following environmental factors:

Noise

Significant noise impacts under CEQA are determined by comparing the predicted noise levels of baseline conditions and the build alternatives. CEQA noise analysis is completely independent of the NEPA analysis discussed in Section 2.2.7, Noise, which centers on the noise abatement criteria. Under CEQA, the noise assessment looks at the setting of the noise impact and then how large or perceptible any noise increase would be in a given area. Key considerations include the uniqueness of the setting, sensitive nature of the noise receivers, magnitude of the noise increase,

number of residences affected, and absolute noise level. The noise analysis for the project was prepared in accordance with the Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*.

Under Alternative 1, noise levels at 251 receivers would approach or exceed 66 A-weighted decibels, and noise levels at 267 receivers would approach or exceed 66 A-weighted decibels under Alternative 2. In accordance with the *Traffic Noise Protocol*, noise levels over 65 A-weighted decibels generally interfere with normal speech. A 3 A-weighted decibel increase between existing noise levels and the build alternatives would be barely perceptible to the human ear.

Tables 3-1 and 3-2 show the range of noise levels for both existing and future conditions. The tables also list noise level increases with the project compared to baseline conditions and the number of receivers that would experience a noticeable increase or a doubling of loudness in each noise analysis area. The *State Route 132 Noise Study Report* includes a detailed summary of the noise analysis results.

Table 3-1: Alternative 1 Noise Levels and Impacts

Noise Analysis Area	Total Receivers	Existing Noise Level (dBA)	Alternative 1 Noise Level (dBA)	Increase over Existing (dBA)	Distinctly Noticeable Increase ^a	Doubling of Loudness ^b
1	26	43.2 – 68.1	51.6 – 73.4	-3.0 – 12.5	7	9
2	18	46.0 – 61.8	54.9 – 69.4	7.6 – 15.6	13	5
3	238	45.5 – 70.6	56.0 – 71.1	3.0 – 11.2	139	38
4	295	49.8 – 68.9	58.0 – 79.5	3.8 – 15.9	217	52
5	12	61.4 – 66.3	65.0 – 70.2	1.9 – 3.9	0	0
6	1	72.8	75.6	2.8	0	0
7	10	64.9 – 76.9	66.1 – 74.4	1.2 – 3.9	0	0
8	55	61.3 – 73.7	64.7 – 76.4	2.5 – 4.9	0	0
9	15	63.8 – 72.1	66.3 – 75.8	2.5 – 4.6	0	0

Notes: dBA = A-weighted decibels.

^a Number of receivers with distinctly noticeable increase (5 dBA or more).

^b Number of receivers with doubling of loudness (increase of 10 dBA or more).

Source: Noise Study Report (January 2016)

Table 3-2: Alternative 2 Noise Levels and Impacts

Noise Analysis Area	Total Receivers	Existing Noise Level (dBA)	Alternative 1 Noise Level (dBA)	Increase over Existing (dBA)	Distinctly Noticeable Increase ^a	Doubling of Loudness ^b
1	26	43.2 – 68.1	51.6 – 73.4	-3.0 – 12.5	7	9
2	18	46.0 – 61.8	54.9 – 69.4	7.6 – 15.6	13	5
3	238	45.5 – 70.6	56.0 – 71.1	3.0 – 11.2	139	38
4	295	49.8 – 68.9	57.0 – 80.2	5.8 – 15.9	225	61
5	12	61.4 – 66.3	65.0 – 70.3	1.9 – 4.0	0	0
6	1	72.8	78.1	5.3	1	0
7	10	64.9 – 76.9	66.1 – 74.4	1.2 – 3.9	0	0
8	55	61.3 – 73.7	64.7 – 76.4	2.4 – 4.8	0	0
9	15	63.8 – 72.1	66.3 – 75.8	2.5 – 4.6	0	0

Notes: dBA = A-weighted decibels.

^a Number of receivers with distinctly noticeable increase (5 dBA or more).

^b Number of receivers with doubling of loudness (increase of 10 dBA or more).

Source: Noise Study Report (January 2016)

Of the impacted receivers, Noise Analysis Areas 3 and 4 were identified as having the largest number of absolute noise impacts (65 A-weighted decibels or more) and increases over existing noise levels (5 A-weighted decibels or more). Noise levels at a majority (50 percent or more) of the receivers in Noise Analysis Areas 3 and 4 were predicted to have a distinctly noticeable increase (5 A-weighted decibels or more) over baseline conditions, while only 15 to 20 percent of the total receivers would experience a substantial (doubling of loudness) increase (10 A-weighted decibels or more) over baseline conditions.

Noise abatement was considered for all impacted receivers. But, as described in Section 2.2.7, Noise, only one noise barrier (Noise Barrier D) would be recommended in Noise Analysis Area 4. Affected residences in other areas all would require driveway access to local roadways, be partially shielded by retaining walls, or be already impacted by ambient (existing) traffic noise. Openings in noise barriers for driveways connecting or intersecting streets reduce the effectiveness of barriers. Therefore, those residences would experience a significant and unavoidable increase in noise levels from the proposed new highway.

The viewpoints of benefited receivers would be considered during the environmental review process in reaching a final decision on the reasonableness of the abatement measures. Benefited receivers are surveyed via registered mail. Property owners get one vote, while renters and owners of non-owner occupied dwellings get 10 percent

of one vote and 90 percent of one vote, respectively. If more than 50 percent of the benefited receivers oppose the abatement, the abatement would not be considered reasonable and would not be constructed.

The final decision on noise abatement would be made on completion of the project design and the public involvement process. If during final design conditions have substantially changed, noise abatement may not be necessary.

Section 2.2.7, Noise, provides more information on this resource.

Visual/Aesthetics

Both build alternatives would remove existing trees at the North Dakota and Kansas Avenue intersection and on the north side of Elm Avenue within the Elm Tract neighborhood. While tree removal would create temporary visual impacts, the temporary impacts would be reduced to less-than-significant levels with implementation of measures VA-4 and VA-5.

For the Elm Tract neighborhood, construction of the proposed SR 132/SR 99 direct-connector flyover ramp would require removal of up to six homes and 16 additional trees from the north side of Elm Avenue. The flyover structure would be incompatible with the existing residential setting, as the structure and associated noise barriers would block residents' views of a distant water tower and would degrade the visual quality from moderately high to moderately low. Even with application of aesthetic treatments (VA-1), the flyover structure and ground-level noise barrier would have a significant and unavoidable visual impact.

Lighting from the new alignment would produce glare and reduce sky visibility for adjacent residential neighborhoods. However, impacts from glare would be reduced to less-than-significant levels with implementation of measures VA-7 and VA-8.

Section 2.1.7, Visual/Aesthetics, provides more information on this resource.

3.2.6 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 gas (GHG) emissions, 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 in 1988 has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation.³ In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of greenhouse gas emissions.⁴ The dominant greenhouse gas emitted is CO₂, mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” “Greenhouse gas mitigation” is a term for reducing greenhouse gas emissions to reduce or “mitigate” the impacts of climate change. “Adaptation” refers to planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).⁵

Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable

³ <https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014>

⁴ <https://www.arb.ca.gov/cc/inventory/data/data.htm>

⁵ http://climatechange.transportation.org/ghg_mitigation/

transportation infrastructure and those who depend on it. The Federal Highway Administration therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.⁶ This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.”⁷ Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

The Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

Energy Policy Act of 2005 (109th Congress H.R.6 (2005–2006): This act set forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Indian energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

⁶ <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

⁷ <https://www.sustainablehighways.dot.gov/overview.aspx>

Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) and Corporate Average Fuel Standards: This act established fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 *Federal Register* 52117 (October 8, 2009): This federal order set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. It instituted as policy of the United States that federal agencies measure, report, and reduce their greenhouse gas emissions from direct and indirect activities.

Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*, 80 *Federal Register* 15869 (March 2015): This order reaffirms the policy of the United States that federal agencies measure, report, and reduce their greenhouse gas emissions from direct and indirect activities. It sets sustainability goals for all agencies to promote energy conservation, efficiency, and management by reducing energy consumption and greenhouse gas emissions. It builds on the adaptation and resiliency goals in previous executive orders to ensure agency operations and facilities prepare for impacts of climate change. This order revokes Executive Order 13514.

The U.S. EPA's authority to regulate greenhouse gas emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that greenhouse gases meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of greenhouse gas emission standards for new cars and light-duty vehicles in April 2010⁸ and significantly

⁸ <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because the NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which the NHTSA, EPA, and ARB will decide on CAFE and greenhouse gas emissions standard stringency for model years 2022–2025. The NHTSA has not formally adopted standards for model years 2022 through 2025. However, the EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Donald Trump ordered the EPA to reopen the review and reconsider the mileage target.⁹

The NHTSA and EPA issued a Final Rule for “Phase 2” for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO₂ emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

Presidential Executive Order 13783, *Promoting Energy Independence and Economic Growth*, of March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of greenhouse gas emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing greenhouse gas emissions and climate change.

Assembly Bill 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These

⁹ <http://www.nbcnews.com/business/autos/trump-rolls-back-obama-era-fuel-economy-standards-n734256> and <https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse>

stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (June 1, 2005): The goal of this order is to reduce California's greenhouse gas emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and SB 32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.

Executive Order S-20-06 (October 18, 2006): This order established the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard (LCFS) for California. Under this order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. The ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 greenhouse gas reduction goals.

Senate Bill 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the ARB to set regional emissions reduction targets for

passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a “Sustainable Communities Strategy” (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

Executive Order B-16-12 (March 2012): This order required State entities under the direction of the Governor, including the ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

Executive Order B-30-15 (April 2015): This bill establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO₂e). Finally, it requires the Natural Resources Agency to update the state’s climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

Senate Bill 32, (SB 32) Chapter 249, 2016: This bill codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce greenhouse gas emissions in California. AB 32 required the ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020. The Scoping Plan was first approved by the ARB in 2008 and must be updated every 5 years. The ARB approved

the First Update to the Climate Change Scoping Plan on May 22, 2014. The ARB is moving forward with a discussion draft of an updated Scoping Plan that will reflect the 2030 target established in Executive Orders B-30-15 and SB 32.

The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the greenhouse gas inventory for California.¹⁰ The ARB is responsible for maintaining and updating California's greenhouse gas Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure 3-1 represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO₂e.¹¹ The 2016 edition of the greenhouse gas emissions inventory (released June 2016) found total California emissions of 441.5 MMTCO₂e, showing progress towards meeting the AB 32 goals.

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO₂e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO₂e.

¹⁰ 2016 Edition of the GHG Emission Inventory Released (June 2016):
<https://www.arb.ca.gov/cc/inventory/data/data.htm>

¹¹ The revised target using Global Warming Potentials (GWP) from the IPCC Fourth Assessment Report (AR4)

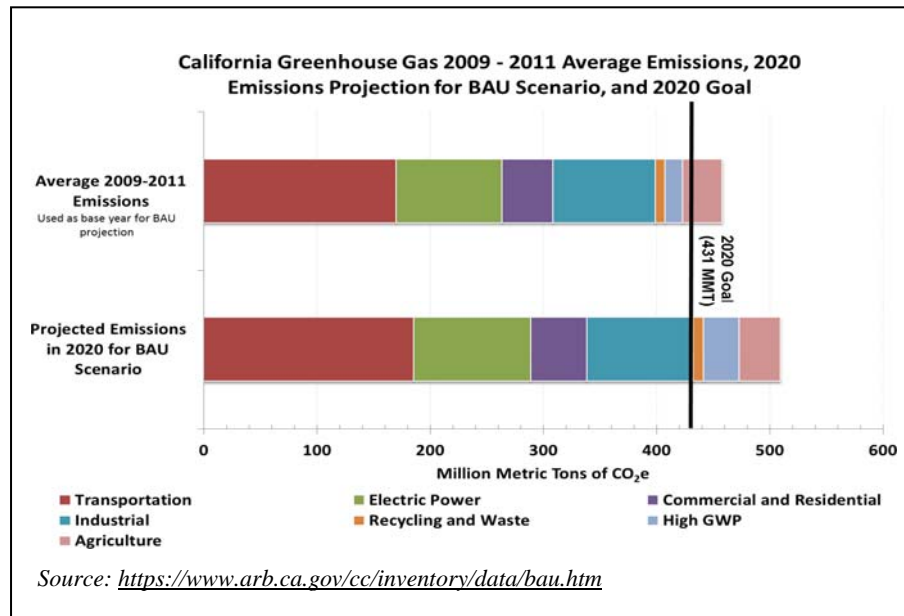


Figure 3-1: 2020 Business as Usual (BAU) Emissions Projection 2014 Edition

Project Analysis

Greenhouse gas emissions for transportation projects can be divided into those produced during operations and those produced during construction.

Build Alternatives (Operational Emissions)

Four primary strategies can reduce greenhouse gas emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity), (3) transitioning to lower greenhouse gas-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued concurrently.

The Federal Highway Administration supports these strategies to lessen climate change impacts and correlate with efforts that the state of California is undertaking to reduce greenhouse gas emissions from the transportation sector.

The highest levels of CO₂ from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 3-2). To the extent that a project relieves congestion by enhancing operations and improving travel times in

high-congestion travel corridors, greenhouse gas emissions, particularly CO₂, may be reduced.

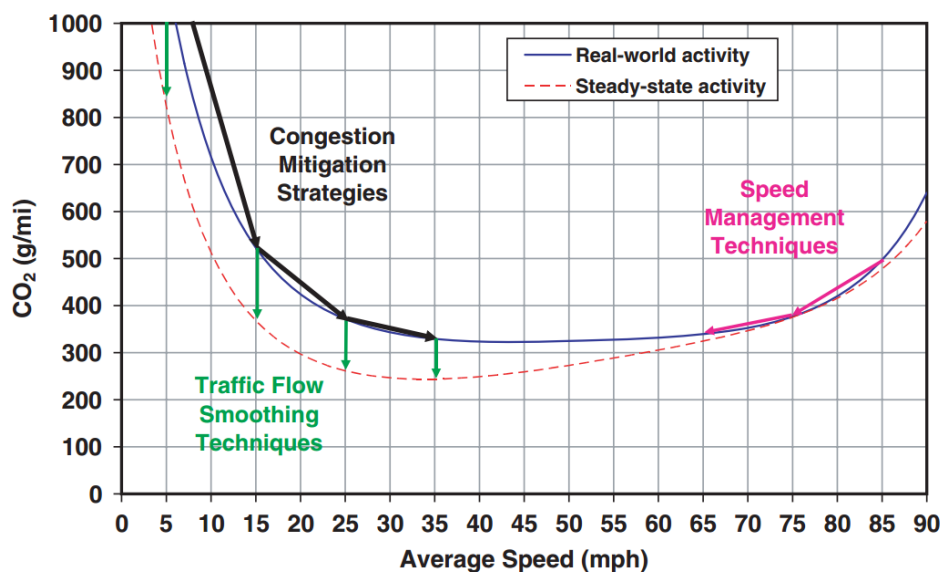


Figure 3-2: Possible Effect of Traffic Operation Strategies in Reducing On-Road Carbon Dioxide Emission¹²

Future-year greenhouse gas emissions associated with the two build alternatives were obtained by comparing emissions with the project in 2020¹³ (when Phase 1 would be completed), 2028 (when Phase 2 would be completed), and 2048 (the design year) to emissions without the project; the EMFAC 2011¹⁴ emissions model was used for the comparison. It is important to note that carbon dioxide emissions are useful only for a comparison between alternatives and are not necessarily an accurate reflection of what the true carbon dioxide emissions would be because carbon dioxide emissions

¹² *Traffic Congestion and Greenhouse Gases*. Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>>

¹³ The traffic analysis for Phase 1 assumed an opening year of 2018, but that is now projected to be 2020.

¹⁴ The EPA approved the EMFAC2014 emissions model for SIP and conformity purposes, effective December 14, 2015. The use of EMFAC2014 is required for all new regional emissions analyses and carbon monoxide (CO) and particulate matter (PM₁₀ and PM_{2.5}) hot-spot analyses for transportation conformity purposes that are started on or after December 14, 2017.

are dependent on factors that are not part of the emissions model, such as the fuel mix, rate of acceleration, and the aerodynamics and efficiency of the vehicles.¹⁵

Table 3-3 shows the results of the alternatives' comparison. To satisfy CEQA requirements, the No-Build Alternative scenario for the year when the Notice of Preparation was filed with the California State Clearinghouse, Office of Planning and Research (2010) was considered the baseline condition. Baseline emissions were estimated using the EMFAC 2011 model and annual daily traffic volumes that were extrapolated from 2020 projections from the project's traffic study and addendum.

**Table 3-3: Summary of Operational Greenhouse Gas Emissions
(metric tons carbon dioxide per year)**

Alternative	2010	2020	2028	2048
No-Build Alternative (Baseline)	198,932	246,162	294,513	424,066
Phase 1 (<i>Initial Construction Phase</i>)*	–	243,804	–	–
Alternative 1	–	–	293,002	410,192
Alternative 2	–	–	290,588	412,523
Comparison of Build Alternatives to No-Build Alternative				
Phase 1 Build to No-Build Alternative	–	-2,358 (47,230) ^a	–	–
Alternative 1 to No-Build Alternative	–	–	-1,511 (94,070) ^a	-13,875 (211,260) ^a
Alternative 2 to No-Build Alternative	–	–	-3,925 (91,656) ^a	-11,543 (213,591) ^a

* Referred to as the *Initial Construction Phase* in the Air Quality Study Report.

^a Comparison of the 2010 baseline conditions to the build alternatives.

Source: Air Quality Study Report (May 2016)

As shown in the table, the two build alternatives would result in increased carbon dioxide emissions relative to the baseline condition and decreased carbon dioxide emissions for future conditions when compared to the No-Build Alternative.

Although greenhouse gas emissions are anticipated to increase relative to the baseline condition, future congestion associated with the No-Build Alternative would contribute to potentially higher emissions than if either of the build alternatives were constructed. This shows the benefit of one of the main California Action Plan Strategies to reduce greenhouse gas emissions through transportation efficiency.

¹⁵ The EMFAC model emission rates are only for direct engine-out carbon dioxide emissions, not for a full fuel cycle. In addition, fuel cycle emission rates can vary dramatically depending on the amount of additives (e.g., ethanol) and the source of the fuel components.

The two build alternatives would support implementation of Assembly Bill 32 through Senate Bill 375. Based on the emissions results, the two build alternatives would reduce congestion and overall greenhouse gas emissions in the project study area. StanCOG's 2014 Regional Transportation Plan/Sustainable Communities Strategy identifies the Senate Bill 375 goals for 2020 and 2035, which are a 5 percent and 10 percent reduction in per capita greenhouse gases from 2005 levels. The plan and strategy include a goal to reduce greenhouse gas emissions by 24 percent in 2020 and 21 percent in 2035.

The proposed project is included in a list of Tier I improvements identified in the plan for each transportation mode type, including roadways, transit, bicycle and pedestrian, and aviation. Improvements are intended to implement a balanced multi-modal circulation system and improve air quality by reducing vehicle miles traveled and greenhouse gas emissions, while accommodating anticipated travel demand. Beyond the typical transportation system improvements (widening roadways and adding traffic signals to improve congestion and mobility), StanCOG is committed to analyzing alternative strategies, such as Transportation Systems Management, Transportation Demand Management, and intelligent transportation systems to increase system efficiencies. The alternative strategies would provide increased opportunities for non-auto travel to reduce vehicle miles traveled and improve overall air quality. These alternative strategies, including mass transit, were analyzed as part of the early planning stages for the project. These alternatives were considered and assessed as described in Section 1.7, Alternatives Considered but Eliminated from Further Discussion.

Complete Streets

A "Complete Street" is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to roadways in all contexts including local roads and state highways in rural, suburban, and urban areas. The proposed project would not preclude a complete streets facility from being designed approaching the project. The proposed project is compatible with Caltrans' intended Complete Streets goals for transportation facilities within Stanislaus County and is also compatible with the regional bikeway projects in the StanCOG Non-Motorized Transportation Master Plan.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction CO₂ emissions were estimated using the Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model version 7.1.2, which uses EMFAC 2011 emissions factors. Phase 1 is anticipated to begin construction in 2018 and be completed in 2020. Phase 1 is planned to be fully funded in 2018 and open by 2020, and is therefore calculated separately from Phase 2. Construction CO₂ emissions from Phase 1 are expected to be similar for both build alternatives. Phase 2 would start construction in 2026 and open in 2028, if funding becomes available. Table 3-4 summarizes the estimated construction CO₂ emissions for both phases of each build alternative.

**Table 3-4: Summary of Construction Greenhouse Gas Emissions
(metric tons carbon dioxide during project construction)**

Alternative	Phase 1 (2018–2019)	Phase 2 (2025 ¹)	Total CO ₂
Alternative 1	2926.7	3484.0	6410.7
Alternative 2	2977.1	3274.8	6251.9

Source: Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model version 7.1.2

1. The Road Construction Emissions Model only accepts construction start years to 2025.

Caltrans Standard Specifications require contractors to comply with local air pollution control district rules, ordinances, and regulations for air quality restrictions, including minimizing idling time for diesel construction equipment. Landscaping, including tree-planting, would also help offset construction greenhouse gas emissions in the long term.

CEQA Conclusion

The project would result in a slight increase in greenhouse gas emissions during construction. While both build alternatives would result in increased operational carbon dioxide emissions relative to the baseline condition, both build alternatives would reduce operational carbon dioxide emissions for future conditions when compared to the No-Build Alternative. While it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Statewide Efforts

In an effort to further the vision of California's greenhouse gas reduction targets outlined in AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts). See Figure 3-3. These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 greenhouse gas emissions target. These pillars are (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

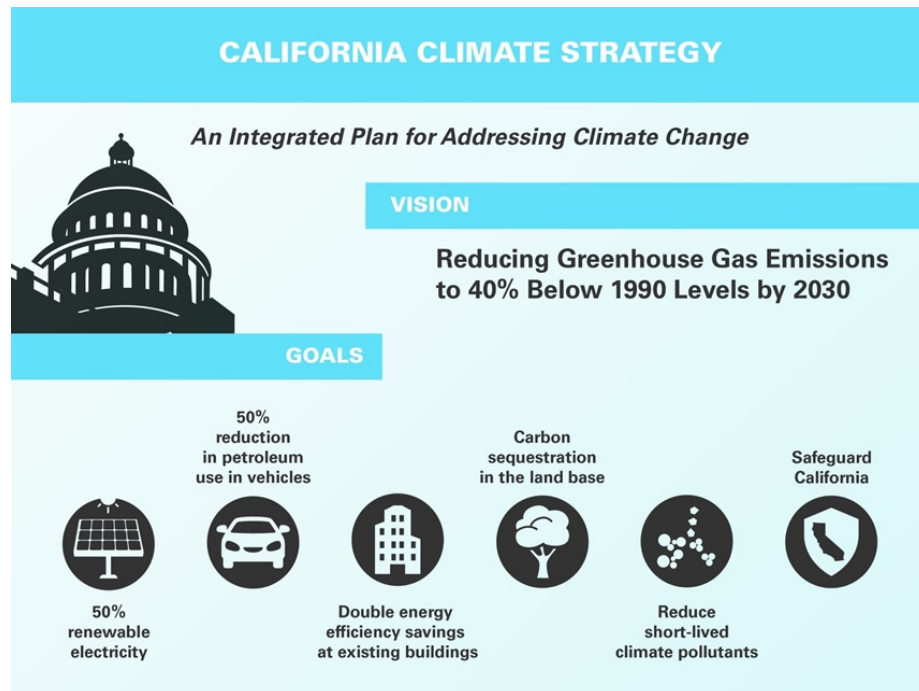


Figure 3-3: Governor’s Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals

The transportation sector is integral to the people and economy of California. To achieve greenhouse gas emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. Greenhouse gas emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of Governor Brown's key pillars sets the ambitious goal of reducing today’s petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor’s Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Executive Order B-30-15, issued in April 2015, and SB 32 (2016), set a new interim target to cut greenhouse gas emissions to 40 percent below

1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations (MPOs) have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce greenhouse gas emissions, among other goals. Specific performance targets in the plan that will help to reduce greenhouse gas emissions include:

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled per capita
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) greenhouse gas emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce greenhouse gas emissions, Caltrans also administers several funding and technical assistance programs that have greenhouse gas reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a department policy that will ensure coordinated efforts to incorporate climate change into departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

Project-Level Greenhouse Gas Reduction Strategies

The following features will also be incorporated into the project as environmental commitments to reduce greenhouse gas emissions and potential climate change impacts from the project.

- GHG-1 The California Department of Transportation and the California Highway Patrol are working with regional agencies to implement intelligent transportation systems to help manage the efficiency of the existing highway system. Intelligent transportation systems commonly consist of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
- GHG-2 In addition, the Stanislaus Council of Governments will provide Commute Connections, a ridesharing service, and park-and-ride facilities to help manage the growth in demand for highway capacity.
- GHG-3 Landscaping reduces surface warming, and through photosynthesis, decreases carbon dioxide. The California Department of Transportation will provide new corridor landscaping that complies with statewide drought restrictions and Modesto's tree preservation ordinance. The landscaping would help offset any potential carbon dioxide emissions increase.
- GHG-4 According to California Department of Transportation's Standard Specifications, the contractor must comply with all local air pollution control district's rules, ordinances, and regulations for air quality restrictions, including minimizing idling time for diesel construction equipment per San Joaquin Valley Air Pollution Control District Regulation VIII.

GHG-5¹⁶ The California Department of Transportation and Stanislaus Council of Governments will ensure that applicable greenhouse gas-reducing diesel particulate and NO_x emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the California Department of Transportation and Stanislaus Council of Governments shall perform periodic site inspections. Applicable greenhouse gas-reducing measures include the following.

- Use of diesel construction equipment meeting ARB’s Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
- Use of on-road heavy-duty trucks that meet the ARB’s 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Use of electric equipment in place of diesel powered equipment, where feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of

¹⁶ Source: Stanislaus Council of Governments 2014 RTP/SCS Stanislaus County- Mitigation Measure GHG-1

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. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

Federal Efforts

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011,¹⁷ outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation (DOT) issued *U.S. DOT Policy Statement on Climate Adaptation* in June 2011, committing to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions.”¹⁸

To further the DOT Policy Statement, on December 15, 2014, Federal Highway Administration issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*).¹⁹ This directive established Federal Highway Administration policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The Federal Highway Administration will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation’s transportation systems.

¹⁷ <https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience>

¹⁸ https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm

¹⁹ <https://www.fhwa.dot.gov/legsregs/directives/orders/5520.cfm>

The Federal Highway Administration has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.²⁰

State Efforts

On November 14, 2008, then-Governor Arnold 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 order set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, 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 on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report)²¹ was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates; and the range of uncertainty in selected sea-level rise projections. It provided 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.

In response to Executive Order S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed *The California Climate Adaptation Strategy* (Dec. 2009),²² which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to promote

²⁰ <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

²¹ *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

²² <http://www.climatechange.ca.gov/adaptation/strategy/index.html>

resiliency. The adaptation strategy was updated and rebranded in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan).

Governor Jerry Brown enhanced the overall adaptation planning effort by signing Executive Order B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing Executive Order B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

Executive Order S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), of which Caltrans is a member. First published in 2010, the document provided “guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California,” specifically, “information and recommendations to enhance consistency across agencies in their development of approaches to SLR.” The March 2013 update²³ finalizes the SLR Guidance by incorporating findings of the National Academy’s 2012 final Sea-Level Rise Assessment Report; the policy recommendations remain the same as those in the 2010 interim SLR Guidance. The guidance will be updated as necessary in the future to reflect the latest scientific understanding of how the climate is changing and how this change may affect the rates of 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. Caltrans is actively engaged in working towards identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in Executive Order B-30-15.

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

²³ <http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/>

3.3 Mitigation Measures for Significant Impacts under the California Environmental Quality Act

Chapter 3, California Environmental Quality Act Evaluation, provides a full discussion of all avoidance, minimization, and/or mitigation measures. No additional measures are needed to address impacts under CEQA.

3.4 Environmentally Superior Alternative

CEQA Guidelines (Section 15126.6(e)(2)) require that an environmentally superior alternative be identified. The environmentally superior alternative is generally defined as the alternative which would result in the least adverse environmental impacts to the project area and vicinity. If the No-Build Alternative is found to be the environmentally superior alternative, the document must identify an environmentally superior alternative among the other alternatives.

The No-Build Alternative would best avoid impacts as compared to the proposed build alternatives, and is thus the environmentally superior alternative. Although the No-Build Alternative would not result in any physical impacts to the environment, it would fail to meet the purpose and need of the project and would therefore not be considered an environmentally superior alternative.

Each build alternative meets the purpose of the project. Similar potential impacts with the implementation of Alternative 1 and 2 would be anticipated in the areas of land use, growth, farmlands, wetlands, utilities, traffic and transportation, cultural resources, water quality, hazardous waste, air quality and energy.

The main differences in impacts between the alternatives would be anticipated in the areas of business displacements, visual impacts, hydrology, paleontology, and noise. Alternative 1 would result in fewer impacts to hydrology, paleontology and noise, while Alternative 2 would have fewer impacts relative to business displacements and visual resources. Alternative 2 is identified as the environmentally superior alternative.

Determination of the environmentally superior alternative does not preclude a CEQA lead agency from adopting other alternatives. The lead agency may adopt a statement of overriding considerations which describes the agency's decision to approve a project despite its significant adverse environmental impacts.

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Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team meetings, a public scoping meeting, interagency coordination meetings, stakeholder meetings, public meetings/open houses and the dissemination of project information via newsletters, fact sheets, a project website, and other project updates. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Public Agencies Consultation and Coordination

4.1.1 U.S. Environmental Protection Agency/Federal Highway Administration

Concurrence of air quality conformity was provided by StanCOG's interagency consultation partners, which include the U.S. Environmental Protection Agency and Federal Highway Administration. A technical memorandum summarizing the Air Quality Study Report findings was circulated on April 1, 2016. Concurrence was received from the U.S. Environmental Protection Agency Region 9 on April 25, 2016 and the Federal Highway Administration on April 26, 2016, concluding that the proposed project is not a project of air quality concern (see Appendix I). Details of the air quality conformity analysis are included in Section 2.2.6, Air Quality, and Appendix I.

The project also received a project-level conformity determination from the Federal Highway Administration on June 5, 2017, concluding that the project conforms with the State Implementation Plan in accordance with 40 Code of Federal Regulations Part 93. In the conformity determination letter, the Federal Highway Administration stated that the project-level conformity analyses submitted by Caltrans on April 21, 2017 demonstrates that the project will not create any new violations of standards or increase the severity or number of existing violations. The Federal Highway Administration conformity determination letter can be found in Appendix I.

4.1.2 Native American Heritage Commission

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them).

Cultural resources technical studies prepared for the project included the results of coordination with the Native American Heritage Commission. Two requests for a search of the Sacred Lands File and Native American Contacts List were submitted to the Native American Heritage Commission. The most recent request was submitted on June 26, 2014, and a response was received on August 12, 2014.

The following Native American representatives were consulted in 2014:

- Neil Peyron, Chairperson, Tule River Indian Tribe
- Kerri Vera, Environmental Department, Tule River Indian Tribe
- Joey Garfield, Tribal Archaeologist, Tule River Indian Tribe
- Katherine Erolinda Perez, Northern Valley Yokuts Tribe
- Les James, Spiritual Leader, Southern Sierra Miwuk Nation
- Lois Martin, Chairperson, Southern Sierra Miwuk Nation

An earlier request was made on June 11, 2010, and a response was received on June 16, 2010. The following Native American representatives were consulted in 2010:

- Anthony Brochini, Chairperson, Southern Sierra Miwuk Nation
- Ryan Garfield, Chairperson, Tule River Indian Tribe
- Les James, Spiritual Leader, Southern Sierra Miwuk Nation
- Jay Johnson, Spiritual Leader, Southern Sierra Miwuk Nation
- Katherine Erolinda Perez, Northern Valley Yokuts Tribe

In both responses, the Native American Heritage Commission indicated that the Sacred Lands File search was negative for the presence of Native American cultural resources in the area of potential effects. The Native American Heritage Commission provided a list of individuals representing three tribes. Letters were sent to these

representatives on August 13, 2014 and June 22, 2010. In October 2010, project archaeologists attempted to contact these individuals via telephone. To date, no responses have been received. A Notice of Availability was sent at the beginning of the Draft EIR/EA and Draft Final RAP circulation period to the following tribes: California Valley Miwok Tribe, North Valley Yokuts Tribes, Southern Sierra Miwok Nation, and the Tule River Indian Tribe. No comments were received from any of the tribes.

4.1.3 California Department of Fish and Wildlife

Preparation of the *State Route 132 Natural Environmental Study* required accessing the California Department of Fish and Wildlife's California Natural Diversity Database to determine the potential presence of state-listed and special-status species in the project study area. The database was accessed February 2018, July 2017, June 2016, January 2016, October 2015 and October 2014. However, Caltrans has not yet coordinated directly with the California Department of Fish and Wildlife personnel.

4.1.4 U.S. Fish and Wildlife Service and National Marine Fisheries Service

Preparation of the *State Route 132 West Freeway/Expressway Natural Environmental Study* included a request on June 20, 2016, October 26, 2015 and October 9, 2014 to the U.S. Fish and Wildlife Service for a list of threatened and endangered species with the potential to occur in Stanislaus County (see Appendix I of this document). A U.S. Fish and Wildlife Service list was also requested on May 16, 2017 and February 15, 2018 to update this EIR. A request for verification of potential species under the jurisdiction of the National Marine Fisheries Service (NMFS) was made on May 16, 2017 and again on February 15, 2018 (see Appendix I of this document). Caltrans also coordinated with U.S. Fish and Wildlife Service personnel in 2002 to confirm that the project area was outside the range for the federally endangered San Joaquin kit fox and therefore that species was excluded from the impact analysis.

4.1.5 U.S. Army Corps of Engineers

Caltrans staff coordinated with U.S. Army Corps of Engineers staff in January 2011 to conduct field verification in support of a jurisdictional determination. Additional data was requested by the U.S. Army Corps of Engineers, and it was provided on May 5, 2011 and June 21, 2011 to complete the verification. The jurisdictional determination was verified on July 29, 2011 and again on May 26, 2015 in response to a change in field conditions in which a seasonal wetland had been removed and

was no longer present. At this time, a Clean Water Act Section 404 Permit is not needed because there are no impacts to waters of the U.S.

4.1.6 California Department of Toxic Substances Control

With the re-initiation of the project in 2004, Caltrans began coordination with the California Department of Toxic Substances Control regarding the three soil stockpiles within the proposed location of the project. To date, there has been ongoing coordination with and oversight by the California Department of Toxic Substances Control. Under the oversight of the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board, Caltrans initiated numerous site investigations that included stockpile characterization and a human health risk assessment.

Site investigations were conducted from 2004 to 2014 to characterize the nature and extent of contaminants associated with the soil stockpiles, to quantify risk to human health and the environment, and to evaluate and select the most appropriate remedial alternative that addresses the identified contaminants of concern.

The Soil Stockpiles Feasibility Study (see Appendix G) identified and evaluated applicable soil remediation options for the three soil stockpiles. Based on this study, a Draft Final RAP was prepared to describe the recommended remedial alternative. The Draft Final RAP is included in Appendix H of this document.

California Department of Toxic Substances Control outreach activities have included interviewing and briefing representatives of the City of Modesto, Stanislaus County, and local residents at several intervals from 2011 to 2013. In addition to the public meetings described in Section 4.2, Public Participation, the following community outreach was conducted by the California Department of Toxic Substances Control:

- November 28, 2012: California Department of Toxic Substances Control staff and Caltrans staff met with five local residents and a local reporter and led them on a tour of soil stockpile 1. They also joined California Department of Toxic Substances Control to observe the contract workers as they were sampling monitoring well 2.
- April 2013: California Department of Toxic Substances Control conducted interviews with staff of the City of Modesto and Stanislaus County, as well as community members, to discuss potential site cleanup issues and receive input for the Draft Final Remedial Action Plan.

4.1.7 Central Valley Regional Water Quality Control Board

Caltrans continues to coordinate with the Central Valley Regional Water Quality Control Board concerning groundwater (see Section 2.2.5, Hazardous Waste/Materials). Coordination with the Central Valley Regional Water Quality Control Board began in December 2011. This coordination effort led to the preparation of the Soil Stockpiles Feasibility Study and the Draft Final Remedial Action Plan.

A Clean Water Act Section 401 Permit would not be needed to authorize the discharge of stormwater into waters of the U.S. However, a permit would be needed if the project involves the pumping of groundwater and subsequent discharging into waters of the U.S. Also, the construction/implementation of trenches intended for stormwater infiltration and evaporation could trigger the need for a Regional Water Quality Control Board Permit if a trench is classified as a Class 5 injection well (e.g., a vertical drywell or pipe intended to allow for infiltration into the groundwater). If required, prior to construction, a Clean Water Act Section 401 Permit application would be submitted and a permit would be obtained for impacts to waters of the State from the Central Valley Regional Water Quality Control Board.

If the regional board is not required to regulate activities under Section 401, impacts to waters of the State, specifically the seasonal wetlands identified in Section 2.3.1, would be regulated under the Porter-Cologne Authority. A Water Quality Certification would be acquired prior to construction.

4.1.8 California State Historic Preservation Officer

Coordination occurred with the State Historic Preservation Officer on May 16, 2012 to confirm the 2011 area of potential effects and on February 6, 2015 for the 2014 supplemental area of potential effects (see Appendix I of this document). The State Historic Preservation Officer concurred with the findings under Section 106 that two properties were eligible and 169 properties were not eligible for the National Register of Historic Places and the California Register of Historical Resources.

4.2 Public Participation

Public participation methods used for the project have included a variety of approaches, including stakeholder meetings/targeted outreach, mailing lists, and public information meetings/open houses (described below). Public participation tools have included fact sheets, multilingual community flyers and announcements, focus group outreach, display boards, and a project website. Newspaper ads and meeting

notifications in English and Spanish were published in *The Modesto Bee* and *Vida en el Valle*, respectively.

4.2.1 Notice of Preparation

A Notice of Preparation was sent to numerous state and local agencies and recorded at the State Clearinghouse on January 7, 2010. The Notice of Preparation was also published in English in *The Modesto Bee* on January 13, 2010 and in Spanish in *Vida en el Valle* on January 20, 2010. The Notice of Preparation is included in Section I.1 Appendix I (Agency Coordination).

4.2.2 Scoping Meeting

A scoping meeting was held on January 25, 2010 at the SOS Club in Modesto. The purpose of the scoping meeting/open house was to inform the public and other interested parties about the project and to provide members of the public with an opportunity to voice their comments or concerns about the project. The meeting was conducted as an open house, with members of the SR 132 Project Team available to receive comments and answer questions. Exhibits provided information about the project, schedule, right-of-way processes, and environmental process. They also explained how to comment on the project and how to stay involved.

A total of 105 members of the public signed in at the meeting. Attendees were encouraged to submit written comments via comment sheets that were supplied, in addition to drawing on or otherwise commenting on the maps. A total of 18 comment sheets were received, and a public stenographer recorded 20 comments. Oral comments and suggestions were also gathered by personnel staffing the meeting.

Attendees were concerned about impacts to their property values and impacts during construction. Pollution (especially noise and air quality) was a significant concern, but people were also concerned about the potential project impact on agriculture. The proposed project cost was stated as a concern, but several people stated that the proposed project is needed. Some people suggested that rather than a freeway/expressway being constructed, the existing roadway and intersections should be improved. Connectivity for bicyclists and pedestrians was cited as a need, and access at Carpenter Road was a concern brought up by local businesses.

4.2.3 Plan Implementation Project Meetings

A stakeholder outreach group known as the Plan Implementation Project Team met between 2010 and 2014. The team was composed of representatives from Caltrans, StanCOG, the public works departments of the local jurisdictions, the Chamber of

Commerce, the Manufacturers Council for the Central Valley, businesses, the general public and elected officials. Plan Implementation Project meetings were held at the StanCOG office at 1111 I Street in Modesto. Topics discussed during the meetings included funding, right-of-way, outreach, traffic control, noise, agricultural concerns, project schedule, project phasing and the scope of technical studies. Plan Implementation Project meetings were held on the following dates:

- January 19, 2010
- March 24, 2010
- September 30, 2010
- January 26, 2011
- July 27, 2011
- October 26, 2011
- February 22, 2012
- July 31, 2014

The topic of the Soil Stockpiles Feasibility Study and the Draft Final RAP for the Caltrans Modesto Soil Stockpiles was discussed on October 26, 2011 and at all meetings thereafter.

4.2.4 Public Information Meetings, Neighborhood Meetings, Open Houses, Circulation Period

Public information meetings/open houses were conducted between the scoping meeting held in January 2010 and the public hearing held on February 22, 2017 when the Draft Environmental Document and the Draft Final Remediation Action Plan were publicly circulating. These meetings provided project updates, addressed questions and concerns from members of the public, and received comments on the proposed project. The meetings are summarized below.

May 4, 2010—Martone Elementary School (Modesto)

The purpose of this neighborhood meeting was to inform the public and other interested parties about the project and to solicit comments or concerns. The meeting was conducted as an open house and included informational display boards and project maps. A total of 37 members of the public signed in at the meeting, and 22 comment cards/letters were received regarding the new highway alignment, how the proposed project would relieve downtown traffic, noise levels, loss of property, and funding.

September 8, 2011—Pearson Education Center (Modesto)

The purpose of this neighborhood meeting was to solicit public comments, notably from those in the Emerald Avenue and Elm Tract neighborhood areas, about the project. The meeting was conducted as an open house and included project maps and exhibits, information on how to comment on the project, and how to stay involved.

SR 132 Project Team members were present to explain the displays, answer questions, and receive public input. A total of 35 members of the public signed in at the meeting, and seven comment cards/letters were received. Attendees noted concerns about noise and air quality issues, residential relocations, and the need for SR 132 (existing Maze Boulevard) to be improved.

December 7, 2011—Mark Twain Junior High School (Modesto)

The purpose of this neighborhood meeting was to solicit public comments about the project. The meeting was conducted as an open house with project maps and exhibits on display. Members of the SR 132 Project Team were present to receive comments and answer questions. A total of 183 members of the public signed in at the meeting and were encouraged to submit written comments on comment cards. Fifty-nine comment cards/letters were received: 43 handwritten comment cards and 16 dictated to the public stenographer. Property owners were concerned about impacts to their property values and construction-related impacts. Numerous meeting attendees commented on potential noise and air quality impacts as well as the Caltrans Modesto Soil Stockpiles south of Kansas Avenue.

August 18, 2014—King-Kennedy Memorial Center (Modesto)

The purpose of this public information meeting/open house was to provide updated project information about the alternatives to be studied in this document. A total of 137 members of the public signed in at the meeting. SR 132 Project Team members were present to address comments and questions using exhibit boards and large format maps of the project. A stenographer was also present to take comments from meeting attendees. Representatives from Caltrans and StanCOG made a presentation on the project schedule, construction phasing, funding, project alternatives, and the status of the Draft Final Remedial Action Plan. Questions and comments from meeting attendees were answered by members of the SR 132 Project Team. Ten comment cards were completed, and five comments were dictated to the stenographer. Meeting attendees provided comments and posed questions on the alternatives for remediation of the soil stockpiles, proposed noise barriers, air quality impacts, connectivity to local streets, relocations, and relocation assistance.

January 18, 2017 – March 17, 2017 (Public Circulation Period and Announcement of the Public Hearing)

The Draft EIR/EA with attached Draft Final RAP was publicly circulated between January 18, 2017 and March 17, 2017. To announce the public hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the public hearing venue changed, from the Red Event Center to Mark Twain Junior High School. An English and Spanish postcard advertising this change was mailed on February 8, 2017 to approximately 2,500 residents, tenants, and business owners within the project area. The Department of Toxic Substances Control (DTSC) also sent out the Caltrans Modesto Soil Stockpiles Community Update (English and Spanish) to the project mailing list on February 6, 2017. A revised Public Notice with the new location was published by StanCOG in *The Modesto Bee* and *Vida en el Valle* on February 8, 2017. The Public Notice was published one last time in the same newspapers above on February 15, 2017. The hearing notice was also published in English and Spanish on StanCOG's website at <http://www.stancog.org/trans-ps.shtm> on the Caltrans District 10 website at <http://www.dot.ca.gov/d10/x-project-sr132west.html> and on the Department of Toxic Substances Control website at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626.

The document and the related technical studies were made available for download at <http://www.dot.ca.gov/d10/x-project-sr132west.html> and at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626. Print copies were available for review at the Caltrans District 10 Office in Stockton; the Stanislaus Council of Governments in Modesto; the Stanislaus County Library in Modesto; and the Department of Toxic Substances Control office in Sacramento. During the public circulation period, 305 comments were received, including 181 Individual comments, 1 State Agency comment, 9 Local and County Agencies comments, 66 Public Hearing comments, and 48 Public Hearing Transcript comments.

February 2, 2017 – Quality Inn (500 Kansas Ave, Modesto)

There was a discussion between a community outreach agent for StanCOG and the owner of the Quality Inn, Hement Khatri. The discussion pertained to whether there would be a partial or full acquisition of the property. It was confirmed that Mr. Khatri's property would not be acquired.

February 7, 2017 – Guayabitos Restaurant (500 Kansas Avenue, Suite A, Modesto)

There was a discussion between a community outreach agent for StanCOG and the owner of the Guyabitos Restaurant, Alejandra Munoz. The discussion pertained to whether there would be a partial or full acquisition of the property. It was explained that a partial acquisition and/or easement of approximately 2,460 square feet may be required of the parcel in order to widen the roadway and adjust the curb cut for access to the property.

February 22, 2017 – Mark Twain Junior High School (Modesto)

The Public Hearing on the Draft EIR/EA and attached Draft Final RAP was held on February 22, 2017. The meeting was conducted in an informal open house format with stations around the room for the public to review. Public notices were circulated in the local newspapers and indicated that the meeting would be held in an open house format. Each station was manned by staff to provide information as needed. Team members were present to address comments and questions (Caltrans, StanCOG, Department of Toxic Substances Control, and the Regional Water Quality Control Board). A welcome board greeted attendees as they entered the meeting room. Members of the public signed in at the meeting and were encouraged to submit written comments on comment cards. Consultant Team staff gave each attendee information sheets stating the project description, purpose, background, cost, funding source, timeline, and a contact name for those interested in obtaining more information. The information sheet also contained a map showing the project locations. A Community Update was also provided by the Department of Toxic Substances Control. A court reporter was present to record oral comments from attendees upon request and a Spanish translator was available for Spanish-speaking attendees. A Public Hearing Summary Report has been prepared to document the meeting proceedings and is available in the public record. During the hearing, 66 comments were received and 48 transcript comments were recorded.

February 27, 2017 – (SP #3, Modesto)

There was a discussion at the public hearing between Rhett Calkins and Caltrans and Department of Toxic Substances Control about a valve being opened at SP #3. Mr. Calkins asked to schedule a field review so he could view the valve himself.

On February 27, 2017, Caltrans' representatives Grace Magsayo, Rick Estrada, Dan Ryan, and John Miller met with Mr. Calkins at the site. Mr. Calkins inspected the valve so he could see that it had not been opened.

Chapter 5 List of Preparers

This document was prepared by the following staff:

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Gary R. Fink, Senior CEQA/Cultural Resource Specialist. B.A., Anthropology, San Diego State University; 42 years of cultural resource experience. Contribution: Prepared the cultural resources and paleontology sections for the Environmental Impact Report/Environmental Assessment.

Joe D'onofrio, Air Quality Specialist. M.A., Environmental Planning, Arizona State University; 12 years of mobile source air quality experience. Contribution: Prepared the air quality and energy sections for the Environmental Impact Report/Environmental Assessment.

Jonathan Russ, Certified Hazardous Materials Manager (CHMM), Senior Environmental Scientist. B.S., Wildlife Sciences, Penn State University; 26 years of hazardous waste/materials experience. Contribution: Supported the preparation of the hazardous waste/materials section for the Environmental Impact Report/Environmental Assessment.

Misha Seguin, Botanist and Wetland Ecologist. B.S., Environmental Science, University of Idaho; 16 years of biological resources and environmental planning experience. Contribution: Prepared the biological resource sections for the Environmental Impact Report/Environmental Assessment.

Misty Swan, Environmental Planner. 26 years of environmental planning and engineering project support experience. Contribution: Prepared the visual/aesthetics section for the Environmental Impact Report/Environmental Assessment.

Phill Peters, Environmental Planner. M.S., Biology, Western Michigan University, Kalamazoo; 15 years of environmental planning experience. Contribution: Prepared the water quality, hydrology and floodplain, and geology sections for the Environmental Impact Report/Environmental Assessment.

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Chapter 6 Distribution List

The Draft Environmental Impact Report/Environmental Assessment was distributed to the following agencies, elected officials, service providers, and utility companies.

Federal Agencies

U.S. Army Corps of Engineers Regulatory Division 1325 J Street, Room 1480 Sacramento, CA 95814	U.S. Fish and Wildlife Service Sacramento Fish and Wildlife Office 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 ATTN: Jen Schofield
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State Agencies

State Clearinghouse Office of Planning and Research 1400 10th Street Sacramento, CA 95814-5502	California Highway Patrol Central Division 4030 Kiernan Avenue Modesto, CA 95356
California Department of Toxic Substances Control 8800 Cal Center Drive Sacramento, CA 95826	Central Valley Regional Water Quality Control Board 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670 ATTN: Elizabeth Lee
California Department of Fish and Wildlife 1234 East Shaw Avenue, Suite 206 Fresno, CA 93710 ATTN: Steve Hulbert	California Air Resources Board 1001 I Street Sacramento, CA 95814 ATTN: Mary Nichols
California Public Utilities Commission 770 L Street, Suite 1050 Sacramento, CA 95814	Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814
California Department of Parks and Recreation Office of Historic Preservation 1416 9th Street, Room 1442 Sacramento, CA 95814	

Local/Regional Agencies

San Joaquin Valley Air Pollution Control District: Northern Region 4800 Enterprise Way Modesto, CA 95356	Fire Chief Mike Peyton Modesto Fire Department: Fire Prevention Bureau 1010 10th Street Modesto, CA 95354
Chief of Police Galen Carroll Modesto Police Department 600 10th Street Modesto, CA 95354	Chief Gary Hinshaw Stanislaus County Emergency Services 3705 Oakdale Road Modesto, CA 95357
Sheriff-Coroner Adam Christianson Stanislaus County Sheriff's Department 939 Oakdale Road Modesto, CA 95355	Stanislaus County Environmental Resources Hazardous Materials Division 3800 Cornucopia Way, Suite C Modesto, CA 95358
Fire Chief Sean Slamon Modesto Fire Department 600 11th Street Modesto, CA 95354	

Elected Officials

Office of Senator Anthony Cannella State Capitol, Room 5082 Sacramento, CA 95814	Congressman Jeff Denham 10th District Modesto Office 4701 Sisk Road, Suite 202 Modesto, CA 95356
Office of Senator Tom Berryhill State Capitol, Room 3076 Sacramento, CA 95814	

Board of Supervisors

William O'Brien Stanislaus County Supervisor Dist. 1 1010 10th Street, Suite 6500 Modesto, CA 95354	Dick Monteith Stanislaus County Supervisor Dist. 4 1010 10th Street, Suite 6500 Modesto, CA 95354
Vito Chiesa Stanislaus County Supervisor Dist. 2 1010 10th Street, Suite 6500 Modesto, CA 95354	Jim DeMartini Stanislaus County Supervisor Dist. 5 1010 10th Street, Suite 6500 Modesto, CA 95354
Terry Withrow Stanislaus County Supervisor Dist. 3 1010 10th Street, Suite 6500 Modesto, CA 95354	

Modesto City Council

Mayor Ted Brandvold 1010 10th Street Modesto, CA 95354	Bill Zoslocki District 4 Councilmember 1010 10th Street Modesto, CA 95354
Mani Grewal District 1 Councilmember 1010 10th Street Modesto, CA 95354	Jenny Kenoyer District 5 Councilmember 1010 10th Street Modesto, CA 95354
Tony Madrigal District 2 Councilmember 1010 10th Street Modesto, CA 95354	Douglas Ridenour District 6 Councilmember 1010 10th Street Modesto, CA 95354
Kristi Ah You District 3 Councilmember 1010 10th Street Modesto, CA 95354	

Planning Commissioners

Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Sandra Lucas	Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Carmen Morad
Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Rosa Escutia-Braaton	Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Steve Carter
Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Amin Vohra	Modesto Planning Commission 1010 10 th Street, Suite 3300 Modesto, CA 95354 Attn: Dennis Smith

Libraries

Stanislaus County Library Modesto Branch 1500 I Street Modesto, CA 95354

Tribes

California Valley Miwok Tribe Ms. Silvia Burley Chairperson 4620 Shippee Lane Stockton, CA 95212	Tule River Indian Tribe Mr. Neil Peyron Chairperson P.O. Box 589 Porterville, CA 93258
North Valley Yokuts Tribe Ms. Katherine Erolinda Perez P.O. Box 717 Linden, CA 95236	Tule River Indian Tribe Mr. Joey Garfield Tribal Archaeologist P.O. Box 589 Porterville, CA 93258

Southern Sierra Miwuk Nation Mr. Les James Spiritual Leader P.O. Box 1200 Mariposa, CA 95338	Tule River Indian Tribe Ms. Kerri Vera P.O. Box 589 Porterville, CA 93258
Southern Sierra Miwuk Nation Ms. Lois Martin P.O. Box 186 Mariposa, CA 95338	

Utilities

Water Service

City of Modesto 1010 10th Street, Suite 2100 Modesto, CA 95354	Modesto Irrigation District 1231 11th Street Modesto, CA 95351
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Wastewater

City of Modesto Wastewater Division Administration 1221 Sutter Avenue Modesto, CA 95351	
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Gas and Electric

Modesto Irrigation District 1231 11th Street Modesto, CA 95351	Pacific Gas and Electric 226 East Yosemite Avenue Manteca, CA 95336
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Telecommunications

AT&T 3900 Sisk Road, Suite E1 Modesto, CA 95356	Level 3 Communications 1124 13th Street Modesto, CA 95354
Comcast 3055 Comcast Place Livermore, CA 94551	Sprint 330 Commerce, Suite 100 Irvine, CA 92606

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February 2018



FREWAY/EXPRESSWAY PROJECT

*FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT WITH
FINDING OF NO SIGNIFICANT IMPACT AND DRAFT FINAL REMEDIAL ACTION PLAN*



**Volume 2 of 2:
Appendices**

City of Modesto, Stanislaus County, California

State Route 132 - Dakota Avenue to east of State Route 99

State Route 99 - Kansas Avenue to I Street

DISTRICT 10 – STA – 132 (PM 11.0/15.0)

DISTRICT 10 – STA – 99 (PM 15.7/17.5)

EA 10-40350

Project ID 1000000424

SCH # 2010012010



Prepared by the
State of California Department of Transportation



The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

Appendix A California Environmental Quality Act Checklist

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The following checklist identifies physical, biological, social and economic factors that might be affected by the project. The CEQA impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all CEQA checklist determinations is provided in Chapters 2 and 3 of this Environmental Impact Report/Environmental Assessment. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapters 2 and 3.

	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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Caltrans has used the best available information based to the extent possible on scientific and factual information, to describe, calculate, or estimate the amount of greenhouse gas emissions that may occur related to this project. The analysis included in the climate change section of this document provides the public and decision-makers as much information about the project as possible. It is Caltrans' determination that in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project's direct and indirect impacts with respect to global climate change. Caltrans remains committed to implementing measures to reduce the potential effects of the project. These measures are outlined in the climate change section that follows the CEQA checklist and related discussions.

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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Appendix B Resources Evaluated Relative to the Requirements of Section 4(f)

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Resources Evaluated Relative to the Requirements of Section 4(f)

This section of the document discusses parks, recreational facilities, wildlife refuges and historic properties found within or next to the project area that do not trigger Section 4(f) protection because either: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

Two National Register of Historic Places-eligible properties were identified in the *State Route 132 Historic Property Survey Report*, which was completed in December 2011. The report was submitted to the State Historic Preservation Officer on March 16, 2012 for concurrence on eligibility determinations for the sites identified in the 2011 area of potential effects. A concurrence letter received from the State Historic Preservation Officer, dated May 16, 2012, confirmed the following two properties are eligible for listing on the National Register of Historic Places:

- 3530 Maze Boulevard, Modesto
- 416/418 I Street, Modesto

Five recreation resources were identified within 0.5 mile of the State Route 132 West Freeway/Expressway Project (project) study area.

- Charles M. Sharp Park
- J.M. Pike Park
- Virginia Corridor Trailway
- Cesar E. Chavez Park and Maddux Youth Center
- Mellis Park

All seven resources listed above were evaluated relative to the requirements of Section 4(f). Based on the evaluation, it has been concluded that there are no Section 4(f) uses of these seven properties.

This document discusses parks, recreational facilities, wildlife refuges and historic properties found within or adjacent to the project study area that do not trigger Section 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

The Section 4(f) resources located within 0.5 mile of the project that were evaluated relative to the requirements of Section 4(f) are described below.

3530 Maze Boulevard, Modesto

The property at 3530 Maze Boulevard is a residential and farm complex located south of existing SR 132 (Maze Boulevard) between Dakota Avenue and Carpenter Road on the western end of the area of potential effects. The buildings and landscaping features associated with 3530 Maze Boulevard were determined by Caltrans and the State Historic Preservation Officer to be eligible for the National Register of Historic Places as a unique regional example of Craftsman architectural style (see Appendix I). Constructed in 1918, the property consists of a Craftsman-style, single-family residence with a garage/shed, barn, water tower, outhouse, and associated landscaping on a 15.46-acre parcel. The historic boundary associated with 3530 Maze Boulevard consists of 3.86 acres on the eastern side of the parcel. The historic boundary is bound by the existing highway on the north, a driveway and shrubbery wall on the east, Modesto Irrigation District's Lateral Canal No. 4 on the south, and the line between the old growth trees and more contemporary almond orchard on the west. The driveway is accessed from the existing highway east of the historic residence.

Properties eligible for the National Register of Historic Places are also protected under Section 4(f). The proposed project would acquire approximately 0.13 acre along existing SR 132 (Maze Boulevard) at this location. The boundary of the historic property, as defined in the Department of Parks and Recreation Form 523,²⁴ does not include the area of the proposed project acquisition. The historic boundary containing the National Register of Historic Places-eligible buildings and landscaping would not be affected by use of this portion of the larger parcel. Access to the historic property from the existing highway would be maintained during construction. Since the planned project acquisition would not affect the historic site boundary, and there would be no temporary use of the site for construction, there would be no Section 4(f) use of the historic property.

Charles M. Sharp Park

Charles M. Sharp Park sits at 1900 Torrid Avenue in Modesto on approximately 7 acres. The park is owned and maintained by the City of Modesto and is eligible for protection under Section 4(f). Amenities at the park include a basketball court, picnic

²⁴ ICF International, 2011, Historic Property Survey Report, ICF 00317.10, Sacramento, CA.

facilities, playground, restrooms, softball field, and volleyball court.²⁵ Access to the park is from Torrid or Shasta avenues.

The proposed project would not require a permanent or temporary use of parklands because the park would be located more than 0.2 mile north of the two build alternatives south of Kansas Avenue. The park is separated from the project by a residential neighborhood and Kansas Avenue. Because of the distance from the project, there would be no proximity impacts attributable to a change in access or to noise or visual effects. The park is located beyond the corridor analyzed for noise impacts for the proposed project. The nearest noise analysis area (Area 5) is located between Berryessa Avenue and the proposed Project corridor south of Kansas Avenue. Because no substantial noise increases were identified in Area 5 and because sound reduces with distance, no substantial noise increases are anticipated at Charles M. Sharp Park. Therefore, the provisions of Section 4(f) are not triggered.

J.M. Pike Park

J.M. Pike Park sits at 1601 Princeton Avenue in Modesto on approximately 6.5 acres. The park is owned and maintained by the City of Modesto and is eligible for protection under Section 4(f). Facilities at the park include a baseball field, two basketball half courts, picnic facilities, a playground, and softball and soccer fields.²⁶ Access to the park is from Kearney and Princeton avenues.

The park is located east of 9th Street, more than 0.37 mile northeast of the northern end of both build alternatives, which is south of Woodland Avenue. There would be no permanent or temporary use of parklands because of the intervening distance of the park from the project. In addition, because of the distance of the park from the project, there would be no impacts attributable to a change in access or to noise or visual effects. Therefore, the provisions of Section 4(f) are not triggered.

Virginia Corridor Trailway

The Virginia Corridor Trailway is a paved Class I bike path owned and maintained by the City of Modesto. The bike path runs east and north along the former Tidewater Southern Railway line. The existing bike path extends from College Avenue to

²⁵ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Modesto Parks, Charles M. Sharp Park, website: <http://www.ci.modesto.ca.us/prnd/parks/parkdetail.asp?id=10>, accessed: June 6, 2014.

²⁶ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Modesto Parks, J. M. Pike Park, website: <http://www.ci.modesto.ca.us/prnd/parks/parkdetail.asp?id=32>, accessed: June 6, 2014.

Bowen Avenue, a distance of roughly 2 miles.²⁷ The bike path is being constructed in phases and, upon completion, would extend from Needham Street to Bangs Avenue, a distance of 4.2 miles. Proposed facilities along the bike path include picnic areas, shade structures, barbecues, and gardens.²⁸ The Virginia Corridor Trailway is a publicly owned facility with mixed recreation and transportation use. Recreation is assumed to be the primary function of the bike path; therefore, the bike path is eligible for protection under Section 4(f).

The southernmost portion of the bike path on College Avenue is approximately 0.31 mile northeast of the project end on Needham Street. Neither build alternative would cross the existing portions of the bike path, and no temporary or permanent use of the bike path would occur. Given the distance of the bike path from the project, there would be no impacts attributable to a change in access or to noise or visual effects. Therefore, the provisions of Section 4(f) are not triggered.

A picnic area and support facilities along the Virginia Corridor Trailway were developed with grants authorized under the Land and Water Conservation Fund Act of 1965, as amended (16 U.S. Code 4601-4604 et seq.), which qualifies the trailway as a Section 6(f) resource as well as a Section 4(f) resource.²⁹ As described above, property from the Virginia Corridor Trailway would not be converted to a non-recreational use, and no replacement lands would be necessary as required by Section 6(f)(3) of the Land and Water Conservation Fund Act.

416/418 I Street, Modesto

This property is a two-story commercial property built between 1924 and 1925. Called Dania Hall, the property sits on an 0.11-acre parcel located on the south side of I Street. This property meets the National Register of Historic Places eligibility criteria at the local level for its association with the Danish-American settlement in

²⁷ City of Modesto, 2009, *City of Modesto Existing Bicycle System*, website: <http://www.ci.modesto.ca.us/prnd/recreation/docs/Bikeway%20map.pdf>, accessed: June 6, 2014; and Ford, Bob, 2014, Project Coordinator, City of Modesto, Parks, Recreation, and Neighborhoods Department, Modesto, California, June 9, 2014 – email conversation with Jacobs.

²⁸ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Community/Corporate Partnerships, Virginia Corridor Trailway, website: <http://www.ci.modesto.ca.us/prnd/partners/virginia/>, accessed: June 6, 2014.

²⁹ California State Parks, 2013, Grants and Local Services, Land and Water Conservation Fund, All Funded Projects, website: http://www.parks.ca.gov/pages/1008/files/ct_lwcf_funded_projs_by_county_3_13.pdf, accessed: June 6, 2014.

Stanislaus County and as an example of Danish-American fraternal organization.³⁰ On March 16, 2012, Caltrans submitted the Historic Property Survey Report to the State Historic Preservation Officer, who subsequently concurred that the 416/418 I Street property is eligible for inclusion in the National Register of Historic Places (see Appendix I). Because the historic property is National Register of Historic Places-eligible, it is also protected under Section 4(f).

The property sits near the intersection of 5th and I streets, 0.02 mile west of the southern end of both build alternatives. No construction activities are proposed on or adjacent to this property and, since there is no proposed temporary or permanent use of land from the parcel, there is no anticipated Section 4(f) use. Caltrans would submit a Section 106 finding of effect on the 416/418 I Street property to the State Historic Preservation Officer for concurrence after selection of the preferred alternative.

Cesar E. Chavez Park and Maddux Youth Center

The Cesar E. Chavez Park and Maddux Youth Center are located at 619 Sierra Drive in Modesto on approximately 7 acres. Owned and maintained by the City of Modesto, the park and youth center are eligible for protection under Section 4(f). Amenities at the park include two basketball courts, picnic facilities, a playground, and restrooms.³¹ The Maddux Youth Center sits south of the park at 615 Sierra Drive and can be reserved for public use. Recreational facilities at the youth center include a youth boxing facility, an indoor basketball court, and a game room.³² The park can be accessed from the surrounding streets, including G Street, Sierra Drive, 3rd Street, and 4th Street. The youth center is accessed from Sierra Drive or 3rd Street.

The park and youth center are more than 0.2 mile southwest of the project's southern end at I Street. Implementation of the proposed project would not require a temporary or permanent use of parklands. Because of the distance of the park and youth center from the project, there would be no impacts attributable to a change in access or to visual or noise effects. Therefore, the provisions of Section 4(f) are not triggered.

³⁰ Jacobs Engineering Group, Inc., 2014, Supplemental Historic Property Survey Report.

³¹ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Modesto Parks, Cesar E. Chavez Park, website: <http://www.ci.modesto.ca.us/prnd/parks/parkdetail.asp?id=9>, accessed: June 6, 2014.

³² City of Modesto, 2014, Parks, Recreation and Neighborhoods, Rental Facilities, Complete Facility Guide, website: http://www.ci.modesto.ca.us/prnd/facilities/docs/Facility%20Guide_complete.pdf, accessed: June 6, 2014.

Mellis Park

Mellis Park sits at 601 South Martin Luther King Drive in Modesto on approximately 9 acres. Owned and maintained by the City of Modesto, the park is eligible for protection under Section 4(f). Facilities at the park include a lighted softball field, a youth ball field, two basketball courts, horseshoe pits, picnic facilities, a playground, and restrooms.³³ The King-Kennedy Memorial Center is on the northeastern corner of the park and has an auditorium with a stage, kitchen facilities, and a classroom. Facilities at the park and the center can be reserved for public use.³⁴ A parking area sits along the northern portion of the park. Access to the park is from Martin Luther King Drive.

The park is located 0.5 mile southwest of the project's southern end on I Street, and there would be no temporary or permanent use of parklands. Because of the distance of the park from the project, there would be no impacts attributable to a change in access or to visual or noise effects. Therefore, the provisions of Section 4(f) are not triggered.

A group picnic area at Mellis Park was developed with grants authorized under the Land and Water Conservation Fund Act, qualifying the park as a Section 6(f) resource as well as a Section 4(f) resource.³⁵ As described above, property from Mellis Park would not be converted to a non-recreational use, and no replacement lands would be necessary as required by Section 6(f)(3) of the Land and Water Conservation Fund Act.

³³ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Modesto Parks, Mellis Park, website: <http://www.ci.modesto.ca.us/prnd/parks/parkdetail.asp?id=45>, accessed: June 6, 2014.

³⁴ City of Modesto, 2014, Parks, Recreation and Neighborhoods, Rental Facilities, Complete Facility Guide, website: http://www.ci.modesto.ca.us/prnd/facilities/docs/Facility%20Guide_complete.pdf, accessed: June 6, 2014.

³⁵ California State Parks, 2013, Grants and Local Services, Land and Water Conservation Fund, All Funded Projects, website: http://www.parks.ca.gov/pages/1008/files/ct_lwcf_funded_projs_by_county_3_13.pdf, accessed: June 6, 2014.

Appendix C Title VI Policy Statement

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Appendix D Summary of Relocation Benefits

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California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

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 (CFR) 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 90 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.

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.

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 90 days and tenants in legal occupancy prior to the Department’s initiation of negotiations. 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 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

Non-Residential 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 \$25,000 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 that 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 \$40,000.

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 that 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 public project. A list of ineligible expenses can be obtained from the Department's Division of Right of Way and Land Surveys. 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.

The link below provides further information about Caltrans' Division of Right of Way's Relocation Assistance Program:

<http://www.dot.ca.gov/hq/row/rap/index.htm>

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Your Rights and Benefits as a Displacee Under the Uniform Relocation Assistance Program (Residential)



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.

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)

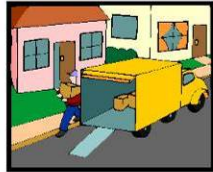
Dwelling: The place of permanent or customary and usual residence of a person, according to local custom or law, including a single family house; a single family unit in a two-family, multi-family, or multi-purpose property; a unit of a condominium or cooperative housing project; a non-housekeeping unit; 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 may

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 2014 Rate):
4 Rooms - \$ 1,295
7 Rooms - \$ 2,090

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 2014 Rate):
1 Room - \$450

A dormitory style room under the 2014 Schedule B rate would receive \$125.

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 90 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 **tenant occupant** of at least 90 days, you may be entitled to a RHP as follows:

Rent Differential

OR

Down payment 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 90 Days or More

If you qualify as a 90-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 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 you 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.

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	\$100,000
Acquisition Price of Your Property	<u>-\$ 98,000</u>
Maximum Price Differential	\$ 2,000

Example A

Purchase Price of Replacement	\$100,000
Comparable Replacement Property	\$100,000
Acquisition Price of Your Property	<u>-\$ 98,000</u>
Maximum Price Differential	\$ 2,000

Example B

Purchase Price of Replacement Property	\$105,000
Comparable Replacement Property	\$100,000
Acquisition Price of Your Property	<u>\$ 98,000</u>
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	<u>\$ 98,000</u>
Price Differential	\$ 1,000

In Example C you will only receive \$1,000 - not the full amount of the Caltrans "Comparable Replacement Property" because the requirements to spend were not met.

IN ORDER FOR A "90 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 Tenants of 90 Days or More

If you qualify as a 90-day occupant, 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 **Down payment 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:	<u>+ 100</u>
TOTAL Cost to Rent Comparable Replacement Property:	= \$ 425

Rental Rate for Your Current Property:	\$ 300
PLUS average utilities costs:	<u>+ 90</u>
TOTAL Cost you pay to rent your current property:	= \$ 390
Comparable Replacement Property including utilities:	\$ 425
Cost you pay to rent your property including utilities:	<u>+ 390</u>
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.

Rent Differential (\$35 x 42 months = \$1,470)

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.

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.

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 \$7,200, your down payment option will be \$7,200, which can be used towards the purchase of a replacement decent, safe and sanitary dwelling.

If the Rent Differential is over \$7,200, you may be able to convert the entire amount of the Rent Differential to a down payment option.

The down payment option must be used for the acquisition of the replacement dwelling, plus any eligible incidental expenses (see “90-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 \$7,200 and \$31,000 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. You may obtain the services of a real estate broker to assist in finding a replacement dwelling but, 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 may establish a temporary Relocation Field Office on or near the project. Project relocation offices would 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 you:

- 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 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 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.

Americans with Disabilities Act (ADA) Notice:

This document is available in alternative formats for people with physical disabilities. Please call (916) 654-5413, or write to 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814,' for information.

NOTES



Residential
Effective October 1, 2014 (2nd Printing)

**Sus Derechos y Beneficios
Como Una Persona
Desplazada Bajo el
Programa Uniforme De
Asistencia Para Reubicación
(Residencial)**



**California Department of
Transportation**

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

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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

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sanitaria ... que significa que llena todos los requisitos 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 capaz 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

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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 "housekeeping dwelling," 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 conexiones para una estufa y un refrigerador.

- (6) Contiene la salida sin obstrucciones a la caja fuerte, espacio abierto a nivel del suelo. Si la unidad de vivienda de reemplazo está en el segundo piso o por encima, con acceso directamente desde oa través de un pasillo común, el corredor común debe tener por lo menos dos medios de egreso.

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- (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 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 movable, 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, que 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 Reubicación 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

compañía 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.

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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 incluidos en la lista de arriba. Esta lista de gastos fijos está designada a cubrir todos esos gastos.

Por ejemplo (Tarifa para el año 2014)

4 Cuartos - \$1,295

7 Cuartos - \$2,090

Los costos fijos de mudanza para una unidad (ejemplo, usted es inquilino en un apartamento donde los muebles pertenecen al dueño de la vivienda) están basados en la Tabla de Honorarios B.

Por ejemplo (Tarifa para el año 2014)

1 Cuartos - \$450

Una habitación de estilo dormitorio debajo de la tasa de la Tabla de B - \$125 (2014).

Bajo la lista de Pago Fijos de Mudanza, usted no puede recibir ningún pago adicional por almacenamiento temporal, vivienda temporal, 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 90 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

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Si usted es un inquilino ocupante cualificada de al menos 90 días, usted puede tener derecho a un RHP de la siguiente manera:

Diferencia Para Rentar

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Opción para Enganche

Tiempo de ocupación simplemente significa contar el número de días que usted actualmente ocupó la vivienda antes de la fecha de iniciación 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 RHP, basado en una guía de elegibilidad establecida. Consulte con

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su Agente de Reubicación antes de que haga cualquier decisión de mudarse de su propiedad.

Para Ocupantes de 90 Días o Más

Si usted califica como dueño ocupante de 90 días, puede ser elegible – además del valor equitativo en el mercado de su propiedad – para un RHP 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.

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 tasa de interés en su nueva hipoteca excede la tasa de interés de la propiedad

adquirida por Caltrans. La computación del pago es complicada ya que está basada en las tasas 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 frecuente como pre-pagos de impuesto de bienes raíces y seguro de propiedad.

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	<u>\$ 98,000</u>
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 requisitos de “Gastar para Obtener” de Caltrans.

PARA QUE UN “DUENO OCUPANTE DE 90 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 Inquilinos de 90 Días o Más

Si usted califica como un ocupante 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, y aguas negras – 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.

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.

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
MÁS: estimado de costos de servicios Públicos	<u>+100</u>
TOTAL Costo de renta por una Propiedad Comparable de Restitución	= \$425
Renta por su Propiedad Actual	\$ 300
MÁS: costos de servicios públicos	<u>+ 90</u>
TOTAL Costo para pagar la renta de su propiedad actual	= \$390

Propiedad Comparable de Restitución incluyendo servicios públicos \$ 425

Costo para pagar la renta de su propiedad incluyendo servicios públicos + 390

Diferencia = \$ 35

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

Propiedad Comparable de Restitución incluyendo servicios públicos \$425

Costos de pago de la renta de su propiedad incluyendo servicios públicos \$390

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

Propiedad Comparable de Restitución incluyendo servicios públicos \$425

Costos de pago de la renta de su propiedad incluyendo servicios públicos \$390

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.

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 \$7,200, su Opción Para Enganche será de \$7,200 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 \$7,200 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 porcentaje del precio total de compra, más cualquier gasto incidental elegible (vea, “Gastos Incidentales para Dueños Ocupantes de 90 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 \$7,200 y \$31,000 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 requisitos 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 impedimento 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 requerido 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 requisitos 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 requisitos 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 requisitos 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 discriminatoria 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-Discriminatoria 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, o escriba a 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814.'

NOTAS



Residential (Spanish)
Effective October 1, 2014

Your Rights and Benefits as a Displacee Under the Uniform Relocation Assistance Program (Mobile Home)



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 two 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.

Relocation benefits will vary, depending upon the type and length of occupancy. As a residential displacee, you will be classified as either:

- 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.

Mobile Home: Generally refers to single, double or triple wide mobile home units. It does not include manufactured homes that are permanently affixed to the realty, as these are treated as single family dwellings. However, it can include certain trailers or recreational vehicles that are a primary residence depending on how they are permanently affixed to the real property.

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.

Mobile Homes

If the mobile home *is not* acquired by Caltrans, the owner (regardless of who occupies it) of a mobile home is eligible for a payment to move the mobile home to a replacement piece of land based on an actual cost basis. This includes the cost to disassemble, move and reassemble any porches, decks, skirting and/or awnings. Additional costs may be eligible for reimbursement if Caltrans determines they are "actual, reasonable and necessary." Some of these costs might be:

- Anchoring the unit to the new pad
- Additional axles or brakes on the mobile home that are required for transportation.
- Temporary protection of an extra wide mobile home unit that must be split during the move.
- Utility hook-ups to the unit (e.g. water, sewer, septic, electricity, gas) - if utilities are already available to the mobile home location (e.g. pad).
- Necessary repairs to meet local and state code.
- Modifications necessary to meet Caltrans "decent, safe and sanitary" requirements.

- Non-returnable entrance fee to the mobile home park - with limitations.

The movement of the mobile home must be performed by a qualified mover and the payment is based on the lowest of two bids obtained by the owner of the mobile home and approved by Caltrans. Caltrans cannot pay for the move of the mobile home beyond 50 miles unless there are no suitable replacement sites within the 50 mile radius. Approval for a move beyond 50 miles must be obtained in advance of the move.

Moving Expenses

In addition to moving the mobile home (regardless of who owns it), the occupant may be eligible for a payment to move their personal property - If you qualify as a "displaced person".

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 *may* include:

- Transportation
- Packing and unpacking personal property.
- Disconnecting and reconnecting household appliances.

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- 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 2014 Rate):

4 Rooms - \$1,295
7 Rooms - \$2,090

If the furniture is moved with the mobile home, the amount of the fixed payment is based on Schedule B.

Examples (Year 2014 Rate):

4 Rooms - \$705
7 Rooms - \$960

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Normally no additional payments for temporary storage, lodging, transportation or utility hook-ups of household appliances, can be paid with the fixed move schedule. However, the occupants of the mobile home who choose to move back into the same mobile home at the new location, can receive an allowance for food and lodging during the move and set-up time. Also, utility hook-ups to the mobile home unit may be eligible for reimbursement.

Note: *Even if the mobile home is acquired by Caltrans (regardless of whom owns it), the occupant is still eligible for a payment to move their personal property.*

Replacement Housing Payments

The occupant of a mobile home unit may be eligible for a replacement housing payment. The type of Replacement Housing Payment (RHP) depends on whether you are an owner or a tenant *of the mobile home*, and the length of occupancy in the mobile home unit that is on property being acquired for a highway project.

If you are a qualified **owner occupant** of both the land and the mobile home for more than 90 days prior to the initiation of negotiations for the acquisition of your property – and the mobile home unit is acquired by Caltrans – you may be entitled to a RHP that consists of:

Price Differential, and

Mortgage Differential, and

Incidental Expenses;

OR

Rent Differential

You do not have to purchase and occupy another mobile home unit in order to receive your RHP - however, the new residential unit must meet "decent, safe and sanitary" requirements.

If the mobile home is not acquired by Caltrans, you may still be eligible for a RHP to assist you with purchasing a replacement piece of land where you can move your mobile home.

It is **important** to know that if you **do not own both** the mobile home and the land, your RHP may be limited. You must work closely with your Relocation Agent to fully understand your eligibility.

If you are a qualified **tenant occupant** of the mobile home for at least 90 days, you may be entitled to a RHP as follows:

Rent Differential

OR

Downpayment Option

As the occupant of a mobile home – regardless of the length of time or your status as an owner or tenant – your payment will vary depending upon the following:

- Acquisition of the mobile home unit.
- Ownership of the mobile home.
- Occupancy of the mobile home at the new location if it is moved.

- Choice of replacement housing.

Length of occupancy simply means counting the number of days that you actually occupied the mobile home unit on the land that is being acquired by Caltrans – prior to 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, based on the established affordability guidelines. Check with your Relocation Agent before you make any decision to vacate your property.*

For Owner Occupants of 90 Days or More

If you qualify as a 90-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 you for any increased mortgage interest costs you might incur because the interest rate on your new mortgage for the real property, or the loan obtained for just the mobile home unit, exceeds the interest rate on the property acquired by Caltrans. The payment

computation is complex because 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, reasonable and necessary **Incidental Expenses** that you incur in relation to the purchase of your replacement property. These expenses may be those costs for title insurance, recording fees, credit report, appraisal, and certain other closing costs associated with the purchase of your replacement property. You may also be eligible for certain costs related to the purchase of a new mobile home, such as sales tax or use tax payments, DMV title transfer fees, or building and transportation permits. You will not be reimbursed for any recurring costs such as prepaid real estate taxes or property insurance.

EXAMPLES OF PRICE DIFFERENTIAL
PAYMENT COMPUTATION:

SCENARIO 1: If you *owned and occupied the mobile home for at least 90 days*, and its on *your own land*, and Caltrans *acquires your mobile home*, then you are entitled to receive a **Price Differential** based on a comparable residential property.

Assume that Caltrans purchases your property and mobile home 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, a mobile home on a similar size lot, will cost you \$100,000. If your actual purchase price is \$100,000, you will receive \$2,000 (see *Example A*).

If your 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*).

Remember: You do not have to purchase another mobile home as your replacement property.

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	<u>-\$ 98,000</u>
Maximum Price Differential	\$ 2,000

Example A

Purchase Price of Replacement Property and Mobile Home	\$100,000
Comparable Replacement Property and Mobile Home	\$100,000
Acquisition Price of Your Property and Mobile Home	<u>-\$ 98,000</u>
Maximum Price Differential	\$ 2,000

Example B

Purchase Price of Replacement Property and Mobile Home	\$105,000
Comparable Replacement Property and Mobile Home	\$100,000
Acquisition Price of Your Property and Mobile Home	<u>-\$ 98,000</u>
Maximum Price Differential	\$ 2,000
You Must Pay the Additional \$ 5,000	

Example C

Comparable Replacement Property and Mobile Home:	\$100,000
Purchase Price of Replacement and Mobile Home:	\$ 99,000
Acquisition Price of Your Property and Mobile Home:	<u>-\$ 98,000</u>
Price Differential	\$ 1,000

In Example C you will receive \$1,000 – not the full amount of the Caltrans "Comparable Replacement Property" because the requirements to spend were not met.

SCENARIO 2: If you ***owned and occupied the mobile home for at least 90 days***, and it is located on ***your own property***, and Caltrans DOES NOT ***acquire your mobile home***, then you are entitled to receive a **Price Differential** based on a comparable residential property on which you can relocate your mobile home.

Assume that Caltrans purchases your property \$48,000. After a thorough study of available locations for purchase that can accommodate the mobile home unit that you retained (which will be moved by a qualified mover), Caltrans determines that a comparable replacement property will cost you \$51,000. If your actual purchase price is \$51,000, you will receive \$3,000 (*see Example A*).

If your actual purchase price is more than \$51,000, you pay the difference (*see Example B*). If your purchase price is less than \$51,000, the differential payment will be based on actual costs (*see Example C*).

Remember: You do not have to buy a replacement piece of land for your mobile home. You can sell your mobile home to a private party, and purchase a single family residence. However, your RHP will be based on the replacement value of the land.

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 Land:	\$ 51,000
Acquisition Price of Your Land:	<u>-\$ 48,000</u>
Maximum Price Differential:	\$ 3,000

Example A

Purchase Price of Replacement Land:	\$ 51,000
Comparable Replacement Land:	\$ 51,000
Acquisition Price of Your Land:	<u>-\$ 48,000</u>
Maximum Price Differential:	\$ 3,000

Example B

Purchase Price of Replacement Land:	\$ 55,000
Comparable Replacement Land:	\$ 51,000
Acquisition Price of Your Land:	<u>-\$ 48,000</u>
Maximum Price Differential:	\$ 3,000
You Must Pay the Additional \$ 4,000.	

Example C

Comparable Replacement Property:	\$ 51,000
Purchase Price of Replacement:	\$ 49,500
Acquisition Price of Your Property:	<u>-\$ 48,000</u>
Price Differential:	\$ 1,500

In Example C you will only receive \$1,500 – not the full amount of the Caltrans "Comparable Replacement Property" because the requirements to spend were not met.

SCENARIO 3: If you ***owned and occupied the mobile home for at least 90 days***, and its on land that you rent (e.g. a mobile home park), and Caltrans DOES NOT ***acquire your mobile home***, then you may be entitled to a **Rent Differential** based on a comparable piece of land.

However, if Caltrans acquires your mobile home because it cannot be moved, it is not considered "decent, safe and sanitary," there are no comparable replacement locations, or available mobile home parks will not accept it because of its size or condition, then you may be entitled to a **Price Differential** for the mobile home plus a **Rent Differential** for the land you rent in the Mobile Home Park.

Assume that Caltrans purchases your mobile home for \$38,000 which is located in a Mobile Home Park where you pay \$400 per month for rent (which includes water, power, lights and sewer). Caltrans conducts a thorough study of available pieces of land for rent that can accommodate a mobile home unit **AND** the purchase price of a comparable mobile home unit. An example of your entitlement might be:

Caltrans' Computation

Comparable Replacement Land for Rent:	\$ 500
Rent you currently pay at the mobile home park:	<u>-\$ 400</u>
Monthly difference:	\$ 100
Multiplied times 42 months – Maximum Rent Differential:	\$ 4,200

If you spent at least \$500 per month at the new location.

PLUS:

Comparable Replacement Mobile Home for purchase:	\$ 42,000
Acquisition Price of the Mobile Home you occupy:	<u>-\$ 38,000</u>
Maximum Price Differential:	\$ 4,000

If you pay at least \$42,000 for a new mobile home to be set up at the new mobile home park.

In order for a "90 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 residential property (e.g. mobile home on an existing location, land available for your mobile home, or another type of residential unit),

OR

- (2) The date that Caltrans has paid the acquisition cost of your mobile home and/or

land (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 Tenant Occupants of 90 Days or More

If you qualify as a 90-day tenant occupant, you may be eligible for a Replacement Housing Payment in the form of a Rent Differential. Remember – it is your status in the mobile home unit that determines your "occupancy".

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 sewer). 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, with certain limitations, may be converted to a **Downpayment Option** to assist you in purchasing a replacement property. (See page 31 for a full explanation)

Example of Replacement Housing Payments for 90 day tenant occupants:

You ***rented and occupied*** the mobile home and the land for at least 90 days. You are entitled to a **Rent Differential** based on the actual rent of the mobile home unit (including utilities) and the land, compared with a comparable home (the unit and the land) that is available for rent.

In order for a “90 day tenant 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 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 day you vacate the property acquired by Caltrans

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.

Down Payment Option

The Rent Differential payment may be converted, with certain limitations, to a **Down Payment** to assist you in purchasing a replacement property. The Down Payment is a direct conversion of the Rent Differential payment.

If the Caltrans calculated Rent Differential is between \$0 and \$7,200, your Down Payment will be \$7,200 which can be used towards the purchase of a replacement decent, safe and sanitary dwelling.

If the Rent Differential is over \$7,200, you may be able to convert the entire amount of the Rent Differential to a Down Payment option.

The Down Payment option must be used for the required Down Payment, which is usually a percentage of the entire purchase price, plus any eligible incidental expenses (see page 17 - 90-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, 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 may also pay above the statutory limits of \$7,200 and \$31,000 in order to make available housing affordable.

Relocation Advisory Assistance

Any owner or occupant of a mobile home impacted by a Caltrans project 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 will not 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.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- VA and FHA loan requirements
- Real and personal property taxes.
- Qualified mobile home movers, including disassembly and reassembly
- Mobile Home Park requirements and fees
- 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 may establish a temporary Relocation Field Office on or near the project. Project relocation offices would 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:

- 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.

NOTES

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.

Americans with Disabilities Act (ADA) Notice:

This document is available in alternative formats for people with physical disabilities. Please call (916) 654-5413, or write to 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814,' for information.



Mobile Home
Effective October 1, 2014

**Sus Derechos y
Beneficios Como una
Persona Desplazada Bajo
el Programa Uniforme de
Asistencia Para
Reubicación
(Casa Movable)**



**California Department of
Transportation**

Introducción

En la construcción de un sistema moderno de transportación, el desplazamiento de un pequeño porcentaje de la población es necesario a menudo. 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 tiene que mudarse como resultado de un proyecto de transportación, un agente de reubicación estará en contacto con usted. El agente de reubicación le contestará preguntas específicas y le proveerá información adicional.

La Ley Uniforme de Asistencia Para Reubicación y Adquisición de Bienes Raíces de 1970 “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 diseñados para el beneficio del público en general.

Aunque se ha hecho un esfuerzo para asegurar la precisión de este folleto, debe de entenderse que no tiene la fuerza o efectos de la ley, regla o regulación que gobierna el pago de los beneficios.

Si hay diferencias o errores, la ley tomará precedencia.

Algunas Definiciones Importantes...

Se puede entender sus beneficios de reubicación mejor si usted se familiariza con los siguientes términos:

Vivienda de restitución comparable significa una propiedad que sea:

- (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 está siendo reubicado.
- (4) En un área que no tiene condiciones adversas irrazonables.
- (5) En un lugar generalmente no menos deseable que el lugar de su propiedad desplazada con respeto a servicios públicos y acceso razonable al lugar de empleo.
- (6) En un terreno de tamaño típico para una colonia de viviendas típicas.

Decente, segura y sanitaria (D, S & S): La vivienda de restitución debe de ser decente, segura y sanitaria que significa que cumple con todos los requisitos establecidos por las regulaciones federales y conforme a los códigos de ocupación de viviendas aplicables. La propiedad tiene que:

- (1) Tener buena estructura, cerrada a las condiciones climáticas y en buen estado de reparación.
- (2) Tener un sistema eléctrico adecuado para iluminación y otros aparatos.
- (3) Tener un sistema de calefacción capaz de mantener una temperatura saludable (de aproximadamente 70 grados) para la persona desplazada, con excepción de las áreas donde las condiciones climáticas no requieren dicho sistema.
- (4) Ser adecuada en tamaño con respecto al número de cuartos y áreas para vivir necesarias para acomodar a las personas desplazadas. La política de Caltrans es que no más de dos personas deben de ocupar un solo cuarto, a menos que el cuarto tenga el tamaño adecuado para acomodar los muebles de dormitorios necesarios para los ocupantes.

- (5) Tener un baño separado, bien iluminado y ventilado, que sea privado, que tenga un lavamanos, tina o regadera, un excusado, todos en buenas condiciones y conectados a los sistemas de agua potable y aguas negras.

Nota: En el caso de una propiedad residencial, debe de tener una cocina con una fregadera con agua caliente y agua fría, conectada al sistema de aguas negras, y con espacio adecuado y en los enchufes para una estufa y un refrigerador.

- (6) Tener una salida sin obstrucción a un espacio seguro y abierto al nivel del suelo. Si la propiedad de restitución está en el primer piso o más arriba con acceso a un pasillo común, el pasillo común tiene que tener dos salidas por lo menos.
- (7) Ser libre de cualquier obstáculo que le impediría la entrada o la salida a una persona incapacitada físicamente.

Persona desplazada: Cualquier individuo o familia que se muda 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 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 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)

Vivienda: El lugar permanente o residencia regular y usual de una persona, de acuerdo con las costumbres locales o la ley, incluyendo 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 movable, o cualquier otra unidad residencial.

Dueño: Una persona es considerada dueña de una casa si compra, tiene título o tiene cualquier 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.
- (2) Un interés en un proyecto de vivienda en cooperativa que incluya el derecho de ocupar una vivienda.
- (3) Un contrato para comprar cualquier interés o bienes raíces.
- (4) Cualquier otro interés, incluyendo intereses parciales, que la agencia considera como título de propiedad.

Inquilino: Una persona que tiene el uso y la ocupación de una propiedad que es de otro dueño.

Casas Movibles

Si la casa movable no es adquirido por Caltrans, el dueño (no importa quien es el ocupante) de la casa movable es elegible para un pago para mudar la casa movable a otro sitio basado en el costo real de la mudanza. Esto incluye el costo de desarmar, mover y volver a armar portales, pisos, faldones y toldos. Costos adicionales pueden ser elegibles para reembolso si Caltrans determina que son “verdaderos, razonables y necesarios.” Algunos de estos costos podrían ser:

- La instalación de la casa en el nuevo cimiento
- Ejes o frenos extras para transportar la casa
- Protección temporal para una casa muy ancha que se tiene que dividir en dos partes durante la mudanza
- Conexión de utilidades a la casa (agua potable, aguas negras, electricidad, gas) – si las utilidades ya están disponibles en el nuevo sitio
- Modificaciones necesarias para cumplir con códigos locales y estatales
- Modificaciones necesarias para cumplir con los requisitos de “decente, seguro y sanitario” de Caltrans

- Pago no-reembolsable para entrar en un parque de casas movibles – con limitaciones

La mudanza de la casa movable tiene que ser desempeñada por una compañía calificada y el pago está basado en el menor de dos estimaciones obtenidos por el dueño de la casa movable y aprobados por Caltrans. Caltrans no puede pagar por la mudanza de una casa movable de más de 50 millas a menos que no haya ningún sitio adecuado dentro de 50 millas. Hay que conseguir la aprobación para una mudanza de más de 50 millas antes de la mudanza.

Gastos de Mudanza

Además de mudar la casa movable, el ocupante (no importa quién es el dueño) puede ser elegible para un pago para mover su propiedad personal – si califica como “una persona desplazada.”

Los métodos de mudanza y los varios tipos de pagos para gastos de mudanza se explican abajo. Individuos y familias desplazadas pueden escoger pagarse basado en los costos de mudanza verdaderos y razonables, o según una lista de costos fijos. Sin embargo, para asegurar su elegibilidad y el pago pronto de los gastos de mudanza, usted debe de comunicarse con su Agente de Reubicación 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 compañía comercial de mudanza hace la mudanza. Los reembolsos serán limitados a una mudanza de 50 millas o menos. Los gastos relacionados *pueden* incluir:

- Transportación

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- 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

O

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 incluidos en la lista de arriba. Esta lista de gastos fijos cubre todos esos gastos.

Por ejemplo (tarifa para el año 2014)

4 cuartos – \$1,295

7 cuartos – \$2,090

Si los muebles se mudan con la casa movable, la cantidad del pago fijo está basada la Lista B.

Por ejemplo (tarifa para el año 2014)

4 cuartos – \$705

7 cuartos – \$960

Normalmente no hay pagos adicionales para almacenaje temporal, alojamiento, transportación, o conexión de utilidades con la lista de pagos fijos.

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Sin embargo, los ocupantes de una casa movable que vuelven a vivir en la misma casa movable en el nuevo sitio pueden recibir un pago para comida y alojamiento durante la mudanza. La conexión de utilidades también puede ser elegible para reembolso.

Nota: *Aún la casa movable es adquirida por Caltrans, el ocupante (no importa quien es el dueño) de la casa movable todavía es elegible para un pago para mudar su propiedad personal.*

Pagos para Vivienda de Restitución

El ocupante de una casa movable puede ser elegible para un pago para vivienda de restitución. El tipo de pago para vivienda de restitución depende de si usted es dueño o inquilino, y en el tiempo que tiene en la casa movable que está en el terreno adquirido para el proyecto.

Si usted es calificado como **dueño ocupante** del terreno y la casa movable por más de 90 días antes de la iniciación de las negociaciones para la adquisición de su propiedad – y la casa movable es adquirida por Caltrans – usted puede ser elegible para un pago para vivienda de restitución que consiste en:

Diferencia de Precio, y

Diferencia para Hipoteca, y

Gastos Incidentales

O

Diferencia para Rentar

Usted no tiene que comprar y ocupar otra casa movable para recibir un pago para vivienda de

restitución – pero la nueva unidad residencial tiene que ser “decente, seguro y sanitario.”

Si la casa movable no es adquirida por Caltrans, usted todavía puede recibir un pago para vivienda de restitución para ayudarlo a comprar un terreno donde puede poner su casa movable.

Es **importante** saber que si usted **no es dueño** de la casa movable y el terreno, el pago para vivienda de restitución puede ser limitado. Usted debe de comunicarse con su Agente de Reubicación para entender su elegibilidad.

Si usted califica como **inquilino ocupante** de la casa movable al menos por 90 días, puede ser elegible por un pago para vivienda de restitución de la manera que sigue:

Diferencia para Rentar

O

Opción para Enganche

Como ocupante de una casa movable – no importa el tiempo o si es dueño o inquilino – su pago puede variar depende de lo siguiente:

- Si la casa movable es adquirida por Caltrans

- Quien es el dueño de la casa movable
- Si usted va a ocupar la casa movable en el nuevo sitio
- Si usted ocupa otro tipo de unidad como una casa permanente

El tiempo de ocupación significa el número de días que usted ha ocupado la casa movable en el terreno adquirido por Caltrans – antes de la fecha de la iniciación de las negociaciones para comprar la propiedad. La “iniciación de las negociaciones” significa la fecha cuando Caltrans se comunica por primera vez con el dueño del terreno para hacer una oferta escrita para la propiedad.

Nota: *Si usted ha sido ocupante por **menos de 90 días** antes de la iniciación de las negociaciones y se adquiere la propiedad después, o si usted se muda a la propiedad después de la iniciación de las negociaciones y todavía está allí en la fecha de la adquisición, usted puede ser elegible para un pago de vivienda de restitución basado en una guía de elegibilidad establecida. Consulte con su Agente de Reubicación antes de decidir de mudarse de su propiedad.*

Para Dueño Ocupantes de 90 Días o Más

Si usted califica como dueño ocupante de 90 días, puede ser elegible – además del valor justo de su propiedad – por un pago para vivienda de restitución 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 ayuda en la compra de una vivienda decente, segura y sanitaria (D,S&S). Caltrans calcula el pago máximo que usted puede ser elegible para recibir.

Para recibir la cantidad total de la diferencia de precio calculada, usted debe de gastar al menos la cantidad calculada por Caltrans para 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 tasa de interés de su nueva hipoteca excede la tasa de interés de la propiedad adquirida por Caltrans. La computación del pago es complicada ya que está basada en las tasas típicas

entre su préstamo anterior y su préstamo nuevo. También, una parte de los pagos puede 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 por lo menos 180 días antes de la iniciación de las 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 la búsqueda de título, honorarios de copia en el Registro, reporte de crédito, reporte de evaluación, y ciertos gastos de cierre de escritura. Usted no puede ser reembolsado por ningún gasto frecuente como pre-pagos de impuesto de bienes raíces y seguros de propiedad.

EJEMPLO DE COMO SE CALCULA LA DIFERENCIA DE PAGO:

EJEMPLO 1: Si usted **era dueño y ocupaba la casa movable al menos por 90 días**, y usted es el dueño del terreno donde está la casa **movible**, y Caltrans **adquiere su casa movable**, usted puede recibir un pago para **Diferencia de Precio** basado en una propiedad residencial comparable.

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 depende 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:	<u>– \$ 98,000</u>
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	<u>– \$ 98,000</u>
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	<u>– \$ 98,000</u>
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	<u>– \$ 98,000</u>
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 requisitos de “Gastar para obtener” de Caltrans.

EJEMPLO 2: Si usted era dueño y ocupaba la casa movable al menos por 90 días, y usted es el dueño del terreno donde está la casa movable, y Caltrans **NO adquiere su casa movable**, usted puede recibir un pago para **Diferencia de Precio** basado en una propiedad residencial comparable donde usted puede mudar su casa movable.

Suponga que Caltrans compra su terreno por \$48,000. Después de un estudio completo de terrenos que se venden donde hay espacio para su casa movable, Caltrans determina que un terreno comparable le costará \$51,000. Si su precio de compra es \$51,000, usted recibe \$3,000 (vea Ejemplo A).

Si su precio de compra es más de \$51,000, usted paga la diferencia (vea Ejemplo B). Si su precio de compra es menos de \$51,000, el pago se basará en los costos actuales (vea Ejemplo C).

Recuerda: Usted no tiene que comprar un terreno para su casa movable. Usted puede vender su casa movable a otra persona, y comprar una casa permanente. Pero, su Pago para Vivienda de Restitución será basado en el valor del terreno derestitución.

La cantidad que usted recibe en un pago diferencial depende de cuanto usted realmente gasta en una vivienda de restitución, como se muestra en estos ejemplos:

Computación de Caltrans

Terreno de restitución comparable
 Precio de adquisición de su terreno
 Diferencia de precio máxima

Ejemplo A

Precio de terreno de restitución	\$51,000
Terreno de restitución comparable	\$51,000
Precio de adquisición de su terreno	<u>\$48,000</u>
Diferencia de precio máxima	\$ 3,000

Ejemplo B

Precio de terreno de restitución	\$55,000
Terreno de restitución comparable	\$51,000
Precio de adquisición de su terreno	<u>\$48,000</u>
Diferencia de precio máxima	\$ 3,000
Usted tiene que pagar	\$ 4,000

Ejemplo C

Propiedad de restitución comparable	\$51,000
Precio de terreno de restitución	\$49,500
Precio de adquisición de su terreno	<u>\$48,000</u>
Diferencia de precio	\$ 1,500

En ejemplo C usted solamente recibe \$1,500 – no la cantidad completa de la “Propiedad de Restitución Comparable” por los requisitos de “Gastar para Obtener.”

EJEMPLO 3: Si usted **era dueño y ocupaba la casa movable al menos por 90 días**, y usted renta el terreno (por ejemplo en un parque de casas movibles), y Caltrans **NO adquiere su casa movable**, usted puede recibir un pago para **Diferencia para Rentar** basado en un terreno comparable.

Sin embargo, si Caltrans adquiere su casa movable porque no se puede mudarla, no es “decente, segura y sanitaria”, no hay sitios comparables donde mudarla, o los parques de casas movibles no la aceptan por el tamaño o la condición, usted podría recibir un pago para **Diferencia de Precio** para la casa movable más un pago para **Diferencia**

para Rentar para el terreno que usted renta en el parque de casas movibles.

Suponga que Caltrans compra su casa movable por \$38,000 que está ubicado en un parque de casas movibles donde usted paga \$400 mensualmente en renta (incluyendo calefacción, luz, agua y basura). Caltrans hace un estudio completo de los terrenos disponibles para rentar donde se puede poner una casa movable **Y** el precio de compra de una casa movable comparable. Un ejemplo de su pago podría ser:

Computación de Caltrans

Renta de terreno de restitución	\$ 500
Su renta actual en el parque de casas movibles	<u>-\$ 400</u>
La diferencia	\$ 100
Multiplicado por 42 meses – Pago de diferencia para rentar máximo	\$4,200
Si usted gasta al menos \$500 por mes en el nuevo sitio.	

MÁS:

Precio de comparable casa movable de restitución	\$42,000
Precio de adquisición de la casa movable que usted ocupa	<u>\$38,000</u>
Pago de diferencia de precio máximo	\$ 4,000

Si usted gasta al menos \$42,000 por una nueva casa movable en el nuevo sitio

Para que un dueño ocupante de 90 días reciba la cantidad total de sus pagos para vivienda de Restitución (Diferencia de Precio, Diferencia de Hipoteca y Gastos Incidentales), usted tiene que:

A) Comprar y ocupar una vivienda de restitución que sea D,S&S dentro de un año desde la fecha más tarde de:

- (1) La fecha en que usted recibe la primera notificación de una vivienda de restitución disponible (una casa movable que ya está en un sitio, un terreno para su casa movable, o otro tipo de unidad residencial), **O**
- (2) La fecha en que Caltrans le paga el costo de adquisición de su casa movable y/o el terreno

(normalmente el cierre de escritura de la adquisición de Caltrans),

Y

B) Gastar al menos la cantidad que Caltrans estableció para la propiedad de restitución,

Y

C) Entregar un reclamo para pago de reubicación dentro de 18 meses desde la fecha más tarde de:

- (1) La fecha en que usted se muda de la propiedad adquirida de Caltrans, **O**
- (2) La fecha en que Caltrans le paga el costo de adquisición de su vivienda actual (normalmente el cierre de escritura de la adquisición de Caltrans).

Usted **no** será elegible para recibir ningún pago de reubicación hasta que Caltrans 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 Inquilinos de 90 Días o Más

Si usted 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 para ayudarle en la renta de un vivienda comparable que sea decente, segura y sanitaria. El pago es basado en la diferencia entre la renta 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, y aguas negras – sin importar quien los provea (electricidad, gas propano y aguas negras). No incluye cable de televisión, teléfono o seguridad.

Los servicios públicos en su propiedad son el promedio de los costos por los últimos 12 meses. Los servicios públicos en la propiedad de restitución comparable son los costos estimados por los últimos 12 meses por el tipo de vivienda y el 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.

Para recibir la cantidad calculada total de la diferencia para rentar, usted tiene que gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

Este pago puede – con ciertas limitaciones – ser convertido en un **Enganche** para ayudarle en la compra de una propiedad de restitución (vea la página 29 para una explicación completa).

Para que un “ocupante de 90 días” reciba la cantidad total de su Pago para Vivienda de **Restitución** (Diferencia para Rentar), **usted** tiene que:

A) Rentar y ocupar una vivienda de restitución DS&S dentro de un año después de mudarse de la propiedad adquirida por Caltrans. **Y**

B) Gastar al menos la cantidad estableció por Caltrans para rentar una vivienda de restitución. **Y**

C) Entregar un reclamo por pagos de reubicación dentro de 18 meses del día en que usted se muda de la propiedad adquirida por Caltrans.

Usted no será elegible para recibir ningún pago de reubicación hasta que Caltrans haya hecho la primera oferta por escrito de la compra de la propiedad. Usted también recibirá un notificación escrita por lo menos 90 días antes de tener que mudarse.

ENGANCHE

El pago de Diferencia para Rentar puede – con ciertas limitaciones – ser convertido en un **Enganche** para ayudarle en la compra de una propiedad de restitución. El enganche es una conversión directa del pago de diferencia para rentar.

Si la diferencia para rentar es calculada entre \$0 y \$7,200, su Enganche será de \$7,200, 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 \$7,200, usted puede convertir la cantidad completa de diferencia para rentar a un Enganche.

El Enganche debe de ser usada para el enganche requerido, la cual usualmente es un porcentaje del precio total de compra, más cualquier gasto incidental elegible (*vea la página 16 – Gastos Incidentales para Dueños Ocupantes de 90 Días*) relacionado con la compra de la propiedad. Usted debe de trabajar junto con su Agente de Reubicación para asegurarse de que puede utilizar la cantidad total de su Enganche en su compra.

Si alguna porción de la diferencia para rentar fue usada antes de su decisión de convertirla a un 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 \$7,200 y \$31,000 para hacer posible viviendas con precios razonables.

Asistencia de Consulta para Reubicación

A cualquier individuo, familia, negocio u operación agrícola desplazada por Caltrans debe de ofrecérsele servicios de asistencia con el propósito de encontrar 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 ayudarlo a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se pondrá en contacto con usted personalmente. Los servicios de reubicación y pagos se 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 requisitos 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 cumplir con DS&S.
- Proveerá información y aconsejará como puede obtener ayuda para minimizar las adversidades en ajustarse a su nuevo lugar.
- 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 se usted es mayor de edad o con impedimento físico. Aunque usted puede utilizar los servicios de un agente de bienes raíces, Caltrans no lo puede referir.

Su Agente de Reubicación está familiarizado con los servicios proveídos por otras agencias de su comunidad y le proveeré información de otros programas de viviendas federales, estatales y locales que ofrecen programas de asistencia para personas desplazadas. Si usted tiene algún problema especial, su Agente de Reubicación hará su mejor esfuerzo para asegurarle los servicios de esas agencias con personal capacitado y con experiencia que la 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, se es necesario.

Además de estos servicios, Caltrans tiene que coordinar 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 ayudarle. 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** de escoger una vivienda 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 proveída por Caltrans, usted puede elegir una vivienda de restitución de su propia selección, mientras que cumple con los requisitos 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 escoja debe de llenar los requisitos 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 requisitos 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 tendrán ningún efecto adverso** para su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Impuestos sobre ingresos

Además, el **Título VIII de la Ley de los Derechos Civiles de 1968** y luego otras leyes y enmiendas hacen discriminatoria 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 ubicadas 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 Discriminatoria de Caltrans asegura que todos los servicios y/o 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 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 un 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, o escriba a 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814.'

NOTAS



Mobile Home (Spanish)
Effective October 1, 2014

Your Rights and Benefits
as a Displaced
Business, Farm, or
Nonprofit Organization
Under the California
Department of
Transportation Relocation
Assistance Program



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 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 non-profit 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 for 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.

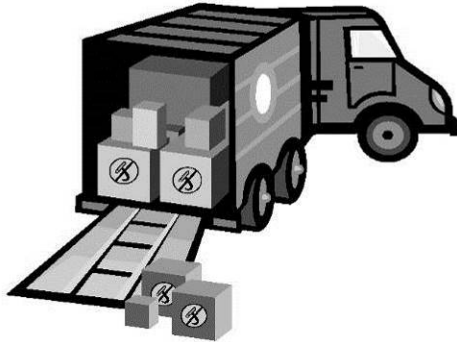
Small Business: A business having not more than 500 employees working at the site being acquired or displaced by a program or project.

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, 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.

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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 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 (\$2,500 limit).
- 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

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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 – A small business may be eligible to accept a fixed payment between \$1,000 and \$40,000, based on your annual earnings IN LIEU OF the moving cost and related expenses. Consult your Relocation Agent for more information about this option.

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 expenses, 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	-
Net Value	<u>\$ 500</u> \$ 1,000

OR

Estimated cost to move	\$ 1,050
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Based on the "lessor 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 <i>Copying Machine</i> including installation costs at the replacement site.	\$ 3,000
Trade-in Allowance	- <u>\$ 2,500</u>
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	- <u>\$ 100</u>
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 document shredder (e.g. advertisement).

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 continued 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. 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 \$25,000, 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 of 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.

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 \$40,000.

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 you represent a nonprofit organization and are interested in a fixed payment, please consult your relocation counselor for additional information.

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.

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 was 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 2013:

2011 Annual Net Earnings	\$ 10,500
2012 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. 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. Complete a "Request for Determination of Entitlement" form available from your Relocation Agent, and return it promptly.
- 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 2013, regardless of when negotiations began or the State took title to the property, the taxable years would be 2011 and 2012).
- 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 non-profit 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.
- 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 ordinances.
- 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 effect 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.

Americans with Disabilities Act (ADA) Notice:

This document is available in alternative formats for people with physical disabilities. Please call (916) 654-5413, or write to 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814,' for information.

NOTES:



Non-Residential (2nd Printing)
Effective October 1, 2014

Sus Derechos y Beneficios
Como Negocio, Operación
Agrícola o Organización No
Lucrativa Desplazada Bajo el
Departamento de
Transportación de California,
Programa para Asistencia de
Reubicación



California Department of
Transportation

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 beneficio del público en general.



Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para servicios de reubicación y pagos.

Este libretto 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 adquisición 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 desplazados 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.

Servicio de Reubicación

El Departamento de 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 Restablecimiento (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 restablecimiento).

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 también recibirá un aviso escrito por lo menos 90 días antes que se tenga que mover.

Alguna 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 raíces, 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.

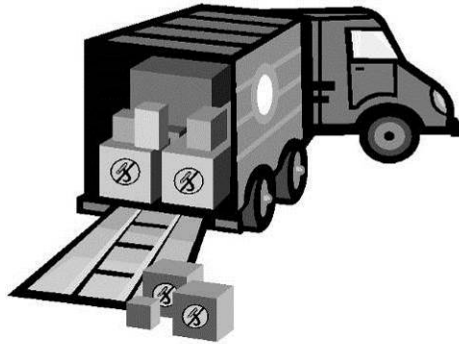
Negocio Pequeños: Un negocio que tenga no más de 500 empleados trabajando en el lugar que esta siendo adquirido o desplazado por un programa o proyecto.

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 principalmente 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 leyes aplicables.

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, Q 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.

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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 compañía comercial hace la mudanza.

El reembolso será limitado a mudanza de 50 millas o menos. Los gastos relacionados, con limitaciones, **pueden** incluir:

- Transportación.
- Embalaje y desembalaje propiedad personal
- Desconexión y reconexión 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 (\$2500 máxima).

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- Servicios profesionales para planificar y supervisar la mudanza de la propiedad personal al nuevo lugar.
- Licencias, permisos y honorarios requeridos en el lugar de reemplazamiento.
- 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.
- Estudios de mercado, estudios de factibilidad y exámen de suelo.

○

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 todavía será elegible para el reembolso de los gastos relacionados arriba mencionados, que no fueron incluidos en las ofertas.

○

Pago Fijo – Usted puede aceptar un pago fijo entre \$1,000 y \$40,0000 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, desempaquetado 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 más 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.

- 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 adquirida a la propiedad de reemplazo.

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.

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 \$2,500. 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.



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2. Pérdidas Directas de Bienes Personales

Tangibles: Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazada pueden ser elegibles para un pago por pérdidas directas de bienes personales tangibles incurrido como resultado de la mudanza o discontinuación 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 reensamblaje, pero sin pago por almacenamiento.

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POR EJEMPLO:

Usted determina que el “contador 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

O

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 también tiene derecho a todos los costos razonables incurrido en su esfuerzo por vender el cortado de documentos (por ejemplo, anuncio comercial)

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 sustituto que hace una función comparable en el sitio de reemplazo, el desplazado tiene derecho al menor de:

a) El costo de un objeto sustituto, incluyendo los costos de instalación en el sitio de reemplazamiento, menos cualquier ganancia 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 substituir 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 también tiene derecho a todos los gastos razonables incurridos en su esfuerzo por vender la copiadora (Ejemplo A) o las sillas (Ejemplo B).

4. Desconexión y Reinstalación: Usted va a ser reembolsado por los costos actuales y razonables de desconexión, desmantelamiento, mudanza, reensamblaje, e reinstalación de cualquier maquinaria, equipo u otra propiedad personal en relación a la mudanza a su nuevo local. Esto incluye conexión a los servicios públicos disponibles en el lugar y a cualquier modificación de los objetos 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 cierto 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 allá de los requerimientos normales.*

6. El costo de instalación de los servicios públicos desde la derecha de la línea de camino a las estructuras o mejoras en el lugar de reemplazo.

7. Los estudios de marketing, encuestas de viabilidad y análisis de suelos.

8. Evaluaciones de una sola vez o tarifas de impacto para uso pesado utilidad esperada.

Gastos De Restablecimiento

Un pequeño negocio, operación agrícola, u organización no-lucrativa puede ser elegible para un pago, que no exceda \$25,000, para los gastos actuales incurridos en la reubicación y el reestablecimiento en el sitio de reemplazo.

Gastos de reestablecimiento pueden incluir, pero no están limitado 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. 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.
5. Anunciar la localidad del nuevo negocio.
6. El aumento del costo estimado de operación en el lugar de reemplazo durante los primeros dos años, por objetos 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).
7. Otros objetos que el Departamento considere esenciales para el restablecimiento 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 restablecimiento. Los pagos fijos no podrán ser menos de \$1,000 o más de \$40,000.

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 negocia no puede ser relocalizado sin una pérdida substancial de la clientela existente.
3. El negocio no es parte de un empresa comercial que tiene más de tres otros negocios conectados en una misma o actividad similar, las cuales están bajo el mismo dueño y no estan siendo desplazadas por el Departamento.
4. El negocio contribuyó materialmente a las ganancias del operador del negocio desplazado durante los do 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 finca 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.

Nota: Una organización sin fines de lucro debe corroborar que no puede ser reubicado sin una pérdida sustancial de patrocinio existente (membresía o clientela). El pago se basa en el promedio de dos años los ingresos brutos menos los gastos administrativos anuales.

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 inmediatamente 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 ganancias de la operación.

Ejemplo: Caltrans adquiere su propiedad y usted se mueve en el 2013:

2011 Ganancias Netas Anuales	\$10,500
2012 Ganancias Netas Anuales	<u>\$12,500</u>
TOTAL	\$23,000
Promedio de los años	\$11,500

Este podría ser la cantidad de su pago fijo. Recuerde – esto es “en vez de” todos los otros beneficios de mudanza, incluyendo restablecimiento. Usted tendrá que proveer Caltrans pruebas de las ganancias 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. Completar una "Solicitud de Determinación de Titularidad" forma disponible de su agente de reubicación, y volver de inmediato.
- B. Somete una declaración escrita de las razones por las cuales su negocio no puede ser reubicado sin una pérdida substancial en la ganancia neta.
- C. Provea una copia certificada de su declaración de impuestos de los dos años inmediatamente precedentes al año en el que se va a mover. (Si usted se mueve en cualquier momento en el año 2013, sin importar de cuando comenzaron las negociaciones o cuando el Estado tomó título de su propiedad, los años serán el de 2011 y el 2012.
- 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.
- Requerimientos 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 estén disponibles. Se le proveerá transportación para inspeccionar la propiedad disponible, especialmente si usted es anciano o deshabilitado. 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 ayudarlo.

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 proyectos 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 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 adverso 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, religión, sexo, u origen nacional.

Los Procedimientos No-Discriminatorios 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 responsable de las 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 conexión 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 las 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, o escriba a 'Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814.'



Nonresidential (Spanish)
Effective October 1, 2014

Appendix E Minimization and/or Mitigation Summary

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Date: June 5, 2017
 Caltrans Environmental Coordinator: Jennifer Lugo
 Phone No: 559-445-6481

ENVIRONMENTAL COMMITMENTS RECORD
 (ECR)

10-STA-132; 10-STA-99
 PM 11.0/15.0; PM 15.7/17.5
 EA 10-40350
 ID 100000424
 SR 132 West Freeway/Expressway

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
Avoidance, Minimization, and/or Mitigation Measures							
FARM-1 The contractor would restrict all construction materials, tools, and vehicles within the right-of-way for the project.							
FARM-2 The contractor will evaluate each irrigation facility and re-construct and/or upgrade irrigation ditches, and install irrigation pipelines damaged during construction.							
FARM-3 During final design, the City of Modesto would coordinate with property owners and agricultural operators to incorporate design features to maintain property access and operation.							
FARM-4 The contractor would compensate for the loss or damage to crops resulting from construction activities within areas temporarily impacted during construction.							
CI-1 For any person(s) whose real property interests may be impacted by the project, the acquisition of those property interests would comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from federal or federally assisted programs or projects. It was created to provide for and ensure the fair and equitable treatment of all such persons (see Appendix D). Also, the Fifth Amendment of the U.S. Constitution provides that private property may not be acquired for a public use without payment of "just compensation." All impacted owners would be provided notification of the acquiring agency's intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist would be assigned to each property owner to assist them with this process.							
CI-2 All impacted owners would be provided notification of the acquiring agency's intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist would be assigned to each property owner to assist them with this process.							
CI-3 Caltrans would be responsible for assisting with relocations for individuals and businesses that are undergoing a difficult transition, consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Measures would be taken to ensure that nearby adequate, comparable housing for all displaced residents would be utilized before looking beyond the existing neighborhood.							
CI-4 The Project Engineer would ensure that design refinements are incorporated in the process to minimize impacts to existing land uses related to the temporary use and/or permanent acquisition of property.							
CI-5 Prior to and during construction, the Project Engineer would ensure that the design refinements to minimize impacts to existing land uses related to temporary use and/or permanent acquisition of property are properly implemented by the contractor.							

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
VA-1 The City of Modesto street tree ordinance stipulates that trees removed within the City's right-of-way would be replaced in kind, if appropriate. The contractor would conform to local tree ordinances for construction projects. The ratios and location of replacement would be determined in coordination with the City of Modesto.								
VA-2 Vegetation and trees removed by the contractor would be replaced in accordance with the California Department of Transportation's Project Development Procedures Manual, Chapter 29, which specifies policies for new highway planting, required mitigation planting, highway planting replacement, and highway planting revegetation. The policy specifies conditions under which planting is appropriate. Landscape policies developed as part of the Route 99 Corridor Enhancement Plan within Modesto city limits would also be a guide for tree replacement and new highway planting. Replacement planting and new highway planting would occur as part of Phase 2. Contractor activities would include, but not be limited to, site grading and seeding, trimming trees and shrubs lightly damaged by construction, site clean-up, and replacement of trees, shrubs, and ground cover.								
VA-3 To minimize glare from State Route 132 lighting, lamps that direct light toward the roadway would be used where required to minimize glare and light spillover. Examples of these features include light shields or low level lighting to redirect light away from motorists, homes, businesses and the sky. If night-time construction is needed, causing a temporary degradation of visual quality, procedures would be taken to direct the light inward toward the construction site and minimize glare for motorists and residents near the site.								
VA-4 The contractor would employ a common aesthetic theme to all proposed structures along the new alignment, as determined during final project design and in coordination with local stakeholders, to visually unify the highway's image with other Modesto structures (e.g., Needham Bridge and the proposed Pelandale Bridge) and to strengthen the landscape character of districts on either side of the highway.								
VA-5 The contractor would landscape the highway embankment to enhance homeowners' views of the proposed new alignment.								
VA-6 The contractor would replace trees near the relocated intersection of Kansas Avenue and North Dakota Avenue or modify intersection design to preserve trees in their current location.								
VA-7 The contractor would plant street trees at the property edge next to Elm Avenue and align the right-of-way fencing with the noise barriers, which would be set back from the property line.								
VA-8 The contractor would apply a corridor-wide aesthetic theme to proposed project elements (e.g., walls and structures), developed during final design, and implement a functional planting style that respects the visual context of the Agricultural Landscape Unit, which is characterized by orchards, crop fields, grass ditches, and farm Buildings.								
VA-9 The contractor would install roadway lighting features that direct light downward and away from adjacent residential properties or the night sky.								
VA-10 The contractor would direct light inward toward the construction site during nighttime construction.								
HY-1 All drainage and hydrological improvements would be detailed in the project drainage plan, which would be approved prior to the start of project construction. The plan would include drainage features, where appropriate, such as new drainage inlets, gutters, roadside ditches, pump stations, storm drain pipes, and detention basins. Preliminary drainage basin locations are included in Appendix F.								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
WQ-1 Because dewatering activities may be necessary, the Central Valley Regional Water Quality Control Board and Stanislaus County requirements for dewatering and discharge of non-stormwater would be followed.								
WQ-2 The contractor would conduct groundwater and stormwater monitoring on and adjacent to the soil stockpiles until the proposed project is complete or the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board indicate that it is no longer necessary.								
PR-1 Special Provision 14-7.03 and 19-1.01A for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to conduct paleontological salvage. A qualified professional paleontologist would be retained to prepare and implement a final Paleontological Mitigation Plan prior to construction.								
PR-2 The professional paleontologist would designate a paleontological monitor to be present during qualifying earthmoving activities, as described in the Paleontological Evaluation Report and Preliminary Paleontological Mitigation Plan.								
PR-3 The professional paleontologist and paleontological monitor(s) would be notified by the Resident Engineer in advance of the start of construction activity and would attend any safety training programs for the proposed project.								
PR-4 The full-time paleontological monitor would have at least 5 years of paleontological resources construction monitoring experience.								
PR-5 The proposed project paleontologist would meet with the Resident Engineer and construction contractor at a preconstruction meeting to develop an agreed-upon communication plan and provide for worker safety. All project personnel would receive a paleontological awareness training session prior to commencement of work.								
PR-6 If paleontological resources are discovered during earthmoving activities, the construction crew would immediately cease work within a 60-foot radius of the find, and immediately notify the Resident Engineer.								
PR-7 For sediments containing microfossils (pollen, freshwater ostracods), the monitor would take bulk samples for off-site processing at a later time to recover any fossils.								
PR-8 Macro fossils (large enough to view with the unaided eye) could include tusks and other vertebrate remains. Some of these resources may be fragile and require hardening before moving, and may require encasing within a plaster jacket for later preparation and conservation in a laboratory.								
PR-9 Oriented samples must be preserved for paleomagnetic analysis. Samples of fine matrices would be obtained and stored for pollen analysis.								
PR-10 Recovered specimens would be prepared for identification (not exhibition) and stabilized.								
PR-11 Specimens would be identified by competent qualified specialists to a point of maximum specificity. Ideally, identification is of individual specimens to element, genus, and species.								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
PR-12 Where appropriate, specimens would be analyzed by stratigraphic occurrence, and by size, taxa, or taphonomic conditions. The results would be presented in a faunal list, a stratigraphic distribution of taxa, or evolutionary, ecological, or depositional deductions.								
PR-13 Adequate storage in a recognized repository institution for the recovered specimens would be required. Specimens would be cataloged and a complete list would be prepared of specimens introduced into the collections or a repository by the curator of the museum or university.								
PR-14 In the event that paleontological resources are discovered, fossil specimens would be properly collected and sufficiently documented to be of scientific value.								
PR-15 A Paleontological Mitigation Report would be prepared by the project paleontologist, including a summary of the field and laboratory methods, site geology and stratigraphy, faunal list, and a brief statement of the significance and relationship of the site to similar fossil localities. Full copies of the final Paleontological Mitigation Report are deposited with the repository institution.								
HAZ-1 As soon as access is acquired, but prior to construction, any Building structures that would be renovated or demolished would be investigated for asbestos, lead-based paint, and polychlorinated biphenyls by a certified consultant.								
HAZ-2 If analytical results indicate Building materials contain asbestos, the contractor would prepare an Asbestos Operations and Maintenance Plan in accordance with applicable regulations. The plan would address worker training and safety measures to be taken when disturbing asbestos-containing materials during abatement activities.								
HAZ-3 The contractor would ensure that proper removal and disposal of asbestos-containing material is conducted by a licensed contractor registered with the California Occupational Safety and Health Administration for asbestos-related work, or by a licensed and certified asbestos abatement contractor.								
HAZ-4 If the analytical results indicate that lead-based paint and/or polychlorinated biphenyls are present, the contractor would ensure that demolition materials are handled and disposed of in accordance with applicable regulations.								
<p>HAZ-5 Prior to construction, the contractor would prepare a Materials Management Plan that identifies potential recognized environmental conditions, locations, extent of impact, proposed remediation work, waste management procedures, and avoidance measures, investigation measures and a contingency plan for addressing unforeseen conditions. Documentation of completed waste profiles, manifest forms, and bill-of-lading forms for proper transportation and disposal of materials offsite would be maintained by the contractor. The plan would include the following provisions:</p> <ul style="list-style-type: none"> • Characterization and handling of contaminated soils requiring offsite disposal • Soils to be stockpiled for further characterization • Process for identifying soils with waste concentrations below regulatory thresholds that can be reused without restriction • Process for identifying and handling wastewater requiring offsite disposal and/or treatment • Procedures for handling asbestos-containing material discovered during construction activities 								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
HAZ-6 Prior to initiating construction activities, the contractor would prepare a site-specific Health and Safety Plan that identifies key personnel and provides a summary risk assessment for workers, the community, and the environment. The Health and Safety Plan would include an Air Monitoring Plan and Emergency Response Plan.								
<p>HAZ-7 Prior to construction, the contractor would prepare a Sampling and Analysis Plan to identify and characterize potential recognized environmental conditions that may be encountered. The plan would provide for monitoring/screening during construction activities to provide safety controls in areas previously not identified. The plan would include:</p> <ul style="list-style-type: none"> • Data quality objectives • Sample collection procedures (e.g., field screening, borehole drilling/ abatement, monitoring well construction, soil, groundwater, and decontamination) • Quality control • Quality assurance objectives (data) 								
HAZ-8 Prior to construction, the contractor would prepare a Spill Prevention Control and Countermeasures Plan to ensure that construction best management practices are adequate for site conditions and to prevent discharge of any sediment or pollutants into any storm drains, receiving waters, or drywells.								
HAZ-9 Prior to construction, the contractor would inspect all utility pole-mounted and pad-mounted electrical transformers within the project limits for leaks. Leaking transformers would be considered a potential polychlorinated biphenyl hazard (unless tested) and would be handled in accordance with applicable laws and regulations.								
HAZ-10 The contractor would ensure that all wooden utility poles that are to be removed or relocated as part of the project, as well as the soils at the bases of the utility poles (unless documentation from the utility company indicates that creosote was not used), would be handled as treated wood waste in accordance with the California Department of Transportation's Standard Special Provision 14-010.								
vHAZ-11 Before construction, the contractor would notify all utility companies to ensure that the locations of underground transmission lines and facilities are marked. In addition, Underground Service Alert would be contacted at least two working days before subsurface excavation.								
HAZ-12 The contractor would adhere to the requirements of San Joaquin Valley Air Pollution Control District and applicable National Emission Standards for Hazardous Air Pollutants during demolition/renovation activities. Any demolition or renovation of a Building structure would require notification and submittal fees to the San Joaquin Valley Air Pollution Control District at least 10 days before proceeding with the demolition work.								
HAZ-13 The contractor would adhere to the procedures outlined in the California Department of Transportation's Unknown Hazards Procedures for Construction in the event that unknown hazardous contamination from above/below ground oil/motor vehicle fuel tanks and septic tanks is revealed or unknown hazardous waste/material is encountered during construction.								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
<p>HAZ-14 The contractor would prepare a Lead Compliance Plan to prevent or minimize worker exposure to lead from handling material containing aeri-ally deposited lead (California Code of Regulations, Title 8, and Section 1532.1). The plan would also be required for work performed on painted structures. The contractor would prepare a written, project-specific Excavation and Transportation Plan establishing procedures the contractor would use for excavating, stockpiling, transporting, and placing (or disposing) of material containing aeri-ally deposited lead and lead-based paint. The plan would conform to the California Department of Toxic Substances Control and California Occupational Safety and Health Administration regulations. For samples where lead levels exceed hazardous waste criteria, the excavated soil would be either managed or disposed of as a California hazardous waste or stockpiled and resampled to confirm waste classification and potential to recycle soil onsite. The appropriate Standard Special Provision would be included in the Plans, Specifications, and Estimate. Special handling, treatment, or disposal of aeri-ally deposited lead in soils during construction activities would be consistent with the July 1, 2016, Aeri-ally Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control.</p>								
<p>SHAZ-1 Prior to any earthmoving or construction activities related to the soil stockpiles, a grading permit from the City of Modesto would be secured by the construction contractor. Additionally, prior to any earthmoving or construction activities related to the soil stockpiles, a Health and Safety Plan that addresses all hazards associated with the movement and disposition of stockpile soil related to construction of the containment features would also be prepared by the construction contractor. The hazards associated with the movement and disposition of stockpile soil to be included in the Health and Safety Plan would be identified in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. As described in Section 2.2.6, Air Quality, the contractor would comply with the San Joaquin Valley Air Pollution Control District's Rule 9510. As described in Section 2.2.2, Water Quality, the contractor would prepare and implement construction site best management practices in accordance with the California Department of Transportation's Stormwater Management Plan and National Pollutant Discharge Elimination System Permit (Order No. 99-06-DWQ National Pollutant Discharge Elimination System No. CAS000003).</p>								
<p>SHAZ-2 The contractor would remove all debris on or adjacent to the soil stockpiles prior to grading. The contractor would dispose of it accordance with regulations pertaining to the type of waste encountered.</p>								
<p>SHAZ-3 If any vegetation grubbing is required, the contractor would minimize dust generation consistent with standard best management practices described in Section 2.2.6, Air Quality. The contractor would implement the California Department of Transportation's Standard Specifications control measures Section 14-9.02 (Air Pollution Control) and Section 14-9.03 (Dust Control). The contractor would apply water under Section 17 and dust palliative under Section 18.</p>								
<p>SHAZ-4 The contractor would minimize reconfiguration of the soil stockpiles to the minimum extent possible to meet project design criteria for fill placement, thereby reducing the potential for stormwater and/or wind erosion and stormwater infiltration into the soil stockpiles.</p>								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
<p>SHAZ-5 Perimeter air quality monitoring would occur during any earthmoving or construction activities related to the soil stockpiles, including clearing and grubbing or other site grading activities performed by the construction contractor. Perimeter air quality monitoring would occur according to an Air Monitoring Plan that would describe monitoring locations, equipment, sampling and analysis methods, hazardous exposure threshold values, etc. All elements of the Air Quality Monitoring Plan would be identified in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. The contractor would provide monitoring results to the California Department of Toxic Substances Control for its review and approval. If the results of air monitoring demonstrate that dust control measures are effective and that there is no exposure to constituents of potential concern in the soil stockpiles via airborne dust, then the frequency of monitoring may be decreased with the California Department of Toxic Substances Control's approval.</p>								
<p>SHAZ-6 The contractor would submit requests to the California Department of Toxic Substances Control for approval prior to modifying procedures for soil excavation, relocation, dust control, air monitoring, or other field activities.</p>								
<p>SHAZ-7 The contractor would maintain detailed records related to movement, placement, and inspection of the stockpile soil.</p>								
<p>SHAZ-8 As required by California Code of Regulations, Title 22, section 67391.1, the California Department of Transportation would prepare and record a land use covenant to restrict the types of land use that are allowed on the site. The land use covenant would identify that the proposed transportation land use is compatible and acceptable with respect to health risk. The land use covenant would be prepared in compliance with California Department of Toxic Substances Control policies and finalized and recorded after remedial measures are implemented and before the soil stockpile site is certified by the California Department of Toxic Substances Control as remediated.</p>								
<p>SHAZ-9 A groundwater and storm water quality monitoring program for the contained Caltrans Modesto Soil Stockpiles would be proposed and included in the Remedial Design Implementation Plan to be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. In addition to design specifications for construction of the containment features, the Remedial Design Implementation Plan would address water quality monitoring for the initial and final construction phases of the project. Until the groundwater and surface water quality monitoring program is approved, groundwater and storm water quality monitoring would continue as currently conducted in accordance with the 2006 and 2012 (amendment) sampling and analysis plans approved by the California Department of Toxic Substances Control and the Regional Water Quality Control Board.</p>								
<p>SHAZ-10 The functionality and condition of each stockpile containment feature (pavement, retaining walls, abutments, vegetated soil cover, etc.) would be evaluated in accordance with an operation and maintenance plan established in accordance with an operation and maintenance agreement between the California Department of Transportation and the California Department of Toxic Substances Control and the California Regional Water Quality Control Board. The proposed operation and maintenance plan and operation and maintenance agreement would be included in the Remedial Design Implementation Plan that would be submitted to the California Department of Toxic Substances Control and the Regional Water Quality Control Board for review and approval. The operation and maintenance plan would address containment feature assessment, management, and reporting to ensure the ongoing integrity of the containment feature for the protection of human health and the environment. The operation and maintenance plan would address containment feature assessment for the initial and final construction phases of the project.</p>								

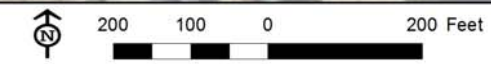
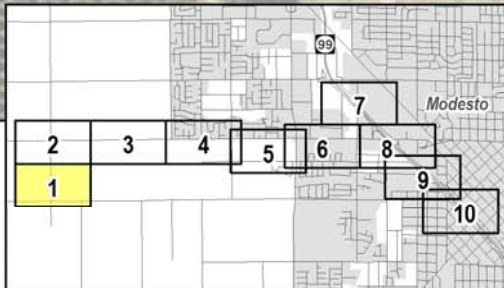
Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
WET-1 Caltrans will consult with the Central Valley Regional Water Quality Board during the final design and permitting phase. If the seasonal wetland features are determined to be waters of the State, Caltrans will mitigate for their discharge and fill as directed by the Central Valley Regional Water Quality Board under the Porter Cologne Water Quality Control Act.								
AS-1 Burrowing owl surveys would be conducted following the guidelines outlined in the California Department of Fish and Wildlife's 2012 Staff Report on Burrowing Owl Mitigation during the year prior to the initiation of construction. If burrowing owls are detected within the biological study area, the California Department of Fish and Wildlife would be consulted to determine specific avoidance and minimization measures appropriate for the site. Likely avoidance and minimization measures may include preconstruction surveys prior to ground disturbance, establishment of no-work buffer, and/or having a qualified biologist present to monitor an active nest during construction activities to ensure that no interference with the burrowing owl breeding activities would occur. Additional avoidance and minimization for permanent impacts to burrowing owl habitat could also include the preservation of surrounding foraging habitat, passive relocations, and off-site mitigation. Mitigation of nesting burrows and associated burrowing owl habitat may involve purchasing mitigation lands adjacent to the project or purchasing burrowing owl mitigation credits at an approved conservation bank in the region.								
AS-2 Shrub and tree trimming and/or tree removal for the proposed project would be conducted outside the nesting season (generally between February 1 and August 31). If shrub and tree removal is scheduled to occur during the nesting season, a qualified wildlife biologist, familiar with the species and habitats in the study area, would conduct preconstruction surveys for nesting birds within suitable nesting habitat in the study area as described in AS-3.								
AS-3 Nesting bird surveys would be conducted prior to initiation of construction activities. If no active nests are detected during surveys, construction may proceed. If active nests are detected, then AS-4 would be implemented.								
AS-4 A no-work buffer would be established around nests identified during preconstruction surveys. A 100-ft buffer would be established for migratory birds and a 300-ft buffer would be established for most raptors. In the case of burrowing owl nests and Swainson's hawk see AS-1 and TES-1 respectively. The extent of the no-work buffers would be determined by a wildlife biologist in consultation with California Department of Fish and Wildlife and would depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographic or artificial barriers. The purpose of the buffer is to avoid disturbance or destruction of the nest until after the breeding season, or until a wildlife biologist determines that the young have fledged.								
AS-5 The City of Modesto Street Tree Ordinance stipulates that trees removed within the City's right-of-way would be replaced in kind if appropriate. Contractor work would conform to local tree ordinances for construction projects. The ratios and location of replacement would be determined in coordination with the City of Modesto. The specific replacement would be determined during the permit review process.								
TES-1 Protocol-level surveys will be conducted within a 0.5-mile radius around the biological study area preceding the initiation of construction and would follow the Swainson's Hawk Technical Advisory Committee's 2000 Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. If an active Swainson's hawk nest is detected, minimization efforts would be coordinated with the California Department of Fish and Wildlife. Potential minimization measures would include establishing a 600 foot no-work buffer zone around an active nest, and/or having a qualified biologist present to monitor an active nest during construction activities to ensure that no interference with the hawks breeding activities would occur.								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
IS-1 To minimize the risk of introducing additional non-native species into the area, weed-free erosion control applications would be used. No dry-farmed straw would be used, and certified weed-free straw would be required where erosion control straw is to be used. In addition, hydro-seed mulch or any other erosion control application must also be certified weed-free. Any revegetation seed mix to be used would also be certified weed-free and contain native species appropriate for the project area.								
IS-2 All off-road construction equipment would be inspected and cleaned of potential noxious weed sources (e.g., mud and vegetation) before entry into the project area to prevent noxious weed introduction. The contractor would employ cleaning methods (typically with the use of a high-pressure water hose) to ensure that equipment is free of noxious weeds.								
GHG-1 The California Department of Transportation and the California Highway Patrol are working with regional agencies to implement intelligent transportation systems to help manage the efficiency of the existing highway system. Intelligent transportation systems commonly consist of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.								
GHG-2 In addition, the Stanislaus Council of Governments will provide Commute Connections, a ridesharing service, and park-and-ride facilities to help manage the growth in demand for highway capacity.								
GHG-3 Landscaping reduces surface warming, and through photosynthesis, decreases carbon dioxide. The California Department of Transportation will provide new corridor landscaping that complies with statewide drought restrictions and Modesto's tree preservation ordinance. The landscaping would help offset any potential carbon dioxide emissions increase.								
GHG-4 According to California Department of Transportation's Standard Specifications, the contractor must comply with all local air pollution control district's rules, ordinances, and regulations for air quality restrictions, including minimizing idling time for diesel construction equipment per San Joaquin Valley Air Pollution Control District Regulation VIII.								

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance	
<p>GHG-5¹ The California Department of Transportation and Stanislaus Council of Governments will ensure that applicable greenhouse gas-reducing diesel particulate and NOX emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the California Department of Transportation and Stanislaus Council of Governments shall perform periodic site inspections. Applicable greenhouse gas-reducing measures include the following.</p> <ul style="list-style-type: none"> • Use of diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation; • Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; • All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit; • Use of electric equipment in place of diesel powered equipment, where feasible; • Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and • Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel. <p>¹Source: Stanislaus Council of Governments 2014 RTP/SCS Stanislaus County- Mitigation Measure GHG-1</p>								

Appendix F Cross-Sections and Engineering Drawings

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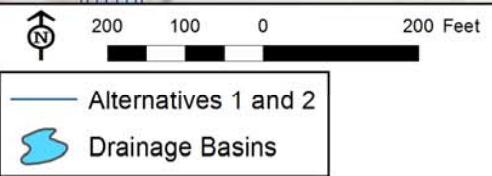
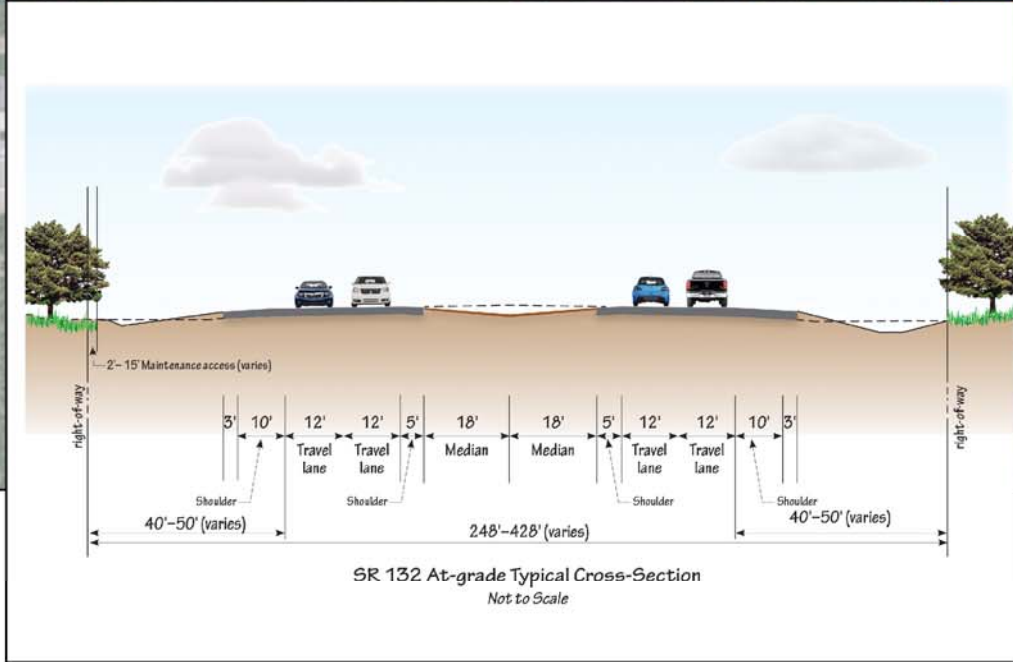


— Alternatives 1 and 2

SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections

Map: 1 of 10

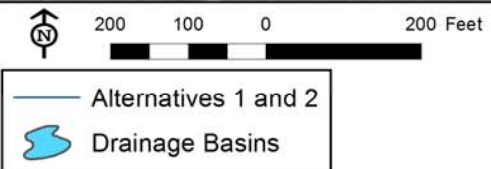
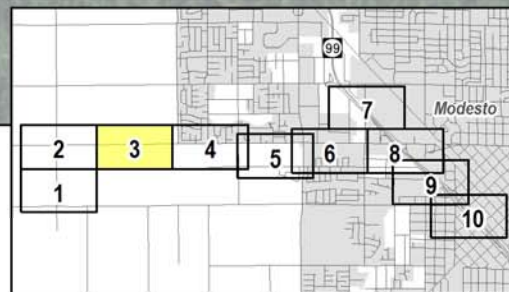
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SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections

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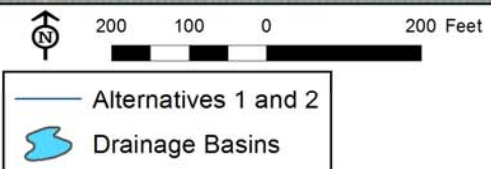
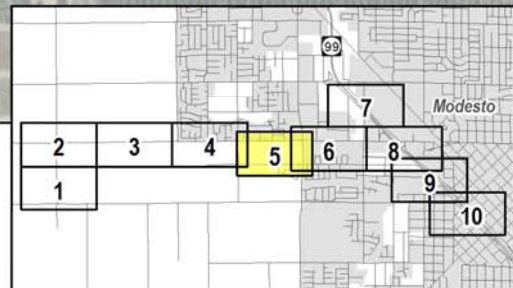
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— Alternatives 1 and 2
— Drainage Basins

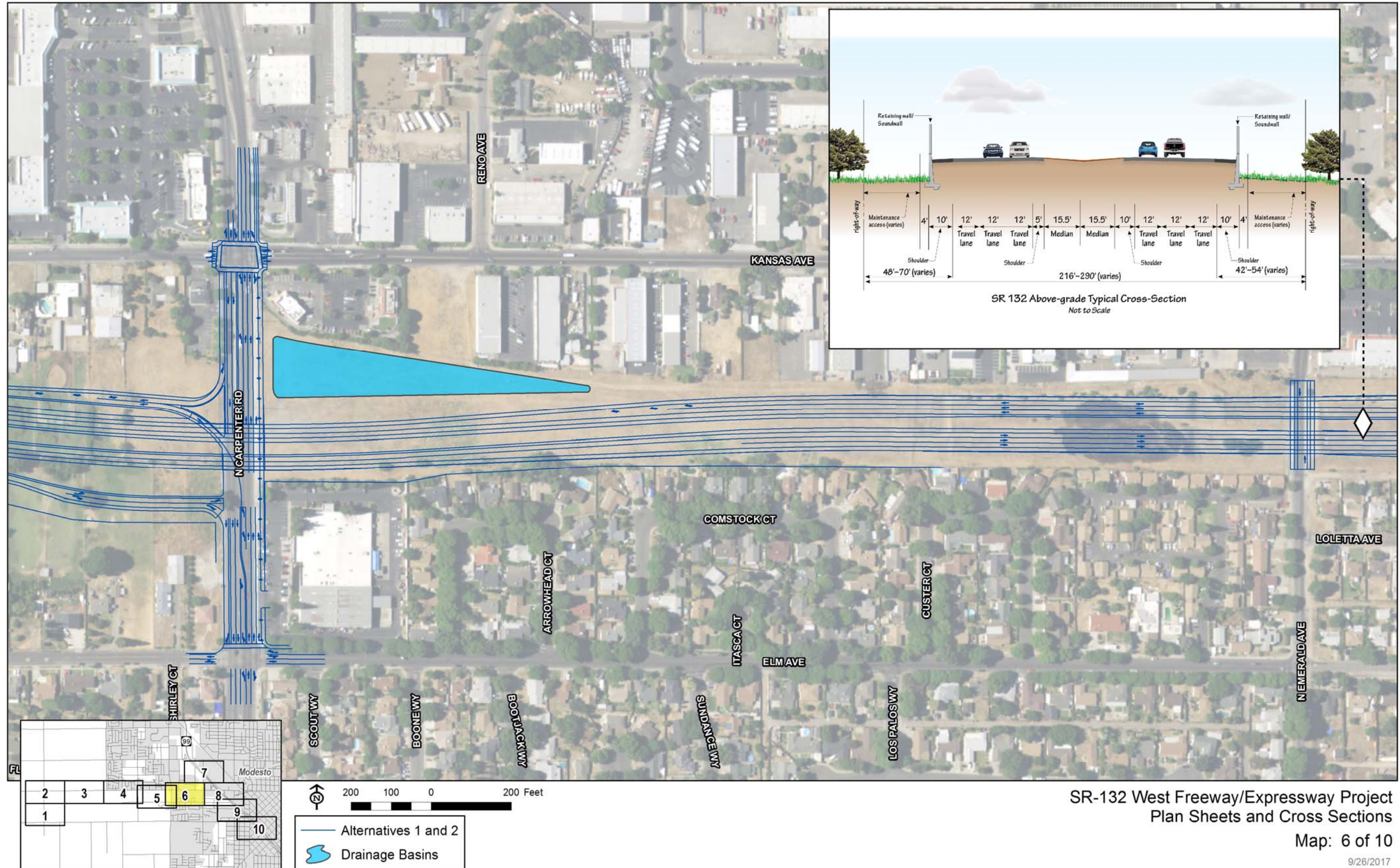
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Plan Sheets and Cross Sections
Map: 3 of 10

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SR-132 West Freeway/Expressway Project
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 Map: 5 of 10

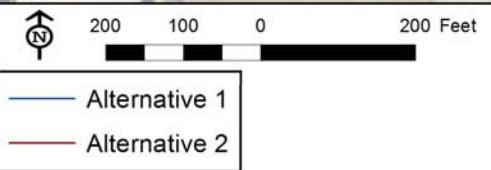
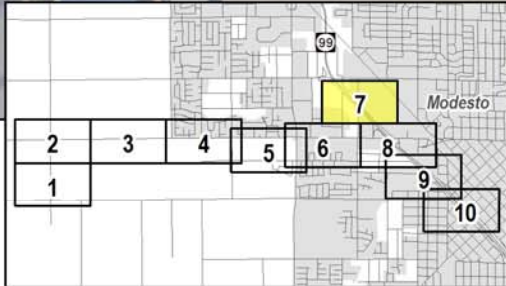
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SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections

Map: 6 of 10

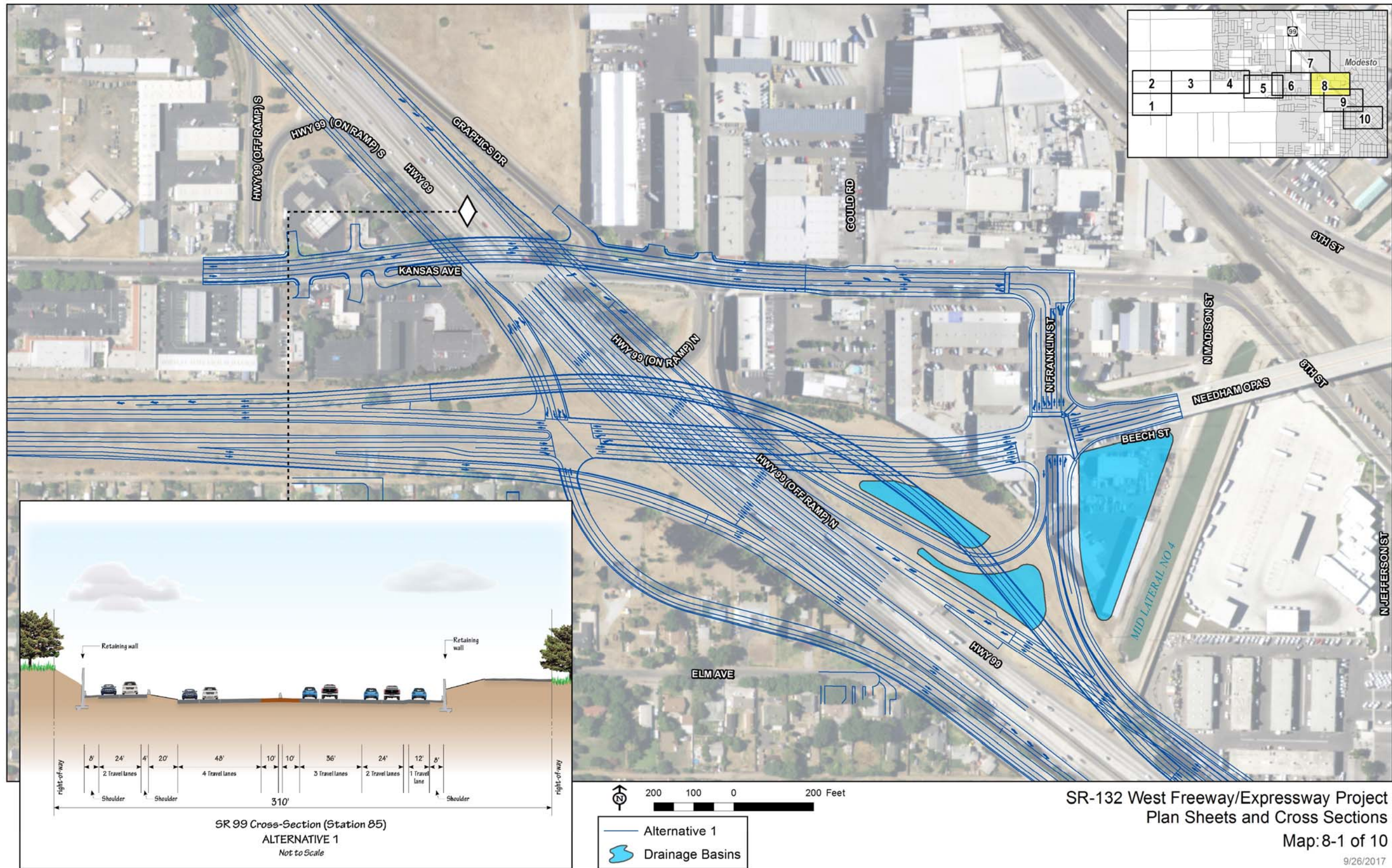
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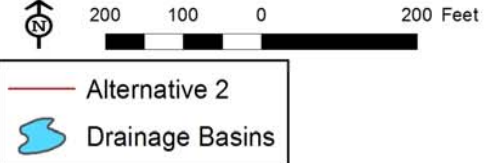
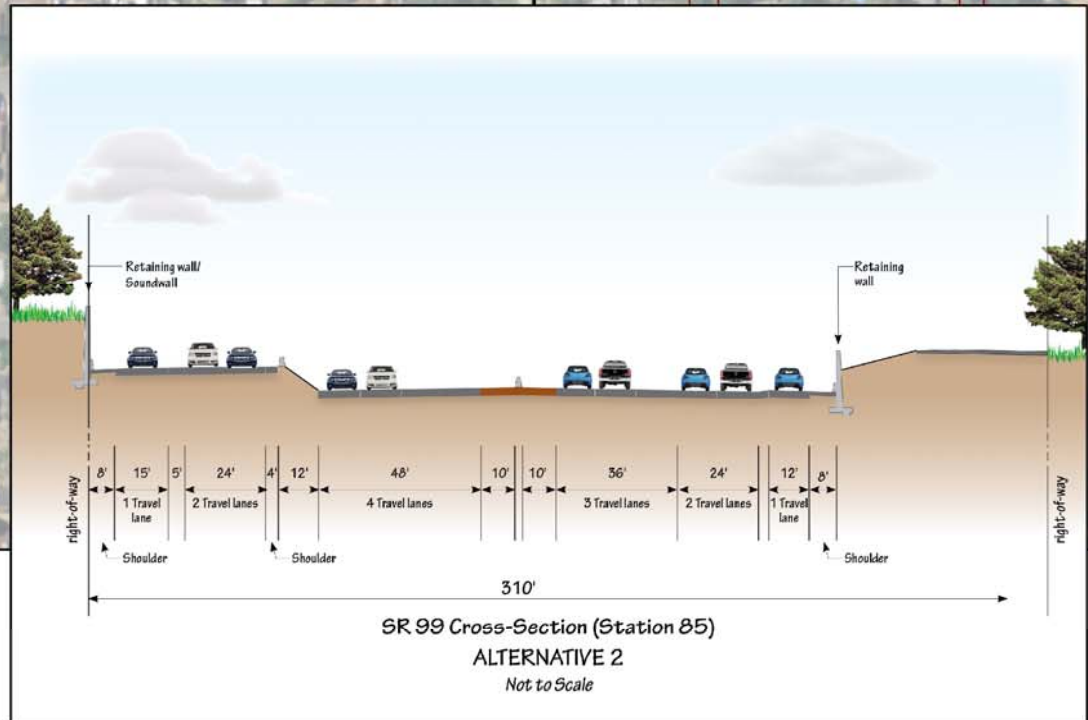
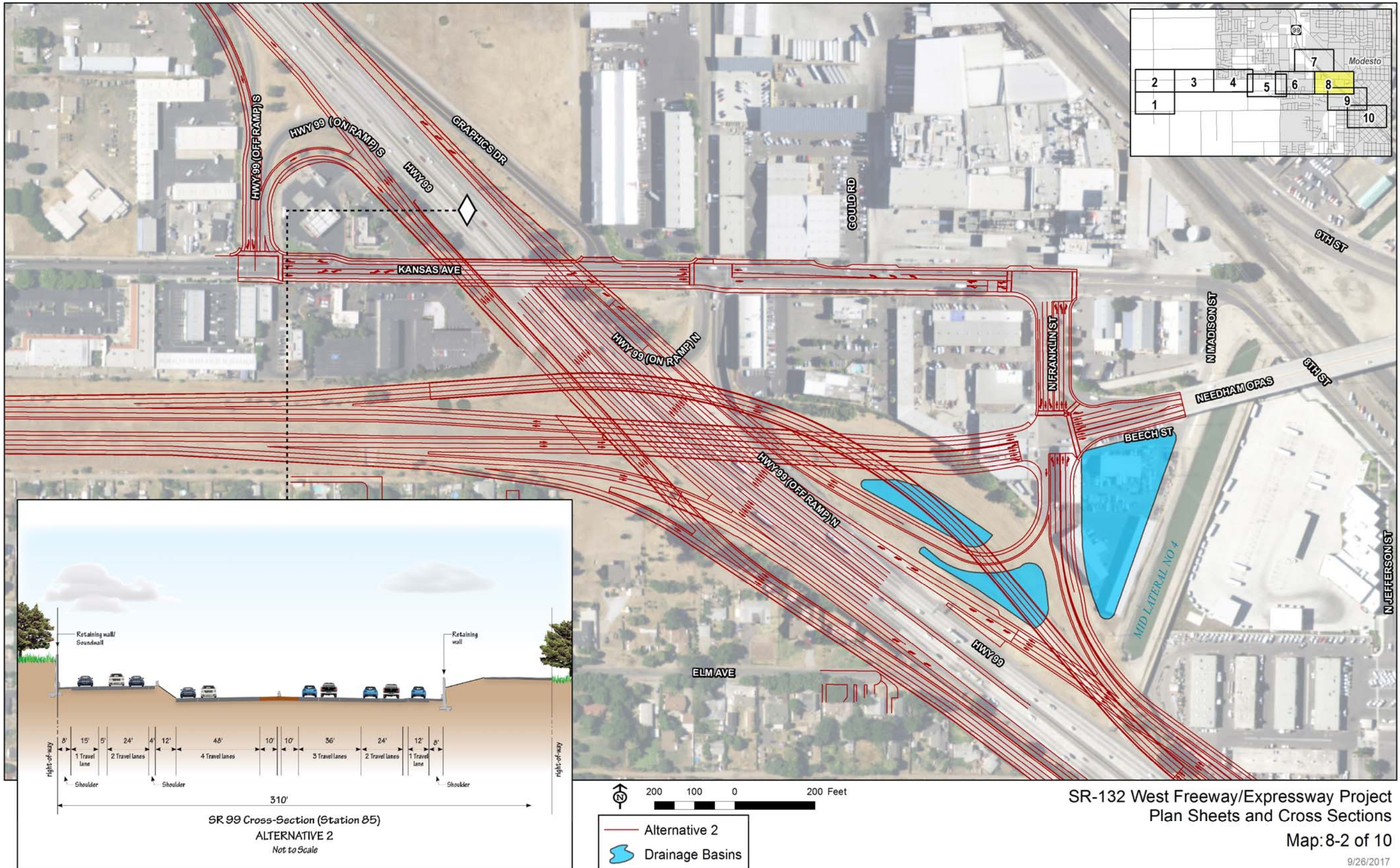


SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections

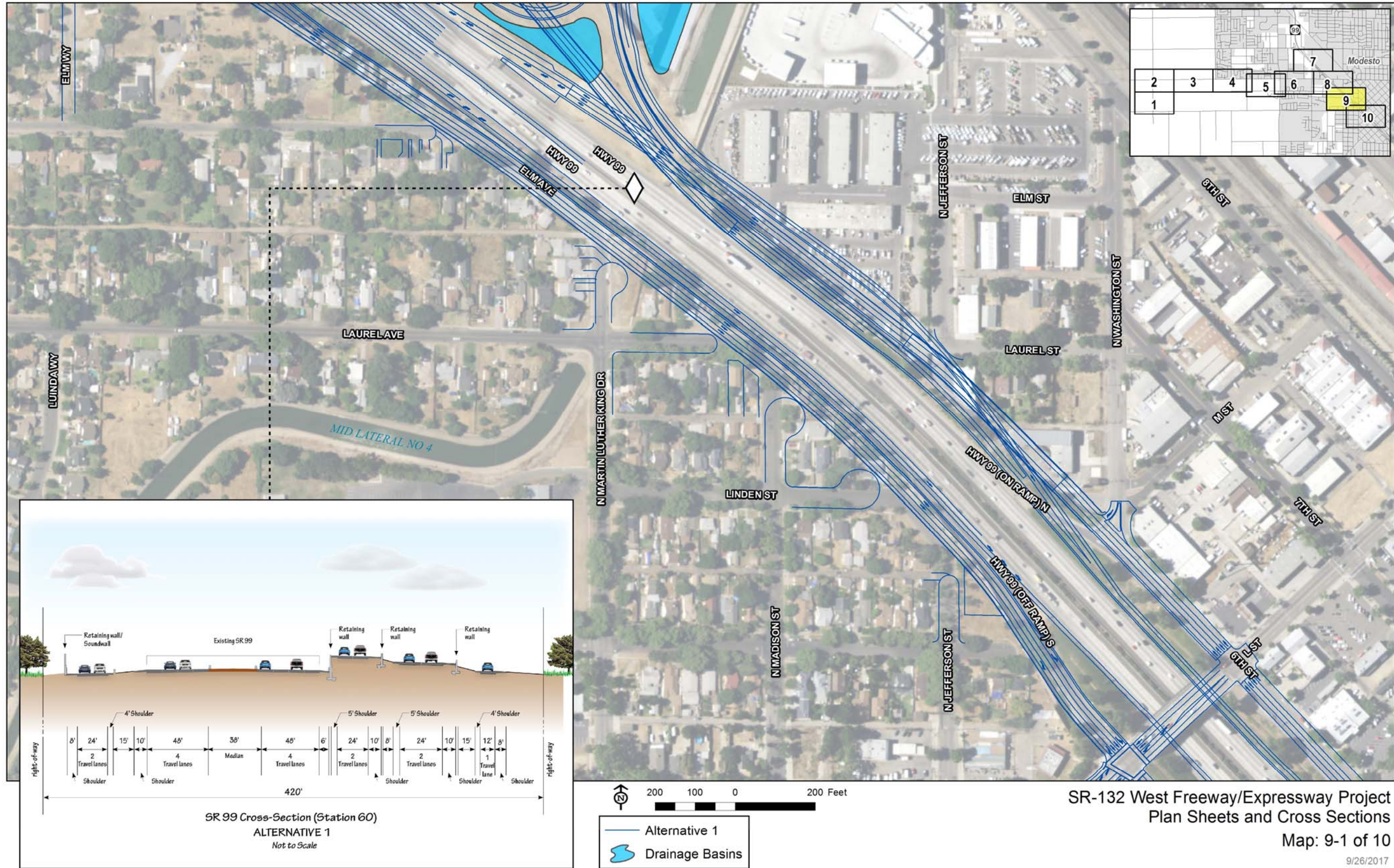
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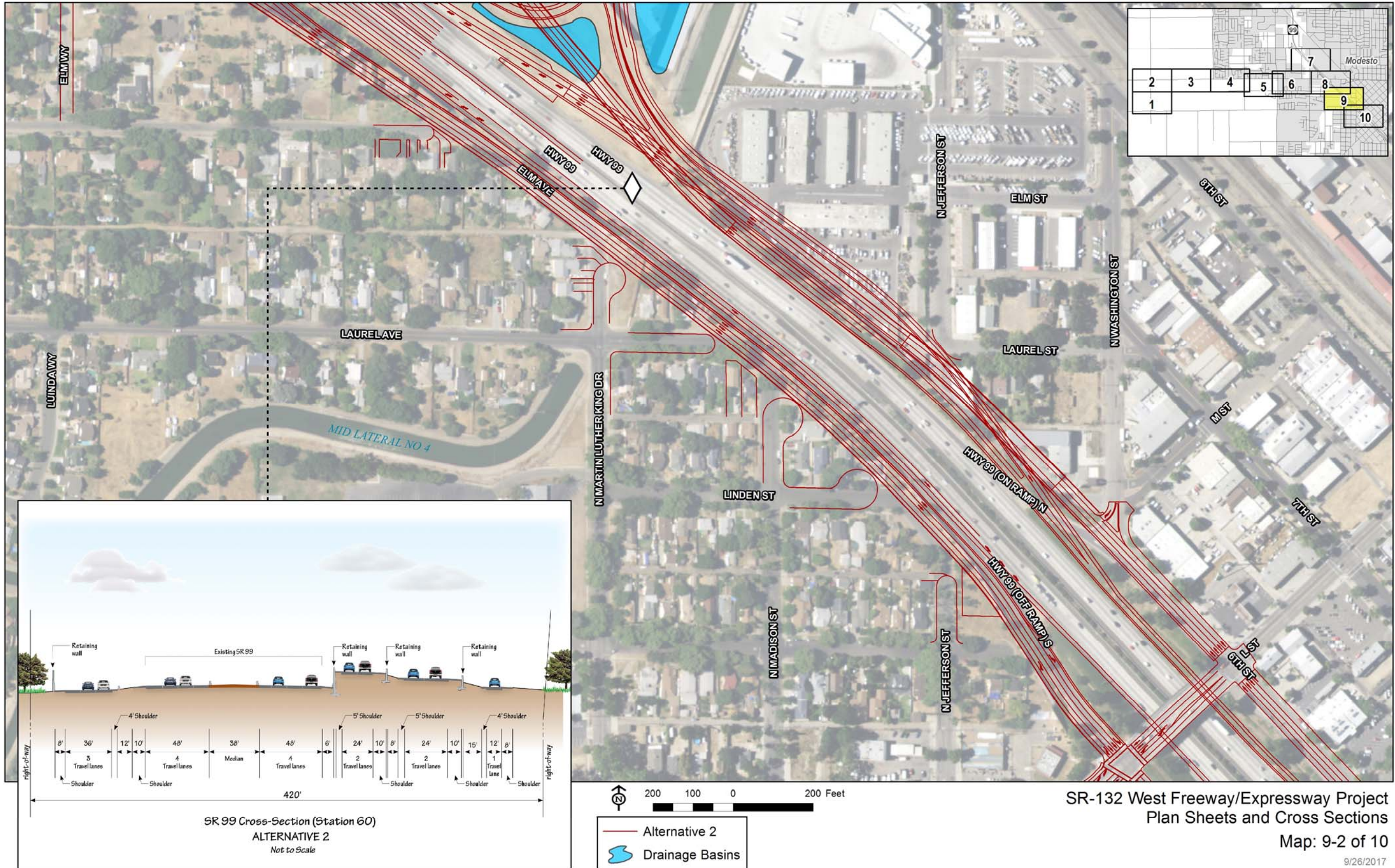
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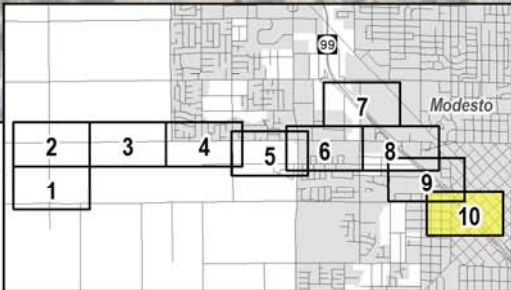
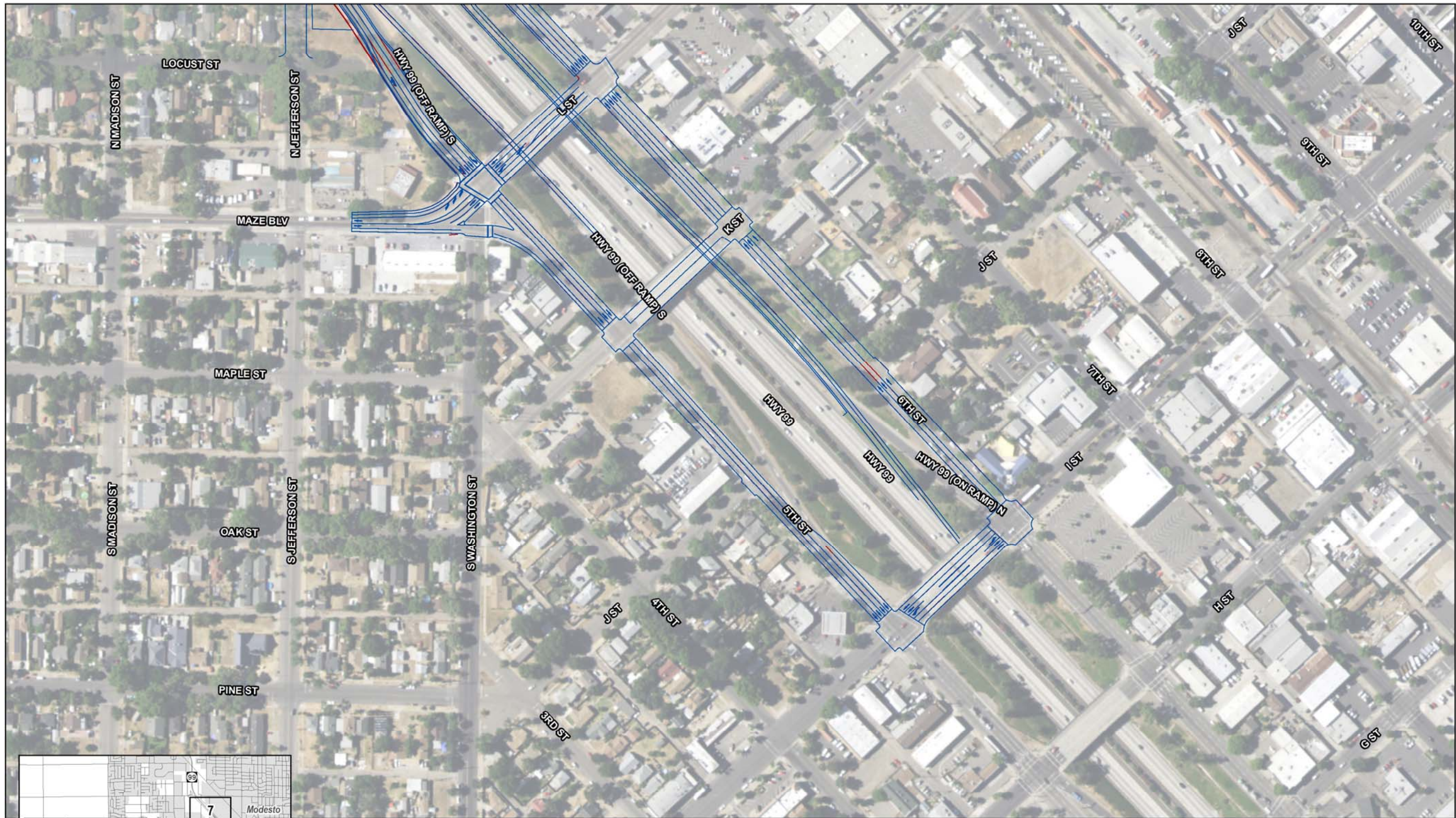
SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections
Map: 8-2 of 10
9/26/2017





SR-132 West Freeway/Expressway Project
Plan Sheets and Cross Sections
Map: 9-2 of 10

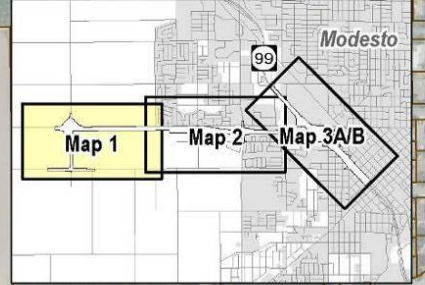
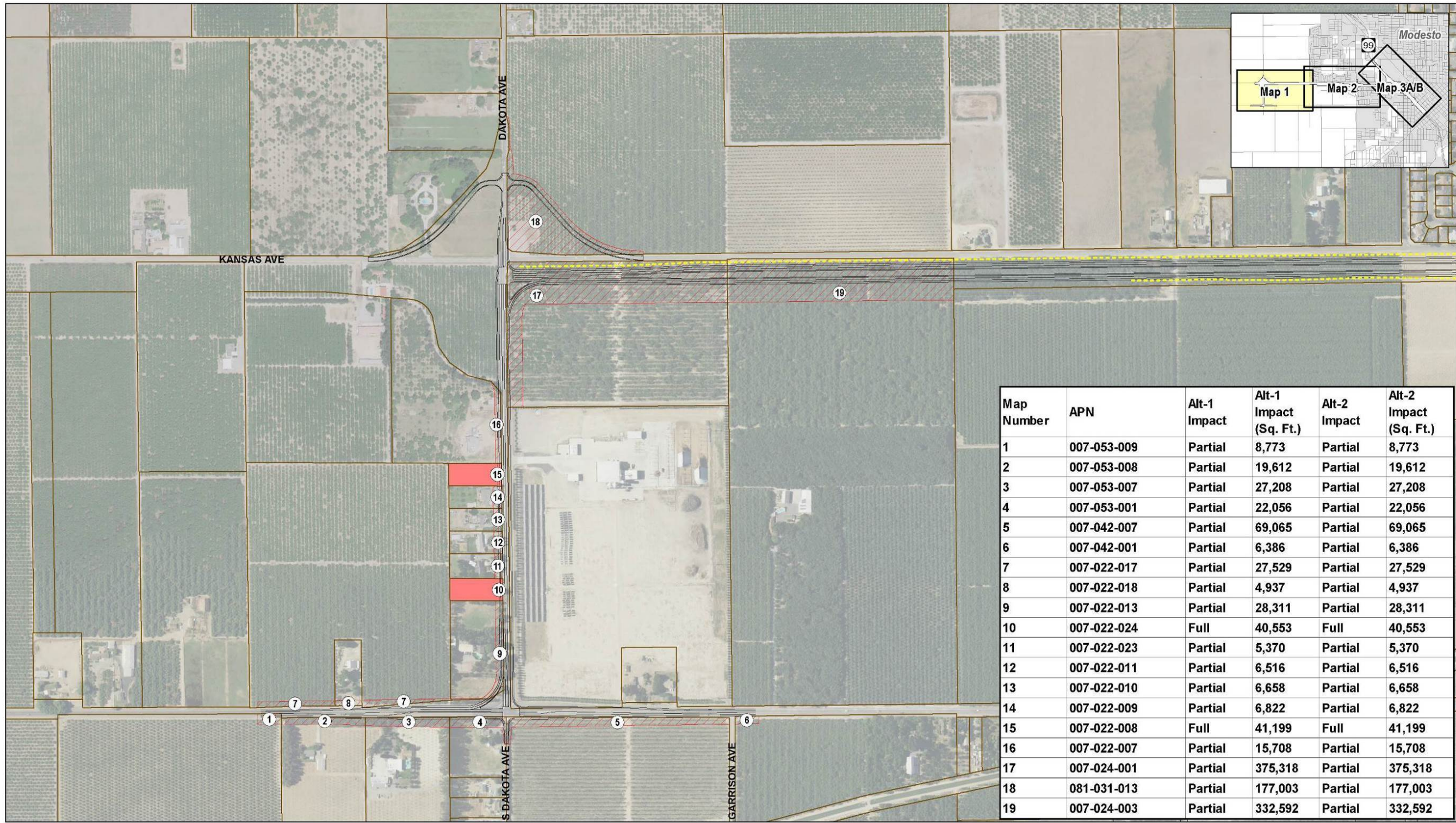
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- Alternative 1
- Alternative 2

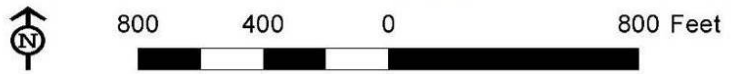
SR-132 West Freeway/Expressway Project
 Plan Sheets and Cross Sections
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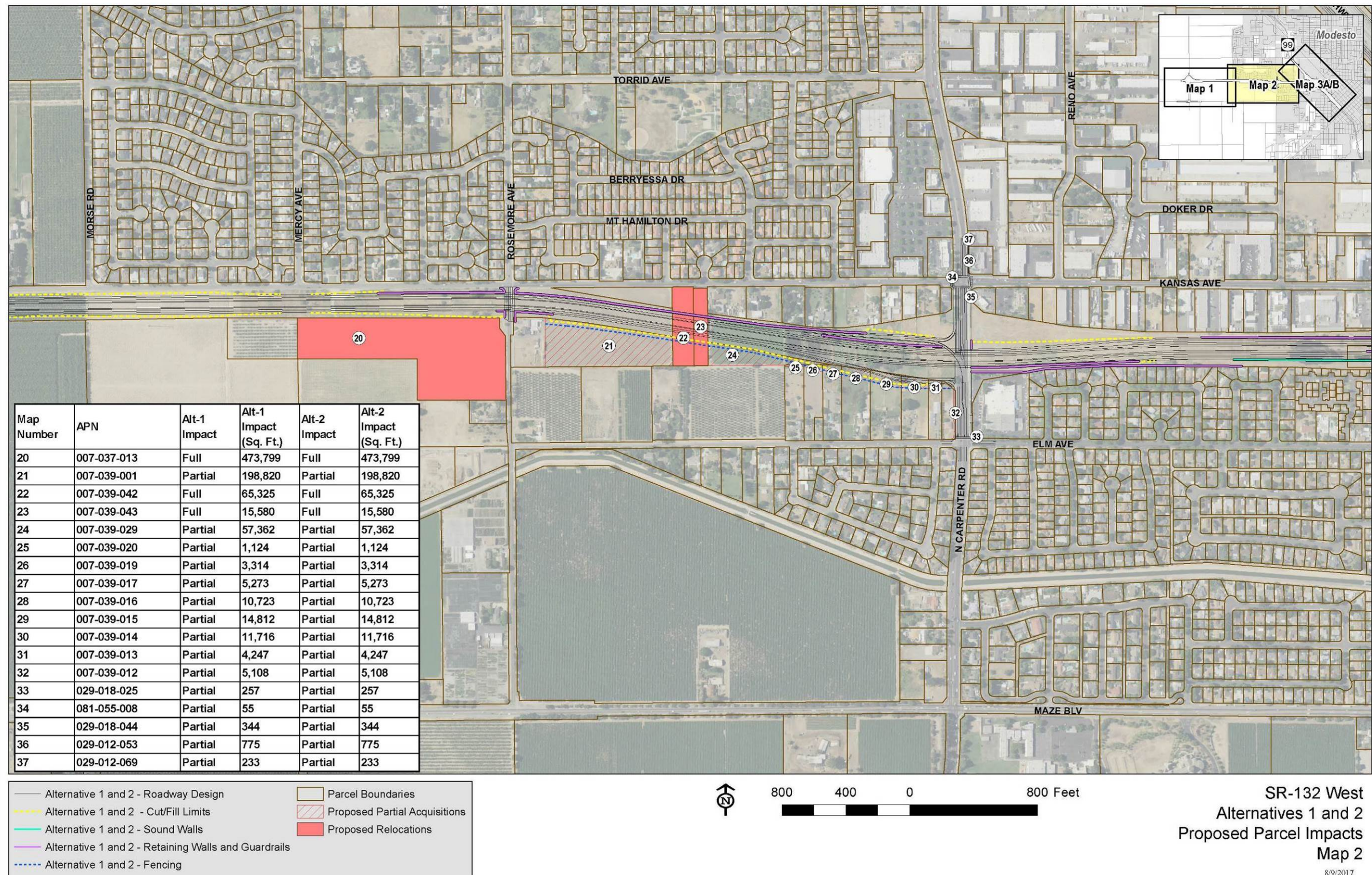
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3	007-053-007	Partial	27,208	Partial	27,208
4	007-053-001	Partial	22,056	Partial	22,056
5	007-042-007	Partial	69,065	Partial	69,065
6	007-042-001	Partial	6,386	Partial	6,386
7	007-022-017	Partial	27,529	Partial	27,529
8	007-022-018	Partial	4,937	Partial	4,937
9	007-022-013	Partial	28,311	Partial	28,311
10	007-022-024	Full	40,553	Full	40,553
11	007-022-023	Partial	5,370	Partial	5,370
12	007-022-011	Partial	6,516	Partial	6,516
13	007-022-010	Partial	6,658	Partial	6,658
14	007-022-009	Partial	6,822	Partial	6,822
15	007-022-008	Full	41,199	Full	41,199
16	007-022-007	Partial	15,708	Partial	15,708
17	007-024-001	Partial	375,318	Partial	375,318
18	081-031-013	Partial	177,003	Partial	177,003
19	007-024-003	Partial	332,592	Partial	332,592

Alternative 1 and 2 - Roadway Design
 Alternative 1 and 2 - Cut/Fill Limits
 Parcel Boundaries
 Proposed Partial Acquisitions
 Proposed Relocations



SR-132 West
 Alternatives 1 and 2
 Proposed Parcel Impacts
 Map 1

8/9/2017





Map Number	APN	Alt-1 Impact	Alt-1 Impact (Sq. Ft.)
38	029-013-008	None	0
39	029-013-009	None	0
40	029-013-015	Partial	4,053
41	029-013-014	Full	27,848
42	029-015-033	Partial	327
43	029-015-032	Partial	149
44	029-015-004	Partial	1,540
45	029-015-018	Partial	1,574
46	029-015-021	Partial	2,550
47	029-016-013	Full	6,120
48	029-016-014	Partial	524
49	029-016-002	Partial	1,216
50	029-016-001	Partial	2,377
51	029-016-003	Partial	994
52	029-016-004	Partial	847
53	029-015-030	Partial	2,305
54	029-015-031	Full	69,447
55	029-015-023	Partial	30,764
56	029-015-012	Full	30,872
57	029-015-011	Full	29,618
58	029-015-010	Full	22,521
59	029-015-009	Full	19,005
60	029-021-011	Partial	768
61	029-021-012	Full	19,105
62	029-021-013	Full	14,985
63	MID--MID	Partial	6,819
64	101-003-023	Partial	1,446
65	101-003-020	Full	6,552

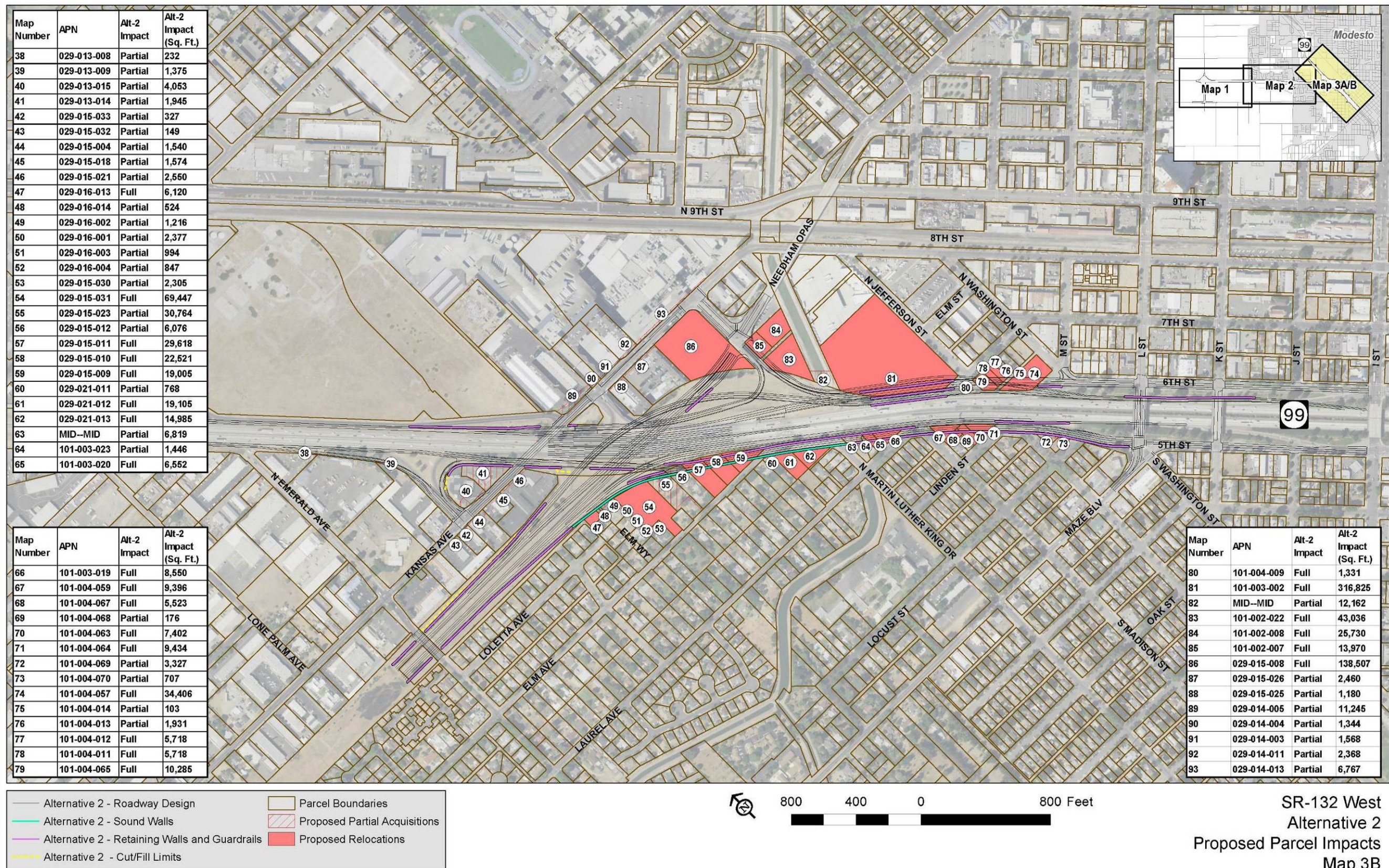
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69	101-004-068	Partial	176
70	101-004-063	Full	7,402
71	101-004-064	Full	9,434
72	101-004-069	Partial	3,327
73	101-004-070	Partial	707
74	101-004-057	Full	34,406
75	101-004-014	Partial	103
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79	101-004-065	Full	10,285

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85	101-002-007	Full	13,970
86	029-015-008	Full	138,507
87	029-015-026	Partial	2,460
88	029-015-025	Partial	1,180
89	029-014-005	Partial	11,245
90	029-014-004	Partial	1,344
91	029-014-003	Partial	1,568
92	029-014-011	Partial	2,368
93	029-014-013	Partial	6,767

— Alternative 1 - Roadway Design
— Alternative 1 - Sound Walls
— Alternative 1 - Retaining Walls and Guardrails
 Parcel Boundaries
 Proposed Partial Acquisitions
 Proposed Relocations



SR-132 West
 Alternative 1
 Proposed Parcel Impacts
 Map 3A



Appendix G Final Feasibility Study,
Caltrans Modesto Soil Stockpiles, State Route
132 West Freeway/Expressway Project,
Modesto, Stanislaus County, California

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DRAFT FINAL REMEDIAL ACTION PLAN

Caltrans Modesto Soil Stockpiles State Route 132 West Freeway/Expressway Project Stanislaus County, California

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 6
HAZARDOUS WASTE BRANCH
855 M STREET, SUITE 200
FRESNO, CALIFORNIA 93721**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



**GEOCON PROJECT NO. S9800-01-17
TASK ORDER NO. 17, EA 10-0X2700
CONTRACT NO 06A1895**

OCTOBER 2014

DEPARTMENT OF TRANSPORTATION

DISTRICT 6

855 M STREET, SUITE 200
FRESNO, CA 93721-2716
PHONE (559) 445-6369
FAX (559) 445-6236
TTY 711
www.dot.ca.gov



*Serious drought.
Help save water!*

November 16, 2017

Mr. Randy S. Adams
Senior Engineering Geologist
Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
8800 Cal Center Drive
Sacramento, CA 95826


Dear Mr. Adams,

For the purpose of amending the status of dates and documentation in the Draft Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, October, 2014, please find the following attachments:

- Revised Implementation Schedule (Section 8, page 47)
- Revised Administrative Record (Appendix B)

Should you have any questions, please contact me at (559) 445-6369.

Sincerely,


Juergen Vespermann
Branch Chief
Caltrans District 6
Central Region Hazardous Waste

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Edmund G. Brown Jr.
Governor

APPENDIX B

REVISED ADMINISTRATIVE RECORD

CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

California Department of Transportation (CALTRANS)

Shaw Environmental, Inc. (Shaw)

Heavy Metal Contamination Preliminary Site Investigation Report, Modesto, California,
(Shaw, June 1, 2004).

Remedial Action Options Report, SR 132/SR 99 Stockpiles, Modesto, California, July
(Shaw, 27, 2004).

Final Work Plan, Characterization of Soil Stockpiles, Caltrans Modesto Soil Stockpiles,
State Route 99/132 Project, Stanislaus County, California, (Shaw, January 25,
2006).

Final Surface Water Sampling and Analysis Plan, Caltrans Modesto Soil Stockpiles,
State Route 99/132 Project, Stanislaus County, California, (Shaw, January 25,
2006).

Final Work Plan, Groundwater Assessment, Caltrans Modesto Soil Stockpiles, State
Route 99/132 Project, Stanislaus County, California, (Shaw, January 26, 2006).

Site Investigation Report, Soils Investigation for Heavy Metals, State Route 99,
Stanislaus County, California, (Shaw, March 23, 2006).

Surface Water Sampling Report, State Route 99/132 Project, Stanislaus County,
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8.0 REVISED IMPLEMENTATION SCHEDULE

The anticipated schedule for the SR-132 Project from submittal of the Draft RAP through completion is as follows:

Activity/Task/Milestone	Date
RAP	
Submit Draft RAP to DTSC/CVRWQCB	December 27, 2013
Receive comments on Draft RAP from DTSC/CVRWQCB	April 8, 2014
Revised Draft RAP and submit Draft Final RAP to DTSC/CVRWQCB	October 24, 2014
Draft Final RAP appended to Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the SR-132 Project	December 2016
Public notice of availability of Draft Final RAP and the SR-132 Project EIR/EA for public review	January 18, 2017 ¹
59-day public review	January 18, 2017 to March 17, 2017
Public hearing	February 22, 2017
DTSC responsiveness summary (response to public comments)	2018
DTSC decision on Draft Final RAP	2018
SR-132 Project Design and Construction Phase	
SR-132 detailed design Plans, Specifications, and Estimates (PS&E) phase	2018 - 2019
Preparation of Remedial Design Implementation Plan	2018 - 2019
Construction of interim project phase begins	2019
Complete interim project phase	2020
Prepare Remedial Action Completion Report	2020
Complete ultimate build-out phase	2028
Prepare Remedial Action Completion Report (ultimate build-out phase)	2029

¹ Runs concurrently with the Caltrans Draft EIR/EA

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G E O T E C H N I C A L ■ E N V I R O N M E N T A L ■ M A T E R I A L S



Project No. S9800-01-17
October 27, 2014

Randy Adams, CEG
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Subject: REVISED DRAFT FINAL REMEDIAL ACTION PLAN
CALTRANS MODESTO SOIL STOCKPILES
STATE ROUTE 132 WEST FREEWAY/EXPRESSWAY PROJECT
MODESTO, STANISLAUS COUNTY, CALIFORNIA

Dear Mr. Adams:

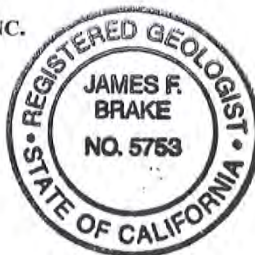
In accordance with the Interagency Agreement between the California Department of Toxic Substances Control (DTSC) and the California Department of Transportation (Caltrans) dated June 22, 2012, we are pleased to submit the enclosed revised Draft Final Remedial Action Plan (RAP) for the Caltrans Modesto Soil Stockpiles (the Site) located south of the State Route 99/Kansas Avenue interchange in Modesto, Stanislaus County, California. This Draft Final RAP includes revisions made in response to comments on the Draft RAP provided by the DTSC in their letter to Caltrans dated September 18, 2014.

We trust that the Draft Final RAP adequately addresses the DTSC's comments and that the document is ready for public review. Please call the undersigned if you have any questions regarding the Draft Final RAP.

Sincerely,

GEOCON CONSULTANTS, INC.


Jim Brake, PG
Project Manager




John E. Juhrend, PE, CEG
Principal/Senior Engineer

- (1) Addressee
- (1) Caltrans, Ms. Sam Haack
- (1) California Regional Water Quality Control Board, Central Valley Region, Mr. Steve Meeks

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- A. Evaluation of Alternatives
- B. Administrative Record
- C. Statement of Reasons
- D. Preliminary Nonbinding Allocation of Responsibility

ACRONYMS AND ABBREVIATIONS

AIA	air impact assessment
ARAR	applicable or relevant and appropriate requirement
Cal-EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDMG	California Division of Mines and Geology
CEG	Certified Engineering Geologist
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
COPC	contaminant of potential concern
CVRWQCB	Central Valley Regional Water Quality Control Board
CSEM	Conceptual Site Exposure Model
DI	de-ionized water
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPC	exposure-point concentrations
ESL	Environmental Screening Level
FMC	Food Machinery and Chemical Corporation
FS	feasibility study
GRA	general response action
HERO	Human and Ecological Risk Office
HI	hazard index
HHRA	Human Health Risk Assessment
HSP	health and safety plan
IA	Interagency Agreement
ISA	Initial Site Assessment
kg/m ³	kilograms per cubic meter
LUC	land use covenant
MCL	Maximum Contaminant Level
MDC	maximum detected concentration
µg/dL	micrograms per deciliter
µg/kg	micrograms per kilogram
µg/l	micrograms per liter
µg/m ³	micrograms per cubic meter
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
mg/m ³	milligrams per cubic meter
MID	Modesto Irrigation District
MSL	mean sea level
NCP	National Contingency Plan
NRCS	Natural Resources Conservation Service
O&M	operation and maintenance
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon

PEA	Preliminary Endangerment Assessment
PE	Professional Engineer
PG	Professional Geologist
PSI	Preliminary Site Investigation
PTR	Proven Technologies and Remedies
RAO	Removal Action Objective
RAOR	Remedial Action Options Report
RAP	Remedial Action Plan
RDIP	Remedial Design Implementation Plan
RL	reporting limit
ROW	right-of-way
RSL	Regional Screening Level
SFBRWQCB	San Francisco Bay Area Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SI	site investigation
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SSI	Supplemental Site Investigation
STLC	Soluble Threshold Limit Concentration
StanCOG	Stanislaus Council of Governments
TBC	to be considered
TOC	top of casing
TSS	total suspended solids
UCL	upper confidence limit
USA	Underground Service Alert
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WET	waste extraction test
yd ³	cubic yard

DRAFT FINAL REMEDIAL ACTION PLAN

EXECUTIVE SUMMARY

This Draft Final Remedial Action Plan (RAP) was prepared on behalf of the California Department of Transportation (Caltrans) for the Caltrans Modesto Soil Stockpiles (the Site) located south of the State Route (SR)-99/Kansas Avenue interchange in Modesto, Stanislaus County, California. Caltrans is in the process of finalizing a draft Environmental Impact Report (EIR) for the proposed SR-132 West Freeway/Expressway Project (the SR-132 Project), which is being developed in coordination with Stanislaus Council of Governments (StanCOG). The draft EIR is being prepared in accordance and to comply with the California Environmental Quality Act (CEQA) with Caltrans as the lead agency. This RAP will be a supplement to the EIR and therefore, the California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (CVRWQCB) in their capacity as oversight agencies for the RAP, are also reviewing agencies for the EIR.

The stockpiles were created in the early-1960s by importing soil from an FMC facility that was located less than 500 feet north of the Site. FMC and its predecessors operated a chemical processing facility at that location from 1929 to approximately 1985. The facility processed barium and strontium minerals (barite and celestite) and other materials to produce a variety of industrial chemicals. From the early 1950s to the late 1970s, liquid wastes were discharged to seven unlined ponds at the FMC facility. During construction of SR-99, soil in and around one of the former FMC ponds was excavated and stockpiled in their current configuration within the current Caltrans right-of-way for a planned SR-99/SR-132 interchange. This RAP summarizes the assessments of the contaminants and the recommendation and implementation of the recommended remedial action.

Purpose of the RAP

The purpose of the RAP is to summarize in one document the results of characterization of contaminant impacts at the Site, an assessment of potential risks to human health and the environment associated with the impacts, the development of a remedial action alternative to reduce those risks, and to make this information available to the public for review and comment. This RAP provides the following specific information:

- A description of the Site's physical characteristics including location, size, configuration, its geologic, hydrogeologic, and geotechnical characteristics, stormwater runoff, and background soil conditions.
- The results of characterization to identify and assess the nature and extent of contaminants of potential concern (COPCs) at the Site.
- The results of a human health risk assessment (HHRA) and an HHRA Update for the Site performed based on COPC concentrations in the stockpiles.
- Applicable or relevant and appropriate requirements (ARAR) for implementation of the

recommended remedial alternative.

- A summary of a Feasibility Study (FS) which evaluated potential remedial alternatives to address the COPCs. The FS has been reviewed and approved by the DTSC and CVRWQCB.
- A conceptual design for the recommended remedial alternative.
- Land use controls that would be required to limit land use on the Site.
- Monitoring that would be performed to ensure that the implemented remedial alternative continues to be effective.
- A schedule for implementation of the recommended remedial alternative.
- A Health and Safety Plan (HSP) for use during implementation of the selected remedial alternative.
- The measures taken to satisfy CEQA.
- Public participation efforts including public notices, fact sheets, public hearings, and public comment on the Draft Final RAP.

Site Name and Location

Site Name: Caltrans Modesto Soil Stockpiles, Stockpiles #1, #2, and #3, and collectively “the Site”.

Site Location: The stockpiles occupy a portion of Caltrans’ right-of-way (ROW) approximately 350 feet south of the Kansas Avenue overcrossing of SR-99 in Modesto, Stanislaus County, California. The stockpiles extend approximately 2,500 feet west of SR-99 and approximately 500 feet east of SR-99.

Site Description

The Site consists of three separate soil stockpiles within Caltrans ROW, which were placed to be used for the planned SR-132 Project. The following is a summary of the configuration, orientation, size, and surrounding vicinity of each stockpile:

- **Stockpile #1** is located south of Kansas Avenue and west of Emerald Avenue. It is rectangular in shape, approximately 600 feet long in the east-west direction and 160 feet wide, with a flat top and sloped sides. Stockpile #1 has an estimated volume of approximately 34,000 cubic yards (yd³). It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is undeveloped ROW, and to the east is an approximately 240 feet long undeveloped section of ROW and North Emerald Avenue.
- **Stockpile #2** is located south of Kansas Avenue, between Emerald Avenue and SR- 99. It is also rectangular - approximately 1,650 feet long in the east-west direction, 160 feet wide, and flat-topped with sloped sides. Stockpile #2 has an estimated volume of approximately 102,000 yd³. It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is North Emerald Avenue, and to the east is SR-99.

- **Stockpile #3** is located south of Kansas Avenue and east of SR-99. It has a curvilinear shape extending northwest to southeast (concave to the southwest) with a length of approximately 1,100 feet and a width of approximately 120 feet. It has an estimated volume of approximately 24,000 yd³. It is bounded by SR-99 to the south and west and commercial/light industrial development to the north and east. The Modesto Irrigation District (MID) Lateral #4 canal concrete box culvert extends beneath its southeastern end.

The stockpiles are enclosed within perimeter fencing and bordered by adjacent property boundary fencing/walls or structures. There are no operations on the stockpiles other than site maintenance, which consists of seasonal mowing of the vegetative (grass) cover on the stockpiles and maintaining the perimeter fencing. Groundwater beneath and in the vicinity of the stockpiles is monitored quarterly through a system of ten groundwater monitoring wells. Stormwater is monitored at six locations (four adjacent and two background) around the stockpiles on a precipitation-dependent basis.

Site Characterization and Contaminants Involved

An Initial Site Assessment (ISA) was conducted for the SR-132 West Freeway/Expressway Project in 2003, which identified the stockpiles as potentially containing COPCs associated with the FMC facility. The ISA was followed by a Preliminary Site Investigation (PSI) in 2004 to characterize the stockpiles. The PSI identified the presence of barium in stockpile soil samples at concentrations exceeding commercial/industrial California Human Health Screening Levels (CHHSLs) and cadmium at concentrations exceeding the commercial/industrial CHHSL in Stockpiles #2 and #3.

Additional site investigation was performed in 2006 to further characterize the soil stockpiles, compare analytical results to background conditions and CHHSLs, and included the installation of eight groundwater monitoring wells to assess groundwater quality. The results of analysis of groundwater samples initially collected from the wells in June and October 2006 indicated that groundwater met drinking water standards (primary and secondary Maximum Contaminant Levels – MCL) for those constituents analyzed.

A human health risk assessment (HHRA) was performed in 2007 for the COPCs in the stockpiles and groundwater using multiple exposure scenarios. Metals (notably barium) and polynuclear aromatic hydrocarbons (PAHs) were identified as the primary COPCs in the soil stockpiles and metals and general minerals (e.g. nitrate, total dissolved solids) as the primary COPCs in groundwater. Cadmium was not considered a COPC in the HHRA due to the lack of elevated cadmium concentrations identified during the 2006 SI. Strontium was also not considered a COPC in the HHRA since the maximum strontium concentration was more than two orders of magnitude less than the United States Environmental Protection Agency's (USEPA) residential Regional Screening Level (RSL) of 47,000 mg/kg. The HHRA concluded that the soil stockpiles do not pose an unacceptable risk or hazard to current or future offsite residents, trespassers, construction workers or hypothetical future shallow groundwater users.

In response to the HHRA, the DTSC requested additional toxicological and site information prior to making a final determination regarding risk or hazard posed by the COPCs in the stockpile soil. A Final Preliminary Endangerment Assessment (PEA) was prepared in 2009 providing the additional information requested by the DTSC. The DTSC concluded that the soil stockpiles, as managed by Caltrans, do not pose a risk to human health for Caltrans workers, trespassers, or residents adjacent to the stockpiles and that Caltrans should continue to limit access to Caltrans-authorized personnel, maintain the perimeter fence, not excavate, grade, remove, or add soil to the Site, and maintain the vegetative cover. They also commented that Caltrans should continue to maintain the groundwater monitoring system associated with the Site.

In 2012, Caltrans entered into a second interagency agreement (IA) with the DTSC to further address the soil in Stockpiles 1 through 3. This IA outlined tasks for additional site characterization, risk evaluation and cleanup level determination, preparation of an FS to evaluate remedial alternatives, this Draft Final RAP to convey site information and remediation plans to the public for review and comment, the necessary CEQA documents, and to conduct public participation activities, quality assurance, and quarterly groundwater monitoring and reporting.

In conjunction with the planned SR-132 Project, groundwater monitoring was reinitiated and conducted bi-monthly from March 2012 to March 2013. Since June 2013, groundwater monitoring has been conducted on a quarterly basis. Two additional groundwater monitoring wells were installed in May 2012 and incorporated into the monitoring program.

The additional site characterization requested by DTSC and CVRWQCB in the IA was intended to fill potential data gaps including perimeter ROW fenceline stockpile soil sampling to assess potential offsite and vertical migration of contaminants, perimeter stockpile soil sampling to define the lateral stockpile limits to aid in consolidation during future construction of the SR-132 Project, and additional stockpile soil sampling in areas of elevated cadmium concentrations identified in Stockpiles 2 and 3 during the 2004 PSI. A Supplemental Site investigation (SSI) was performed in September 2012 to address these data gaps. Laboratory analysis of soil samples collected from “Fenceline Borings” and “Perimeter Borings” did not detect barium at concentrations exceeding residential or commercial CHHSLs. Strontium was detected at concentrations within the range of background and orders of magnitude below the residential RSL. Cadmium was not detected in any of the soil samples collected from the “Cadmium Borings” advanced in Stockpiles 2 and 3 in areas of elevated cadmium reported in the 2004 PSI.

In 2013 the 2007 HHRA was updated by incorporating soil analytical data generated from the fenceline, perimeter, and additional stockpile sampling and groundwater analytical data generated from bi-monthly sampling events. The SSI data collected in September 2012 and groundwater data collected between March 2012 and March 2013 were compared to the data used in the 2007 HHRA. The 2012

soil and groundwater data was found to be similar to that utilized in the 2007 HHRA and therefore did not increase the conservative risk estimates. The 2007 HHRA was found to still be valid with respect to exposure potential for the resident/trespasser, construction worker and offsite resident, and hypothetical shallow groundwater user. DTSC concurred with the findings of the HHRA Update.

Scope and Role of the Remediation

Based on the 2007 HHRA and 2013 update, the DTSC confirmed that the soil stockpiles do not pose a risk to persons on or in the vicinity of the stockpiles as long as the stockpiles are maintained by: continuing to maintain fencing and signage around the stockpiles, to not disturb soil in the stockpiles, to keep a vegetative cover, and to continue to monitor groundwater..

Proposed Remedial Alternative

Based on the CERCLA nine-criteria analysis performed in the FS, Alternative 4 – Containment is the recommended alternative. Containment of the stockpiles will be achieved by incorporating the stockpiles as fill in the construction of the SR-132/SR-99 interchange portion of the planned SR-132 Project. The SR-132 Project requires a significant amount of embankment fill and is the reason the stockpiles were placed on the Site in the early 1960s. The stockpile soil will be contained behind retaining walls and bridge abutments and beneath roadway pavement thereby preventing potential exposure to the soil and stormwater infiltration or erosion.

The project will be constructed in two phases – an interim progress phase to be completed by 2018 and ultimate build-out phase to be completed by 2028. The interim progress phase will consist of a two-lane roadway, which will be constructed over the southern portions of Stockpiles 1 and 2. During this phase, the northern portions of Stockpiles 1 and 2 will not be contained beneath roadways and behind retaining walls and bridge abutments, but will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. The ultimate build-out will include complete containment of the stockpiles within the project behind retaining walls, bridge abutments, and beneath roadway pavement. The median between the eastbound and westbound lanes of SR-132 will be covered either by pavement or a synthetic liner and clean soil layer.

Stockpile 3 is planned to be entirely contained within the interim progress phase of the Project. As much of Stockpile 3 as possible will be placed in the stockpile fill consolidation zone within the eastern abutment for the SR-132 bridge over SR-99. The remainder of Stockpile 3 will then be placed in the stockpile fill consolidation zone of Stockpile 2.

The primary factors which support containment as the preferred remedy are: (1) it is effective in providing long-term, overall protection of human health and the environment; (2) it is technically feasible; (3) it is cost-effective because funding is available for construction of the SR-132 Project;

and (4) it will help minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

Other Remedial Alternatives Considered

Other alternatives that were considered in the FS include:

- No action,
- Institutional controls, and
- Removal of the stockpiles and offsite disposal.

No action would provide the lowest level of overall protection of human health and the environment of the four alternatives considered. No action would have the lowest level of regulatory acceptance because of the lack of site management and monitoring and would likely have the lowest level of community acceptance due to the perceived threat to human health and the environment. This is the least costly of the alternatives and is the most implementable.

Institutional controls include the site management activities that DTSC stated would be necessary to ensure that the stockpiles in their current condition do not represent a risk to human health or the environment. Management includes limiting access to only Caltrans-authorized personnel, regularly inspecting and maintaining the perimeter fence, prohibiting any soil disturbing activities or placement of other soil on the Site, maintaining the current vegetative cover, and continuing to maintain the groundwater monitoring programs for the Site. Maintaining the institutional controls would provide a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Similar to no action, though, this alternative may not be acceptable to the community due to the perceived threat to human health and the environment. This alternative is the second lowest in cost and the second most implementable.

Removal of the stockpiles and disposal at an offsite landfill would provide the greatest degree of overall protection of human health and the environment and may be the most acceptable to the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four, and funding is not currently identified for removal. This alternative could be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

This Draft Final RAP will be made available to the public for a 30-day review and comment period. The Draft Final RAP will be available at public repositories including DTSC offices and a local public repository to be determined. Notification of the schedule of the public review and comment period will also be made in local newspapers and posted at the Site. The public is invited to review the Draft Final RAP and provide input during this time. The DTSC and CRWQCB will review all comments and provide responses in a responsiveness summary. In addition, a public meeting will be held during the 30-day public review and comment period to further describe the project, the remedy selection process, the selected remedy, and to hear community input. The place and schedule for the public meeting will also be noticed in local newspapers, via a fact sheet that will be mailed to nearby residents and other interested parties, and posted at the Site.

1.0 INTRODUCTION

This Draft Final Remedial Action Plan (RAP) was prepared on behalf of the California Department of Transportation (Caltrans) for the Caltrans Modesto Soil Stockpiles (the Site) located south of State Route (SR)-99/Kansas Avenue interchange in Modesto, Stanislaus County, California (Figure 1). Caltrans is in the process of finalizing the draft environmental impact report (EIR) in accordance with the California Environmental Quality Act (CEQA) for the proposed SR-132 West Freeway/Expressway Project (the SR-132 Project) that is being developed in coordination with Stanislaus Council of Governments (StanCOG). Both the California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (CVRWQCB) will be reviewing agencies for the EIR.

The SR-132 Project will result in the ultimate build-out of a four-lane expressway by 2028. An interim progress phase will include construction of the SR-132 West/6th Street and SR-132/East/5th Street extensions, two of four traffic lanes from east of SR-99 to North Dakota Avenue, the Carpenter Road interchange, and the SR-132 roadway structures across Emerald Avenue and SR-99 by 2018. The ultimate build-out phase will include highway widening to four traffic lanes, construction of structures to accommodate the roadway widening along SR-132, and the SR-99/SR-132 interchange with related improvements along SR-99 by 2028.

The stockpiles, portions of which contain elevated levels of barium, are planned to be contained within the project by utilizing them as embankment material for roadway construction, retaining wall backfill, and bridge abutments. It is anticipated that remedial and contour cut/fill grading will be necessary to achieve final finish grades and to properly consolidate and contain the existing soil stockpiles.

1.1 Purpose and Organization of the RAP

The purpose of this Draft Final RAP is to describe the remedial action evaluation and selection process for the Site, explain the preferred remedial action alternative and the reasons for the preference; describe other remedial alternatives considered, and solicit public review and comments. The Draft Final RAP is organized as follows:

- **Section 1.0 Introduction** – includes a description of the Site and its history with respect to the origin of the stockpiles, a summary of previous site characterization activities, and a description of site physical conditions including geologic, hydrogeologic, geotechnical characteristics, stormwater, and background soil conditions.
- **Section 2.0 Nature and Extent of Impacts** - summarizes the results of characterization to identify and assess the nature and extent of contaminants of potential concern (COPC) at the Site. A conceptual site exposure model (CSEM) depicting sources of COPCs, release mechanisms, exposure routes, and receptors is presented in this section.

- **Section 3.0 Remedial Action Objective** - summarizes a human health risk assessment (HHRA) and an HHRA Update for the Site performed based on COPC concentrations in the stockpiles. Applicable or relevant and appropriate requirements (ARAR) for implementation of the selected remedial alternative are also summarized.
- **Section 4.0 Summary of Feasibility Study** - summarizes a Feasibility Study (FS) which evaluated potential remedial alternatives to address the COPCs and selected the most appropriate one.
- **Section 5.0 Preliminary Remedial Design for Soil Remedy** – presents a conceptual design for the recommended remedial alternative.
- **Section 6.0 Land Use Controls** – summarizes land use controls that would be put in place to limit land use on the Site.
- **Section 7.0 Monitoring and Reporting** – describes monitoring that would be performed to ensure that the implemented remedial alternative continues to be effective.
- **Section 8.0 Implementation Schedule** – provides a schedule for implementation of the recommended remedial alternative.
- **Section 9.0 – Health and Safety Plan** includes a Health and Safety Plan (HSP) for use during implementation of the recommended remedial alternative.
- **Section 10.0 – CEQA** summarizes the measures taken to satisfy the California Environmental Quality Act (CEQA)
- **Section 11.0 – Public Participation** describes public participation efforts including a Public Participation Plan (currently being prepared by the DTSC), public notices, fact sheets, public hearings, and public comment on the Draft Final RAP.

This Draft Final RAP has been prepared in general accordance with Appendix C2 (*Remedial Action Plan Sample*) of the DTSC's *Proven Technologies and Remedies Guidance, Remediation of Metals in Soil* dated August 29, 2008.

1.2 Site Description

The Site consists of three separate soil stockpiles within Caltrans right-of-way (ROW) located south of the SR-99/Kansas Avenue interchange, which are planned to be used for the SR-132 Project. The following is a summary of the configuration, orientation, size, and surrounding vicinity of each stockpile:

- **Stockpile #1** is located south of Kansas Avenue and west of Emerald Avenue. It is approximately 600 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 34,000 cubic yards (yd³). It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is undeveloped ROW, and to the east is an approximately 240 feet long undeveloped section of ROW and North Emerald Avenue.
- **Stockpile #2** is located south of Kansas Avenue, between Emerald Avenue and SR- 99. It is approximately 1,650 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 102,000 yd³. It is bounded by commercial/light

industrial development to the north and single-family residential to the south. To the west is North Emerald Avenue, and to the east is SR-99.

- **Stockpile #3** is located south of Kansas Avenue and east of SR-99. It has a curvilinear shape extending northwest to southeast, concave to the southwest, with a length of approximately 1,100 feet and a width of approximately 120 feet. It has an estimated volume of approximately 24,000 yd³. It is bounded by SR-99 to the south and west and commercial/light industrial development to the north and east. The Modesto Irrigation District (MID) Lateral #4 canal concrete box culvert extends beneath its southeastern end.

The stockpiles are enclosed within security fencing and bordered by adjacent property boundary fencing/walls or structures. The stockpiles, ROW boundaries, and surrounding vicinity are depicted on the Site Plan (Figure 2).

1.3 Site History

From the 1930s to 1970s, property beneath and northeast of the SR-99/Kansas Avenue Interchange was occupied by chemical processing facilities operated by Barium Products LTD, Westvaco Chlorine Products Corporation, and Food Machinery and Chemical Corporation (FMC). Ores and minerals including barite (barium sulfate) and celestite (strontium sulfate) were processed for use in greases, lubricating oil and pigment blanks. Sodium sulfide was generated as a by-product and sold as a caustic and reagent.

From the 1950s to the 1970s, liquid residue (“tailings”) generated by FMC at this facility was discharged to unlined evaporation ponds. In 1961, the State purchased a 4.3-acre parcel in the southwestern portion of the FMC facility, including a portion of the ponds, for the construction of the SR-99 freeway through Modesto. Pond tailings and underlying soils from the FMC site along with native soils excavated south of the SR-99/Kansas Avenue interchange were placed to create the three stockpiles that exist today.

In order to establish the timing of placement of the stockpile material within the boundaries of Caltrans’ ROW, aerial photographs from 1963 and 1967 (Figures 3a and 3b, respectively) were reviewed. The 1963 photograph shows grading/construction of SR-99 including the southwestern portion of the FMC property, interchange ramps at Kansas Avenue, and placement of Stockpiles 2 and 3. The Kansas Avenue overpass appears to have been completed. Haul roads to Stockpiles 2 and 3 were within Caltrans ROW. Adjacent property conditions included rural residential and agricultural property west of Emerald Avenue in the current location of Stockpile 1. Residential development was adjacent to the south of Stockpile 2. The areas north and northeast of Stockpiles 2 and 3 were rural residential, agricultural land, and commercial/industrial businesses.

The 1967 photograph shows that SR-99 north and south of the Kansas Avenue interchange had been completed, and Stockpiles 1, 2 and 3 existed essentially as they do today. Property conditions adjacent to Stockpile 1 consisted of rural agricultural property and recent residential subdivision development

along the western half of the southerly stockpile boundary. Haul roads to Stockpile 1 were within Caltrans ROW.

1.4 Site Characterization

Shaw Environmental, Inc. (Shaw) conducted an Initial Site Assessment (ISA) for the SR-132 West Freeway/Expressway Project in 2003. The ISA identified a potential for the soil stockpiles within the SR-132 ROW to contain residual chemicals associated with the former FMC impoundments. Shaw then conducted a Preliminary Site Investigation (PSI) in 2004 to characterize the stockpiles. The PSI consisted of drilling 50 borings into the stockpiles, underlying native soil, and background soil from which they collected soil samples and had them analyzed for heavy metals, polycyclic aromatic hydrocarbons (PAH), nitrate, and pH. The analytical results indicated elevated barium concentrations in stockpile soil samples exceeding commercial/industrial California Human Health Screening Levels (CHHSL). Cadmium concentrations exceeding the commercial/industrial CHHSL were also detected in soil samples collected from 8 of 25 borings in Stockpile 2 and from 2 of 10 borings in Stockpile 3.

In accordance with a DTSC/Caltrans 2006 Interagency Agreement (IA) and the requirement to complete a Preliminary Endangerment Assessment (PEA), Shaw conducted additional site investigation (SI) in 2006 to further characterize the soil stockpiles and compare the analytical data to background conditions and CHHSLs. They also installed eight groundwater monitoring wells in order to assess groundwater quality. The 2004 and 2006 Shaw investigations found that the stockpiles are primarily comprised of layered, poorly graded sand and silty sand similar to underlying native alluvial deposits of the Modesto Formation. The average maximum stockpile fill thickness was determined to be approximately 20 feet. Groundwater was encountered in the project vicinity at depths between 30 and 40 feet (below natural grade) with flow toward the southeast. The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 indicated that groundwater met drinking water standards (primary and secondary Maximum Contaminant Levels – MCL) for those constituents analyzed.

Shaw prepared an HHRA in 2007 for the COPCs in the stockpiles and groundwater using multiple exposure scenarios. Metals (notably barium) and PAHs were identified as the primary COPCs in the soil stockpiles and metals and general minerals (e.g. nitrate, total dissolved solids) as the primary COPCs in groundwater. For the purposes of the HHRA, Shaw did not identify cadmium as a COPC due to the lack of elevated cadmium concentrations reported for soil samples collected during the 2006 SI. Shaw also did not identify strontium as a COPC in the HHRA since the maximum strontium concentration of 231 milligrams per kilogram (mg/kg) reported in the Shaw 2004 PSI is more than two orders of magnitude less than the United States Environmental Protection Agency's (USEPA) residential Regional Screening Level (RSL) of 47,000 mg/kg. There is no CHHSL for strontium. The results of the HHRA indicated that the soil stockpiles do not pose an unacceptable risk or hazard to current or future offsite residents, trespassers, construction workers or hypothetical future shallow groundwater users.

In response to the HHRA, the DTSC issued an August 2007 letter that requested additional toxicological and site information prior to making a final determination regarding risk or hazard posed by the COPCs in the stockpile material. Shaw prepared a Final PEA and a Response to Comments document in 2009 to summarize the findings of previous reports prepared for the soil stockpiles and to provide the additional information requested by the DTSC. In a letter dated December 17, 2009, the DTSC responded to the Final PEA stating that:

“DTSC finds that the soil stockpiles, as currently managed by Caltrans on Caltrans property, do not pose a risk to human health for: 1) Caltrans workers who access the fenced site to conduct mowing operations, conduct fence repairs, or other routine activities; 2) trespassers; and 3) residents adjacent to the stockpiles. Until such time that the State Route 132/99 Interchange project is constructed and/or the final disposition of the soil stockpiles is determined, Caltrans should continue to manage the soil stockpiles by: 1) limiting access to Caltrans authorized personnel; 2) inspecting and maintaining the chain-link fence; 3) prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site; and 4) maintaining the current grade and vegetative cover. Caltrans should also maintain the existing groundwater monitoring system associated with the Site.”

In conjunction with activities associated with the SR-132 Project, groundwater monitoring was reinitiated and conducted bi-monthly from March 2012 to March 2013. Beginning in June 2013, groundwater monitoring is being conducted on a quarterly basis.

Caltrans and the DTSC, in cooperation with the CVRWQCB, entered into a second IA dated June 22, 2012, to further address the soil in Stockpiles 1 through 3. This IA outlined tasks for additional site characterization, risk evaluation and cleanup level determination, an FS to evaluate remedial alternatives, preparation of a RAP, preparation of the necessary CEQA documents, public participation activities, quality assurance, and quarterly groundwater monitoring and reporting.

Upgradient wells MW-9 and MW-10 were installed immediately south of Kansas Avenue and west and east of SR-99 (Figure 2), respectively, in May 2012. Groundwater samples were initially collected in these wells in June 2012 then incorporated into subsequent bi-monthly sampling rounds.

The analytical results from the 2012 and 2013 groundwater monitoring events are similar to the results from 2006, with primary analytes reported at concentrations less than California MCLs.

On July 26, 2012, a meeting was held with representatives from Geocon, Caltrans, DTSC, and CVRWQCB to review existing site data and discuss potential remedies to address human health exposure and environmental impacts associated with the barium-impacted soil stockpiles. DTSC and the CVRWQCB requested additional sampling to fill potential data gaps in the following areas:

1. Perimeter ROW fenceline stockpile soil sampling to assess potential offsite and vertical migration of contaminants.
2. Perimeter stockpile soil sampling to define the lateral stockpile limits to aid in consolidation during future construction of the SR-132 Project.
3. Additional stockpile soil sampling in areas of elevated cadmium concentrations identified in Stockpiles 2 and 3 during the Shaw 2004 PSI.

Geocon performed a Supplemental Site investigation (SSI) in September 2012 to address these data gaps. Laboratory analysis of 97 soil samples collected from 35 “Fenceline Borings” and 28 “Perimeter Borings” did not detect barium at concentrations exceeding residential or commercial CHHSLs. Barium concentrations in the surface soil samples ranged to a maximum of 4,300 mg/kg. Barium concentrations were consistently lower in the bottom of boring soil samples (2 to 5 feet) collected from the Fenceline Borings compared to those reported for the surface samples. Strontium was detected at concentrations up to 110 mg/kg for the Fenceline Boring surface soil samples, which is within the range of background and orders of magnitude below the residential RSL of 47,000 mg/kg. Cadmium was not detected in any of the soil samples collected from the “Cadmium Borings” advanced in Stockpiles 2 and 3 in areas of elevated cadmium reported in the Shaw 2004 PSI.

1.5 Previous Removal Actions Taken

To date, the only removal action taken on the Site has been excavation and landfill disposal of a portion of Stockpile 3 as part of Caltrans’ rehabilitation of the off-ramp to Kansas Avenue to improve traffic safety and meet current design standards. The highway safety improvement project included widening the off-ramp shoulder areas and associated drainage features. Shoulder widening on the east side of the off-ramp included construction of a retaining wall against the existing Stockpile 3 embankment and laying back the embankment slope.

Geocon previously completed eight direct-push borings and eleven hand-auger borings within the embankment area. Barium was detected in each sample at concentrations ranging from 34 to 1,600 mg/kg, all less than the residential and commercial/industrial CHHSLs for barium of 5,200 and 63,000 mg/kg, respectively. Based on this data, data previously presented in the PEA, and review by DTSC, the excavated soil stockpile materials were designated for offsite disposal as non-hazardous soil to an accepting licensed landfill facility. The DTSC conveyed their finding that offsite management of the soil from Stockpile 3 did not pose a threat to human health or the environment in a letter dated August 30, 2012.

The *Stockpile 3 Excavation Monitoring Plan* completed in June 2012 described procedures for air monitoring and verification of completed stockpile excavations during construction of the highway off-ramp improvements. Approximately 2,800 yd³ of the Stockpile 3 soil embankment were excavated over ten days between September 7 and 26, 2012. The excavated stockpile material was directly loaded into covered trucks for transport to the Forward Class II landfill facility in Manteca, California, under non-hazardous waste manifests. Dust suppression provided by the Caltrans contractor during the stockpile excavation and loading activities consisted of pre-soaking and water spray during the stockpile excavation activities. A Geocon project scientist, working under the direct supervision of a California Professional Geologist (PG), oversaw the excavation activities. The individual performing the oversight also prepared and maintained daily field logs that documented the daily quantities of materials excavated. The project geologist provided a determination when the planned construction excavation limits within Stockpile 3 had been completed, exposing native soil of the Modesto Formation (Geocon, June 2012).

Ambient perimeter air was monitored during Stockpile 3 excavation and loading activities to document total airborne particulate concentrations in accordance with the air monitoring plan. The results of air monitoring aided in assessing the effectiveness of the contractor's dust control measures.

Air monitoring tasks included:

- Documenting and photographing the locations of air monitoring stations;
- Monitoring daily meteorological forecast to anticipate onsite wind direction and speed; and
- Verifying that downwind direct-read, real-time particulate counter readings (pDR-1200 monitors) did not exceed the Fence Line Total Dust Action Level of 4.0 milligrams per cubic meter (mg/m³).

In addition to the data logging programmed in the real-time monitors, field personnel checked each real-time air monitoring instrument hourly to ensure proper operation and battery capacity and also recorded the time-weighted average airborne dust readings hourly.

Direct read (pDR-1200) and laboratory air sample results for the project indicated that airborne levels of lead and barium were well below levels of concern during excavation activities at Stockpile 3. The removal activities are documented in the *Stockpile 3 Excavation Summary Report, Modesto Ramp Rehabilitation Project, State Route 99 Kansas Avenue Northbound Off-Ramp, Modesto, California*, dated March 15, 2013.

1.6 Site Geology and Hydrogeology

The following subsections provide a summary of the regional and local topographic, geologic, soil, and hydrogeologic conditions associated with the Site.

1.6.1 Topography

The United States Geological Survey (USGS) *Salida, California*, 7.5-minute topographic map indicates the Site is located within Township 3 South, Range 9 East, with Stockpiles 1 and 2 in the southern half of Section 30, and Stockpile 3 in the southwestern quarter of Section 29, Mount Diablo baseline and meridian. Based on contour lines on the topographic map, with the exception of the SR-99 Kansas Avenue underpass, the vicinity surrounding the Site is relatively flat-lying at an elevation of approximately 84 feet above mean sea level (MSL), and a low westerly-trending surface gradient (USGS, 1987). The stockpiles range in height from approximately 2 to 20 feet above the surrounding ground surface.

1.6.2 Geologic and Soil Conditions

The Site is located within the northern San Joaquin Valley of California's Great Valley geomorphic province. The San Joaquin Valley is an asymmetrical structural trough bound by the Sacramento Valley to the north, the Coast Ranges to the west, and the Sierra Nevada to the east and south. The base of the Sierra Nevada slopes westward beneath the San Joaquin Valley to its greatest depth near the valley's western margin. The San Joaquin Valley has been filled with several thousand feet of sedimentary deposits eroded from the Sierra Nevada, which include deposits of sands, silts, clays, and gravels from western-flowing drainages and their tributaries. Sediments in the Modesto region were deposited primarily by the Stanislaus and Tuolumne Rivers to the north and south of the Site, respectively.

The Site is underlain by sediments of the late Pleistocene to early Holocene age Modesto formation, which were derived from granitic rocks of the Sierra Nevada and deposited in an alluvial environment. The Modesto formation is composed primarily of sand, silt, and silty sand, with lesser amounts of laterally discontinuous clay and silty clay. The thickness of the Modesto formation is variable, with a regional thickness of approximately 100 feet in the vicinity of the Site (California Division of Mines and Geology [CDMG], 1962).

The Modesto formation is underlain by Pleistocene age sands and silts of the Riverbank and Turlock Lake formations, and pediment gravels of the North Merced formation. Tertiary age pediment gravels of metamorphic origin, and clays, tuffs, and ash of volcanic origin underlie these formations, with Cretaceous age marine sandstones and shale of the Great Valley sequence beneath the Tertiary formations at regional depths of approximately 3,000 feet (CDMG, 1962).

Shaw's SI Report (*Shaw*, 2007a and Appendix A of the HHRA) indicates that the onsite stockpile materials were placed over the native Modesto formation sediments and that there appeared to be some undulation in the original ground surface. The stockpile boring logs and associated cross-sections in Shaw's report indicate that the Modesto formation is situated beneath the onsite stockpiles at depths ranging from approximately 2 feet near the western end of Stockpile 1 to approximately 20 feet near the western end of Stockpile 3 (*Shaw*, 2007a). Shaw described the native sedimentary materials encountered

in the Modesto formation as primarily consisting of silt, silty sand, and sand, with lesser amounts of laterally discontinuous clay and silty clay. Shaw also indicated that fill materials encountered in the stockpiles were “generally similar” to the native soils; however, distinct layers of gray and bluish-gray non-native materials were encountered in the stockpile materials (Shaw, 2007a).

According to the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) website (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>), the soil onsite primarily consists of Dinuba fine sandy loam to a depth of approximately 10 inches that was derived from granitic sediments deposited in an alluvial environment. The Dinuba fine sandy loam is described as moderately well-drained and underlain by sandy loam to a depth of approximately 28 inches, and very fine sand and silt loam to a depth of approximately 60 inches. The NRCS website database also indicates that native soil on the approximate southern one-third of the Site beneath Stockpile 1 consists of Modesto loam to a depth of approximately 12 inches that was also derived from granitic sediments deposited in an alluvial environment. The Modesto loam is described as moderately well-drained and underlain by clay to a depth of approximately 35 inches, sandy clay loam to a depth of approximately 55 inches, and silty clay to a depth of approximately 62 inches.

1.6.3 Geotechnical Characteristics

In June 2012, Kleinfelder performed a geotechnical investigation of the stockpiles. The investigation included nine hollow-stem auger borings to a depth of 41.5 feet below the surfaces of the stockpiles. As reported in their September 2012 *Final Geotechnical Design Report*, stockpile soil was encountered to depths of approximately 10 to 20 feet at each boring location. The soil conditions were reported as loose to very dense, interbedded layers of silty sand, sandy silt with some layers of hard sandy clay. Debris consisting of asphalt, metal and brick at depths between 3 and 10 feet in boring A-12-002 advanced on the eastern portion of Stockpile 1 was also reported. Groundwater was not encountered to the maximum depth explored.

Kleinfelder presented the following specific conclusions and recommendations to assist in design and construction of the proposed SR-132 highway improvements in the vicinity of the soil stockpiles:

- Embankment foundation soil is adequate to support the proposed embankment without adverse consequences.
- Final unpaved slopes should be 2:1 or flatter and be protected from erosion by proper management of drainage, planting drought resistant vegetation, and necessary maintenance.
- No surface water should be allowed to pond near the tops of slopes or discharge over the slope face.
- Remove any debris materials encountered in the stockpile fill soil during planned highway construction excavations.

Kleinfelder concluded that the soil encountered in the borings is “geotechnically adequate for design and significant removal and replacement should not be necessary” to support the planned highway improvements including placement from 5 to 20 feet of additional fill material on top of the stockpiles and the construction of retaining walls along the length of Stockpiles 1 and 2 (Kleinfelder, 2012).

1.6.4 Hydrogeologic Conditions

The Site is situated within the Modesto Subbasin of the San Joaquin Basin Hydrologic Study Area. The Modesto Subbasin is situated between the Stanislaus and Tuolumne Rivers to the north and south, respectively, and is bounded by the Sierra Nevada foothills to the east, and the San Joaquin River to the west. The San Joaquin Basin Hydrologic Study Area includes the southern two-thirds of the Great Valley. Movement of groundwater within the San Joaquin Valley is generally from the flanks of the valley toward the axis of the trough beneath the western side of the valley, then subsequently north toward the Sacramento – San Joaquin Delta. In the San Joaquin Valley groundwater occurs in unconfined and semi-confined aquifers (California Department of Water Resources [DWR], 1980).

The San Joaquin Valley is an area of substantial groundwater withdrawal and recharge due to municipal, industrial, and agricultural use. Wide fluctuations in groundwater levels are not uncommon due to variations in annual rainfall, municipal pumping, and irrigation practices. The *Lines of Equal Depth to Water in Wells, Unconfined Aquifer, San Joaquin Valley, Spring 2010* issued by the DWR indicates a regional depth to groundwater of approximately 40 feet beneath the Site, with a generally south-southeasterly flow direction.

The hydrogeology of the FMC facility, approximately 1,100 feet north of the Site, has been characterized by several studies since the early 1980s. GeoTrans, Inc’s report: *Addendum to Comprehensive Remedial Investigations Report*, dated January 2005, provides the following description of the hydrogeology associated with FMC facility:

“The site is underlain by laterally discontinuous and unconsolidated sand and silty sand associated with the Modesto and Riverbank Formations. First-encountered groundwater is approximately 30 feet below ground surface (bgs) under confined to semi-confined conditions. A deeper aquifer is present at a depth of 165 feet bgs and separated from the upper zone by a blue clay aquitard. The upper water bearing unit has been divided into two zones: a shallow zone from first encountered groundwater to 120 feet bgs and a deeper zone from 140 feet bgs to the top of the aquitard. Groundwater flow within the upper zone is toward the southeast under a gradient of 0.002 ft/ft.”

As described in Section 1.4, Shaw installed eight groundwater monitoring wells adjacent to the three stockpiles in June 2006. Each well was installed into unconsolidated sand, silty sand, and silt layers within the Modesto formation underlying the Site (Shaw 2007b). The wells were completed within the shallow zone of the upper aquifer as described by GeoTrans. The lithology encountered in the well borings included interbedded (laterally discontinuous) sands, silts, and clays. Shallow zone groundwater

beneath the stockpiles was encountered at a depth of approximately 35 feet under unconfined to semi-confined conditions. Shaw determined that groundwater flow is toward the southeast at a gradient of approximately 0.001. The shallow aquifer conditions beneath the Site and the adjacent FMC facility are similar and representative of the local hydrogeologic conditions (Shaw 2007b).

In June 2013, depth to groundwater at the Site ranged from 31.73 (MW-1) to 40.11 (MW-5) feet below top of casing (TOC). Based on the groundwater elevation data, the groundwater flow is toward the east-southeast at an average gradient of 0.0005, which is generally consistent with historical flow.

1.6.5 Stockpile Stormwater

Shaw performed stormwater monitoring for the soil stockpiles in March 2006 in general accordance with their *Final Surface Water Sampling and Analysis Plan* (Shaw, January 2006). Seven stormwater runoff samples were collected from constructed impoundments during a qualifying rain event (visible runoff and 72 hours of prior dry weather). Shaw reported that they did not observe stormwater flowing away from the Caltrans ROW. The samples were analyzed for dissolved metals, PAHs, nitrate, sulfate, and sulfide.

With the sole exception of an elevated barium concentration reported for one stormwater sample collected from the northwestern side of Stockpile 3 (sample SW03), the stormwater samples did not contain target analytes exceeding MCLs or determined site background levels. Barium was reported at a concentration of 2,000 micrograms per liter ($\mu\text{g/l}$) in sample SW03 exceeding the MCL of 1,000 $\mu\text{g/l}$. Barium in the six other stormwater samples ranged from 16 to 190 $\mu\text{g/l}$. Shaw concluded that the elevated barium concentration reported for sample SW03 was isolated and that runoff in that area was confined to Caltrans ROW. Based on these results and due to site topography, vegetation and limited rainfall events, DTSC concluded that stormwater was not a chronic exposure issue. Therefore, surface water was not considered as a pathway in the HHRA.

Geocon prepared an addendum to the Shaw SAP to resume stormwater sampling at the soil stockpiles. The addendum identified revised sampling locations including ponding that was observed at the western end of Stockpile 2 adjacent to Emerald Avenue during a rain event on November 28, 2012.

Stormwater was most recently sampled on February 28, 2014. Stormwater samples were collected from four locations adjacent to the stockpiles and two background locations away from the stockpiles and analyzed for dissolved metals, chloride, nitrate as nitrogen, sulfate, sulfide, total alkalinity, bicarbonate alkalinity, and carbonate alkalinity, total dissolve solids (TDS), and total suspended solids (TSS). The results of this monitoring event were presented in a report by Geocon dated April 7, 2014 (Geocon, April 2014). Analysis results were generally consistent with background values; with the exception of barium for a runoff sample collected adjacent to the south side of Stockpile 2, and strontium for all four stormwater samples, which were higher than those reported for background samples.

1.7 Background COPC Concentrations

Shaw assessed background concentrations of COPCs during the 2006 SI for comparison to COPC concentrations in the stockpiles. Background soil samples were collected from what is reported as undeveloped and relatively undisturbed ground west of Stockpile 1. Eight soil borings were advanced to depths of 15 feet, and soil samples were collected at depths of 5, 10, and 15 feet. Shaw reported that the soil encountered in the eight background borings was predominantly sand with varying amounts of silt and clay.

The background soil samples were analyzed for inorganics, PAHs, and other inorganics (e.g., nitrate, sulfate, etc.). Shaw calculated 95th percentile upper confidence limits (UCL) for inorganics to establish local background concentrations for the Site. The 95th percentile UCLs could not be calculated for the infrequently detected constituents (e.g., beryllium, cadmium, and mercury) due to small population sizes, so arithmetic means for those constituents were calculated instead. For inorganics that were not detected, a concentration of one-half the detection limit was used as the background concentration. Shaw reported that the background concentrations of metals calculated for undisturbed soil near the stockpiles were in the general range as those determined for the FMC site.

Four background samples collected from various depths were also analyzed for PAHs, which were not detected (Shaw, 2007a).

2.0 NATURE AND EXTENT OF IMPACTS

This section describes the nature and extent of COPCs in the stockpiles.

2.1 Conceptual Site Exposure Model

Shaw prepared a Conceptual Site Exposure Model (CSEM) as part of their HHRA (Shaw, 2007c). The CSEM identifies primary sources of COPCs, exposure routes, receptor scenarios, and identifies whether they are “complete” or “incomplete.” The CSEM concluded that the offsite resident and trespasser were the current human receptors. Future receptors during the project would include the future construction worker and future offsite resident.

Their CSEM is shown on Figure 4. The CSEM shows that potential exposure routes for the current resident/trespasser exposure scenario include incidental ingestion, inhalation of dust, and dermal contact. Exposure routes for the future land use scenario would include incidental ingestion, dermal contact, and inhalation of dust for the construction worker.

An offsite resident or trespasser would not have access to the Site during construction; therefore, direct-contact exposure pathways would not be relevant for the resident/trespasser. However, dust could be carried offsite during construction activities. Therefore, Shaw evaluated inhalation for the offsite resident for the future construction scenario.

2.2 Soil Impacts

As described in Section 1.4, the nature and extent of COPCs in the stockpiles have been characterized through several investigations including the PSI conducted by Shaw in 2004, the SI in 2006, and Geocon’s SSI in September 2012. The results of these investigations are summarized below.

2.2.1 Shaw 2004 PSI

Shaw collected 194 stockpile soil and 49 native soil samples (soil from beneath the stockpiles) from 50 direct-push borings advanced through the soil stockpiles in January 2004 and, as described in Section 1.7, they also collected eight “background” soil samples from four borings completed in assumed non-impacted areas. Each soil sample was analyzed for metals including antimony, arsenic, barium, chromium, iron and strontium. Selected soil samples were further analyzed for PAHs, nitrate and pH.

Shaw identified barium as the only metal detected at elevated concentrations of concern and as the primary COPC (Shaw, 2004). Barium was detected at maximum concentrations of 1,730 mg/kg for Stockpile 1, 60,700 mg/kg for Stockpile 2, and 44,900 mg/kg for Stockpile 3. Barium concentrations reported for the eight background soil samples ranged from 57 to 888 mg/kg.

PAHs were not detected in 125 stockpile soil, native soil, or background soil samples analyzed. Nitrate was detected at a maximum concentration of 310 mg/kg in 42 of 54 stockpile soil, native soil, and background soil samples analyzed, though not at concentrations of concern. Reported soil pH values ranged from 6.6 to 11.2.

In May 2004, 86 of the stockpile soil samples and 24 of the native soil samples that were collected in January 2004 were reanalyzed for metals. The original analysis data and the reanalysis data were reported together in the July 2004 *Remedial Action Options Report* (RAOR) (Shaw, 2004). The results of the additional analysis did not identify metals other than barium at concentrations of concern in Stockpiles 2 and 3. However, barium was reported as having been detected in several samples from Stockpiles 2 and 3 at concentrations three to five times higher than were reported for the same samples in February 2004. This increase in reported concentrations occurred mainly with those samples that had the highest barium concentrations to begin with in February 2004. No explanation was provided by the lab or Shaw for the reporting differences. One possibility may be that the material in the stockpiles with the highest concentrations of barium may also have a great degree of heterogeneity such that a sample aliquot taken from one portion of the sample and analyzed may have a much different barium concentration than an aliquot from another portion of the same sample. However, if heterogeneity were the reason for the variability in concentrations, it would be expected then that the variability would manifest itself in both increased and decreased concentrations. In this case there is a strong bias towards large increases in concentrations from the February 2004 results to the May 2004 results, with very few, smaller magnitude decreases. Other possible explanations may be related to laboratory errors.

Lead and arsenic were detected in all three stockpiles at concentrations exceeding background values. As previously discussed, elevated cadmium concentrations exceeding the commercial/industrial CHHSLs were detected in soil samples collected from Stockpiles 2 and 3 in January 2004.

2.2.2 Shaw 2006 SI

Shaw completed additional soil stockpile characterization activities in May 2006 as reported in their SI Report (Shaw, 2007a, and Appendix A of HHRA). They collected 165 stockpile soil and 89 native soil samples from 51 borings advanced through the stockpiles. Additionally, 24 native soil samples were obtained from eight background borings advanced in Caltrans ROW west of Stockpile 1. Each soil sample was analyzed for total metals. Selected soil samples were further analyzed for soluble barium and lead by the waste extraction test (WET and de-ionized [DI] water-WET), PAHs, and total and soluble (DI-WET) nitrate/sulfate/sulfite.

Total Metals Analysis Results

Antimony, selenium and silver were not detected in any of the 278 soil samples analyzed. Beryllium, cadmium, mercury, molybdenum and thallium were detected in the stockpile soil samples at low concentrations. Arsenic, chromium, cobalt and copper were detected in the stockpile soil samples at

concentrations slightly exceeding background concentrations. Barium, lead, nickel, vanadium and zinc were detected in the stockpile soil samples at concentrations considerably higher than background values. Barium, the primary COPC, was detected at maximum concentrations of 130 mg/kg in Stockpile 1, 64,000 mg/kg in Stockpile 2, and 72,000 mg/kg in Stockpile 3. Barium concentrations reported for the background soil samples ranged from 17 to 120 mg/kg.

Soluble Metals Analysis Results

Thirty-three stockpile soil samples were analyzed for WET and DI-WET soluble barium. Soluble barium concentrations ranged from 39 to 2,300 milligrams per liter (mg/l), 28 of which exceeded the Title 22 California Code of Regulations (CCR) Soluble Threshold Limit Concentration (STLC) for barium of 100 mg/l. Soluble (DI-WET) barium concentrations ranged from 1.8 to 220 mg/l, nine of which exceeded the STLC. The Title 22 criteria cited above for the evaluation of WET and DI-WET analyses applies to non-barite barium compounds. Shaw noted that the barium compounds present at the Site were primarily barite (barium sulfate), and as a result, the Title 22 evaluation criteria are not strictly applicable to the Site.

Only two stockpile soil samples contained total lead concentrations exceeding 50 mg/kg (hazardous waste threshold for requiring WET soluble testing) at concentrations of 150 and 1,500 mg/kg. WET soluble lead was detected in these two samples at 2.9 and 5.7 mg/l, respectively, and DI-WET soluble lead at 0.07 and 0.1 mg/l, respectively.

Nitrate, Sulfate, and Sulfide Analysis Results

Sixty-nine soil samples were analyzed for nitrate, sulfate and sulfide. No regulatory screening levels exist for these compounds. Nitrate was detected in the stockpile soil samples at concentrations within the range of background. Sulfate was detected in the stockpile soil samples at concentrations considerably higher than background and appears to correspond to samples with high barium concentrations. Only one stockpile soil sample contained detectable sulfide. DI-WET soluble nitrate concentrations ranged from 0.2 to 2.6 mg/l in 28 of 33 soil samples analyzed, DI-WET soluble sulfate from 0.5 to 14 mg/l in 32 of 33 soil samples analyzed, and DI-WET soluble sulfide was not detected in the 33 soil samples analyzed.

PAHs were detected at low concentrations ranging from 11 to 21 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in 3 of 58 stockpile soil and native soil samples analyzed. PAHs were not detected in the background soil samples.

Shaw utilized the results of the 2006 SI in for the HHRA and summarized the results in the PEA.

2.2.3 Geocon 2012 SSI

Geocon completed an SSI in September 2012, which consisted of advancing 68 soil borings and collecting and analyzing soil samples to address potential stockpile and native soil data gaps to update the risk exposure scenarios from the 2007 HHRA prior to regulatory approval of the SR-132 Project. The SSI consisted of following:

- Advancing 35 “Fenceline Borings” at stockpile perimeter/fenceline locations adjacent to residential and commercial/industrial development to assess potential offsite and vertical migration of contaminants. Soil samples were collected from the surface and at maximum boring depths ranging from 3 to 5 feet and analyzed for Title 22 metals and strontium.
- Advancing 28 “Perimeter Borings” at stockpile perimeter and end locations to define the lateral stockpile limits to aid in consolidation during future highway construction. The surface soil sample collected from each 3-foot-deep boring was analyzed for barium.
- Advancing five “Cadmium Borings” in the vicinity of Shaw’s 2004 PSI borings where soil samples were collected and reported to have elevated cadmium concentrations. Soil samples were collected from the Cadmium Borings at the surface and at 5-foot intervals thereafter to the maximum boring depths ranging from 11 to 22 feet. Each soil sample was analyzed for barium and cadmium.

Fenceline Borings

None of the metal concentrations reported for the Fenceline Boring soil samples exceeded California hazardous waste thresholds. With the exception of arsenic (within the range of site-specific background), none of the reported metal concentrations exceeded residential CHHSLs. With the exception of barium and lead, the remaining metals concentrations were generally within the range of the site-specific naturally occurring background levels. Barium was detected in each soil sample at concentrations ranging from 140 to 4,300 mg/kg for the surface soil samples and 42 to 680 mg/kg for the deepest soil sample obtained from the Fenceline Borings. At each boring location, the reported barium levels decreased with depth. The majority of the deeper soil samples contained barium within the range of background (47 to 110 mg/kg for 5-foot-deep background soil samples). Surface soil samples collected from five borings located along the north side of Stockpile 2 adjacent to commercial/industrial development contained the highest barium concentrations greater than 1,000 mg/kg. None of the reported barium concentrations exceeded residential or industrial CHHSLs of 5,200 and 63,000 mg/kg, respectively.

Perimeter Borings

Barium was detected in each soil sample collected from the Perimeter Borings at concentrations ranging from 76 to 1,600 mg/kg. The majority of the perimeter surface samples contained barium up to 300 mg/kg. Elevated barium concentrations between 710 and 1,600 mg/kg were detected in surface soil samples obtained from borings at the east end of Stockpile 2 and southwest side of Stockpile 3. None of the reported barium concentrations exceeded residential or industrial CHHSLs.

Cadmium Borings

Barium was detected in each soil sample obtained from the Cadmium Borings at concentrations ranging from 58 to 130,000 mg/kg. Cadmium was not detected at concentrations exceeding the laboratory reporting limit (RL) of 1.0 mg/kg for each soil sample. The results of the Shaw 2004 PSI identified elevated cadmium concentrations (exceeding the industrial CHHSL for cadmium of 7.5 mg/kg) for eleven soil samples collected from Stockpiles 2 and 3 with corresponding elevated barium concentrations (25,800 to 196,000 mg/kg). Cadmium was not detected at concentrations greater than 1.0 mg/kg for all

348 soil samples analyzed during the Shaw 2006 SI and the Geocon 2012 SSI, including 19 soil samples with reported elevated barium concentrations between 25,000 mg/kg and 130,000 mg/kg. The Shaw 2004 PSI data (provided by Sparger Technology, Inc.), Shaw 2006 SI data (Creek Environmental Laboratories, Inc.), and the Geocon 2012 SSI data (Advanced Technology Laboratories) were generated by three different analytical laboratories. Based on the cumulative cadmium data, it appears the Shaw 2004 PSI cadmium data is neither reproducible nor reliable and represents false positives possibly as result of sample interference/dilution effects due to the associated high barium concentrations.

One soil sample obtained from a Stockpile 2 Cadmium Boring was analyzed for petroleum hydrocarbons and PAHs based on field indicators of potential impacts. Gasoline-range organics were not detected at a concentration exceeding the RL of 1.0 mg/kg. Diesel-range organics were detected at a concentration of 120 mg/kg, slightly higher than the residential/industrial Environmental Screening Level (ESL) established by the San Francisco Bay Area Regional Water Quality Control Board (SFBRWQCB) of 83 mg/kg. Petroleum organics concentrations were compared to ESLs because there are no CHHSLs or other regulatory screening levels for petroleum. The ESL of 83 mg/kg for diesel-range organics is the lowest ESL based on potential leaching to groundwater – the direct-exposure ESLs for residential and industrial land use are 110 and 450 mg/kg, respectively. Oil-range organics were detected at a concentration of 82 mg/kg, less than the residential ESL of 370 mg/kg. PAHs 2-methylnaphthalene, fluorene and phenanthrene were detected at concentrations ranging from 23 to 45 µg/kg, significantly less than their respective residential/industrial ESLs.

The results of the Fenceline and Perimeter Boring soil sample analytical data does not suggest lateral or vertical migration of soil containing metals (notably barium) at concentrations exceeding State and Federal residential human health screening levels (or in the case of arsenic, site-specific background levels) along the stockpile perimeters and adjacent property fencelines. The 1963 and 1967 aerial photographs (Figures 3a and 3b) show that transport and placement of barium-impacted soil materials in Stockpiles 2 and 3 occurred within Caltrans ROW.

Cadmium was not detected in any of the soil samples collected from the Cadmium Borings advanced in Stockpiles 2 and 3 where elevated cadmium was identified in the Shaw 2004 PSI. Cadmium is therefore not considered a COPC for the project site. The results of the SSI satisfied regulatory directives to address the remaining potential environmental assessment data gaps and were utilized to update the 2007 HHRA (Geocon 2013 HHRA Update).

2.3 Groundwater Impacts

Shaw installed eight groundwater monitoring wells adjacent to the stockpiles in May and June 2006 as reported in the May 2007 *Site Investigation Report, Groundwater Assessment* (Shaw 2007b and Appendix B of HHRA). The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 show that the concentrations of COPCs that were analyzed did not exceed drinking water standards (MCLs).

Caltrans reinitiated groundwater monitoring activities in March 2012 as part of the SR-132 Project. To date, Geocon completed bi-monthly groundwater monitoring events in March, May, July, September and November 2012, and January and March 2013. Beginning with the recent monitoring event conducted in June 2013, groundwater monitoring is being performed on a quarterly basis.

Upgradient wells MW-9 and MW-10 immediately south of Kansas Avenue and west and east of SR 99 were installed and incorporated into subsequent sampling events beginning in June 2012. The results of the 2012 and 2013 groundwater monitoring events are similar to those of the 2006 monitoring events. The COPCs are at concentrations less than California MCLs.

3.0 REMEDIAL ACTION OBJECTIVE

Site characterization revealed the presence of COPCs in soil at the Site. This section summarizes Shaw's evaluation of COPC concentrations through an HHRA, describes the update of the HHRA using 2012 data, describes the Remedial Action Objective (RAO) for the Site, discusses the ARARs related to remediation, and states the cleanup goal for the project.

3.1 Summary of the 2007 HHRA

The 2007 HHRA is included as Appendix A of the PEA (Shaw, 2009). The risk characterization in the HHRA integrated the selected COPCs, exposure assessment, and toxicity assessment to describe risks to individuals (receptors) in terms of the nature and likelihood of potential adverse health risks for current and future land uses. Shaw's risk characterization integrated exposure intakes and toxicity values to estimate both cancer risk and non-cancer health effects for the various land use scenarios. Using the available soil data from the investigations of the stockpiles and the assumptions described in the HHRA, the HHRA indicated that neither the current land use nor the proposed future land use scenario pose an unacceptable risk or hazard to Caltrans workers entering the Site for mowing, for trespassers, or for adjacent residents. Additionally, the estimated non-cancer hazard index (HI) for a hypothetical groundwater user is less than the threshold of concern. Therefore, based on the available data, neither soil nor groundwater at the Site is considered to present an unacceptable risk or hazard under the receptor scenarios evaluated in the HHRA.

Three groups of receptors are considered in the HHRA – a current offsite resident/trespasser, a future construction worker, and a future (during construction) offsite resident. The estimated cancer risk, non-cancer HIs, and blood lead concentrations for each receptor group are summarized in the following subsections.

3.1.1 Current Offsite Resident and Trespasser

The 2007 HHRA evaluated the current offsite resident and trespasser for exposure to the COPCs in soil of Stockpile 1 through incidental ingestion, dermal contact, and dust inhalation. The exposure pathway for the offsite resident would mainly be via inhalation while the trespasser could be exposed through all three pathways. The calculated cancer risk and non-cancer HI for the current offsite resident and trespasser receptors exposed to surface soil on Stockpile 1 is $8E-8$ and $4E-2$, respectively. The estimated excess cancer risk of $8E-8$ is much less than the generally used, conservative criterion of $1E-6$ (one in one million excess cancer risk) and the estimated HI for non-cancer effects is well below the threshold of 1.

The health risk related to lead in Stockpile 1 estimated in the HHRA uses the maximum detected concentration of lead in Stockpile 1 surface soil in the LeadSpread model. LeadSpread did not indicate that an offsite resident or trespasser would have a blood lead concentration greater than 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) in the 95th or 99th percentile. Therefore, lead in surface soil of Stockpile 1 does not pose an unacceptable hazard to a current resident/trespasser.

The calculated cancer risk and non-cancer HI for the offsite resident/trespasser receptor exposed to surface soil on Stockpile 2 is reported in the 2007 HHRA as $1\text{E}-5$ and 0.1, respectively. While the total estimated non-cancer HI is below the threshold of 1, the total estimated cancer risk exceeds the general risk target of $1\text{E}-6$ for residential exposures. This cancer risk estimate was driven by the large contribution from arsenic in surface soil. The arsenic cancer risk estimate is $1.45\text{E}-5$ for the offsite resident/trespasser based on the 95th percentile UCL of arsenic in Stockpile 2 of 1.63 mg/kg. However, the background arsenic 95th percentile UCL of 1.15 mg/kg resulted in an estimated cancer risk of $1.15\text{E}-5$, which is very similar to that for arsenic in Stockpile 2. Therefore, arsenic in surface soil of Stockpile 2 is not included in the final total risk estimate for Stockpile 2. The revised cancer risk estimate, with arsenic excluded, is $1\text{E}-7$. Additionally, the estimated HI for non-cancer effects is below the threshold of 1. Therefore, surface soil from Stockpile 2 does not pose an unacceptable risk or hazard to a current resident/trespasser receptor.

The assessment of health risk related to lead in Stockpile 2 as reported in the 2007 HHRA uses the 95th percentile UCL for lead in Stockpile 2 surface soil of 30 mg/kg. The results indicate that all percentiles of adults and children would have blood lead concentrations less than 10 $\mu\text{g}/\text{dL}$. Therefore, lead in Stockpile 2 surface soil does not represent an unacceptable hazard.

Shaw evaluated the current offsite resident/trespasser for exposure to COPCs in soil of Stockpile 3 through incidental ingestion, dermal contact, and dust inhalation. The COPCs in Stockpile 3 surface soil are not considered to be carcinogens; therefore, they were not estimated as a cancer risk. The estimated non-cancer HI for the offsite resident/trespasser receptor exposed to surface soil on Stockpile 3 was 0.02, which is well below the threshold of 1.

Shaw also evaluated the health risk related to lead in Stockpile 3 using the 95th UCL for lead of 6.7 mg/kg in the LeadSpread model. LeadSpread did not indicate that offsite residents or trespassers would have a blood lead concentration greater than 10 $\mu\text{g}/\text{dL}$. Therefore, lead in surface soil of Stockpile 3 does not pose an unacceptable hazard to a current resident/trespasser.

3.1.2 Future Construction Worker

Shaw evaluated the future construction worker receptor for exposure to COPCs in soil in the future construction soil zone (depths of 0 to 20 feet) through incidental ingestion, dermal contact, and dust inhalation. The cumulative excess lifetime cancer risk was calculated as $9.2\text{E}-7$, which is below the $1\text{E}-6$ cancer risk criterion. The cumulative non-cancer HI was calculated to be 0.4, which is less than the threshold of 1.

Shaw also evaluated the health risk related to lead using the 95th percentile UCL for lead in the future construction soil zone of 54 mg/kg. The results indicate that blood lead concentrations would be less than 10 µg/dL for the pica child. Because the pica child exposure is more conservative than a construction worker's exposure, it is presumed that a construction worker would not have an unacceptable exposure either. Therefore, lead in soil is not considered to pose an unacceptable hazard to construction workers.

3.1.3 Future Offsite Resident

Shaw evaluated the future offsite resident for exposure to COPCs in dust produced from the future construction work (estimated to include 60 days of construction). The excess lifetime cancer risk was calculated to be 6E-10, which is well below the 1E-06 cancer risk criterion. The calculated cumulative non-cancer HI of 0.017 is also well below the threshold of 1.

Shaw also evaluated the health risk related to lead using the LeadSpread model, which indicated that an onsite pica child exposed to the 95th UCL lead concentration would not exceed 10 µg/dL. Shaw indicated that because the offsite resident would only be potentially exposed to soil through dust during the proposed future construction work, the estimated blood lead concentration would be much less than that estimated for the pica child. Additionally, the default lead in respirable dust concentration is 1.5 micrograms per cubic meter (µg/m³) in the LeadSpread model. As calculated using the maximum lead concentration of 1,500 mg/kg from soil (from depths of 0 to 20 feet) multiplied by the offsite dust concentration of 9.95E-8 kilograms per cubic meter (kg/m³), the resulting respirable dust concentration is 0.15 µg/m³, well below the default value.

3.1.4 Hypothetical Future Shallow Groundwater User

Shaw evaluated the health risk for a hypothetical future user of shallow groundwater beneath the Site. According to the results of a well survey, no one within a 1-mile radius is using the shallow aquifer as a source of drinking water. Shaw calculated health risks from ingestion and dermal contact using the maximum detected concentrations (MDC) from two groundwater sampling events in 2006 as the exposure-point concentrations (EPC). The resulting cumulative noncancer hazard estimate is 0.9, less than the threshold of 1. For lead, the maximum concentration detected in a groundwater sample was 3.4 µg/l, which is less than the Federal action level of 15 µg/l. Therefore, lead in groundwater does not appear to present an unacceptable hazard.

3.2 HHRA Update

Geocon updated the 2007 HHRA by incorporating soil analytical data generated from the fenceline, perimeter, and stockpile sampling as presented in the revised *Supplemental Site Investigation* dated March 1, 2013, and groundwater analytical data generated from bi-monthly sampling events. The COPC EPCs that Shaw utilized in the 2007 HHRA were compared to the supplemental soil data

collected in September 2012 and groundwater data collected between March 2012 and March 2013. The EPCs utilized in the 2007 HHRA are the MDCs for the selected COPCs for each exposure scenario with the exception of the Stockpile 2 Current Exposure Assessment which utilized the 95th percentile UCLs for the selected COPCs. This information was used to evaluate the validity of the 2007 HHRA cancer risk and non-cancer hazard estimates. The following sections summarize the EPC comparisons and risk/hazard evaluations for each exposure scenario.

3.2.1 Stockpile 1 Current Exposure Assessment

Eight metals (barium, beryllium, chromium, cobalt, copper, lead, mercury and nickel) reported for five surface soil samples from the 2006 SI were used as the COPCs for Stockpile 1 in the 2007 HHRA. The MDCs for these metals detected in surface soil samples collected from the September 2012 Fenceline Borings and Perimeter Borings (first values in brackets) are slightly higher as compared to the 2007 HHRA EPCs (second values in brackets) with relative concentrations as follows: barium (240 vs. 130 mg/kg), copper (24 vs. 13 mg/kg), and lead (17 vs. 12 mg/kg). Zinc was detected at an MDC of 120 mg/kg in the 2012 surface soil samples, exceeding the background MDC of 44 mg/kg. Cadmium was detected in one 2012 surface soil sample at 0.26 mg/kg, slightly above the reporting limit of 0.25 mg/kg and less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in each 2012 surface soil sample with an MDC of 61 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of 8E-8 and 0.04, respectively, for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 1. Because the 2012 metal concentrations are of the same order of magnitude as those used in the 2007 HHRA and that none of the 2012 metal detections exceeded respective residential CHHSLs or RSLs, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 1. The 2007 HHRA calculated excess cancer risk is orders of magnitude less than the conservative criterion of 1E-6 and the estimated non-cancer HI is orders of magnitude less than the threshold of 1.

3.2.2 Stockpile 2 Current Exposure Assessment

The 95th percentile UCLs for seven metals (arsenic, barium, copper, lead, molybdenum, nickel and zinc) detected in 33 surface soil samples collected during the 2006 SI were selected as the COPCs for Stockpile 2 in the 2007 HHRA. The 2007 HHRA also used the MDC for chromium (divided as chromium III and VI). Of these metals, barium, copper and zinc were detected at higher concentrations in the surface soil samples collected from the September 2012 Fenceline and Perimeter Borings compared to the concentrations detected in the 2006 SI and used in the 2007 HHRA. Specifically barium had an MDC of 4,300 mg/kg in the 2012 samples vs. 1,100 mg/kg for the 2006 SI, copper had an MDC of 41 mg/kg in 2012 vs. 29 mg/kg in 2006, and zinc had an MDC of 200 mg/kg in 2012 vs. 89 mg/kg in 2006.

Cadmium was detected in one 2012 surface soil sample at 0.42 mg/kg, which is less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in each of the 2012 surface soil samples, with an MDC of 110 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of $1E-7$ (background arsenic not considered) and 0.1, respectively, for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 2. Because the 2012 metal concentrations are the same order of magnitude as those used in the 2007 HHRA, and none of 2012 metal detections exceeded respective residential CHHSLs or RSLs, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 2. The 2007 HHRA calculated excess cancer risk is less than the conservative criterion of $1E-6$, and the estimated non-cancer HI is an order of magnitude less than the threshold of 1.

3.2.3 Stockpile 3 Current Exposure Assessment

Shaw selected the MDCs for three metals (barium, lead and molybdenum) reported for 13 surface soil samples from the 2006 SI as the COPCs for Stockpile 3. Of these metals, barium (1,600 vs. 250 mg/kg) and lead (34 vs. 12 mg/kg) were detected at higher levels in the surface soil samples obtained from the September 2012 Fenceline Borings and Perimeter Borings (first values in brackets) compared to the 2007 HHRA EPCs (second values in brackets). Copper and zinc were further detected at maximum concentrations of 17 and 190 mg/kg, respectively, in the 2012 surface soil samples, which exceed the respective background MDCs of 11 and 44 mg/kg. Cadmium was detected in four 2012 surface soil samples at a MDC of 0.78 mg/kg, less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in all but one of the 2012 surface soil samples with an MDC of 100 mg/kg.

The 2007 HHRA calculated a current non-cancer hazard estimate of 0.02 for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 3. Shaw considered one of the COPCs for Stockpile 3 to be a carcinogen, and therefore they calculated no cancer risk. Based on the 2012 metal concentrations being the same order of magnitude as those used in the 2007 HHRA, the lack of any 2012 metal detections exceeding respective residential CHHSLs or RSLs, and the estimated non-cancer HI being orders of magnitude less than the threshold of 1, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 3.

3.2.4 Stockpiles 1 through 3 - Future Construction Worker and Offsite Resident

The MDCs for ten metals (arsenic, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc) reported for 165 soil samples from the 2006 SI as the COPCs for Stockpiles 1 through 3 and the PAH benzo(a)pyrene as a COPC were used in the 2007 HHRA. The metals barium (130,000 vs. 72,000 mg/kg), copper (41 vs. 29 mg/kg), and zinc (200 vs. 110 mg/kg) were detected at higher concentrations in the soil samples obtained from the September 2012 Fenceline Borings and Cadmium Borings (first values in brackets) as compared to the 2007 HHRA EPCs (second values in

brackets). The calculated 95th percentile UCL for the 2012 barium data is 7,556 mg/kg, significantly less than the MDC of 130,000 mg/kg and the EPC of 72,000 mg/kg used in the 2007 HHRA. Strontium was detected in all but one of the 2012 soil samples with an MDC of 270 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of 9.2E-7 and 0.4, respectively, for the construction worker receptor exposed to soil at Stockpiles 1 through 3. The calculated current cancer risk and non-cancer HI were 6E-10 and 0.017, respectively, for the future offsite resident receptor exposed to soil at Stockpiles 1 through 3. Based on the conservative approach of using MDCs of each metal versus the 95th percentile UCLs, the 2007 HHRA risk and hazard calculations for future conditions for construction workers and offsite residents remain valid for Stockpiles 1 through 3. The 2007 HHRA calculated excess cancer risks is order(s) of magnitude less than the conservative criterion of 1E-6, and the estimated non-cancer HI is significantly less than the threshold of 1.

3.2.5 Onsite Shallow Groundwater

The MDCs for twelve metals (barium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, silver, vanadium and zinc) reported for groundwater samples collected in June and October 2006 were identified as the COPCs for evaluation of the hypothetical shallow groundwater user. The maximum 2006 metal concentrations were reported for samples obtained from wells MW-5 and MW-6. Of these metals, cobalt (5.3 vs. 3.0 µg/l), copper (7.4 vs. 6.2 µg/l), manganese (290 vs. 260 µg/l), nickel (9.6 vs. 7.1 µg/l), selenium (4.4 vs. 3.0 µg/l), vanadium (42 vs. 34 µg/l) and zinc (120 vs. 15 µg/l) were detected at slightly higher concentrations in the 2012 groundwater samples (primarily from upgradient well MW-10) compared to the 2007 HHRA EPCs. Strontium was detected in all of the 2012 groundwater samples with an MDC of 1,400 µg/l.

The 2007 HHRA calculated a current non-cancer HI for the hypothetical shallow groundwater user at 0.9. None of the selected groundwater COPCs are considered to be carcinogens and therefore the 2007 HHRA did not calculate a cancer risk. Based on the similar metals data with the majority of the higher concentrations reported for samples collected from upgradient well MW-10, and the estimated non-cancer HI being less than the threshold of 1, the 2007 HHRA risk and hazard calculations for the hypothetical groundwater user remain valid.

3.2.6 HHRA Update Summary

The 2007 HHRA conservatively utilized MDC or 95% UCL soil and groundwater COPC concentrations obtained during the Shaw 2006 SI and groundwater monitoring events. The comparison of these EPCs to the 2012 soil and groundwater data collected at the Site indicates that the 2012 soil and groundwater data is similar to the 2006 data utilized in the 2007 HHRA and do not significantly increase the conservative cancer risk and non-cancer HIs. The 2007 HHRA remains valid with respect to exposure potential for the current resident/trespasser, future construction worker and offsite resident, and hypothetical shallow groundwater user at the Caltrans Modesto Soil Stockpile Site.

The DTSC commented on the HHRA update in a letter dated February 15, 2013, which included a memorandum from the Human and Ecological Risk Office (HERO) dated February 14, 2013. The HERO memorandum stated: *“the soil stockpiles do not pose a cancer risk or noncancer hazard to persons in the vicinity of these stockpiles as long as the stockpiles remain in place and are properly managed. The evaluation presented here is based on concentrations measured in surface soil. There are areas in the stockpiles with elevated concentrations of chemicals at depths greater than one foot below ground surface. Therefore, if there is substantial grading or reworking of the stockpiles or if the stockpiles are removed, these elevated concentrations at depth will have to be evaluated with respect to the potential for exposure by residents living adjacent or near the stockpiles during the period when the soil is being moved.”* Being “properly managed” implies that Caltrans would continue the current management which includes: maintaining fencing and signage around the stockpiles thereby limiting access to the stockpiles, not disturbing or exposing soil in the stockpiles, maintaining vegetative cover to reduce potential wind and rain soil erosion and transport off-site (i.e. soil dust transport from wind and sediment laden surface water runoff), mowing the vegetative cover to minimize fire danger, and groundwater and stormwater runoff monitoring.

In a letter dated April 4, 2013, DTSC stated their concurrence with the findings of the HHRA Update as follows: *“DTSC concurs with reports titled “SSI, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California” (Geocon, March 1, 2013) and “HHRA Update, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California.”*

3.3 Remedial Action Objective

RAOs are medium or site-specific goals for protecting human health and the environment. RAOs are developed as a basis for evaluating the ability of remedial alternatives to comply with ARARs and to protect human health and the environment.

As summarized in Sections 3.1 and 3.2, the 2007 HHRA found that potential exposure to COPCs in surface soil of the stockpiles under the current land use and proposed future land use scenarios does not pose an unacceptable risk or hazard. Additionally, the hazard for a hypothetical future groundwater user is less than the threshold of concern. The update to the 2007 HHRA supported these findings and conclusions and the DTSC concurred with the HHRA update under the condition that the stockpiles be properly managed and potential receptors not be exposed to COPCs in deeper soil within the stockpiles. The potential for the stockpiles to impact groundwater from a water quality degradation standpoint remains a concern of the CVRWQCB.

Therefore, the RAOs for the Site are to protect the health of neighboring residents, onsite trespassers, and Caltrans-authorized personnel and prevent future impact to groundwater by managing the stockpiles either in-place or by removing them from the Site. General response actions (GRA) to accomplish the RAOs are discussed in Section 4.0.

3.4 ARARs

ARARs are used to determine the extent of site cleanup and govern the implementation and operation of the selected action. ARARs are necessary to establish RAOs in order to support subsequent remediation alternatives screening. ARARs consist of three categories.

- Chemical-specific ARARs are either health or environmentally based numerical values or methodologies limiting the amount of a contaminant that may be released to or allowed to remain in the environment during and upon successful completion of a remedial action, including establishing cleanup levels for soil or groundwater at an affected site. Examples include drinking water MCLs and waste classification thresholds.
- Action-specific ARARs are remedial, technology, or activity based requirements or limitations on specific remedial actions at a site. Examples include prohibitions or restrictions for the discharge of chemicals or contaminants to the air, water, or soil and the proper transfer, treatment, or storage of chemicals and contaminants.
- Location-specific ARARs are restrictions or prohibitions placed on remedial actions at a given location due to features, such as a flood plain, wetland, sensitive ecosystem, seismic, or historic area. Examples include the National Historic Preservation Act and Endangered Species Act.

Additionally, "To Be Considered" (TBC) standards are non-promulgated advisories or guidance issued by Federal or State agencies that complement ARARs. Both the USEPA and DTSC have guidance materials. For example: USEPA has guidance on assessing risk and identifying preliminary remediation goals including *the Human Health Evaluation Manual (Parts A & B) Risk Assessment Guidance for Superfund* and Regional Screening Levels, and the California Environmental Protection Agency/DTSC has *Supplemental Guidance for Human Health Risk Assessment* and California Human Health Screening Levels.

3.4.1 Summary of State and Federal ARARs

Applicable requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically apply to cleanup at a site. The process for determining applicable standards is set forth in Section 121(d) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In part, CERCLA states that the more stringent of State or Federal requirements will apply to cleanup sites. Typically, California requirements are more stringent than Federal requirements.

Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that, while not applicable, address problems or circumstances similar to those found where the proposed removal action will be performed, and are well suited to the conditions of the cleanup site. Requirements that are determined to not be legally applicable are evaluated to determine whether they are relevant and appropriate. A requirement must be both relevant and appropriate to be an ARAR. Criteria for determining relevance and appropriateness are listed in Part 40, Code of Federal Regulations (CFR) Section 300.400(g)(2).

According to CERCLA ARAR guidance, requirements may be “applicable” or “relevant and appropriate,” but not both. ARARs are identified on a site-specific basis, using a two-part analysis to determine first if a requirement is applicable, and then, if not applicable, whether it is both relevant and appropriate. Based on CERCLA ARAR guidance, an ARAR qualifies as a State ARAR if it meets the following requirements:

- It is a State law;
- It is an environmental, or facility siting law;
- It is promulgated, and thus generally applicable and legally enforceable;
- It is substantive rather than procedural or administrative;
- It is more stringent than the Federal requirement;
- It is identified in a timely manner; and
- It is consistently applied.

3.4.2 ARARs for Remediation of the Stockpiles

Table 1 is a compilation of ARARs for remediation of the stockpiles.

3.5 Cleanup Goals

Cleanup goals are numerical or performance-based goals to which a cleanup (remedial) action can be compared to determine when the action has been performed to an extent that it can be considered complete. Numerical-based goals are quantitative limits (units of concentrations, volumes, etc.) that a cleanup action must meet in order to be considered complete. An example of a numerical-based goal is a COC concentration in affected media (e.g., soil, soil vapor, groundwater, surface water, air) that has been determined to represent an acceptable health risk or other regulatory level and which cleanup must achieve in order to be considered complete. A performance-based goal is an action such as removal, capping, or treatment which a cleanup action must achieve in order to be considered complete. An example of a performance-based goal would be the placement of a one-foot-thick layer of clean soil over an area of contaminated soil to minimize potential exposure to COCs in the soil.

The HHRA demonstrated that the excess cancer risk related to exposure to COCs in surface soil of the stockpiles is orders of magnitude less than the conservative criterion of $1E-6$, and the non-cancer HI is orders of magnitude less than the threshold of 1. The DTSC concurred with the findings of the HHRA and HHRA update under the condition that the stockpiles continue to be properly managed and not graded or reworked to expose COCs in deeper soil within the stockpiles.

Based on the current level of health risk and stockpile management practices, it is not necessary to achieve a numerical-based cleanup goal to be protective of human health. Therefore, the cleanup goal for the project will be performance-based to assure that there is no route of exposure to COCs in the stockpiles and to reduce the potential threat to groundwater. The GRAs which could be implemented to manage the stockpiles are discussed in Section 4.0. The remedial action that was selected by the FS will be implemented with DTSC and CVRWQCB oversight, and these agencies will provide a final determination as to when the action is complete.

4.0 SUMMARY OF FEASIBILITY STUDY

This section summarizes the FS which was performed to evaluate potentially applicable remedial actions (“alternatives”) for the stockpiles. The FS process selected the most appropriate alternative through an evaluation of alternatives against nine qualifying criteria. A draft FS was submitted to the DTSC and CVRWQCB for their review and comment. The FS was approved by the DTSC and CVRWQCB on (date).

4.1 Identification and Screening of Technologies

In accordance with the USEPA’s CERCLA *Guidance for Conducting Remedial Investigations and Feasibility Studies* (USEPA, 1988) the FS first considered GRAs that could be implemented to address the stockpiles. GRAs are general remedial action categories such as institutional controls, removal, containment, treatment, and reuse/recycling/reclaim. Under CERCLA, evaluation of a “no action” alternative is also required for comparison purposes. The FS then evaluated remedial technologies that could be implemented for each GRA and lastly, process options for each technology. “Process option” is a CERCLA term used for technologies that are being pre-screened. The potential for a process option to treat the stockpiles and to achieve the RAO was evaluated, as were the potential impacts on human health and the environment during implementation of the process option.

The FS then screened potentially applicable remedial technology process options against the criteria of effectiveness, implementability, and cost. The following table lists the GRAs, remedial technologies, and process options that were evaluated in the FS.

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Evaluation of General Response Actions and Process Options for the Caltrans Modesto Soil Stockpiles

Soil Specific General Response Actions	Remedial Technology	Process Option	Effectiveness	Implementability	Cost	Screening Comments
No Action	None	Not applicable	Does not meet RAO and does not reduce toxicity, mobility, or volume of contaminants.	Readily implementable as no actions are required.	negligible to very low	Retained as required by NCP
Institutional Controls	Governmental and Administrative Controls	Deed restrictions and covenants	Contaminant mass unchanged. Establishes land use restrictions and limitations protective of human health.	Readily implementable with most of the activities being performed by DTSC.	Low capital and O&M costs	Potentially applicable (deed restriction and covenants) in combination with other response actions. Retained.
	Access Restrictions	Physical barrier and access control	Contaminant mass unchanged. Prevents unauthorized access to protect human health.	Readily implementable as fencing is currently maintained around the Site.	Low capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Informational	Signage, public notices	Contaminant mass unchanged. Signage and notices raise public awareness.	Readily implementable at the Site and will be maintained	Low capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Monitoring	Air monitoring	Contaminant mass unchanged. Monitors airborne COC's.	Implementable	Low to moderate capital and O&M costs	Air is not a medium of concern for the final remedy, but is a short-term concern during construction so retained for consideration with other options.
		Site monitoring	Contaminant mass unchanged. Documents physical conditions of Site.	Readily implementable as this is currently ongoing at the Site.	Low to moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
		Groundwater monitoring	Contaminant mass unchanged. Documents groundwater conditions/quality surrounding Site.	Readily implementable as this is currently ongoing at the Site.	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
Removal	Excavation, loading, transport, disposal	Off-site landfill	Physical removal of contaminant mass. Nullifies mobility.	Implementable	Prohibitively high capital costs; negligible O&M costs	Potentially applicable. Retained.
Containment	Runoff/infiltration controls	Grading	Contaminant mass unchanged. Directs, collects, and transmits runoff away from Site. Decreases infiltration and contaminant mobility.	Readily implementable	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
		Revegetation	Contaminant mass unchanged. Decreases erosion. Decreases soil moisture content via increased evapotranspiration. Decreases contaminant mobility.	Readily implementable	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Capping	Encapsulation beneath highway structures	Contaminant mass unchanged. Contains and isolates contaminants. Effectively eliminates contaminant mobility.	Readily implementable	Moderate to high capital and moderate O&M costs	Potentially applicable. Retained.
		Encapsulation beneath a vegetated clean soil layer	Contaminant mass unchanged. Contains and isolates contaminants. Effectively eliminates contaminant mobility.	Readily implementable	Moderate to high capital and moderate O&M costs	Potentially applicable. Retained.
Treatment	Chemical Treatment	Soil Washing	Potentially effective in reducing mobility and volume of contaminants. Treatment of liquid waste stream would be required.	Difficult to implement due to volume and location near residences	High capital costs for the volume of soil	Not retained after initial screening
		Soil Mixing	Potentially effective in reducing contaminant mobility; would increase volume of waste.	Difficult to implement due to volume and location near residences	High capital costs for the volume of soil	Not retained after initial screening
Reuse, Recycle, and /or Reclaim	Reuse at offsite location	Off-site non-landfill placement as fill	Would be effective in reducing mobility of contaminants for the Site, but would just transfer issues and concerns to another property.	Not implementable due to hazardous waste levels in soil.	Not applicable	Not retained after initial screening

Notes:
 Shaded Cells = Shaded cells represent process technology options that were not retained after initial screening.
 NCP = National Oil and Hazardous Substance Pollution Contingency Plan
 O&M = Operations and Maintenance
 RAO = remedial action objective

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The criteria for screening the applicable technologies and process options are as follows:

- Effectiveness - the degree to which an alternative reduces the toxicity, mobility, or volume of COPCs; complies with ARARs; minimizes short-term impacts and residual risks, and provides long-term, overall protection of human health and the environment; and how quickly the alternative accomplishes these benefits.
- Implementability - the technical feasibility and availability of the technologies and the administrative feasibility of implementing an alternative.
- Cost - the cost of construction, operation, and maintenance of an alternative.

Response actions, technologies, and process options that did not satisfy the RAO and/or were not consistent with the three evaluation criteria were not retained for further consideration and analysis. Through the screening process the following alternatives were retained for further evaluation:

- Alternative 1 - no action,
- Alternative 2 - institutional controls,
- Alternative 3 - removal, and
- Alternative 4 - containment.

The treatment and reuse/recycle/reclaim alternatives were not retained for further evaluation because of difficulties with implementability (i.e., amount of soil that would require treatment, space considerations, noise, effectiveness, etc.) and cost. Elimination of the treatment and reuse/recycle/reclaim options is supported by the DTSC's *Proven Technologies and Remedies (PTR) Guidance, Remediation of Metals in Soil* (DTSC, 2008), which eliminates these and other technologies from further evaluation based on DTSC's extensive experience on projects where metals are the primary COPC. The DTSC reviewed technologies that have been implemented for remediation of metals in soils at 188 sites and found that, while technologies such as stabilization, vitrification, metallurgical separation, soil flushing, soil washing, and other treatment processes have been implemented, "containment by capping" and "excavation and offsite disposal" were by far the most frequently implemented cleanup alternatives. The Site also has the necessary characteristics that make it favorable for a streamlined screening of technologies including:

- primarily metals contamination – the primary COPC is barium,
- no emergency actions required,
- contamination less than 15 feet deep – the stockpile soil and associated COPCs are all above natural grade,
- low potential for surface water impact,
- metals in immobile form – barium is in the form of barite which has a low solubility,
- low potential for groundwater impact – COPC concentrations in groundwater are less than water quality goals (MCLs), and
- no ecological habitat or sensitive receptors impacted.

We retained institutional controls for further evaluation because the stockpiles are essentially being managed under institutional controls now and if the SR-132 Project were not built, continued management of the stockpiles through institutional controls is an alternative to be considered for the stockpiles.

4.2 Identification of Alternatives for Soil

Each of the alternatives that were retained for further evaluation is summarized in the following subsections.

4.2.1 Alternative 1 - No Action

Under this alternative the stockpiles would remain in place and not be disturbed. There would be no excavation, alteration, or removal of soil from the stockpiles. In essence, the SR-132 Project would not be constructed and the stockpiles not utilized as embankment fill as intended. Additionally, under the no action alternative, site control, maintenance, and monitoring activities would be discontinued.

However, as long as Caltrans continues to own and control the property as State ROW they would continue to maintain the perimeter fence and continue restricting access to Caltrans-authorized personnel. Therefore, the most likely site occupant would be a trespasser. The 2007 HHRA and recent update to the HHRA concluded that the concentrations of COPCs in the stockpiles do not pose an unacceptable level of health risk to an onsite trespasser. Therefore, no action could be considered protective of human health as long as land use remains the same and access is restricted.

No Action Alternative Summary

No action would be the least effective alternative as it would not reduce the contaminant mass or the potential of the COPCs to impact surface water or groundwater quality. This alternative would not meet the RAO and therefore would not be acceptable to the regulatory agencies and likely not be acceptable to the community either. It is implementable because no activities would be performed and there is no cost associated with this alternative.

4.2.2 Alternative 2 – Institutional Controls

Technologies considered for the stockpiles under institutional controls included:

- governmental and administrative controls;
- site-access restrictions;
- informational and/or communication devices; and
- monitoring.

Although no reduction in the toxicity or volume of COPCs would result from the implementation of institutional controls as the remedial alternative for the stockpiles, implementation in conjunction with other remedial actions could achieve the RAO. As described in Section 3.3, the RAO for the

stockpiles is to further protect human health by minimizing or eliminating receptor exposure routes and significantly reduce potential impacts to soil, surface water, or groundwater by isolating and encapsulating the stockpile soil as structural fill within the SR-132 Project.

Governmental and Administrative Controls

Governmental and administrative controls use the regulatory authority of a government entity to impose restrictions under its jurisdiction, custody, or control. The process option considered for governmental and administrative controls is deed restrictions and covenants that limit land uses to those that have less potential for exposure based on the nature of the development and the types of site occupants/users associated with the acceptable land uses. Governmental and administrative controls may be used in conjunction with other remedial technologies. This process option may provide some limitations on the present and future land use; however, the stockpiles would remain at the Site in their current condition. No technical issues exist that would adversely affect the feasibility of implementing this process option. The cost to implement and ongoing operations and maintenance (O&M) costs are considered to be negligible-to-low.

Site Access Restrictions

This technology consists of one process option: maintaining the existing physical barrier to site access (fencing) with controlled access to Caltrans-authorized personnel only. This option will minimize human receptor contact with COPCs in the soil.

Fencing and access control can be effective in mitigating exposure to COPCs, but does not reduce toxicity or volume. Ongoing O&M would be required to ensure continuing effectiveness. There are no technical issues that would adversely affect the feasibility of implementing this process option. However, site-access restrictions may not effectively deter all trespassers. This process option may not receive community acceptance. Capital and O&M costs associated with this process option are considered low.

Informational and Communication Devices

Informational and communication devices include posting advisories (signage) at the Site, deed notices, public awareness meetings, and fact sheets to inform the public about potential risks at the Site. It is difficult to ensure that informational and/or communication devices will be effective in reducing exposure to COPCs in the stockpiles as not all members of the community may receive the information and, as may be the case with access restrictions, communication of risks still may not deter trespassing.

Monitoring

The various process options for the monitoring technology include monitoring of air, groundwater, stormwater, and site conditions. Each of these process options is described below.

Air Monitoring - Monitoring of COPCs in ambient air could be performed in combination with other institutional controls as well as other technologies such as removal and containment. The stockpiles are

vegetated with seasonal grasses and, as a result, airborne dust has not been an issue to date. Therefore, air monitoring in combination with other types of institutional controls would not provide further protection of human health. Air monitoring would be performed in combination with remedial technologies that involve disturbing soil in the stockpiles such as excavation for removal or grading for containment to ensure that dust control measures are being effectively implemented and confirm a negative, short-term exposure for workers and nearby residents. Air monitoring when implemented in this manner would be an effective process option.

Groundwater Monitoring - Groundwater monitoring currently consists of quarterly groundwater elevation measurement in and groundwater sample collection from ten wells, laboratory analysis of samples, and reporting. As with air monitoring, groundwater monitoring could be performed in combination with other institutional controls as well as other technologies such as removal and containment. If institutional controls were implemented, the long-term effect of the stockpiles on groundwater quality would likely need to continue to be monitored. Similarly, if containment was implemented, groundwater monitoring would likely be required for some period to assess the effects of containment on groundwater quality. Groundwater monitoring would likely not be required following removal of the stockpiles.

Stormwater Monitoring - Stormwater monitoring has been conducted and would continue as long as the stockpiles or portions of them are exposed to precipitation.

Site Conditions Monitoring - Monitoring of site conditions has been ongoing and would continue in combination with other institutional controls or the containment GRA. Site conditions monitoring currently consists of fence inspection, repair, and maintenance, and mowing of the grass cover on the stockpiles to reduce fire danger and would continue as such under the institutional controls GRA. Site conditions monitoring would also be continued with the containment GRA during the interim progress phase where not all of the stockpiles are isolated and encapsulated beneath roadways and behind retaining walls, but are temporarily covered with a vegetated, clean soil layer.

Institutional Controls Alternative Summary

The DTSC has indicated that the stockpiles in their current condition do not pose an unacceptable risk to human health based on continued management of the stockpiles. Management consists of: limiting access to only Caltrans-authorized personnel, regularly inspecting and maintaining the chain-link fence, prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site, and maintaining the current vegetative cover. DTSC also stated that Caltrans should continue to maintain the groundwater monitoring program for the Site. These management activities and site conditions constitute institutional controls and they would be effective in meeting the RAO.

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

4.2.3 Alternative 3 - Removal

This alternative consists of complete removal of the stockpiles from the project area and disposal of the soil in an approved, offsite waste disposal facility or facilities. This alternative would require that soil confirmation sampling and analysis be conducted in an effort to confirm that the stockpiled soil had been adequately removed. Implementation of this alternative would necessitate that a volume of clean fill material similar to that removed be imported to the project area for construction of the SR-132/SR-99 interchange embankments. Under this alternative, groundwater monitoring would likely be discontinued; however, the timing of the cessation of groundwater monitoring would be determined in concert with the DTSC and CVRWQCB.

Removal of the stockpiles would reduce COPC mobility, toxicity, and volume for the Site, thereby eliminating routes of exposure for any future land use on the Site. Engineering controls and air monitoring would be used to limit exposure to onsite workers during excavation and loading of soil. During excavation, air would be monitored to confirm that dust suppression methods (water spray) are effective in preventing airborne dust so that workers and offsite residents would not be exposed to COPCs or dust particulates.

There are no significant barriers to implementing this process option administratively. However, this option would require that the removed soil be replaced by importing an even larger volume of clean fill soil in order to construct the SR-132 Project.

Removal Alternative Summary

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the DTSC, CVRWQCB, and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four. This alternative could be performed in compliance with State and Federal requirements. Although technically implementable, removal is the least implementable of the four alternatives because the stockpiles would have to be replaced with an even greater amount of

clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

4.2.4 Alternative 4 - Containment

This alternative consists of isolation and encapsulation (containment) of the stockpiled soil within the SR-132/SR-99 interchange portion of the SR-132 Project by using the stockpiles for embankment fill as originally planned. The interchange project will be constructed in phases such that the interim progress phase, scheduled to be completed in 2018, will cover the approximate southern half of Stockpiles 1 and 2 and reconfigure, consolidate, and cover all of the soil from Stockpile 3. The ultimate build-out phase of the project, to be completed by 2028, will cover the remaining approximate northern half of Stockpiles 1 and 2. Following completion of the interim progress phase and prior to completion of the ultimate build-out phase, the portion of the stockpiles not covered/contained by retaining walls, bridge abutments, slope pavements, and roadway pavement would be maintained as they currently are. Under this alternative groundwater monitoring would likely be continued for a period of time to be determined in concert with the DTSC and CVRWQCB.

If the planned SR-132 Project were not constructed, an alternative form of cap could be installed over the stockpiles. The alternative cap could consist of constructing a layer of clean soil (typically one foot thick) over the stockpiles. Prior to constructing the cap, the surface of the stockpiles would be graded for drainage to ensure primarily that stormwater did not pond on top of the stockpiles. Following construction, the cap surface would be vegetated to protect against stormwater and wind erosion.

Containment Alternative Summary

Containment of the soil by isolation and encapsulation within the SR-132/SR-99 interchange portion of the SR-132 Project (or under an alternative cap if the SR-132 Project was not constructed) will provide the second highest level of protection of human health and the environment of the four alternatives. It will eliminate routes of exposure to COPCs in the soil and minimize the potential for stormwater infiltration. Short-term exposure to COPCs by construction personnel and adjacent residents can be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by isolation and encapsulation of the soil within the project. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to be good as the stockpiles would be used for their originally intended purpose.

4.3 Evaluation of Alternatives

In accordance with CERCLA guidance and the remedial technology screening, four alternatives were retained for further evaluation in the FS:

- Alternative 1 - No action;
- Alternative 2 - Institutional controls;
- Alternative 3 - Removal (excavation and offsite disposal); and
- Alternative 4 - Containment.

Each of these alternatives is described in the following subsections then evaluated against the nine National Contingency Plan (NCP) criteria.

4.3.1 Evaluation Criteria

The nine NCP evaluation criteria used in the FS are as follows:

Threshold Criteria:

1. Overall Protection of Human Health and the Environment
2. Compliance with ARARs

Balancing Criteria:

3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, and Volume through Treatment
5. Short-Term Effectiveness
6. Implementability
7. Cost

Modifying Criteria:

8. Regulatory Acceptance
9. Community Acceptance

Each evaluation criterion is described below. Remedial alternatives for the stockpiles were compared to the first seven of the nine criteria listed. Regulatory and community acceptance were evaluated after the draft FS was finalized and the preferred alternative approved by the DTSC and CVRWQCB. The RAO is stated in Section 3.3, which is to build the SR-132 Project using the stockpiles as embankment fill as originally intended, which in turn will provide a greater degree of protection of human health and the environment than currently exists. Therefore each alternative's attainment of the RAO is presented in the evaluation of Overall Protection of Human Health and the Environment.

Threshold Criteria

Threshold criteria relate to statutory requirements that each alternative must satisfy in order to be eligible for selection.

Overall Protection of Human Health and the Environment. This criterion was used to assess each alternative's ability to protect human health and the environment. The assessment of overall protection describes how risks to human health and the environment are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls. While the HHRA and update to the HHRA found that potential exposure of onsite trespassers and offsite residents to COPCs under the current land use and of construction workers and adjacent residents during construction of the SR-132 Project does not pose an unacceptable risk or hazard, the detailed evaluation still considered potential further reductions in risks to human health and the environment afforded by each alternative.

Compliance with ARARs. This evaluation criterion was used to determine whether each alternative would meet the Federal and State ARARs identified in Section 3. The ability of a remedial alternative to comply with certain ARARs that were identified for the remedial action would depend entirely on the manner in which the remedy is implemented. For evaluation purposes, it was assumed that any remedy selected would be implemented in a manner that would meet these ARARs.

Balancing Criteria

Balancing criteria were used to evaluate the technical aspects of a remedial alternative and include the following:

Long-Term Effectiveness and Permanence. This criterion was used to assess the long-term ability of the remedial alternative to address the threshold criteria by (1) assessing the risk remaining at the site after implementation of the remedial alternative, and (2) evaluating the long-term adequacy and reliability of the remedial alternative, including requirements for management and monitoring.

Reductions in Toxicity, Mobility, and Volume of COPCs. This criterion is used to assess a remedial alternative's ability to reduce the inherent risk of the waste material. Technologies that permanently and significantly reduce toxicity, mobility, or volume are preferred over alternatives that only manage the stockpiles left in place. However, the degree of toxicity, mobility, or volume reduction achieved for the cost to achieve it is heavily weighted. Therefore, technologies that may have a significant effect on one or more of the criteria, but not necessarily all three, are strongly considered. As an example, a major factor to be considered is that the stockpiles were originally placed for construction of the SR-132 Project, which is now nearing implementation. If the stockpiles were to be removed from the Site in an attempt to achieve the greatest possible reduction in toxicity, mobility, and volume of COPCs, the soil would have to be replaced by other clean fill at considerable expense to complete the project. The expense incurred for removal and replacement is not warranted for the degree of protection achieved.

Short-Term Effectiveness. This criterion is used to assess the risks posed to the community, workers, and the environment during the implementation of a remedial action. Measures that would be taken to mitigate these risks will be addressed under this criterion. This criterion also considers the time required to achieve RAO.

Implementability. This criterion is used to assess the technical feasibility (constructability, reliability of technology, operation, and monitoring requirements), administrative feasibility (coordination with other agencies), and availability of services and materials (labor, equipment, and materials) to implement an alternative.

Cost. This criterion is used to assess the anticipated capital and annual O&M and monitoring costs associated with each alternative over a 30-year period. Capital and annual costs in the FS are presented in 2013 dollars. Cost estimates are provided in Tables 2 through 6.

Modifying Criteria

The modifying criteria, regulatory and community acceptance, are as follows:

Regulatory Acceptance. This assessment evaluates the technical and administrative issues and concerns the DTSC and CVRWQCB may have regarding each of the alternatives.

Community Acceptance. This assessment evaluates the issues and concerns the public may have regarding each of the alternatives. These criteria will be addressed after the public comment period for the Draft Final RAP and therefore were not evaluated in the FS.

4.3.2 Evaluation of Alternatives

The four remedial alternatives for the stockpiles were evaluated in the FS with respect to their ability to meet the nine NCP criteria. The detailed evaluation from the FS is in Appendix A.

4.4 Comparative Analysis

The FS included a comparative analysis of the four alternatives which formed the basis for selection of the preferred alternative.

4.4.1 Alternative 1 – No Action

This alternative would provide the lowest level of overall protection of human health and the environment of the four alternatives. The level of protection for the onsite trespasser and offsite resident would remain the same as the current controlled condition, but the health risk for other land uses and receptors would need to be further evaluated. This alternative would have the lowest level of regulatory acceptance because of the lack of site controls and monitoring and maintenance. It also would likely have the lowest level of community acceptance due to the perceived threat to human health and the

environment. This is the least costly of the alternatives and is the most implementable.

4.4.2 Alternative 2 – Institutional Controls

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

4.4.3 Alternative 3 – Removal

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the agencies and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four, and no funding is available for removal. This alternative can be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

4.4.4 Alternative 4 – Containment

Containment of the soil by either form of cap (the planned SR-132 Project or an alternative [one-foot-thick, clean soil cap with vegetative cover) will provide the second highest level of protection of human health and the environment of the four alternatives. Capping will eliminate routes of exposure to COPCs in the soil and minimize the potential for storm water infiltration. Short-term exposure to construction personnel and adjacent residents could be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by containment of the soil beneath either type of cap. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC and CVRWQCB oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to

be good as the stockpiles would be used for their originally intended purpose.

4.5 Description of Recommended Alternative

Based on the screening of alternatives and comparative analysis performed in the FS, **Alternative 4 – Containment** is the recommended alternative. Containment of the stockpiles will be achieved by their use in construction of the SR-132/SR-99 interchange portion of the SR-132 Project, which requires a significant amount of fill for the embankments and is the reason the stockpiles were placed on the Site in the early 1960s. Figures 5a and 5b show the current footprint of the stockpiles overlain by design drawings of the SR-132 Project. Figure 5a shows that Stockpiles 1 and 2 are situated such that, with minor consolidation of soil along the northern and southern edges of the stockpiles, they will be covered by the SR-132 roadways and contained behind retaining walls and bridge abutments. Figure 5b shows that Stockpile 3, in its current configuration, will have to be partially relocated/consolidated to be capped by and contained within project roadways.

The stockpiled soil will be contained behind retaining walls and bridge abutments and beneath roadway pavements of the project. As described in Section 1, the project will be constructed in two phases – the interim progress phase to be completed by 2018 and the ultimate build-out to be completed by 2028. The interim progress phase of the project will consist of a two-lane roadway, which will be constructed over the southern portions of Stockpiles 1 and 2. During this phase, the northern portions of Stockpiles 1 and 2 will not be contained beneath roadways and behind retaining walls and bridge abutments, but will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. Figures 6a and 6b show the interim progress phase of the project in plan view and indicate the portion of the stockpiles which will be temporarily covered by the clean soil cap until the ultimate build-out of the project is completed. Figures 7a and 7b show the ultimate project build-out in plan view and depict the complete containment of the stockpiles within the project retaining walls and beneath roadway pavements. Also shown on Figures 7a and 7b is that the median between the eastbound and westbound lanes of SR-132 will be covered by either pavement or a synthetic liner and clean soil layer.

Figures 8, 9, and 10 show cross-section views of the interim progress and ultimate build-out phases of the project for Stockpiles 1, 2, and 3, respectively. The cross-sections show:

- the sloping for drainage and clean soil cap over the northern portions of Stockpiles 1 and 2 during the interim progress phase and the complete containment of the stockpiles by the ultimate build-out;
- the pavement or liner cover over the median areas of the ultimate build-out;
- where the outer edges of the current stockpiles will be cut (in yellow) and placed on top of the stockpiles in the “stockpile fill consolidation zone.”

Stockpile 3 will be treated differently than Stockpiles 1 and 2 in that it is planned to be entirely contained within the interim progress phase of the project. As much of Stockpile 3 as possible will be placed in the

stockpile fill consolidation zone within the eastern abutment for the SR-132 bridge over SR-99 (Figures 6b and 10). The remainder of Stockpile 3 will then be placed in the stockpile fill consolidation zone of Stockpile 2 (Figure 9). At the request of the CVRWQCB, the costs were estimated to completely remove Stockpile 3, dispose of it offsite in an appropriate landfill, and import an equal volume of clean replacement fill.

Following DTSC/CVRWQCB approval of the Final RAP, the details of construction of the project will be presented in a Remedial Design Implementation Plan (RDIP).

4.6 Justification for Recommended Remedy

The preferred remedy, Alternative 4 - Containment, will contain the soil beneath roadway pavements and behind retaining walls and bridge abutments of the planned SR-132 Project or beneath a clean soil, vegetated cap to eliminate direct exposure and to be protective of groundwater and surface water. The primary factors which supported the selection of are: (1) this alternative is protective of human health and the environment and is technically feasible; (2) this alternative is cost-effective because funding is available for construction of the SR-132 Project; and (3) this alternative will help minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

Alternative 4 for soil was rated good for the threshold criteria of overall protection of human and environment and compliance with ARARs and good for the balancing criteria long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability. Furthermore, it is the most cost effective of the remedial alternatives that meets the threshold criteria requirements.

5.0 PRELIMINARY REMEDIAL DESIGN FOR SOIL REMEDY

This section describes how Alternative 4 – containment will be implemented. Further detail will be provided in the RDIP.

5.1 Permitting

Permitting for the construction project will likely consist of a grading permit with the City of Modesto, filing of an air impact assessment (AIA) with the San Joaquin Valley Air Pollution Control District (SJVAPCD), and a preparation of a Stormwater Pollution Prevention Plan (SWPPP). Prior to the start of construction, a scoping meeting will be held to discuss the stockpile grading activities, dust mitigation and monitoring, health and safety, and project scheduling. Attendees at the scoping meeting should include Caltrans personnel, representatives of the contractor and subcontractors performing the construction, project design consultants, construction inspectors, and regulatory agency representatives. The applicable permits for the project will be reviewed at the scoping meeting to confirm that they have been obtained and to review the applicable requirements of each.

5.2 Utility Clearance

Although no utilities are anticipated to be present within the project footprint where the stockpiles are, if any subsurface utilities could be affected by the construction project, they will be addressed prior to construction with those specific utility owners. Standard utility clearance precautions such as obtaining an Underground Service Alert (USA) ticket for the project will also be taken.

5.3 Site Preparation

Following pre-construction utility relocations (if any), any debris or other materials/items will be removed. If any vegetation grubbing is required (not anticipated), the Site will be moisture-conditioned to minimize dust generation. Air monitoring for dust emissions, which is described in Section 5.6, will be implemented during grubbing.

5.4 Excavation Extent and Methods

Excavation will not be performed for removal purposes, but only to reconfigure the stockpiles to meet project design criteria for fill placement. Using a combination of equipment including scrapers and excavators, soil will be excavated from the stockpile sides and pulled up onto the stockpiles into the “stockpile fill consolidation zone” (Figures 8, 9, and 10) to make way for retaining wall and bridge construction, placement behind the walls and abutments, and to meet design heights and widths.

5.5 Control Measures

Excavation and fill placement will be controlled by the grading contractor and the surveyors in accordance with the project design. Construction geotechnical inspectors will control fill compaction through observation and testing.

5.6 Perimeter Air Monitoring During Excavation

Perimeter air monitoring will be performed during site grubbing (if necessary) and the early stages of grading to assess the effectiveness of dust control measures. As part of the RDIP, an air monitoring plan showing air monitoring locations and describing equipment and sampling and analysis methods will be provided to DTSC for their review and approval. If the results of air monitoring demonstrate that dust control measures are effective and that there is no exposure to COPCs in the stockpiles via airborne dust, then the frequency of monitoring may be decreased with the approval of DTSC.

5.7 Field Variances

If field procedures for soil excavation, relocation, dust control, air monitoring or other field activities need to be modified to meet changed conditions or project improvement/efficiency relative to the planned activities, a request for a variance from DTSC will be requested. The request will describe the reason and need for the requested modification. The modification will not be implemented without prior approval from DTSC.

5.8 Confirmation Sampling and Analysis Plan

Confirmation soil sampling is not proposed at this time because the stockpile soil is not being removed from the Site, but only incorporated into construction of the project. Therefore, a confirmation sampling and analysis plan will not be included in the RDIP.

5.9 Transportation Plan

Soil is not proposed to be transported off of the Site for the project, but only moved within the project footprint. Any transportation of soil will be limited to within the Caltrans ROW and not on public thoroughfares. Therefore, a transportation plan will not be included in the RDIP.

5.10 Recordkeeping

Recordkeeping related to movement and placement of the stockpile soil will be the responsibility of the grading contractor that is handling the soil as part of construction. Construction inspection records including compaction and survey data will be maintained by the inspecting firm and surveyor with copies provided to the grading contractor.

6.0 LAND USE CONTROLS

Concentrations of some COPCs in soil samples collected from Stockpiles 2 and 3 exceeded residential screening levels. Because this soil will be left on the Site and contained by the project, a land use covenant (LUC) will be required to be recorded restricting the types of land use that are allowed on the Site. The LUC will recognize that the proposed transportation land use is compatible and is acceptable from a health risk standpoint. Other unrestricted land uses (e.g., residential, schools, daycare, hospital, senior care, etc.) will not be allowed on the Site.

The LUC will be prepared consistent with DTSC policy and finalized and recorded after physical remedial measures are implemented and before the Site is certified by the DTSC as having been remediated. The LUC will run with the land and stay in effect as long as hazardous substances limit use of the property and until terminated by the DTSC. Pursuant to Section 67391.1 of Title 22, Division 4.5, Chapter 39, CCR, the project proponent will pay all costs including for DTSC oversight associated with administration of the LUCs. The DTSC has authority to require modification or removal of any land improvements placed in violation of the restrictions. Violation of the LUC will be grounds for the DTSC to file civil or criminal actions as provided by law.

7.0 MONITORING AND REPORTING

This section describes monitoring and reporting activities that will be conducted during and following implementation of the recommended remedial alternative.

7.1 Monitoring

Monitoring of the stockpiles, groundwater, and stormwater will continue until such time as the project is complete or the DTSC and CVRWQCB indicate that it is no longer necessary. Monitoring of the stockpiles will include monitoring of the state and effectiveness of the vegetative cover on the portions not yet contained by the project, monitoring of the fencing to ensure that access to the stockpiles continues to be restricted, and monitoring of potential erosion and transport of soil off of Caltrans ROW. Figures 5a and 5b show the proposed extent of the interim progress phase of the project relative to the current extent of the stockpiles. The portion of the stockpiles not contained (the northern portion of Stockpiles 1 and 2) will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. These portions of the stockpiles will continue to be maintained and monitored in accordance with DTSC and CVRWQCB requirements until the ultimate build-out phase of the project is completed and the stockpile soil completely contained within the project. Groundwater monitoring for the COPCs will continue and stormwater monitoring will continue on a weather-dependent basis.

7.2 Reporting

Reporting of monitoring efforts will continue on a quarterly basis until no longer required by DTSC and/or the CVRWQCB.

7.3 Five-Year Review

Depending on project funding and the phased schedule for completion of the project, DTSC may perform five-year reviews to assess the effectiveness of the remedial measure between construction phases and after project completion. The five-year reviews would likely revisit mainly the maintenance of the portion of the stockpiles not yet contained within the project and condition of vegetated soil covers and liners. Monitoring of groundwater and surface water will have been ongoing and routinely reported to DTSC and the CVRWQCB and therefore would not be a focus of the reviews.

8.0 IMPLEMENTATION SCHEDULE

The anticipated schedule for the SR-132 Project from submittal of this Draft RAP through project completion is as follows:

Activity/Task/Milestone	Date
RAP	
Submit draft RAP to DTSC/CVRWQCB	December 27, 2013
Receive comments from DTSC/CVRWQCB on RAP	April 8, 2014
Revise RAP and submit Draft Final RAP to DTSC/CVRWQCB	June 24, 2014
Revise Draft Final RAP to be incorporated into the environmental impact report (EIR) for the SR-132 Project	June 27, 2014
DTSC approval of Draft Final RAP	July 25, 2014
Public notice of availability of Draft Final RAP and the SR 132 Project Environmental Document for minimum 30-day public review	Summer/Fall 2014
Minimum 30-day public review	Fall 2014
Public meeting	During 30-day public review period
DTSC responsiveness summary (response to public comments)	Winter 2015
Revise as needed and DTSC approves Final RAP	Winter 2015
SR-132 Construction	
StanCOG prepares bid specifications for interim progress phase	2015
Bids due	2015
Bid awarded	
Construction of interim progress phase begins	2015
Complete interim progress phase	2018
Prepare Remedial Action Completion Report (interim progress phase)	2019
Complete ultimate build-out phase	2028
Prepare Remedial Action Completion Report (ultimate build-out phase)	2029

9.0 HEALTH AND SAFETY PLAN

Although most of the COPCs have been demonstrated to be present in the stockpiles at concentrations generally less than residential health risk screening levels (and therefore much less than commercial/industrial or construction worker screening levels), barium is present at elevated concentrations. Therefore, an HSP will be prepared and implemented which will discuss the COPCs and appropriate precautions to limit exposure to them for onsite workers and nearby residents and businesses by implementing measures to control dust generation (water spray) and confirmation of this by air monitoring during construction. The HSP will also cover health and safety precautions for other worker hazards unrelated to the COPCs such as heat illness, lifting of heavy objects, slip/trip/fall hazards, equipment safety, and will provide emergency contacts and routes to the nearest hospital emergency room. A copy of the HSP will be kept on the Site at all times during the project.

Work at the Site will be performed in accordance with applicable State and Federal Occupational Health and Safety Standards set forth in 29 Code of Federal Regulations, Sections 1910 and 1926; and California Health and Safety Regulations as set forth in Title 8, California Code of Regulations, and guidance by DTSC. The provisions of the HSP will be mandatory for all Caltrans personnel and contractors and subcontractors at the Site.

Grading and other soil-related construction activities will not be required to be performed by Occupational Safety and Health Administration (OSHA) 40-hour health and safety trained personnel or contractors with Class A-HAZ licenses. However, health and safety awareness training will be provided through an initial site meeting and daily tailgate safety meetings.

10.0 CEQA

CEQA is being addressed through preparation of the *Draft EIR entitled: SR-132 West Freeway/Expressway Project*. The Draft EIR is currently in preparation and this RAP will be incorporated as a supplement to it. The Draft EIR describes the SR-132 project alternatives - Alternative 1, Alternative 2, and a No Build Alternative with Alternatives 1 and 2 being SR-99 off-ramp alternatives and not to be confused with remedial alternatives described in the RAP. The Draft EIR will provide the public and decision-makers with detailed information about the Project's environmental effects, ways to minimize its significant environmental effects, and reasonable alternatives to the Project. The lead agency for the EIR is Caltrans and the DTSC and CVRWQCB, as oversight agencies for the RAP, are responsible reviewing agencies for the EIR.

11.0 PUBLIC PARTICIPATION

The Draft Final RAP process includes several steps/activities and opportunities for public participation. The process includes providing information about the project and the proposed remedy to the public, receiving public input, and responding to that input. The PEA included a community profile and described initial public participation efforts. Additional public informational meetings have been held including one at the Site on November 28, 2012. Caltrans maintains a website (<http://www.dot.ca.gov/dist10/environmental/projects/SR-132west/Stockpiles.html>) which provide access to project documents. The DTSC's EnviroStor website (http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626) and (http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024) also provides access to project information, regulatory communications, and project documents.

The public participation activities that are ongoing or that will be performed as part of the Draft Final RAP process include:

- preparing a base line community survey which the DTSC has already completed;
- preparing a public participation plan, which the DTSC is in the process of completing;
- publishing a public notice of the availability of the Draft Final RAP for public review and comment and a public meeting in a local newspaper for a minimum of 30 days;
- distribution of a fact sheet describing the proposed remedy and the availability of the RAP for public review and comment;
- conducting the public meeting during the public comment period; and
- publishing a responsiveness summary responding to the comments received during the public comment period.

All comments received during the public comment period will be responded to in writing and distributed to everyone who submits a comment. The 30-day public review period is anticipated to occur in summer 2014. The Draft Final RAP will be revised as necessary, to address the comments received. If significant changes to the Draft Final RAP are required, the RAP will be revised and resubmitted for public review and comment. If significant changes are not required to the Draft Final RAP, the RAP will be modified and the DTSC will approve the revised Final RAP for implementation.

12.0 LIMITATIONS

This Draft Final RAP has been prepared solely for Caltrans and the DTSC and CVRWQCB in consideration of their requirements. Other parties may rely on the findings and conclusions of the RAP for informational purposes only. However, Caltrans, DTSC, CVRWQCB, and other parties who may rely on the findings and conclusions of the RAP should recognize that this RAP does not constitute a complete set of construction plans or specifications and should not be construed as such. The recommendations as presented in this RAP are predicated on the results of the sampling and laboratory testing performed to date.

The information contained herein is only valid as of the date of the RAP and would require an update to reflect additional site activities. Therefore, the RAP should only be deemed conclusive with respect to the information presented. No guarantee of the results of the studies used to generate the RAP is implied within the intent of this RAP or any subsequent report, correspondence or consultation, either express or implied. The services performed were conducted in accordance with the local standard of care in the geographic region at the time the services were rendered.

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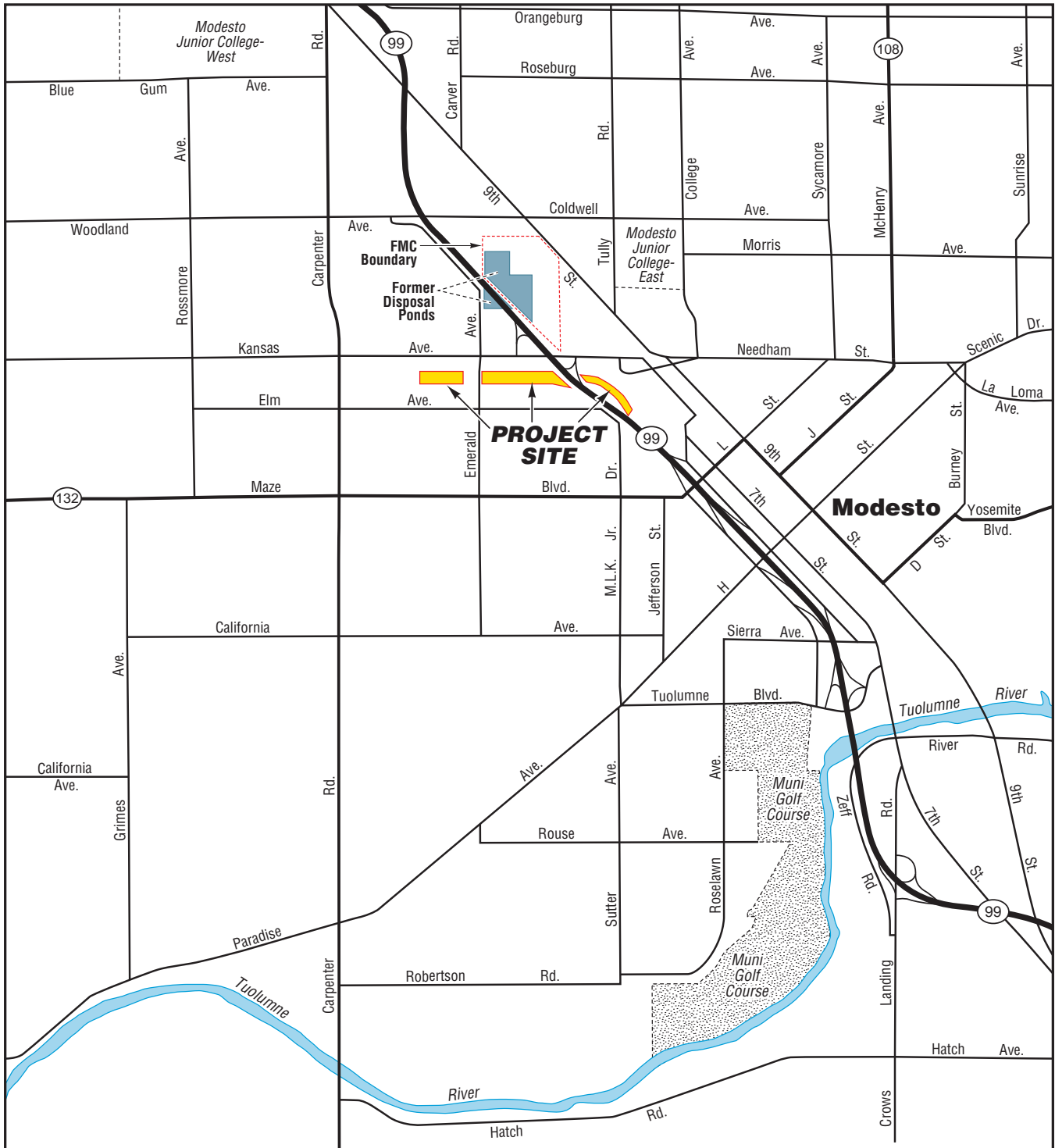
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Caltrans Modesto Soil Stockpiles	
Stanislaus County, California	
VICINITY MAP	
GEOCON Proj. No. S9800-01-17	
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Figure 1	

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LEGEND:

- MW8 Approximate Monitoring Well Location
- State Right-of-Way Boundary



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Caltrans Modesto Soil Stockpiles

Stanislaus County,
California
GEOCON Proj. No. S9800-01-17
Task Order No. 17

SITE PLAN

October 2014 | Figure 2

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0 400
Approx. Scale in Feet



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**1963 AERIAL
PHOTOGRAPH**

Caltrans Modesto Soil Stockpiles		
GEOCON Proj. No. S9800-01-17	Stanislaus County, California	
Task Order No. 17	October 2014	Figure 3a



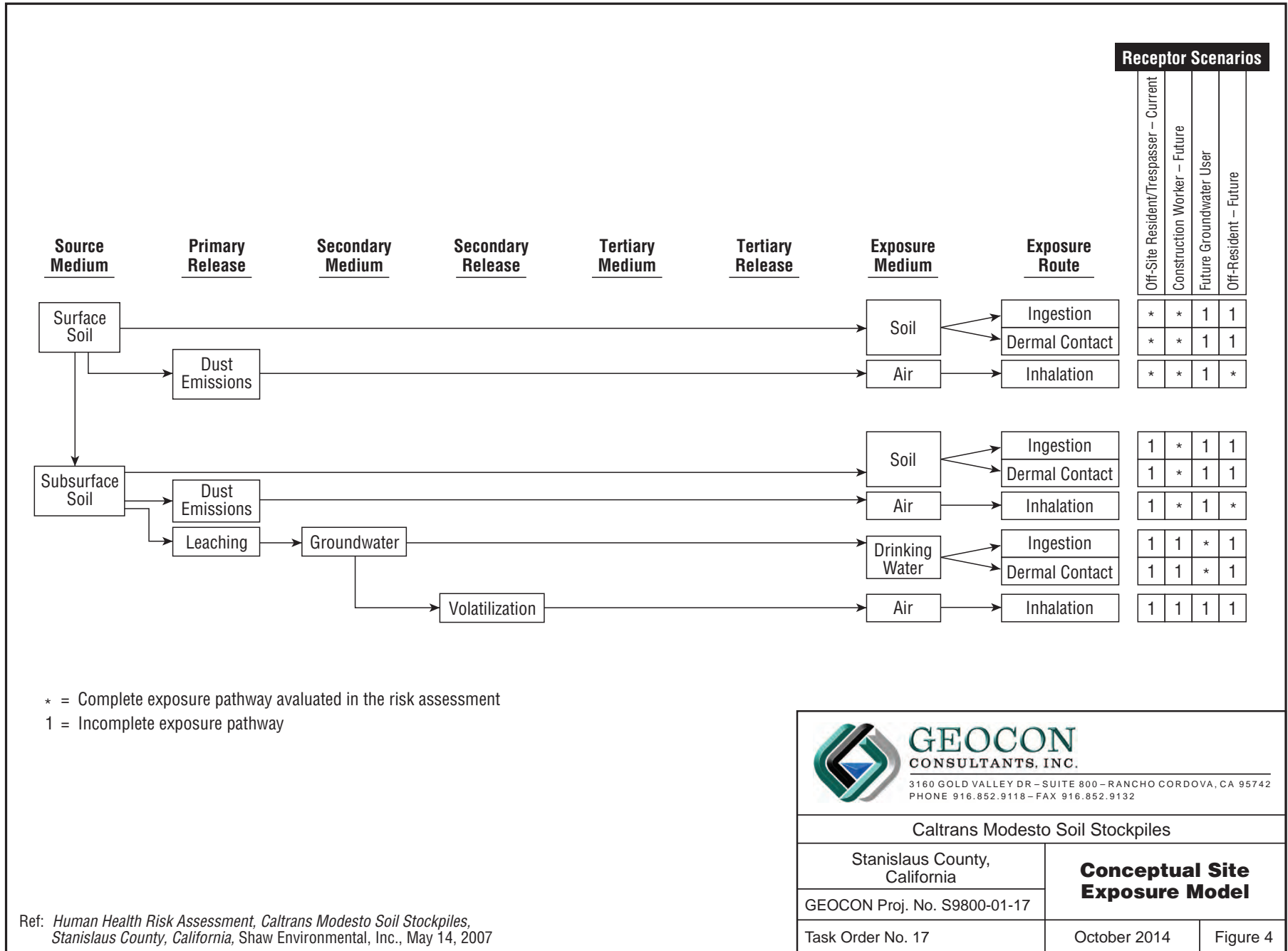
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Approx. Scale in Feet



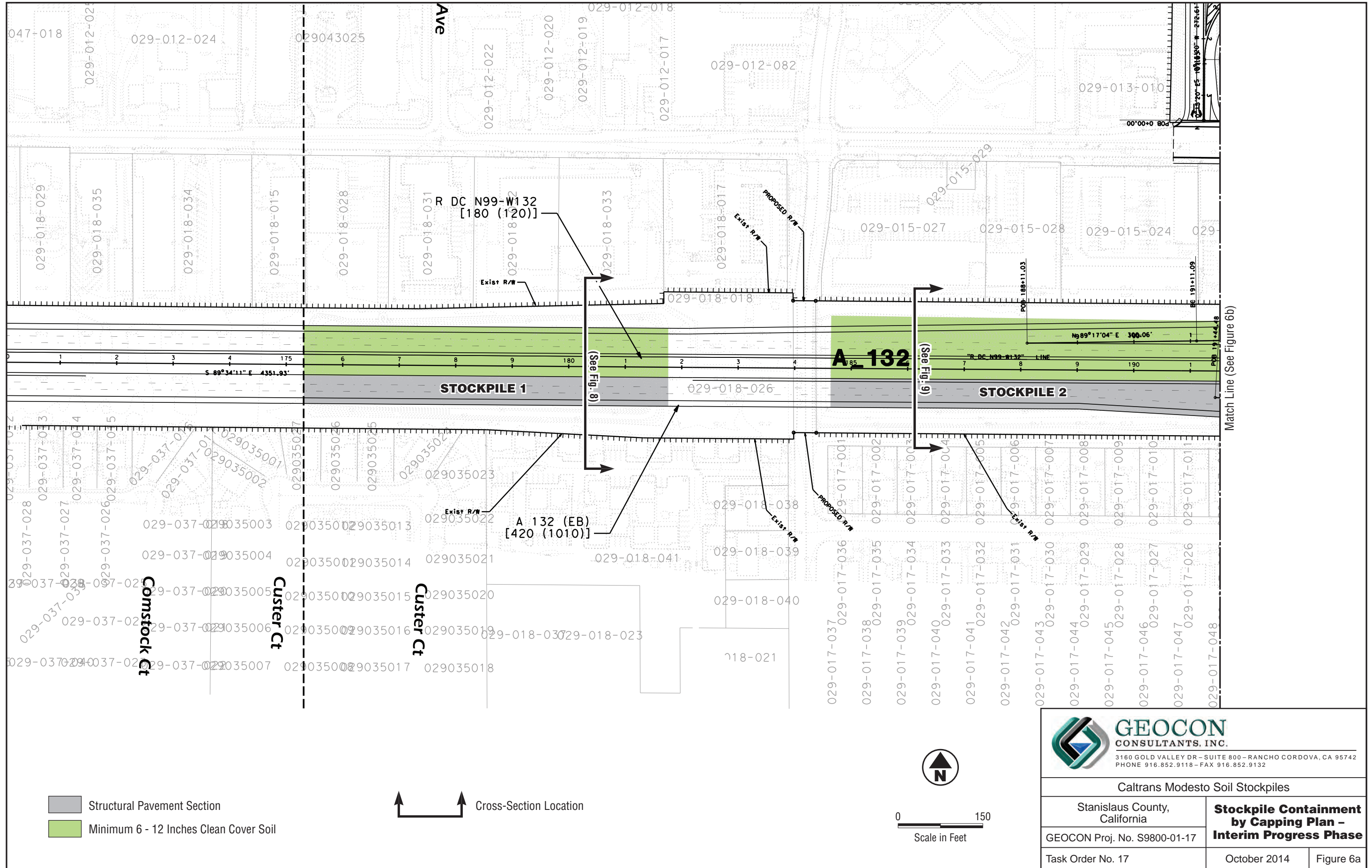
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**1967 AERIAL
PHOTOGRAPH**

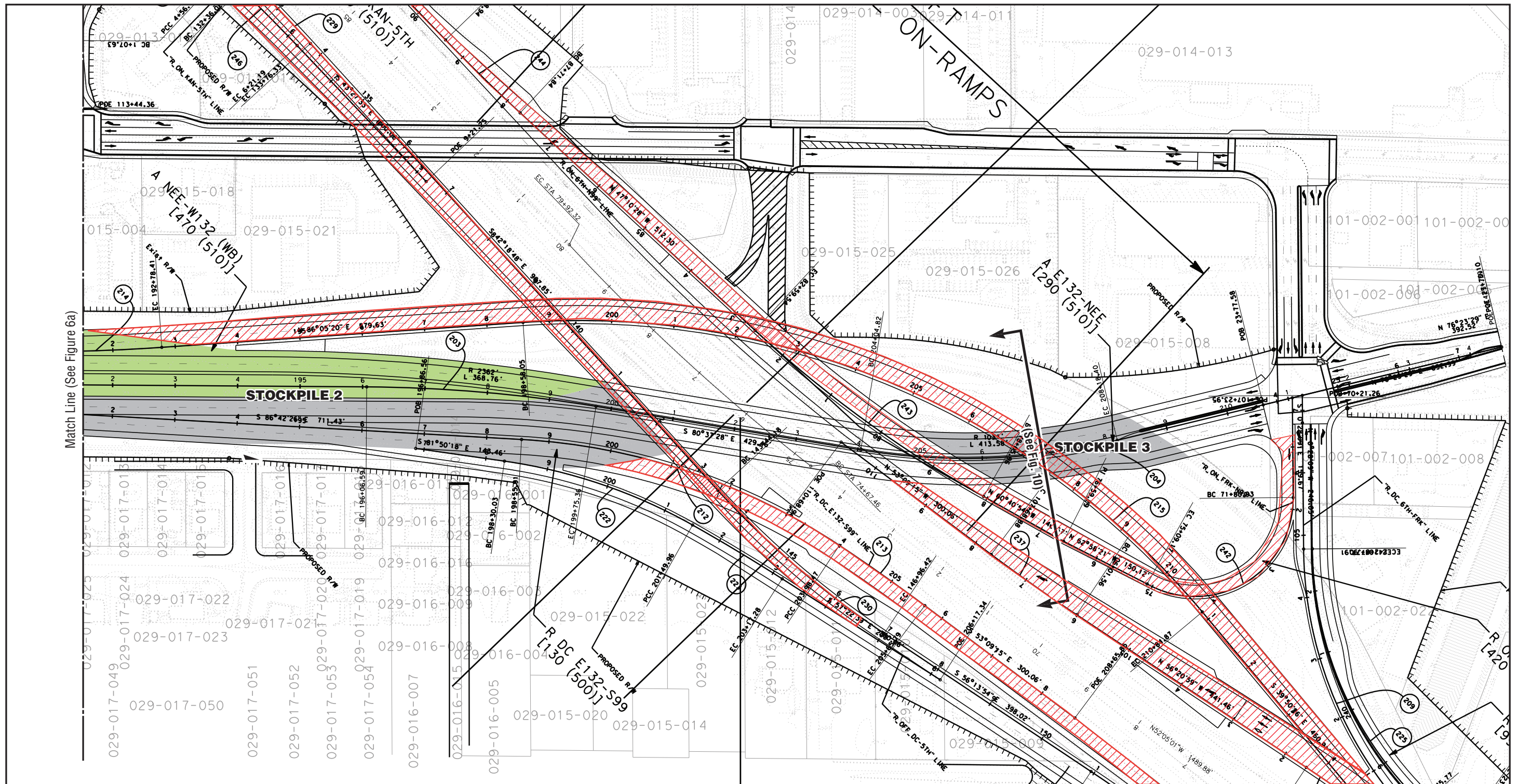
Caltrans Modesto Soil Stockpiles		
GEOCON Proj. No. S9800-01-17	Stanislaus County, California	
Task Order No. 17	October 2014	Figure 3b






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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	Stockpile Containment by Capping Plan - Interim Progress Phase	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 6a



Match Line (See Figure 6a)

-  Roadways to be Constructed for Project Ultimate Build-Out
-  Structural Pavement Section
-  Minimum 6 - 12 Inches Clean Cover Soil

 Cross-Section Location



0 150
Scale in Feet



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Caltrans Modesto Soil Stockpiles

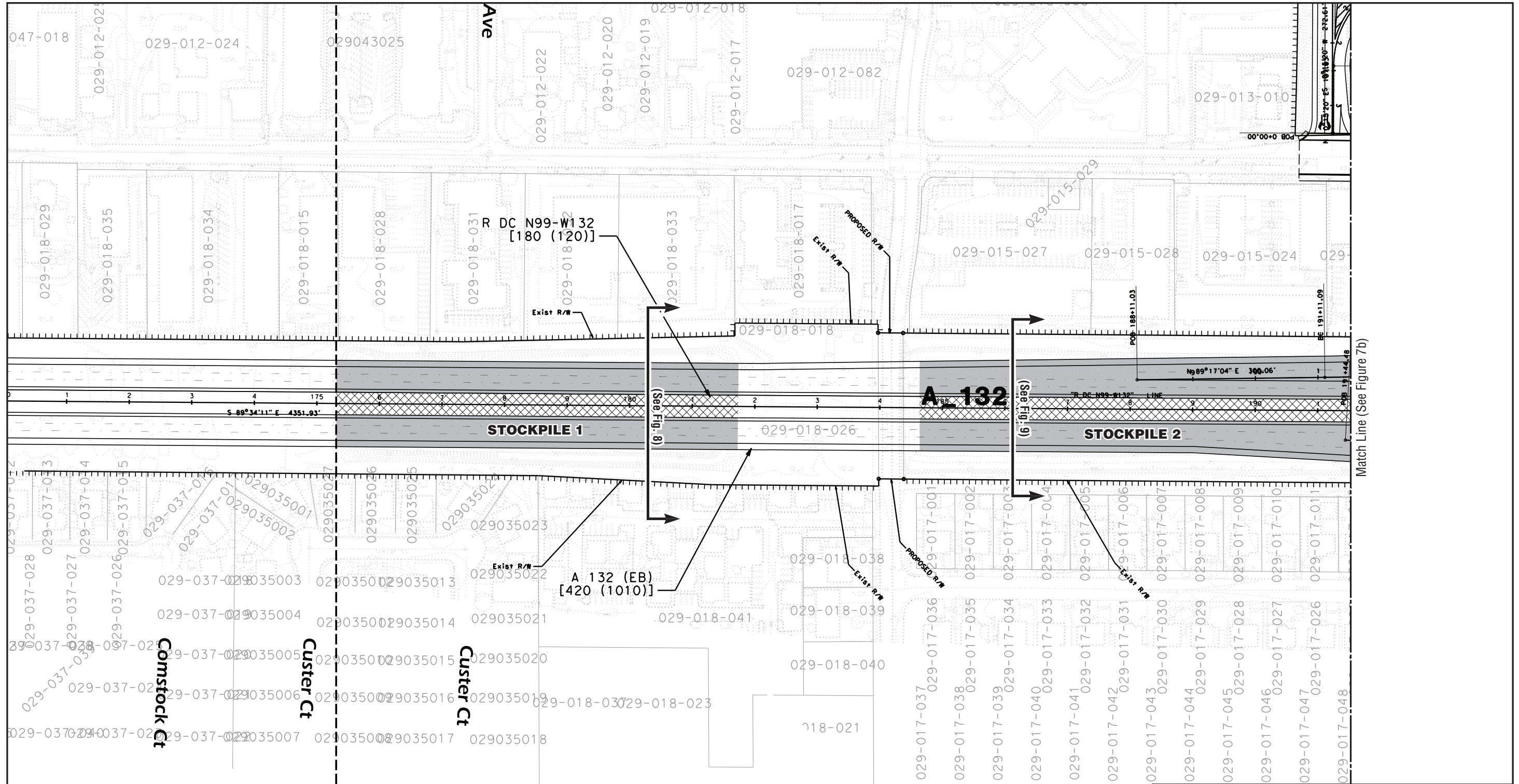
Stanislaus County,
California
GEOCON Proj. No. S9800-01-17

**Stockpile Containment
by Capping Plan -
Interim Progress Phase**

Task Order No. 17

October 2014

Figure 6b



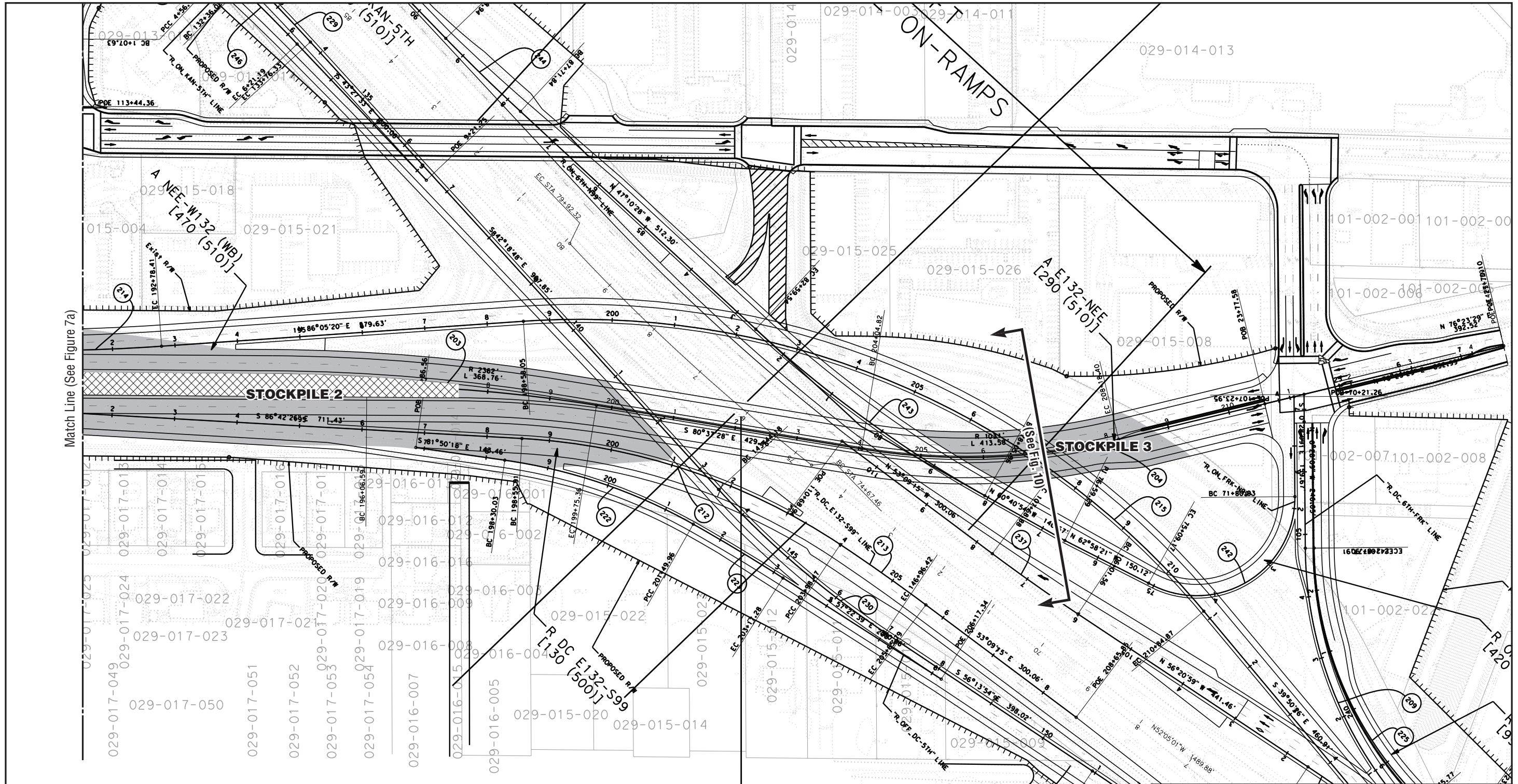
Structural Pavement Section
 Pavement or Liner in Median

Cross-Section Location





0 0150
 Scale in Feet

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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	Stockpile Containment by Capping Plan - Ultimate Project Build-Out	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 7a



Match Line (See Figure 7a)

-  Structural Pavement Section
-  Pavement or Liner in Median

 Cross-Section Location



0 150
Scale in Feet



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Caltrans Modesto Soil Stockpiles

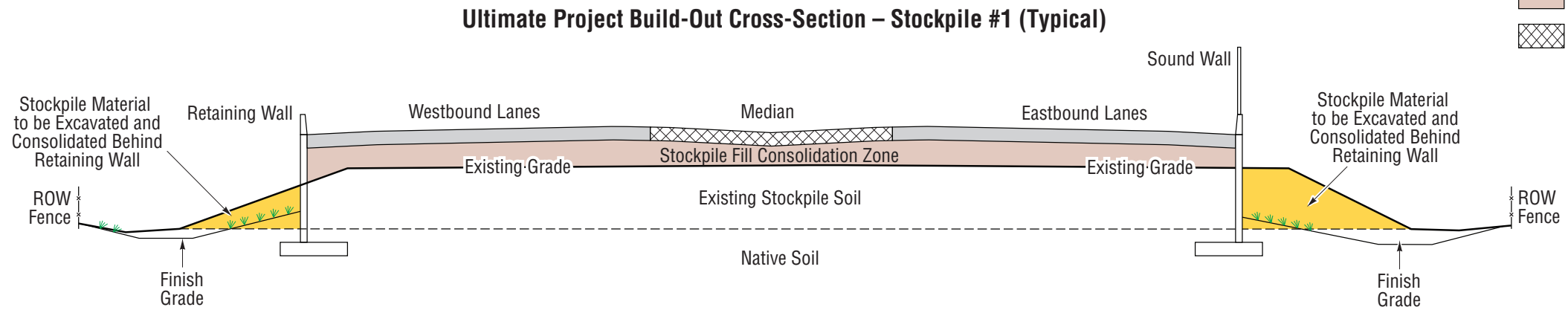
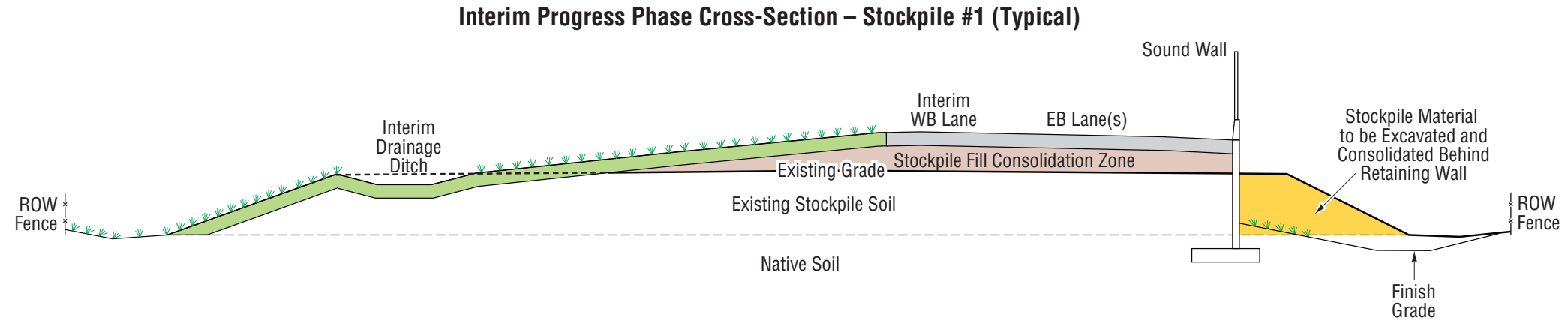
Stanislaus County,
California
GEOCON Proj. No. S9800-01-17

**Stockpile Containment
by Capping Plan -
Ultimate Project
Build-Out**

Task Order No. 17

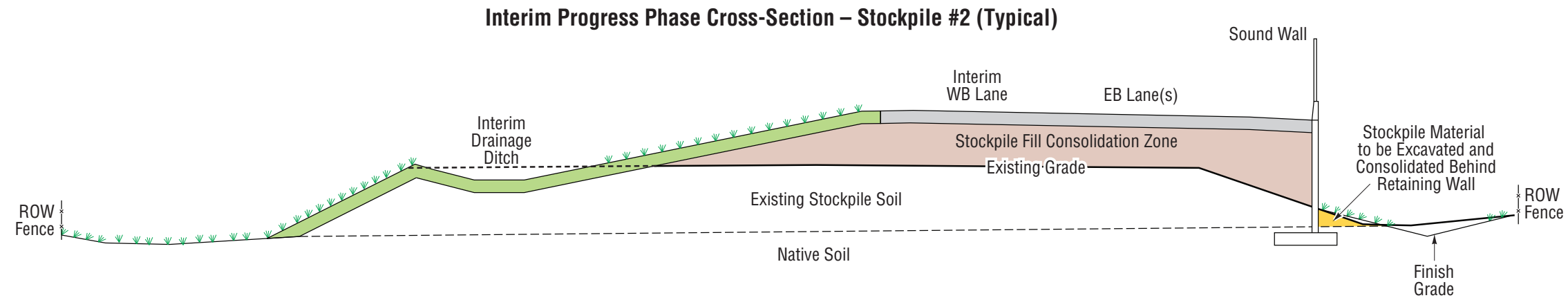
October 2014

Figure 7b

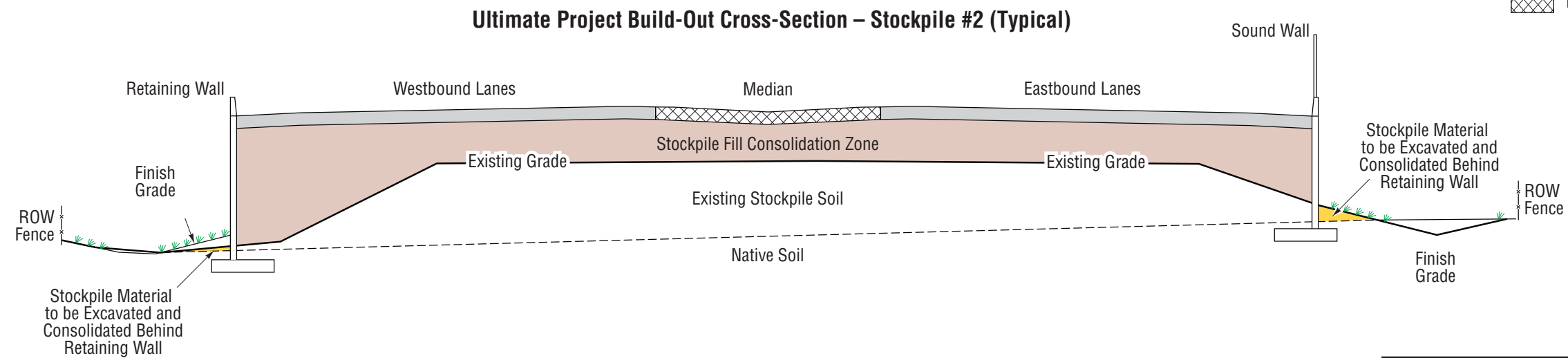


- Structural Pavement Section
- Minimum 6 - 12 inches Clean Cover Soil
- Stockpile Soil to be Removed
- Stockpile Fill Consolidation Zone
- Pavement or Liner in Median

<b style="font-size: 1.2em;">GEOCON CONSULTANTS, INC. <small>3180 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742 PHONE 916.852.9118 - FAX 916.852.9132</small>	
Caltrans Modesto Soil Stockpiles	
Stanislaus County, California	CROSS-SECTIONS STOCKPILE #1
GEOCON Proj. No. S9800-01-17	
Task Order No. 17	October 2014
Figure 8	

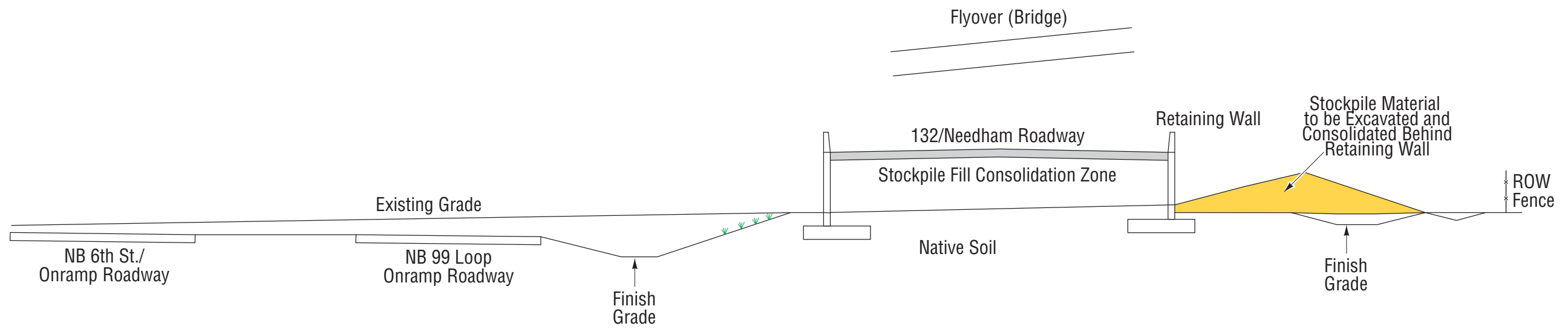


- Structural Pavement Section
- Minimum 6 - 12 inches Clean Cover Soil
- Stockpile Soil to be Removed
- Stockpile Fill Consolidation Zone
- Pavement or Liner in Median



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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	CROSS-SECTIONS STOCKPILE #2	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 9

Interim Progress Phase and Ultimate Build-Out Cross-Section – Stockpile #3 (Typical)



Structural Pavement Section
 Stockpile Soil to be Removed

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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	CROSS-SECTION STOCKPILE #3	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 10

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**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13240, 13241, 13242, 13243)	Water Quality Control Plan (Basin Plan) for the RWQCB, CVR.	<p>Establishes water quality objectives, including narrative and numerical standards, that protect the beneficial uses of surface and ground waters in the region. Describes implementation plans and other control measures designed to ensure compliance with statewide plans and policies and provide comprehensive water quality planning. Also includes implementation actions for setting soil cleanup levels for soils which threaten water quality.</p> <p>Unless otherwise designated by the Regional Water Board, all ground waters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).</p>	Applicable	Chemical	Specific applicable portions of the Basin Plan include beneficial uses of affected water bodies and water quality objectives to protect those uses. Any activity, including, for example, a new discharge of contaminated soils or in-situ treatment or containment of contaminated soils, that may affect water quality must not result in water quality exceeding water quality objectives. Implementation plans and other policies and requirements may also apply.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13304, 13240, 13241, 13242, 13243)	RWQCB, CVR Basin Plan, "Policy for Investigation and Cleanup of Contaminated Sites."	Establishes and describes policy for investigation and remediation of contaminated sites. Also includes implementation actions for setting groundwater and soil cleanup levels.	Applicable	Chemical	Cleanup levels for soils should be equal to levels that would achieve background concentrations in groundwater unless such levels are technically and economically infeasible to achieve. In such cases, soil cleanup levels are such that groundwater will not exceed applicable groundwater quality objectives.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13240, 13241, 13242, 13243)	RWQCB, CVR Basin Plan, "Policy for Application of Water Quality Objectives"	This policy defines water quality objectives and explains how the Regional Water Board applies numerical and narrative water quality objectives to ensure the reasonable protection of beneficial uses of water and how the Regional Water Board applies Resolution No. 68-16 to promote the maintenance of existing high quality waters.	Applicable	Chemical	Applies to all cleanups of discharges that may affect water quality.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13263, 13304)	State Water Resources Control Board Resolution No. 68-16 ("Antidegradation Policy")	Requires that high quality surface and ground waters be maintained to the maximum extent possible. Degradation of waters will be allowed (or allowed to remain) only if it is consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that prescribed in RWQCB and SWRCB policies. If degradation is allowed, the discharge must meet best practicable treatment or control, which must prevent pollution or nuisance and result in the highest water quality consistent with maximum benefit to the people of the state.	Applicable	Chemical	Applies to discharges of waste to waters, including discharges to soil that may affect surface or ground waters. In-situ cleanup levels for contaminated soils must be set so that ground waters will not be degraded, unless degradation is consistent with the maximum benefit of the people of the state. If degradation is allowed, the discharge must meet best practical treatment or control, and result in the highest water quality possible consistent with the maximum benefit to the people of the state. In no case may water quality objectives be exceeded.
Porter-Cologne Water Quality Control Act (California Water Code Sections	State Water Resources Control Board Resolution No. 92-49 (As	Establishes requirements for investigation and cleanup and abatement of discharges. Among other requirements, dischargers must clean up and abate the effects of discharges in a manner that	Applicable	Chemical	Applies to all cleanups of discharges that may affect water quality.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13000, 13140, 13240, 13260, 13263, 13267, 13300, 13304, 13307)	amended April 21, 1994)	promotes the attainment of either background water quality, or the best water quality that is reasonable if background water quality cannot be restored. Requires the application of Title 23, CCR, Section 2550.4 requirements to cleanups.			
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13240)	State Water Resources Control Board Resolution No. 88-63 ("Sources of Drinking Water Policy") (as contained in the RWQCB's Water Quality Control Plan)	Specifies that, with certain exceptions, all ground and surface waters have the beneficial use of municipal or domestic water supply.	Applicable	Chemical	Applies in determining beneficial uses for waters that may be affected by dischargers of waste.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, National Pollutant Discharge Elimination System, implemented by California Storm water Permit for Industrial Activities, State Water Resources Control Board Order #97-03-DWQ.	Regulates pollutants in discharge of storm water associated with hazardous waste treatment, storage, and disposal facilities, wastewater treatment plants, landfills, land application sites, and open dumps. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applicable	Action and Chemical	Applies to storm water discharges from industrial areas. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, National Pollutant discharge elimination system, implemented by State Water Resources Control Board Order No. 92-08 DWQ	Regulates pollutants in discharge of storm water associated with construction activity (clearing, grading, or excavation) involving the disturbance of 5 acres or more. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applicable	Action and Chemical	Applies to construction areas over 5 acres in size. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080(g), Title 23, CCR, Section 2510(g)	Requires monitoring. If water quality is threatened, corrective action consistent with Title 27, Title 23 is required.	Applicable	Action	Applies to areas of land where discharges had ceased as of November 27, 1984 (the effective date of the revised Title 27/ Title 23 regulations).
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20385, Title 23, CCR, Section 2550.1	Requires detection monitoring. Once a significant release has occurred, evaluation or corrective action monitoring is required.	Applicable	Action and Chemical	Applies to all areas in which waste has been discharged to land to determine the threat to water quality.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20390, Title 23, CCR, Section 2550.2	Requires establishment of a water quality protection standard consisting of a list of constituents of concern, concentration limits, compliance monitoring points and all monitoring points. This section further specifies the time period that the standard shall apply.	Applicable	Action and Chemical	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20395, Title 23, CCR, Section 2550.3	Requires development of a list of constituents of concern which include all waste constituents, that are reasonably expected to be present in the soil from discharges to land, and could adversely affect water quality.	Applicable	Chemical	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20400, Title 23, CCR, Section 2550.4	Concentration limits must be established for groundwater, surface water, and the unsaturated zone. Must be based on background, equal to background, or for corrective actions, may be greater than background, not to exceed the lower of the applicable water quality objective or the concentration technologically or economically achievable. Specific factors must be considered in setting cleanup standards above background levels.	Relevant and Appropriate	Action	If water quality is threatened, this section applies in setting soil cleanup levels for all cleanups of discharges of waste to land.
Porter-Cologne Water Quality Control Act (California Water	Title 27, CCR, Section 20405, Title 23, CCR, Section 2550.5	Requires identification of the point of compliance, hydraulically down gradient from the area where waste was discharged to land.	Applicable	Action	Applies to all areas in which waste has been discharged to land where groundwater is threatened.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).					
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20410 Title 23, CCR, Section 2550.6	Requires monitoring for compliance with remedial action objectives for three years from the date of achieving cleanup levels.	Relevant and Appropriate.	Action	Applies to all soil cleanup activities.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20415 Title 23, CCR, Section 2550.7.	Requires general soil, surface water, and ground water monitoring.	Relevant and Appropriate.	Action	Applies to all areas in which waste has been discharged to land.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147,	Title 27, CCR, Section 20420, Title 23, CCR, Section 2550.8.	Requires detection monitoring to determine if a release has occurred.	Applicable	Chemical	Applies to all areas where waste has been discharged to land and groundwater is threatened.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13172, 13260, 13263, 13267, 13269).					
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20425 Title 23, CCR, Section 2550.9	Requires an assessment of the nature and extent of the release, including a determination of the spatial distribution and concentration of each constituent.	Applicable	Chemical	Applies to sites at which monitoring results show statistically significant evidence of a release.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20430 Title 23, CCR, Section 2550.10 Title 27, CCR, Section 20430 Title 23, CCR, Section 2550.10	Requires implementation of corrective action measures that ensure that cleanup levels (i.e., water quality protection standard established under section 2550.2) are achieved throughout the zone affected by the release by removing the waste constituents or treating them in place. Source control may be required. Also requires monitoring to determine the effectiveness of the corrective actions.	Relevant and Appropriate	Action	If water quality is threatened, this section applies to all soil cleanup activities.
Cal EPA, DTSC	Preliminary Endangerment Assessment Guidance Manual	Provides guidance on performing standard risk assessments.	To Be Considered	Chemical	Performance standard on human health screening evaluation.
Office of Scientific Affairs, Cal EPA, DTSC	Supplemental Guidance for Human Health Multimedia Risk	Provides recommendations on specific technical or scientific issues that may be encountered when preparing multimedia risk assessment reports for submittal and	To Be Considered	Action	Performance standard for conducting quantitative human health risk assessments.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
	Assessment of Hazardous Waste Sites and Permitted Facilities	review by the DTSC			
Guidance	USEPA Risk Reference Doses (RfDs)	RfDs are dose levels developed USEPA for evaluating human non-carcinogenic risk from exposure to carcinogens.	To Be Considered	Chemical	RfDs are used to evaluate to evaluate human health risks from exposure to non-carcinogenic Site contaminants. RfDs are also employed to develop Site cleanup levels.
Guidance	USEPA Human Health Assessment Cancer Slope Factors (CSFs)	CSFs are developed by USEPA for evaluating incremental human carcinogenic risk from exposure to carcinogens.	To Be Considered	Chemical	CSFs are used to evaluate human cancer risk resulting from exposure to carcinogenic Site contaminants. CSFs are also employed to develop Site cleanup levels.
Staff Report of the RWQCB, CVR	The Designated Level Methodology for Waste Classification and Cleanup Level Determination	Provides guidance on how to classify wastes according to Title 27, CCR, Division 2, Subdiv.1/ Title 23, CCR, Division 3, Chapter 15, Article 10. Provides a methodology for establishing "Designated Levels" for specific constituents of a waste which provides a numerical value that would indicate the water quality impairment potential of the waste.	To Be Considered	Action	Performance standard to be considered in determining the classification of wastes and contaminated soils.
Staff Report of the RWQCB, CVR	"A Compilation of Water Quality Goals"	Provides guidance on selecting numerical values to implement narrative water quality objectives contained in the Basin Plan.	To Be Considered	Action	Performance standard to be considered in selecting appropriate numerical values to implement the Basin Plan for setting cleanup levels and discharge limits. The numerical

Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
					values contained in the staff report may be applicable, relevant and appropriate, or to be considered, depending on the source of the values.
Staff Report of the RWQCB, CVR	"Water Quality Site Assessment for Soils and Ground Water"	Provides guidance on how a site-wide water quality site assessment should be conducted to evaluate the impact of soil contaminants on groundwater quality. Guidance uses background soil and groundwater quality data to determine if Site soil and groundwater have been impacted by site activities and uses groundwater Water Quality Goals to determine if the beneficial use of groundwater has been impacted or whether concentrations of site constituents have the potential to affect beneficial groundwater uses.	To Be Considered	Action	Used to determine to identify Site soil and groundwater constituents of concern.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 23, CCR, Section, 2520, 2521	Requires that hazardous waste be discharged to Class I waste management units that meet certain design and monitoring standards.	Relevant and Appropriate	Action	Applies to discharges of hazardous waste to land for treatment, storage or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections	Title 27, CCR, Section, 20200(c), 20210	Requires that designated waste be discharged to Class I or Class II waste management units.	Relevant and Appropriate	Action	Applies to discharges of designated waste (nonhazardous waste that could cause degradation of surface or ground waters) to land for treatment,

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13140-13147 13172, 13260, 13263, 13269).					storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147 13172, 13260, 13263, 13269).	Title 27, CCR, Section 20230	Requires that inert waste does not need to be discharged at classified units.	Relevant and Appropriate	Action	Applies to discharges of inert waste to land for treatment, storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 27, CCR, Section 20200(c),20220	Requires that nonhazardous solid waste be discharged to a classified waste management unit.	Relevant and Appropriate	Action	Applies to discharges of nonhazardous solid waste to land for treatment, storage, or disposal.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147,, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20090(d) Title 23 CCR, Section 2511(d)	Actions taken by public agencies to cleanup unauthorized releases are exempt from Title 27/Title 23 except that wastes removed from immediate place of release and discharged to land must be managed in accordance with classification (Title 27 CCR, Section 20200/ Title 23 CCR, Sections 2520) and siting requirements of Title 27 or Title 23 and wastes contained or left in place must comply with Title 27 or Title 23 to the extent feasible.	Applicable	Action	Applies to remediation and monitoring of sites.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080 (d) Title 23, CCR, Section 2510(d)	Requires closure of existing waste management units according to Title 27/Title 23.	Applicable	Action	Applies to existing waste management units (i.e., areas where waste was discharged to land on or before 27 November 1984, but that were not closed, abandoned, or inactive prior to that date).
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 1323, 13269).	Title 27, CCR, Section 21400, Title 23, CCR, Section 2582.	Requires surface impoundments to be closed by removing and treating all free liquid and either removing all remaining contamination or closing the surface impoundment as a landfill.	Applicable	Action	If water quality is threatened, this section is relevant and appropriate for natural topographic depressions, excavations, and diked areas where wastes containing free liquids were discharged.

**Table 1
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Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Sections 20385-20435 Title 23, CCR, Section 2550 .	Where groundwater monitoring is required under 2510 or 2511 of Ch 15 (and equivalent for Title 27), applies to authorized waste management units as well as unauthorized discharges of waste to land and to closed abandoned or inactive units.	Applicable	Chemical and Action	Applies to all areas in which waste has been discharged to land to determine the threat to water quality.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20950; 22207 (a); 22212 (a), and 22222. Title 23, CCR, Section 2550.0 (b); 2580; 2580(f).	General closure requirements, including continued maintenance of waste containment, drainage controls, and groundwater monitoring throughout the closure and post closure maintenance periods.	Applicable	Action	Applies to partial or final closure of waste management units.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269)	Title 27, CCR, Section 21090	Requires a final cover for landfills constructed in accordance with specific prescriptive standards, to be maintained as long as wastes pose a threat to water quality.	Relevant and Appropriate	Action	If water quality is threatened, this section is relevant and appropriate for wastes contained or left in place at the end of remedial actions that could affect water quality. Includes closure of landfills and other areas where wastes have been discharged to land.
Staff Report of the RWQCB, CVR	Items to be included in a Feasibility	Provides an outline presenting the minimum requirement for items to be included and discussed in the text of all	To be Considered	Chemical, Action, and Location	Applies to preparation of a feasibility study and remedial options evaluation for submittal to

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
	Study/Remedial Options Evaluation Report	feasibility studies/remedial option evaluation reports submitted to the RWQCB.			RWQCB.
Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5)	Title 22, California Code of Regulations, Division 4.5, Section 66260.1 et seq	Regulates the generation, storage, transportation, treatment and disposal of hazardous waste in the State.	Applicable	Chemical	Applies to material that may be hazardous waste.
Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5)	Title 22, California Code of Regulations, Division 4.5, 22 CCR §§66261-66261.126	Identifies those wastes that are subject to regulation as hazardous wastes. Provides definition of "wastes" and "hazardous wastes".	Applicable	Chemical	Applies to material that would be transported from the Site for disposal, treatment or storage. Determination of material as "waste" and "hazardous waste" is required prior to removal from Site.
NCP	55 FR 8758-8760, March 8, 1990	Area of Contamination – Allows wastes to be consolidated and treated <i>in situ</i> within an AOC without triggering land disposal restrictions or minimum technology requirements. For an AOC, contamination must be contiguous but does not have to be homogeneous.	Relevant and Appropriate	Action	Allows for movement of impacted soil to be moved within the footprint of impacted soil.
City of Modesto	Municipal Code Section 5-10.301	Requires a grading and erosion control permit to grade, fill, excavation, store or dispose of 350 cubic yards or more of soil or earth material or clear and grub more than .5 acre of land within the City limits.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.
City of Modesto	Municipal Code Section 5-10.303	Provides requirements for information to be included in a grading and erosion control permit.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
City of Modesto	Municipal Code Section 5-10.304	Provides requirements for grading plans required as part of the grading and erosion permit.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.
San Joaquin Valley Unified Air Protection Control District	Rule 8021	Provides requirements for to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil. Permit is required if area subject to construction, demolition, etc is greater than five acres.
National Contingency Plan (40 CFR Part 300.430)	USEPA's regulations for implementing CERCLA	Identifies the development and evaluation process for remedial alternatives.	Relevant and Appropriate	Action	Applies to investigation and remediation of uncontrolled hazardous waste sites.
USEPA	Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, October 1988, (EPA/540-G-89/004	Presents the methodology that the Superfund program has established for characterizing the nature and extent of risks posed by uncontrolled hazardous waste sites and for evaluating potential remedial options.	To be Considered	Action	<i>Voluntary Cleanup Agreement, FMC-Modesto Site, Stanislaus County, Modesto, California</i> requires the RI/FS Process to follow CERCLA guidance, specifically this guidance document.

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TABLE 2
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 2 – INSTITUTIONAL CONTROLS
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Activity	Quantity	Unit	Unit Cost	Total Cost
1	Project Management ¹	15	Annual	\$5,000	\$75,000
2	Public Communications ²	5	As-needed	\$2,500	\$12,500
2	Fence Maintenance ¹	15	Annual	\$5,000	\$75,000
3	Mowing ¹	30	Bi-annual	\$2,500	\$75,000
5	Groundwater Monitoring ³	20	Quarterly	\$12,500	\$250,000
6	Surfacewater Monitoring	3	Weather-dependent	\$2,500	\$7,500
Total Estimated Cost:					\$495,000

- Notes:
- 1 = assumed to be necessary from present until planned completion of ultimate build-out in 2028.
 - 2 = could include public meetings, fact sheets, public notices, and other forms of information dissemination to the public.
 - 3 = assumed that will be discontinued after interim progress phase is completed in 2018.

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TABLE 3
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 3 – REMOVAL
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$53,000	\$53,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$35,000	\$35,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$63,000	\$63,000
4	Truck Decontamination Station ²	47	Day	\$1,200	\$56,400
5	Air Monitoring	1	Lump Sum	\$215,000	\$215,000
6	Waste Profiling of Soil	1	Lump Sum	\$36,500	\$36,500
7	Traffic Control	47	Day	\$800	\$37,600
8	Excavation and Loading	216,000	Ton	\$9	\$1,944,000
9	Transportation and Disposal (Class II)	191,000	Ton	\$35	\$6,589,500
10	Transportation and Disposal (Class I)	25,000	Ton	\$242	\$6,050,000
11	Fill Placement	160,000	Cubic Yard	\$40	\$6,400,000
Total Estimated Cost:					\$21,480,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = truck decontamination includes daily washout and operation and maintenance of station

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TABLE 4
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 4 – CONTAINMENT BY CAPPING WITH THE SR-132 PROJECT
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$20,000	\$20,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$30,000	\$30,000
4	Air Monitoring ²	1	Lump Sum	\$150,000	\$150,000
5	Excavation and Consolidation of Soil from South Side of Stockpiles 1 and 2 (Interim Progress Phase)	15,000	Cubic Yard	\$5	\$75,000
6	Excavation and Consolidation of Soil from Stockpile 3 (Interim Progress Phase)	20,000	Cubic Yard	\$5	\$100,000
7	Grading of North Side Stockpiles 1 and 2	40,000	Cubic Yard	\$5	\$200,000
8	Clean Soil Cap - North Side of Stockpiles 1 and 2	8,000	Cubic Yard	\$10	\$80,000
9	Excavation and Consolidation of Soil - North Side of Stockpiles 1 and 2 (Ultimate Build-Out)	10,000	Cubic Yard	\$10	\$100,000
10	Pave Median of Ultimate Build-out	2,700	Ton	\$150	\$405,000
11	Revegetation - North Side of Stockpiles 1 and 2	200,000	Square Feet	\$2	\$400,000
Total Estimated Cost:					\$1,570,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = air monitoring to be conducted during all earthmoving activities during interim progress phase and ultimate build-out.

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TABLE 5
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 4 – CONTAINMENT BY CAPPING WITH CLEAN SOIL LAYER
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$20,000	\$20,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$30,000	\$30,000
4	Air Monitoring ²	1	Lump Sum	\$150,000	\$150,000
5	Grading of Stockpiles	25,000	Cubic Yard	\$5	\$125,000
6	Clean Soil Cap	20,000	Cubic Yard	\$10	\$200,000
7	Revegetation	400,000	Square Feet	\$2	\$800,000
Total Estimated Cost:					\$1,335,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.

2 = air monitoring to be conducted during all earthmoving activities during interim progress phase and ultimate build-out.

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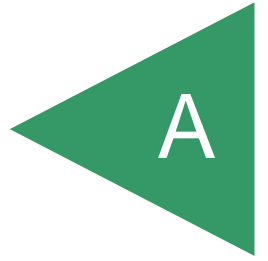
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TABLE 6
 REMEDIATION COST ESTIMATE SUMMARY
 OPTIONAL REMOVAL AND OFFSITE DISPOSAL OF STOCKPILE 3
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$10,000	\$10,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$20,000	\$20,000
4	Truck Decontamination Station ²	30	Day	\$1,200	\$36,000
5	Air Monitoring	1	Lump Sum	\$100,000	\$100,000
6	Waste Profiling of Soil	1	Lump Sum	\$10,000	\$10,000
7	Traffic Control	30	Day	\$800	\$24,000
8	Excavation and Loading	34,000	Ton	\$9	\$306,000
9	Transportation and Disposal (Class II)	34,000	Ton	\$35	\$1,173,000
10	Fill Placement	24,000	Cubic Yard	\$40	\$960,000
Total Estimated Cost:					\$2,649,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = truck decontamination includes daily washout and operation and maintenance of station

APPENDIX



APPENDIX A

EVALUATION OF ALTERNATIVES

In accordance with CERCLA guidance and the remedial technology screening in Section 4, four alternatives were retained for further evaluation in the FS:

- Alternative 1 - No action;
- Alternative 2 - Institutional controls;
- Alternative 3 - Removal (excavation and offsite disposal); and
- Alternative 4 - Containment.

Each of these alternatives is described in the following subsections then evaluated against the nine NCP criteria.

A.1 Evaluation Criteria

The nine NCP evaluation criteria are:

Threshold Criteria:

1. Overall Protection of Human Health and the Environment
2. Compliance with ARARs

Balancing Criteria:

3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, and Volume through Treatment
5. Short-Term Effectiveness
6. Implementability
7. Cost

Modifying Criteria:

8. Regulatory Acceptance
9. Community Acceptance

Each evaluation criterion is described below. The RAO is stated in Section 3.3, which is to protect the health of neighboring residents, onsite trespassers, and Caltrans-authorized personnel and prevent future impact to groundwater by managing the stockpiles either in-place or by removing them from the Site. Therefore each alternative's attainment of the RAO is presented in the evaluation of Overall Protection of Human Health and the Environment.

A.1.1 Threshold Criteria

Threshold criteria relate to statutory requirements that each alternative must satisfy in order to be eligible for selection.

Overall Protection of Human Health and the Environment

This criterion is used to assess each alternative's ability to protect human health and the environment. The assessment of overall protection describes how risks to human health and the environment are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls. While the HHRA and update to the HHRA found that potential exposure of onsite trespassers and offsite residents to COPCs under the current land-use and of construction workers and adjacent residents during construction of the SR-132 Project does not pose an unacceptable risk or hazard, the detailed evaluation will still consider potential further reductions in risks to human health and the environment afforded by each alternative.

Compliance with ARARs

This evaluation criterion is used to determine whether each alternative would meet the Federal and State ARARs identified in Section 3. The ability of a remedial alternative to comply with certain ARARs that have been identified for the remedial action would depend entirely on the manner in which the remedy is implemented. For evaluation purposes, it is assumed that any remedy selected would be implemented in a manner that would meet these ARARs.

A.1.2 Balancing Criteria

Balancing criteria are used to evaluate the technical aspects of a remedial alternative.

Long-Term Effectiveness and Permanence

This criterion is used to assess the long-term ability of the remedial alternative to address the threshold criteria by (1) assessing the risk remaining at the Site after implementation of the remedial alternative, and (2) evaluating the long-term adequacy and reliability of the remedial alternative, including requirements for management and monitoring.

Reductions in Toxicity, Mobility, and Volume of COPCs

This criterion is used to assess a remedial alternative's ability to reduce the inherent risk of the stockpile soil. Technologies that permanently and significantly reduce toxicity, mobility, or volume are preferred over alternatives that only manage the stockpiles left in place. However, the degree of toxicity, mobility, or volume reduction achieved for the cost to achieve it is heavily weighted. Therefore, technologies that may have a significant effect on one or more of the criteria, but not necessarily all three, are strongly considered. As an example, a major factor to be considered is that the stockpiles were originally placed for construction of the SR-132 Project, which is now nearing implementation. If the stockpiles were to be removed from the Site in an attempt to achieve the greatest possible reduction in toxicity, mobility, and volume of COPCs, the soil would have to be replaced by other clean fill at considerable expense to

complete the project. The expense incurred for removal and replacement is not warranted for the degree of protection achieved. Additionally, while there is funding for construction of the SR-132 Project, there is no source of funding for removal of the stockpiles and replacement with other clean fill.

Short-Term Effectiveness

This criterion is used to assess the risks posed to the community, workers, and the environment during the implementation of a remedial action. Measures that would be taken to mitigate these risks will be addressed under this criterion. This criterion also considers the time required to achieve RAO.

Implementability

This criterion is used to assess the technical feasibility (constructability, reliability of technology, operation, and monitoring requirements), administrative feasibility (coordination with other agencies), and availability of services and materials (labor, equipment, and materials) to implement an alternative.

Cost

This criterion is used to assess the anticipated capital and annual O&M and monitoring costs associated with each alternative over a 30-year period. Capital and annual costs in the FS are presented in 2013 dollars. Cost estimates are provided in Tables 2 through 4.

A.1.3 Modifying Criteria

The modifying criteria, regulatory and community acceptance, are described as follows:

- Regulatory acceptance - this assessment evaluates the technical and administrative issues and concerns the DTSC and CVRWQCB may have regarding each of the alternatives.
- Community acceptance - this assessment evaluates the issues and concerns the public may have regarding each of the alternatives. These criteria will be addressed after the public comment period for the RAP and were not evaluated in the FS.

A.2 Evaluation of Alternatives

The remedial alternatives for the stockpiles are assessed with regard to their ability to meet the nine applicable NCP criteria.

A.2.1 Overall Protection of Human Health and the Environment

This criterion is an evaluation of the effect that each of the alternatives would have on human health and the environment. The evaluation of this criterion primarily addresses both existing and post-construction conditions, except where onsite construction activities have a potentially significant offsite impact (i.e., airborne dust generation).

Alternative 1 - No action

Under a no-action scenario the stockpiles would remain in place. There would be no access restrictions, no fencing, and no monitoring and maintenance. However, as long as Caltrans continues to own and control the property as State right-of-way they would maintain the perimeter fence and continue restricting access to Caltrans-authorized personnel. Therefore, the most likely site occupant would be a trespasser. The 2007 HHRA and recent update to the HHRA concluded that the concentrations of COPCs in the stockpiles do not pose an unacceptable level of health risk to an onsite trespasser. The no action alternative can therefore be considered protective of human health as long as land use remains the same and access is restricted.

The no action alternative would be the least protective of the environment in that it would not reduce the contaminant mass or the potential of the COPCs to impact surface or groundwater quality.

Alternative 2 – Institutional Controls

In their memo of December 17, 2009, the DTSC indicated that the stockpiles in their current condition do not pose an unacceptable risk to human health for: Caltrans workers, trespassers, or offsite residents adjacent to the stockpiles based on continued management of the stockpiles. Management of the stockpiles consists of: limiting access to only Caltrans-authorized personnel, inspecting and maintaining the chain-link fence, prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site, and maintaining the current vegetative cover. They also stated that Caltrans should continue to maintain the groundwater monitoring system at the Site. These management activities and site conditions constitute institutional controls. Based on the DTSC's statement, this alternative is protective of human health and the environment.

Alternative 3 - Removal

Excavation and offsite disposal of the stockpiles would provide good overall protection of human health and the environment with respect to eliminating potential exposure to COPCs in the soil. However, excavation and transportation of the soil could increase the short-term risk of exposure to receptors adjacent to the Site and along the transportation route from airborne dust and diesel exhaust emissions from construction equipment and trucks hauling soil from the project and clean replacement fill back to the project. Engineering controls (e.g., water spray and air monitoring) would mitigate airborne dust generation. Diesel exhaust and greenhouse gas emissions (GHGEs) could be limited by use of certain practices during construction (e.g., use of high efficiency engines, proper equipment maintenance, no idling of equipment, etc.), but not eliminated as use of heavy equipment is required and the only means of transportation of stockpile soil to landfills and clean fill soil back to the Site would be by truck. GHGEs for removal of the stockpiles and replacement with clean fill have been calculated to be 529,200 pounds of CO₂. GHGE calculations are shown in Appendix A.

Alternative 4 – Containment

This alternative will provide an improved level of protection of human health and the environment over Alternatives 1 and 2 through further elimination of the exposure routes to COPCs in the stockpiles and by decreasing the potential for stormwater to contact COPCs and impact surface or groundwater quality. Construction of the SR-132 Project will ultimately cap and encapsulate the soil completely by containing it behind retaining walls, bridge abutments, slope pavements, and beneath roadway pavement, and either pavement or a synthetic liner and clean soil cap in median areas. During the interim progress phase of the project, not all of the retaining walls will be constructed and the northern portions of Stockpiles and 1 and 2 will be graded for drainage and a clean soil cap placed over the stockpiles and vegetated. This temporary cap will remain in place and be maintained until the ultimate build-out.

If the planned SR-132 Project were not constructed, an alternative form of cap could be installed over the stockpiles. The alternative cap could consist of constructing a layer of clean soil (typically one foot thick) over the stockpiles. Prior to constructing the cap, the surface of the stockpiles would be graded for drainage to ensure primarily that stormwater did not pond on top of the stockpiles. Following construction, the cap surface would be vegetated to protect against stormwater and wind erosion. This form of a cap would provide a similar degree of protection of human health and the environment as capping by the SR-132 project.

A.2.2 Compliance with State and Federal Requirements

This criterion is an evaluation of whether each of the three alternatives will comply with applicable State, and/or Federal regulations.

Alternative No. 1 - No action

This alternative would not meet State or Federal regulations with respect to hazardous waste levels of COPCs in soil on the Site because of the lack of site control and public notification.

Alternative 2 – Institutional Controls

This alternative complies with State and/or Federal regulations under the Site's current inactive (but maintained and monitored) use as long as the Site remains fenced, its vegetative cover maintained, and groundwater quality monitoring continues.

Alternative 3 - Removal

This alternative would comply with State and Federal regulations as the soil would be removed from the Site and potential for exposure to COPCs and threat to the environment would be mitigated. This alternative would comply with the SJVAPCD's Rule 8021 regarding fugitive dust emissions during construction as long as dust suppression (water spray) was adequately performed during earthmoving activities. A dust control plan would have to be prepared and submitted to and approved by the SJVAPCD's Air Pollution Control Officer and must provide the required notification prior to commencing earthmoving activities.

Alternative 4 – Containment

This alternative by either type of cap (construction of the SR-132 Project or a vegetated clean soil layer) would comply with State and Federal regulations in that either form of cap would be protective of human health and the environment (groundwater).

A.2.3 Long-term Effectiveness and Performance

This criterion evaluates whether each of the three alternatives will provide long-term protection of human health and the environment from exposure to COPCs in the stockpiles.

Alternative 1 - No action

This alternative would not be effective in the long-term because access to the stockpiles would not be controlled and therefore potential exposure to COPCs not mitigated. Additionally, stormwater contact with COPCs and impact to surface or groundwater quality would not be mitigated.

Alternative 2 – Institutional Controls

This alternative would be effective in the long-term because the COPCs do not pose a threat to human health of an onsite trespasser or offsite residents as long as access continues to be controlled. Under this alternative, the site perimeter fence would be monitored and maintained to restrict access, and the vegetative cover would continue to minimize erosion and potential offsite transport via wind or stormwater. Informational technologies such as public notification via site signage, published notices, and public meetings, if warranted, could help to keep the public informed of the site conditions and status. Governmental and administrative controls such as a deed restriction and land use covenant would prevent the site from being developed for uses that may not be suitable under the current site conditions such as residential or other “sensitive” land uses.

Alternative 3 - Removal

This alternative would be effective in the long-term, because removal of the stockpiles would mitigate any potential for exposure to COPCs in the stockpiles.

Alternative 4 – Containment

This alternative would also be effective in the long-term as either form of a cap would isolate and encapsulate the soil for the indefinite future. A vegetated clean soil layer cap would likely require a greater degree of long-term monitoring and maintenance to ensure that the cap and vegetative cover remain viable and effective.

A.2.4 Reduction of Toxicity, Mobility, and Volume

This criterion is used to assess the ability of each alternative to reduce the toxicity, mobility, or volume of COPCs in the stockpiles.

Alternative 1 - No action

This alternative will not reduce the toxicity, mobility, and/or volume of COPCs in the stockpiles. Regarding toxicity, the 2007 HHRA and 2013 update demonstrated that the concentrations of COPCs do not pose an unacceptable level of health risk to an onsite trespasser, offsite resident, or future user of shallow groundwater. Therefore, the concentrations of COPCs are not considered to be toxic for those users. If under no action, other land uses occurred (unlikely given Caltrans' ownership of the property), then the potential health risk specific to those uses would have to be evaluated.

With respect to mobility of the COPCs in the stockpiles, mobility via erosion from wind or stormwater infiltration is limited by the vegetative cover. Further, COPC concentrations in groundwater samples collected from monitoring wells adjacent to and downgradient of, and native soil samples collected from beneath, the stockpiles are inconclusive with respect to COPC migration from the stockpiles.

Alternative 2 – Institutional Controls

This alternative will also not reduce the toxicity (low), mobility, or volume of COPCs in the stockpiles. However, as stated above, the health risks associated with the COPC concentrations have been demonstrated to be at acceptable levels for site trespassers and offsite residents under the current site conditions and controls.

Alternative 3 - Removal

This alternative would be the most effective in reducing the toxicity, mobility and volume of COPCs as the stockpiles would be completely removed from the Site and disposed of in an appropriate, permitted landfill.

Alternative 4 – Containment

This alternative by either form of cap will further reduce the potential mobility of the COPCs in the stockpiles via an impermeable surface that would preclude infiltration, but will have no effect on toxicity (low) or volume. The stockpiles would be isolated and encapsulated either within the SR-132 project behind retaining walls, bridge abutments, beneath roadway pavement, and either pavement or a synthetic liner and vegetated clean soil layer in the median areas or beneath a vegetated clean soil layer over all of the stockpiles. The toxicity and volume of COPCs would not change. This alternative would be the second-most effective in reducing the mobility of the COPCs in the stockpiles.

A.2.5 Short-term Effectiveness

This criterion evaluates the impacts of each alternative prior to and during construction of the project.

Alternative 1 - No action

This alternative would be effective for the period of time in which the site remained fenced thereby continuing to limit access to the Site. Without fence monitoring and maintenance, however, it would become the least effective of the four alternatives in the short-term.

Alternative 2 - Institutional Controls

This alternative would be effective in the short-term as the current fencing, vegetative cover, and stockpile configurations/slopes and top deck slope grade would remain as-is continuing to provide sufficient protection of human health and the environment.

Alternative 3 - Removal

With implementation of best management practices (BMPs) such as dust control (water spray application) and air monitoring, soil track-off controls, and transportation planning (e.g., route planning, load tarping, etc.) during soil handling activities (excavation, loading, and transportation), removal would be effective in the short-term. However, under this alternative, truck traffic on roads in the site vicinity would increase dramatically for both removal of the material and replacement with imported fill material. Removal of the stockpiled soil for offsite disposal is estimated to require 175 truckloads per day over an approximate 30-day period. A similar number of loads and time would be required to import clean fill material to replace the stockpiles. Air emissions from heavy equipment (e.g., graders, excavators, loaders) and trucking will be significantly increased for this alternative relative to all other alternatives and the work would fall under the SJVAPCD's Indirect Source Review Rule 9510. The short-term impact to air quality from airborne dust and diesel exhaust emissions, local traffic, and roads may not be acceptable to the community and local government. In addition, as described in Section A.2.1, GHGs attributable to heavy equipment operations and truck transportation during removal of the stockpiles and replacement with clean fill are estimated at 529,200 pounds of CO².

Alternative 4 - Containment

Similar to the removal alternative, with implementation of BMPs, either form of capping of the stockpiles should be effective in the short-term.

A.2.6 Implementability

This criterion evaluates the implementability of each of the alternatives.

Alternative 1 - No action

No action is readily implementable because it requires no labor, materials, or equipment.

Alternative 2 – Institutional Controls

This alternative is also readily implementable in that it requires minimal labor, materials, and equipment to monitor the Site and maintain fencing and the vegetative cover and is currently ongoing. Groundwater and stormwater monitoring are also ongoing, so there would be no change in those activities.

Alternative 3 - Removal

This alternative is technically implementable. However, other constraints to this alternative exist that decrease its implementability. Those constraints include a significant increase in truck traffic on adjacent and nearby roads for a period of approximately 60 days, an increased potential for offsite exposure due to generation of airborne dust from truck loads or spillage, and prohibitively high cost with no funding source. Potential landfill capacity to accept the soil has been confirmed and should not affect the implementability of this alternative.

Alternative 4 – Containment

This alternative in either form is readily implementable. The SR-132 project is currently being planned and designed by Caltrans and StanCOG. The volume of soil requiring excavation from Stockpiles 1 and 2 for consolidation behind retaining walls and bridge abutments is not significant. The cross-sections shown on Figures 7, 8, and 9 depict the portions of the stockpiles that are outside where project retaining walls will be constructed and therefore will be excavated and placed on top of the stockpiles where additional fill is needed. As shown on Figures 5b (plan view) and 9 (cross-section) Stockpile 3 will be nearly entirely removed from its location and placed in the embankment for the eastern side of the SR-99 bridge (Figure 5b).

A.2.7 Cost

Alternative 1 - No action

There is no cost associated with this alternative.

Alternative 2 – Institutional Controls

The costs associated with ongoing maintenance and monitoring, which includes as-necessary fence maintenance, annual mowing of the vegetative cover to reduce fire danger, and quarterly groundwater monitoring and weather-dependent stormwater monitoring is on the order of \$50,000 per year (Table 23). This cost is considered to be low to moderate and is the second least costly of the four alternatives.

Alternative 3 - Removal

Removal of the stockpiles through excavation, loading, transportation, and disposal at an offsite landfill is the most costly of the alternatives at approximately \$21.5 million (Table 4). Disposal cost assumes disposal of a portion of the stockpile soil (primarily from Stockpile 1) in a Class II (non-hazardous) facility and a portion (primarily from Stockpile 2) in a Class I (California hazardous). The cost of this alternative also includes replacement of the stockpiles by importing clean fill material. There is no funding available for removal.

Alternative 4 – Containment

The cost of containment by capping beneath the SR-132 project, including excavation of portions of the stockpiles and consolidation behind retaining walls, bridge abutments, and beneath a vegetated clean soil cap and roadway pavement, is considered to be moderate to high for capital costs and moderate in terms of ongoing monitoring and maintenance (Table 5). The bulk of the capital cost of this alternative will be in grading of the soil for the interim progress phase of the project, placement of the clean soil cap over the northern portions of Stockpiles 1 and 2, and placement of paving or a synthetic liner and clean soil cap over median areas for the ultimate build-out of the SR-132 Project.

The cost of containment by capping beneath a vegetated clean soil layer if the SR-132 project were not constructed is considered to be moderate to high for capital costs and moderate in terms of ongoing monitoring and maintenance (Table 6). The bulk of the capital cost of this alternative will be in grading of the stockpiles for drainage, placement of a one-foot-thick layer of clean soil over the stockpiles, and revegetation.

Monitoring costs for groundwater and stormwater monitoring will likely continue at levels similar to current costs until the ultimate build-out is complete. If the CVRWQCB approves a decrease in monitoring frequency, then annual monitoring costs would decrease.

A.2.8 Regulatory Acceptance

Each of the four alternatives is evaluated against this criterion to determine whether it meets legal and technical standards for regulatory acceptance.

Alternative 1 - No Action

This alternative would not be acceptable to the regulatory agencies because access to the Site would not be controlled, and groundwater quality monitoring would not continue.

Alternative 2 – Institutional Controls

This alternative currently has acceptance from the DTSC and CVRWQCB for the short-term with the understanding that Caltrans is moving forward with construction of the SR-132 project, which will encapsulate the stockpiles (Alternative 4).

Alternative 3 - Removal

This alternative also would likely receive regulatory acceptance from the DTSC and CVRWQCB because removal and offsite disposal of the stockpiles would reduce the level of health risk for any future land use and threat to the environment to the greatest extent possible. It would also receive regulatory acceptance from the SJVAPCD as long as dust suppression measures in accordance with a dust control plan were appropriately implemented.

Alternative 4 – Containment

This alternative is anticipated to receive regulatory acceptance by further eliminating exposure pathways to COPCs in the soil and reducing their mobility through encapsulation either within the SR-132 project or beneath a vegetated clean soil cap if the SR-132 project is not constructed.

A.2.9 Community Acceptance

This criterion involves the evaluation of whether each of the alternatives would be acceptable to the community.

Alternative 1 - No Action

Although the presence of the stockpiles has been generally acceptable to the community for five decades, this alternative would likely not remain acceptable to the public due to an increased perception of risk to human health and the environment associated with the stockpiles.

Alternative 2 – Institutional Controls

This alternative may be acceptable to the community if the current institutional controls (e.g., access restrictions, continued site monitoring and maintenance, and communication regarding the low level of risk to human health and the environment) continue to be implemented.

Alternative 3 - Removal

This alternative may be acceptable to the community because removing the stockpiles would likely eliminate any residual concern regarding health risk related to the stockpiles. In the short-term, the community may be averse to the perception of potential exposure to COPCs in airborne dust as soil is being excavated then transported along public roads to disposal facilities. There may also be some concern regarding increased truck traffic over an approximate 60-day period for offhaul of soil from the Site and import of new clean fill to replace the stockpiles. However, dust suppression and monitoring during excavation and loading by water spray, proper covering of waste loads, and appropriate routing of truck traffic would likely help the community to accept this alternative.

Alternative 4 – Containment

This alternative in either form of cap would likely be acceptable to the community because of the reduced potential for exposure to COPCs as a result of containment of the stockpile soil beneath the project. Some community opposition to the project exists which is unrelated to the stockpiles. Caltrans and StanCOG are moving forward with the SR-132 project, and public participation will continue through additional public informational meetings and a public hearing during public review of the draft environmental document and RAP. The public participation process will continue to afford the community opportunities to comment on the project and for StanCOG and Caltrans to respond to those comments with the intent of increasing community support for the project.

If the SR-132 project were not constructed, the alternative of constructing a vegetated clean soil cap over the stockpiles would likely receive the same community acceptance because of the same reduced

potential for exposure to COPCs. The public participation process could proceed as planned for the SR-132 project. However, an environmental document would likely not need to be prepared, therefore a public hearing would not likely be necessary. An additional public meeting could be held to discuss the difference between the clean soil cap and the SR-132 project.

A.3 Comparative Analysis

This section provides a comparative analysis of the four alternatives which forms the basis for selection of the preferred alternative.

A.3.1 Alternative 1 – No Action

This alternative would provide the lowest level of overall protection of human health and the environment of the four alternatives. The level of protection for the onsite trespasser and offsite resident would remain the same as the current controlled condition, but the health risk for other land uses and receptors would need to be further evaluated. This alternative would have the lowest level of regulatory acceptance because of the lack of site controls and monitoring and maintenance. It also would likely have the lowest level of community acceptance due to the perceived threat to human health and the environment. This is the least costly of the alternatives and is the most implementable.

A.3.2 Alternative 2 – Institutional Controls

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

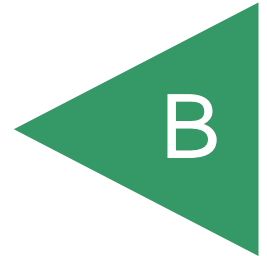
A.3.3 Alternative 3 – Removal

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the DTSC, CVRWQCB, and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four and no funding is available for removal. This alternative can be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

A.3.4 Alternative 4 – Containment

Containment of the soil by either form of cap will provide the second highest level of protection of human health and the environment of the four alternatives. Capping will eliminate routes of exposure to COPCs in the soil and minimize the potential for storm water infiltration. Short-term exposure to construction personnel and adjacent residents could be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by containment of the soil beneath either type of cap. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC and CVRWQCB oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to be good as the stockpiles would be used for their originally intended purpose.

APPENDIX





Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

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May 18, 2015

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REVISED ADMINISTRATIVE RECORD, STATEMENT OF REASONS, AND
PRELIMINARY NONBINDING ALLOCATION OF RESPONSIBILITY FOR CALTRANS
MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

Dear Ms. Magsayo,

The Department of Toxic Substances Control (DTSC) has prepared the enclosed revised documents based on communication with Mr. Richard Stewart, P.G. on April 23, 2015. These documents are to be included as appendices in the Draft Final Remedial Action Plan (RAP) for the Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California prepared by Geocon Consultants, Inc., October 27, 2014.

- Appendix B, Administrative Record
- Appendix C, Statement of Reasons
- Appendix D, Preliminary Nonbinding Allocation of Responsibility

Following the addition of the referenced appendices, the Draft Final RAP will be the document that is referenced in the Caltrans Draft Environment Impact Report (EIR). The Draft Final RAP will be made available for public review and comment concurrently with the Draft EIR.

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Ms. Grace Magsayo
May 18, 2015
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Please contact me at 916-255-3591 if you have questions.

Sincerely,



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Senior Engineering Geologist
Brownfields and Environmental Restoration Program

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May 18, 2015
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APPENDIX B

ADMINISTRATIVE RECORD

CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

California Department of Transportation (CALTRANS)

Shaw Environmental, Inc. (Shaw)

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Remedial Action Options Report, SR 132/SR 99 Stockpiles, Modesto, California, July
(Shaw, 27, 2004).

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Final Surface Water Sampling and Analysis Plan, Caltrans Modesto Soil Stockpiles,
State Route 99/132 Project, Stanislaus County, California, (Shaw, January 25,
2006).

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Route 99/132 Project, Stanislaus County, California, (Shaw, January 26, 2006).

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Particulate Matter Test Report, Mowing Simulation, State Route 99/132 Project, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Shaw, June 5, 2007).

Final Preliminary Endangerment Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/199 Interchange, Stanislaus County, California, (Shaw, June 30, 2009).

Geocon Consultants, Inc. (Geocon)

Groundwater Monitoring

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Groundwater Monitoring Report - March 2012, Modesto Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, June 29, 2012).

Groundwater Monitoring Report - May 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, November 28, 2012).

Additional Well Installation and Groundwater Monitoring Report - June 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon November 28, 2012).

Groundwater Monitoring Report - July 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, November 28, 2012).

Groundwater Monitoring Report - September 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 19, 2012).

Groundwater Monitoring Report - November 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 6, 2013).

Groundwater Monitoring Report - January 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 28, 2013).

Groundwater Monitoring Report - March 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, May 16, 2013).

Groundwater Monitoring Report - June 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 27, 2013).

Groundwater Monitoring Report - September 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, October 24, 2013).

Groundwater Monitoring Report - December 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, January 29, 2014).

Groundwater Monitoring Report - February 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 25, 2014).

Groundwater Monitoring Report - June 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, August 4, 2014).

Groundwater Monitoring Report - September 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, October 30, 2014).

Stormwater Monitoring

Addendum to Surface Water Sampling and Analysis Plan, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 20, 2013).

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Response to DTSC 09-12-12 Comments on Draft Supplemental Site Investigation Workplan, Modesto Soil Stockpiles, State Routes 99 and 132, Stanislaus County, California, (Geocon September 18, 2012).

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Human Health Risk Assessment

Human Health Risk Assessment Update, Caltrans Modesto Soil Stockpiles, State Routes 99 and 132, Stanislaus County, California, (Geocon, revised March 1, 2013).

Kleinfelder

Final Geotechnical Design Report, Modesto Soil Stockpiles, State Routes 99 and 132, Modesto, California, (Kleinfelder, September 6, 2012).

Department of Toxic Substances Control (DTSC)

Caltrans Modesto Soil Stockpile (State Route 99/132 Project), Caltrans/Department of Toxic Substances Control Interagency Agreement Task Order No. 10-43A0142-03; Department of Toxic Substances Control No. 03-T2641, (DTSC, April 8, 2005).

Human Risk Assessment, Caltrans Modesto Soil Stockpiles (State Route 99/132 Project), Caltrans/Department of Toxic Substances Control Interagency Agreement No. 43A0184, DTSC NO. 06-T105, Task Order No. 3, (DTSC, August 20, 2007).

Caltrans Modesto Soil Stockpiles (State Route 132/99 Interchange Project), Modesto, Stanislaus County, (DTSC, December 17, 2009).

State Route 132 West Expressway/Freeway (Caltrans Soil Stockpiles), Modesto, California, (DTSC, March 1, 2012).

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Supplemental Site Characterization Workplan, Modesto Soil Stockpiles, State Route 132 and 99, Stanislaus County, California, (DTSC, September 12, 2012).

Groundwater Monitoring Reports, California Department of Transportation, Modesto Soil Stockpiles - State Route 99 and 132, May, June, and July 2012, Modesto California, (DTSC, November 29 2012).

Supplemental Site Investigation and Human Health Risk Assessment Update, Caltrans Modesto Soil Stockpiles, State Route 132/99, Stanislaus County, California, (DTSC, February 13, 2013).

Revised Supplemental Site Investigation and Human Health Risk Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/99, Stanislaus County, California, (DTSC, April 4, 2013).

Draft Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California (DTSC, February 11, 2014)

Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California (DTSC, June 30, 2014).

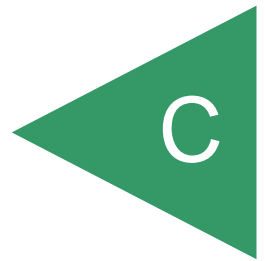
Draft Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, April 8, 2014).

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Public Participation Plan, The California Department of Transportation (Caltrans) State Route 132 West Expressway Site also known as the Caltrans Modesto Stockpiles Site Near State Highway 99 Modesto, California 95351 (DTSC, November, 2014).

Administrative Record, Statement of Reasons, and Preliminary Nonbinding Allocation of Responsibility, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, May 18, 2015).

APPENDIX





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APPENDIX C

STATEMENT OF REASONS FOR CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST FREEWAY/EXPRESSWAY PROJECT STANISLAUS COUNTY, CALIFORNIA DRAFT FINAL REMEDIAL ACTION PLAN

Pursuant to California Health and Safety Code (HSC), section 25356.1(d), the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) has prepared this "Statement of Reasons" as part of the "Draft Final Remedial Action Plan, (RAP), Caltrans Modesto Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California".

In addition to identifying the applicable or relevant and appropriate requirements to implement the remedial alternative recommended in the Final Feasibility Study (FS) for the Caltrans Modesto Soil Stockpiles (Site¹), the Draft Final RAP presents a summary of remedial investigations that address primary contaminants of potential concern (COPCs) in the stockpile soil: barium, strontium, and lead. Additional tests were conducted for other COPCs, including: antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. The soil was also tested for polycyclic aromatic hydrocarbons and other COPCs: nitrate, sulfate, and sulfide. Underlying groundwater was tested for the same COPCs as the stockpile soil.

The stockpile soil and groundwater results were used to quantify toxicological risk to human health for each individual stockpile and all stockpiles collectively. Exposure routes consist of ingestion, inhalation, and dermal contact as applicable to current offsite residents and trespassers; future construction workers; future offsite residents; and hypothetical future shallow groundwater users. Results of the Human Health Risk Assessment (Shaw Environmental Inc. June 2007) and the Human Health Risk Assessment Update (Geocon Consultants Inc., March 2013) are summarized in the Draft Final RAP²

¹ Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California (Geocon Consultants, Inc., June 2014)

² An Ecological Screening Evaluation was also completed and included in the Preliminary Endangerment Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/99 Interchange, Stanislaus County, California (Shaw Environmental, June 30, 2009)

Based on stockpiles soil testing, the 2007 Risk Assessment and the 2013 Risk Assessment Update addressed exposure to COPCs, including: arsenic, barium, beryllium, chromium (III & IV), cobalt, copper, lead, mercury, molybdenum, nickel, and zinc. Polycyclic aromatic compounds did not qualify for risk assessment due to limited detection. Both the 2007 Risk Assessment and 2013 Risk Assessment Update determined that the stockpiles, and collectively, as currently managed, do not present an unacceptable risk to human health. Groundwater analysis resulted in the same conclusion.

The toxicological assessment was also included in the Final FS, which evaluated the most appropriate remedial actions for the stockpiles. The remedial action alternatives were then screened against qualifying criteria and methodology established by federal regulation. Based on the findings, the Final FS and Draft Final RAP recommends Alternative # 4 which consists of remediation of approximately 160,000 cubic yards of the stockpile soil by containment of stockpile soil beneath the roadway pavement, behind retaining walls, and behind bridge abutments. Groundwater monitoring and surface water monitoring will be included as part of the Operation and Maintenance plan (OMP) as referenced in the Remedial Design and Implementation Plan (RDIP) prepared by Caltrans. Review and concurrence of the RDIP and OMP by DTSC and the Central Valley Regional Water Quality Control Board will be completed prior to implementation of the recommended remedial action for the Site.

DTSC believes that the Draft Final RAP complies with section 25356.1. Section 25356.1(e) requires that RAPs "shall include a statement of reasons setting forth the basis for the removal and remedial actions selected". The statement of reasons "shall also include an evaluation of the consistency of the selected remedial action with the requirements of the federal regulations and factors specified in subdivision (d)". Section 25356.1(e) specifies six factors against which the remedial alternatives in the RAP must be evaluated. The recommended remedial alternative is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, also referred to as the National Contingency Plan (NCP), and the federal Superfund regulations. The Draft Final RAP has addressed all of these factors in detail. A brief summary of each of the six factors follows. The Statement of Reasons also includes the Preliminary Nonbinding Allocation of Responsibility (Appendix D) as required by HSC section 25356.1(e).

NCP Factors Addressed in the Draft Final RAP

1. Health and Safety Risks - Section 25356.1(d)(1)

The Draft Final RAP has been prepared to address contaminants and other general mineral constituents in the stockpiles soil and underlying shallow groundwater. The risk characterization consisting of a Human Health Risk Assessment and Human Health Risk Assessment Update evaluated potential exposure pathways to: 1) current offsite residents and trespassers; 2) future construction workers; 3) future offsite residents; and 4) hypothetical future shallow groundwater users. Based on the completed human health risk assessments and existing management practices by Caltrans including:

fences to prohibit public access; limiting access to Caltrans employees; maintaining a vegetative cover; and maintaining groundwater monitoring, the Site does not present an unacceptable risk to current residents, trespassers, and Caltrans workers and its contractors. According to the City of Modesto and a Department of Water Resources survey, there is no reported municipal or domestic use of shallow groundwater within one mile of the soil stockpiles. Groundwater under the stockpiles does not contain COPCs that exceed primary maximum contaminant levels for drinking water.

2. Beneficial Uses of the Site Resources - Section 25356.1(d)(2)

The soil stockpiles consist of excess native soil and pond tailings that were generated in the early 1960s when Caltrans acquired property from Food Machinery and Chemical Corporation (FMC) to construct a segment of State Route 99 along its current alignment located north of Kansas Avenue. Since the early 1960's, the intended and current planned use of the Site containing the stockpiles, located south of Kansas Avenue and east and west of Emerald Avenue, has been for construction of State Route 132 Freeway/Expressway Project. The incorporation of stockpile soil into the construction of State Route 132 at the Site is consistent with the Final FS and Draft Final RAP and is protective of human health and the environment, including groundwater. A land use covenant will be recorded to preclude the use of the property for residences, schools, daycare centers, and hospitals.

3. Effect of the Remedial Actions on Groundwater Resources - Section 25356.1(d)(3)

The recommended remedial alternative is protective of groundwater and surface water quality. Construction of State Route 132 Freeway/Expressway Project segment between Carpenter Avenue and North Franklin Street incorporates all stockpile soil beneath paved roadways; behind retaining walls; behind bridge abutments; or a clean vegetated soil cap that will be engineered to minimize infiltration of water and convey surface water away from the stockpile areas. An Operation and Maintenance Agreement, including an Operation and Maintenance Plan will require maintenance, annual inspections, and reporting for all surfaces overlying the stockpiles. To evaluate the effectiveness of the covered surfaces to prevent infiltration and mobilization of COPCs, groundwater and surface water monitoring will be required. The monitoring frequencies and reporting requirements will be established in the RDIP.

4. Site-Specific Characteristics - Section 25356.1(d) (4)

COPCs in the stockpiles and groundwater under the stockpiles have been extensively characterized, including barium concentrations at varying depths and locations within the stockpiles. Groundwater COPCs, including barium are below regulatory primary maximum contaminant threshold values for drinking water.

5. Cost-Effectiveness of Alternative Remedial Action Measures - Section 25356.1(d)(5)

The recommended remedial alternative is containment by construction of the State Route 132 Freeway/Expressway Project at the Site. Based on comparisons to the evaluation criteria, this remedial alternative was recommended for the Site. This recommended remedy is based primarily on achievement of remediation goals, implementability, effectiveness, consistency with future land use, and cost effectiveness. The cost implementation for this remedial alternative, which includes purchase of clean replacement soil, is approximately 20 times less than the cost to excavate and transport excavated soil stockpile material for offsite disposal.

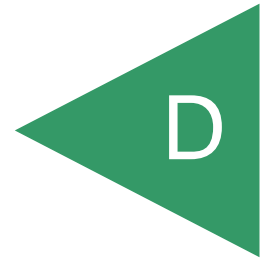
6. Potential Environmental Impacts of Remedial Actions – Section 25356.1(d)(6)

All potential remedial action impacts will be mitigated under the recommend remedial alternative. In accordance with the California Environmental Quality Act, Caltrans is preparing a Draft Environmental Impact Report which references the Draft Final RAP for the Site. DTSC and Central Valley Regional Water Quality Control Board are reviewing agencies with respect to the Draft Environmental Impact Report and other potential human health and environmental impacts associated with the SR 132 West Freeway/Expressway Project at the Site.

7. Preliminary Non-Binding Allocation or Responsibility (NBAR), HSC Section 25356.1(e)

The current preliminary NBAR for the site, as issued by DTSC, is presented as Appendix D of the Draft Final RAP.

APPENDIX





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Edmund G. Brown Jr.
Governor

APPENDIX D

PRELIMINARY NONBINDING ALLOCATION OF RESPONSIBILITY, CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

Health and Safety Code (HSC) section 25356.1(e) requires the Department of Toxic Substances Control (DTSC) to prepare a preliminary non-binding allocation of responsibility (NBAR) among all identifiable potentially responsible parties (PRPs). The intention of the NBAR requirement in section 25356.1 was to establish which PRPs will have an aggregate allocation in excess of 50% and therefore convene arbitration if they so choose, even though the NBAR is otherwise not binding on anyone, including PRPs, DTSC, or the arbitration panel.

However, the arbitration provisions of Chapter 6.8 of Division 20 of the California Health and Safety Code (California Health and Safety Code Sections 25356.2 through 25356.10) were repealed by Senate Bill 1018 (Stats 2012, Chap 39), effective June 27, 2012. Accordingly, all statutory provisions and procedures associated with the arbitration proceeding were repealed. Since the arbitration provisions no longer exist, the only remaining purpose of an NBAR is to promote settlement and reduce transaction costs. Under EPA's "Interim Guidelines for Preparing Nonbinding Preliminary Allocation of Responsibility", there are situations where an NBAR should probably not be prepared. Specifically where the number of PRPs is relatively small and where the costs for remediation and future operation and maintenances are paid by the current property owner, Caltrans, that an NBAR would not expedite settlement. Under the circumstances of this case, the preparation of an NBAR with a specific allocation of percentages of liability to the various PRPs would not promote settlement by the parties or reduce transaction costs. Therefore, DTSC sets forth the following preliminary nonbinding allocation of responsibility for the Caltrans Modesto Stockpiles, State Route 132, West Freeway/Expressway Project¹, Stanislaus County, California:

¹ Includes operation and maintenance for the recommended remedial alternative, "containment" and the associated monitoring programs administered to evaluate the effectiveness of the remedial alternative.

Caltrans assumes full responsibility associated with the remediation and operation and maintenance costs for the Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California.

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Appendix I Agency Coordination

Appendix H Draft Final Remedial Action
Plan, Caltrans Modesto Soil Stockpiles, State
Route 132 West Freeway/Expressway Project,
Modesto, Stanislaus County, California



DRAFT FINAL REMEDIAL ACTION PLAN

Caltrans Modesto Soil Stockpiles State Route 132 West Freeway/Expressway Project Stanislaus County, California

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 6
HAZARDOUS WASTE BRANCH
855 M STREET, SUITE 200
FRESNO, CALIFORNIA 93721**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



**GEOCON PROJECT NO. S9800-01-17
TASK ORDER NO. 17, EA 10-0X2700
CONTRACT NO 06A1895**

OCTOBER 2014

DEPARTMENT OF TRANSPORTATION

DISTRICT 6

855 M STREET, SUITE 200
FRESNO, CA 93721-2716
PHONE (559) 445-6369
FAX (559) 445-6236
TTY 711
www.dot.ca.gov



*Serious drought.
Help save water!*

November 16, 2017

Mr. Randy S. Adams
Senior Engineering Geologist
Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
8800 Cal Center Drive
Sacramento, CA 95826


Dear Mr. Adams,

For the purpose of amending the status of dates and documentation in the Draft Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, October, 2014, please find the following attachments:

- Revised Implementation Schedule (Section 8, page 47)
- Revised Administrative Record (Appendix B)

Should you have any questions, please contact me at (559) 445-6369.

Sincerely,


Juergen Vespermann
Branch Chief
Caltrans District 6
Central Region Hazardous Waste

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Edmund G. Brown Jr.
Governor

APPENDIX B

REVISED ADMINISTRATIVE RECORD

CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

California Department of Transportation (CALTRANS)

Shaw Environmental, Inc. (Shaw)

Heavy Metal Contamination Preliminary Site Investigation Report, Modesto, California,
(Shaw, June 1, 2004).

Remedial Action Options Report, SR 132/SR 99 Stockpiles, Modesto, California, July
(Shaw, 27, 2004).

Final Work Plan, Characterization of Soil Stockpiles, Caltrans Modesto Soil Stockpiles,
State Route 99/132 Project, Stanislaus County, California, (Shaw, January 25,
2006).

Final Surface Water Sampling and Analysis Plan, Caltrans Modesto Soil Stockpiles,
State Route 99/132 Project, Stanislaus County, California, (Shaw, January 25,
2006).

Final Work Plan, Groundwater Assessment, Caltrans Modesto Soil Stockpiles, State
Route 99/132 Project, Stanislaus County, California, (Shaw, January 26, 2006).

Site Investigation Report, Soils Investigation for Heavy Metals, State Route 99,
Stanislaus County, California, (Shaw, March 23, 2006).

Surface Water Sampling Report, State Route 99/132 Project, Stanislaus County,
California, (Shaw, June 9, 2006).

Site Investigation Report, Characterization of Soil Stockpiles, Caltrans Modesto Soil
Stockpiles, State Route 99/132 Project, Stanislaus County, California, (Shaw, May
14, 2007).

♻️ Printed on Recycled Paper

Site Investigation Report, Groundwater Assessment, Caltrans Modesto Soil Stockpiles, State Route 99/132 Project, Stanislaus County, California, (Shaw, May 14, 2007).

Human Health Risk Assessment, Caltrans Modesto Soil Stockpile, Stanislaus County, California, (Shaw, May 14, 2007).

Particulate Matter Test Report, Mowing Simulation, State Route 99/132 Project, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Shaw, June 5, 2007).

Final Preliminary Endangerment Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/199 Interchange, Stanislaus County, California, (Shaw, June 30, 2009).

Geocon Consultants, Inc. (Geocon)

Groundwater Monitoring

Monitoring Well Installation Workplan, Modesto Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, May 8, 2012).

Groundwater Monitoring Report - March 2012, Modesto Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, June 29, 2012).

Groundwater Monitoring Report - May 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, November 28, 2012).

Additional Well Installation and Groundwater Monitoring Report - June 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon November 28, 2012).

Groundwater Monitoring Report - July 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, November 28, 2012).

Groundwater Monitoring Report - September 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 19, 2012).

Groundwater Monitoring Report - November 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 6, 2013).

Groundwater Monitoring Report - January 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 28, 2013).

Groundwater Monitoring Report - March 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, May 16, 2013).

Groundwater Monitoring Report - June 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 27, 2013).

Groundwater Monitoring Report - September 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, October 24, 2013).

Groundwater Monitoring Report - December 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, January 29, 2014).

Groundwater Monitoring Report - February 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 25, 2014).

Comparative Evaluation of Groundwater Data, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (EMKO Environmental Inc., May 14, 2014).

Groundwater Monitoring Report - June 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, August 4, 2014).

Groundwater Monitoring Report - September 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, October 30, 2014).

Groundwater Monitoring Report - April 2015, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 18, 2015).

Groundwater Monitoring Report - May 2016, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 22, 2016).

Groundwater Monitoring Report - April 2017, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, July 14, 2017).

Stormwater Monitoring

Addendum to Surface Water Sampling and Analysis Plan, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 20, 2013).

Surface Water Sampling Report - April 4, 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 27, 2013).

Surface Water Sampling Report - January 30, 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 21, 2014).

Surface Water Sampling Report – February 6, 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 27, 2014).

Surface Water Sampling Report – February 28, 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 7, 2014).

Surface Water Sampling Report – December 2, 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 29, 2014).

Surface Water Sampling Report - December 12, 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 29, 2014).

Surface Water Sampling Report - December 11, 2015, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, January 29, 2016).

Surface Water Sampling Report – January 6, 2016, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 17, 2016x).

Surface Water Sampling Report – March 5, 2016, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 26, 2016).

Surface Water Sampling Report – October 28, 2016, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 22, 2016).

Surface Water Sampling Report – December 15, 2016, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, January 16, 2017).

Surface Water Sampling Report – March 24, 2017, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 1, 2017).

Supplemental Site Investigation

Response to DTSC 09-12-12 Comments on Draft Supplemental Site Investigation Workplan, Modesto Soil Stockpiles, State Routes 99 and 132, Stanislaus County, California, (Geocon September 18, 2012).

Supplemental Site Investigation Workplan, Modesto Soil Stockpiles, State Routes 99 and 132, Stanislaus County, California, (Geocon, September 18, 2012).

Supplemental Site Investigation, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, revised March 1, 2013).

Human Health Risk Assessment

Human Health Risk Assessment Update, Caltrans Modesto Soil Stockpiles, State Routes 99 and 132, Stanislaus County, California, (Geocon, revised March 1, 2013).

Feasibility Study

Draft Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, December 2013).

Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, June 2014).

Remedial Action Plan

Draft Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, December 2013)

Draft Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, October 2014).

Environmental Impact Report/Environmental Assessment

Draft Environmental Impact Report/Environmental Assessment and Draft Final Remedial Action Plan, State Route 132 West Freeway/Expressway Project and Draft Final Remedial Action Plan, City of Modesto, Stanislaus County, California, (Caltrans, December 2016)

Kleinfelder

Final Geotechnical Design Report, Modesto Soil Stockpiles, State Routes 99 and 132, Modesto, California, (Kleinfelder, September 6, 2012).

Department of Toxic Substances Control (DTSC)

Caltrans Modesto Soil Stockpile (State Route 99/132 Project), Caltrans/Department of Toxic Substances Control Interagency Agreement Task Order No. 10-43A0142-03; Department of Toxic Substances Control No. 03-T2641, (DTSC, April 8, 2005).

Human Risk Assessment, Caltrans Modesto Soil Stockpiles (State Route 99/132 Project), Caltrans/Department of Toxic Substances Control Interagency Agreement No. 43A0184, DTSC NO. 06-T105, Task Order No. 3, (DTSC, August 20, 2007).

Caltrans Modesto Soil Stockpiles (State Route 132/99 Interchange Project), Modesto, Stanislaus County, (DTSC, December 17, 2009).

State Route 132 West Expressway/Freeway (Caltrans Soil Stockpiles), Modesto, California, (DTSC, March 1, 2012).

- Groundwater Monitoring Report, California Department of Transportation Modesto Soil Stockpiles - State Route 99 and 132, March 2012, Modesto, California, (DTSC, June 27, 2012).
- Supplemental Site Characterization Workplan, Modesto Soil Stockpiles, State Route 132 and 99, Stanislaus County, California, (DTSC, September 12, 2012).
- Groundwater Monitoring Reports, California Department of Transportation, Modesto Soil Stockpiles - State Route 99 and 132, May, June, and July 2012, Modesto California, (DTSC, November 29 2012).
- Supplemental Site Investigation and Human Health Risk Assessment Update, Caltrans Modesto Soil Stockpiles, State Route 132/99, Stanislaus County, California, (DTSC, February 13, 2013).
- Revised Supplemental Site Investigation and Human Health Risk Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/99, Stanislaus County, California, (DTSC, April 4, 2013).
- Draft Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California (DTSC, February 11, 2014)
- Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California (DTSC, June 30, 2014).
- Draft Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, April 8, 2014).
- Draft Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, September 18, 2014).
- Public Participation Plan, The California Department of Transportation (Caltrans) State Route 132 West Expressway Site also known as the Caltrans Modesto Stockpiles Site Near State Highway 99 Modesto, California 95351 (DTSC, November, 2014).
- Administrative Record, Statement of Reasons, and Preliminary Nonbinding Allocation of Responsibility, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, November 24, 2014).
- Revised Administrative Record, Statement of Reasons, and Preliminary Nonbinding Allocation of Responsibility, Caltrans Modesto Soil Stockpiles, State Route 132,

West Freeway/Expressway Project, Stanislaus County, California, (DTSC, May 18, 2015).

Revised Administrative Record, Statement of Reasons, and Preliminary Nonbinding Allocation of Responsibility, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, November 14, 2017).

8.0 REVISED IMPLEMENTATION SCHEDULE

The anticipated schedule for the SR-132 Project from submittal of the Draft RAP through completion is as follows:

Activity/Task/Milestone	Date
RAP	
Submit Draft RAP to DTSC/CVRWQCB	December 27, 2013
Receive comments on Draft RAP from DTSC/CVRWQCB	April 8, 2014
Revised Draft RAP and submit Draft Final RAP to DTSC/CVRWQCB	October 24, 2014
Draft Final RAP appended to Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the SR-132 Project	December 2016
Public notice of availability of Draft Final RAP and the SR-132 Project EIR/EA for public review	January 18, 2017 ¹
59-day public review	January 18, 2017 to March 17, 2017
Public hearing	February 22, 2017
DTSC responsiveness summary (response to public comments)	2018
DTSC decision on Draft Final RAP	2018
SR-132 Project Design and Construction Phase	
SR-132 detailed design Plans, Specifications, and Estimates (PS&E) phase	2018 - 2019
Preparation of Remedial Design Implementation Plan	2018 - 2019
Construction of interim project phase begins	2019
Complete interim project phase	2020
Prepare Remedial Action Completion Report	2020
Complete ultimate build-out phase	2028
Prepare Remedial Action Completion Report (ultimate build-out phase)	2029

¹ Runs concurrently with the Caltrans Draft EIR/EA

GEOCON
CONSULTANTS, INC.

G E O T E C H N I C A L ■ E N V I R O N M E N T A L ■ M A T E R I A L S



Project No. S9800-01-17
October 27, 2014

Randy Adams, CEG
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Subject: REVISED DRAFT FINAL REMEDIAL ACTION PLAN
CALTRANS MODESTO SOIL STOCKPILES
STATE ROUTE 132 WEST FREEWAY/EXPRESSWAY PROJECT
MODESTO, STANISLAUS COUNTY, CALIFORNIA

Dear Mr. Adams:

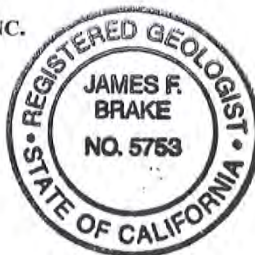
In accordance with the Interagency Agreement between the California Department of Toxic Substances Control (DTSC) and the California Department of Transportation (Caltrans) dated June 22, 2012, we are pleased to submit the enclosed revised Draft Final Remedial Action Plan (RAP) for the Caltrans Modesto Soil Stockpiles (the Site) located south of the State Route 99/Kansas Avenue interchange in Modesto, Stanislaus County, California. This Draft Final RAP includes revisions made in response to comments on the Draft RAP provided by the DTSC in their letter to Caltrans dated September 18, 2014.

We trust that the Draft Final RAP adequately addresses the DTSC's comments and that the document is ready for public review. Please call the undersigned if you have any questions regarding the Draft Final RAP.

Sincerely,

GEOCON CONSULTANTS, INC.


Jim Brake, PG
Project Manager




John E. Juhrend, PE, CEG
Principal/Senior Engineer

- (1) Addressee
- (1) Caltrans, Ms. Sam Haack
- (1) California Regional Water Quality Control Board, Central Valley Region, Mr. Steve Meeks

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APPENDICES

- A. Evaluation of Alternatives
- B. Administrative Record
- C. Statement of Reasons
- D. Preliminary Nonbinding Allocation of Responsibility

ACRONYMS AND ABBREVIATIONS

AIA	air impact assessment
ARAR	applicable or relevant and appropriate requirement
Cal-EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDMG	California Division of Mines and Geology
CEG	Certified Engineering Geologist
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
COPC	contaminant of potential concern
CVRWQCB	Central Valley Regional Water Quality Control Board
CSEM	Conceptual Site Exposure Model
DI	de-ionized water
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPC	exposure-point concentrations
ESL	Environmental Screening Level
FMC	Food Machinery and Chemical Corporation
FS	feasibility study
GRA	general response action
HERO	Human and Ecological Risk Office
HI	hazard index
HHRA	Human Health Risk Assessment
HSP	health and safety plan
IA	Interagency Agreement
ISA	Initial Site Assessment
kg/m ³	kilograms per cubic meter
LUC	land use covenant
MCL	Maximum Contaminant Level
MDC	maximum detected concentration
µg/dL	micrograms per deciliter
µg/kg	micrograms per kilogram
µg/l	micrograms per liter
µg/m ³	micrograms per cubic meter
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
mg/m ³	milligrams per cubic meter
MID	Modesto Irrigation District
MSL	mean sea level
NCP	National Contingency Plan
NRCS	Natural Resources Conservation Service
O&M	operation and maintenance
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon

PEA	Preliminary Endangerment Assessment
PE	Professional Engineer
PG	Professional Geologist
PSI	Preliminary Site Investigation
PTR	Proven Technologies and Remedies
RAO	Removal Action Objective
RAOR	Remedial Action Options Report
RAP	Remedial Action Plan
RDIP	Remedial Design Implementation Plan
RL	reporting limit
ROW	right-of-way
RSL	Regional Screening Level
SFBRWQCB	San Francisco Bay Area Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SI	site investigation
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SSI	Supplemental Site Investigation
STLC	Soluble Threshold Limit Concentration
StanCOG	Stanislaus Council of Governments
TBC	to be considered
TOC	top of casing
TSS	total suspended solids
UCL	upper confidence limit
USA	Underground Service Alert
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WET	waste extraction test
yd ³	cubic yard

DRAFT FINAL REMEDIAL ACTION PLAN

EXECUTIVE SUMMARY

This Draft Final Remedial Action Plan (RAP) was prepared on behalf of the California Department of Transportation (Caltrans) for the Caltrans Modesto Soil Stockpiles (the Site) located south of the State Route (SR)-99/Kansas Avenue interchange in Modesto, Stanislaus County, California. Caltrans is in the process of finalizing a draft Environmental Impact Report (EIR) for the proposed SR-132 West Freeway/Expressway Project (the SR-132 Project), which is being developed in coordination with Stanislaus Council of Governments (StanCOG). The draft EIR is being prepared in accordance and to comply with the California Environmental Quality Act (CEQA) with Caltrans as the lead agency. This RAP will be a supplement to the EIR and therefore, the California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (CVRWQCB) in their capacity as oversight agencies for the RAP, are also reviewing agencies for the EIR.

The stockpiles were created in the early-1960s by importing soil from an FMC facility that was located less than 500 feet north of the Site. FMC and its predecessors operated a chemical processing facility at that location from 1929 to approximately 1985. The facility processed barium and strontium minerals (barite and celestite) and other materials to produce a variety of industrial chemicals. From the early 1950s to the late 1970s, liquid wastes were discharged to seven unlined ponds at the FMC facility. During construction of SR-99, soil in and around one of the former FMC ponds was excavated and stockpiled in their current configuration within the current Caltrans right-of-way for a planned SR-99/SR-132 interchange. This RAP summarizes the assessments of the contaminants and the recommendation and implementation of the recommended remedial action.

Purpose of the RAP

The purpose of the RAP is to summarize in one document the results of characterization of contaminant impacts at the Site, an assessment of potential risks to human health and the environment associated with the impacts, the development of a remedial action alternative to reduce those risks, and to make this information available to the public for review and comment. This RAP provides the following specific information:

- A description of the Site's physical characteristics including location, size, configuration, its geologic, hydrogeologic, and geotechnical characteristics, stormwater runoff, and background soil conditions.
- The results of characterization to identify and assess the nature and extent of contaminants of potential concern (COPCs) at the Site.
- The results of a human health risk assessment (HHRA) and an HHRA Update for the Site performed based on COPC concentrations in the stockpiles.
- Applicable or relevant and appropriate requirements (ARAR) for implementation of the

recommended remedial alternative.

- A summary of a Feasibility Study (FS) which evaluated potential remedial alternatives to address the COPCs. The FS has been reviewed and approved by the DTSC and CVRWQCB.
- A conceptual design for the recommended remedial alternative.
- Land use controls that would be required to limit land use on the Site.
- Monitoring that would be performed to ensure that the implemented remedial alternative continues to be effective.
- A schedule for implementation of the recommended remedial alternative.
- A Health and Safety Plan (HSP) for use during implementation of the selected remedial alternative.
- The measures taken to satisfy CEQA.
- Public participation efforts including public notices, fact sheets, public hearings, and public comment on the Draft Final RAP.

Site Name and Location

Site Name: Caltrans Modesto Soil Stockpiles, Stockpiles #1, #2, and #3, and collectively “the Site”.

Site Location: The stockpiles occupy a portion of Caltrans’ right-of-way (ROW) approximately 350 feet south of the Kansas Avenue overcrossing of SR-99 in Modesto, Stanislaus County, California. The stockpiles extend approximately 2,500 feet west of SR-99 and approximately 500 feet east of SR-99.

Site Description

The Site consists of three separate soil stockpiles within Caltrans ROW, which were placed to be used for the planned SR-132 Project. The following is a summary of the configuration, orientation, size, and surrounding vicinity of each stockpile:

- **Stockpile #1** is located south of Kansas Avenue and west of Emerald Avenue. It is rectangular in shape, approximately 600 feet long in the east-west direction and 160 feet wide, with a flat top and sloped sides. Stockpile #1 has an estimated volume of approximately 34,000 cubic yards (yd³). It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is undeveloped ROW, and to the east is an approximately 240 feet long undeveloped section of ROW and North Emerald Avenue.
- **Stockpile #2** is located south of Kansas Avenue, between Emerald Avenue and SR- 99. It is also rectangular - approximately 1,650 feet long in the east-west direction, 160 feet wide, and flat-topped with sloped sides. Stockpile #2 has an estimated volume of approximately 102,000 yd³. It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is North Emerald Avenue, and to the east is SR-99.

- **Stockpile #3** is located south of Kansas Avenue and east of SR-99. It has a curvilinear shape extending northwest to southeast (concave to the southwest) with a length of approximately 1,100 feet and a width of approximately 120 feet. It has an estimated volume of approximately 24,000 yd³. It is bounded by SR-99 to the south and west and commercial/light industrial development to the north and east. The Modesto Irrigation District (MID) Lateral #4 canal concrete box culvert extends beneath its southeastern end.

The stockpiles are enclosed within perimeter fencing and bordered by adjacent property boundary fencing/walls or structures. There are no operations on the stockpiles other than site maintenance, which consists of seasonal mowing of the vegetative (grass) cover on the stockpiles and maintaining the perimeter fencing. Groundwater beneath and in the vicinity of the stockpiles is monitored quarterly through a system of ten groundwater monitoring wells. Stormwater is monitored at six locations (four adjacent and two background) around the stockpiles on a precipitation-dependent basis.

Site Characterization and Contaminants Involved

An Initial Site Assessment (ISA) was conducted for the SR-132 West Freeway/Expressway Project in 2003, which identified the stockpiles as potentially containing COPCs associated with the FMC facility. The ISA was followed by a Preliminary Site Investigation (PSI) in 2004 to characterize the stockpiles. The PSI identified the presence of barium in stockpile soil samples at concentrations exceeding commercial/industrial California Human Health Screening Levels (CHHSLs) and cadmium at concentrations exceeding the commercial/industrial CHHSL in Stockpiles #2 and #3.

Additional site investigation was performed in 2006 to further characterize the soil stockpiles, compare analytical results to background conditions and CHHSLs, and included the installation of eight groundwater monitoring wells to assess groundwater quality. The results of analysis of groundwater samples initially collected from the wells in June and October 2006 indicated that groundwater met drinking water standards (primary and secondary Maximum Contaminant Levels – MCL) for those constituents analyzed.

A human health risk assessment (HHRA) was performed in 2007 for the COPCs in the stockpiles and groundwater using multiple exposure scenarios. Metals (notably barium) and polynuclear aromatic hydrocarbons (PAHs) were identified as the primary COPCs in the soil stockpiles and metals and general minerals (e.g. nitrate, total dissolved solids) as the primary COPCs in groundwater. Cadmium was not considered a COPC in the HHRA due to the lack of elevated cadmium concentrations identified during the 2006 SI. Strontium was also not considered a COPC in the HHRA since the maximum strontium concentration was more than two orders of magnitude less than the United States Environmental Protection Agency's (USEPA) residential Regional Screening Level (RSL) of 47,000 mg/kg. The HHRA concluded that the soil stockpiles do not pose an unacceptable risk or hazard to current or future offsite residents, trespassers, construction workers or hypothetical future shallow groundwater users.

In response to the HHRA, the DTSC requested additional toxicological and site information prior to making a final determination regarding risk or hazard posed by the COPCs in the stockpile soil. A Final Preliminary Endangerment Assessment (PEA) was prepared in 2009 providing the additional information requested by the DTSC. The DTSC concluded that the soil stockpiles, as managed by Caltrans, do not pose a risk to human health for Caltrans workers, trespassers, or residents adjacent to the stockpiles and that Caltrans should continue to limit access to Caltrans-authorized personnel, maintain the perimeter fence, not excavate, grade, remove, or add soil to the Site, and maintain the vegetative cover. They also commented that Caltrans should continue to maintain the groundwater monitoring system associated with the Site.

In 2012, Caltrans entered into a second interagency agreement (IA) with the DTSC to further address the soil in Stockpiles 1 through 3. This IA outlined tasks for additional site characterization, risk evaluation and cleanup level determination, preparation of an FS to evaluate remedial alternatives, this Draft Final RAP to convey site information and remediation plans to the public for review and comment, the necessary CEQA documents, and to conduct public participation activities, quality assurance, and quarterly groundwater monitoring and reporting.

In conjunction with the planned SR-132 Project, groundwater monitoring was reinitiated and conducted bi-monthly from March 2012 to March 2013. Since June 2013, groundwater monitoring has been conducted on a quarterly basis. Two additional groundwater monitoring wells were installed in May 2012 and incorporated into the monitoring program.

The additional site characterization requested by DTSC and CVRWQCB in the IA was intended to fill potential data gaps including perimeter ROW fenceline stockpile soil sampling to assess potential offsite and vertical migration of contaminants, perimeter stockpile soil sampling to define the lateral stockpile limits to aid in consolidation during future construction of the SR-132 Project, and additional stockpile soil sampling in areas of elevated cadmium concentrations identified in Stockpiles 2 and 3 during the 2004 PSI. A Supplemental Site investigation (SSI) was performed in September 2012 to address these data gaps. Laboratory analysis of soil samples collected from “Fenceline Borings” and “Perimeter Borings” did not detect barium at concentrations exceeding residential or commercial CHHSLs. Strontium was detected at concentrations within the range of background and orders of magnitude below the residential RSL. Cadmium was not detected in any of the soil samples collected from the “Cadmium Borings” advanced in Stockpiles 2 and 3 in areas of elevated cadmium reported in the 2004 PSI.

In 2013 the 2007 HHRA was updated by incorporating soil analytical data generated from the fenceline, perimeter, and additional stockpile sampling and groundwater analytical data generated from bi-monthly sampling events. The SSI data collected in September 2012 and groundwater data collected between March 2012 and March 2013 were compared to the data used in the 2007 HHRA. The 2012

soil and groundwater data was found to be similar to that utilized in the 2007 HHRA and therefore did not increase the conservative risk estimates. The 2007 HHRA was found to still be valid with respect to exposure potential for the resident/trespasser, construction worker and offsite resident, and hypothetical shallow groundwater user. DTSC concurred with the findings of the HHRA Update.

Scope and Role of the Remediation

Based on the 2007 HHRA and 2013 update, the DTSC confirmed that the soil stockpiles do not pose a risk to persons on or in the vicinity of the stockpiles as long as the stockpiles are maintained by: continuing to maintain fencing and signage around the stockpiles, to not disturb soil in the stockpiles, to keep a vegetative cover, and to continue to monitor groundwater..

Proposed Remedial Alternative

Based on the CERCLA nine-criteria analysis performed in the FS, Alternative 4 – Containment is the recommended alternative. Containment of the stockpiles will be achieved by incorporating the stockpiles as fill in the construction of the SR-132/SR-99 interchange portion of the planned SR-132 Project. The SR-132 Project requires a significant amount of embankment fill and is the reason the stockpiles were placed on the Site in the early 1960s. The stockpile soil will be contained behind retaining walls and bridge abutments and beneath roadway pavement thereby preventing potential exposure to the soil and stormwater infiltration or erosion.

The project will be constructed in two phases – an interim progress phase to be completed by 2018 and ultimate build-out phase to be completed by 2028. The interim progress phase will consist of a two-lane roadway, which will be constructed over the southern portions of Stockpiles 1 and 2. During this phase, the northern portions of Stockpiles 1 and 2 will not be contained beneath roadways and behind retaining walls and bridge abutments, but will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. The ultimate build-out will include complete containment of the stockpiles within the project behind retaining walls, bridge abutments, and beneath roadway pavement. The median between the eastbound and westbound lanes of SR-132 will be covered either by pavement or a synthetic liner and clean soil layer.

Stockpile 3 is planned to be entirely contained within the interim progress phase of the Project. As much of Stockpile 3 as possible will be placed in the stockpile fill consolidation zone within the eastern abutment for the SR-132 bridge over SR-99. The remainder of Stockpile 3 will then be placed in the stockpile fill consolidation zone of Stockpile 2.

The primary factors which support containment as the preferred remedy are: (1) it is effective in providing long-term, overall protection of human health and the environment; (2) it is technically feasible; (3) it is cost-effective because funding is available for construction of the SR-132 Project;

and (4) it will help minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

Other Remedial Alternatives Considered

Other alternatives that were considered in the FS include:

- No action,
- Institutional controls, and
- Removal of the stockpiles and offsite disposal.

No action would provide the lowest level of overall protection of human health and the environment of the four alternatives considered. No action would have the lowest level of regulatory acceptance because of the lack of site management and monitoring and would likely have the lowest level of community acceptance due to the perceived threat to human health and the environment. This is the least costly of the alternatives and is the most implementable.

Institutional controls include the site management activities that DTSC stated would be necessary to ensure that the stockpiles in their current condition do not represent a risk to human health or the environment. Management includes limiting access to only Caltrans-authorized personnel, regularly inspecting and maintaining the perimeter fence, prohibiting any soil disturbing activities or placement of other soil on the Site, maintaining the current vegetative cover, and continuing to maintain the groundwater monitoring programs for the Site. Maintaining the institutional controls would provide a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Similar to no action, though, this alternative may not be acceptable to the community due to the perceived threat to human health and the environment. This alternative is the second lowest in cost and the second most implementable.

Removal of the stockpiles and disposal at an offsite landfill would provide the greatest degree of overall protection of human health and the environment and may be the most acceptable to the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four, and funding is not currently identified for removal. This alternative could be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

This Draft Final RAP will be made available to the public for a 30-day review and comment period. The Draft Final RAP will be available at public repositories including DTSC offices and a local public repository to be determined. Notification of the schedule of the public review and comment period will also be made in local newspapers and posted at the Site. The public is invited to review the Draft Final RAP and provide input during this time. The DTSC and CRWQCB will review all comments and provide responses in a responsiveness summary. In addition, a public meeting will be held during the 30-day public review and comment period to further describe the project, the remedy selection process, the selected remedy, and to hear community input. The place and schedule for the public meeting will also be noticed in local newspapers, via a fact sheet that will be mailed to nearby residents and other interested parties, and posted at the Site.

1.0 INTRODUCTION

This Draft Final Remedial Action Plan (RAP) was prepared on behalf of the California Department of Transportation (Caltrans) for the Caltrans Modesto Soil Stockpiles (the Site) located south of State Route (SR)-99/Kansas Avenue interchange in Modesto, Stanislaus County, California (Figure 1). Caltrans is in the process of finalizing the draft environmental impact report (EIR) in accordance with the California Environmental Quality Act (CEQA) for the proposed SR-132 West Freeway/Expressway Project (the SR-132 Project) that is being developed in coordination with Stanislaus Council of Governments (StanCOG). Both the California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (CVRWQCB) will be reviewing agencies for the EIR.

The SR-132 Project will result in the ultimate build-out of a four-lane expressway by 2028. An interim progress phase will include construction of the SR-132 West/6th Street and SR-132/East/5th Street extensions, two of four traffic lanes from east of SR-99 to North Dakota Avenue, the Carpenter Road interchange, and the SR-132 roadway structures across Emerald Avenue and SR-99 by 2018. The ultimate build-out phase will include highway widening to four traffic lanes, construction of structures to accommodate the roadway widening along SR-132, and the SR-99/SR-132 interchange with related improvements along SR-99 by 2028.

The stockpiles, portions of which contain elevated levels of barium, are planned to be contained within the project by utilizing them as embankment material for roadway construction, retaining wall backfill, and bridge abutments. It is anticipated that remedial and contour cut/fill grading will be necessary to achieve final finish grades and to properly consolidate and contain the existing soil stockpiles.

1.1 Purpose and Organization of the RAP

The purpose of this Draft Final RAP is to describe the remedial action evaluation and selection process for the Site, explain the preferred remedial action alternative and the reasons for the preference; describe other remedial alternatives considered, and solicit public review and comments. The Draft Final RAP is organized as follows:

- **Section 1.0 Introduction** – includes a description of the Site and its history with respect to the origin of the stockpiles, a summary of previous site characterization activities, and a description of site physical conditions including geologic, hydrogeologic, geotechnical characteristics, stormwater, and background soil conditions.
- **Section 2.0 Nature and Extent of Impacts** - summarizes the results of characterization to identify and assess the nature and extent of contaminants of potential concern (COPC) at the Site. A conceptual site exposure model (CSEM) depicting sources of COPCs, release mechanisms, exposure routes, and receptors is presented in this section.

- **Section 3.0 Remedial Action Objective** - summarizes a human health risk assessment (HHRA) and an HHRA Update for the Site performed based on COPC concentrations in the stockpiles. Applicable or relevant and appropriate requirements (ARAR) for implementation of the selected remedial alternative are also summarized.
- **Section 4.0 Summary of Feasibility Study** - summarizes a Feasibility Study (FS) which evaluated potential remedial alternatives to address the COPCs and selected the most appropriate one.
- **Section 5.0 Preliminary Remedial Design for Soil Remedy** – presents a conceptual design for the recommended remedial alternative.
- **Section 6.0 Land Use Controls** – summarizes land use controls that would be put in place to limit land use on the Site.
- **Section 7.0 Monitoring and Reporting** – describes monitoring that would be performed to ensure that the implemented remedial alternative continues to be effective.
- **Section 8.0 Implementation Schedule** – provides a schedule for implementation of the recommended remedial alternative.
- **Section 9.0 – Health and Safety Plan** includes a Health and Safety Plan (HSP) for use during implementation of the recommended remedial alternative.
- **Section 10.0 – CEQA** summarizes the measures taken to satisfy the California Environmental Quality Act (CEQA)
- **Section 11.0 – Public Participation** describes public participation efforts including a Public Participation Plan (currently being prepared by the DTSC), public notices, fact sheets, public hearings, and public comment on the Draft Final RAP.

This Draft Final RAP has been prepared in general accordance with Appendix C2 (*Remedial Action Plan Sample*) of the DTSC's *Proven Technologies and Remedies Guidance, Remediation of Metals in Soil* dated August 29, 2008.

1.2 Site Description

The Site consists of three separate soil stockpiles within Caltrans right-of-way (ROW) located south of the SR-99/Kansas Avenue interchange, which are planned to be used for the SR-132 Project. The following is a summary of the configuration, orientation, size, and surrounding vicinity of each stockpile:

- **Stockpile #1** is located south of Kansas Avenue and west of Emerald Avenue. It is approximately 600 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 34,000 cubic yards (yd³). It is bounded by commercial/light industrial development to the north and single-family residential to the south. To the west is undeveloped ROW, and to the east is an approximately 240 feet long undeveloped section of ROW and North Emerald Avenue.
- **Stockpile #2** is located south of Kansas Avenue, between Emerald Avenue and SR- 99. It is approximately 1,650 feet long in the east-west direction, 160 feet wide, and has an estimated volume of approximately 102,000 yd³. It is bounded by commercial/light

industrial development to the north and single-family residential to the south. To the west is North Emerald Avenue, and to the east is SR-99.

- **Stockpile #3** is located south of Kansas Avenue and east of SR-99. It has a curvilinear shape extending northwest to southeast, concave to the southwest, with a length of approximately 1,100 feet and a width of approximately 120 feet. It has an estimated volume of approximately 24,000 yd³. It is bounded by SR-99 to the south and west and commercial/light industrial development to the north and east. The Modesto Irrigation District (MID) Lateral #4 canal concrete box culvert extends beneath its southeastern end.

The stockpiles are enclosed within security fencing and bordered by adjacent property boundary fencing/walls or structures. The stockpiles, ROW boundaries, and surrounding vicinity are depicted on the Site Plan (Figure 2).

1.3 Site History

From the 1930s to 1970s, property beneath and northeast of the SR-99/Kansas Avenue Interchange was occupied by chemical processing facilities operated by Barium Products LTD, Westvaco Chlorine Products Corporation, and Food Machinery and Chemical Corporation (FMC). Ores and minerals including barite (barium sulfate) and celestite (strontium sulfate) were processed for use in greases, lubricating oil and pigment blanks. Sodium sulfide was generated as a by-product and sold as a caustic and reagent.

From the 1950s to the 1970s, liquid residue (“tailings”) generated by FMC at this facility was discharged to unlined evaporation ponds. In 1961, the State purchased a 4.3-acre parcel in the southwestern portion of the FMC facility, including a portion of the ponds, for the construction of the SR-99 freeway through Modesto. Pond tailings and underlying soils from the FMC site along with native soils excavated south of the SR-99/Kansas Avenue interchange were placed to create the three stockpiles that exist today.

In order to establish the timing of placement of the stockpile material within the boundaries of Caltrans’ ROW, aerial photographs from 1963 and 1967 (Figures 3a and 3b, respectively) were reviewed. The 1963 photograph shows grading/construction of SR-99 including the southwestern portion of the FMC property, interchange ramps at Kansas Avenue, and placement of Stockpiles 2 and 3. The Kansas Avenue overpass appears to have been completed. Haul roads to Stockpiles 2 and 3 were within Caltrans ROW. Adjacent property conditions included rural residential and agricultural property west of Emerald Avenue in the current location of Stockpile 1. Residential development was adjacent to the south of Stockpile 2. The areas north and northeast of Stockpiles 2 and 3 were rural residential, agricultural land, and commercial/industrial businesses.

The 1967 photograph shows that SR-99 north and south of the Kansas Avenue interchange had been completed, and Stockpiles 1, 2 and 3 existed essentially as they do today. Property conditions adjacent to Stockpile 1 consisted of rural agricultural property and recent residential subdivision development

along the western half of the southerly stockpile boundary. Haul roads to Stockpile 1 were within Caltrans ROW.

1.4 Site Characterization

Shaw Environmental, Inc. (Shaw) conducted an Initial Site Assessment (ISA) for the SR-132 West Freeway/Expressway Project in 2003. The ISA identified a potential for the soil stockpiles within the SR-132 ROW to contain residual chemicals associated with the former FMC impoundments. Shaw then conducted a Preliminary Site Investigation (PSI) in 2004 to characterize the stockpiles. The PSI consisted of drilling 50 borings into the stockpiles, underlying native soil, and background soil from which they collected soil samples and had them analyzed for heavy metals, polycyclic aromatic hydrocarbons (PAH), nitrate, and pH. The analytical results indicated elevated barium concentrations in stockpile soil samples exceeding commercial/industrial California Human Health Screening Levels (CHHSL). Cadmium concentrations exceeding the commercial/industrial CHHSL were also detected in soil samples collected from 8 of 25 borings in Stockpile 2 and from 2 of 10 borings in Stockpile 3.

In accordance with a DTSC/Caltrans 2006 Interagency Agreement (IA) and the requirement to complete a Preliminary Endangerment Assessment (PEA), Shaw conducted additional site investigation (SI) in 2006 to further characterize the soil stockpiles and compare the analytical data to background conditions and CHHSLs. They also installed eight groundwater monitoring wells in order to assess groundwater quality. The 2004 and 2006 Shaw investigations found that the stockpiles are primarily comprised of layered, poorly graded sand and silty sand similar to underlying native alluvial deposits of the Modesto Formation. The average maximum stockpile fill thickness was determined to be approximately 20 feet. Groundwater was encountered in the project vicinity at depths between 30 and 40 feet (below natural grade) with flow toward the southeast. The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 indicated that groundwater met drinking water standards (primary and secondary Maximum Contaminant Levels – MCL) for those constituents analyzed.

Shaw prepared an HHRA in 2007 for the COPCs in the stockpiles and groundwater using multiple exposure scenarios. Metals (notably barium) and PAHs were identified as the primary COPCs in the soil stockpiles and metals and general minerals (e.g. nitrate, total dissolved solids) as the primary COPCs in groundwater. For the purposes of the HHRA, Shaw did not identify cadmium as a COPC due to the lack of elevated cadmium concentrations reported for soil samples collected during the 2006 SI. Shaw also did not identify strontium as a COPC in the HHRA since the maximum strontium concentration of 231 milligrams per kilogram (mg/kg) reported in the Shaw 2004 PSI is more than two orders of magnitude less than the United States Environmental Protection Agency's (USEPA) residential Regional Screening Level (RSL) of 47,000 mg/kg. There is no CHHSL for strontium. The results of the HHRA indicated that the soil stockpiles do not pose an unacceptable risk or hazard to current or future offsite residents, trespassers, construction workers or hypothetical future shallow groundwater users.

In response to the HHRA, the DTSC issued an August 2007 letter that requested additional toxicological and site information prior to making a final determination regarding risk or hazard posed by the COPCs in the stockpile material. Shaw prepared a Final PEA and a Response to Comments document in 2009 to summarize the findings of previous reports prepared for the soil stockpiles and to provide the additional information requested by the DTSC. In a letter dated December 17, 2009, the DTSC responded to the Final PEA stating that:

“DTSC finds that the soil stockpiles, as currently managed by Caltrans on Caltrans property, do not pose a risk to human health for: 1) Caltrans workers who access the fenced site to conduct mowing operations, conduct fence repairs, or other routine activities; 2) trespassers; and 3) residents adjacent to the stockpiles. Until such time that the State Route 132/99 Interchange project is constructed and/or the final disposition of the soil stockpiles is determined, Caltrans should continue to manage the soil stockpiles by: 1) limiting access to Caltrans authorized personnel; 2) inspecting and maintaining the chain-link fence; 3) prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site; and 4) maintaining the current grade and vegetative cover. Caltrans should also maintain the existing groundwater monitoring system associated with the Site.”

In conjunction with activities associated with the SR-132 Project, groundwater monitoring was reinitiated and conducted bi-monthly from March 2012 to March 2013. Beginning in June 2013, groundwater monitoring is being conducted on a quarterly basis.

Caltrans and the DTSC, in cooperation with the CVRWQCB, entered into a second IA dated June 22, 2012, to further address the soil in Stockpiles 1 through 3. This IA outlined tasks for additional site characterization, risk evaluation and cleanup level determination, an FS to evaluate remedial alternatives, preparation of a RAP, preparation of the necessary CEQA documents, public participation activities, quality assurance, and quarterly groundwater monitoring and reporting.

Upgradient wells MW-9 and MW-10 were installed immediately south of Kansas Avenue and west and east of SR-99 (Figure 2), respectively, in May 2012. Groundwater samples were initially collected in these wells in June 2012 then incorporated into subsequent bi-monthly sampling rounds.

The analytical results from the 2012 and 2013 groundwater monitoring events are similar to the results from 2006, with primary analytes reported at concentrations less than California MCLs.

On July 26, 2012, a meeting was held with representatives from Geocon, Caltrans, DTSC, and CVRWQCB to review existing site data and discuss potential remedies to address human health exposure and environmental impacts associated with the barium-impacted soil stockpiles. DTSC and the CVRWQCB requested additional sampling to fill potential data gaps in the following areas:

1. Perimeter ROW fenceline stockpile soil sampling to assess potential offsite and vertical migration of contaminants.
2. Perimeter stockpile soil sampling to define the lateral stockpile limits to aid in consolidation during future construction of the SR-132 Project.
3. Additional stockpile soil sampling in areas of elevated cadmium concentrations identified in Stockpiles 2 and 3 during the Shaw 2004 PSI.

Geocon performed a Supplemental Site investigation (SSI) in September 2012 to address these data gaps. Laboratory analysis of 97 soil samples collected from 35 “Fenceline Borings” and 28 “Perimeter Borings” did not detect barium at concentrations exceeding residential or commercial CHHSLs. Barium concentrations in the surface soil samples ranged to a maximum of 4,300 mg/kg. Barium concentrations were consistently lower in the bottom of boring soil samples (2 to 5 feet) collected from the Fenceline Borings compared to those reported for the surface samples. Strontium was detected at concentrations up to 110 mg/kg for the Fenceline Boring surface soil samples, which is within the range of background and orders of magnitude below the residential RSL of 47,000 mg/kg. Cadmium was not detected in any of the soil samples collected from the “Cadmium Borings” advanced in Stockpiles 2 and 3 in areas of elevated cadmium reported in the Shaw 2004 PSI.

1.5 Previous Removal Actions Taken

To date, the only removal action taken on the Site has been excavation and landfill disposal of a portion of Stockpile 3 as part of Caltrans’ rehabilitation of the off-ramp to Kansas Avenue to improve traffic safety and meet current design standards. The highway safety improvement project included widening the off-ramp shoulder areas and associated drainage features. Shoulder widening on the east side of the off-ramp included construction of a retaining wall against the existing Stockpile 3 embankment and laying back the embankment slope.

Geocon previously completed eight direct-push borings and eleven hand-auger borings within the embankment area. Barium was detected in each sample at concentrations ranging from 34 to 1,600 mg/kg, all less than the residential and commercial/industrial CHHSLs for barium of 5,200 and 63,000 mg/kg, respectively. Based on this data, data previously presented in the PEA, and review by DTSC, the excavated soil stockpile materials were designated for offsite disposal as non-hazardous soil to an accepting licensed landfill facility. The DTSC conveyed their finding that offsite management of the soil from Stockpile 3 did not pose a threat to human health or the environment in a letter dated August 30, 2012.

The *Stockpile 3 Excavation Monitoring Plan* completed in June 2012 described procedures for air monitoring and verification of completed stockpile excavations during construction of the highway off-ramp improvements. Approximately 2,800 yd³ of the Stockpile 3 soil embankment were excavated over ten days between September 7 and 26, 2012. The excavated stockpile material was directly loaded into covered trucks for transport to the Forward Class II landfill facility in Manteca, California, under non-hazardous waste manifests. Dust suppression provided by the Caltrans contractor during the stockpile excavation and loading activities consisted of pre-soaking and water spray during the stockpile excavation activities. A Geocon project scientist, working under the direct supervision of a California Professional Geologist (PG), oversaw the excavation activities. The individual performing the oversight also prepared and maintained daily field logs that documented the daily quantities of materials excavated. The project geologist provided a determination when the planned construction excavation limits within Stockpile 3 had been completed, exposing native soil of the Modesto Formation (Geocon, June 2012).

Ambient perimeter air was monitored during Stockpile 3 excavation and loading activities to document total airborne particulate concentrations in accordance with the air monitoring plan. The results of air monitoring aided in assessing the effectiveness of the contractor's dust control measures.

Air monitoring tasks included:

- Documenting and photographing the locations of air monitoring stations;
- Monitoring daily meteorological forecast to anticipate onsite wind direction and speed; and
- Verifying that downwind direct-read, real-time particulate counter readings (pDR-1200 monitors) did not exceed the Fence Line Total Dust Action Level of 4.0 milligrams per cubic meter (mg/m³).

In addition to the data logging programmed in the real-time monitors, field personnel checked each real-time air monitoring instrument hourly to ensure proper operation and battery capacity and also recorded the time-weighted average airborne dust readings hourly.

Direct read (pDR-1200) and laboratory air sample results for the project indicated that airborne levels of lead and barium were well below levels of concern during excavation activities at Stockpile 3. The removal activities are documented in the *Stockpile 3 Excavation Summary Report, Modesto Ramp Rehabilitation Project, State Route 99 Kansas Avenue Northbound Off-Ramp, Modesto, California*, dated March 15, 2013.

1.6 Site Geology and Hydrogeology

The following subsections provide a summary of the regional and local topographic, geologic, soil, and hydrogeologic conditions associated with the Site.

1.6.1 Topography

The United States Geological Survey (USGS) *Salida, California*, 7.5-minute topographic map indicates the Site is located within Township 3 South, Range 9 East, with Stockpiles 1 and 2 in the southern half of Section 30, and Stockpile 3 in the southwestern quarter of Section 29, Mount Diablo baseline and meridian. Based on contour lines on the topographic map, with the exception of the SR-99 Kansas Avenue underpass, the vicinity surrounding the Site is relatively flat-lying at an elevation of approximately 84 feet above mean sea level (MSL), and a low westerly-trending surface gradient (USGS, 1987). The stockpiles range in height from approximately 2 to 20 feet above the surrounding ground surface.

1.6.2 Geologic and Soil Conditions

The Site is located within the northern San Joaquin Valley of California's Great Valley geomorphic province. The San Joaquin Valley is an asymmetrical structural trough bound by the Sacramento Valley to the north, the Coast Ranges to the west, and the Sierra Nevada to the east and south. The base of the Sierra Nevada slopes westward beneath the San Joaquin Valley to its greatest depth near the valley's western margin. The San Joaquin Valley has been filled with several thousand feet of sedimentary deposits eroded from the Sierra Nevada, which include deposits of sands, silts, clays, and gravels from western-flowing drainages and their tributaries. Sediments in the Modesto region were deposited primarily by the Stanislaus and Tuolumne Rivers to the north and south of the Site, respectively.

The Site is underlain by sediments of the late Pleistocene to early Holocene age Modesto formation, which were derived from granitic rocks of the Sierra Nevada and deposited in an alluvial environment. The Modesto formation is composed primarily of sand, silt, and silty sand, with lesser amounts of laterally discontinuous clay and silty clay. The thickness of the Modesto formation is variable, with a regional thickness of approximately 100 feet in the vicinity of the Site (California Division of Mines and Geology [CDMG], 1962).

The Modesto formation is underlain by Pleistocene age sands and silts of the Riverbank and Turlock Lake formations, and pediment gravels of the North Merced formation. Tertiary age pediment gravels of metamorphic origin, and clays, tuffs, and ash of volcanic origin underlie these formations, with Cretaceous age marine sandstones and shale of the Great Valley sequence beneath the Tertiary formations at regional depths of approximately 3,000 feet (CDMG, 1962).

Shaw's SI Report (*Shaw*, 2007a and Appendix A of the HHRA) indicates that the onsite stockpile materials were placed over the native Modesto formation sediments and that there appeared to be some undulation in the original ground surface. The stockpile boring logs and associated cross-sections in Shaw's report indicate that the Modesto formation is situated beneath the onsite stockpiles at depths ranging from approximately 2 feet near the western end of Stockpile 1 to approximately 20 feet near the western end of Stockpile 3 (*Shaw*, 2007a). Shaw described the native sedimentary materials encountered

in the Modesto formation as primarily consisting of silt, silty sand, and sand, with lesser amounts of laterally discontinuous clay and silty clay. Shaw also indicated that fill materials encountered in the stockpiles were “generally similar” to the native soils; however, distinct layers of gray and bluish-gray non-native materials were encountered in the stockpile materials (Shaw, 2007a).

According to the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) website (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>), the soil onsite primarily consists of Dinuba fine sandy loam to a depth of approximately 10 inches that was derived from granitic sediments deposited in an alluvial environment. The Dinuba fine sandy loam is described as moderately well-drained and underlain by sandy loam to a depth of approximately 28 inches, and very fine sand and silt loam to a depth of approximately 60 inches. The NRCS website database also indicates that native soil on the approximate southern one-third of the Site beneath Stockpile 1 consists of Modesto loam to a depth of approximately 12 inches that was also derived from granitic sediments deposited in an alluvial environment. The Modesto loam is described as moderately well-drained and underlain by clay to a depth of approximately 35 inches, sandy clay loam to a depth of approximately 55 inches, and silty clay to a depth of approximately 62 inches.

1.6.3 Geotechnical Characteristics

In June 2012, Kleinfelder performed a geotechnical investigation of the stockpiles. The investigation included nine hollow-stem auger borings to a depth of 41.5 feet below the surfaces of the stockpiles. As reported in their September 2012 *Final Geotechnical Design Report*, stockpile soil was encountered to depths of approximately 10 to 20 feet at each boring location. The soil conditions were reported as loose to very dense, interbedded layers of silty sand, sandy silt with some layers of hard sandy clay. Debris consisting of asphalt, metal and brick at depths between 3 and 10 feet in boring A-12-002 advanced on the eastern portion of Stockpile 1 was also reported. Groundwater was not encountered to the maximum depth explored.

Kleinfelder presented the following specific conclusions and recommendations to assist in design and construction of the proposed SR-132 highway improvements in the vicinity of the soil stockpiles:

- Embankment foundation soil is adequate to support the proposed embankment without adverse consequences.
- Final unpaved slopes should be 2:1 or flatter and be protected from erosion by proper management of drainage, planting drought resistant vegetation, and necessary maintenance.
- No surface water should be allowed to pond near the tops of slopes or discharge over the slope face.
- Remove any debris materials encountered in the stockpile fill soil during planned highway construction excavations.

Kleinfelder concluded that the soil encountered in the borings is “geotechnically adequate for design and significant removal and replacement should not be necessary” to support the planned highway improvements including placement from 5 to 20 feet of additional fill material on top of the stockpiles and the construction of retaining walls along the length of Stockpiles 1 and 2 (Kleinfelder, 2012).

1.6.4 Hydrogeologic Conditions

The Site is situated within the Modesto Subbasin of the San Joaquin Basin Hydrologic Study Area. The Modesto Subbasin is situated between the Stanislaus and Tuolumne Rivers to the north and south, respectively, and is bounded by the Sierra Nevada foothills to the east, and the San Joaquin River to the west. The San Joaquin Basin Hydrologic Study Area includes the southern two-thirds of the Great Valley. Movement of groundwater within the San Joaquin Valley is generally from the flanks of the valley toward the axis of the trough beneath the western side of the valley, then subsequently north toward the Sacramento – San Joaquin Delta. In the San Joaquin Valley groundwater occurs in unconfined and semi-confined aquifers (California Department of Water Resources [DWR], 1980).

The San Joaquin Valley is an area of substantial groundwater withdrawal and recharge due to municipal, industrial, and agricultural use. Wide fluctuations in groundwater levels are not uncommon due to variations in annual rainfall, municipal pumping, and irrigation practices. The *Lines of Equal Depth to Water in Wells, Unconfined Aquifer, San Joaquin Valley, Spring 2010* issued by the DWR indicates a regional depth to groundwater of approximately 40 feet beneath the Site, with a generally south-southeasterly flow direction.

The hydrogeology of the FMC facility, approximately 1,100 feet north of the Site, has been characterized by several studies since the early 1980s. GeoTrans, Inc’s report: *Addendum to Comprehensive Remedial Investigations Report*, dated January 2005, provides the following description of the hydrogeology associated with FMC facility:

“The site is underlain by laterally discontinuous and unconsolidated sand and silty sand associated with the Modesto and Riverbank Formations. First-encountered groundwater is approximately 30 feet below ground surface (bgs) under confined to semi-confined conditions. A deeper aquifer is present at a depth of 165 feet bgs and separated from the upper zone by a blue clay aquitard. The upper water bearing unit has been divided into two zones: a shallow zone from first encountered groundwater to 120 feet bgs and a deeper zone from 140 feet bgs to the top of the aquitard. Groundwater flow within the upper zone is toward the southeast under a gradient of 0.002 ft/ft.”

As described in Section 1.4, Shaw installed eight groundwater monitoring wells adjacent to the three stockpiles in June 2006. Each well was installed into unconsolidated sand, silty sand, and silt layers within the Modesto formation underlying the Site (Shaw 2007b). The wells were completed within the shallow zone of the upper aquifer as described by GeoTrans. The lithology encountered in the well borings included interbedded (laterally discontinuous) sands, silts, and clays. Shallow zone groundwater

beneath the stockpiles was encountered at a depth of approximately 35 feet under unconfined to semi-confined conditions. Shaw determined that groundwater flow is toward the southeast at a gradient of approximately 0.001. The shallow aquifer conditions beneath the Site and the adjacent FMC facility are similar and representative of the local hydrogeologic conditions (Shaw 2007b).

In June 2013, depth to groundwater at the Site ranged from 31.73 (MW-1) to 40.11 (MW-5) feet below top of casing (TOC). Based on the groundwater elevation data, the groundwater flow is toward the east-southeast at an average gradient of 0.0005, which is generally consistent with historical flow.

1.6.5 Stockpile Stormwater

Shaw performed stormwater monitoring for the soil stockpiles in March 2006 in general accordance with their *Final Surface Water Sampling and Analysis Plan* (Shaw, January 2006). Seven stormwater runoff samples were collected from constructed impoundments during a qualifying rain event (visible runoff and 72 hours of prior dry weather). Shaw reported that they did not observe stormwater flowing away from the Caltrans ROW. The samples were analyzed for dissolved metals, PAHs, nitrate, sulfate, and sulfide.

With the sole exception of an elevated barium concentration reported for one stormwater sample collected from the northwestern side of Stockpile 3 (sample SW03), the stormwater samples did not contain target analytes exceeding MCLs or determined site background levels. Barium was reported at a concentration of 2,000 micrograms per liter ($\mu\text{g/l}$) in sample SW03 exceeding the MCL of 1,000 $\mu\text{g/l}$. Barium in the six other stormwater samples ranged from 16 to 190 $\mu\text{g/l}$. Shaw concluded that the elevated barium concentration reported for sample SW03 was isolated and that runoff in that area was confined to Caltrans ROW. Based on these results and due to site topography, vegetation and limited rainfall events, DTSC concluded that stormwater was not a chronic exposure issue. Therefore, surface water was not considered as a pathway in the HHRA.

Geocon prepared an addendum to the Shaw SAP to resume stormwater sampling at the soil stockpiles. The addendum identified revised sampling locations including ponding that was observed at the western end of Stockpile 2 adjacent to Emerald Avenue during a rain event on November 28, 2012.

Stormwater was most recently sampled on February 28, 2014. Stormwater samples were collected from four locations adjacent to the stockpiles and two background locations away from the stockpiles and analyzed for dissolved metals, chloride, nitrate as nitrogen, sulfate, sulfide, total alkalinity, bicarbonate alkalinity, and carbonate alkalinity, total dissolve solids (TDS), and total suspended solids (TSS). The results of this monitoring event were presented in a report by Geocon dated April 7, 2014 (Geocon, April 2014). Analysis results were generally consistent with background values; with the exception of barium for a runoff sample collected adjacent to the south side of Stockpile 2, and strontium for all four stormwater samples, which were higher than those reported for background samples.

1.7 Background COPC Concentrations

Shaw assessed background concentrations of COPCs during the 2006 SI for comparison to COPC concentrations in the stockpiles. Background soil samples were collected from what is reported as undeveloped and relatively undisturbed ground west of Stockpile 1. Eight soil borings were advanced to depths of 15 feet, and soil samples were collected at depths of 5, 10, and 15 feet. Shaw reported that the soil encountered in the eight background borings was predominantly sand with varying amounts of silt and clay.

The background soil samples were analyzed for inorganics, PAHs, and other inorganics (e.g., nitrate, sulfate, etc.). Shaw calculated 95th percentile upper confidence limits (UCL) for inorganics to establish local background concentrations for the Site. The 95th percentile UCLs could not be calculated for the infrequently detected constituents (e.g., beryllium, cadmium, and mercury) due to small population sizes, so arithmetic means for those constituents were calculated instead. For inorganics that were not detected, a concentration of one-half the detection limit was used as the background concentration. Shaw reported that the background concentrations of metals calculated for undisturbed soil near the stockpiles were in the general range as those determined for the FMC site.

Four background samples collected from various depths were also analyzed for PAHs, which were not detected (Shaw, 2007a).

2.0 NATURE AND EXTENT OF IMPACTS

This section describes the nature and extent of COPCs in the stockpiles.

2.1 Conceptual Site Exposure Model

Shaw prepared a Conceptual Site Exposure Model (CSEM) as part of their HHRA (Shaw, 2007c). The CSEM identifies primary sources of COPCs, exposure routes, receptor scenarios, and identifies whether they are “complete” or “incomplete.” The CSEM concluded that the offsite resident and trespasser were the current human receptors. Future receptors during the project would include the future construction worker and future offsite resident.

Their CSEM is shown on Figure 4. The CSEM shows that potential exposure routes for the current resident/trespasser exposure scenario include incidental ingestion, inhalation of dust, and dermal contact. Exposure routes for the future land use scenario would include incidental ingestion, dermal contact, and inhalation of dust for the construction worker.

An offsite resident or trespasser would not have access to the Site during construction; therefore, direct-contact exposure pathways would not be relevant for the resident/trespasser. However, dust could be carried offsite during construction activities. Therefore, Shaw evaluated inhalation for the offsite resident for the future construction scenario.

2.2 Soil Impacts

As described in Section 1.4, the nature and extent of COPCs in the stockpiles have been characterized through several investigations including the PSI conducted by Shaw in 2004, the SI in 2006, and Geocon’s SSI in September 2012. The results of these investigations are summarized below.

2.2.1 Shaw 2004 PSI

Shaw collected 194 stockpile soil and 49 native soil samples (soil from beneath the stockpiles) from 50 direct-push borings advanced through the soil stockpiles in January 2004 and, as described in Section 1.7, they also collected eight “background” soil samples from four borings completed in assumed non-impacted areas. Each soil sample was analyzed for metals including antimony, arsenic, barium, chromium, iron and strontium. Selected soil samples were further analyzed for PAHs, nitrate and pH.

Shaw identified barium as the only metal detected at elevated concentrations of concern and as the primary COPC (Shaw, 2004). Barium was detected at maximum concentrations of 1,730 mg/kg for Stockpile 1, 60,700 mg/kg for Stockpile 2, and 44,900 mg/kg for Stockpile 3. Barium concentrations reported for the eight background soil samples ranged from 57 to 888 mg/kg.

PAHs were not detected in 125 stockpile soil, native soil, or background soil samples analyzed. Nitrate was detected at a maximum concentration of 310 mg/kg in 42 of 54 stockpile soil, native soil, and background soil samples analyzed, though not at concentrations of concern. Reported soil pH values ranged from 6.6 to 11.2.

In May 2004, 86 of the stockpile soil samples and 24 of the native soil samples that were collected in January 2004 were reanalyzed for metals. The original analysis data and the reanalysis data were reported together in the July 2004 *Remedial Action Options Report* (RAOR) (Shaw, 2004). The results of the additional analysis did not identify metals other than barium at concentrations of concern in Stockpiles 2 and 3. However, barium was reported as having been detected in several samples from Stockpiles 2 and 3 at concentrations three to five times higher than were reported for the same samples in February 2004. This increase in reported concentrations occurred mainly with those samples that had the highest barium concentrations to begin with in February 2004. No explanation was provided by the lab or Shaw for the reporting differences. One possibility may be that the material in the stockpiles with the highest concentrations of barium may also have a great degree of heterogeneity such that a sample aliquot taken from one portion of the sample and analyzed may have a much different barium concentration than an aliquot from another portion of the same sample. However, if heterogeneity were the reason for the variability in concentrations, it would be expected then that the variability would manifest itself in both increased and decreased concentrations. In this case there is a strong bias towards large increases in concentrations from the February 2004 results to the May 2004 results, with very few, smaller magnitude decreases. Other possible explanations may be related to laboratory errors.

Lead and arsenic were detected in all three stockpiles at concentrations exceeding background values. As previously discussed, elevated cadmium concentrations exceeding the commercial/industrial CHHSLs were detected in soil samples collected from Stockpiles 2 and 3 in January 2004.

2.2.2 Shaw 2006 SI

Shaw completed additional soil stockpile characterization activities in May 2006 as reported in their SI Report (Shaw, 2007a, and Appendix A of HHRA). They collected 165 stockpile soil and 89 native soil samples from 51 borings advanced through the stockpiles. Additionally, 24 native soil samples were obtained from eight background borings advanced in Caltrans ROW west of Stockpile 1. Each soil sample was analyzed for total metals. Selected soil samples were further analyzed for soluble barium and lead by the waste extraction test (WET and de-ionized [DI] water-WET), PAHs, and total and soluble (DI-WET) nitrate/sulfate/sulfite.

Total Metals Analysis Results

Antimony, selenium and silver were not detected in any of the 278 soil samples analyzed. Beryllium, cadmium, mercury, molybdenum and thallium were detected in the stockpile soil samples at low concentrations. Arsenic, chromium, cobalt and copper were detected in the stockpile soil samples at

concentrations slightly exceeding background concentrations. Barium, lead, nickel, vanadium and zinc were detected in the stockpile soil samples at concentrations considerably higher than background values. Barium, the primary COPC, was detected at maximum concentrations of 130 mg/kg in Stockpile 1, 64,000 mg/kg in Stockpile 2, and 72,000 mg/kg in Stockpile 3. Barium concentrations reported for the background soil samples ranged from 17 to 120 mg/kg.

Soluble Metals Analysis Results

Thirty-three stockpile soil samples were analyzed for WET and DI-WET soluble barium. Soluble barium concentrations ranged from 39 to 2,300 milligrams per liter (mg/l), 28 of which exceeded the Title 22 California Code of Regulations (CCR) Soluble Threshold Limit Concentration (STLC) for barium of 100 mg/l. Soluble (DI-WET) barium concentrations ranged from 1.8 to 220 mg/l, nine of which exceeded the STLC. The Title 22 criteria cited above for the evaluation of WET and DI-WET analyses applies to non-barite barium compounds. Shaw noted that the barium compounds present at the Site were primarily barite (barium sulfate), and as a result, the Title 22 evaluation criteria are not strictly applicable to the Site.

Only two stockpile soil samples contained total lead concentrations exceeding 50 mg/kg (hazardous waste threshold for requiring WET soluble testing) at concentrations of 150 and 1,500 mg/kg. WET soluble lead was detected in these two samples at 2.9 and 5.7 mg/l, respectively, and DI-WET soluble lead at 0.07 and 0.1 mg/l, respectively.

Nitrate, Sulfate, and Sulfide Analysis Results

Sixty-nine soil samples were analyzed for nitrate, sulfate and sulfide. No regulatory screening levels exist for these compounds. Nitrate was detected in the stockpile soil samples at concentrations within the range of background. Sulfate was detected in the stockpile soil samples at concentrations considerably higher than background and appears to correspond to samples with high barium concentrations. Only one stockpile soil sample contained detectable sulfide. DI-WET soluble nitrate concentrations ranged from 0.2 to 2.6 mg/l in 28 of 33 soil samples analyzed, DI-WET soluble sulfate from 0.5 to 14 mg/l in 32 of 33 soil samples analyzed, and DI-WET soluble sulfide was not detected in the 33 soil samples analyzed.

PAHs were detected at low concentrations ranging from 11 to 21 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in 3 of 58 stockpile soil and native soil samples analyzed. PAHs were not detected in the background soil samples.

Shaw utilized the results of the 2006 SI in for the HHRA and summarized the results in the PEA.

2.2.3 Geocon 2012 SSI

Geocon completed an SSI in September 2012, which consisted of advancing 68 soil borings and collecting and analyzing soil samples to address potential stockpile and native soil data gaps to update the risk exposure scenarios from the 2007 HHRA prior to regulatory approval of the SR-132 Project. The SSI consisted of following:

- Advancing 35 “Fenceline Borings” at stockpile perimeter/fenceline locations adjacent to residential and commercial/industrial development to assess potential offsite and vertical migration of contaminants. Soil samples were collected from the surface and at maximum boring depths ranging from 3 to 5 feet and analyzed for Title 22 metals and strontium.
- Advancing 28 “Perimeter Borings” at stockpile perimeter and end locations to define the lateral stockpile limits to aid in consolidation during future highway construction. The surface soil sample collected from each 3-foot-deep boring was analyzed for barium.
- Advancing five “Cadmium Borings” in the vicinity of Shaw’s 2004 PSI borings where soil samples were collected and reported to have elevated cadmium concentrations. Soil samples were collected from the Cadmium Borings at the surface and at 5-foot intervals thereafter to the maximum boring depths ranging from 11 to 22 feet. Each soil sample was analyzed for barium and cadmium.

Fenceline Borings

None of the metal concentrations reported for the Fenceline Boring soil samples exceeded California hazardous waste thresholds. With the exception of arsenic (within the range of site-specific background), none of the reported metal concentrations exceeded residential CHHSLs. With the exception of barium and lead, the remaining metals concentrations were generally within the range of the site-specific naturally occurring background levels. Barium was detected in each soil sample at concentrations ranging from 140 to 4,300 mg/kg for the surface soil samples and 42 to 680 mg/kg for the deepest soil sample obtained from the Fenceline Borings. At each boring location, the reported barium levels decreased with depth. The majority of the deeper soil samples contained barium within the range of background (47 to 110 mg/kg for 5-foot-deep background soil samples). Surface soil samples collected from five borings located along the north side of Stockpile 2 adjacent to commercial/industrial development contained the highest barium concentrations greater than 1,000 mg/kg. None of the reported barium concentrations exceeded residential or industrial CHHSLs of 5,200 and 63,000 mg/kg, respectively.

Perimeter Borings

Barium was detected in each soil sample collected from the Perimeter Borings at concentrations ranging from 76 to 1,600 mg/kg. The majority of the perimeter surface samples contained barium up to 300 mg/kg. Elevated barium concentrations between 710 and 1,600 mg/kg were detected in surface soil samples obtained from borings at the east end of Stockpile 2 and southwest side of Stockpile 3. None of the reported barium concentrations exceeded residential or industrial CHHSLs.

Cadmium Borings

Barium was detected in each soil sample obtained from the Cadmium Borings at concentrations ranging from 58 to 130,000 mg/kg. Cadmium was not detected at concentrations exceeding the laboratory reporting limit (RL) of 1.0 mg/kg for each soil sample. The results of the Shaw 2004 PSI identified elevated cadmium concentrations (exceeding the industrial CHHSL for cadmium of 7.5 mg/kg) for eleven soil samples collected from Stockpiles 2 and 3 with corresponding elevated barium concentrations (25,800 to 196,000 mg/kg). Cadmium was not detected at concentrations greater than 1.0 mg/kg for all

348 soil samples analyzed during the Shaw 2006 SI and the Geocon 2012 SSI, including 19 soil samples with reported elevated barium concentrations between 25,000 mg/kg and 130,000 mg/kg. The Shaw 2004 PSI data (provided by Sparger Technology, Inc.), Shaw 2006 SI data (Creek Environmental Laboratories, Inc.), and the Geocon 2012 SSI data (Advanced Technology Laboratories) were generated by three different analytical laboratories. Based on the cumulative cadmium data, it appears the Shaw 2004 PSI cadmium data is neither reproducible nor reliable and represents false positives possibly as result of sample interference/dilution effects due to the associated high barium concentrations.

One soil sample obtained from a Stockpile 2 Cadmium Boring was analyzed for petroleum hydrocarbons and PAHs based on field indicators of potential impacts. Gasoline-range organics were not detected at a concentration exceeding the RL of 1.0 mg/kg. Diesel-range organics were detected at a concentration of 120 mg/kg, slightly higher than the residential/industrial Environmental Screening Level (ESL) established by the San Francisco Bay Area Regional Water Quality Control Board (SFBRWQCB) of 83 mg/kg. Petroleum organics concentrations were compared to ESLs because there are no CHHSLs or other regulatory screening levels for petroleum. The ESL of 83 mg/kg for diesel-range organics is the lowest ESL based on potential leaching to groundwater – the direct-exposure ESLs for residential and industrial land use are 110 and 450 mg/kg, respectively. Oil-range organics were detected at a concentration of 82 mg/kg, less than the residential ESL of 370 mg/kg. PAHs 2-methylnaphthalene, fluorene and phenanthrene were detected at concentrations ranging from 23 to 45 µg/kg, significantly less than their respective residential/industrial ESLs.

The results of the Fenceline and Perimeter Boring soil sample analytical data does not suggest lateral or vertical migration of soil containing metals (notably barium) at concentrations exceeding State and Federal residential human health screening levels (or in the case of arsenic, site-specific background levels) along the stockpile perimeters and adjacent property fencelines. The 1963 and 1967 aerial photographs (Figures 3a and 3b) show that transport and placement of barium-impacted soil materials in Stockpiles 2 and 3 occurred within Caltrans ROW.

Cadmium was not detected in any of the soil samples collected from the Cadmium Borings advanced in Stockpiles 2 and 3 where elevated cadmium was identified in the Shaw 2004 PSI. Cadmium is therefore not considered a COPC for the project site. The results of the SSI satisfied regulatory directives to address the remaining potential environmental assessment data gaps and were utilized to update the 2007 HHRA (Geocon 2013 HHRA Update).

2.3 Groundwater Impacts

Shaw installed eight groundwater monitoring wells adjacent to the stockpiles in May and June 2006 as reported in the May 2007 *Site Investigation Report, Groundwater Assessment* (Shaw 2007b and Appendix B of HHRA). The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 show that the concentrations of COPCs that were analyzed did not exceed drinking water standards (MCLs).

Caltrans reinitiated groundwater monitoring activities in March 2012 as part of the SR-132 Project. To date, Geocon completed bi-monthly groundwater monitoring events in March, May, July, September and November 2012, and January and March 2013. Beginning with the recent monitoring event conducted in June 2013, groundwater monitoring is being performed on a quarterly basis.

Upgradient wells MW-9 and MW-10 immediately south of Kansas Avenue and west and east of SR 99 were installed and incorporated into subsequent sampling events beginning in June 2012. The results of the 2012 and 2013 groundwater monitoring events are similar to those of the 2006 monitoring events. The COPCs are at concentrations less than California MCLs.

3.0 REMEDIAL ACTION OBJECTIVE

Site characterization revealed the presence of COPCs in soil at the Site. This section summarizes Shaw's evaluation of COPC concentrations through an HHRA, describes the update of the HHRA using 2012 data, describes the Remedial Action Objective (RAO) for the Site, discusses the ARARs related to remediation, and states the cleanup goal for the project.

3.1 Summary of the 2007 HHRA

The 2007 HHRA is included as Appendix A of the PEA (Shaw, 2009). The risk characterization in the HHRA integrated the selected COPCs, exposure assessment, and toxicity assessment to describe risks to individuals (receptors) in terms of the nature and likelihood of potential adverse health risks for current and future land uses. Shaw's risk characterization integrated exposure intakes and toxicity values to estimate both cancer risk and non-cancer health effects for the various land use scenarios. Using the available soil data from the investigations of the stockpiles and the assumptions described in the HHRA, the HHRA indicated that neither the current land use nor the proposed future land use scenario pose an unacceptable risk or hazard to Caltrans workers entering the Site for mowing, for trespassers, or for adjacent residents. Additionally, the estimated non-cancer hazard index (HI) for a hypothetical groundwater user is less than the threshold of concern. Therefore, based on the available data, neither soil nor groundwater at the Site is considered to present an unacceptable risk or hazard under the receptor scenarios evaluated in the HHRA.

Three groups of receptors are considered in the HHRA – a current offsite resident/trespasser, a future construction worker, and a future (during construction) offsite resident. The estimated cancer risk, non-cancer HIs, and blood lead concentrations for each receptor group are summarized in the following subsections.

3.1.1 Current Offsite Resident and Trespasser

The 2007 HHRA evaluated the current offsite resident and trespasser for exposure to the COPCs in soil of Stockpile 1 through incidental ingestion, dermal contact, and dust inhalation. The exposure pathway for the offsite resident would mainly be via inhalation while the trespasser could be exposed through all three pathways. The calculated cancer risk and non-cancer HI for the current offsite resident and trespasser receptors exposed to surface soil on Stockpile 1 is $8E-8$ and $4E-2$, respectively. The estimated excess cancer risk of $8E-8$ is much less than the generally used, conservative criterion of $1E-6$ (one in one million excess cancer risk) and the estimated HI for non-cancer effects is well below the threshold of 1.

The health risk related to lead in Stockpile 1 estimated in the HHRA uses the maximum detected concentration of lead in Stockpile 1 surface soil in the LeadSpread model. LeadSpread did not indicate that an offsite resident or trespasser would have a blood lead concentration greater than 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) in the 95th or 99th percentile. Therefore, lead in surface soil of Stockpile 1 does not pose an unacceptable hazard to a current resident/trespasser.

The calculated cancer risk and non-cancer HI for the offsite resident/trespasser receptor exposed to surface soil on Stockpile 2 is reported in the 2007 HHRA as $1\text{E}-5$ and 0.1, respectively. While the total estimated non-cancer HI is below the threshold of 1, the total estimated cancer risk exceeds the general risk target of $1\text{E}-6$ for residential exposures. This cancer risk estimate was driven by the large contribution from arsenic in surface soil. The arsenic cancer risk estimate is $1.45\text{E}-5$ for the offsite resident/trespasser based on the 95th percentile UCL of arsenic in Stockpile 2 of 1.63 mg/kg. However, the background arsenic 95th percentile UCL of 1.15 mg/kg resulted in an estimated cancer risk of $1.15\text{E}-5$, which is very similar to that for arsenic in Stockpile 2. Therefore, arsenic in surface soil of Stockpile 2 is not included in the final total risk estimate for Stockpile 2. The revised cancer risk estimate, with arsenic excluded, is $1\text{E}-7$. Additionally, the estimated HI for non-cancer effects is below the threshold of 1. Therefore, surface soil from Stockpile 2 does not pose an unacceptable risk or hazard to a current resident/trespasser receptor.

The assessment of health risk related to lead in Stockpile 2 as reported in the 2007 HHRA uses the 95th percentile UCL for lead in Stockpile 2 surface soil of 30 mg/kg. The results indicate that all percentiles of adults and children would have blood lead concentrations less than 10 $\mu\text{g}/\text{dL}$. Therefore, lead in Stockpile 2 surface soil does not represent an unacceptable hazard.

Shaw evaluated the current offsite resident/trespasser for exposure to COPCs in soil of Stockpile 3 through incidental ingestion, dermal contact, and dust inhalation. The COPCs in Stockpile 3 surface soil are not considered to be carcinogens; therefore, they were not estimated as a cancer risk. The estimated non-cancer HI for the offsite resident/trespasser receptor exposed to surface soil on Stockpile 3 was 0.02, which is well below the threshold of 1.

Shaw also evaluated the health risk related to lead in Stockpile 3 using the 95th UCL for lead of 6.7 mg/kg in the LeadSpread model. LeadSpread did not indicate that offsite residents or trespassers would have a blood lead concentration greater than 10 $\mu\text{g}/\text{dL}$. Therefore, lead in surface soil of Stockpile 3 does not pose an unacceptable hazard to a current resident/trespasser.

3.1.2 Future Construction Worker

Shaw evaluated the future construction worker receptor for exposure to COPCs in soil in the future construction soil zone (depths of 0 to 20 feet) through incidental ingestion, dermal contact, and dust inhalation. The cumulative excess lifetime cancer risk was calculated as $9.2\text{E}-7$, which is below the $1\text{E}-6$ cancer risk criterion. The cumulative non-cancer HI was calculated to be 0.4, which is less than the threshold of 1.

Shaw also evaluated the health risk related to lead using the 95th percentile UCL for lead in the future construction soil zone of 54 mg/kg. The results indicate that blood lead concentrations would be less than 10 µg/dL for the pica child. Because the pica child exposure is more conservative than a construction worker's exposure, it is presumed that a construction worker would not have an unacceptable exposure either. Therefore, lead in soil is not considered to pose an unacceptable hazard to construction workers.

3.1.3 Future Offsite Resident

Shaw evaluated the future offsite resident for exposure to COPCs in dust produced from the future construction work (estimated to include 60 days of construction). The excess lifetime cancer risk was calculated to be 6E-10, which is well below the 1E-06 cancer risk criterion. The calculated cumulative non-cancer HI of 0.017 is also well below the threshold of 1.

Shaw also evaluated the health risk related to lead using the LeadSpread model, which indicated that an onsite pica child exposed to the 95th UCL lead concentration would not exceed 10 µg/dL. Shaw indicated that because the offsite resident would only be potentially exposed to soil through dust during the proposed future construction work, the estimated blood lead concentration would be much less than that estimated for the pica child. Additionally, the default lead in respirable dust concentration is 1.5 micrograms per cubic meter (µg/m³) in the LeadSpread model. As calculated using the maximum lead concentration of 1,500 mg/kg from soil (from depths of 0 to 20 feet) multiplied by the offsite dust concentration of 9.95E-8 kilograms per cubic meter (kg/m³), the resulting respirable dust concentration is 0.15 µg/m³, well below the default value.

3.1.4 Hypothetical Future Shallow Groundwater User

Shaw evaluated the health risk for a hypothetical future user of shallow groundwater beneath the Site. According to the results of a well survey, no one within a 1-mile radius is using the shallow aquifer as a source of drinking water. Shaw calculated health risks from ingestion and dermal contact using the maximum detected concentrations (MDC) from two groundwater sampling events in 2006 as the exposure-point concentrations (EPC). The resulting cumulative noncancer hazard estimate is 0.9, less than the threshold of 1. For lead, the maximum concentration detected in a groundwater sample was 3.4 µg/l, which is less than the Federal action level of 15 µg/l. Therefore, lead in groundwater does not appear to present an unacceptable hazard.

3.2 HHRA Update

Geocon updated the 2007 HHRA by incorporating soil analytical data generated from the fenceline, perimeter, and stockpile sampling as presented in the revised *Supplemental Site Investigation* dated March 1, 2013, and groundwater analytical data generated from bi-monthly sampling events. The COPC EPCs that Shaw utilized in the 2007 HHRA were compared to the supplemental soil data

collected in September 2012 and groundwater data collected between March 2012 and March 2013. The EPCs utilized in the 2007 HHRA are the MDCs for the selected COPCs for each exposure scenario with the exception of the Stockpile 2 Current Exposure Assessment which utilized the 95th percentile UCLs for the selected COPCs. This information was used to evaluate the validity of the 2007 HHRA cancer risk and non-cancer hazard estimates. The following sections summarize the EPC comparisons and risk/hazard evaluations for each exposure scenario.

3.2.1 Stockpile 1 Current Exposure Assessment

Eight metals (barium, beryllium, chromium, cobalt, copper, lead, mercury and nickel) reported for five surface soil samples from the 2006 SI were used as the COPCs for Stockpile 1 in the 2007 HHRA. The MDCs for these metals detected in surface soil samples collected from the September 2012 Fenceline Borings and Perimeter Borings (first values in brackets) are slightly higher as compared to the 2007 HHRA EPCs (second values in brackets) with relative concentrations as follows: barium (240 vs. 130 mg/kg), copper (24 vs. 13 mg/kg), and lead (17 vs. 12 mg/kg). Zinc was detected at an MDC of 120 mg/kg in the 2012 surface soil samples, exceeding the background MDC of 44 mg/kg. Cadmium was detected in one 2012 surface soil sample at 0.26 mg/kg, slightly above the reporting limit of 0.25 mg/kg and less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in each 2012 surface soil sample with an MDC of 61 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of 8E-8 and 0.04, respectively, for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 1. Because the 2012 metal concentrations are of the same order of magnitude as those used in the 2007 HHRA and that none of the 2012 metal detections exceeded respective residential CHHSLs or RSLs, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 1. The 2007 HHRA calculated excess cancer risk is orders of magnitude less than the conservative criterion of 1E-6 and the estimated non-cancer HI is orders of magnitude less than the threshold of 1.

3.2.2 Stockpile 2 Current Exposure Assessment

The 95th percentile UCLs for seven metals (arsenic, barium, copper, lead, molybdenum, nickel and zinc) detected in 33 surface soil samples collected during the 2006 SI were selected as the COPCs for Stockpile 2 in the 2007 HHRA. The 2007 HHRA also used the MDC for chromium (divided as chromium III and VI). Of these metals, barium, copper and zinc were detected at higher concentrations in the surface soil samples collected from the September 2012 Fenceline and Perimeter Borings compared to the concentrations detected in the 2006 SI and used in the 2007 HHRA. Specifically barium had an MDC of 4,300 mg/kg in the 2012 samples vs. 1,100 mg/kg for the 2006 SI, copper had an MDC of 41 mg/kg in 2012 vs. 29 mg/kg in 2006, and zinc had an MDC of 200 mg/kg in 2012 vs. 89 mg/kg in 2006.

Cadmium was detected in one 2012 surface soil sample at 0.42 mg/kg, which is less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in each of the 2012 surface soil samples, with an MDC of 110 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of $1E-7$ (background arsenic not considered) and 0.1, respectively, for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 2. Because the 2012 metal concentrations are the same order of magnitude as those used in the 2007 HHRA, and none of 2012 metal detections exceeded respective residential CHHSLs or RSLs, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 2. The 2007 HHRA calculated excess cancer risk is less than the conservative criterion of $1E-6$, and the estimated non-cancer HI is an order of magnitude less than the threshold of 1.

3.2.3 Stockpile 3 Current Exposure Assessment

Shaw selected the MDCs for three metals (barium, lead and molybdenum) reported for 13 surface soil samples from the 2006 SI as the COPCs for Stockpile 3. Of these metals, barium (1,600 vs. 250 mg/kg) and lead (34 vs. 12 mg/kg) were detected at higher levels in the surface soil samples obtained from the September 2012 Fenceline Borings and Perimeter Borings (first values in brackets) compared to the 2007 HHRA EPCs (second values in brackets). Copper and zinc were further detected at maximum concentrations of 17 and 190 mg/kg, respectively, in the 2012 surface soil samples, which exceed the respective background MDCs of 11 and 44 mg/kg. Cadmium was detected in four 2012 surface soil samples at a MDC of 0.78 mg/kg, less than the residential CHHSL of 1.7 mg/kg. Strontium was detected in all but one of the 2012 surface soil samples with an MDC of 100 mg/kg.

The 2007 HHRA calculated a current non-cancer hazard estimate of 0.02 for the offsite resident/trespasser receptor exposed to surface soil at Stockpile 3. Shaw considered one of the COPCs for Stockpile 3 to be a carcinogen, and therefore they calculated no cancer risk. Based on the 2012 metal concentrations being the same order of magnitude as those used in the 2007 HHRA, the lack of any 2012 metal detections exceeding respective residential CHHSLs or RSLs, and the estimated non-cancer HI being orders of magnitude less than the threshold of 1, the 2007 HHRA risk and hazard calculations for the current resident/trespasser remain valid for Stockpile 3.

3.2.4 Stockpiles 1 through 3 - Future Construction Worker and Offsite Resident

The MDCs for ten metals (arsenic, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc) reported for 165 soil samples from the 2006 SI as the COPCs for Stockpiles 1 through 3 and the PAH benzo(a)pyrene as a COPC were used in the 2007 HHRA. The metals barium (130,000 vs. 72,000 mg/kg), copper (41 vs. 29 mg/kg), and zinc (200 vs. 110 mg/kg) were detected at higher concentrations in the soil samples obtained from the September 2012 Fenceline Borings and Cadmium Borings (first values in brackets) as compared to the 2007 HHRA EPCs (second values in

brackets). The calculated 95th percentile UCL for the 2012 barium data is 7,556 mg/kg, significantly less than the MDC of 130,000 mg/kg and the EPC of 72,000 mg/kg used in the 2007 HHRA. Strontium was detected in all but one of the 2012 soil samples with an MDC of 270 mg/kg.

The 2007 HHRA calculated current cancer risk and non-cancer hazard estimates of $9.2E-7$ and 0.4, respectively, for the construction worker receptor exposed to soil at Stockpiles 1 through 3. The calculated current cancer risk and non-cancer HI were $6E-10$ and 0.017, respectively, for the future offsite resident receptor exposed to soil at Stockpiles 1 through 3. Based on the conservative approach of using MDCs of each metal versus the 95th percentile UCLs, the 2007 HHRA risk and hazard calculations for future conditions for construction workers and offsite residents remain valid for Stockpiles 1 through 3. The 2007 HHRA calculated excess cancer risks is order(s) of magnitude less than the conservative criterion of $1E-6$, and the estimated non-cancer HI is significantly less than the threshold of 1.

3.2.5 Onsite Shallow Groundwater

The MDCs for twelve metals (barium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, silver, vanadium and zinc) reported for groundwater samples collected in June and October 2006 were identified as the COPCs for evaluation of the hypothetical shallow groundwater user. The maximum 2006 metal concentrations were reported for samples obtained from wells MW-5 and MW-6. Of these metals, cobalt (5.3 vs. 3.0 $\mu\text{g/l}$), copper (7.4 vs. 6.2 $\mu\text{g/l}$), manganese (290 vs. 260 $\mu\text{g/l}$), nickel (9.6 vs. 7.1 $\mu\text{g/l}$), selenium (4.4 vs. 3.0 $\mu\text{g/l}$), vanadium (42 vs. 34 $\mu\text{g/l}$) and zinc (120 vs. 15 $\mu\text{g/l}$) were detected at slightly higher concentrations in the 2012 groundwater samples (primarily from upgradient well MW-10) compared to the 2007 HHRA EPCs. Strontium was detected in all of the 2012 groundwater samples with an MDC of 1,400 $\mu\text{g/l}$.

The 2007 HHRA calculated a current non-cancer HI for the hypothetical shallow groundwater user at 0.9. None of the selected groundwater COPCs are considered to be carcinogens and therefore the 2007 HHRA did not calculate a cancer risk. Based on the similar metals data with the majority of the higher concentrations reported for samples collected from upgradient well MW-10, and the estimated non-cancer HI being less than the threshold of 1, the 2007 HHRA risk and hazard calculations for the hypothetical groundwater user remain valid.

3.2.6 HHRA Update Summary

The 2007 HHRA conservatively utilized MDC or 95% UCL soil and groundwater COPC concentrations obtained during the Shaw 2006 SI and groundwater monitoring events. The comparison of these EPCs to the 2012 soil and groundwater data collected at the Site indicates that the 2012 soil and groundwater data is similar to the 2006 data utilized in the 2007 HHRA and do not significantly increase the conservative cancer risk and non-cancer HIs. The 2007 HHRA remains valid with respect to exposure potential for the current resident/trespasser, future construction worker and offsite resident, and hypothetical shallow groundwater user at the Caltrans Modesto Soil Stockpile Site.

The DTSC commented on the HHRA update in a letter dated February 15, 2013, which included a memorandum from the Human and Ecological Risk Office (HERO) dated February 14, 2013. The HERO memorandum stated: *“the soil stockpiles do not pose a cancer risk or noncancer hazard to persons in the vicinity of these stockpiles as long as the stockpiles remain in place and are properly managed. The evaluation presented here is based on concentrations measured in surface soil. There are areas in the stockpiles with elevated concentrations of chemicals at depths greater than one foot below ground surface. Therefore, if there is substantial grading or reworking of the stockpiles or if the stockpiles are removed, these elevated concentrations at depth will have to be evaluated with respect to the potential for exposure by residents living adjacent or near the stockpiles during the period when the soil is being moved.”* Being “properly managed” implies that Caltrans would continue the current management which includes: maintaining fencing and signage around the stockpiles thereby limiting access to the stockpiles, not disturbing or exposing soil in the stockpiles, maintaining vegetative cover to reduce potential wind and rain soil erosion and transport off-site (i.e. soil dust transport from wind and sediment laden surface water runoff), mowing the vegetative cover to minimize fire danger, and groundwater and stormwater runoff monitoring.

In a letter dated April 4, 2013, DTSC stated their concurrence with the findings of the HHRA Update as follows: *“DTSC concurs with reports titled “SSI, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California” (Geocon, March 1, 2013) and “HHRA Update, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California.”*

3.3 Remedial Action Objective

RAOs are medium or site-specific goals for protecting human health and the environment. RAOs are developed as a basis for evaluating the ability of remedial alternatives to comply with ARARs and to protect human health and the environment.

As summarized in Sections 3.1 and 3.2, the 2007 HHRA found that potential exposure to COPCs in surface soil of the stockpiles under the current land use and proposed future land use scenarios does not pose an unacceptable risk or hazard. Additionally, the hazard for a hypothetical future groundwater user is less than the threshold of concern. The update to the 2007 HHRA supported these findings and conclusions and the DTSC concurred with the HHRA update under the condition that the stockpiles be properly managed and potential receptors not be exposed to COPCs in deeper soil within the stockpiles. The potential for the stockpiles to impact groundwater from a water quality degradation standpoint remains a concern of the CVRWQCB.

Therefore, the RAOs for the Site are to protect the health of neighboring residents, onsite trespassers, and Caltrans-authorized personnel and prevent future impact to groundwater by managing the stockpiles either in-place or by removing them from the Site. General response actions (GRA) to accomplish the RAOs are discussed in Section 4.0.

3.4 ARARs

ARARs are used to determine the extent of site cleanup and govern the implementation and operation of the selected action. ARARs are necessary to establish RAOs in order to support subsequent remediation alternatives screening. ARARs consist of three categories.

- Chemical-specific ARARs are either health or environmentally based numerical values or methodologies limiting the amount of a contaminant that may be released to or allowed to remain in the environment during and upon successful completion of a remedial action, including establishing cleanup levels for soil or groundwater at an affected site. Examples include drinking water MCLs and waste classification thresholds.
- Action-specific ARARs are remedial, technology, or activity based requirements or limitations on specific remedial actions at a site. Examples include prohibitions or restrictions for the discharge of chemicals or contaminants to the air, water, or soil and the proper transfer, treatment, or storage of chemicals and contaminants.
- Location-specific ARARs are restrictions or prohibitions placed on remedial actions at a given location due to features, such as a flood plain, wetland, sensitive ecosystem, seismic, or historic area. Examples include the National Historic Preservation Act and Endangered Species Act.

Additionally, "To Be Considered" (TBC) standards are non-promulgated advisories or guidance issued by Federal or State agencies that complement ARARs. Both the USEPA and DTSC have guidance materials. For example: USEPA has guidance on assessing risk and identifying preliminary remediation goals including *the Human Health Evaluation Manual (Parts A & B) Risk Assessment Guidance for Superfund* and Regional Screening Levels, and the California Environmental Protection Agency/DTSC has *Supplemental Guidance for Human Health Risk Assessment* and California Human Health Screening Levels.

3.4.1 Summary of State and Federal ARARs

Applicable requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically apply to cleanup at a site. The process for determining applicable standards is set forth in Section 121(d) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In part, CERCLA states that the more stringent of State or Federal requirements will apply to cleanup sites. Typically, California requirements are more stringent than Federal requirements.

Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that, while not applicable, address problems or circumstances similar to those found where the proposed removal action will be performed, and are well suited to the conditions of the cleanup site. Requirements that are determined to not be legally applicable are evaluated to determine whether they are relevant and appropriate. A requirement must be both relevant and appropriate to be an ARAR. Criteria for determining relevance and appropriateness are listed in Part 40, Code of Federal Regulations (CFR) Section 300.400(g)(2).

According to CERCLA ARAR guidance, requirements may be “applicable” or “relevant and appropriate,” but not both. ARARs are identified on a site-specific basis, using a two-part analysis to determine first if a requirement is applicable, and then, if not applicable, whether it is both relevant and appropriate. Based on CERCLA ARAR guidance, an ARAR qualifies as a State ARAR if it meets the following requirements:

- It is a State law;
- It is an environmental, or facility siting law;
- It is promulgated, and thus generally applicable and legally enforceable;
- It is substantive rather than procedural or administrative;
- It is more stringent than the Federal requirement;
- It is identified in a timely manner; and
- It is consistently applied.

3.4.2 ARARs for Remediation of the Stockpiles

Table 1 is a compilation of ARARs for remediation of the stockpiles.

3.5 Cleanup Goals

Cleanup goals are numerical or performance-based goals to which a cleanup (remedial) action can be compared to determine when the action has been performed to an extent that it can be considered complete. Numerical-based goals are quantitative limits (units of concentrations, volumes, etc.) that a cleanup action must meet in order to be considered complete. An example of a numerical-based goal is a COC concentration in affected media (e.g., soil, soil vapor, groundwater, surface water, air) that has been determined to represent an acceptable health risk or other regulatory level and which cleanup must achieve in order to be considered complete. A performance-based goal is an action such as removal, capping, or treatment which a cleanup action must achieve in order to be considered complete. An example of a performance-based goal would be the placement of a one-foot-thick layer of clean soil over an area of contaminated soil to minimize potential exposure to COCs in the soil.

The HHRA demonstrated that the excess cancer risk related to exposure to COCs in surface soil of the stockpiles is orders of magnitude less than the conservative criterion of 1E-6, and the non-cancer HI is orders of magnitude less than the threshold of 1. The DTSC concurred with the findings of the HHRA and HHRA update under the condition that the stockpiles continue to be properly managed and not graded or reworked to expose COCs in deeper soil within the stockpiles.

Based on the current level of health risk and stockpile management practices, it is not necessary to achieve a numerical-based cleanup goal to be protective of human health. Therefore, the cleanup goal for the project will be performance-based to assure that there is no route of exposure to COCs in the stockpiles and to reduce the potential threat to groundwater. The GRAs which could be implemented to manage the stockpiles are discussed in Section 4.0. The remedial action that was selected by the FS will be implemented with DTSC and CVRWQCB oversight, and these agencies will provide a final determination as to when the action is complete.

4.0 SUMMARY OF FEASIBILITY STUDY

This section summarizes the FS which was performed to evaluate potentially applicable remedial actions (“alternatives”) for the stockpiles. The FS process selected the most appropriate alternative through an evaluation of alternatives against nine qualifying criteria. A draft FS was submitted to the DTSC and CVRWQCB for their review and comment. The FS was approved by the DTSC and CVRWQCB on (date).

4.1 Identification and Screening of Technologies

In accordance with the USEPA’s CERCLA *Guidance for Conducting Remedial Investigations and Feasibility Studies* (USEPA, 1988) the FS first considered GRAs that could be implemented to address the stockpiles. GRAs are general remedial action categories such as institutional controls, removal, containment, treatment, and reuse/recycling/reclaim. Under CERCLA, evaluation of a “no action” alternative is also required for comparison purposes. The FS then evaluated remedial technologies that could be implemented for each GRA and lastly, process options for each technology. “Process option” is a CERCLA term used for technologies that are being pre-screened. The potential for a process option to treat the stockpiles and to achieve the RAO was evaluated, as were the potential impacts on human health and the environment during implementation of the process option.

The FS then screened potentially applicable remedial technology process options against the criteria of effectiveness, implementability, and cost. The following table lists the GRAs, remedial technologies, and process options that were evaluated in the FS.

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Evaluation of General Response Actions and Process Options for the Caltrans Modesto Soil Stockpiles

Soil Specific General Response Actions	Remedial Technology	Process Option	Effectiveness	Implementability	Cost	Screening Comments
No Action	None	Not applicable	Does not meet RAO and does not reduce toxicity, mobility, or volume of contaminants.	Readily implementable as no actions are required.	negligible to very low	Retained as required by NCP
Institutional Controls	Governmental and Administrative Controls	Deed restrictions and covenants	Contaminant mass unchanged. Establishes land use restrictions and limitations protective of human health.	Readily implementable with most of the activities being performed by DTSC.	Low capital and O&M costs	Potentially applicable (deed restriction and covenants) in combination with other response actions. Retained.
	Access Restrictions	Physical barrier and access control	Contaminant mass unchanged. Prevents unauthorized access to protect human health.	Readily implementable as fencing is currently maintained around the Site.	Low capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Informational	Signage, public notices	Contaminant mass unchanged. Signage and notices raise public awareness.	Readily implementable at the Site and will be maintained	Low capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Monitoring	Air monitoring	Contaminant mass unchanged. Monitors airborne COC's.	Implementable	Low to moderate capital and O&M costs	Air is not a medium of concern for the final remedy, but is a short-term concern during construction so retained for consideration with other options.
		Site monitoring	Contaminant mass unchanged. Documents physical conditions of Site.	Readily implementable as this is currently ongoing at the Site.	Low to moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
		Groundwater monitoring	Contaminant mass unchanged. Documents groundwater conditions/quality surrounding Site.	Readily implementable as this is currently ongoing at the Site.	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
Removal	Excavation, loading, transport, disposal	Off-site landfill	Physical removal of contaminant mass. Nullifies mobility.	Implementable	Prohibitively high capital costs; negligible O&M costs	Potentially applicable. Retained.
Containment	Runoff/infiltration controls	Grading	Contaminant mass unchanged. Directs, collects, and transmits runoff away from Site. Decreases infiltration and contaminant mobility.	Readily implementable	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
		Revegetation	Contaminant mass unchanged. Decreases erosion. Decreases soil moisture content via increased evapotranspiration. Decreases contaminant mobility.	Readily implementable	Moderate capital and O&M costs	Potentially applicable in combination with other response actions. Retained.
	Capping	Encapsulation beneath highway structures	Contaminant mass unchanged. Contains and isolates contaminants. Effectively eliminates contaminant mobility.	Readily implementable	Moderate to high capital and moderate O&M costs	Potentially applicable. Retained.
		Encapsulation beneath a vegetated clean soil layer	Contaminant mass unchanged. Contains and isolates contaminants. Effectively eliminates contaminant mobility.	Readily implementable	Moderate to high capital and moderate O&M costs	Potentially applicable. Retained.
Treatment	Chemical Treatment	Soil Washing	Potentially effective in reducing mobility and volume of contaminants. Treatment of liquid waste stream would be required.	Difficult to implement due to volume and location near residences	High capital costs for the volume of soil	Not retained after initial screening
		Soil Mixing	Potentially effective in reducing contaminant mobility; would increase volume of waste.	Difficult to implement due to volume and location near residences	High capital costs for the volume of soil	Not retained after initial screening
Reuse, Recycle, and /or Reclaim	Reuse at offsite location	Off-site non-landfill placement as fill	Would be effective in reducing mobility of contaminants for the Site, but would just transfer issues and concerns to another property.	Not implementable due to hazardous waste levels in soil.	Not applicable	Not retained after initial screening

Notes:
 Shaded Cells = Shaded cells represent process technology options that were not retained after initial screening.
 NCP = National Oil and Hazardous Substance Pollution Contingency Plan
 O&M = Operations and Maintenance
 RAO = remedial action objective

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The criteria for screening the applicable technologies and process options are as follows:

- Effectiveness - the degree to which an alternative reduces the toxicity, mobility, or volume of COPCs; complies with ARARs; minimizes short-term impacts and residual risks, and provides long-term, overall protection of human health and the environment; and how quickly the alternative accomplishes these benefits.
- Implementability - the technical feasibility and availability of the technologies and the administrative feasibility of implementing an alternative.
- Cost - the cost of construction, operation, and maintenance of an alternative.

Response actions, technologies, and process options that did not satisfy the RAO and/or were not consistent with the three evaluation criteria were not retained for further consideration and analysis. Through the screening process the following alternatives were retained for further evaluation:

- Alternative 1 - no action,
- Alternative 2 - institutional controls,
- Alternative 3 - removal, and
- Alternative 4 - containment.

The treatment and reuse/recycle/reclaim alternatives were not retained for further evaluation because of difficulties with implementability (i.e., amount of soil that would require treatment, space considerations, noise, effectiveness, etc.) and cost. Elimination of the treatment and reuse/recycle/reclaim options is supported by the DTSC's *Proven Technologies and Remedies (PTR) Guidance, Remediation of Metals in Soil* (DTSC, 2008), which eliminates these and other technologies from further evaluation based on DTSC's extensive experience on projects where metals are the primary COPC. The DTSC reviewed technologies that have been implemented for remediation of metals in soils at 188 sites and found that, while technologies such as stabilization, vitrification, metallurgical separation, soil flushing, soil washing, and other treatment processes have been implemented, "containment by capping" and "excavation and offsite disposal" were by far the most frequently implemented cleanup alternatives. The Site also has the necessary characteristics that make it favorable for a streamlined screening of technologies including:

- primarily metals contamination – the primary COPC is barium,
- no emergency actions required,
- contamination less than 15 feet deep – the stockpile soil and associated COPCs are all above natural grade,
- low potential for surface water impact,
- metals in immobile form – barium is in the form of barite which has a low solubility,
- low potential for groundwater impact – COPC concentrations in groundwater are less than water quality goals (MCLs), and
- no ecological habitat or sensitive receptors impacted.

We retained institutional controls for further evaluation because the stockpiles are essentially being managed under institutional controls now and if the SR-132 Project were not built, continued management of the stockpiles through institutional controls is an alternative to be considered for the stockpiles.

4.2 Identification of Alternatives for Soil

Each of the alternatives that were retained for further evaluation is summarized in the following subsections.

4.2.1 Alternative 1 - No Action

Under this alternative the stockpiles would remain in place and not be disturbed. There would be no excavation, alteration, or removal of soil from the stockpiles. In essence, the SR-132 Project would not be constructed and the stockpiles not utilized as embankment fill as intended. Additionally, under the no action alternative, site control, maintenance, and monitoring activities would be discontinued.

However, as long as Caltrans continues to own and control the property as State ROW they would continue to maintain the perimeter fence and continue restricting access to Caltrans-authorized personnel. Therefore, the most likely site occupant would be a trespasser. The 2007 HHRA and recent update to the HHRA concluded that the concentrations of COPCs in the stockpiles do not pose an unacceptable level of health risk to an onsite trespasser. Therefore, no action could be considered protective of human health as long as land use remains the same and access is restricted.

No Action Alternative Summary

No action would be the least effective alternative as it would not reduce the contaminant mass or the potential of the COPCs to impact surface water or groundwater quality. This alternative would not meet the RAO and therefore would not be acceptable to the regulatory agencies and likely not be acceptable to the community either. It is implementable because no activities would be performed and there is no cost associated with this alternative.

4.2.2 Alternative 2 – Institutional Controls

Technologies considered for the stockpiles under institutional controls included:

- governmental and administrative controls;
- site-access restrictions;
- informational and/or communication devices; and
- monitoring.

Although no reduction in the toxicity or volume of COPCs would result from the implementation of institutional controls as the remedial alternative for the stockpiles, implementation in conjunction with other remedial actions could achieve the RAO. As described in Section 3.3, the RAO for the

stockpiles is to further protect human health by minimizing or eliminating receptor exposure routes and significantly reduce potential impacts to soil, surface water, or groundwater by isolating and encapsulating the stockpile soil as structural fill within the SR-132 Project.

Governmental and Administrative Controls

Governmental and administrative controls use the regulatory authority of a government entity to impose restrictions under its jurisdiction, custody, or control. The process option considered for governmental and administrative controls is deed restrictions and covenants that limit land uses to those that have less potential for exposure based on the nature of the development and the types of site occupants/users associated with the acceptable land uses. Governmental and administrative controls may be used in conjunction with other remedial technologies. This process option may provide some limitations on the present and future land use; however, the stockpiles would remain at the Site in their current condition. No technical issues exist that would adversely affect the feasibility of implementing this process option. The cost to implement and ongoing operations and maintenance (O&M) costs are considered to be negligible-to-low.

Site Access Restrictions

This technology consists of one process option: maintaining the existing physical barrier to site access (fencing) with controlled access to Caltrans-authorized personnel only. This option will minimize human receptor contact with COPCs in the soil.

Fencing and access control can be effective in mitigating exposure to COPCs, but does not reduce toxicity or volume. Ongoing O&M would be required to ensure continuing effectiveness. There are no technical issues that would adversely affect the feasibility of implementing this process option. However, site-access restrictions may not effectively deter all trespassers. This process option may not receive community acceptance. Capital and O&M costs associated with this process option are considered low.

Informational and Communication Devices

Informational and communication devices include posting advisories (signage) at the Site, deed notices, public awareness meetings, and fact sheets to inform the public about potential risks at the Site. It is difficult to ensure that informational and/or communication devices will be effective in reducing exposure to COPCs in the stockpiles as not all members of the community may receive the information and, as may be the case with access restrictions, communication of risks still may not deter trespassing.

Monitoring

The various process options for the monitoring technology include monitoring of air, groundwater, stormwater, and site conditions. Each of these process options is described below.

Air Monitoring - Monitoring of COPCs in ambient air could be performed in combination with other institutional controls as well as other technologies such as removal and containment. The stockpiles are

vegetated with seasonal grasses and, as a result, airborne dust has not been an issue to date. Therefore, air monitoring in combination with other types of institutional controls would not provide further protection of human health. Air monitoring would be performed in combination with remedial technologies that involve disturbing soil in the stockpiles such as excavation for removal or grading for containment to ensure that dust control measures are being effectively implemented and confirm a negative, short-term exposure for workers and nearby residents. Air monitoring when implemented in this manner would be an effective process option.

Groundwater Monitoring - Groundwater monitoring currently consists of quarterly groundwater elevation measurement in and groundwater sample collection from ten wells, laboratory analysis of samples, and reporting. As with air monitoring, groundwater monitoring could be performed in combination with other institutional controls as well as other technologies such as removal and containment. If institutional controls were implemented, the long-term effect of the stockpiles on groundwater quality would likely need to continue to be monitored. Similarly, if containment was implemented, groundwater monitoring would likely be required for some period to assess the effects of containment on groundwater quality. Groundwater monitoring would likely not be required following removal of the stockpiles.

Stormwater Monitoring - Stormwater monitoring has been conducted and would continue as long as the stockpiles or portions of them are exposed to precipitation.

Site Conditions Monitoring - Monitoring of site conditions has been ongoing and would continue in combination with other institutional controls or the containment GRA. Site conditions monitoring currently consists of fence inspection, repair, and maintenance, and mowing of the grass cover on the stockpiles to reduce fire danger and would continue as such under the institutional controls GRA. Site conditions monitoring would also be continued with the containment GRA during the interim progress phase where not all of the stockpiles are isolated and encapsulated beneath roadways and behind retaining walls, but are temporarily covered with a vegetated, clean soil layer.

Institutional Controls Alternative Summary

The DTSC has indicated that the stockpiles in their current condition do not pose an unacceptable risk to human health based on continued management of the stockpiles. Management consists of: limiting access to only Caltrans-authorized personnel, regularly inspecting and maintaining the chain-link fence, prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site, and maintaining the current vegetative cover. DTSC also stated that Caltrans should continue to maintain the groundwater monitoring program for the Site. These management activities and site conditions constitute institutional controls and they would be effective in meeting the RAO.

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

4.2.3 Alternative 3 - Removal

This alternative consists of complete removal of the stockpiles from the project area and disposal of the soil in an approved, offsite waste disposal facility or facilities. This alternative would require that soil confirmation sampling and analysis be conducted in an effort to confirm that the stockpiled soil had been adequately removed. Implementation of this alternative would necessitate that a volume of clean fill material similar to that removed be imported to the project area for construction of the SR-132/SR-99 interchange embankments. Under this alternative, groundwater monitoring would likely be discontinued; however, the timing of the cessation of groundwater monitoring would be determined in concert with the DTSC and CVRWQCB.

Removal of the stockpiles would reduce COPC mobility, toxicity, and volume for the Site, thereby eliminating routes of exposure for any future land use on the Site. Engineering controls and air monitoring would be used to limit exposure to onsite workers during excavation and loading of soil. During excavation, air would be monitored to confirm that dust suppression methods (water spray) are effective in preventing airborne dust so that workers and offsite residents would not be exposed to COPCs or dust particulates.

There are no significant barriers to implementing this process option administratively. However, this option would require that the removed soil be replaced by importing an even larger volume of clean fill soil in order to construct the SR-132 Project.

Removal Alternative Summary

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the DTSC, CVRWQCB, and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four. This alternative could be performed in compliance with State and Federal requirements. Although technically implementable, removal is the least implementable of the four alternatives because the stockpiles would have to be replaced with an even greater amount of

clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

4.2.4 Alternative 4 - Containment

This alternative consists of isolation and encapsulation (containment) of the stockpiled soil within the SR-132/SR-99 interchange portion of the SR-132 Project by using the stockpiles for embankment fill as originally planned. The interchange project will be constructed in phases such that the interim progress phase, scheduled to be completed in 2018, will cover the approximate southern half of Stockpiles 1 and 2 and reconfigure, consolidate, and cover all of the soil from Stockpile 3. The ultimate build-out phase of the project, to be completed by 2028, will cover the remaining approximate northern half of Stockpiles 1 and 2. Following completion of the interim progress phase and prior to completion of the ultimate build-out phase, the portion of the stockpiles not covered/contained by retaining walls, bridge abutments, slope pavements, and roadway pavement would be maintained as they currently are. Under this alternative groundwater monitoring would likely be continued for a period of time to be determined in concert with the DTSC and CVRWQCB.

If the planned SR-132 Project were not constructed, an alternative form of cap could be installed over the stockpiles. The alternative cap could consist of constructing a layer of clean soil (typically one foot thick) over the stockpiles. Prior to constructing the cap, the surface of the stockpiles would be graded for drainage to ensure primarily that stormwater did not pond on top of the stockpiles. Following construction, the cap surface would be vegetated to protect against stormwater and wind erosion.

Containment Alternative Summary

Containment of the soil by isolation and encapsulation within the SR-132/SR-99 interchange portion of the SR-132 Project (or under an alternative cap if the SR-132 Project was not constructed) will provide the second highest level of protection of human health and the environment of the four alternatives. It will eliminate routes of exposure to COPCs in the soil and minimize the potential for stormwater infiltration. Short-term exposure to COPCs by construction personnel and adjacent residents can be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by isolation and encapsulation of the soil within the project. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to be good as the stockpiles would be used for their originally intended purpose.

4.3 Evaluation of Alternatives

In accordance with CERCLA guidance and the remedial technology screening, four alternatives were retained for further evaluation in the FS:

- Alternative 1 - No action;
- Alternative 2 - Institutional controls;
- Alternative 3 - Removal (excavation and offsite disposal); and
- Alternative 4 - Containment.

Each of these alternatives is described in the following subsections then evaluated against the nine National Contingency Plan (NCP) criteria.

4.3.1 Evaluation Criteria

The nine NCP evaluation criteria used in the FS are as follows:

Threshold Criteria:

1. Overall Protection of Human Health and the Environment
2. Compliance with ARARs

Balancing Criteria:

3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, and Volume through Treatment
5. Short-Term Effectiveness
6. Implementability
7. Cost

Modifying Criteria:

8. Regulatory Acceptance
9. Community Acceptance

Each evaluation criterion is described below. Remedial alternatives for the stockpiles were compared to the first seven of the nine criteria listed. Regulatory and community acceptance were evaluated after the draft FS was finalized and the preferred alternative approved by the DTSC and CVRWQCB. The RAO is stated in Section 3.3, which is to build the SR-132 Project using the stockpiles as embankment fill as originally intended, which in turn will provide a greater degree of protection of human health and the environment than currently exists. Therefore each alternative's attainment of the RAO is presented in the evaluation of Overall Protection of Human Health and the Environment.

Threshold Criteria

Threshold criteria relate to statutory requirements that each alternative must satisfy in order to be eligible for selection.

Overall Protection of Human Health and the Environment. This criterion was used to assess each alternative's ability to protect human health and the environment. The assessment of overall protection describes how risks to human health and the environment are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls. While the HHRA and update to the HHRA found that potential exposure of onsite trespassers and offsite residents to COPCs under the current land use and of construction workers and adjacent residents during construction of the SR-132 Project does not pose an unacceptable risk or hazard, the detailed evaluation still considered potential further reductions in risks to human health and the environment afforded by each alternative.

Compliance with ARARs. This evaluation criterion was used to determine whether each alternative would meet the Federal and State ARARs identified in Section 3. The ability of a remedial alternative to comply with certain ARARs that were identified for the remedial action would depend entirely on the manner in which the remedy is implemented. For evaluation purposes, it was assumed that any remedy selected would be implemented in a manner that would meet these ARARs.

Balancing Criteria

Balancing criteria were used to evaluate the technical aspects of a remedial alternative and include the following:

Long-Term Effectiveness and Permanence. This criterion was used to assess the long-term ability of the remedial alternative to address the threshold criteria by (1) assessing the risk remaining at the site after implementation of the remedial alternative, and (2) evaluating the long-term adequacy and reliability of the remedial alternative, including requirements for management and monitoring.

Reductions in Toxicity, Mobility, and Volume of COPCs. This criterion is used to assess a remedial alternative's ability to reduce the inherent risk of the waste material. Technologies that permanently and significantly reduce toxicity, mobility, or volume are preferred over alternatives that only manage the stockpiles left in place. However, the degree of toxicity, mobility, or volume reduction achieved for the cost to achieve it is heavily weighted. Therefore, technologies that may have a significant effect on one or more of the criteria, but not necessarily all three, are strongly considered. As an example, a major factor to be considered is that the stockpiles were originally placed for construction of the SR-132 Project, which is now nearing implementation. If the stockpiles were to be removed from the Site in an attempt to achieve the greatest possible reduction in toxicity, mobility, and volume of COPCs, the soil would have to be replaced by other clean fill at considerable expense to complete the project. The expense incurred for removal and replacement is not warranted for the degree of protection achieved.

Short-Term Effectiveness. This criterion is used to assess the risks posed to the community, workers, and the environment during the implementation of a remedial action. Measures that would be taken to mitigate these risks will be addressed under this criterion. This criterion also considers the time required to achieve RAO.

Implementability. This criterion is used to assess the technical feasibility (constructability, reliability of technology, operation, and monitoring requirements), administrative feasibility (coordination with other agencies), and availability of services and materials (labor, equipment, and materials) to implement an alternative.

Cost. This criterion is used to assess the anticipated capital and annual O&M and monitoring costs associated with each alternative over a 30-year period. Capital and annual costs in the FS are presented in 2013 dollars. Cost estimates are provided in Tables 2 through 6.

Modifying Criteria

The modifying criteria, regulatory and community acceptance, are as follows:

Regulatory Acceptance. This assessment evaluates the technical and administrative issues and concerns the DTSC and CVRWQCB may have regarding each of the alternatives.

Community Acceptance. This assessment evaluates the issues and concerns the public may have regarding each of the alternatives. These criteria will be addressed after the public comment period for the Draft Final RAP and therefore were not evaluated in the FS.

4.3.2 Evaluation of Alternatives

The four remedial alternatives for the stockpiles were evaluated in the FS with respect to their ability to meet the nine NCP criteria. The detailed evaluation from the FS is in Appendix A.

4.4 Comparative Analysis

The FS included a comparative analysis of the four alternatives which formed the basis for selection of the preferred alternative.

4.4.1 Alternative 1 – No Action

This alternative would provide the lowest level of overall protection of human health and the environment of the four alternatives. The level of protection for the onsite trespasser and offsite resident would remain the same as the current controlled condition, but the health risk for other land uses and receptors would need to be further evaluated. This alternative would have the lowest level of regulatory acceptance because of the lack of site controls and monitoring and maintenance. It also would likely have the lowest level of community acceptance due to the perceived threat to human health and the

environment. This is the least costly of the alternatives and is the most implementable.

4.4.2 Alternative 2 – Institutional Controls

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

4.4.3 Alternative 3 – Removal

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the agencies and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four, and no funding is available for removal. This alternative can be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

4.4.4 Alternative 4 – Containment

Containment of the soil by either form of cap (the planned SR-132 Project or an alternative [one-foot-thick, clean soil cap with vegetative cover) will provide the second highest level of protection of human health and the environment of the four alternatives. Capping will eliminate routes of exposure to COPCs in the soil and minimize the potential for storm water infiltration. Short-term exposure to construction personnel and adjacent residents could be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by containment of the soil beneath either type of cap. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC and CVRWQCB oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to

be good as the stockpiles would be used for their originally intended purpose.

4.5 Description of Recommended Alternative

Based on the screening of alternatives and comparative analysis performed in the FS, **Alternative 4 – Containment** is the recommended alternative. Containment of the stockpiles will be achieved by their use in construction of the SR-132/SR-99 interchange portion of the SR-132 Project, which requires a significant amount of fill for the embankments and is the reason the stockpiles were placed on the Site in the early 1960s. Figures 5a and 5b show the current footprint of the stockpiles overlain by design drawings of the SR-132 Project. Figure 5a shows that Stockpiles 1 and 2 are situated such that, with minor consolidation of soil along the northern and southern edges of the stockpiles, they will be covered by the SR-132 roadways and contained behind retaining walls and bridge abutments. Figure 5b shows that Stockpile 3, in its current configuration, will have to be partially relocated/consolidated to be capped by and contained within project roadways.

The stockpiled soil will be contained behind retaining walls and bridge abutments and beneath roadway pavements of the project. As described in Section 1, the project will be constructed in two phases – the interim progress phase to be completed by 2018 and the ultimate build-out to be completed by 2028. The interim progress phase of the project will consist of a two-lane roadway, which will be constructed over the southern portions of Stockpiles 1 and 2. During this phase, the northern portions of Stockpiles 1 and 2 will not be contained beneath roadways and behind retaining walls and bridge abutments, but will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. Figures 6a and 6b show the interim progress phase of the project in plan view and indicate the portion of the stockpiles which will be temporarily covered by the clean soil cap until the ultimate build-out of the project is completed. Figures 7a and 7b show the ultimate project build-out in plan view and depict the complete containment of the stockpiles within the project retaining walls and beneath roadway pavements. Also shown on Figures 7a and 7b is that the median between the eastbound and westbound lanes of SR-132 will be covered by either pavement or a synthetic liner and clean soil layer.

Figures 8, 9, and 10 show cross-section views of the interim progress and ultimate build-out phases of the project for Stockpiles 1, 2, and 3, respectively. The cross-sections show:

- the sloping for drainage and clean soil cap over the northern portions of Stockpiles 1 and 2 during the interim progress phase and the complete containment of the stockpiles by the ultimate build-out;
- the pavement or liner cover over the median areas of the ultimate build-out;
- where the outer edges of the current stockpiles will be cut (in yellow) and placed on top of the stockpiles in the “stockpile fill consolidation zone.”

Stockpile 3 will be treated differently than Stockpiles 1 and 2 in that it is planned to be entirely contained within the interim progress phase of the project. As much of Stockpile 3 as possible will be placed in the

stockpile fill consolidation zone within the eastern abutment for the SR-132 bridge over SR-99 (Figures 6b and 10). The remainder of Stockpile 3 will then be placed in the stockpile fill consolidation zone of Stockpile 2 (Figure 9). At the request of the CVRWQCB, the costs were estimated to completely remove Stockpile 3, dispose of it offsite in an appropriate landfill, and import an equal volume of clean replacement fill.

Following DTSC/CVRWQCB approval of the Final RAP, the details of construction of the project will be presented in a Remedial Design Implementation Plan (RDIP).

4.6 Justification for Recommended Remedy

The preferred remedy, Alternative 4 - Containment, will contain the soil beneath roadway pavements and behind retaining walls and bridge abutments of the planned SR-132 Project or beneath a clean soil, vegetated cap to eliminate direct exposure and to be protective of groundwater and surface water. The primary factors which supported the selection of are: (1) this alternative is protective of human health and the environment and is technically feasible; (2) this alternative is cost-effective because funding is available for construction of the SR-132 Project; and (3) this alternative will help minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

Alternative 4 for soil was rated good for the threshold criteria of overall protection of human and environment and compliance with ARARs and good for the balancing criteria long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability. Furthermore, it is the most cost effective of the remedial alternatives that meets the threshold criteria requirements.

5.0 PRELIMINARY REMEDIAL DESIGN FOR SOIL REMEDY

This section describes how Alternative 4 – containment will be implemented. Further detail will be provided in the RDIP.

5.1 Permitting

Permitting for the construction project will likely consist of a grading permit with the City of Modesto, filing of an air impact assessment (AIA) with the San Joaquin Valley Air Pollution Control District (SJVAPCD), and a preparation of a Stormwater Pollution Prevention Plan (SWPPP). Prior to the start of construction, a scoping meeting will be held to discuss the stockpile grading activities, dust mitigation and monitoring, health and safety, and project scheduling. Attendees at the scoping meeting should include Caltrans personnel, representatives of the contractor and subcontractors performing the construction, project design consultants, construction inspectors, and regulatory agency representatives. The applicable permits for the project will be reviewed at the scoping meeting to confirm that they have been obtained and to review the applicable requirements of each.

5.2 Utility Clearance

Although no utilities are anticipated to be present within the project footprint where the stockpiles are, if any subsurface utilities could be affected by the construction project, they will be addressed prior to construction with those specific utility owners. Standard utility clearance precautions such as obtaining an Underground Service Alert (USA) ticket for the project will also be taken.

5.3 Site Preparation

Following pre-construction utility relocations (if any), any debris or other materials/items will be removed. If any vegetation grubbing is required (not anticipated), the Site will be moisture-conditioned to minimize dust generation. Air monitoring for dust emissions, which is described in Section 5.6, will be implemented during grubbing.

5.4 Excavation Extent and Methods

Excavation will not be performed for removal purposes, but only to reconfigure the stockpiles to meet project design criteria for fill placement. Using a combination of equipment including scrapers and excavators, soil will be excavated from the stockpile sides and pulled up onto the stockpiles into the “stockpile fill consolidation zone” (Figures 8, 9, and 10) to make way for retaining wall and bridge construction, placement behind the walls and abutments, and to meet design heights and widths.

5.5 Control Measures

Excavation and fill placement will be controlled by the grading contractor and the surveyors in accordance with the project design. Construction geotechnical inspectors will control fill compaction through observation and testing.

5.6 Perimeter Air Monitoring During Excavation

Perimeter air monitoring will be performed during site grubbing (if necessary) and the early stages of grading to assess the effectiveness of dust control measures. As part of the RDIP, an air monitoring plan showing air monitoring locations and describing equipment and sampling and analysis methods will be provided to DTSC for their review and approval. If the results of air monitoring demonstrate that dust control measures are effective and that there is no exposure to COPCs in the stockpiles via airborne dust, then the frequency of monitoring may be decreased with the approval of DTSC.

5.7 Field Variances

If field procedures for soil excavation, relocation, dust control, air monitoring or other field activities need to be modified to meet changed conditions or project improvement/efficiency relative to the planned activities, a request for a variance from DTSC will be requested. The request will describe the reason and need for the requested modification. The modification will not be implemented without prior approval from DTSC.

5.8 Confirmation Sampling and Analysis Plan

Confirmation soil sampling is not proposed at this time because the stockpile soil is not being removed from the Site, but only incorporated into construction of the project. Therefore, a confirmation sampling and analysis plan will not be included in the RDIP.

5.9 Transportation Plan

Soil is not proposed to be transported off of the Site for the project, but only moved within the project footprint. Any transportation of soil will be limited to within the Caltrans ROW and not on public thoroughfares. Therefore, a transportation plan will not be included in the RDIP.

5.10 Recordkeeping

Recordkeeping related to movement and placement of the stockpile soil will be the responsibility of the grading contractor that is handling the soil as part of construction. Construction inspection records including compaction and survey data will be maintained by the inspecting firm and surveyor with copies provided to the grading contractor.

6.0 LAND USE CONTROLS

Concentrations of some COPCs in soil samples collected from Stockpiles 2 and 3 exceeded residential screening levels. Because this soil will be left on the Site and contained by the project, a land use covenant (LUC) will be required to be recorded restricting the types of land use that are allowed on the Site. The LUC will recognize that the proposed transportation land use is compatible and is acceptable from a health risk standpoint. Other unrestricted land uses (e.g., residential, schools, daycare, hospital, senior care, etc.) will not be allowed on the Site.

The LUC will be prepared consistent with DTSC policy and finalized and recorded after physical remedial measures are implemented and before the Site is certified by the DTSC as having been remediated. The LUC will run with the land and stay in effect as long as hazardous substances limit use of the property and until terminated by the DTSC. Pursuant to Section 67391.1 of Title 22, Division 4.5, Chapter 39, CCR, the project proponent will pay all costs including for DTSC oversight associated with administration of the LUCs. The DTSC has authority to require modification or removal of any land improvements placed in violation of the restrictions. Violation of the LUC will be grounds for the DTSC to file civil or criminal actions as provided by law.

7.0 MONITORING AND REPORTING

This section describes monitoring and reporting activities that will be conducted during and following implementation of the recommended remedial alternative.

7.1 Monitoring

Monitoring of the stockpiles, groundwater, and stormwater will continue until such time as the project is complete or the DTSC and CVRWQCB indicate that it is no longer necessary. Monitoring of the stockpiles will include monitoring of the state and effectiveness of the vegetative cover on the portions not yet contained by the project, monitoring of the fencing to ensure that access to the stockpiles continues to be restricted, and monitoring of potential erosion and transport of soil off of Caltrans ROW. Figures 5a and 5b show the proposed extent of the interim progress phase of the project relative to the current extent of the stockpiles. The portion of the stockpiles not contained (the northern portion of Stockpiles 1 and 2) will be graded for drainage and capped with a minimum 6- to 12-inch-thick vegetated, clean soil cap. These portions of the stockpiles will continue to be maintained and monitored in accordance with DTSC and CVRWQCB requirements until the ultimate build-out phase of the project is completed and the stockpile soil completely contained within the project. Groundwater monitoring for the COPCs will continue and stormwater monitoring will continue on a weather-dependent basis.

7.2 Reporting

Reporting of monitoring efforts will continue on a quarterly basis until no longer required by DTSC and/or the CVRWQCB.

7.3 Five-Year Review

Depending on project funding and the phased schedule for completion of the project, DTSC may perform five-year reviews to assess the effectiveness of the remedial measure between construction phases and after project completion. The five-year reviews would likely revisit mainly the maintenance of the portion of the stockpiles not yet contained within the project and condition of vegetated soil covers and liners. Monitoring of groundwater and surface water will have been ongoing and routinely reported to DTSC and the CVRWQCB and therefore would not be a focus of the reviews.

8.0 IMPLEMENTATION SCHEDULE

The anticipated schedule for the SR-132 Project from submittal of this Draft RAP through project completion is as follows:

Activity/Task/Milestone	Date
RAP	
Submit draft RAP to DTSC/CVRWQCB	December 27, 2013
Receive comments from DTSC/CVRWQCB on RAP	April 8, 2014
Revise RAP and submit Draft Final RAP to DTSC/CVRWQCB	June 24, 2014
Revise Draft Final RAP to be incorporated into the environmental impact report (EIR) for the SR-132 Project	June 27, 2014
DTSC approval of Draft Final RAP	July 25, 2014
Public notice of availability of Draft Final RAP and the SR 132 Project Environmental Document for minimum 30-day public review	Summer/Fall 2014
Minimum 30-day public review	Fall 2014
Public meeting	During 30-day public review period
DTSC responsiveness summary (response to public comments)	Winter 2015
Revise as needed and DTSC approves Final RAP	Winter 2015
SR-132 Construction	
StanCOG prepares bid specifications for interim progress phase	2015
Bids due	2015
Bid awarded	
Construction of interim progress phase begins	2015
Complete interim progress phase	2018
Prepare Remedial Action Completion Report (interim progress phase)	2019
Complete ultimate build-out phase	2028
Prepare Remedial Action Completion Report (ultimate build-out phase)	2029

9.0 HEALTH AND SAFETY PLAN

Although most of the COPCs have been demonstrated to be present in the stockpiles at concentrations generally less than residential health risk screening levels (and therefore much less than commercial/industrial or construction worker screening levels), barium is present at elevated concentrations. Therefore, an HSP will be prepared and implemented which will discuss the COPCs and appropriate precautions to limit exposure to them for onsite workers and nearby residents and businesses by implementing measures to control dust generation (water spray) and confirmation of this by air monitoring during construction. The HSP will also cover health and safety precautions for other worker hazards unrelated to the COPCs such as heat illness, lifting of heavy objects, slip/trip/fall hazards, equipment safety, and will provide emergency contacts and routes to the nearest hospital emergency room. A copy of the HSP will be kept on the Site at all times during the project.

Work at the Site will be performed in accordance with applicable State and Federal Occupational Health and Safety Standards set forth in 29 Code of Federal Regulations, Sections 1910 and 1926; and California Health and Safety Regulations as set forth in Title 8, California Code of Regulations, and guidance by DTSC. The provisions of the HSP will be mandatory for all Caltrans personnel and contractors and subcontractors at the Site.

Grading and other soil-related construction activities will not be required to be performed by Occupational Safety and Health Administration (OSHA) 40-hour health and safety trained personnel or contractors with Class A-HAZ licenses. However, health and safety awareness training will be provided through an initial site meeting and daily tailgate safety meetings.

10.0 CEQA

CEQA is being addressed through preparation of the *Draft EIR entitled: SR-132 West Freeway/Expressway Project*. The Draft EIR is currently in preparation and this RAP will be incorporated as a supplement to it. The Draft EIR describes the SR-132 project alternatives - Alternative 1, Alternative 2, and a No Build Alternative with Alternatives 1 and 2 being SR-99 off-ramp alternatives and not to be confused with remedial alternatives described in the RAP. The Draft EIR will provide the public and decision-makers with detailed information about the Project's environmental effects, ways to minimize its significant environmental effects, and reasonable alternatives to the Project. The lead agency for the EIR is Caltrans and the DTSC and CVRWQCB, as oversight agencies for the RAP, are responsible reviewing agencies for the EIR.

11.0 PUBLIC PARTICIPATION

The Draft Final RAP process includes several steps/activities and opportunities for public participation. The process includes providing information about the project and the proposed remedy to the public, receiving public input, and responding to that input. The PEA included a community profile and described initial public participation efforts. Additional public informational meetings have been held including one at the Site on November 28, 2012. Caltrans maintains a website (<http://www.dot.ca.gov/dist10/environmental/projects/SR-132west/Stockpiles.html>) which provide access to project documents. The DTSC's EnviroStor website (http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626) and (http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024) also provides access to project information, regulatory communications, and project documents.

The public participation activities that are ongoing or that will be performed as part of the Draft Final RAP process include:

- preparing a base line community survey which the DTSC has already completed;
- preparing a public participation plan, which the DTSC is in the process of completing;
- publishing a public notice of the availability of the Draft Final RAP for public review and comment and a public meeting in a local newspaper for a minimum of 30 days;
- distribution of a fact sheet describing the proposed remedy and the availability of the RAP for public review and comment;
- conducting the public meeting during the public comment period; and
- publishing a responsiveness summary responding to the comments received during the public comment period.

All comments received during the public comment period will be responded to in writing and distributed to everyone who submits a comment. The 30-day public review period is anticipated to occur in summer 2014. The Draft Final RAP will be revised as necessary, to address the comments received. If significant changes to the Draft Final RAP are required, the RAP will be revised and resubmitted for public review and comment. If significant changes are not required to the Draft Final RAP, the RAP will be modified and the DTSC will approve the revised Final RAP for implementation.

12.0 LIMITATIONS

This Draft Final RAP has been prepared solely for Caltrans and the DTSC and CVRWQCB in consideration of their requirements. Other parties may rely on the findings and conclusions of the RAP for informational purposes only. However, Caltrans, DTSC, CVRWQCB, and other parties who may rely on the findings and conclusions of the RAP should recognize that this RAP does not constitute a complete set of construction plans or specifications and should not be construed as such. The recommendations as presented in this RAP are predicated on the results of the sampling and laboratory testing performed to date.

The information contained herein is only valid as of the date of the RAP and would require an update to reflect additional site activities. Therefore, the RAP should only be deemed conclusive with respect to the information presented. No guarantee of the results of the studies used to generate the RAP is implied within the intent of this RAP or any subsequent report, correspondence or consultation, either express or implied. The services performed were conducted in accordance with the local standard of care in the geographic region at the time the services were rendered.

13.0 REFERENCES

Websites

Caltrans Modesto Soil Stockpiles website: <http://www.dot.ca.gov/dist10/environmental/projects/SR-132west/Stockpiles.html>.

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San Joaquin Valley Air Pollution Control District, (<http://www.valleyair.org/rules/currnrules/r8021.pdf>).

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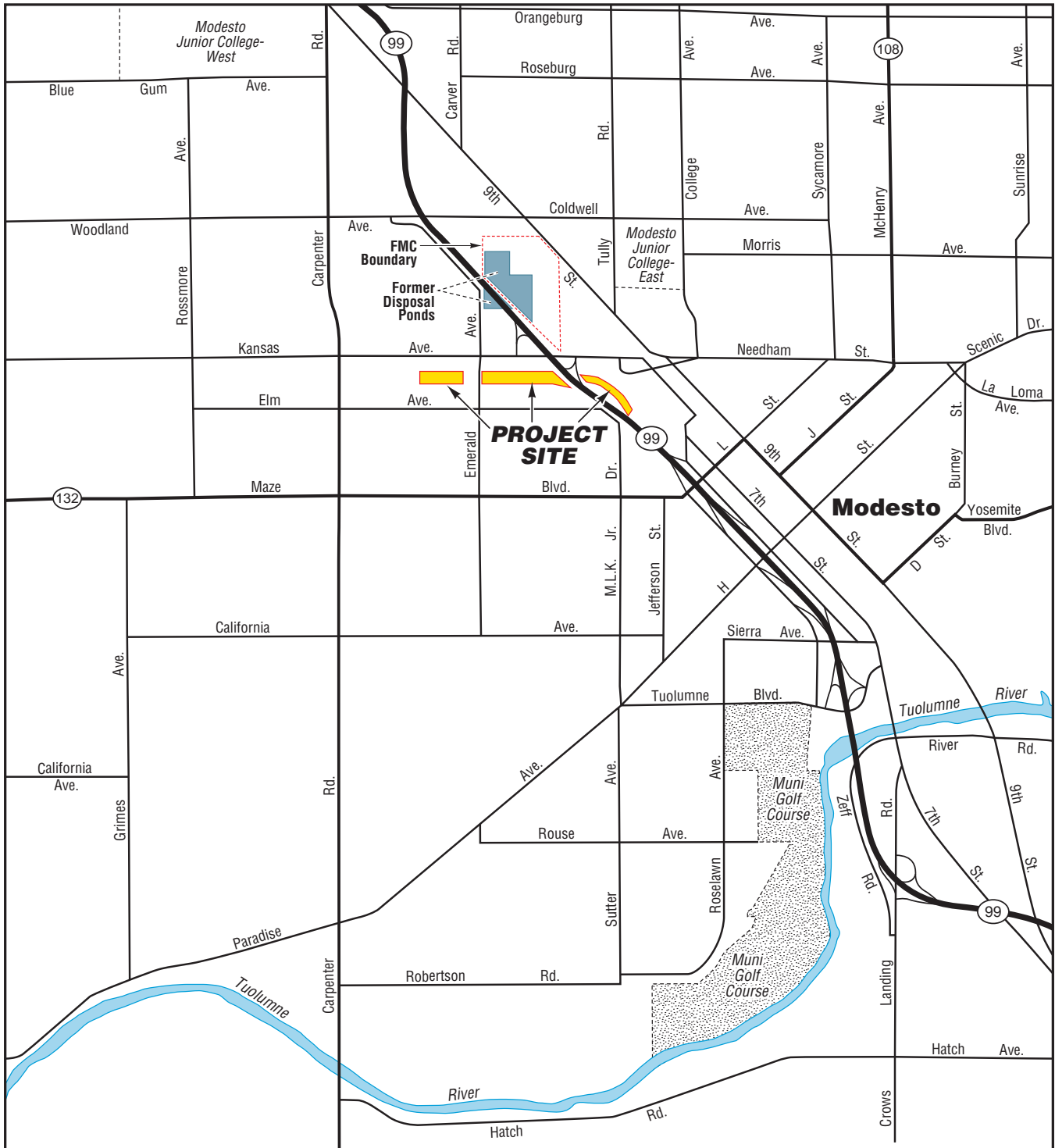
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Caltrans Modesto Soil Stockpiles	
Stanislaus County, California	
VICINITY MAP	
GEOCON Proj. No. S9800-01-17	
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Figure 1	

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LEGEND:

- MW8 Approximate Monitoring Well Location
- State Right-of-Way Boundary



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SITE PLAN

October 2014 | Figure 2

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1963 AERIAL PHOTOGRAPH

Caltrans Modesto Soil Stockpiles		
GEOCON Proj. No. S9800-01-17	Stanislaus County, California	
Task Order No. 17	October 2014	Figure 3a



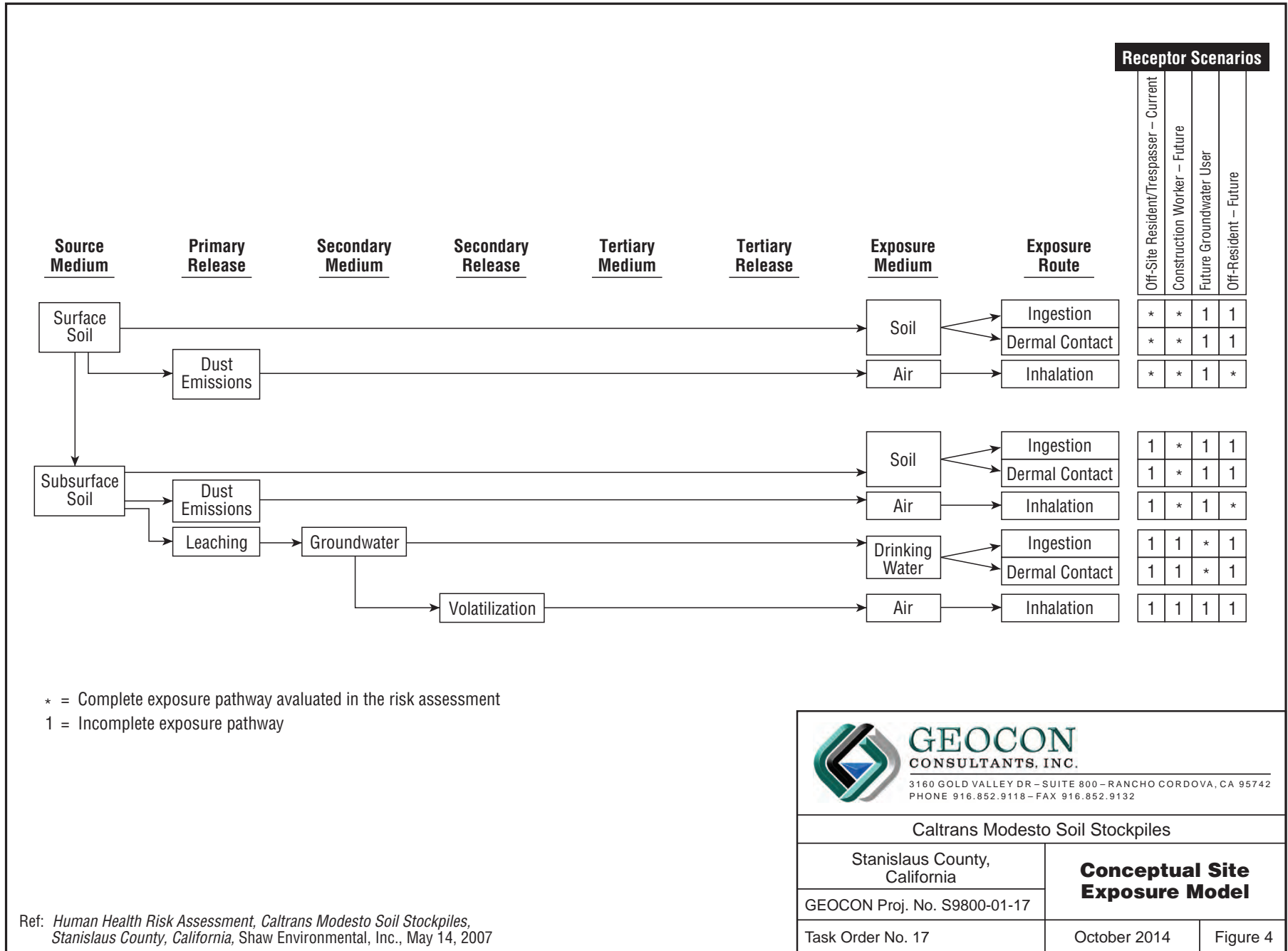
0 400
Approx. Scale in Feet



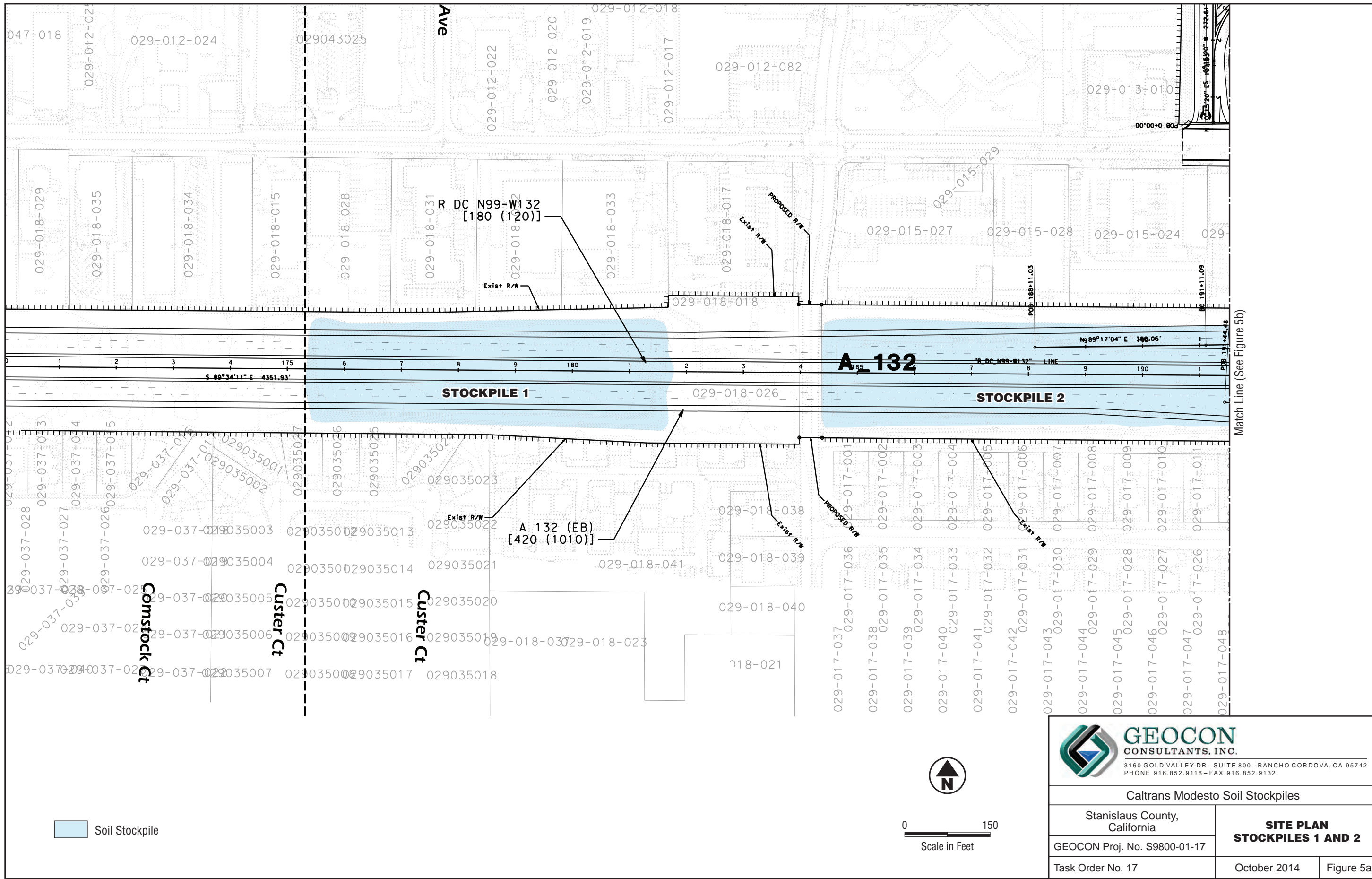
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**1967 AERIAL
PHOTOGRAPH**

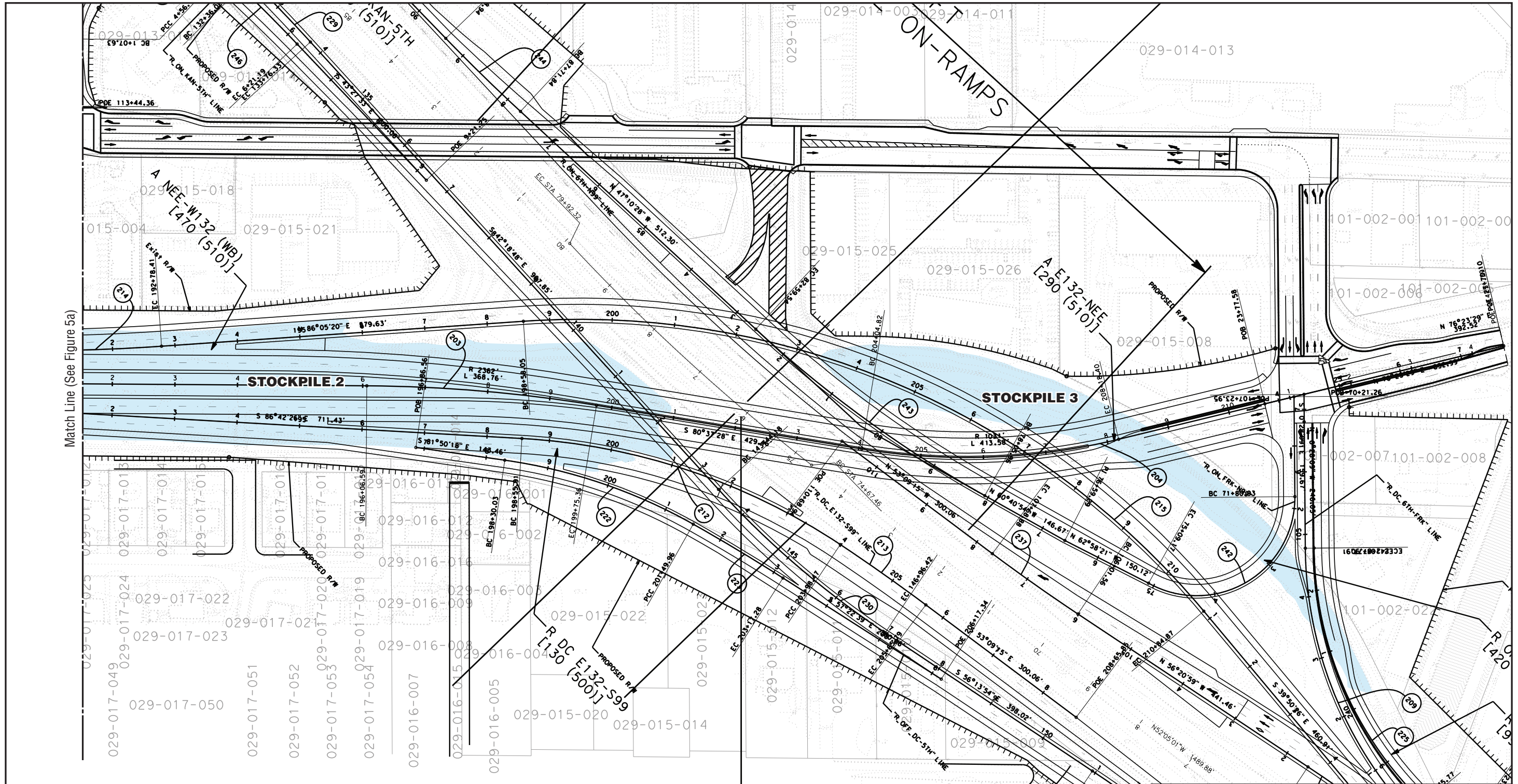
Caltrans Modesto Soil Stockpiles		
GEOCON Proj. No. S9800-01-17	Stanislaus County, California	
Task Order No. 17	October 2014	Figure 3b



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Stanislaus County, California	
SITE PLAN STOCKPILES 1 AND 2	
GEOCON Proj. No. S9800-01-17	Task Order No. 17
October 2014	Figure 5a



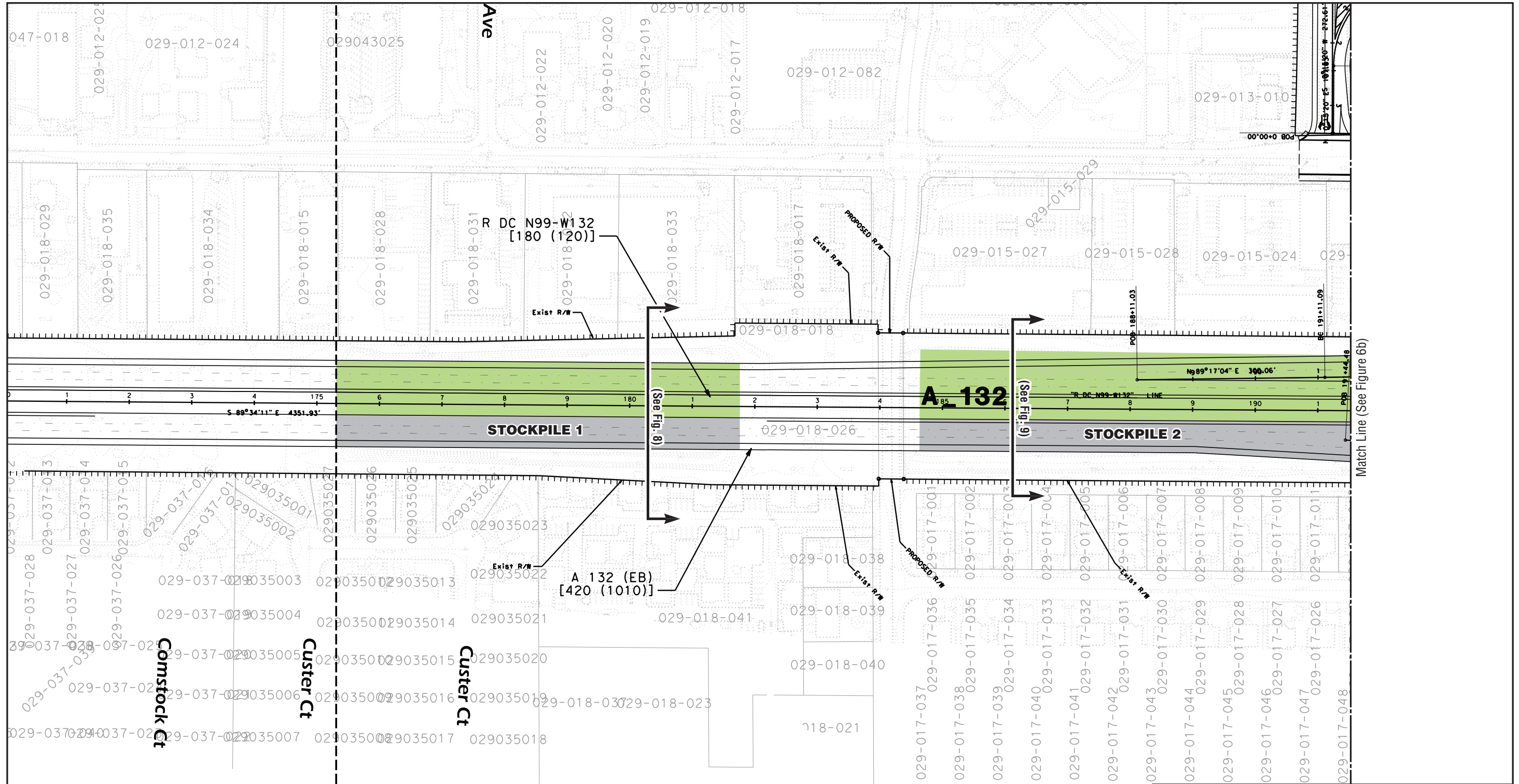
Match Line (See Figure 5a)

Soil Stockpile



0 150
Scale in Feet

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Caltrans Modesto Soil Stockpiles	
Stanislaus County, California	SITE PLAN STOCKPILES 2 AND 3
GEOCON Proj. No. S9800-01-17	Task Order No. 17
October 2014	Figure 5b



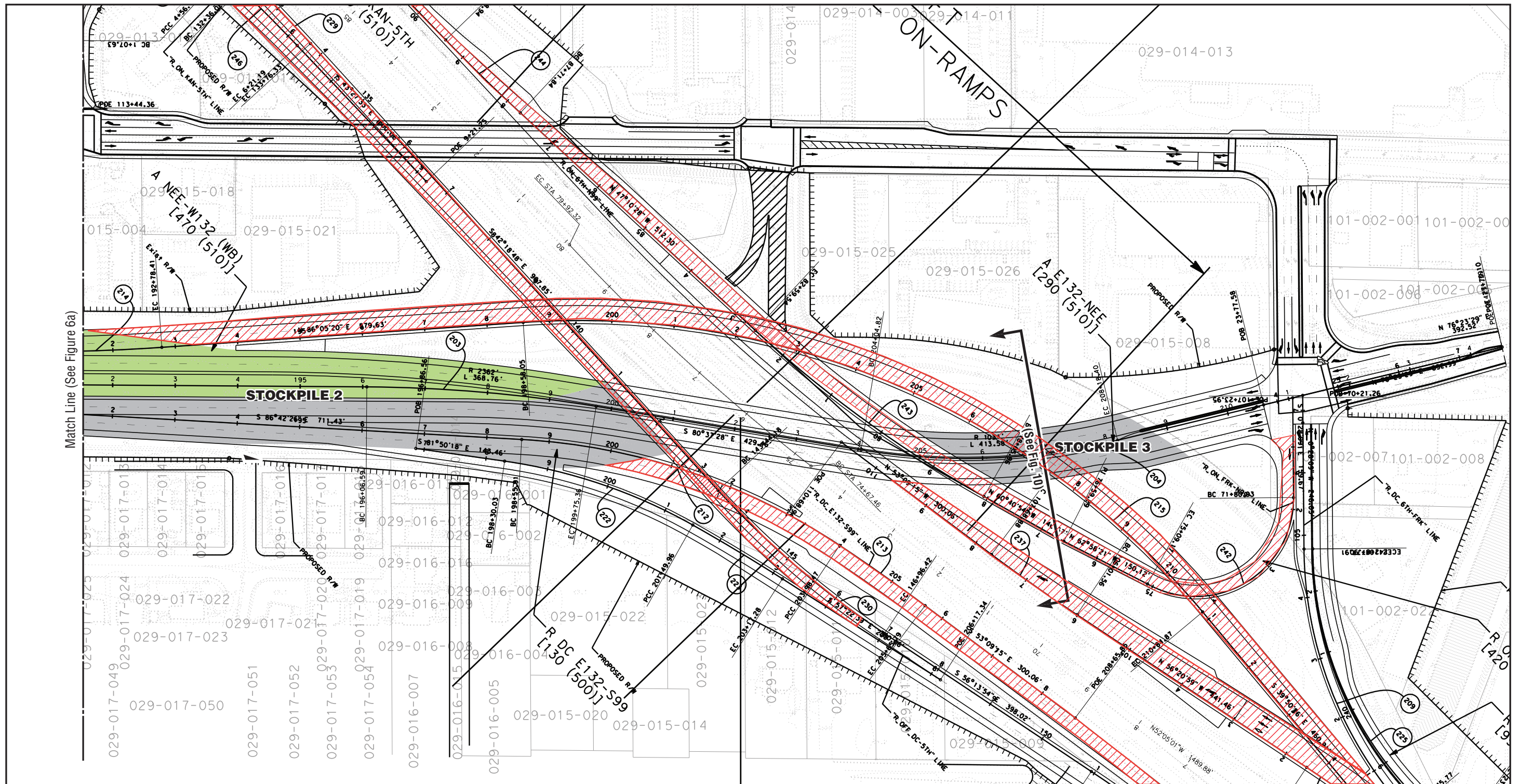
Structural Pavement Section
 Minimum 6 - 12 Inches Clean Cover Soil

Cross-Section Location






0 150
Scale in Feet

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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	Stockpile Containment by Capping Plan - Interim Progress Phase	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 6a



Match Line (See Figure 6a)

-  Roadways to be Constructed for Project Ultimate Build-Out
-  Structural Pavement Section
-  Minimum 6 - 12 Inches Clean Cover Soil

 Cross-Section Location



0 150
Scale in Feet



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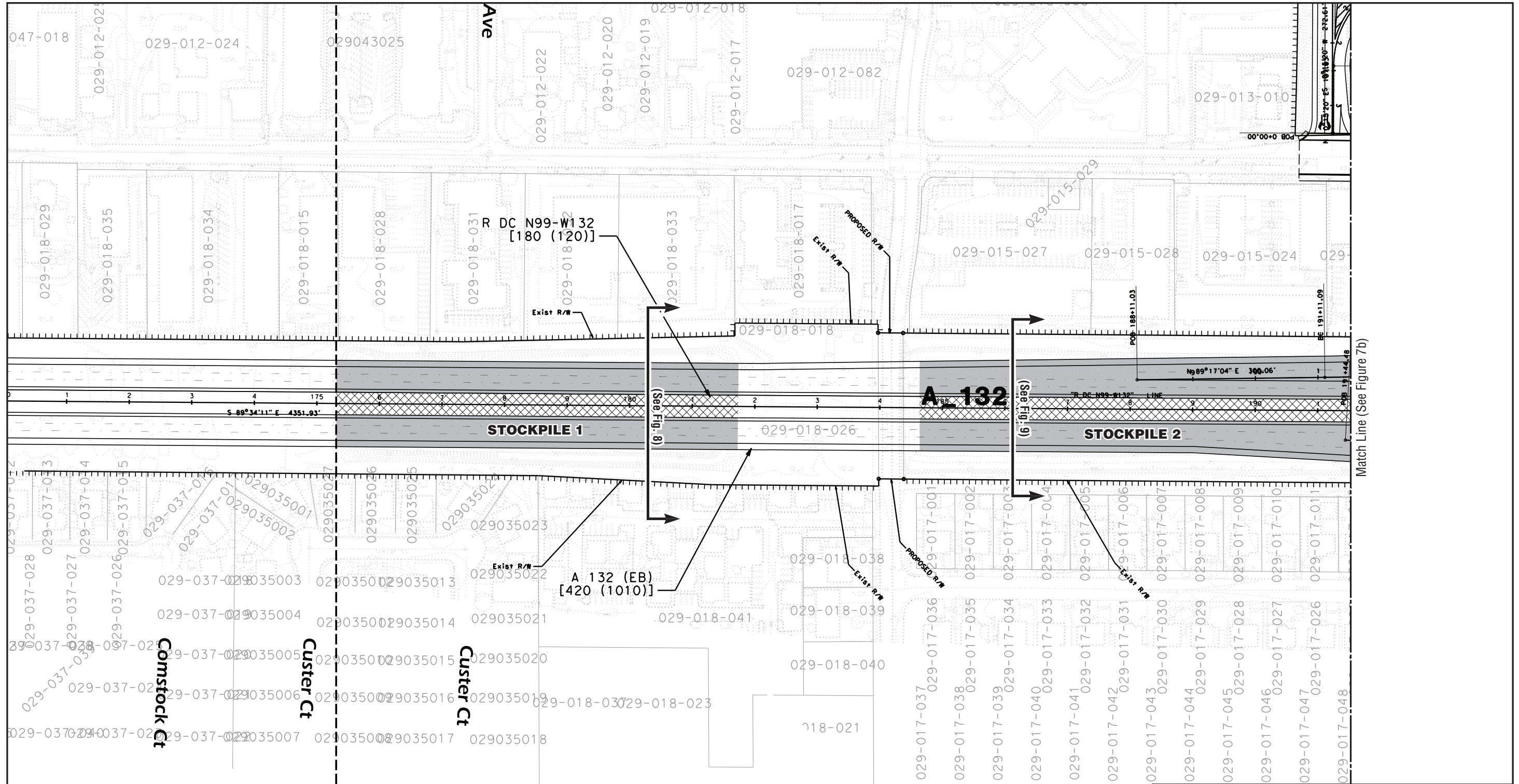
Stanislaus County,
California
GEOCON Proj. No. S9800-01-17

**Stockpile Containment
by Capping Plan -
Interim Progress Phase**

Task Order No. 17

October 2014

Figure 6b



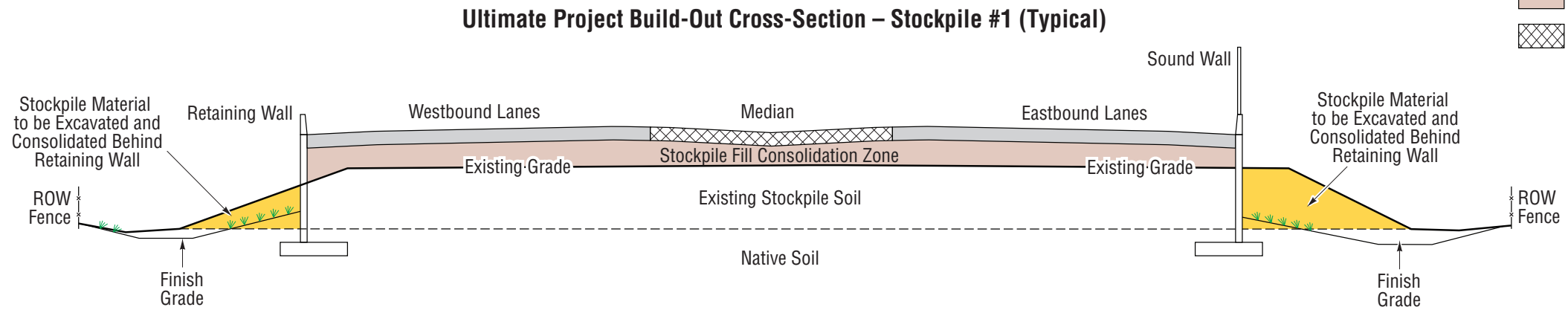
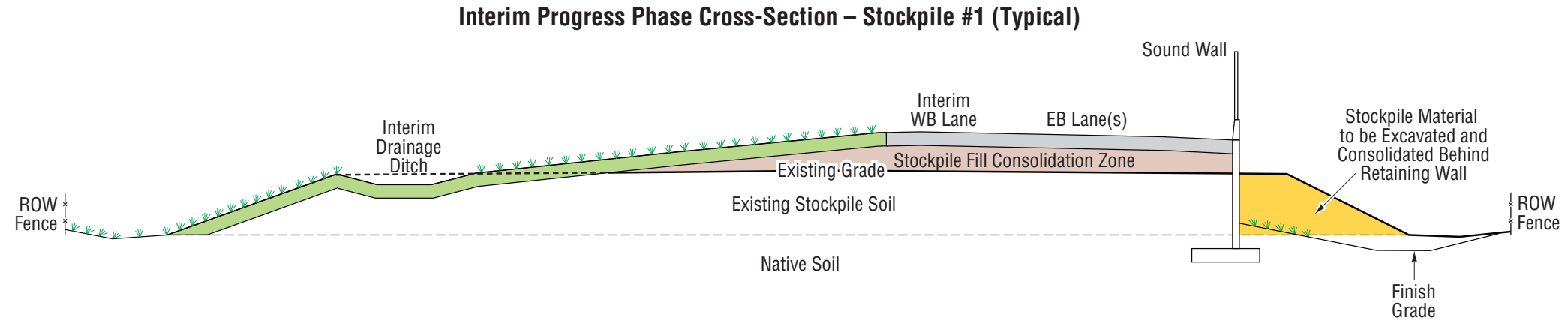
Structural Pavement Section
 Pavement or Liner in Median

Cross-Section Location



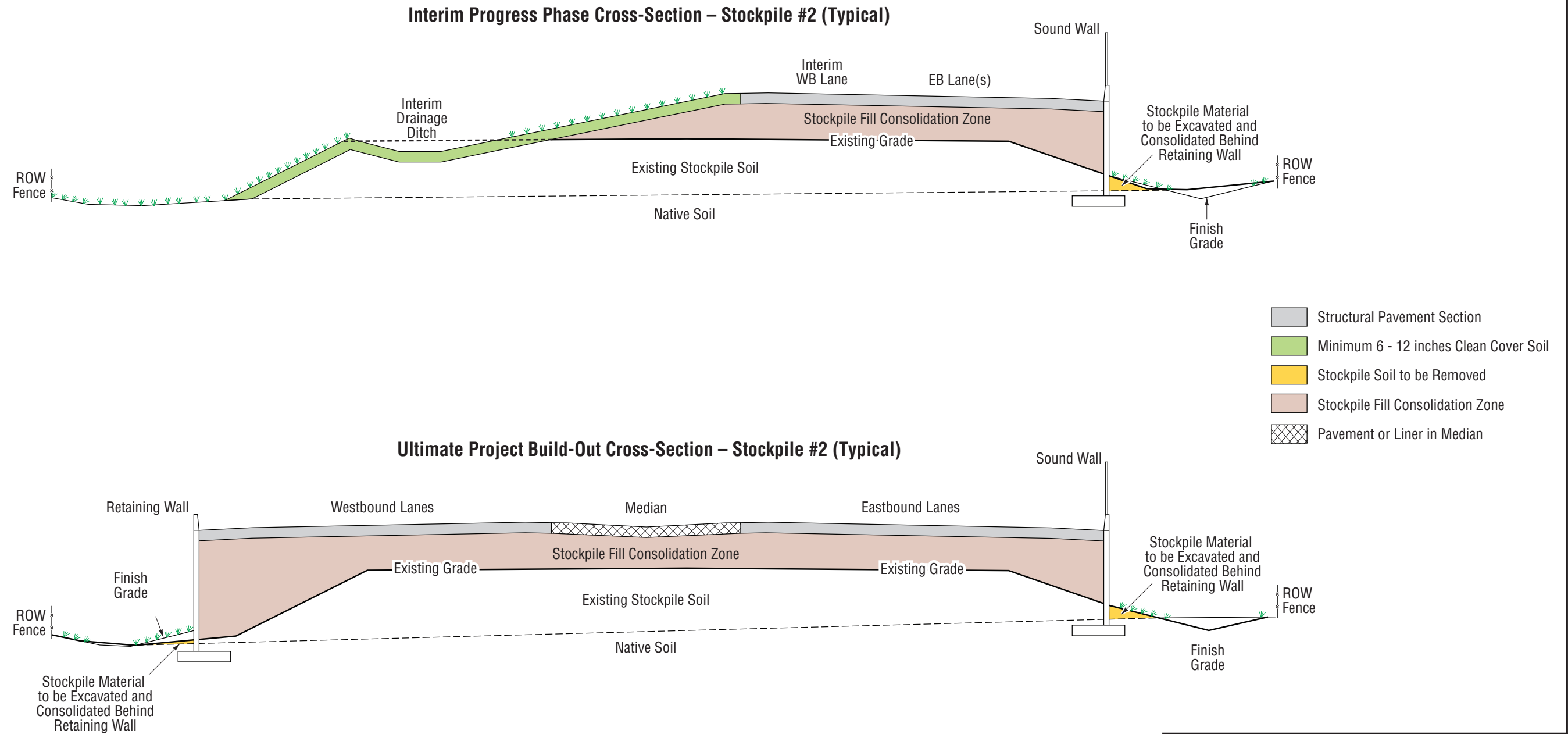
0 0150
 Scale in Feet

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Caltrans Modesto Soil Stockpiles	
Stanislaus County, California GEOCON Proj. No. S9800-01-17	Stockpile Containment by Capping Plan - Ultimate Project Build-Out
Task Order No. 17	October 2014 Figure 7a



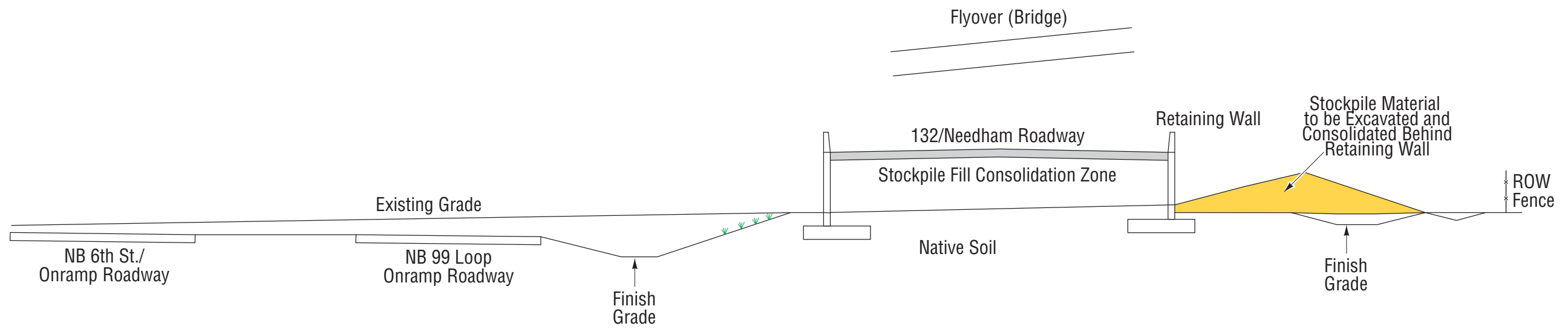
- Structural Pavement Section
- Minimum 6 - 12 inches Clean Cover Soil
- Stockpile Soil to be Removed
- Stockpile Fill Consolidation Zone
- Pavement or Liner in Median

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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	CROSS-SECTIONS STOCKPILE #1	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 8



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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	CROSS-SECTIONS STOCKPILE #2	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 9

Interim Progress Phase and Ultimate Build-Out Cross-Section – Stockpile #3 (Typical)



Structural Pavement Section
 Stockpile Soil to be Removed

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Caltrans Modesto Soil Stockpiles		
Stanislaus County, California	CROSS-SECTION STOCKPILE #3	
GEOCON Proj. No. S9800-01-17		
Task Order No. 17	October 2014	Figure 10

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**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13240, 13241, 13242, 13243)	Water Quality Control Plan (Basin Plan) for the RWQCB, CVR.	<p>Establishes water quality objectives, including narrative and numerical standards, that protect the beneficial uses of surface and ground waters in the region. Describes implementation plans and other control measures designed to ensure compliance with statewide plans and policies and provide comprehensive water quality planning. Also includes implementation actions for setting soil cleanup levels for soils which threaten water quality.</p> <p>Unless otherwise designated by the Regional Water Board, all ground waters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).</p>	Applicable	Chemical	Specific applicable portions of the Basin Plan include beneficial uses of affected water bodies and water quality objectives to protect those uses. Any activity, including, for example, a new discharge of contaminated soils or in-situ treatment or containment of contaminated soils, that may affect water quality must not result in water quality exceeding water quality objectives. Implementation plans and other policies and requirements may also apply.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13304, 13240, 13241, 13242, 13243)	RWQCB, CVR Basin Plan, "Policy for Investigation and Cleanup of Contaminated Sites."	Establishes and describes policy for investigation and remediation of contaminated sites. Also includes implementation actions for setting groundwater and soil cleanup levels.	Applicable	Chemical	Cleanup levels for soils should be equal to levels that would achieve background concentrations in groundwater unless such levels are technically and economically infeasible to achieve. In such cases, soil cleanup levels are such that groundwater will not exceed applicable groundwater quality objectives.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13240, 13241, 13242, 13243)	RWQCB, CVR Basin Plan, "Policy for Application of Water Quality Objectives"	This policy defines water quality objectives and explains how the Regional Water Board applies numerical and narrative water quality objectives to ensure the reasonable protection of beneficial uses of water and how the Regional Water Board applies Resolution No. 68-16 to promote the maintenance of existing high quality waters.	Applicable	Chemical	Applies to all cleanups of discharges that may affect water quality.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13263, 13304)	State Water Resources Control Board Resolution No. 68-16 ("Antidegradation Policy")	Requires that high quality surface and ground waters be maintained to the maximum extent possible. Degradation of waters will be allowed (or allowed to remain) only if it is consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that prescribed in RWQCB and SWRCB policies. If degradation is allowed, the discharge must meet best practicable treatment or control, which must prevent pollution or nuisance and result in the highest water quality consistent with maximum benefit to the people of the state.	Applicable	Chemical	Applies to discharges of waste to waters, including discharges to soil that may affect surface or ground waters. In-situ cleanup levels for contaminated soils must be set so that ground waters will not be degraded, unless degradation is consistent with the maximum benefit of the people of the state. If degradation is allowed, the discharge must meet best practical treatment or control, and result in the highest water quality possible consistent with the maximum benefit to the people of the state. In no case may water quality objectives be exceeded.
Porter-Cologne Water Quality Control Act (California Water Code Sections	State Water Resources Control Board Resolution No. 92-49 (As	Establishes requirements for investigation and cleanup and abatement of discharges. Among other requirements, dischargers must clean up and abate the effects of discharges in a manner that	Applicable	Chemical	Applies to all cleanups of discharges that may affect water quality.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13000, 13140, 13240, 13260, 13263, 13267, 13300, 13304, 13307)	amended April 21, 1994)	promotes the attainment of either background water quality, or the best water quality that is reasonable if background water quality cannot be restored. Requires the application of Title 23, CCR, Section 2550.4 requirements to cleanups.			
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13240)	State Water Resources Control Board Resolution No. 88-63 ("Sources of Drinking Water Policy") (as contained in the RWQCB's Water Quality Control Plan)	Specifies that, with certain exceptions, all ground and surface waters have the beneficial use of municipal or domestic water supply.	Applicable	Chemical	Applies in determining beneficial uses for waters that may be affected by dischargers of waste.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, National Pollutant Discharge Elimination System, implemented by California Storm water Permit for Industrial Activities, State Water Resources Control Board Order #97-03-DWQ.	Regulates pollutants in discharge of storm water associated with hazardous waste treatment, storage, and disposal facilities, wastewater treatment plants, landfills, land application sites, and open dumps. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applicable	Action and Chemical	Applies to storm water discharges from industrial areas. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, National Pollutant discharge elimination system, implemented by State Water Resources Control Board Order No. 92-08 DWQ	Regulates pollutants in discharge of storm water associated with construction activity (clearing, grading, or excavation) involving the disturbance of 5 acres or more. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applicable	Action and Chemical	Applies to construction areas over 5 acres in size. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080(g), Title 23, CCR, Section 2510(g)	Requires monitoring. If water quality is threatened, corrective action consistent with Title 27, Title 23 is required.	Applicable	Action	Applies to areas of land where discharges had ceased as of November 27, 1984 (the effective date of the revised Title 27/ Title 23 regulations).
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20385, Title 23, CCR, Section 2550.1	Requires detection monitoring. Once a significant release has occurred, evaluation or corrective action monitoring is required.	Applicable	Action and Chemical	Applies to all areas in which waste has been discharged to land to determine the threat to water quality.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20390, Title 23, CCR, Section 2550.2	Requires establishment of a water quality protection standard consisting of a list of constituents of concern, concentration limits, compliance monitoring points and all monitoring points. This section further specifies the time period that the standard shall apply.	Applicable	Action and Chemical	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20395, Title 23, CCR, Section 2550.3	Requires development of a list of constituents of concern which include all waste constituents, that are reasonably expected to be present in the soil from discharges to land, and could adversely affect water quality.	Applicable	Chemical	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20400, Title 23, CCR, Section 2550.4	Concentration limits must be established for groundwater, surface water, and the unsaturated zone. Must be based on background, equal to background, or for corrective actions, may be greater than background, not to exceed the lower of the applicable water quality objective or the concentration technologically or economically achievable. Specific factors must be considered in setting cleanup standards above background levels.	Relevant and Appropriate	Action	If water quality is threatened, this section applies in setting soil cleanup levels for all cleanups of discharges of waste to land.
Porter-Cologne Water Quality Control Act (California Water	Title 27, CCR, Section 20405, Title 23, CCR, Section 2550.5	Requires identification of the point of compliance, hydraulically down gradient from the area where waste was discharged to land.	Applicable	Action	Applies to all areas in which waste has been discharged to land where groundwater is threatened.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).					
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20410 Title 23, CCR, Section 2550.6	Requires monitoring for compliance with remedial action objectives for three years from the date of achieving cleanup levels.	Relevant and Appropriate.	Action	Applies to all soil cleanup activities.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20415 Title 23, CCR, Section 2550.7.	Requires general soil, surface water, and ground water monitoring.	Relevant and Appropriate.	Action	Applies to all areas in which waste has been discharged to land.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147,	Title 27, CCR, Section 20420, Title 23, CCR, Section 2550.8.	Requires detection monitoring to determine if a release has occurred.	Applicable	Chemical	Applies to all areas where waste has been discharged to land and groundwater is threatened.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13172, 13260, 13263, 13267, 13269).					
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20425 Title 23, CCR, Section 2550.9	Requires an assessment of the nature and extent of the release, including a determination of the spatial distribution and concentration of each constituent.	Applicable	Chemical	Applies to sites at which monitoring results show statistically significant evidence of a release.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20430 Title 23, CCR, Section 2550.10 Title 27, CCR, Section 20430 Title 23, CCR, Section 2550.10	Requires implementation of corrective action measures that ensure that cleanup levels (i.e., water quality protection standard established under section 2550.2) are achieved throughout the zone affected by the release by removing the waste constituents or treating them in place. Source control may be required. Also requires monitoring to determine the effectiveness of the corrective actions.	Relevant and Appropriate	Action	If water quality is threatened, this section applies to all soil cleanup activities.
Cal EPA, DTSC	Preliminary Endangerment Assessment Guidance Manual	Provides guidance on performing standard risk assessments.	To Be Considered	Chemical	Performance standard on human health screening evaluation.
Office of Scientific Affairs, Cal EPA, DTSC	Supplemental Guidance for Human Health Multimedia Risk	Provides recommendations on specific technical or scientific issues that may be encountered when preparing multimedia risk assessment reports for submittal and	To Be Considered	Action	Performance standard for conducting quantitative human health risk assessments.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
	Assessment of Hazardous Waste Sites and Permitted Facilities	review by the DTSC			
Guidance	USEPA Risk Reference Doses (RfDs)	RfDs are dose levels developed USEPA for evaluating human non-carcinogenic risk from exposure to carcinogens.	To Be Considered	Chemical	RfDs are used to evaluate to evaluate human health risks from exposure to non-carcinogenic Site contaminants. RfDs are also employed to develop Site cleanup levels.
Guidance	USEPA Human Health Assessment Cancer Slope Factors (CSFs)	CSFs are developed by USEPA for evaluating incremental human carcinogenic risk from exposure to carcinogens.	To Be Considered	Chemical	CSFs are used to evaluate human cancer risk resulting from exposure to carcinogenic Site contaminants. CSFs are also employed to develop Site cleanup levels.
Staff Report of the RWQCB, CVR	The Designated Level Methodology for Waste Classification and Cleanup Level Determination	Provides guidance on how to classify wastes according to Title 27, CCR, Division 2, Subdiv.1/ Title 23, CCR, Division 3, Chapter 15, Article 10. Provides a methodology for establishing "Designated Levels" for specific constituents of a waste which provides a numerical value that would indicate the water quality impairment potential of the waste.	To Be Considered	Action	Performance standard to be considered in determining the classification of wastes and contaminated soils.
Staff Report of the RWQCB, CVR	"A Compilation of Water Quality Goals"	Provides guidance on selecting numerical values to implement narrative water quality objectives contained in the Basin Plan.	To Be Considered	Action	Performance standard to be considered in selecting appropriate numerical values to implement the Basin Plan for setting cleanup levels and discharge limits. The numerical

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
					values contained in the staff report may be applicable, relevant and appropriate, or to be considered, depending on the source of the values.
Staff Report of the RWQCB, CVR	"Water Quality Site Assessment for Soils and Ground Water"	Provides guidance on how a site-wide water quality site assessment should be conducted to evaluate the impact of soil contaminants on groundwater quality. Guidance uses background soil and groundwater quality data to determine if Site soil and groundwater have been impacted by site activities and uses groundwater Water Quality Goals to determine if the beneficial use of groundwater has been impacted or whether concentrations of site constituents have the potential to affect beneficial groundwater uses.	To Be Considered	Action	Used to determine to identify Site soil and groundwater constituents of concern.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 23, CCR, Section, 2520, 2521	Requires that hazardous waste be discharged to Class I waste management units that meet certain design and monitoring standards.	Relevant and Appropriate	Action	Applies to discharges of hazardous waste to land for treatment, storage or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections	Title 27, CCR, Section, 20200(c), 20210	Requires that designated waste be discharged to Class I or Class II waste management units.	Relevant and Appropriate	Action	Applies to discharges of designated waste (nonhazardous waste that could cause degradation of surface or ground waters) to land for treatment,

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
13140-13147 13172, 13260, 13263, 13269).					storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147 13172, 13260, 13263, 13269).	Title 27, CCR, Section 20230	Requires that inert waste does not need to be discharged at classified units.	Relevant and Appropriate	Action	Applies to discharges of inert waste to land for treatment, storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 27, CCR, Section 20200(c),20220	Requires that nonhazardous solid waste be discharged to a classified waste management unit.	Relevant and Appropriate	Action	Applies to discharges of nonhazardous solid waste to land for treatment, storage, or disposal.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147,, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20090(d) Title 23 CCR, Section 2511(d)	Actions taken by public agencies to cleanup unauthorized releases are exempt from Title 27/Title 23 except that wastes removed from immediate place of release and discharged to land must be managed in accordance with classification (Title 27 CCR, Section 20200/ Title 23 CCR, Sections 2520) and siting requirements of Title 27 or Title 23 and wastes contained or left in place must comply with Title 27 or Title 23 to the extent feasible.	Applicable	Action	Applies to remediation and monitoring of sites.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080 (d) Title 23, CCR, Section 2510(d)	Requires closure of existing waste management units according to Title 27/Title 23.	Applicable	Action	Applies to existing waste management units (i.e., areas where waste was discharged to land on or before 27 November 1984, but that were not closed, abandoned, or inactive prior to that date).
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 1323, 13269).	Title 27, CCR, Section 21400, Title 23, CCR, Section 2582.	Requires surface impoundments to be closed by removing and treating all free liquid and either removing all remaining contamination or closing the surface impoundment as a landfill.	Applicable	Action	If water quality is threatened, this section is relevant and appropriate for natural topographic depressions, excavations, and diked areas where wastes containing free liquids were discharged.

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Sections 20385-20435 Title 23, CCR, Section 2550 .	Where groundwater monitoring is required under 2510 or 2511 of Ch 15 (and equivalent for Title 27), applies to authorized waste management units as well as unauthorized discharges of waste to land and to closed abandoned or inactive units.	Applicable	Chemical and Action	Applies to all areas in which waste has been discharged to land to determine the threat to water quality.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20950; 22207 (a); 22212 (a), and 22222. Title 23, CCR, Section 2550.0 (b); 2580; 2580(f).	General closure requirements, including continued maintenance of waste containment, drainage controls, and groundwater monitoring throughout the closure and post closure maintenance periods.	Applicable	Action	Applies to partial or final closure of waste management units.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269)	Title 27, CCR, Section 21090	Requires a final cover for landfills constructed in accordance with specific prescriptive standards, to be maintained as long as wastes pose a threat to water quality.	Relevant and Appropriate	Action	If water quality is threatened, this section is relevant and appropriate for wastes contained or left in place at the end of remedial actions that could affect water quality. Includes closure of landfills and other areas where wastes have been discharged to land.
Staff Report of the RWQCB, CVR	Items to be included in a Feasibility	Provides an outline presenting the minimum requirement for items to be included and discussed in the text of all	To be Considered	Chemical, Action, and Location	Applies to preparation of a feasibility study and remedial options evaluation for submittal to

**Table 1
ARARs and TBCs for Soil Remediation
Caltrans Modesto Soil Stockpiles
Modesto, Stanislaus County, California**

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
	Study/Remedial Options Evaluation Report	feasibility studies/remedial option evaluation reports submitted to the RWQCB.			RWQCB.
Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5)	Title 22, California Code of Regulations, Division 4.5, Section 66260.1 et seq	Regulates the generation, storage, transportation, treatment and disposal of hazardous waste in the State.	Applicable	Chemical	Applies to material that may be hazardous waste.
Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5)	Title 22, California Code of Regulations, Division 4.5, 22 CCR §§66261-66261.126	Identifies those wastes that are subject to regulation as hazardous wastes. Provides definition of "wastes" and "hazardous wastes".	Applicable	Chemical	Applies to material that would be transported from the Site for disposal, treatment or storage. Determination of material as "waste" and "hazardous waste" is required prior to removal from Site.
NCP	55 FR 8758-8760, March 8, 1990	Area of Contamination – Allows wastes to be consolidated and treated <i>in situ</i> within an AOC without triggering land disposal restrictions or minimum technology requirements. For an AOC, contamination must be contiguous but does not have to be homogeneous.	Relevant and Appropriate	Action	Allows for movement of impacted soil to be moved within the footprint of impacted soil.
City of Modesto	Municipal Code Section 5-10.301	Requires a grading and erosion control permit to grade, fill, excavation, store or dispose of 350 cubic yards or more of soil or earth material or clear and grub more than .5 acre of land within the City limits.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.
City of Modesto	Municipal Code Section 5-10.303	Provides requirements for information to be included in a grading and erosion control permit.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.

Source	Standard, Requirement, Criterion, or Limitation	Description	ARARs, or To Be Considered	Chemical-Action-, or Location-Specific	Comments
City of Modesto	Municipal Code Section 5-10.304	Provides requirements for grading plans required as part of the grading and erosion permit.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil.
San Joaquin Valley Unified Air Protection Control District	Rule 8021	Provides requirements for to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.	Applicable	Action	Would apply for remedial actions that included excavation of impacted soil. Permit is required if area subject to construction, demolition, etc is greater than five acres.
National Contingency Plan (40 CFR Part 300.430)	USEPA's regulations for implementing CERCLA	Identifies the development and evaluation process for remedial alternatives.	Relevant and Appropriate	Action	Applies to investigation and remediation of uncontrolled hazardous waste sites.
USEPA	Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, October 1988, (EPA/540-G-89/004	Presents the methodology that the Superfund program has established for characterizing the nature and extent of risks posed by uncontrolled hazardous waste sites and for evaluating potential remedial options.	To be Considered	Action	<i>Voluntary Cleanup Agreement, FMC-Modesto Site, Stanislaus County, Modesto, California</i> requires the RI/FS Process to follow CERCLA guidance, specifically this guidance document.

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TABLE 2
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 2 – INSTITUTIONAL CONTROLS
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Activity	Quantity	Unit	Unit Cost	Total Cost
1	Project Management ¹	15	Annual	\$5,000	\$75,000
2	Public Communications ²	5	As-needed	\$2,500	\$12,500
2	Fence Maintenance ¹	15	Annual	\$5,000	\$75,000
3	Mowing ¹	30	Bi-annual	\$2,500	\$75,000
5	Groundwater Monitoring ³	20	Quarterly	\$12,500	\$250,000
6	Surfacewater Monitoring	3	Weather-dependent	\$2,500	\$7,500
Total Estimated Cost:					\$495,000

- Notes: 1 = assumed to be necessary from present until planned completion of ultimate build-out in 2028.
 2 = could include public meetings, fact sheets, public notices, and other forms of information dissemination to the public.
 3 = assumed that will be discontinued after interim progress phase is completed in 2018.

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TABLE 3
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 3 – REMOVAL
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$53,000	\$53,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$35,000	\$35,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$63,000	\$63,000
4	Truck Decontamination Station ²	47	Day	\$1,200	\$56,400
5	Air Monitoring	1	Lump Sum	\$215,000	\$215,000
6	Waste Profiling of Soil	1	Lump Sum	\$36,500	\$36,500
7	Traffic Control	47	Day	\$800	\$37,600
8	Excavation and Loading	216,000	Ton	\$9	\$1,944,000
9	Transportation and Disposal (Class II)	191,000	Ton	\$35	\$6,589,500
10	Transportation and Disposal (Class I)	25,000	Ton	\$242	\$6,050,000
11	Fill Placement	160,000	Cubic Yard	\$40	\$6,400,000
Total Estimated Cost:					\$21,480,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = truck decontamination includes daily washout and operation and maintenance of station

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TABLE 4
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 4 – CONTAINMENT BY CAPPING WITH THE SR-132 PROJECT
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$20,000	\$20,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$30,000	\$30,000
4	Air Monitoring ²	1	Lump Sum	\$150,000	\$150,000
5	Excavation and Consolidation of Soil from South Side of Stockpiles 1 and 2 (Interim Progress Phase)	15,000	Cubic Yard	\$5	\$75,000
6	Excavation and Consolidation of Soil from Stockpile 3 (Interim Progress Phase)	20,000	Cubic Yard	\$5	\$100,000
7	Grading of North Side Stockpiles 1 and 2	40,000	Cubic Yard	\$5	\$200,000
8	Clean Soil Cap - North Side of Stockpiles 1 and 2	8,000	Cubic Yard	\$10	\$80,000
9	Excavation and Consolidation of Soil - North Side of Stockpiles 1 and 2 (Ultimate Build-Out)	10,000	Cubic Yard	\$10	\$100,000
10	Pave Median of Ultimate Build-out	2,700	Ton	\$150	\$405,000
11	Revegetation - North Side of Stockpiles 1 and 2	200,000	Square Feet	\$2	\$400,000
Total Estimated Cost:					\$1,570,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = air monitoring to be conducted during all earthmoving activities during interim progress phase and ultimate build-out.

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TABLE 5
 REMEDIATION COST ESTIMATE SUMMARY
 ALTERNATIVE NO. 4 – CONTAINMENT BY CAPPING WITH CLEAN SOIL LAYER
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$20,000	\$20,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$30,000	\$30,000
4	Air Monitoring ²	1	Lump Sum	\$150,000	\$150,000
5	Grading of Stockpiles	25,000	Cubic Yard	\$5	\$125,000
6	Clean Soil Cap	20,000	Cubic Yard	\$10	\$200,000
7	Revegetation	400,000	Square Feet	\$2	\$800,000
Total Estimated Cost:					\$1,335,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.

2 = air monitoring to be conducted during all earthmoving activities during interim progress phase and ultimate build-out.

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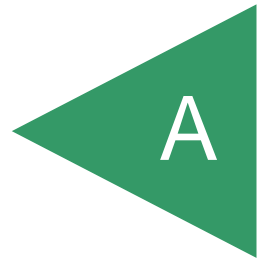
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TABLE 6
 REMEDIATION COST ESTIMATE SUMMARY
 OPTIONAL REMOVAL AND OFFSITE DISPOSAL OF STOCKPILE 3
 CALTRANS MODESTO SOIL STOCKPILES
 MODESTO, STANISLAUS COUNTY, CALIFORNIA

Item No.	Site Work	Quantity	Unit	Unit Cost	Total Cost
1	Project Management	1	Lump Sum	\$10,000	\$10,000
2	Pre-Field Planning/Permits	1	Lump Sum	\$10,000	\$10,000
3	SWPPP, BMPs, Trackout ¹ , Security	1	Lump Sum	\$20,000	\$20,000
4	Truck Decontamination Station ²	30	Day	\$1,200	\$36,000
5	Air Monitoring	1	Lump Sum	\$100,000	\$100,000
6	Waste Profiling of Soil	1	Lump Sum	\$10,000	\$10,000
7	Traffic Control	30	Day	\$800	\$24,000
8	Excavation and Loading	34,000	Ton	\$9	\$306,000
9	Transportation and Disposal (Class II)	34,000	Ton	\$35	\$1,173,000
10	Fill Placement	24,000	Cubic Yard	\$40	\$960,000
Total Estimated Cost:					\$2,649,000

Notes: 1 = trackout includes placement of rock for truck tire rough cleaning for each trip.
 2 = truck decontamination includes daily washout and operation and maintenance of station

APPENDIX



APPENDIX A

EVALUATION OF ALTERNATIVES

In accordance with CERCLA guidance and the remedial technology screening in Section 4, four alternatives were retained for further evaluation in the FS:

- Alternative 1 - No action;
- Alternative 2 - Institutional controls;
- Alternative 3 - Removal (excavation and offsite disposal); and
- Alternative 4 - Containment.

Each of these alternatives is described in the following subsections then evaluated against the nine NCP criteria.

A.1 Evaluation Criteria

The nine NCP evaluation criteria are:

Threshold Criteria:

1. Overall Protection of Human Health and the Environment
2. Compliance with ARARs

Balancing Criteria:

3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, and Volume through Treatment
5. Short-Term Effectiveness
6. Implementability
7. Cost

Modifying Criteria:

8. Regulatory Acceptance
9. Community Acceptance

Each evaluation criterion is described below. The RAO is stated in Section 3.3, which is to protect the health of neighboring residents, onsite trespassers, and Caltrans-authorized personnel and prevent future impact to groundwater by managing the stockpiles either in-place or by removing them from the Site. Therefore each alternative's attainment of the RAO is presented in the evaluation of Overall Protection of Human Health and the Environment.

A.1.1 Threshold Criteria

Threshold criteria relate to statutory requirements that each alternative must satisfy in order to be eligible for selection.

Overall Protection of Human Health and the Environment

This criterion is used to assess each alternative's ability to protect human health and the environment. The assessment of overall protection describes how risks to human health and the environment are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls. While the HHRA and update to the HHRA found that potential exposure of onsite trespassers and offsite residents to COPCs under the current land-use and of construction workers and adjacent residents during construction of the SR-132 Project does not pose an unacceptable risk or hazard, the detailed evaluation will still consider potential further reductions in risks to human health and the environment afforded by each alternative.

Compliance with ARARs

This evaluation criterion is used to determine whether each alternative would meet the Federal and State ARARs identified in Section 3. The ability of a remedial alternative to comply with certain ARARs that have been identified for the remedial action would depend entirely on the manner in which the remedy is implemented. For evaluation purposes, it is assumed that any remedy selected would be implemented in a manner that would meet these ARARs.

A.1.2 Balancing Criteria

Balancing criteria are used to evaluate the technical aspects of a remedial alternative.

Long-Term Effectiveness and Permanence

This criterion is used to assess the long-term ability of the remedial alternative to address the threshold criteria by (1) assessing the risk remaining at the Site after implementation of the remedial alternative, and (2) evaluating the long-term adequacy and reliability of the remedial alternative, including requirements for management and monitoring.

Reductions in Toxicity, Mobility, and Volume of COPCs

This criterion is used to assess a remedial alternative's ability to reduce the inherent risk of the stockpile soil. Technologies that permanently and significantly reduce toxicity, mobility, or volume are preferred over alternatives that only manage the stockpiles left in place. However, the degree of toxicity, mobility, or volume reduction achieved for the cost to achieve it is heavily weighted. Therefore, technologies that may have a significant effect on one or more of the criteria, but not necessarily all three, are strongly considered. As an example, a major factor to be considered is that the stockpiles were originally placed for construction of the SR-132 Project, which is now nearing implementation. If the stockpiles were to be removed from the Site in an attempt to achieve the greatest possible reduction in toxicity, mobility, and volume of COPCs, the soil would have to be replaced by other clean fill at considerable expense to

complete the project. The expense incurred for removal and replacement is not warranted for the degree of protection achieved. Additionally, while there is funding for construction of the SR-132 Project, there is no source of funding for removal of the stockpiles and replacement with other clean fill.

Short-Term Effectiveness

This criterion is used to assess the risks posed to the community, workers, and the environment during the implementation of a remedial action. Measures that would be taken to mitigate these risks will be addressed under this criterion. This criterion also considers the time required to achieve RAO.

Implementability

This criterion is used to assess the technical feasibility (constructability, reliability of technology, operation, and monitoring requirements), administrative feasibility (coordination with other agencies), and availability of services and materials (labor, equipment, and materials) to implement an alternative.

Cost

This criterion is used to assess the anticipated capital and annual O&M and monitoring costs associated with each alternative over a 30-year period. Capital and annual costs in the FS are presented in 2013 dollars. Cost estimates are provided in Tables 2 through 4.

A.1.3 Modifying Criteria

The modifying criteria, regulatory and community acceptance, are described as follows:

- Regulatory acceptance - this assessment evaluates the technical and administrative issues and concerns the DTSC and CVRWQCB may have regarding each of the alternatives.
- Community acceptance - this assessment evaluates the issues and concerns the public may have regarding each of the alternatives. These criteria will be addressed after the public comment period for the RAP and were not evaluated in the FS.

A.2 Evaluation of Alternatives

The remedial alternatives for the stockpiles are assessed with regard to their ability to meet the nine applicable NCP criteria.

A.2.1 Overall Protection of Human Health and the Environment

This criterion is an evaluation of the effect that each of the alternatives would have on human health and the environment. The evaluation of this criterion primarily addresses both existing and post-construction conditions, except where onsite construction activities have a potentially significant offsite impact (i.e., airborne dust generation).

Alternative 1 - No action

Under a no-action scenario the stockpiles would remain in place. There would be no access restrictions, no fencing, and no monitoring and maintenance. However, as long as Caltrans continues to own and control the property as State right-of-way they would maintain the perimeter fence and continue restricting access to Caltrans-authorized personnel. Therefore, the most likely site occupant would be a trespasser. The 2007 HHRA and recent update to the HHRA concluded that the concentrations of COPCs in the stockpiles do not pose an unacceptable level of health risk to an onsite trespasser. The no action alternative can therefore be considered protective of human health as long as land use remains the same and access is restricted.

The no action alternative would be the least protective of the environment in that it would not reduce the contaminant mass or the potential of the COPCs to impact surface or groundwater quality.

Alternative 2 – Institutional Controls

In their memo of December 17, 2009, the DTSC indicated that the stockpiles in their current condition do not pose an unacceptable risk to human health for: Caltrans workers, trespassers, or offsite residents adjacent to the stockpiles based on continued management of the stockpiles. Management of the stockpiles consists of: limiting access to only Caltrans-authorized personnel, inspecting and maintaining the chain-link fence, prohibiting any activities involving excavation/grading, off-site removal of soil, or placement of other soil on the Site, and maintaining the current vegetative cover. They also stated that Caltrans should continue to maintain the groundwater monitoring system at the Site. These management activities and site conditions constitute institutional controls. Based on the DTSC's statement, this alternative is protective of human health and the environment.

Alternative 3 - Removal

Excavation and offsite disposal of the stockpiles would provide good overall protection of human health and the environment with respect to eliminating potential exposure to COPCs in the soil. However, excavation and transportation of the soil could increase the short-term risk of exposure to receptors adjacent to the Site and along the transportation route from airborne dust and diesel exhaust emissions from construction equipment and trucks hauling soil from the project and clean replacement fill back to the project. Engineering controls (e.g., water spray and air monitoring) would mitigate airborne dust generation. Diesel exhaust and greenhouse gas emissions (GHGEs) could be limited by use of certain practices during construction (e.g., use of high efficiency engines, proper equipment maintenance, no idling of equipment, etc.), but not eliminated as use of heavy equipment is required and the only means of transportation of stockpile soil to landfills and clean fill soil back to the Site would be by truck. GHGEs for removal of the stockpiles and replacement with clean fill have been calculated to be 529,200 pounds of CO₂. GHGE calculations are shown in Appendix A.

Alternative 4 – Containment

This alternative will provide an improved level of protection of human health and the environment over Alternatives 1 and 2 through further elimination of the exposure routes to COPCs in the stockpiles and by decreasing the potential for stormwater to contact COPCs and impact surface or groundwater quality. Construction of the SR-132 Project will ultimately cap and encapsulate the soil completely by containing it behind retaining walls, bridge abutments, slope pavements, and beneath roadway pavement, and either pavement or a synthetic liner and clean soil cap in median areas. During the interim progress phase of the project, not all of the retaining walls will be constructed and the northern portions of Stockpiles and 1 and 2 will be graded for drainage and a clean soil cap placed over the stockpiles and vegetated. This temporary cap will remain in place and be maintained until the ultimate build-out.

If the planned SR-132 Project were not constructed, an alternative form of cap could be installed over the stockpiles. The alternative cap could consist of constructing a layer of clean soil (typically one foot thick) over the stockpiles. Prior to constructing the cap, the surface of the stockpiles would be graded for drainage to ensure primarily that stormwater did not pond on top of the stockpiles. Following construction, the cap surface would be vegetated to protect against stormwater and wind erosion. This form of a cap would provide a similar degree of protection of human health and the environment as capping by the SR-132 project.

A.2.2 Compliance with State and Federal Requirements

This criterion is an evaluation of whether each of the three alternatives will comply with applicable State, and/or Federal regulations.

Alternative No. 1 - No action

This alternative would not meet State or Federal regulations with respect to hazardous waste levels of COPCs in soil on the Site because of the lack of site control and public notification.

Alternative 2 – Institutional Controls

This alternative complies with State and/or Federal regulations under the Site's current inactive (but maintained and monitored) use as long as the Site remains fenced, its vegetative cover maintained, and groundwater quality monitoring continues.

Alternative 3 - Removal

This alternative would comply with State and Federal regulations as the soil would be removed from the Site and potential for exposure to COPCs and threat to the environment would be mitigated. This alternative would comply with the SJVAPCD's Rule 8021 regarding fugitive dust emissions during construction as long as dust suppression (water spray) was adequately performed during earthmoving activities. A dust control plan would have to be prepared and submitted to and approved by the SJVAPCD's Air Pollution Control Officer and must provide the required notification prior to commencing earthmoving activities.

Alternative 4 – Containment

This alternative by either type of cap (construction of the SR-132 Project or a vegetated clean soil layer) would comply with State and Federal regulations in that either form of cap would be protective of human health and the environment (groundwater).

A.2.3 Long-term Effectiveness and Performance

This criterion evaluates whether each of the three alternatives will provide long-term protection of human health and the environment from exposure to COPCs in the stockpiles.

Alternative 1 - No action

This alternative would not be effective in the long-term because access to the stockpiles would not be controlled and therefore potential exposure to COPCs not mitigated. Additionally, stormwater contact with COPCs and impact to surface or groundwater quality would not be mitigated.

Alternative 2 – Institutional Controls

This alternative would be effective in the long-term because the COPCs do not pose a threat to human health of an onsite trespasser or offsite residents as long as access continues to be controlled. Under this alternative, the site perimeter fence would be monitored and maintained to restrict access, and the vegetative cover would continue to minimize erosion and potential offsite transport via wind or stormwater. Informational technologies such as public notification via site signage, published notices, and public meetings, if warranted, could help to keep the public informed of the site conditions and status. Governmental and administrative controls such as a deed restriction and land use covenant would prevent the site from being developed for uses that may not be suitable under the current site conditions such as residential or other “sensitive” land uses.

Alternative 3 - Removal

This alternative would be effective in the long-term, because removal of the stockpiles would mitigate any potential for exposure to COPCs in the stockpiles.

Alternative 4 – Containment

This alternative would also be effective in the long-term as either form of a cap would isolate and encapsulate the soil for the indefinite future. A vegetated clean soil layer cap would likely require a greater degree of long-term monitoring and maintenance to ensure that the cap and vegetative cover remain viable and effective.

A.2.4 Reduction of Toxicity, Mobility, and Volume

This criterion is used to assess the ability of each alternative to reduce the toxicity, mobility, or volume of COPCs in the stockpiles.

Alternative 1 - No action

This alternative will not reduce the toxicity, mobility, and/or volume of COPCs in the stockpiles. Regarding toxicity, the 2007 HHRA and 2013 update demonstrated that the concentrations of COPCs do not pose an unacceptable level of health risk to an onsite trespasser, offsite resident, or future user of shallow groundwater. Therefore, the concentrations of COPCs are not considered to be toxic for those users. If under no action, other land uses occurred (unlikely given Caltrans' ownership of the property), then the potential health risk specific to those uses would have to be evaluated.

With respect to mobility of the COPCs in the stockpiles, mobility via erosion from wind or stormwater infiltration is limited by the vegetative cover. Further, COPC concentrations in groundwater samples collected from monitoring wells adjacent to and downgradient of, and native soil samples collected from beneath, the stockpiles are inconclusive with respect to COPC migration from the stockpiles.

Alternative 2 – Institutional Controls

This alternative will also not reduce the toxicity (low), mobility, or volume of COPCs in the stockpiles. However, as stated above, the health risks associated with the COPC concentrations have been demonstrated to be at acceptable levels for site trespassers and offsite residents under the current site conditions and controls.

Alternative 3 - Removal

This alternative would be the most effective in reducing the toxicity, mobility and volume of COPCs as the stockpiles would be completely removed from the Site and disposed of in an appropriate, permitted landfill.

Alternative 4 – Containment

This alternative by either form of cap will further reduce the potential mobility of the COPCs in the stockpiles via an impermeable surface that would preclude infiltration, but will have no effect on toxicity (low) or volume. The stockpiles would be isolated and encapsulated either within the SR-132 project behind retaining walls, bridge abutments, beneath roadway pavement, and either pavement or a synthetic liner and vegetated clean soil layer in the median areas or beneath a vegetated clean soil layer over all of the stockpiles. The toxicity and volume of COPCs would not change. This alternative would be the second-most effective in reducing the mobility of the COPCs in the stockpiles.

A.2.5 Short-term Effectiveness

This criterion evaluates the impacts of each alternative prior to and during construction of the project.

Alternative 1 - No action

This alternative would be effective for the period of time in which the site remained fenced thereby continuing to limit access to the Site. Without fence monitoring and maintenance, however, it would become the least effective of the four alternatives in the short-term.

Alternative 2 - Institutional Controls

This alternative would be effective in the short-term as the current fencing, vegetative cover, and stockpile configurations/slopes and top deck slope grade would remain as-is continuing to provide sufficient protection of human health and the environment.

Alternative 3 - Removal

With implementation of best management practices (BMPs) such as dust control (water spray application) and air monitoring, soil track-off controls, and transportation planning (e.g., route planning, load tarping, etc.) during soil handling activities (excavation, loading, and transportation), removal would be effective in the short-term. However, under this alternative, truck traffic on roads in the site vicinity would increase dramatically for both removal of the material and replacement with imported fill material. Removal of the stockpiled soil for offsite disposal is estimated to require 175 truckloads per day over an approximate 30-day period. A similar number of loads and time would be required to import clean fill material to replace the stockpiles. Air emissions from heavy equipment (e.g., graders, excavators, loaders) and trucking will be significantly increased for this alternative relative to all other alternatives and the work would fall under the SJVAPCD's Indirect Source Review Rule 9510. The short-term impact to air quality from airborne dust and diesel exhaust emissions, local traffic, and roads may not be acceptable to the community and local government. In addition, as described in Section A.2.1, GHGs attributable to heavy equipment operations and truck transportation during removal of the stockpiles and replacement with clean fill are estimated at 529,200 pounds of CO².

Alternative 4 - Containment

Similar to the removal alternative, with implementation of BMPs, either form of capping of the stockpiles should be effective in the short-term.

A.2.6 Implementability

This criterion evaluates the implementability of each of the alternatives.

Alternative 1 - No action

No action is readily implementable because it requires no labor, materials, or equipment.

Alternative 2 – Institutional Controls

This alternative is also readily implementable in that it requires minimal labor, materials, and equipment to monitor the Site and maintain fencing and the vegetative cover and is currently ongoing. Groundwater and stormwater monitoring are also ongoing, so there would be no change in those activities.

Alternative 3 - Removal

This alternative is technically implementable. However, other constraints to this alternative exist that decrease its implementability. Those constraints include a significant increase in truck traffic on adjacent and nearby roads for a period of approximately 60 days, an increased potential for offsite exposure due to generation of airborne dust from truck loads or spillage, and prohibitively high cost with no funding source. Potential landfill capacity to accept the soil has been confirmed and should not affect the implementability of this alternative.

Alternative 4 – Containment

This alternative in either form is readily implementable. The SR-132 project is currently being planned and designed by Caltrans and StanCOG. The volume of soil requiring excavation from Stockpiles 1 and 2 for consolidation behind retaining walls and bridge abutments is not significant. The cross-sections shown on Figures 7, 8, and 9 depict the portions of the stockpiles that are outside where project retaining walls will be constructed and therefore will be excavated and placed on top of the stockpiles where additional fill is needed. As shown on Figures 5b (plan view) and 9 (cross-section) Stockpile 3 will be nearly entirely removed from its location and placed in the embankment for the eastern side of the SR-99 bridge (Figure 5b).

A.2.7 Cost

Alternative 1 - No action

There is no cost associated with this alternative.

Alternative 2 – Institutional Controls

The costs associated with ongoing maintenance and monitoring, which includes as-necessary fence maintenance, annual mowing of the vegetative cover to reduce fire danger, and quarterly groundwater monitoring and weather-dependent stormwater monitoring is on the order of \$50,000 per year (Table 23). This cost is considered to be low to moderate and is the second least costly of the four alternatives.

Alternative 3 - Removal

Removal of the stockpiles through excavation, loading, transportation, and disposal at an offsite landfill is the most costly of the alternatives at approximately \$21.5 million (Table 4). Disposal cost assumes disposal of a portion of the stockpile soil (primarily from Stockpile 1) in a Class II (non-hazardous) facility and a portion (primarily from Stockpile 2) in a Class I (California hazardous). The cost of this alternative also includes replacement of the stockpiles by importing clean fill material. There is no funding available for removal.

Alternative 4 – Containment

The cost of containment by capping beneath the SR-132 project, including excavation of portions of the stockpiles and consolidation behind retaining walls, bridge abutments, and beneath a vegetated clean soil cap and roadway pavement, is considered to be moderate to high for capital costs and moderate in terms of ongoing monitoring and maintenance (Table 5). The bulk of the capital cost of this alternative will be in grading of the soil for the interim progress phase of the project, placement of the clean soil cap over the northern portions of Stockpiles 1 and 2, and placement of paving or a synthetic liner and clean soil cap over median areas for the ultimate build-out of the SR-132 Project.

The cost of containment by capping beneath a vegetated clean soil layer if the SR-132 project were not constructed is considered to be moderate to high for capital costs and moderate in terms of ongoing monitoring and maintenance (Table 6). The bulk of the capital cost of this alternative will be in grading of the stockpiles for drainage, placement of a one-foot-thick layer of clean soil over the stockpiles, and revegetation.

Monitoring costs for groundwater and stormwater monitoring will likely continue at levels similar to current costs until the ultimate build-out is complete. If the CVRWQCB approves a decrease in monitoring frequency, then annual monitoring costs would decrease.

A.2.8 Regulatory Acceptance

Each of the four alternatives is evaluated against this criterion to determine whether it meets legal and technical standards for regulatory acceptance.

Alternative 1 - No Action

This alternative would not be acceptable to the regulatory agencies because access to the Site would not be controlled, and groundwater quality monitoring would not continue.

Alternative 2 – Institutional Controls

This alternative currently has acceptance from the DTSC and CVRWQCB for the short-term with the understanding that Caltrans is moving forward with construction of the SR-132 project, which will encapsulate the stockpiles (Alternative 4).

Alternative 3 - Removal

This alternative also would likely receive regulatory acceptance from the DTSC and CVRWQCB because removal and offsite disposal of the stockpiles would reduce the level of health risk for any future land use and threat to the environment to the greatest extent possible. It would also receive regulatory acceptance from the SJVAPCD as long as dust suppression measures in accordance with a dust control plan were appropriately implemented.

Alternative 4 – Containment

This alternative is anticipated to receive regulatory acceptance by further eliminating exposure pathways to COPCs in the soil and reducing their mobility through encapsulation either within the SR-132 project or beneath a vegetated clean soil cap if the SR-132 project is not constructed.

A.2.9 Community Acceptance

This criterion involves the evaluation of whether each of the alternatives would be acceptable to the community.

Alternative 1 - No Action

Although the presence of the stockpiles has been generally acceptable to the community for five decades, this alternative would likely not remain acceptable to the public due to an increased perception of risk to human health and the environment associated with the stockpiles.

Alternative 2 – Institutional Controls

This alternative may be acceptable to the community if the current institutional controls (e.g., access restrictions, continued site monitoring and maintenance, and communication regarding the low level of risk to human health and the environment) continue to be implemented.

Alternative 3 - Removal

This alternative may be acceptable to the community because removing the stockpiles would likely eliminate any residual concern regarding health risk related to the stockpiles. In the short-term, the community may be averse to the perception of potential exposure to COPCs in airborne dust as soil is being excavated then transported along public roads to disposal facilities. There may also be some concern regarding increased truck traffic over an approximate 60-day period for offhaul of soil from the Site and import of new clean fill to replace the stockpiles. However, dust suppression and monitoring during excavation and loading by water spray, proper covering of waste loads, and appropriate routing of truck traffic would likely help the community to accept this alternative.

Alternative 4 – Containment

This alternative in either form of cap would likely be acceptable to the community because of the reduced potential for exposure to COPCs as a result of containment of the stockpile soil beneath the project. Some community opposition to the project exists which is unrelated to the stockpiles. Caltrans and StanCOG are moving forward with the SR-132 project, and public participation will continue through additional public informational meetings and a public hearing during public review of the draft environmental document and RAP. The public participation process will continue to afford the community opportunities to comment on the project and for StanCOG and Caltrans to respond to those comments with the intent of increasing community support for the project.

If the SR-132 project were not constructed, the alternative of constructing a vegetated clean soil cap over the stockpiles would likely receive the same community acceptance because of the same reduced

potential for exposure to COPCs. The public participation process could proceed as planned for the SR-132 project. However, an environmental document would likely not need to be prepared, therefore a public hearing would not likely be necessary. An additional public meeting could be held to discuss the difference between the clean soil cap and the SR-132 project.

A.3 Comparative Analysis

This section provides a comparative analysis of the four alternatives which forms the basis for selection of the preferred alternative.

A.3.1 Alternative 1 – No Action

This alternative would provide the lowest level of overall protection of human health and the environment of the four alternatives. The level of protection for the onsite trespasser and offsite resident would remain the same as the current controlled condition, but the health risk for other land uses and receptors would need to be further evaluated. This alternative would have the lowest level of regulatory acceptance because of the lack of site controls and monitoring and maintenance. It also would likely have the lowest level of community acceptance due to the perceived threat to human health and the environment. This is the least costly of the alternatives and is the most implementable.

A.3.2 Alternative 2 – Institutional Controls

This alternative provides a higher level of protection to human health and the environment than no action and has regulatory acceptance by the DTSC. Although the DTSC has stated that the stockpiles do not pose a risk to human health for Caltrans workers, trespassers, or offsite residents under the current controlled and monitored conditions, the CVRWQCB has indicated that the stockpiles would need to be maintained in order to protect groundwater quality if the SR-132 Project were not constructed. Due to the perception by the public of some degree of health risk or threat to the environment, a more proactive remedial action is likely preferred by the community. This alternative is the second lowest in cost and the second most implementable.

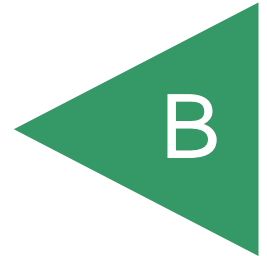
A.3.3 Alternative 3 – Removal

Removal of the stockpiles and disposal in an offsite landfill would provide the greatest degree of protection of human health and the environment and may be the most acceptable to the DTSC, CVRWQCB, and the community. Short-term impacts would be the greatest with this alternative due to potential air quality and traffic impacts. Air emissions from soil removal equipment (e.g., graders, excavators, loaders) and trucking will be greatest with this alternative. This alternative would also have the highest cost of the four and no funding is available for removal. This alternative can be performed in compliance with State and Federal requirements. Although technically implementable, it is the least implementable of the four because with construction of the SR-132 Project and removal of the stockpiles, which were placed specifically for the project, they would have to be replaced with an even greater amount of clean soil fill in order to build the project. This would pose an impact to funding and delay in the construction of the project.

A.3.4 Alternative 4 – Containment

Containment of the soil by either form of cap will provide the second highest level of protection of human health and the environment of the four alternatives. Capping will eliminate routes of exposure to COPCs in the soil and minimize the potential for storm water infiltration. Short-term exposure to construction personnel and adjacent residents could be minimized through the implementation of dust controls (e.g., water spray of disturbed areas). Long-term protection of human health and the environment would be provided by containment of the soil beneath either type of cap. This alternative can be performed in compliance with State and Federal requirements. This alternative would be implemented with DTSC and CVRWQCB oversight; therefore, regulatory acceptance is anticipated. This alternative should also be acceptable to the community as it is protective of human health and the environment. It is the third most costly of the alternatives, but significantly less than removal. It is the third most implementable of the alternatives, but its implementability is considered to be good as the stockpiles would be used for their originally intended purpose.

APPENDIX





Matthew Rodriguez
Secretary for
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Department of Toxic Substances Control

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May 18, 2015

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REVISED ADMINISTRATIVE RECORD, STATEMENT OF REASONS, AND
PRELIMINARY NONBINDING ALLOCATION OF RESPONSIBILITY FOR CALTRANS
MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

Dear Ms. Magsayo,

The Department of Toxic Substances Control (DTSC) has prepared the enclosed revised documents based on communication with Mr. Richard Stewart, P.G. on April 23, 2015. These documents are to be included as appendices in the Draft Final Remedial Action Plan (RAP) for the Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California prepared by Geocon Consultants, Inc., October 27, 2014.

- Appendix B, Administrative Record
- Appendix C, Statement of Reasons
- Appendix D, Preliminary Nonbinding Allocation of Responsibility

Following the addition of the referenced appendices, the Draft Final RAP will be the document that is referenced in the Caltrans Draft Environment Impact Report (EIR). The Draft Final RAP will be made available for public review and comment concurrently with the Draft EIR.

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Ms. Grace Magsayo
May 18, 2015
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Please contact me at 916-255-3591 if you have questions.

Sincerely,



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May 18, 2015
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APPENDIX B

ADMINISTRATIVE RECORD

CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST
FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

California Department of Transportation (CALTRANS)

Shaw Environmental, Inc. (Shaw)

Heavy Metal Contamination Preliminary Site Investigation Report, Modesto, California,
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Remedial Action Options Report, SR 132/SR 99 Stockpiles, Modesto, California, July
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Particulate Matter Test Report, Mowing Simulation, State Route 99/132 Project, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Shaw, June 5, 2007).

Final Preliminary Endangerment Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/199 Interchange, Stanislaus County, California, (Shaw, June 30, 2009).

Geocon Consultants, Inc. (Geocon)

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Groundwater Monitoring Report - March 2012, Modesto Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, June 29, 2012).

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Additional Well Installation and Groundwater Monitoring Report - June 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon November 28, 2012).

Groundwater Monitoring Report - July 2012, Modesto Soil Stockpiles, State Route 99 and 132, Stanislaus County, California, (Geocon, November 28, 2012).

Groundwater Monitoring Report - September 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, December 19, 2012).

Groundwater Monitoring Report - November 2012, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 6, 2013).

Groundwater Monitoring Report - January 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, February 28, 2013).

Groundwater Monitoring Report - March 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, May 16, 2013).

Groundwater Monitoring Report - June 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, June 27, 2013).

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Groundwater Monitoring Report - December 2013, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, January 29, 2014).

Groundwater Monitoring Report - February 2014, Caltrans Modesto Soil Stockpiles, Stanislaus County, California, (Geocon, April 25, 2014).

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Kleinfelder

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Department of Toxic Substances Control (DTSC)

Caltrans Modesto Soil Stockpile (State Route 99/132 Project), Caltrans/Department of Toxic Substances Control Interagency Agreement Task Order No. 10-43A0142-03; Department of Toxic Substances Control No. 03-T2641, (DTSC, April 8, 2005).

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Revised Supplemental Site Investigation and Human Health Risk Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/99, Stanislaus County, California, (DTSC, April 4, 2013).

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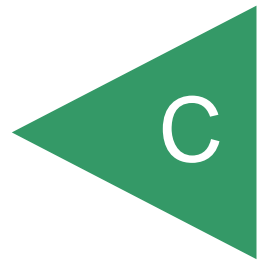
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Administrative Record, Statement of Reasons, and Preliminary Nonbinding Allocation of Responsibility, Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California, (DTSC, May 18, 2015).

APPENDIX





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APPENDIX C

STATEMENT OF REASONS FOR CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST FREEWAY/EXPRESSWAY PROJECT STANISLAUS COUNTY, CALIFORNIA DRAFT FINAL REMEDIAL ACTION PLAN

Pursuant to California Health and Safety Code (HSC), section 25356.1(d), the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) has prepared this "Statement of Reasons" as part of the "Draft Final Remedial Action Plan, (RAP), Caltrans Modesto Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California".

In addition to identifying the applicable or relevant and appropriate requirements to implement the remedial alternative recommended in the Final Feasibility Study (FS) for the Caltrans Modesto Soil Stockpiles (Site¹), the Draft Final RAP presents a summary of remedial investigations that address primary contaminants of potential concern (COPCs) in the stockpile soil: barium, strontium, and lead. Additional tests were conducted for other COPCs, including: antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. The soil was also tested for polycyclic aromatic hydrocarbons and other COPCs: nitrate, sulfate, and sulfide. Underlying groundwater was tested for the same COPCs as the stockpile soil.

The stockpile soil and groundwater results were used to quantify toxicological risk to human health for each individual stockpile and all stockpiles collectively. Exposure routes consist of ingestion, inhalation, and dermal contact as applicable to current offsite residents and trespassers; future construction workers; future offsite residents; and hypothetical future shallow groundwater users. Results of the Human Health Risk Assessment (Shaw Environmental Inc. June 2007) and the Human Health Risk Assessment Update (Geocon Consultants Inc., March 2013) are summarized in the Draft Final RAP²

¹ Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California (Geocon Consultants, Inc., June 2014)

² An Ecological Screening Evaluation was also completed and included in the Preliminary Endangerment Assessment, Caltrans Modesto Soil Stockpiles, State Route 132/99 Interchange, Stanislaus County, California (Shaw Environmental, June 30, 2009)

Based on stockpiles soil testing, the 2007 Risk Assessment and the 2013 Risk Assessment Update addressed exposure to COPCs, including: arsenic, barium, beryllium, chromium (III & IV), cobalt, copper, lead, mercury, molybdenum, nickel, and zinc. Polycyclic aromatic compounds did not qualify for risk assessment due to limited detection. Both the 2007 Risk Assessment and 2013 Risk Assessment Update determined that the stockpiles, and collectively, as currently managed, do not present an unacceptable risk to human health. Groundwater analysis resulted in the same conclusion.

The toxicological assessment was also included in the Final FS, which evaluated the most appropriate remedial actions for the stockpiles. The remedial action alternatives were then screened against qualifying criteria and methodology established by federal regulation. Based on the findings, the Final FS and Draft Final RAP recommends Alternative # 4 which consists of remediation of approximately 160,000 cubic yards of the stockpile soil by containment of stockpile soil beneath the roadway pavement, behind retaining walls, and behind bridge abutments. Groundwater monitoring and surface water monitoring will be included as part of the Operation and Maintenance plan (OMP) as referenced in the Remedial Design and Implementation Plan (RDIP) prepared by Caltrans. Review and concurrence of the RDIP and OMP by DTSC and the Central Valley Regional Water Quality Control Board will be completed prior to implementation of the recommended remedial action for the Site.

DTSC believes that the Draft Final RAP complies with section 25356.1. Section 25356.1(e) requires that RAPs "shall include a statement of reasons setting forth the basis for the removal and remedial actions selected". The statement of reasons "shall also include an evaluation of the consistency of the selected remedial action with the requirements of the federal regulations and factors specified in subdivision (d)". Section 25356.1(e) specifies six factors against which the remedial alternatives in the RAP must be evaluated. The recommended remedial alternative is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, also referred to as the National Contingency Plan (NCP), and the federal Superfund regulations. The Draft Final RAP has addressed all of these factors in detail. A brief summary of each of the six factors follows. The Statement of Reasons also includes the Preliminary Nonbinding Allocation of Responsibility (Appendix D) as required by HSC section 25356.1(e).

NCP Factors Addressed in the Draft Final RAP

1. Health and Safety Risks - Section 25356.1(d)(1)

The Draft Final RAP has been prepared to address contaminants and other general mineral constituents in the stockpiles soil and underlying shallow groundwater. The risk characterization consisting of a Human Health Risk Assessment and Human Health Risk Assessment Update evaluated potential exposure pathways to: 1) current offsite residents and trespassers; 2) future construction workers; 3) future offsite residents; and 4) hypothetical future shallow groundwater users. Based on the completed human health risk assessments and existing management practices by Caltrans including:

fences to prohibit public access; limiting access to Caltrans employees; maintaining a vegetative cover; and maintaining groundwater monitoring, the Site does not present an unacceptable risk to current residents, trespassers, and Caltrans workers and its contractors. According to the City of Modesto and a Department of Water Resources survey, there is no reported municipal or domestic use of shallow groundwater within one mile of the soil stockpiles. Groundwater under the stockpiles does not contain COPCs that exceed primary maximum contaminant levels for drinking water.

2. Beneficial Uses of the Site Resources - Section 25356.1(d)(2)

The soil stockpiles consist of excess native soil and pond tailings that were generated in the early 1960s when Caltrans acquired property from Food Machinery and Chemical Corporation (FMC) to construct a segment of State Route 99 along its current alignment located north of Kansas Avenue. Since the early 1960's, the intended and current planned use of the Site containing the stockpiles, located south of Kansas Avenue and east and west of Emerald Avenue, has been for construction of State Route 132 Freeway/Expressway Project. The incorporation of stockpile soil into the construction of State Route 132 at the Site is consistent with the Final FS and Draft Final RAP and is protective of human health and the environment, including groundwater. A land use covenant will be recorded to preclude the use of the property for residences, schools, daycare centers, and hospitals.

3. Effect of the Remedial Actions on Groundwater Resources - Section 25356.1(d)(3)

The recommended remedial alternative is protective of groundwater and surface water quality. Construction of State Route 132 Freeway/Expressway Project segment between Carpenter Avenue and North Franklin Street incorporates all stockpile soil beneath paved roadways; behind retaining walls; behind bridge abutments; or a clean vegetated soil cap that will be engineered to minimize infiltration of water and convey surface water away from the stockpile areas. An Operation and Maintenance Agreement, including an Operation and Maintenance Plan will require maintenance, annual inspections, and reporting for all surfaces overlying the stockpiles. To evaluate the effectiveness of the covered surfaces to prevent infiltration and mobilization of COPCs, groundwater and surface water monitoring will be required. The monitoring frequencies and reporting requirements will be established in the RDIP.

4. Site-Specific Characteristics - Section 25356.1(d) (4)

COPCs in the stockpiles and groundwater under the stockpiles have been extensively characterized, including barium concentrations at varying depths and locations within the stockpiles. Groundwater COPCs, including barium are below regulatory primary maximum contaminant threshold values for drinking water.

5. Cost-Effectiveness of Alternative Remedial Action Measures - Section 25356.1(d)(5)

The recommended remedial alternative is containment by construction of the State Route 132 Freeway/Expressway Project at the Site. Based on comparisons to the evaluation criteria, this remedial alternative was recommended for the Site. This recommended remedy is based primarily on achievement of remediation goals, implementability, effectiveness, consistency with future land use, and cost effectiveness. The cost implementation for this remedial alternative, which includes purchase of clean replacement soil, is approximately 20 times less than the cost to excavate and transport excavated soil stockpile material for offsite disposal.

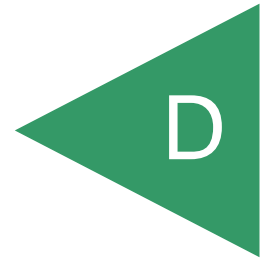
6. Potential Environmental Impacts of Remedial Actions – Section 25356.1(d)(6)

All potential remedial action impacts will be mitigated under the recommend remedial alternative. In accordance with the California Environmental Quality Act, Caltrans is preparing a Draft Environmental Impact Report which references the Draft Final RAP for the Site. DTSC and Central Valley Regional Water Quality Control Board are reviewing agencies with respect to the Draft Environmental Impact Report and other potential human health and environmental impacts associated with the SR 132 West Freeway/Expressway Project at the Site.

7. Preliminary Non-Binding Allocation or Responsibility (NBAR), HSC Section 25356.1(e)

The current preliminary NBAR for the site, as issued by DTSC, is presented as Appendix D of the Draft Final RAP.

APPENDIX





Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Edmund G. Brown Jr.
Governor

APPENDIX D

PRELIMINARY NONBINDING ALLOCATION OF RESPONSIBILITY, CALTRANS MODESTO SOIL STOCKPILES, STATE ROUTE 132, WEST FREEWAY/EXPRESSWAY PROJECT, STANISLAUS COUNTY, CALIFORNIA

Health and Safety Code (HSC) section 25356.1(e) requires the Department of Toxic Substances Control (DTSC) to prepare a preliminary non-binding allocation of responsibility (NBAR) among all identifiable potentially responsible parties (PRPs). The intention of the NBAR requirement in section 25356.1 was to establish which PRPs will have an aggregate allocation in excess of 50% and therefore convene arbitration if they so choose, even though the NBAR is otherwise not binding on anyone, including PRPs, DTSC, or the arbitration panel.

However, the arbitration provisions of Chapter 6.8 of Division 20 of the California Health and Safety Code (California Health and Safety Code Sections 25356.2 through 25356.10) were repealed by Senate Bill 1018 (Stats 2012, Chap 39), effective June 27, 2012. Accordingly, all statutory provisions and procedures associated with the arbitration proceeding were repealed. Since the arbitration provisions no longer exist, the only remaining purpose of an NBAR is to promote settlement and reduce transaction costs. Under EPA's "Interim Guidelines for Preparing Nonbinding Preliminary Allocation of Responsibility", there are situations where an NBAR should probably not be prepared. Specifically where the number of PRPs is relatively small and where the costs for remediation and future operation and maintenances are paid by the current property owner, Caltrans, that an NBAR would not expedite settlement. Under the circumstances of this case, the preparation of an NBAR with a specific allocation of percentages of liability to the various PRPs would not promote settlement by the parties or reduce transaction costs. Therefore, DTSC sets forth the following preliminary nonbinding allocation of responsibility for the Caltrans Modesto Stockpiles, State Route 132, West Freeway/Expressway Project¹, Stanislaus County, California:

¹ Includes operation and maintenance for the recommended remedial alternative, "containment" and the associated monitoring programs administered to evaluate the effectiveness of the remedial alternative.

Caltrans assumes full responsibility associated with the remediation and operation and maintenance costs for the Caltrans Modesto Soil Stockpiles, State Route 132, West Freeway/Expressway Project, Stanislaus County, California.

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Appendix I Agency Coordination

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Appendix I Agency Coordination

Appendix I Agency Coordination

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I.1 Notice of Preparation (NOP)

2010012010

Notice of Preparation

Form B

To: _____
 (Agency)

 (Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report/Environmental Assessment (EIR/EA)

Lead Agency:

Consulting Firm (If applicable):

Agency Name	<u>California Department of Transportation (Caltrans)</u>	Firm Name	<u>Jacobs</u>
Street Address	<u>2015 E. Shields Ave., Suite 100</u>	Street Address	<u>300 Frank H. Ogawa Plaza, Suite 10</u>
City/State/Zip	<u>Fresno, CA 93726</u>	City/State/Zip	<u>Oakland, CA 94612</u>
Contact	<u>Gail Miller</u>	Contact	<u>Lauren Abom</u>

Caltrans will be the lead agency and will prepare an EIR/EA for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR/EA we will prepare when considering your permit or other approval for the project. The project description and location are described herein. A copy of the Initial Study is not attached. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.


Please send your response to Gail Miller at the address shown above.

Project Title: State Route 132 West Freeway/Expressway Project

Project Location: Modesto Stanislaus
City (Nearest) County

Project Description: (brief)

The California Department of Transportation (Caltrans), in cooperation with the Stanislaus Council of Governments (StanCOG), proposes to construct a four-lane freeway/expressway along the adopted route for State Route 132 from west of Dakota Avenue to the new State Route 132/99 interchange in the City of Modesto. This project would help alleviate congestion on the existing State Route 132 (Maze Boulevard), which is presently operating above capacity. The portion of the project along the adopted State Route 132 would begin at post mile 10.7 and end at post mile 15.0 and the portion of the project along State Route 99 would begin at post mile 15.7 and end at post mile 16.8.

Date 1-16-10 **Signature** 
Title Office Chief
Phone 559-243-8274
Fax 559-243-8215

**Document Details Report
State Clearinghouse Data Base**

SCH# 2010012010
Project Title State Route 132 West Freeway/Expressway Project
Lead Agency Caltrans #6

Type **NOP** Notice of Preparation

Description The California Department of Transportation (Caltrans), in cooperation with the Stanislaus Council of Governments (StanCOG) partnership, proposes to construct a four-lane freeway/expressway along the adopted route for State Route 132 from west of Dakota Avenue to the new State Route 132/99 interchange in the City of Modesto. This project would help alleviate congestion on the existing State Route 132 (Maze Boulevard), which is presently operating above capacity. The portion of the project along the adopted State Route 132 would begin at post mile 10.7 and end at post mile 15.0 and the portion of the project along State Route 99 would begin at post mile 15.7 and end at post mile 16.8.

Lead Agency Contact

Name Gail Miller
Agency California Department of Transportation, District 6
Phone (559) 243-8274 **Fax**
email
Address 2015 E. Shields Avenue, Suite 100
City Fresno **State** CA **Zip** 93726-5428

Project Location

County Stanislaus
City Modesto
Region
Cross Streets State Route 99
Lat / Long 37° 38' 17.9" N / 121° 3' 2.2" W
Parcel No.
Township 3S **Range** 8,9E **Section** 25-26, **Base** MDB&M

Proximity to:

Highways Hwy 132, 99
Airports
Railways
Waterways
Schools
Land Use

Project Issues

Reviewing Agencies Resources Agency; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 4; Native American Heritage Commission; CA Department of Public Health; California Highway Patrol; Air Resources Board, Transportation Projects; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Date Received 01/07/2010 **Start of Review** 01/11/2010 **End of Review** 02/09/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

January 11, 2010

To: Reviewing Agencies
Re: State Route 132 West Freeway/Expressway Project
SCH# 2010012010

Attached for your review and comment is the Notice of Preparation (NOP) for the State Route 132 West Freeway/Expressway Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Gail Miller
California Department of Transportation, District 6
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726-5428

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Morgan".

Scott Morgan
Acting Director

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

I.2 Alternative 5 Screening Memorandum



Memorandum

300 Frank H. Ogawa Plaza, Suite 10
Oakland, CA 94612
1.510.457.0027 Fax 1.510.457.0037

Date July 22, 2011

To Gail Miller, Caltrans
Scott Smith, Caltrans

From Dorney Burgdorf, Lauren Abom

CC: Christina Hibbard, Caltrans
Anton Kismetian, Caltrans
Kris Balaji
Trin Campos

Subject State Route (SR) 132 West Expressway Project, EA 10-403500, #ID# 1000000424
Consideration of Alternative 5 - Widening Existing SR 132 (Maze Boulevard)

This memorandum serves to document the Project Development Team (PDT) concurrence to eliminate Alternative 5 – Widening existing Maze Boulevard between SR 99 to Dakota Avenue from being further studied as an Alternative for the SR132 West Expressway project’s environmental analysis.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

During the initial scoping phase of PA&ED for this project, the Project Development Team developed various preliminary alternatives for consideration and requested community input at the Public Scoping Meeting held on January 25, 2010. One of the preliminary alternatives considered during project scoping was Alternative 5, which proposed widening along the existing SR132 alignment to build a multi-lane conventional highway facility to meet the project need. However, this alternative was ultimately rejected by the PDT due to long range transportation planning conflicts and significant impacts to existing community. This analysis is described in further detail below.

Alternative 5 - Widen existing SR 132 (Maze Boulevard)

Widening SR 132 (Maze Boulevard) from a two-lane conventional roadway to a multi-lane conventional highway along its existing alignment was identified as an alternative during the initial scoping for the project. This alternative would entail major widening to allow for construction of a four to six-lane roadway, a raised median, modification or elimination to mid-block property access, left-turn & right-turn lanes, and at-grade signalized intersections at all major local roads. The constraints identified during close evaluation of this alternative include:

1. Significant relocation impacts to existing properties and local community;

7/22/2011

Memorandum

(Continued)

Page 2 of 3

2. Lack of system connectivity improvement between SR132 and SR99; and
3. Inconsistency with transportation planning and currently programmed transportation projects.

1. Impacts to Existing Properties and Local Community

Widening existing SR 132 to a multi-lane conventional highway would impact an estimated 134 adjacent parcels, including 69 residential parcels and would require a significant number of existing homes and businesses to be relocated. The relocation impacts to existing development and the elimination of direct access to many existing schools, churches, residents, and businesses along existing SR 132 (Maze Boulevard) would make this alternative very disruptive to the community. This would impact approximately 100 more properties than under any of the proposed Alternatives 1-4, including at least twice as many residential relocations.¹ This community also consists of many low-income households that could be affected by these relocations, which would be considered an environmental justice concern. Therefore, relocations for these low income households must be avoided whenever possible.

2. Lack of System Connectivity

In addition to constructing a multi-lane freeway/expressway facility, this project proposes to improve system connectivity from SR 132 west to SR 99 by constructing freeway to freeway direct connectors to and from southbound SR 99. These direct connectors are needed to serve high traffic volume demands. The existing ramp connections from SR 132 (Maze Boulevard / L Street) to SR 99 do not provide the capacity needed for the future four to six-lane facilities. Constructing freeway to freeway connectors at the current SR 132 (Maze Boulevard) connection to SR 99 in downtown Modesto is not considered feasible due to the significant right of way impacts to downtown developments and the conflict with existing SR 99 ramps.

3. Inconsistency with transportation planning documents and Programmed Transportation Projects

Widening SR 132 along its existing alignment is not consistent with State, Regional, or Local system planning for SR 132. The System Planning Statement, dated July 6, 2011, for the State Route 132 Western Expressway (STA 132 PM 11.3/R14.7; STA 99 PM 16.12/16.82), classifies the SR 132 Concept Facility as 4-lane expressway and the Ultimate Facility as a 4-lane freeway. Widening existing SR 132 would only allow for a conventional highway, which is not consistent with

¹ According to the July 2011 CIA for the project, a total of 28 residential and eight business relocations would occur under Alternative 2 which would be the largest number of relocations that could result from Alternatives 1-4.

7/22/2011

Memorandum

(Continued)

Page 3 of 3

the current System Planning Statement. The 2003 Caltrans Transportation Concept Report for SR 132 also identifies the proposed SR132 multi-lane freeway/expressway project for construction on a new alignment. Planned construction of the future multi-lane facility on the new alignment is included in the StanCOG RTP, the Stanislaus County General Plan, and the City of Modesto General Plan. Realignment of SR132 West has been planned since the Freeway Route Adoption in 1956 and much of the needed right of way along the adopted corridor has already been acquired by the State.

Summary

Widening SR132 (Maze Boulevard) to a multi-lane conventional highway along the existing alignment would create significant relocation and socioeconomic impacts on the local community, would not provide for improved connectivity between SR 132 west and SR 99, and is not consistent with State or Regional approved transportation plans. After evaluating these impacts and considerations, Alternative 5 was not considered feasible and was dropped from further study.

I.3 State Historic Preservation Office Concurrence Documentation

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

**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 16, 2015

Reply To: FHWA120404A

Jeanne Day Binning, Ph.D., Chief
Central California Cultural Resources Branch
Caltrans District 6
855 M Street
Fresno, CA 93721

Re: Determinations of Eligibility for the Proposed State Route 132 West Expressway Project, Stanislaus County, CA

Dear Dr. Binning:

You are consulting with me about the subject undertaking in accordance with the January 2014 *First Amended 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 (NRHP) either individually or as part of a potential historic district:

- 1600 Elm Avenue, Modesto, CA
- 630 Elm Avenue, Modesto, CA
- 412 Laurel Avenue, Modesto, CA
- 404 Laurel Avenue, Modesto, CA

Based on my review of the submitted documentation, I concur with the foregoing determinations.

I look forward to consulting with the Caltrans in the future as your archeological survey effort is completed.

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 natalie.lindquist@parks.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Carol Roland-Nawi, Ph.D.".

Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

**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



May 16, 2012

Reply To: FHWA120404A

Jeanne Day Binning, Ph.D.
Branch Chief, Central California Cultural Resources Branch
Caltrans District 06
855 M Street, Suite 200
Fresno, CA 93721

Re: Determinations of Eligibility for the Proposed State Route 132 West Expressway Project, Stanislaus County, CA

Dear Ms. Binning:

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 properties listed on pages 2-4 of your letter of March 23, 2012 are not eligible for the National Register of Historic Places (NRHP). Based on review of the submitted documentation, I concur.

Caltrans has also found the following properties are eligible for the NRHP.

- 3530 Maze Boulevard – The residence is eligible for the NRHP under Criterion C as an excellent example of the vernacular Craftsman style at the local level of significance. I concur.
- 416/418 I Street – The Dania Hall located at 416/418 I Street, is eligible for the NRHP under Criterion A at the local level of significance for its association with the Danish community's role in the development of Modesto. I concur.

I also understand that the identification effort for this project is not yet complete. I look forward to further consultation in the future regarding this project.

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,

A handwritten signature in cursive script that reads "Susan H. Stratton for".

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

I.4 Air Quality Conformity Correspondence

Page 1 of 1

Isael Ojeda - RE: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

From: Isael Ojeda
Subject: RE: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

>>> "OConnor, Karina" <OConnor.Karina@epa.gov> 4/25/2016 4:16 PM >>>
EPA concurs that this is not a project of air quality concern.

Thanks, Karina

Karina OConnor
EPA, Region 9
Air Planning Office (AIR-2)
(775) 434-8176
occonnor.karina@epa.gov

From: Isael Ojeda [<mailto:iojeda@Stancog.org>]
Sent: Friday, April 01, 2016 2:21 PM
Subject: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

Good Afternoon Interagency Consultation Partners:

StanCOG is providing the attached PM2.5 and PM10 Hot-Spot Conformity Assessment memo for the State Route 132 West Freeway/Expressway Project, CTIPS# 1140000022 for Interagency Consultation. As part of the environmental review, it is requested that the Interagency Consultation Partners concur that this project is not a Project of Air Quality Concern (POAQC) and will not result in new violations of Federal PM2.5 and PM10 air quality standards.

Please reply to all with concurrence and/or comments by 5:00 p.m. on April 15, 2016. An interagency conference call will be held upon request. FHWA and EPA concurrence is requested.

Should you have any questions regarding this e-mail or the attached memo, please feel free to contact Elisabeth Hahn by phone at [\(209\) 525-4633](tel:2095254633) or via email at ehahn@stancog.org.

about:blank

4/27/2016

Isael Ojeda - RE: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

From: Isael Ojeda
Subject: RE: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

>>> <Joseph.Vaughn@dot.gov> 4/26/2016 4:34 PM >>>
FHWA concurs that this is not a project of air quality concern.

From: Isael Ojeda [iojeda@stancog.org]
Sent: Friday, April 01, 2016 2:21 PM
Subject: StanCOG IAC Memo for PM10 and PM2.5 Hot Spot Conformity Assessment-CTIPS I.D. 1140000022 State Route 132 West Freeway/Expressway Project

Good Afternoon Interagency Consultation Partners:

StanCOG is providing the attached PM2.5 and PM10 Hot-Spot Conformity Assessment memo for the State Route 132 West Freeway/Expressway Project, CTIPS# 1140000022 for Interagency Consultation. As part of the environmental review, it is requested that the Interagency Consultation Partners concur that this project is not a Project of Air Quality Concern (POAQC) and will not result in new violations of Federal PM2.5 and PM10 air quality standards.

Please reply to all with concurrence and/or comments by 5:00 p.m. on April 15, 2016. An interagency conference call will be held upon request. FHWA and EPA concurrence is requested.

Should you have any questions regarding this e-mail or the attached memo, please feel free to contact Elisabeth Hahn by phone at (209) 525-4633 <tel:2095254633> or via email at ehahn@stancog.org <redir.aspx?REF=bxHUm1g-4Q7FxlqUJk0TgeVKULBRbU6aQHv2D-X7Nn8kmf6-Km7TCAftYWlsdG86ZWahaG5Ac3RhbmNvZy5vcmc.>.

I.5 FHWA Project-Level Conformity Letter



U.S. Department
of Transportation
**Federal Highway
Administration**

Federal Highway Administration
California Division

June 5, 2017

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (fax)

In Reply Refer To:
HDA-CA

Ms. Sharri Bender Ehlert
California Department of Transportation,
District 6
855 M Street
Fresno, CA 93721

Attention: Terry Goewert

Dear Ms. Bender Ehlert:

SUBJECT: Project Level Conformity Determination for the State Route 132
Freeway/Expressway Project (CTIPS ID 11400000022)

On April 21, 2017, and with subsequent materials, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the State Route 132 Freeway/Expressway Project. The project is in an area that is designated Non-Attainment or Maintenance for Carbon Monoxide (CO), Ozone and Particulate Matter (PM 2.5).

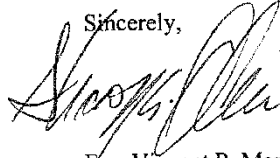
The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Stanislaus Council of Governments' (StanCOG) current Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), as amended. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the State Route 132 Freeway/Expressway Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93.

If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn at (916) 498-5346 or by email at Joseph.Vaughn@dot.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Vincent P. Mammano". The signature is fluid and cursive, with the first name being the most prominent.

For: Vincent P. Mammano
Division Administrator

I.6 Federal Endangered Species Act (FESA) Determination Summary



United States Department of the Interior



FISH AND WILDLIFE SERVICE
 Sacramento Fish and Wildlife Office
 FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
 SACRAMENTO, CA 95825
 PHONE: (916)414-6600 FAX: (916)414-6713

Scientific Name	Common Name	Status ⁽¹⁾	Possible in Which Habitat Type	Ac. Habitat Impacts Perm/Temp	Species Impacts Expected	FESA Determination
<i>Tuctoria greenei</i>	Greene's tuctoria	FE	Vernal pools. Elevation range: 98 to 3,510 ft. Blooming Period: May-July (September).	0/0	No suitable vernal pool habitat present in the BSA. Not observed during botanical surveys.	No Effect
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems	0/0	No suitable riparian habitat present in the BSA.	No Effect
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	0/0	No suitable riparian habitat present in the BSA.	No Effect
<i>Ambystoma californiense</i>	California tiger salamander	FT/ST	Needs underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	0/0	No suitable habitat present in the BSA.	No Effect
<i>Rana draytonii</i>	California red-legged frog	FT/SC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation	0/0	No suitable breeding or upland habitat present in the BSA.	No Effect

Scientific Name	Common Name	Status ⁽¹⁾	Possible in Which Habitat Type	Ac. Habitat Impacts Perm/Temp	Species Impacts Expected	FESA Determination
<i>Thamnophis gigas</i>	Giant garter snake	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	0/0	No suitable habitat present in the BSA. There is no suitable upland habitat. The one canal in the BSA is concreted-lined and the closest reported occurrence is located 20 miles north of the BSA.	No Effect
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	FE	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools.	0/0	No suitable vernal pool habitat present in the BSA.	No Effect
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT	Endemic to the grasslands of the central valley, central coast mountains, and south coast mountains, in astatic rain-filled pools.	0/0	No suitable vernal pool habitat present in the BSA.	No Effect
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	FT	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>).	0/0	No suitable habitat present in the BSA. Blue elderberry is not present in the BSA.	No Effect
<i>Lepidurus packardi</i>	Vernal pool tadpole shrimp	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	0/0	No suitable vernal pool habitat present in the BSA.	No Effect
<i>Neotoma fuscipes riparia</i>	Riparian (=San Joaquin Valley) woodrat	FE/SC	Riparian areas along the San Joaquin, Stanislaus, and Tuolumne rivers	0/0	No suitable riparian habitat present in the BSA.	No Effect
<i>Sylvilagus bachmani riparius</i>	Riparian brush rabbit	FE/SE	Riparian areas along the San Joaquin River in northern Stanislaus county	0/0	No suitable riparian habitat present in the BSA.	No Effect

Scientific Name	Common Name	Status ⁽¹⁾	Possible in Which Habitat Type	Ac. Habitat Impacts Perm/Temp	Species Impacts Expected	FESA Determination
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation	0/0	No suitable habitat present in the BSA. BSA is outside of the known range of species (pers. comm., Kleinfelter).	No Effect
<i>Hypomesus transpacificus</i>	Delta smelt & critical habitat	FT/SE	Sacramento-San Joaquin Delta. Occurs seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	0/0	No suitable riverine habitat present in the BSA.	No Effect
<i>Oncorhynchus mykiss</i>	Central Valley steelhead & critical habitat	FT	Populations occur in the Sacramento and San Joaquin rivers and their tributaries.	0/0	No suitable riverine habitat present in the BSA.	No Effect

¹**Status Codes:**

Federal Status

FE – Federally listed as endangered

FT – Federally listed as threatened

FC – Federal candidate for listing

State Status

SE – State listed as endangered

ST – State listed as threatened

SR – State listed as rare

SC – State species of Concern

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I.7 U.S. Fish and Wildlife Service and National Marine Fisheries Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

February 15, 2018

Consultation Code: 08ESMF00-2018-SLI-1224

Event Code: 08ESMF00-2018-E-03574

Project Name: State Route 132 West Freeway/Expressway Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

02/15/2018

Event Code: 08ESMF00-2018-E-03574

3

Attachment(s):

- Official Species List

02/15/2018

Event Code: 08ESMF00-2018-E-03574

1

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2018-SLI-1224

Event Code: 08ESMF00-2018-E-03574

Project Name: State Route 132 West Freeway/Expressway Project

Project Type: TRANSPORTATION

Project Description: The proposed project lies on SR 132 in the City of Modesto in Stanislaus County and involves the ultimate construction of a four-lane freeway south of Kansas Avenue from Dakota Avenue (post mile [PM] 11.0) to east of SR 99 at Needham Street (PM 15.0). The total length of the proposed project would be approximately 4 miles with 10-foot-wide outside shoulders, 5-foot-wide inside shoulders, 12-foot-wide general-purpose lanes, and a 36-foot-wide median. In addition to constructing a new alignment for SR 132 between Dakota Avenue and Needham Street, the proposed project would include improvements on SR 99 from PM 15.7 to PM 17.5. These elements would improve system connectivity between SR 132 and SR 99.

The proposed project would include connection improvements along SR 99, as well as a direct-connector flyover ramp from northbound SR 99 to westbound SR 132. The purpose of the proposed project is to improve regional and interregional circulation, relieve traffic congestion along existing SR 132 (Maze Boulevard), and enhance operations for the existing and proposed transportation network.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.644256624533455N121.013554244781W>



Counties: Stanislaus, CA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

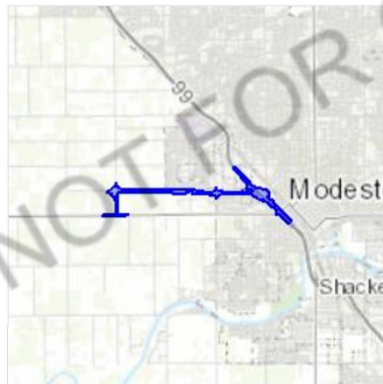
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Stanislaus County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain timeframe) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain timeframe). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the **PROBABILITY OF PRESENCE SUMMARY** at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
<p>Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637</p>	Breeds Feb 1 to Jul 15
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626</p>	Breeds Jan 1 to Aug 31
<p>Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878</p>	Breeds Jun 15 to Sep 10
<p>Burrowing Owl <i>Athene cunicularia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737</p>	Breeds Mar 15 to Aug 31
<p>California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Jul 31

<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds Jan 1 to Dec 31</p>
<p>Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470</p>	<p>Breeds Jan 15 to Jun 10</p>
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	<p>Breeds Jan 1 to Aug 31</p>
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	<p>Breeds Mar 20 to Sep 20</p>
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	<p>Breeds Apr 20 to Sep 30</p>
<p>Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511</p>	<p>Breeds elsewhere</p>
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	<p>Breeds elsewhere</p>
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410</p>	<p>Breeds Apr 1 to Jul 20</p>

<p>Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656</p>	<p>Breeds Mar 15 to Jul 15</p>
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	<p>Breeds elsewhere</p>
<p>Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480</p>	<p>Breeds elsewhere</p>
<p>Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910</p>	<p>Breeds Mar 15 to Aug 10</p>
<p>Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483</p>	<p>Breeds elsewhere</p>
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds elsewhere</p>
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds Mar 15 to Aug 10</p>
<p>Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726</p>	<p>Breeds Apr 1 to Jul 31</p>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds.

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore

IPaC: Explore Location

<https://ecos.fws.gov/ipac/location/R2GX6LSUMBBHHPKPIVV534C...>

coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

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Seguin, Misha

From: NMFSWCRCA Specieslist - NOAA Service Account
<nmfswcrca.specieslist+canned.response@noaa.gov>
Sent: Thursday, February 15, 2018 2:09 PM
To: prvs=6584e0ecac=misha.seguin@jacobs.com
Subject: [EXTERNAL] Re: Request for Official NMFS ESA Species List - SR 132 West Freeway/Expressway Project

Receipt of this message confirms that NMFS has received your email to nmfswcrca.specieslist@noaa.gov. If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page (http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600

Seguin, Misha

From: Seguin, Misha
Sent: Thursday, February 15, 2018 2:01 PM
To: 'nmfswcrca.specieslist@noaa.gov'
Subject: Request for Official NMFS ESA Species List - SR 132 West Freeway/Expressway Project

Project: SR 132 West Freeway/Expressway; Stanislaus Council of Governments, Caltrans District 10.

The proposed project lies on SR 132 in the City of Modesto in Stanislaus County and involves the ultimate construction of a four-lane freeway south of Kansas Avenue from Dakota Avenue (post mile [PM] 11.0) to east of SR 99 at Needham Street (PM 15.0). The total length of the proposed project would be approximately 4 miles with 10-foot-wide outside shoulders, 5-foot-wide inside shoulders, 12-foot-wide general-purpose lanes, and a 36-foot-wide median. In addition to constructing a new alignment for SR 132 between Dakota Avenue and Needham Street, the proposed project would include improvements on SR 99 from PM 15.7 to PM 17.5. These elements would improve system connectivity between SR 132 and SR 99.

The proposed project would include connection improvements along SR 99, as well as a direct-connector flyover ramp from northbound SR 99 to westbound SR 132. The purpose of the proposed project is to improve regional and interregional circulation, relieve traffic congestion along existing SR 132 (Maze Boulevard), and enhance operations for the existing and proposed transportation network.

According to the map of NMFS Resources in California (Google Earth Pro KMZ File December 2016) the following species may be located within the Salida quadrangle in California where the project is located:

Quad Name **Salida**
Quad Number **37121-F1**

ESA Anadromous Fish

- SONCC Coho ESU (T) -
- CCC Coho ESU (E) -
- CC Chinook Salmon ESU (T) -
- CVSR Chinook Salmon ESU (T) -
- SRWR Chinook Salmon ESU (E) -
- NC Steelhead DPS (T) -
- CCC Steelhead DPS (T) -
- SCCC Steelhead DPS (T) -
- SC Steelhead DPS (E) -
- CCV Steelhead DPS (T) - **X**
- Eulachon (T) -
- sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - X
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -

X

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Point of Contact:

[Misha Seguin](#) | Jacobs | Environmental Scientist | 510.520.9787 (office/mobile)

I.8 California Department of Fish and Wildlife and California Native Plant Society Species Lists



Summary Table Report
 California Department of Fish and Wildlife
 California Natural Diversity Database



Query Criteria: Quad (Salida (3712161) OR Manteca (3712172) OR Avena (3712171) OR Escalon (3712078) OR Ripon (3712162) OR Riverbank (3712068) OR Westley (3712152) OR Brush Lake (3712151) OR Ceres (3712058))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Candidate Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	35 75	951 S:11	0	0	0	0	2	9	7	4	9	2	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	40 115	1174 S:4	0	0	0	0	3	1	4	0	1	1	2
<i>Anniella pulchra</i> northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	115 155	333 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Ardea herodias</i> great blue heron	G5 S4	None None	CDF S-Sensitive IUCN_LC-Least Concern	40 40	147 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	125 2,850	1957 S:2	0	0	0	1	0	1	2	0	2	0	0
<i>Atriplex cordulata var. cordulata</i> heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive		66 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Atriplex minuscule</i> lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1	40 40	37 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Atriplex subtilis</i> subtle orache	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive		24 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Blepharizonia plumosa</i> big tarplant	G2 S2	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden		53 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report
 California Department of Fish and Wildlife
 California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Bombus caliginosus</i> obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	70 70	181 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None None		80 80	234 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus occidentalis</i> western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	60 60	282 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	35 35	43 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	35 125	765 S:4	0	1	1	0	0	2	3	1	4	0	0
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	G5T3 S3	Delisted None		25 50	19 S:7	1	0	0	0	0	6	7	0	7	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	23 300	2443 S:48	0	6	3	0	0	39	22	26	48	0	0
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	250 250	86 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	G3 S2.1	None None		35 35	60 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	25 25	155 S:1	0	0	0	0	1	0	1	0	0	1	0



Summary Table Report
 California Department of Fish and Wildlife
 California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	70 70	626 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	G3T2 S2	Threatened None		30 100	271 S:7	1	1	1	0	0	4	5	2	7	0	0
<i>Egretta thula</i> snowy egret	G5 S4	None None	IUCN_LC-Least Concern	40 40	18 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Elderberry Savanna</i> Elderberry Savanna	G2 S2.1	None None		35 35	4 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Eryngium racemosum</i> Delta button-celery	G1 S1	None Endangered	Rare Plant Rank - 1B.1	40 55	26 S:2	0	0	0	0	2	0	2	0	0	2	0
<i>Eschscholzia rhombipetala</i> diamond-petaled California poppy	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden		12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority		294 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Falco columbarius</i> merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	25 25	35 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	G2 S2.1	None None		25 40	56 S:2	0	0	2	0	0	0	2	0	2	0	0
<i>Great Valley Mixed Riparian Forest</i> Great Valley Mixed Riparian Forest	G2 S2.2	None None		35 35	68 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Great Valley Valley Oak Riparian Forest</i> Great Valley Valley Oak Riparian Forest	G1 S1.1	None None		30 40	33 S:2	0	1	0	0	0	1	2	0	2	0	0
<i>Legenere limosa</i> legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	150 150	83 S:1	0	0	0	0	1	0	1	0	0	0	1



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	40 125	324 S:3	0	0	1	0	0	2	0	3	3	0	0
<i>Linderiella occidentalis</i> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	35 40	434 S:2	0	1	0	0	0	1	0	2	2	0	0
<i>Lytta moesta</i> moestan blister beetle	G2 S2	None None		40 100	12 S:4	0	0	0	0	0	4	4	0	1	3	0
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	G5 S3?	None None	CDFW_SSC-Species of Special Concern	30 30	92 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Mylopharodon conocephalus</i> hardhead	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	34 70	32 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Neotoma fuscipes riparia</i> riparian (=San Joaquin Valley) woodrat	G5T1Q S1	Endangered None	CDFW_SSC-Species of Special Concern	25 50	3 S:3	0	0	0	0	0	3	2	1	3	0	0
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:3	0	0	0	1	0	2	0	3	3	0	0
<i>Puccinellia simplex</i> California alkali grass	G3 S2	None None	Rare Plant Rank - 1B.2	25 25	71 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sphenopholis obtusata</i> prairie wedge grass	G5 S2	None None	Rare Plant Rank - 2B.2	50 50	19 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sylvilagus bachmani riparius</i> riparian brush rabbit	G5T1 S1	Endangered Endangered		30 50	16 S:3	0	1	0	0	1	1	1	2	2	1	0
<i>Tuctoria greenei</i> Greene's tuctoria	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1	136 136	48 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	32 32	482 S:1	0	0	0	1	0	0	0	1	1	0	0
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2 S2	Endangered Threatened		300 300	1017 S:1	0	0	0	0	0	1	1	0	1	0	0

CNPS *California Native Plant Society* Rare and Endangered Plant Inventory

Plant List

13 matches found. [Click on scientific name for details](#)

Search Criteria

Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4],

FESA is one of [Endangered, Threatened, Species of Concern, Not Listed],

CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in 9 Quads around 37121F1

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B,2	S2	G3T2
Atriplex coronata var. coronata	crownscale	Chenopodiaceae	annual herb	4,2	S3	G4T3
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	1B,1	S2	G2
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	1B,2	S1	G1
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	1B,1	S2	G2
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B,2	S3?	G3?
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4,2	S3	G3T3
Ervegium racemosum	Delta button-celery	Apiaceae	annual / perennial herb	1B,1	S1	G1Q
Eschscholzia rhombipetala	diamond-petaled California poppy	Papaveraceae	annual herb	1B,1	S1	G1
Legenere limosa	legenere	Campanulaceae	annual herb	1B,1	S2	G2
Puccinellia simplex	California alkali grass	Poaceae	annual herb	1B,2	S2	G3
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	2B,2	S2	G5
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	1B,1	S1	G1

Suggested Citation

CNPS, Rare Plant Program. 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA, Website <http://www.rareplants.cnps.org> [accessed 20 June 2016].

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[The California Database](#)

[The California Lichen Society](#)

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I.9 Natural Resources Conservation Service Form NRCS-CPA-106

U.S. DEPARTMENT OF AGRICULTURE NRCS-CPA-106
 Natural Resources Conservation Service (Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 6/8/17	4. Sheet 1 of _____
1. Name of Project State Route 132 West Freeway/Expressway		5. Federal Agency Involved FHWA	
2. Type of Project Transportation		6. County and State Stanislaus County, California	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 6/8/17	2. Person Completing Form KMG
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 320784	Average Farm Size 185
5. Major Crop(s) Almonds, Walnuts, Silage	6. Farmable Land in Government Jurisdiction Acres: 340890 % 35.1	7. Amount of Farmland As Defined in FPPA Acres: 406921 % 41.9	
8. Name Of Land Evaluation System Used CA Revised Storie Index	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 6/13/17	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment _____			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	41.06	41.06	16.87	
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	173.62	172.99	63.77	

PART IV (To be completed by NRCS) Land Evaluation Information	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres Prime And Unique Farmland	38.92	38.92	10.98	
B. Total Acres Statewide And Local Important Farmland	0	0	0	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.01%	0.01%	0.004%	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	24.9	24.9	24.9	

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	Corridor A	Corridor B	Corridor C	Corridor D
	87	87	87	

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
1. Area in Nonurban Use	15	2	2	10	
2. Perimeter in Nonurban Use	10	2	2	6	
3. Percent Of Corridor Being Farmed	20	5	5	12	
4. Protection Provided By State And Local Government	20	20	20	20	
5. Size of Present Farm Unit Compared To Average	10	10	10	10	
6. Creation Of Nonfarmable Farmland	25	6	6	3	
7. Availability Of Farm Support Services	5	5	5	5	
8. On-Farm Investments	20	20	20	18	
9. Effects Of Conversion On Farm Support Services	25	0	0	0	
10. Compatibility With Existing Agricultural Use	10	1	1	1	
TOTAL CORRIDOR ASSESSMENT POINTS	160	71	71	85	0

PART VII (To be completed by Federal Agency)	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
Relative Value Of Farmland (From Part V)	100	87	87	87	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	71	71	85	0
TOTAL POINTS (Total of above 2 lines)	260	158	158	172	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: _____ DATE _____

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

- (1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
 More than 90 percent - 15 points
 90 to 20 percent - 14 to 1 point(s)
 Less than 20 percent - 0 points

- (2) How much of the perimeter of the site borders on land in nonurban use?
 More than 90 percent - 10 points
 90 to 20 percent - 9 to 1 point(s)
 Less than 20 percent - 0 points

- (3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
 More than 90 percent - 20 points
 90 to 20 percent - 19 to 1 point(s)
 Less than 20 percent - 0 points

- (4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
 Site is protected - 20 points
 Site is not protected - 0 points

- (5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?
 (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)
 As large or larger - 10 points
 Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

- (6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
 Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
 Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
 Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

- (7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
 All required services are available - 5 points
 Some required services are available - 4 to 1 point(s)
 No required services are available - 0 points

- (8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
 High amount of on-farm investment - 20 points
 Moderate amount of on-farm investment - 19 to 1 point(s)
 No on-farm investment - 0 points

- (9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
 Substantial reduction in demand for support services if the site is converted - 25 points
 Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
 No significant reduction in demand for support services if the site is converted - 0 points

- (10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
 Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
 Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
 Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

I.10 USACE Jurisdictional Determination Concurrence Letter



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

May 26, 2015

Regulatory Division (SPK-2010-01481)

State of California
Department of Transportation, District 6
Attn: Ms. Jaimee Cornwell
2015 East Shields Avenue, Suite A-100
Fresno, California 93726-5428

Dear Mr. Parker:

We are responding to your, December 22, 2010, request for an approved jurisdictional determination for the State Route 132 West Expressway project. The approximately 274-acre site is located near the intersection of Highway 99 and Kansas Avenue, in Section 29, Township 3 South, Range 9 East, Mount Diablo Meridian, Latitude 37.643299°, Longitude -121.011131°, near the City of Modesto, Stanislaus County, California.

Based on available information, we concur with the estimate of waters of the United States, as depicted on the May 3, 2011 *Appendix C. Wetland and Water Features Identified in the Biological Study Area* drawing, prepared by Misha Seguin and Phill Peters, as amended by Misha Seguin on June 9, 2014. Approximately 0.09 acre of waters of the United States is present within the survey area. These waters are regulated under Section 404 of the Clean Water Act, since they are tributary to the San Joaquin River, which is a traditionally navigable water.

The 0.17-acre wetland and 0.48-acre wetland, identified on the above drawing as "1X" and "2X" respectively, are intrastate isolated waters with no apparent interstate or foreign commerce connection. As such, these waters are not currently regulated by the Corps of Engineers. This disclaimer of jurisdiction is only for Section 404 of the Federal Clean Water Act. Other Federal, State, and local laws may apply to your activities. *In particular, you may need authorization from the California State Water Resources Control Board and/or the U.S. Fish and Wildlife Service.*

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331.

A Notification of Appeal Process (NAP) and Request for Appeal (RFA) form is enclosed. If you request to appeal this determination you must submit a completed RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESPDS-PDS-O, 1455 Market Street, San Francisco, California 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.

-2-

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 60 days from the date of this letter. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

You should provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This determination has been conducted to identify the limits of Corps of Engineers' Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2010-01481 in any correspondence concerning this project. If you have any questions, please contact Mr. Jason Deters at our California South Branch Office, 650 Capitol Mall, Suite 5-200, Sacramento, California 95814, email Jason.Deters@usace.army.mil, or telephone 916-557-7152. For more information regarding our program, please visit our website at <http://www.spk.usace.army.mil/Missions/Regulatory.aspx>.

Sincerely,



Michael G. Nepstad
Deputy Chief, Regulatory Division

Enclosures

cc: (w/o encls)

Mr. Thomas Leeman, United States Fish and Wildlife Service, Endangered Species Division,
thomas_leeman@fws.gov

Ms. Leana Rosetti, Wetlands Office, Environmental Protection Agency, Region 9,
rosetti.leana@epa.gov

Ms. Elizabeth Lee, California Regional Water Quality Control Board, Central Valley Region,
Fresno Branch Office, emlee@waterboards.ca.gov

I.11 PIP Team Members and January 26, 2011 and October 26, 2011 PIP Meeting Notes

PIP Meeting – July 31, 2014

State Route 132 West Freeway/Expressway PIP Team Members

RSVP	NAME	SIGNATURE	AGENCY	PHONE	E-MAIL
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	DeLong, Annie			209-529-8487	Annie.delong@comcast.net
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	Madison, Stephen		Building Industry Association (BIA)	209-529-4531, x11	smadison@biacc.com
	Burnside, Stephanie		Burnside Auto Shop	209-521-6570	Stephanie@burnsidebodyshop.com
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	Miller, Chantel		Caltrans		Chantel.Miller@dot.ca.gov
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	Kismetian, Anton		Caltrans		Anton.Kismetian@dot.ca.gov
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If you don't see your name, please add it, including agency name, phone number, email address and signature to the last page.

PIP Meeting – July 31, 2014
State Route 132 West Freeway/Expressway PIP Team Members

RSVP	NAME	SIGNATURE	AGENCY	PHONE	E-MAIL
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	Jackman, Denny		Citizen	209-343-4174	DennyJ@Cleanwire.net
	Cavanah, Fred		City of Modesto	209-577-5295	fcavanah@modestogov.com
	Sinclair, Brent		City of Modesto	209 571-5566	hbsinclair@modestogov.com
	Turner, Dennis		City of Modesto	209-341-2906 209-341-2934	dturner@modestogov.com
	Byrd, Tim		E&J Gallo Winery	209-341-3716	Tim.byrd@ejgallo.com
	Barrios, Eddie		Fehr & Peers	925-930-7100	e.barrios@fehrandpeers.com
	Smith, Kacey		Field Representative for Terry Withrow, District 3 Stanislaus County	209-525-6472 desk 209-595-0043 cell	Smithk@stancounty.com
	Frohman, Bruce		Former Modesto Council Member	209-521-8218	bfrohman@thevision.net
	Borba, Mark		Foster Farms	209-576-3400	mborba@fosterdairyfarms.com
	Fowler, Jeff		Foster Farms	209-576-2300	jfowler@fosterdairyfarms.com
	Matile, Ralph		Foster Farms	209-576-2300	rmatile@fosterdairyfarms.com
	Matile, Ralph		Foster Farms Dairy	209-576-2300	ralphm@ffdairy.com

If you don't see your name, please add it, including agency name, phone number, email address and signature to the last page.

PIP Meeting – July 31, 2014
State Route 132 West Freeway/Expressway PIP Team Members

RSVP	NAME	SIGNATURE	AGENCY	PHONE	E-MAIL
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	Abom, Lauren		Jacobs	510-457-0030	lauren.abom@jacobs.com
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	Wood, Mark		Jacobs		Mark.wood@jacobs.com
	Buelthe, Judith		JBC	209-464-8707	Judith@buelthecomunications.com
	Benson, Jill		JS West & Company	209-577-3221 209-968-8877 cell	jbenson@jswest.com
	Carleton, Pete		Landcastle Real Estate, Inc.	925-855-7454	pscarleton@yahoo.com
	Ennenga, Jan		Manufacturers Council of the Central Valley	209-523-0886	jan@mccv.org
	Noland, David		Mercer Foods	209-529-0150	dndand@mercerfoods.com
	Clark, Brian		Modesto Bee	209-578-2330	bclark@modbee.com
	Dodge, Minnie		Modesto Chamber of Commerce	209-577-5757	mdodge@modchamber.org
	Martin, Robert		Modesto Chamber of Commerce	209-523-8525	farmcrop@sbcglobal.net
	Hawn, Brad		Modesto City Council	209-571-5169	brad@bradhawn.com
	Ridenour, Jim		Modesto City Council	209-571-5169	jridenour@modestogov.com
	McGarry, Dana		Modesto City Schools	209-576-4032	McGarry.D@monet.k12.ca.us
	Murphy, Chris		Modesto Trucking Industry Rep.	209-572-2882	chrism@spwg.com

If you don't see your name, please add it, including agency name, phone number, email address and signature to the last page.

**PIP Meeting – July 31, 2014
State Route 132 West Freeway/Expressway PIP Team Members**

RSVP	NAME	SIGNATURE	AGENCY	PHONE	E-MAIL
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	Sandhu, Bill		Modesto, City of	209-577-5356	bsandhu@modestogov.com
	Evans, Charles		Pastor	209-522-3846	evans@sbcglobal.net
	Mackil, Joe		President, Beard Industrial District	209-524-4632, x210	jmackil@metrr.com
	Lewis, Craig		Prudential	209-758-3120	cclewis@prucalifornia.com
	Martin, Larry		Retired		LaurenceHMartin@gmail.com
	Plaza, Anthony		Salida Hulling Association	209-526-1085	salidahulling@msn.com
	Spade, Tamra		Senator Anthony Cannella	209-577-6592	Tamra.spade@sen.ca.gov
	Jepson, Don		Seneca Foods	209-531-7472	djepson@senecafoods.com
	Park, Rosa		StanCOG	209-585-7830	rpark@stancog.org
	Yamzon, Carlos		StanCOG	209-558-7830	cyamzon@stancog.org
	Bostwick, Gilbert		StanCOG Citizen Committee	209-620-4485	gbostwick@pjflaw.com
	Wann, Dennis		StanCOG Citizen Committee	209-524-2479	dwann@Pacificdataservices.com
	Esenwein, Colt		Stanislaus County	209-525-4151	esenweinc@co.stanislaus.ca.us
	Leamon, David		Stanislaus County	209-525-4172	leamond@stancounty.com
	Machado, Matt		Stanislaus County	209-525-7581	machadom@co.stanislaus.ca.us

If you don't see your name, please add it, including agency name, phone number, email address and signature to the last page.

**PIP Meeting – July 31, 2014
State Route 132 West Freeway/Expressway PIP Team Members**

RSVP	NAME	SIGNATURE	AGENCY	PHONE	E-MAIL
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	O'Brien, William		Stanislaus County Board of Supervisors	209-525-4440	obrienw@stancounty.com
	Withrow, Terry		Stanislaus County Board of Supervisors	209-525-6560	withrowt@stancounty.com
	Meyers, Delyn		Stanislaus Economic Developers & Workforce Alliance	209-567-4989	meyersd@stanalliance.com
	Hudelson, Bill		Stanislaus Food Products	209-548-3464	b.hudelson@yahoo.com
	Siewert, Tom		Terrance Rose Developers		tseiwert@tjrinc.com
	Bassitt, Bill		The Alliance	209-567-4910	bassittb@stanalliance.com
	Denham, Jeff		U.S. Congress		Jeff.Denham@mail.house.gov
	Vanderweide, Kurt		U.S. Congress	209-579-5458	Kurt.Vanderweide@mail.house.gov
	Clark, Steve		Weston Ranch Realty	209-932-0700	sclark@westonranchrealty.com
	Gamboa, Terhesa		Woodland West Community Nbrhd	209-576-8484	terhesa@sbcglobal.net

If you don't see your name, please add it, including agency name, phone number, email address and signature to the last page.



State Route 132 West Freeway/Expressway

PIP Meeting Notes, January 26, 2011

The PIP group and members of the SR-132 West Freeway/Expressway Project Team met on January 26, 2011, in the StanCOG Conference Room, 1111 I Street, Modesto, California. Following introductions, Kris Balaji, Jacobs Engineering Project Manager, presented a PowerPoint project update.

Ten members of the PIP were present: Stephanie Burnside, Burnside Auto Shop; Tim Byrd, E&J Gallo Winery; Denny Jackman, Citizen; Craig Lewis, Prudential; Joy Madison, Modesto Chamber of Commerce; Karen Marshall, Beard Industrial District; Chris Murphy, Modesto Trucking Industry; City of Modesto; Tom Vander Weide, Foster Farms; and Supervisor Terry Withrow.

Also present were Vince Harris, Charles Turner, and Carlos Yamzon, StanCOG; Dennis Turner and Bill Latham, City of Modesto; Christina Hibbard, Caltrans Project Manager, David Leamon, Stanislaus County; Lauren Abom, Kris Balaji, Dorney Burgdorf, and Trin Campos, Jacobs Engineering; and Judith Buethe, Buethe Communications.

Vince Harris, Executive Director, StanCOG, welcomed the group and highlighted the importance of the project and the input of the PIP.

Balaji's presentation provided a project overview, progress to date, project schedule, a review of the environmental studies underway and design update.

Among the questions and comments from members of the PIP were these:

Project Cost Estimate

1. You identified stopping at H Street. Can SR 132 still use 5th and 6th Streets down to G Street? Members of the community want the truck route to use 5th and 6th to G and H Streets. Can that be done? (Denny Jackman)
 - a. *Trin Campos: SR 132 will have a connection to 5th and 6th Streets.*
2. Get SR-132 westbound to a right turn on 6th Street. (Chris Murphy)
3. Change the current traffic flow to G and H Streets. It is as simple as signage to delineate the route.

Public Outreach

4. What will be presented at the workshop this spring? What is the purpose of the workshop? What will be done? (Murphy)

Schedule Review

5. Tom Vander Weide wants to be involved in any discussions affecting Foster Farms.
6. "Let us know what we might not like! Give us the worst information early!" (Denny Jackman)
7. Discussion about the Needham Bridge. (Campos)

Preliminary Findings of Technical Studies

8. Chris Murphy requested a map of potential relocations.
9. Maps show preliminary improvements; however, City of Modesto Public Works is looking forward to more detail, a more exact description of encroachment.

Engineering Technical Studies

10. Campos mentioned the team will have work sessions with the City and County to further evaluate alternatives and specifics. He also explained some of the detail involved in these studies. The Initial Construction Phase will be covered at a project level in the Draft Environmental Impact

Notes: PIP.meeting.SR-132.09-30.10

- Report/Environmental Assessment for the purposes of compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), respectively. An evaluation of the depressed freeway option is underway.
11. Jackman asked about Emerald and whether the stockpiled soil that has been there for 40 years can be used.
 12. Murphy asked if the team is using the most aggressive rules possible—aggressive turn radii, lane widths, interchange spacing, etc. The project should consume the least amount of property and extra space. Is the team using aggressive approaches? The team could look to San Francisco as an example of working in limited spaces within an urban setting.
 13. Jackman referred to conflicts with SR 132 and ramps to SR 99.
 14. Please make these alternatives available electronically. (Jackman)
 15. What makes Alternative 2 in violation of Caltrans standards? (Jackman)
 16. If SR 99 southbound ramps moved to Kansas, would the project then be in compliance with Caltrans standards? (Jackman)
 17. We need to get people off the freeway and don't care whether they get back on. (Murphy)
 18. Has Caltrans seen all these alternatives? (Murphy)
 19. You need the blessing of Foster Farms. (Craig Lewis)
 20. Campos commented that the team is now meeting with Modesto Irrigation District (MID) and other utilities and agencies. He re-emphasized the difficulties in working in urban areas. The team is looking for a way to handle stormwater, which is an issue in Modesto, due to limited capacity of existing systems.
 21. Has the team discounted dry wells? (Jackman)
 22. Some scenarios have throw-aways.
 23. Graphics Drive to Kansas Avenue: possibility of added congestion.
 24. Concern that the community gets the best project with the least impact.
 25. It is important to keep the discussion going with Foster Farms.
 26. Is Graphics Drive being included in considerations?
 27. The team is addressing issues relating to Graphics Drive and discussing the problems in getting a left-turn and lights at the ramp. (Campos)
 28. Why must certain things like ramps have to stay? (Campos: connectivity to SR 99)
 29. Problems for people on the west side because of the ramps. (Jackman)
 30. Caltrans geometricians must approve all components of project design. SR 132 has been here for a long time. Ten years ago Caltrans said "No!" to an interchange at Carpenter Road. (David Leamon)
 31. What is the timeline to finish the alternatives? (Campos: about 3 weeks)
 32. 200 industrial trucks a day with one off-ramp is not enough. Two fairly close off-ramps are needed. That's the one big thing!!! (Murphy)
 33. Campos referred to the Initial Construction Phase (ICP) and the need to stage the project. The ICP could connect to Needham, and provide a grade separation at Emerald with no connection to SR 99 and a possible connection at Carpenter. Two-lane connection on Needham to Dakota. From SR 132 a direct connection is needed to 5th and 6th Streets. Caltrans has not yet approved the concept. The ICP solves the need for a local benefit but not the freeway-to-freeway connection. Caltrans wants direct connector access.
 34. It's about regional economic development. This needs to eventually extend all the way to Interstate 5. (Lewis)
 35. If we get a two-lane bridge in Central Modesto, how/where are we expecting to move trucks? (Jackman)
 36. The biggest benefit will be to northeast Modesto. (Campos)
 37. In three weeks, will you send the alternatives maps to Foster Farms and then to the PIP in May? (Supervisor Withrow)
 38. It will take about six weeks before going to Foster Farms.(Balaji)

The next PIP meeting will be held in March 2011.



State Route 132 West Freeway/Expressway

PIP Meeting Notes, October 26, 2011 – DRAFT #2 StanCOG Board Room, 1111 I Street, Modesto, California.

Self-introductions were made. Eight members of the PIP were present: Modesto City Councilmember Stephanie Burnside; Tim Byrd, E & J Gallo Winery; Brad Hawn, Modesto City Councilmember; Annie DeLong; Bruce Frohman; Terhesa Gamboa; Denny Jackman; Tim Roos; Supervisor Terry Withrow, Stanislaus County. Members of the Project Development Team were present: Kris Balaji and Dorney Burgdorf, Jacobs Engineering; Matt Machado, Stanislaus County; Carlos Yamzon, StanCOG; Bill Sandhu, City of Modesto; Gail Miller and Anton Kismetian, Caltrans; and Judith Buehe, Buehe Communications. Also present were Blanca Lujan and Maricela Orejel, Caltrans.

Carlos Yamzon, Senior Regional Planner, StanCOG, welcomed the group and reiterated the genesis of the project—the need for connectivity between SR-132 east and SR-132 west. This SR-132 West Expressway project is the first segment of a much larger connectivity project. Funding and environmental issues have been significant challenges. The process of creating and realizing a project has been open and transparent. Carlos described StanCOG and its purpose. He reported on the landmark decision made at the StanCOG Board meeting last week—to fully fund the first phase of this SR-132 West Expressway project by allocating a large part of the funds available from the Regional Improvement Program (RIP), to address congestion at the regional level. The StanCOG Board members, representing the county and the cities within it, unanimously voted for this allocation of funding.

Matt Machado, Director of Public Works, Stanislaus County, congratulated the entire team, stating the importance of this group, which has maintained good momentum.

Bill Sandhu also congratulated the StanCOG Board for its priority-setting. This is a good start! He also commented that the project must be built in phases.

Councilmember Brad Hawn, City of Modesto, noted that this is the first time that all the cities have endorsed this project. While the money will not be spent for about three years, this unanimously supported allocation of funds ensures a new way of doing business in this county, which is very encouraging.

Denny Jackman, member of the public who also was at the record-setting meeting of the StanCOG Board, stated that StanCOG reflected the long-term wishes of the community. He said that you could feel the political momentum building in the room and the vote near! It was a reflection of the entire community rather than of individual cities working independently.

Kris Balaji acknowledged and thanked the Caltrans Project Manager Christina Hibbard, Environmental Lead Gail Miller, and Design Lead Anton Kismetian for their support and ideas in defining the scope of Phase 1.

Kris Balaji commented on the new members of the PIP and the fact that the PIP has been in existence for 12 years. He noted that each PIP member is an advocate for the project and that this PIP team has been working together for many years. Kris commented on the diversity of interests in the PIP and how this project will provide mobility to the region. Each PIP member brings a unique vision and perspective to the project. The PIP meets quarterly and shortly before a major public event.

Q. Do you have the funding? And, secondly, the funding to pay for what?

Yes. With the Board's historic action, the funding gap has been closed. The first phase of the project is now expected to open in 2018. The \$40 million allocated is part of a sub-phase of the overall project, estimated to be open to traffic in 2028 at an overall cost of \$170 million. The StanCOG Board and Project Development Team (PDT) have been looking for opportunities to build the project incrementally. The project may be further phased in order to get the project completed. Funding will be done through multiple funding sources. Earlier, StanCOG had received \$14.4 million in federal earmarks on this project. The federal government will be noting the excellent progress that has been made. Step 1: the recent StanCOG Board action. Step 2: Perhaps the project can be made part of the State's Regional Transportation Improvement Program (RTIP). The project team is now working to define more accurately what the first phase could be.

Q. We have nothing beyond the \$40 million at this point? (Tim Byrd)

Councilmember Hahn said that StanCOG has just demonstrated that the region has taken an important step and can take significant action, including items like buying right-of-way. This last vote was an excellent way to build momentum and support for the project. The second way is the actual money available now: \$35 million allocated for construction, \$7 million for right-of-way; and \$2.5 million for design.

Kris commented that as much as \$12 million is programmed with the Traffic Congestion Relief Program (TCRP) funds.

Q. Can right-of-way commence now? (Councilmember Burnside)

Kris responded that no right-of-way activity can get underway until after the environmental document has been completed.

Q. StanCOG/Stanislaus County needs to communicate with San Joaquin County about the completion of SR-132 and describe the alternatives. (Denny Jackman)

Carlos Yamzon acknowledged the need and assured coordination with San Joaquin Council of Governments.

Kris discussed the two remaining alternatives at the maps. One alternative would remove the Kansas interchange and replace it with an at-grade, signalized intersection with SR-132. Another alternative would retain the Kansas interchange. Kris also commented that the PDT considered and dropped an alternative to build the SR-132 West Expressway on existing Maze Boulevard. The team is running traffic models on the two alternatives.

Q. From Carpenter Road west to Dakota, one lane east, one lane west? Would a configuration about 50 feet south of Kansas still show one lane east, one lane west?

Anton Kismetian commented that the project will have access control and full access.

Q. Where it hits Dakota? (Byrd)

Anton commented that Kansas must be realigned and perhaps consideration should be given to bringing back a grade separation. It may get realigned to the north.

Q. T. Byrd: With the first \$42 million, what happens at Dakota?

Anton explained that Phase 1 that is still being discussed at the project team meetings will have an at-grade intersection at Dakota.

Mr. Byrd asked if the \$42 million must be used to connect to Dakota rather than to SR-132.

Kris Balaji said that the PDT is waiting for completion of the environmental process.

Q. Mr. Byrd asked if Dakota property owners would prefer right-of-way or an S-curve?

Kris answered that all the input from property owners will be taken into consideration during alternative screening and selection.

Q. Mr. Frohmann asked if signals at Carpenter would be placed at grade and questioned whether the project has enough funding. Could the project be sequenced for development as the funding becomes available?

Kris commented that getting to Dakota is key. Caltrans' preference for Phase 1 was a freeway to freeway connector between SR-99 north and SR-132 West—about \$80 million. Caltrans would prefer to use existing right-of-way to make the project. We do need a solution that will work.

Q. Councilmember Hawn commented on how the project has evolved, and that the result has been very gratifying to date.

Anton said that the signal could still remain at Kansas and Locust.

Dorney Burgdorf listed the technical studies that have been done—90% of the field work: visual impact, noise studies, historical archaeological, paleontology, geological, various biological studies, wetlands, hazardous materials. Traffic studies are ongoing. Air Quality studies will be underway once the traffic studies are done. Phase 2 of the hazardous materials studies is underway. Both state-owned and private lands are covered. The community impact studies are under Caltrans review.

Q. Where are the noise studies? (D. Jackman)

Dorney explained that the noise studies will be in the draft environmental document when it is released. A second step is the Noise Abatement Decision Report. The EIR/EA is scheduled to be completed at the end of summer/early fall 2012 and will include references to various technical studies.

Kris said that an administrative draft will be submitted to Caltrans. All the study results are preliminary at this time. It is important to look at the whole document with all the studies—not at one study in isolation. The studies will not become public until the draft environmental document has been prepared.

Q. Bruce asked if property owners will be contacted.
Dorney responded affirmatively.

Q. Are all property owners on the north side of Kansas being contacted?
Kris said that all those that could be directly impacted by the project are contacted.

Q. What are the mail boundaries?
Judith explained the mail universe (4,720 entries), addresses for which are obtained from County Assessor files, and that mailers are sent to both owners and tenants/residents plus to a list of “Need to Know” organizations and people. News releases are sent to both mainstream and alternative media (*Modesto Bee, Farm Bureau News, etc.*); and ads are placed in the *Modesto Bee* and *Vida en el Valle*.

Q. Annie DeLong has receiving nothing regarding the noise studies.
Dorney explained the noise studies will be available in the draft environmental document.

Q. Will the environmental document address impacts to agriculture?
Dorney responded affirmatively.

Q. Will the environmental document analysis include a multiplier effect, especially for agricultural land?
Kris responded that impacts to farmland will be considered in the environmental document. He asked the PIP members to ensure that their friends and neighbors know about the environmental studies. He emphasized that to have questions and/or comments officially considered in the environmental document, interested persons must write a letter or e-mail to Gail Miller, Branch Chief, Caltrans (gail.miller@dot.ca.gov). Kris also emphasized that Caltrans is the NEPA lead for the project and should be contacted for any comments on the project.

Q. Tim reiterated the effect on agricultural land beyond what is immediately adjacent to the project, e.g., fragmenting agricultural land. He referred to the S-curve which ties back to SR-132 close to the cusp of property both the State and City of Modesto had given long-term protection for agriculture.

Judith concluded the meeting by reminding those present about the Public Information Meeting that will be held on December 7, 2011, at the Mark Twain Middle School. She offered to provide the team members extra postcard invitations for the December 7 meeting, should the team members want to personally invite anyone.

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Appendix J Comments and Responses

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Responses to Comments

Appendix J contains 305 comments that were received during the public circulation period of the Draft EIR/EA with attached Draft Final Remedial Action Plan (Draft Final RAP), from January 18, 2017 to March 17, 2017. The Lead Agency (Caltrans) has prepared responses to the comments received with coordination and review by the SR 132 West Project Development Team, while the Department of Toxic Substances Control (DTSC), in consultation with the Central Valley Regional Water Quality Control Board (RWQCB), and acting as a responsible agency under CEQA, has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate. Caltrans agrees with those responses and has incorporated them as its own responses where indicated into this document. Additionally, this document also serves as DTSC's response to comments for the Draft Final RAP pertaining to the Caltrans Modesto Soil Stockpiles. The responses follow each comment presented. Comments were received from one State agency, Local and County agencies, individuals, as well as public comments from the Draft EIR/EA with attached Draft Final RAP Public Hearing held on February 22, 2017. These include 181 Individual comments, 1 State Agency comment, 9 Local and County Agencies comments, 66 Public Hearing comments, and 48 Public Hearing Transcript comments.

Eleven master responses have been prepared to address similar comments that were submitted by multiple agencies or individuals. These Master Responses are referenced throughout Appendix J when appropriate and will be included and are hereby incorporated into the Final EIR/EA.

List of Comments Received

A total of 305 comments were received from one State (S) agency (State Clearinghouse and Planning Unit), Local and County agencies (LC), and individuals (I), as well as from the Draft EIR/EA with attached Draft Final RAP Public Hearing (PH) held on February 22, 2017. The comments are identified by Comment ID and Comment Number. For example, LC2-1 is the first comment in the letter provided by the Modesto Irrigation District (MID). A summary table containing the list of commenters and the dates on which comments were received is detailed below.

State Agency Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
S1	State Clearinghouse and Planning Unit	3/20/2017

Local and County Agency Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
LC1	Stanislaus County Department of Environmental Resources	1/26/2017
LC2	Modesto Irrigation District	2/22/2017
LC3	San Joaquin Valley Air Pollution Control District	3/8/2017
LC4	Stanislaus Environmental Review Committee	3/2/2017

Individual Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
I1	Scott Murray	1/29/2017
I2	Bruce Frohman	2/8/2017
I3	Jeff Martinez	2/24/2017
I4	Anthony Plaza	3/2/2017
I5	Brian and Bonnie Weese	2/25/2017
I6	Joseph and Jane King	3/16/2017
I7	Wes Olsen	2/13/2017
I8	Ramon and Susie Salinas	2/26/2017
I9	Cimino Family	3/13/2017
I10	Virginia Hammond	3/15/2017
I11	Lori Wolf	3/17/2017
I12	Scott Calkins	3/13/2017
I13	Monica Ramos	3/17/2017
I14	Diane Russo	3/17/2017
I15	Tony Madrigal	3/17/2017
I16	Terhesa Gamboa	3/17/2017
I17	Patricia Gallagher	3/17/2017
I18	Margaret Taro	3/14/2017
I19	Rhett Calkins	3/17/2017

Public Hearing Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
PH1	Frank J. Varni	2/22/2017

Public Hearing Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
PH2	Edmund Morad	2/22/2017
PH3	Lewis Cimino	2/22/2017
PH4	Mary S. Matthews	2/22/2017
PH5	Patricia Wilhem	2/22/2017
PH6	Hement Khatri	2/22/2017
PH7	Rachel Bradley	2/22/2017
PH8	Alejandro Munoz	2/22/2017
PH9	Ricardo Arrieta	2/22/2017
PH10	Jean Calkins	2/22/2017
PH11	Ignacio Contreras	2/22/2017
PH12	Lou Varni	2/22/2017
PH13	Vijay Solanlei	2/22/2017
PH14	Hector Cortes	2/22/2017
PH15	Don Calkins	2/22/2017
PH16	Bert Tabrizi	2/22/2017
PH17	Dennis Sevilla	2/22/2017
PH18	Maureen Dick	2/22/2017
PH19	David Abel	2/22/2017
PH20	Anna McCuiston	2/22/2017
PH21	Melissa Kenney	2/22/2017
PH22	Lewis Cimino	2/22/2017
PH23	John Kenney	2/22/2017

Public Hearing Transcript Comments		
<i>Comment ID</i>	<i>Commenter</i>	<i>Date Received</i>
PHT-1, 2, 3	Kathy Faria	2/22/2017
PHT-4	Margaret Taro	2/22/2017
PHT-5, 6, 7, 8	Julie Brughelli	2/22/2017
PHT-9	Bernice Hendon	2/22/2017
PHT-10	Steve Hagemann	2/22/2017
PHT-11, 12	Maria Villasenor	2/22/2017
PHT-13, 14, 15	Jeff Martinez	2/22/2017
PHT-16, 17, 18	Dennis Sevilla	2/22/2017
PHT-19, 20, 21	Hemet Khatri	2/22/2017
PHT-22, 23, 24	Kathy Faria	2/22/2017
PHT-25, 26, 27, 28, 29	Sharon Custer	2/22/2017
PHT-30	Ramon Salinas	2/22/2017
PHT-31, 32	Kathy Faria	2/22/2017
PHT-33, 34, 35	Alejandra Munoz	2/22/2017
PHT-36, 37, 38, 39	Virginia Hammond	2/22/2017
PH1-40	Aide Erreguin	2/22/2017
PHT-41, 42	Sharon Custer	2/22/2017
PHT-43, 44, 45	Thomas Dick	2/22/2017
PHT-46, 47	Jeff Martinez	2/22/2017
PHT-48	Frank Varni	2/22/2017

Summary of Comment Categories

The general topic issues of comments received include the following comment categories:

- Accidents/Fatalities
- Americans with Disabilities Act (ADA) Compliance
- Air Quality Impacts
- Bicycle and Pedestrian Facilities
- Business/Economic Impacts
- Caltrans Modesto Soil Stockpiles
- Community Impacts
- North Dakota Avenue
- Differences Between Build Alternatives
- General Comment of Support
- General Comment of Dissent
- Highway/Roadway Design and Maintenance
- Interchange at North Carpenter Road
- Land Use
- Logical Termini
- Loss of Farmland/Trees
- Loss of Property Values
- Noise Impacts
- Other Project Alternatives (e.g., Alternative 5 and Mass Transit Alternative)
- Preference for Alternative 2
- Preferred Alternative
- Project Development Team Process
- Project Design and Feasibility
- Project Funding and Costs
- Project Phasing and Scheduling
- Project Purpose and Need
- Public Participation and Environmental Review Process
- Right-of-Way Impacts
- Traffic Impacts and Mitigation
- U.S. Fish and Wildlife Service
- Utility Impacts
- Visual Impact

Master Comment Responses

Master responses have been prepared to address similar comments that were submitted by multiple agencies or individuals as part of the public participation process.

Master Response #1 (Purpose and Need)

Future traffic projections have demonstrated a need for the proposed improvements of SR 132. Existing SR 132 (Maze Boulevard) currently operates at a level of service D or better between North Dakota Avenue and SR 99 but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable level of service C or better; however, the studies identify that traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and North Carpenter Road would operate at level F, an unacceptable service level; and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable service level F. As detailed in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the AM peak period and 12.3 miles per hour during the PM peak period. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) at every area intersection studied. Both build alternatives would result in decreased traffic volumes and fewer conflicts at intersections and driveways on existing SR 132 (Maze Boulevard). Please refer to Section 1.2, Purpose and Need, for further information.

Master Response #2 (Accidents/Fatalities on Existing SR 132/Maze Boulevard)

Based on the most recent three-year period studied (November 2010 to October 2013), the existing highway has had no fatalities, compared to a statewide average rate for similar facilities of 0.016 accidents per million vehicle miles traveled, and a 2-percent lower fatality/injury accident rate than the statewide average. Most accidents (34 percent) were broadside accidents, followed by rear-end (32 percent), hit-object (15 percent), head-on (9 percent), sideswipe (6 percent), and auto/pedestrian (4 percent) accidents. Based on the Highway Safety Manual published by the American Association of State Highway and Transportation Officials, there is a direct correlation between crash frequency and average daily traffic volumes. Lower traffic volumes would result in greater spacing between vehicles, allowing drivers more time to react to sudden changes in traffic flow, such as a stopped vehicle. Fewer vehicles would also result in fewer conflicts at intersections and driveways. Please refer to the *Improve Operations* section within Section 1.2., Purpose and Need, for further information on accidents and fatalities.

Master Response #3 (Logical Termini)

North Dakota Avenue represents the logical western terminus because it is the last major north-south roadway that connects the existing SR 132 (Maze Boulevard) to the proposed new SR 132 Alignment (south of Kansas Avenue), SR 99, and the Modesto City Limits. The next major north-south road is North Hart Road, more than 3 miles west of North Dakota Avenue. Alternative logical termini such as extending the project limits to North Hart Road were evaluated during the development of the EIR/EA or project but, due to public input and evaluation by the Project Development Team, they were rejected on the basis of additional impacts and costs. As discussed in Section 1.2.3, Independent Utility and Logical Termini, of the EIR/EA, forecasted traffic volumes along SR 132 (Maze Avenue) west of North Dakota Avenue are the same for the no-build and build scenarios. Forecasted future average daily traffic counts west of North Dakota Avenue for the no-build and build scenarios are the same. As such, the proposed project would not have an impact on traffic volumes west of the existing SR 132 (Maze Boulevard)/North Dakota Avenue intersection, and no improvements west of the existing SR 132 corridor are needed at this time. Ending roadway improvements near the Maze Boulevard/North Dakota Avenue intersection is not anticipated to result in indirect effects west of the proposed project area.

This project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. In 1956, the proposed freeway corridor for SR 132 was adopted by the state with resolutions of support from Stanislaus County and the City of Modesto. In 1958, the state proceeded with property acquisition along the new proposed SR 132 alignment. To date, 179 acres of the project area are in the right-of-way owned by Caltrans. Both Alternative 1 and Alternative 2 would use the adopted route to realign the segment of existing SR 132 (Maze Boulevard) between Dakota Avenue and SR 99 (see Appendix F of the EIR/EA). The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. Part of the right-of-way west of Dakota has already been acquired for this controlled-access freeway/expressway. The use of North Dakota Avenue as a part of the new SR 132 route will be temporary until future segments of the controlled-access freeway/expressway are built, the first of which is anticipated to be a segment from Dakota to Gates, which is currently in the planning phase.

Master Response #4 (Project Funding)

Currently, only Phase 1 has programmed funding, which was identified for fiscal years 2018/2019. Phase 1 funding sources include the Regional Improvement Program (RIP), Federal Demonstration Program (DEMO), Stanislaus County's share of the Regional Surface Transportation Program (RSTP), and other local funds from the City of Modesto and Stanislaus County. Phase 1 is estimated to cost approximately \$82 million. Both build alternatives

(Alternative 1 and Alternative 2) would be the same under Phase 1 and would include construction of a two-lane expressway on the southern half of the proposed alignment from North Dakota Avenue on the west end of the project to the Needham Street Bridge Overcrossing on the east end of the project. The recent approval of Measure L will provide additional funds for the project and could potentially be used to fund Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design and is estimated to cost up to \$132 million. Phase 2 would involve the construction of the two northernmost lanes within the new alignment from North Dakota Avenue on the west end of the project to the Needham Street Bridge Overcrossing on the east end of the project. The total project is estimated to cost up to \$214 million. A separate Plan, Specification and Estimate (PS&E) bid package will be advertised for each project phase.

Master Response #5 (Public Participation and Environmental Review Process)

Public participation methods used for the project have included a variety of approaches, including stakeholder meetings/targeted outreach, mailing lists, and public information meetings/open houses (see Section 4.2.4 for a complete list of past events). Public participation tools have included fact sheets, multilingual community flyers and announcements, focus group outreach, display boards, and a project website. Newspaper ads and meeting notifications in English and Spanish were published in *The Modesto Bee* and *Vida en el Valle*, respectively. As described in Section 4.2.4, StanCOG and Caltrans have provided a total of 18 opportunities for the public to participate in the project planning process. This included eight Plan Implementation Project (PIP) meetings, one Public Scoping Meeting and nine Public Information Meetings, including one public hearing and eight neighborhood meetings. The Public Scoping Meeting, the PIP Meeting and the Public Hearing Open House are discussed in detail below.

On January 25, 2010, a scoping meeting/open house was held to inform the public and other interested parties about the project and to provide members of the public with an opportunity to voice their comments or concerns about the project. A stakeholder outreach group known as the PIP Team met on March 24, 2010, September 30, 2010, and in July 2014. The PIP meetings were discontinued while DTSC prepared the Stockpile Remedial Action Plan. Both engineering and environmental work relative to the freeway/expressway project were halted during the preparation of the Draft Final Remedial Action Plan (Draft Final RAP). As the Draft Final RAP was nearing completion, technical studies and the EIR/EA with attached Draft Final RAP addressing the SR 132 West Freeway/Expressway Project were reopened to include analysis of the proposed remedial action and update changed conditions.

The Draft EIR/EA with attached Draft Final RAP was released for public review on January 18, 2017. According to the CEQA statutory requirements, the public comment period for draft EIRs

should be not be less than 30 days or no longer than 60 days except in unusual circumstances. The public comment period for the Draft EIR/EA with attached Draft Final RAP began on January 18, 2017 and ended on March 17, 2017, a total of 59 days. Print copies were available for review at the Caltrans District 10 Office in Stockton, California; the Stanislaus Council of Governments in Modesto, California; the Stanislaus County Library in Modesto, California and the Department of Toxic Substances Control office in Sacramento, California. Copies of the Draft Final RAP were also available on the DTSC Envirostor Database at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 and http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024.

On February 22, 2017, as part of the circulation process, Caltrans, DTSC, Regional Water Quality Control Board, in conjunction with StanCOG, held a public hearing with an informal open house format to review design concepts, share information, present displays, and accept written and oral comments on the Draft EIR/EA and Draft Final RAP prepared for the project. To announce the Public Hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the Public Hearing venue changed, from the Red Event Center to Mark Twain Junior High School. An English and Spanish postcard advertising this change was mailed on February 8, 2017, to approximately 2,500 residents, tenants, and business owners within the project area. DTSC also sent out the Caltrans Modesto Soil Stockpiles Community Update (English and Spanish) to the project mailing list on February 6, 2017. A revised Public Notice with the new location was published by StanCOG in *The Modesto Bee* and *Vida en el Valle* on February 8, 2017 and February 15, 2017. The Hearing Notice was also published in English and Spanish on StanCOG's website at <http://www.stancog.org/trans-ps.shtm> on the Caltrans District 10 website at <http://www.dot.ca.gov/d10/x-project-sr132west.html> and on the DTSC website at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626. At the hearing, meeting attendees were encouraged to ask questions, meet with project representatives, and submit written and oral comments.

As detailed in the Public Hearing Summary Report, the open house format included stations around the room for the public to review project information and ask questions. Project team members were present at each station to provide information as needed and respond to questions. A welcome board greeted attendees as they entered the meeting room. Members of the public signed in at the meeting and were encouraged to submit written comments on comment cards. Consultant Team staff gave each attendee information sheets stating the project description, purpose, background, cost, funding source, timeline, and a contact name for those interested in obtaining more information. An information sheet also contained a map showing the project location. A court reporter was present to record oral comments. A Public Hearing Summary

Report has been prepared to document the meeting proceedings and is available in the public record.

All comments submitted during the Draft EIR/EA with attached Draft Final RAP public comment period process have been reviewed by the Project Development Team, DTSC and the Regional Water Quality Control Board (CEQA Responsible Agencies). Comments and responses are incorporated into the Final EIR/EA with attached Draft Final RAP.

Specific information regarding public meetings and agency meetings and coordination is discussed in Chapter 4.0 of the EIR/EA. Meeting notes and comments from the scoping meeting and previous open houses were included in the Community Impact Assessment located in the EIR/EA Technical Studies, Volume 1.

Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5)

As described in Chapter 1 of the EIR/EA, Alternative 5 would have widened existing SR 132 (Maze Boulevard) from a two-lane, conventional highway to a four-lane highway. Construction would have also included a raised median, the modification or elimination of driveways, the construction of left- and right-turn lanes, and at-grade signalized intersections at all major local roadways. Alternative 5 would not have used the existing Caltrans right-of-way within the route adopted for the project and would not have resulted in the containment of the soil stockpiles within a highway structure. As such, Caltrans would be required to develop a separate remedial action plan for the stockpiles under the oversight of DTSC and Regional Water Quality Control Board.

According to the Project Development Procedures Manual (Chapter 8, Section 6), the early identification of significant environmental impacts, use of protected resources, and impacts on hazardous wastes is a crucial step in project development. To determine if Alternative 5 should be removed from consideration or studied further, the Project Development Team completed qualitative and quantitative analysis early in the design phase to determine the potential environmental effects anticipated with the construction and operation of Alternative 5. The Project Development Team found that Alternative 5 would have had five distinct limitations in addition to not meeting the project's purpose and need.

First, the alternative would have substantially impacted local residents, businesses, and utilities along the existing highway. It would have impacted more than 160 properties, which would be 100 more properties than either of the two build alternatives. Also, Alternative 5 would have required an estimated 60 residential relocations compared to the 30 residential relocations proposed under Alternatives 1 and 2. More than 40 business relocations would be required under

Alternative 5 compared to the 9 and 7 proposed business relocations under Alternatives 1 and 2, respectively. In total, relocations proposed under Alternative 5 would be more than twice as many compared to relocations proposed under Alternatives 1 and 2. The total value of properties that would be acquired as a result of Alternative 5 is estimated at \$70.7 million. Right-of-way acquisition costs associated with Alternatives 1 and 2 are estimated to be \$22 million for each alternative.

Second, Alternative 5 would not have provided system connectivity between SR 132 and SR 99 and, therefore, would not have improved regional and interregional travel. Constructing highway-to-highway connectors at the existing SR 132 (Maze Boulevard) connection to SR 99 in downtown Modesto would not have been feasible because of the substantial right-of-way impacts to downtown development and the conflicts with existing SR 99 ramps.

Third, Alternative 5 would not have accommodated a four-lane freeway/expressway facility with full access control, as identified in Caltrans and Stanislaus County planning reports, which is needed to relieve current and projected traffic congestion on the existing highway. Traffic on existing SR 132 (Maze Boulevard) is expected to increase 67 percent by 2048, and highway conditions throughout the region (conditions on SR 99, for example) would likely worsen. As detailed in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, future congestion in 2048 along the 3.3-mile stretch between Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) at every area intersection studied.

Fourth, Alternative 5 would not improve operations along the existing highway. Higher traffic volumes would result in less spacing between vehicles and therefore less time to react to sudden changes in traffic flow.

Fifth, Alternative 5 would convert 10.98 acres of prime farmland. Although the converted acres associated with Alternative 5 would be fewer than the acres considered under Alternative 1 or Alternative 2, the soil is of much higher value than the two build alternatives. This is based on Form NRCS-CPA 106 (Farmland Conversion Impact Rating Form) submitted to the Natural Resources Conservation Service. The potential conversion of 38.92 acres of prime farmland anticipated under Alternatives 1 and 2 was assigned a farmland conversion impact rating of 158 points. Alternative 5, which would result in a conversion of 16.87 acres of farmland, was assigned a farmland impact rating of 172. Alternative 5 is found to have a higher score relative to Alternative 1 and 2 in terms of the criteria listed above, thus warranting Alternative 5 as a greater risk to valuable existing agricultural operations and potential impacts to Williamson Act contract

land. Therefore, the farmland conversion impact would be greater for Alternative 5 compared to the other alternatives.

Alternative 5 was therefore eliminated from further discussion by the Project Development Team in July 2011 for the reasons discussed and the alternative's inability to meet the proposed project's purpose and need.

A technical memo, dated July 22, 2011, documented these factors and was approved by the Project Development Team (see Appendix I). Due to the number of comments received during the Draft EIR/EA and Draft Final RAP comment period in regard to Alternative 5, additional analysis was conducted and summarized in a technical memo dated August 9, 2017. The re-screening analysis compliments the description of Alternatives Considered but Eliminated from Further Discussion, as described in the Section 1.7 of the EIR/EA, and provides greater detail on the impacts of Alternative 5. Based on the re-screening criteria derived from the *Caltrans Project Development Procedures Manual*, the evaluation determined that Alternative 5 remained unreasonable and/or infeasible for further evaluation due to the following:

- Criteria 1: Alternative 5 did not satisfy the purpose and need.
- Criteria 2: Alternative 5 could not be completed with reasonable funding available to the project.
- Criteria 3: Alternative 5 would not avoid severe operational and safety problems.
- Criteria 4: Alternative 5 would not avoid unacceptable adverse social, economic and environmental impacts, which would cause it to be rejected without further environmental evaluation.
- Criteria 5: Alternative 5 did not successfully pass through a prior screening process.
- Criteria 6: One of the above criteria was answered "no" and would not warrant further study to determine whether the critical failure results in a fatal flaw to the project.

Master Response #7 (Pedestrian and Bicycle Accommodations)

Both proposed build alternatives include a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project. The project will construct a roughly 0.2-mile (1,000-foot) segment of the planned 2.5-mile Class II bike lane from Maze Boulevard to Blue Gum Avenue, which is included as a proposed project in the 2006 City of Modesto Non-Motorized Transportation Master Plan. The 2013 StanCOG Non-Motorized Transportation Plan also includes planned Class II facilities on North Carpenter Road on Maze Boulevard (existing SR 132) and along the Modesto Irrigation District. The portion of the bike

lane outside the project limits would need to be completed by the City of Modesto under a separate project. Bicycle and pedestrian access along the new roadway would not be allowed once it is fully controlled. Instead, bicycle and pedestrian facilities would continue along local roadways including Maze Boulevard (existing SR 132), North Dakota Avenue, and North Carpenter Road. Neither proposed build alternative would directly or indirectly impact existing or planned pedestrian/bicycle facilities except at the proposed single-point urban interchange of the new alignment with North Carpenter Road. Please refer to Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities) of the EIR/EA for more information on planned bicycle and pedestrian accommodations within the project area.

Master Response #8 (Property Acquisitions)

The Project Development Team recognizes the challenges associated with relocations and the loss of property for the affected residents and businesses. Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA includes avoidance, minimization, and/or mitigation measures that provide the assurance of just compensation, notifications, specialized relocation assistance, and design refinements to minimize the impacts to existing land uses, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The City of Modesto would be responsible for right-of-way acquisition and will acquire all land within the proposed right-of-way prior to construction, and subsequently transfer it to the State of California. All impacted owners will be provided notification of the City of Modesto's intent to acquire an interest in the property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist for the City of Modesto will be assigned to each property owner to assist them with this process.

Caltrans, as the Lead Agency under CEQA and NEPA, would be responsible for overseeing relocations for individuals and businesses that are undergoing a transition, consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Following completion and approval of the EIR/EA and Draft Final RAP, relocation assistance can proceed, which is anticipated to begin in early 2018. The estimated lead time to complete a residential relocation is 120 to 180 days. However, it is understood that owner-occupants may require additional time for relocation as they must secure a home loan and go through the escrow process, which can take between 30 and 60 days.

Tenured occupants are those that meet the minimum occupancy requirements for full benefits under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. They are characterized as 90-day owner occupants (those who have lived in and owned the residence for at least 90 days prior to the initiation of negotiations (ION)), 90-day occupants (those who have lived in but not owned the residence for at least 90 days prior to the ION), and businesses, farms and non-profit organizations that occupy the property on the day of the ION.

Non-tenured occupants are occupants that do not meet the minimum occupancy requirements, but may still be eligible for some benefits. These include tenants and owners who have lived in the residence for less than 90 days, but are in occupancy at the time of ION, subsequent occupants who move into the residence after the ION, but before the property has been acquired, and businesses, farms and non-profit organizations that occupy the property after the ION.

Updated Proposed Parcel Impact Maps can be found in Appendix F of the EIR/EA. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase.

Master Response #9 (Farmland Impacts)

Both proposed build alternatives would result in the conversion of prime farmland, and farmland encumbered under Williamson Act contracts. When the Project Development Team evaluated the impacts of the project on farmland, the amount of farmland lost as a result of the project was compared to the farmland remaining in the region using the United States Department of Agriculture Natural Resources Conservation Service Farmland Conversion Impact Rating. Loss of farmland due to the proposed project will be minor and is estimated to equate to a 0.01 percent and 0.002 percent decrease in County-wide totals of prime farmland and Williamson Act contract lands, respectively. In addition, the majority of farmland converted to roadway right-of-way is a result of strip acquisitions (i.e., partial acquisitions typically occurring parallel to the new alignment needed to maintain consistent lane and shoulder widths), which will not negatively impact the vitality of the individual farms along the corridor. All property owners will be compensated for loss of property values. Please refer to Section 2.1.3, Farmlands, for more information.

Master Response #10 (Air Quality Improvements)

The completion of the project will improve congestion and truck traffic on local streets such as SR 132 (Maze Boulevard) and North Dakota Avenue. Trucks and traffic that are traveling intra-regionally and inter-regionally would not be idling in traffic along Maze Boulevard. Improved operations will improve air pollution in the long term. In addition, the proposed project would not lead to new or worsened violations of national and state air quality standards for particulate matter or carbon monoxide. Operational improvements would reduce precursor and criteria pollutant emissions relative to the No-Build Alternative; however, a temporary increase in precursor and criteria pollutants would occur during construction. Dust generated during stockpile excavation would be monitored in compliance with an air monitoring plan approved by the Department of Toxic Substances Control. Project-level conformity was received from the U.S. Environmental Protection Agency Region 9 on April 25, 2016, and the Federal Highway Administration on April 26, 2016, concluding that the proposed project is not a project of air quality concern. The project also received Federal Highway Administration concurrence on June

5, 2017. The Federal Highway Administration concurrence letter can be found in Appendix I. While mobile source air toxic emissions would occur as a result of future increases in vehicles miles traveled, as discussed in Section 2.26 (Air Quality) of the EIR/EA, emissions are estimated to be lower than if the project were not completed and would likely be lower than present emissions as a result of the U.S. Environmental Protection Agency's national control programs, which are intended to lower mobile source air toxic emissions. At the regional level, the 2014 Stanislaus County Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) has been developed to increase transit ridership, reduce the percentage of congested lane miles, and maintain greenhouse gas emissions per capita, as compared with the business-as-usual scenario.

Master Response #11 (Noise Impacts and Abatement)

Per 23 Code of Federal Regulations (CFR) Part 772 and Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (May 2011) ("Protocol"), noise abatement must be considered for all impacted receptors. Noise abatement, in this case via the use of noise barriers, is recommended if it meets both the feasible and reasonable criteria. Each noise barrier considered (in this case, a soundwall) has been evaluated for feasibility based on constructability and an achievable noise reduction of at least 5 A-weighted decibels. For each noise barrier found to be acoustically feasible, the noise barriers were evaluated for reasonableness based on cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Noise impacts were evaluated along the entire length of the project alignment to determine where noise abatement (e.g., barriers) would be acoustically feasible and reasonable to include as part of the design. At each location, barriers were modeled up to 16 feet tall.

A preliminary noise abatement design for each barrier and a range of barrier heights have been evaluated for feasibility and reasonableness allowances as described in the Protocol. Several evaluated noise barriers were found to provide at least 5 decibels (dB) of noise reduction at affected noise-sensitive receivers in the study area, as listed below:

- Area 3 – North of the proposed SR 132 expressway alignment, between North Dakota Avenue and North Carpenter Road, under both of the build alternatives
- Area 4 – South of the proposed SR 132 expressway alignment, east of North Carpenter Road, to areas west of SR 99, north of L Street, under both of the build alternatives
- Area 7 – East of SR 99, between North Washington Street and North Franklin Street, under both of the build alternatives

Some evaluated noise barriers were found not to be feasible, due to access restrictions or the failure of the barrier to achieve a minimum of 5 dB of noise reduction at affected receivers. Noise barriers were found not to be feasible for the following areas:

- Area 1 – SR 132 (Maze Boulevard) from the project western terminus to Garrison Avenue and areas west of North Dakota Avenue, including SR 132 (Maze Boulevard), under both of the build alternatives
- Area 2 – South of the proposed SR 132 expressway alignment, between North Dakota Avenue and North Carpenter Road, under both of the build alternatives
- Area 5 – North of the proposed SR 132 alignment, between North Carpenter Road and North Emerald Avenue, under both of the build alternatives
- Area 6 – North of the proposed SR 132 alignment, between North Emerald Avenue and SR 99 under both of the build alternatives
- Area 8 – West of SR 99, between L Street and the southern project terminus, under both of the build alternatives
- Area 9 – East of SR 99, between L Street and the southern project terminus, under both of the build alternatives

In Noise Analysis Areas 1, 2, 5, 8, and 9, impacted receivers would require driveway access to local roadways. Openings in noise barriers for driveways or intersecting streets reduce the effectiveness of barriers, making the noise barriers acoustically infeasible. In addition, for Noise Analysis Areas 3, 6, and 7, the noise barriers do not meet the minimum 5 dB of noise reduction. Therefore, noise barriers are not considered to be feasible noise abatement options for receivers in these areas.

In one location, Area 4, Caltrans intends to incorporate noise abatement in the form of a barrier (Noise Barrier D). This barrier is proposed on the south side of the proposed new alignment and east of North Carpenter Road, continuing on the west side of the frontage road along SR 99 between the proposed SR 132/SR 99 interchange and the L Street crossing. The barrier meets the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers and meets the reasonable cost allowance for noise abatement. The barrier for Alternative 1 would be approximately 6,390 feet long with an average height of 14 feet. Calculations based on preliminary design data show that the barrier would reduce noise levels by 5 to 13 decibels (7 decibels for at least one receptor) for 121 residences at a cost of \$6,494,796. The barrier for

Alternative 2 would be approximately 7,760 feet long with an average height of 14 feet. Calculations based on preliminary design data show that the barrier would reduce noise levels by 5 to 17 decibels (7 decibels for at least one receptor) for 171 residences at a cost of \$8,544,536. In Phase 1, a portion of Noise Barrier D would be constructed along the proposed new alignment under either build alternative. The other section of the proposed barrier would be constructed in Phase 2 along SR 99. An existing noise barrier along SR 99 would tie into the proposed noise barrier along the new alignment in Phase 2. Therefore, the noise barriers would provide attenuation in the interim between Phase 1 and Phase 2.

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8. Please refer to Section 2.2.7 (Noise) of the EIR/EA.

[Comment-S1]

Comment from the State Clearinghouse and Planning Unit

S1



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

March 20, 2017

Philip Vallejo
California Department of Transportation, District 6
855 M St, Suite 200
Fresno, CA 93721

Subject: State Route 132 West Freeway/Expressway Project Draft EIR / EA & Draft Final Remedial
Action Plan
SCH#: 2010012010

Dear Philip Vallejo:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on March 17, 2017, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

A handwritten signature in black ink that reads "Scott Morgan".

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010012010
Project Title State Route 132 West Freeway/Expressway Project Draft EIR / EA & Draft Final Remedial Action Plan
Lead Agency Caltrans #6

Type EIR Draft EIR
Description Note: Extended Per Lead

The California Department of Transportation (Caltrans), in cooperation with the Stanislaus Council of Governments (StanCOG) partnership, proposes to construct a four-lane freeway/expressway along the adopted route south of Kansas Avenue from Dakota Avenue (PM 11.0) to east of SR 99 at the Needham Street Bridge Overcrossing (PM 15.0). The total length of the project would be approximately 4 miles and would include connections on SR 99 from PM 15.7 to PM 17.5. Selection of either of the build alternatives would result in the containment of the Caltrans Modesto Soil Stockpiles retaining walls and bridge abutments and beneath highway pavements. The purpose and need are to improve regional and interregional circulation and relieve traffic congestion along existing SR 132.

Lead Agency Contact

Name Philip Vallejo
Agency California Department of Transportation, District 6
Phone (559) 445-6172 **Fax**
email
Address 855 M St, Suite 200
City Fresno **State** CA **Zip** 93721

Project Location

County Stanislaus
City Modesto
Region
Lat / Long 37° 38' 20" N / 121° 0' 25" W
Cross Streets State Route 99, SR 132
Parcel No.

Township	Range	Section	Base

Proximity to:

Highways Hwy 132, 99
Airports Modesto Co, Mapes & Yandell
Railways
Waterways Tuolumne River
Schools several
Land Use Transportation, ag and vacant

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Noise; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 4; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Native American Heritage Commission; Public Utilities Commission; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control

Date Received 01/18/2017 **Start of Review** 01/18/2017 **End of Review** 03/17/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

[Response-S1]

Response to Comments from the California State Clearinghouse and Planning Unit

The State Clearinghouse letter acknowledges that Caltrans has complied with the review requirement for a draft environmental document, pursuant to the California Environmental Quality Act. No agency submitted comments directly to the State Clearinghouse.

[Comment -LC1]

Comment from the Stanislaus County Department of Environmental Resources

LC1

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT)
Subject: FW: FINAL REMEDIAL ACTION PLAN – CALTRANS-MODESTO SOIL STOCKPILES
Date: Friday, January 27, 2017 7:39:13 AM

From: WALEED YOSIF [mailto:WYOSIF@envres.org]
Sent: Thursday, January 26, 2017 4:11 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Cc: BELLA BADAL <BBADAL@envres.org>
Subject: FINAL REMEDIAL ACTION PLAN – CALTRANS-MODESTO SOIL STOCKPILES

Hello Mr. Vallejo,

Stanislaus County DER, Environmental Health Division has no comment in regards to the subject matter. | 1

Best Regards,

Waleed Yosif, REHS
Senior Environmental Health Specialist
Stanislaus County Department of Environmental Resources
3800 Cornucopia Way, Suite C, Modesto, Ca 95358
Phone: 209-525-6703 Fax: 209-525-6774
Email: wuosif@envres.org

[Response-LC1]

Response to Comments from Stanislaus County Department of Environmental Resources

Thank you for your comment.

[Comment-LC2]
Comment from the Modesto Irrigation District



1231 Eleventh St.
P.O. Box 4060
Modesto, CA 95352
(209) 526-7373

LC2

February 22, 2017

Department of Transportation
Central Sierra Environmental Analysis Branch
Attention: Philip Vallejo, Acting Chief
855 "M" Street, Suite 200
Fresno, CA 93721-2753

RE: State Route 132 West Freeway/Expressway Project
Location: SR132 S of Kansas Ave to E of SR99 at Needham St

Thank you for allowing the District to comment on this referral. Following are the recommendations from our Electrical, Irrigation and Domestic Water Divisions:

Irrigation

There are multiple irrigation facilities that may be affected by the proposed State Route 132. MID's Civil Engineering Department staff has the following recommendations and requirements:

- Each irrigation facility will need to be evaluated individually to determine if an upgrade is required. | 1
- Draft improvement plans for the proposed project area must be submitted to MID's Civil Engineering Department for review prior to the start of construction. MID irrigation standard details will be provided upon request. | 2
- Any facility that will have its alignment changed will need to be protected by an irrigation easement. | 3
- Conduct a pre-consultation meeting to discuss MID irrigation requirements. | 4

Domestic Water

- No comments at this time.

Electrical

- The attached maps show the approximate location of the District's existing electrical facilities in the project areas. | 5
- In conjunction with related improvement requirements, existing overhead and underground electric facilities within or adjacent to the proposed improvements shall be protected as required by the District's Electric Engineering Department. | 6
- Relocation or installation of electric facilities shall conform to the District's Electric Service Rules. | 7

Department Of Transportation
Response Letter: SR132 West Freeway/Expressway Project
February 22, 2017
Page 2

- Costs for relocation of the Districts existing electrical facilities at the request of others will be borne by the requesting party. Estimates for relocating or installing MID electric facilities will be supplied upon request. 8
- A 10 ft. PUE is required if existing underground high voltage and underground secondary cables require relocation. A 15 ft. PUE is required if the overhead high voltage lines/ poles require relocation. The easements are required to protect the overhead and underground electric facilities and maintain necessary safety clearances. 9
- A 10 ft. OSHA minimum approach distance is required adjacent to the existing 12,000 volt overhead high voltage lines and an 11 ft. OSHA minimum approach distance is required adjacent to the existing 69,000 volt overhead high voltage lines. Use extreme caution when operating heavy equipment, using a crane, ladders, scaffolding or hand held tools or any other type of equipment near MID electric lines and cables. Assume all overhead and underground electric cables are energized. 10
- CalTrans shall verify actual depth and location of all underground utilities prior to start of construction. Notify "Underground Service Alert" (USA) (Toll Free 800-227-2600) before trenching, grading, excavating, drilling, pipe pushing, tree planting, post-hole digging, etc. USA will mark the location of any underground MID electrical facilities. The City of Modesto has additional underground secondary cables for the street lights in the project area. 11
- Please contact the District's Electric Engineering Design Department, attention Linh Nguyen at (209) 526-7438 in order to coordinate project requirements. Specific requirements, easements and associated costs will be addressed when project plans are submitted for review to the Electric Engineering Department Design Department. 12

The Modesto Irrigation District reserves its future rights to utilize its property, including its canal and electrical easements and rights-of-way, in a manner it deems necessary for the installation and maintenance of electric, irrigation, agricultural and urban drainage, domestic water and telecommunication facilities. These needs, which have not yet been determined, may consist of poles, crossarms, wires, cables, braces, insulators, transformers, service lines, open channels, pipelines, control structures and any necessary appurtenances, as may, in District's opinion, be necessary or desirable.

If you have any questions, please contact me at 526-7447.

Sincerely,



Lien Campbell
Risk & Property Analyst

Copy: File

DEPARTMENT OF TRANSPORTATION**DISTRICT 10**

1976 DR. MARTIN LUTHER KING JR BLVD
 STOCKTON, CA 95205
 PHONE (559) 445-6172
 FAX (559) 445-6236
 TTY 711
 www.dot.ca.gov



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January 12, 2017

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

STATE ROUTE 132 WEST FREEWAY/EXPRESSWAY PROJECT

DRAFT FINAL REMEDIAL ACTION PLAN

CALTRANS MODESTO SOIL STOCKPILES

The California Department of Transportation (Caltrans), as the California Environmental Quality Act (CEQA) lead agency and as assigned by the Federal Highway Administration under the National Environmental Policy Act (NEPA) at the time of the signing of the environmental document, working in cooperation with the Stanislaus Council of Governments (StanCOG), proposes to construct a four-lane freeway/expressway along the adopted route of State Route (SR) 132 south of Kansas Avenue from Dakota Avenue to east of SR 99 at the Needham Street Bridge Overcrossing in the City of Modesto.

The Caltrans Modesto Soil Stockpiles occupy three areas within state right-of-way south of Kansas Avenue: between Carpenter Avenue and Emerald Avenue, Emerald Avenue and SR 99, and east of SR 99. Caltrans proposes to cap the soil stockpiles as part of the SR 132 West Freeway/Expressway construction project. As required by state law, the California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (RWQCB) have reviewed the Draft Final Remedial Action Plan (RAP) for the soil stockpiles and approved it for public noticing. Caltrans prepared the Draft Final RAP under the oversight of DTSC and the RWQCB. If approved, the RAP would allow for the placement of impacted soil beneath roadway pavement, within bridge abutments, and behind retaining walls.

This letter is to inform you that the project's Draft Environmental Impact Report/Environmental Assessment (EIR/EA) with attached Caltrans Modesto Soil Stockpiles Draft Final RAP and technical reports are available for public review at the following locations:

- Caltrans District Office, District 10, 1976 Dr. Martin Luther King Jr Blvd, Stockton, CA 95205, weekdays from 8:00 a.m. to 4:00 p.m.
- StanCOG Office at 1111 "I" Street, Suite 308, Modesto, CA 95354, weekdays from 8:00 a.m. to 5:00 p.m. closed alternating Fridays
- Stanislaus County Library at 1500 "I" Street, Modesto, CA 95354, Monday-Thursday from 10:00 a.m. to 8:00 p.m. and Friday and Saturday from 10:00 a.m. to 5:00 p.m.
- Online at the Caltrans website: <http://www.dot.ca.gov/dist10/environmental/projects/sr132west/index.html>

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 to enhance California's economy and livability"*

- Caltrans Modesto Soil Stockpiles information is located on the DTSC website: http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

The Draft EIR/EA identifies potentially significant environmental effects. With the exception of aesthetics/visual resources and noise impacts, which would remain significant and unavoidable after implementing mitigation measures, all other impacts would be reduced to less than significant levels with mitigation. The Draft EIR/EA identifies the locations of land designated as hazardous waste properties under the Cortese list.

The Draft EIR/EA with attached Caltrans Modesto Soil Stockpiles Draft Final RAP and technical reports will be in the public circulation phase from January 18, 2017 through March 4, 2017. Public comments will be accepted until March 3, 2017. Please send your comments to Philip Vallejo, Acting Chief, Central Sierra Environmental Analysis Branch, California Department of Transportation, 855 "M" Street, Suite 200, Fresno, CA 93721, or email them to philip.vallejo@dot.ca.gov.

As part of the circulation process, Caltrans will hold a Public Hearing to obtain public input on the Environmental Impact Report/Environmental Assessment with attached Draft Final RAP. Caltrans will present preliminary design plans, environmental study information, discuss concerns, and answer questions. The Public Hearing will be informal and interested parties may arrive at any time.

Date: Wednesday, February 22, 2017

Location: Red Event Center

Time: 6:00 p.m. to 8:00 p.m.

921 8th Street

Modesto, CA 95354

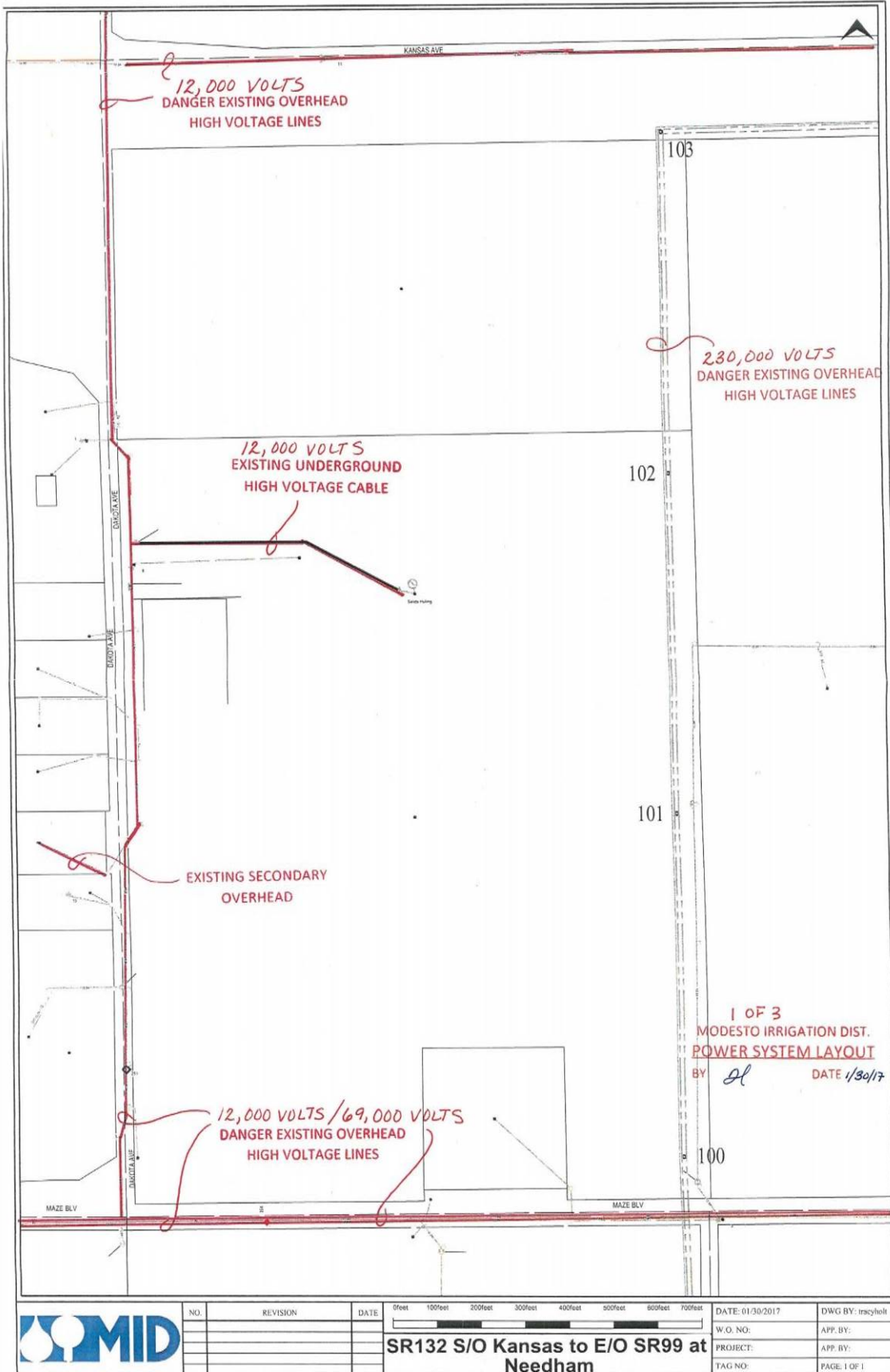
If you have any questions, please contact me or Grace Magsayo, Project Manager, at (209) 948-7976.

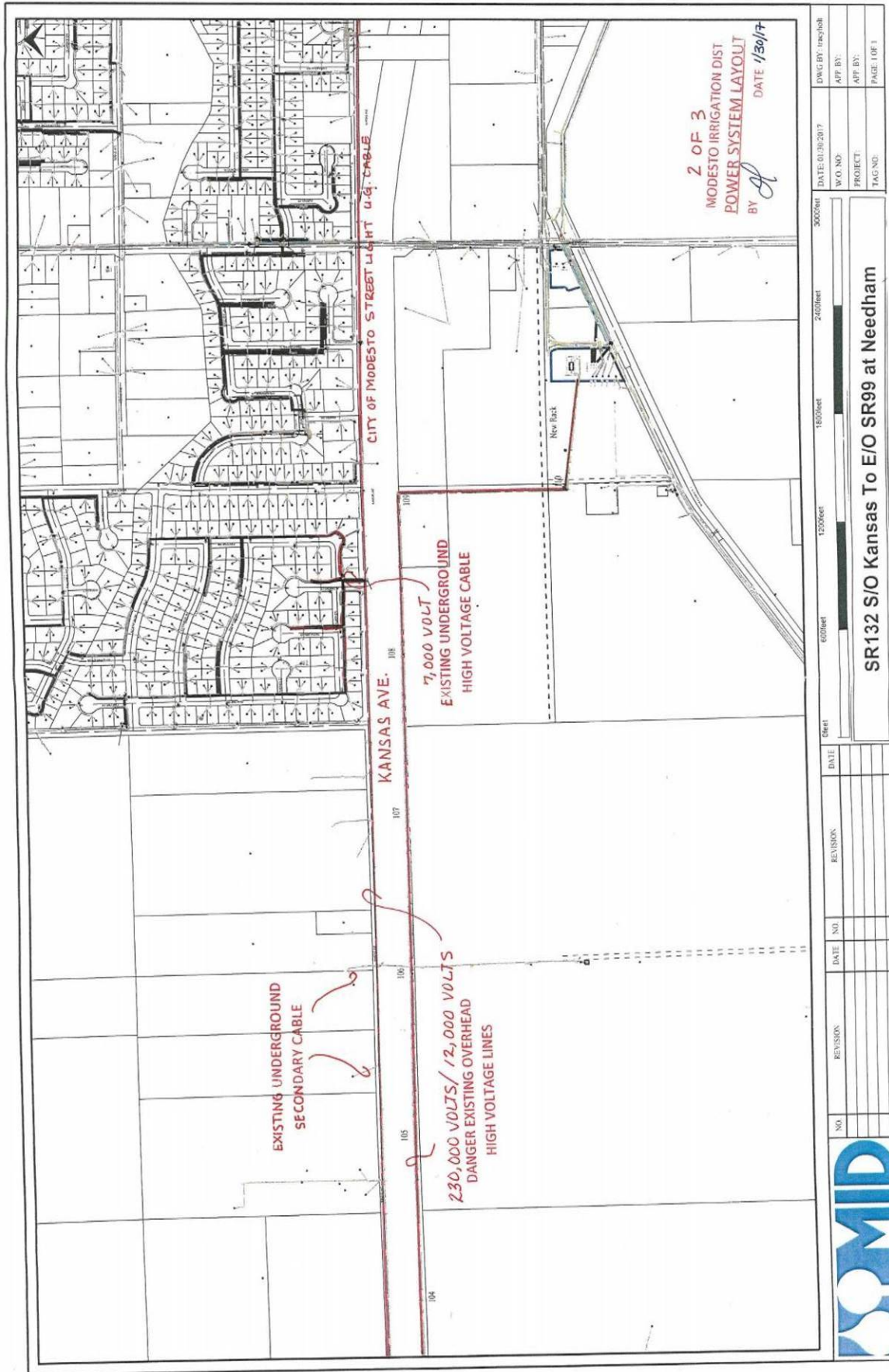
Sincerely,

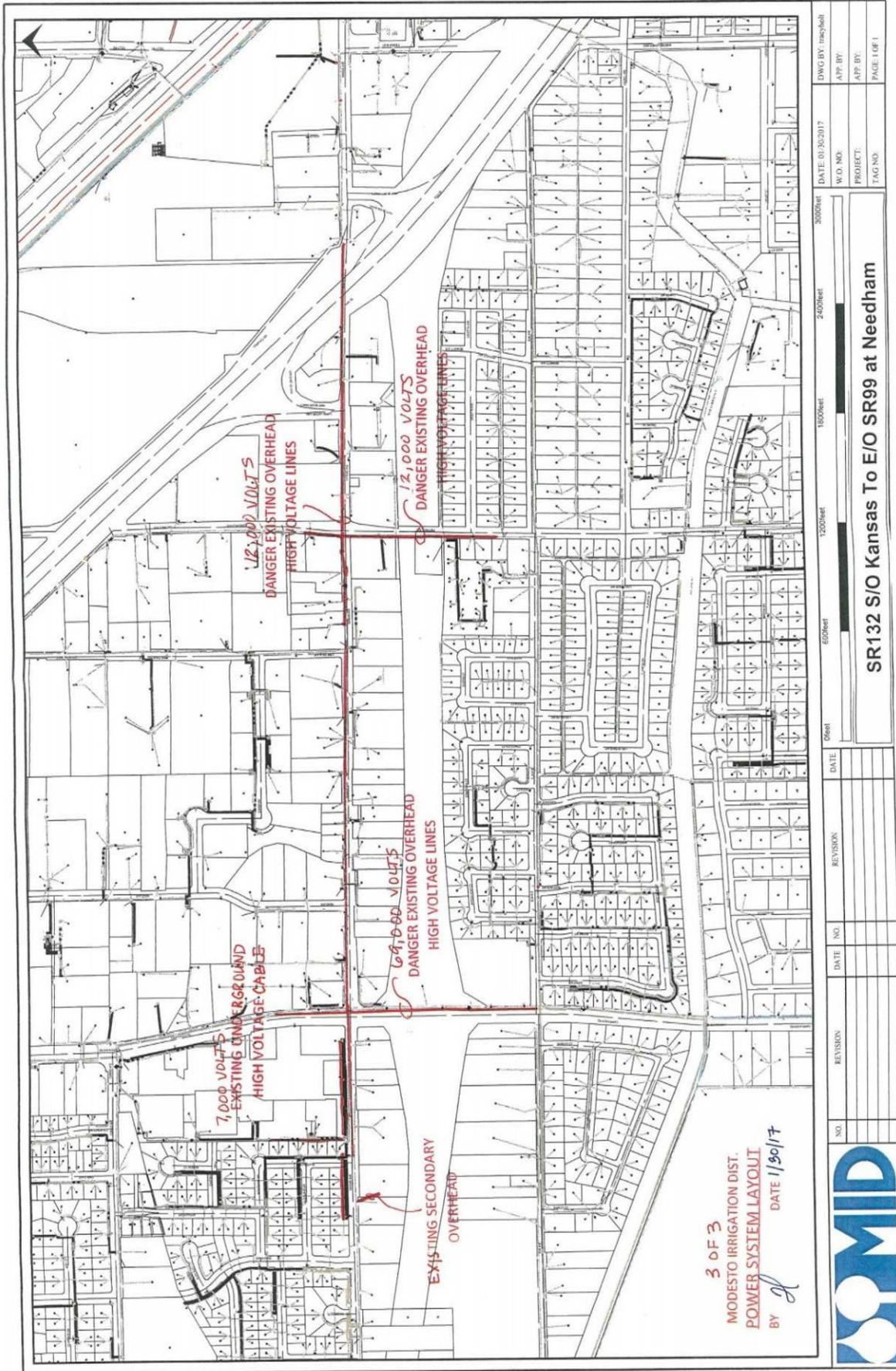


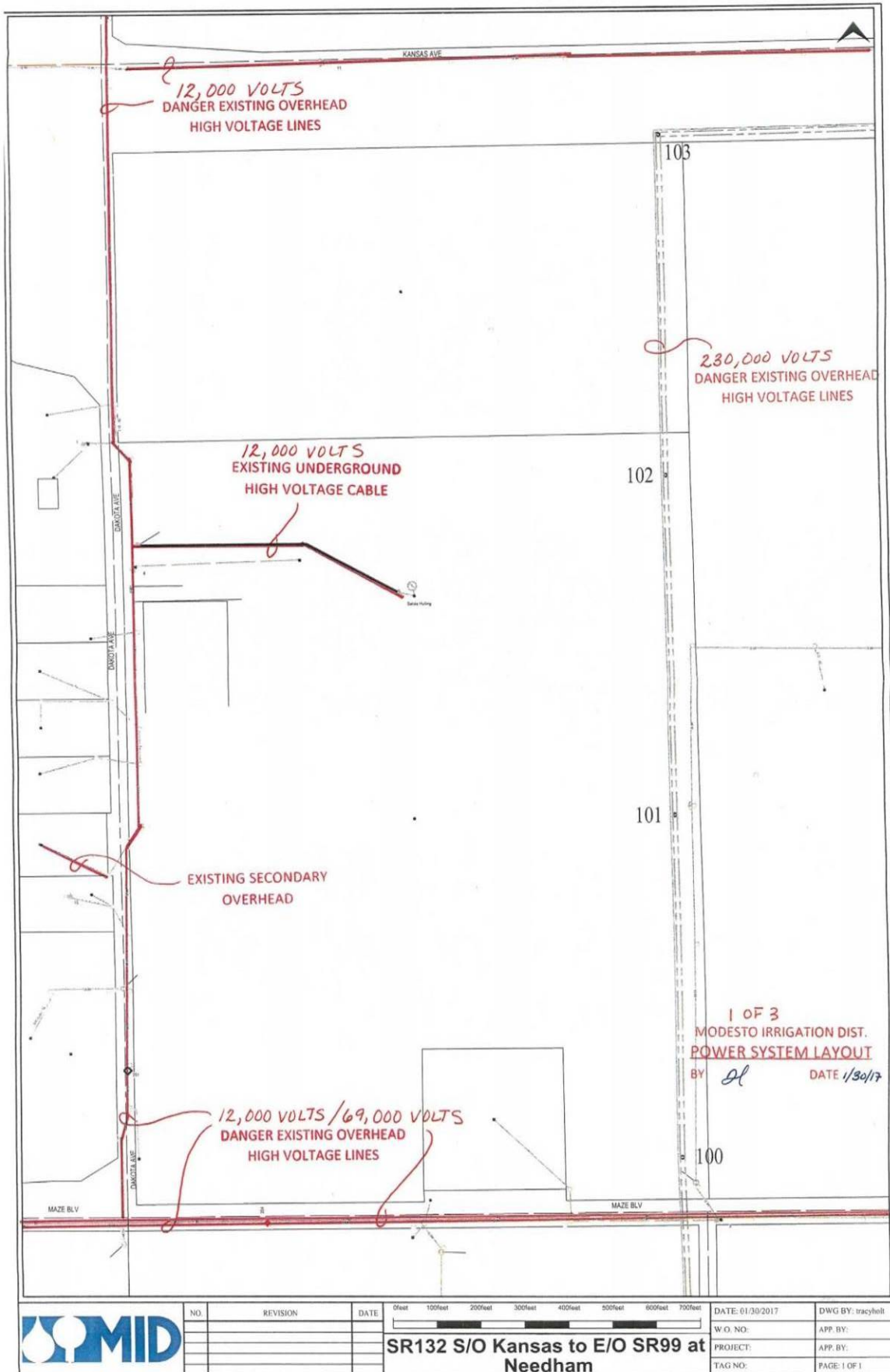
Philip Vallejo
Acting Chief, Central Sierra Environmental Analysis Branch
(559) 445-6172

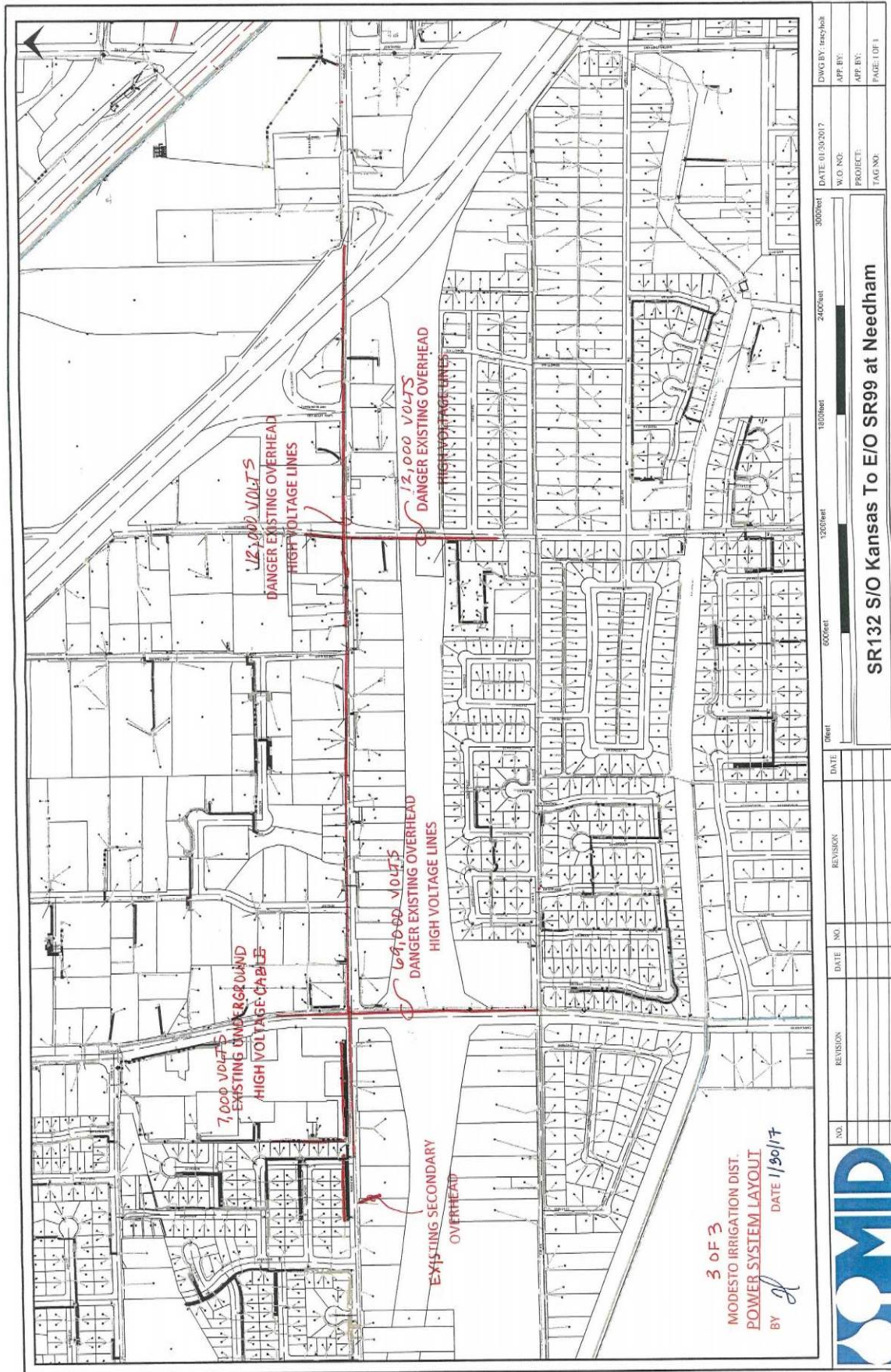
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to enhance California's economy and livability"*











[Response-LC2]

Responses to Comments from the Modesto Irrigation District

Thank you for your comments.

- LC2-1** Impacts to irrigation facilities are anticipated as part of the project. The full extent of impacts will be determined during the Caltrans Plans, Specifications and Estimate (PS&E) phase. However, measures are proposed to minimize and mitigate impacts to farmland operations and are included in Section 2.1.3 (Farmlands) of the EIR/EA. During final design, the City of Modesto would coordinate with property owners and agricultural operators to incorporate design features to maintain property access and operation. Under Commitment FARM-2, the contractor would reconstruct irrigation ditches and install irrigation pipelines damaged during construction. Commitment FARM-3 is revised to state that the City of Modesto, and not the California Department of Transportation, will be responsible for coordination with property owners and agricultural operators.
- LC2-2** Commitment FARM-3 in the Farmlands Avoidance, Minimization and/or Mitigation Measures section has been expanded to include: Draft irrigation improvement plans for the project area would be submitted to Modesto Irrigation District's Civil Engineering Department for review prior to the start of construction. Plans would be in conformance with the Modesto Irrigation District irrigation standard details. Please refer to Section 2.1.3 (Farmlands) of the EIR/EA. The City of Modesto and Caltrans will coordinate with Modesto Irrigation District during the design phase.
- LC2-3** Please see the response to Comment LC2-1. The full extent of impacts will be determined during the final design phase. Currently, there are no plans to relocate any Modesto Irrigation District structures or facilities. However, if relocations are needed, then protections will be put in place through easements.
- LC2-4** Commitment FARM-3 in the Farmlands avoidance, minimization and/or mitigation measures section has been expanded to include: Caltrans and the City of Modesto would conduct a pre-construction meeting to discuss Modesto Irrigation District's irrigation requirements. Please refer to Section 2.1.3 (Farmlands) of the EIR/EA. The City of Modesto and Caltrans will coordinate with Modesto Irrigation District during the design phase.
- LC2-5** During the PS&E phase, Caltrans and the City of Modesto will coordinate with the Modesto Irrigation District to discuss the electrical facilities and requirements in the project area.
- LC2-6** Please refer to the response to Comment LC2-5.

- LC2-7** Please refer to the response to Comment LC2-5.
- LC2-8** Please refer to the response to Comment LC2-5.
- LC2-9** Please refer to the response to Comment LC2-5.
- LC2-10** Please refer to the response to Comment LC2-5.
- LC2-11** Please refer to the response to Comment LC2-5.
- LC2-12** Please refer to the response to Comment LC2-5.

[Comment-LC3]

Comment from the San Joaquin Air Pollution Control District



LC3

March 8, 2017

Philip Vallejo
California Department of Transportation
Central Sierra Environmental Analysis Branch
855 "M" Street, Suite 200
Fresno, CA 93721

**Project: Draft Environmental Impact Report/Environmental Assessment (EIR/EA)
for the State Route 132 West Freeway/Expressway Project**

District CEQA Reference No: 20170092

Dear Mr. Vallejo:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the State Route 132 West Freeway/Expressway Project. The proposed project consists of constructing a four-lane freeway/expressway along the adopted route of State Route 132 south of Kansas Avenue from Dakota Avenue to east of State Route 99 at the Needham Street Bridge Overcrossing (Project). The proposed Project is located in the City of Modesto. The District offers the following comments:

1) Rule 9510 Indirect Source Review

The District recommends that an Indirect Source Review (ISR) Air Impact Assessment (AIA) application be submitted to the District as early as possible.

On Page 53, *Table 1.6: Permits, Reviews, and Approvals Needed*, the Draft EIR/EA states that the contractor will comply with the requirements of Rule 9510 prior to construction. Please note that approval of an Air Impact Assessment (AIA) application is required prior to the start of construction. The District's processing timeline for an AIA is 10 days for the application completeness review and 30 days for the emissions analysis (i.e.: approval). In addition, off-site mitigation fees, if any, are required to be paid prior to the start of construction. Therefore, the District recommends that an AIA application be submitted to the District as early as possible. Information about how to comply with Rule 9510 can be found online at the following link: <http://www.valleyair.org/ISR/ISRHome.htm>.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

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2) Oxides of Nitrogen (NOx) Significance Threshold

The District's established threshold of significance for oxides of nitrogen (NOx) is 10 tons per year and recommends that this threshold be used when assessing the significance level of an impact.

On page 247, the EIR/EA states,

"...the District considers a significant impact to occur when construction emissions of nitrogen oxides exceed 2 tons per year, reactive organic gases exceed 10 tons per year, or PM10 or PM2.5 exceed 15 tons per year. The proposed project would exceed two tons per year of nitrogen dioxide but would be below the limits for reactive organic gases and particulate matter."

However, on Page 311 the EIR/EA concluded that the impact from construction emission is less than significant. The District would like to clarify that the District has established a threshold of significance of 10 tons per year for NOx (ie, not 2 tons). The District has established thresholds of significance to assist Lead Agencies in assessing potential air quality impacts under CEQA. The thresholds of significance are found in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) Revised March 19, 2015 (available online at the following link: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf).

A project with emissions exceeding the thresholds of significance would be considered to have a significant impact. The District recommends that those thresholds be used to assess the impact for future projects. Based on the construction emissions summarized in Table 2-42 and Table 2-43 of the EIR/EA for this project specifically, the construction emissions are below 10 tons per year of NOx. Therefore, the construction NOx emissions would have a less than significant impact.

3) Thresholds of Significance

The District has established thresholds of significance to assist Lead Agencies in assessing potential air quality impacts and recommends that those established thresholds of significance be used.

On Page 53, the Air Quality Study Report states,

"Because Caltrans has statewide jurisdiction, and the setting for projects varies so extensively across the state, Caltrans has not developed, and has no intention to develop, thresholds of significance for CEQA. Further, because most air district thresholds have not been established by regulation or by delegation from a federal or state agency with regulatory authority, Caltrans is not required to adopt those thresholds in its documents."

The San Joaquin Valley (Valley) is faced with many challenges in attaining the federal and state ambient air quality standards due to the Valley's geography, topography, and meteorology combined with a rapidly growing population. At the federal level for the National Ambient Air Quality Standards (NAAQS), the Valley is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM2.5 standards; and attainment for the 1-Hour ozone, PM10 and CO standards. At the state level, the Valley is currently designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 California Ambient Air Quality Standards (CAAQS).

3

The District has established thresholds of significance to assist Lead Agencies in assessing potential air quality impacts under CEQA. The thresholds of significance are found in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) Revised March 19, 2015 (available online at the following link: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf).

Although Caltrans has not developed thresholds of significance for CEQA and has no intentions to do so, due to the Valley's air quality challenges and nonattainment statuses, the District recommends that Caltrans apply the District's established threshold of significance when evaluating the project's specific impacts on air quality. A project would have a significant impact on air quality if it exceeds the threshold of significance established in the GAMAQI.

If you have any questions or require further information, please call Sharla Yang at (559) 230-5934.

Sincerely,

Arnaud Marjollet
Director of Permit Services



Brian Clements
Program Manager

AM: sy

[Response-LC3]

Response to Comments from the San Joaquin Air Pollution Control District

Thank you for your comments.

- LC3-1** The City of Modesto will comply with the Air Impact Assessment (AIA) requirements prior to construction. The list of Permits, Reviews and Approvals Needed included in Chapter 2 of the EIR/EA is revised to state that the City of Modesto, and not the contractor, will comply with the Air Impact Assessment (AIA) requirements prior to construction.
- LC3-2** The threshold of significance for NO_x is revised accordingly per the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). Text is modified in Chapter 2, Section 2.2.6, Air Quality to reference the District's *Guidance for Assessing and Mitigating Air Quality (GAMAQ)*, revised March 19, 2015.
- LC3-3** The threshold of significance found in the District's GAMAQI will be referenced in Section 2.2.6 (Air Quality) of the EIR/EA. However, because Caltrans has statewide jurisdiction, and the setting for projects varies so extensively across the state, Caltrans has not developed, and has no intention to develop, thresholds of significance for CEQA. Further, because most air district thresholds have not been established by regulation or by delegation from a federal or state agency with regulatory authority, Caltrans is not required to adopt those thresholds in its documents. The EIR/EA text will be modified to provide reference to the District's thresholds as an additional measure of air quality impacts. However, the District has established thresholds of significance to assist Lead Agencies in assessing potential air quality impacts under CEQA, which have been included in Table 12 of the Air Quality Study Report for reference. The project would not exceed the threshold of significance established in the GAMAQI, as the operation of the freeway would reduce construction-related and operational emissions relative to No-Build conditions; such that the net change in emissions would be well below the District's thresholds. Please see Master Response #10.

[Comment-LC4]

Comment from the Stanislaus County Environmental Review Committee



LC4

CHIEF EXECUTIVE OFFICE

Stan Risen
Chief Executive Officer

Patricia Hill Thomas
Chief Operations Officer/
Assistant Executive Officer

Keith D. Boggs
Assistant Executive Officer

Jody Hayes
Assistant Executive Officer

1010 10th Street, Suite 6800, Modesto, CA 95354
Post Office Box 3404, Modesto, CA 95353-3404

Phone: 209.525.6333 Fax 209.544.6226

STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

March 2, 2017

Philip Vallejo, Acting Chief
California Department of Transportation
Central Sierra Environmental Analysis Branch
855 "M" Street, Suite 200
Fresno, CA 93721

SUBJECT: ENVIRONMENTAL REFERRAL – DEPARTMENT OF TRANSPORTATION – CALTRANS MODESTO SOIL STOCKPILES – FINAL REMEDIAL ACTION PLAN

Mr. Vallejo:

Thank you for the opportunity to review the above-referenced project.

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has no comments at this time.

1

The ERC appreciates the opportunity to comment on this project.

Sincerely,

Patrick Cavanah
Management Consultant
Environmental Review Committee

PC:ss

cc: ERC Members

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[Response-LC4]

Response to Comments from the Stanislaus County Environmental Review Committee

Thank you for your comment.

[Comment-I1]
Comment from Scott Murray

11

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT)
Subject: FW: Comments for the Highway 132 Bypass open-house on Feb 22, 2017, "Plan for Highway 132 bypass west of downtown revs up" Modesto Bee, Sunday 1/29/17, Page 1A
Date: Monday, January 30, 2017 7:24:47 AM

From: scottm95350@comcast.net [mailto:scottm95350@comcast.net]
Sent: Sunday, January 29, 2017 3:36 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Fwd: Comments for the Highway 132 Bypass open-house on Feb 22, 2017, "Plan for Highway 132 bypass west of downtown revs up" Modesto Bee, Sunday 1/29/17, Page 1A

From: scottm95350@comcast.net
To: "phillip vallejo" <phillip.vallejo@dot.ca.gov>, "grace magsayo" <grace.magsayo@dot.ca.gov>, "scott smith" <scott.smith@dot.ca.gov>, "ehahn" <ehahn@stancog.org>
Cc: "mayor" <mayor@modestogov.com>, "COUNCIL" <council@modestogov.com>, "vito chiesa" <vito.chiesa@stancounty.com>, "Kristin Olsen" <olsenk@stancounty.com>, "monteithd" <monteithd@stancounty.com>, "demartinij" <demartinij@stancounty.com>, "withrowt" <withrowt@stancounty.com>, "Matt Machado" <machadom@stancounty.com>, "Jeff Barnes" <jbarnes@modestogov.com>, "Denny Jackman" <dennyjackman@gmail.com>
Sent: Sunday, January 29, 2017 3:29:41 PM
Subject: Comments for the Highway 132 Bypass open-house on Feb 22, 2017, "Plan for Highway 132 bypass west of downtown revs up" Modesto Bee, Sunday 1/29/17, Page 1A

To all addressees:

Completion of Freeway 132 has my full support, not only the current scope of the project as discussed in the Bee article, but eventually beyond to I-580. For the most part, I will limit my comments to the scope of the project that is the subject of the open house on Feb 17. Although I glanced through the EIR referenced by the Bee, it is for the most part way to technical for me to comment so I will stick to what I understand from the basic information on the Stancog website - which I have followed for several years - and from the perspective of being a driver who's logged in a lot of miles and a taxpayer who has paid a lot of taxes.

I have no interest in impeding the project, but I do have concerns about some of the design aspects which I have emailed the Modesto City Council, the Stanislaus Board of Supervisors and Stancog in the past. So none of my comments and concerns should come as a surprise. I have no idea if they've been forwarded beyond those entities and I would hope that the same concerns and questions would already

have been raised by others.

I have 5 issues with the project:

1) Complete all four lanes by 2020 in one phase. We all know how long this project has been discussed and in the planning stages and I voted yes on the Stanislaus County Self-Help Tax Measure L to get projects like this speeded up - AND to take advantage of matching funds from the state. If the way the self-help tax was sold to us was correct, and 132 being a state highway, then \$107 million dollars from the Measure L funds will be matched with \$107 million dollars from the state. So why are we still talking two phases - even though I'm well aware that it's going to take the county several years to accumulate their share? We are still talking about a timeline for a two phase construction schedule that is basically the same schedule that was in place before the measure passed. To save county and state tax payer money in the future, this project needs to be completed as one phase while all the labor force and equipment is already on site. If county taxpayers and voters really want to see their Measure L dollars at work, then a quick completion of this project will do exactly that. If that delays completion of the project until 2021, then so be it. 2028 is far too long to wait.

2

2) Smoother transition from Kansas Ave to Maze Blvd at Dakota Rd. What I see now in the plans is a bottleneck. Making traffic stop and navigate two 90 degree turns will not save drivers any time at all on the overall route as traffic backs up in peak hours. This transition of freeway back to the two lane Maze Blvd needs to align with the future expressway planned by the county for the remainder of the route towards I-580. I don't like the aspect of this part of the project at all. If encouraging drivers to use this route over the current 120/205 path to the Altamont is at any way in play, this won't do it.

3

3) Build a full interchange at Carpenter Rd. There needs to be a west bound exit from 132 to access Carpenter and an east bound on-ramp to 132 from Carpenter. A half interchange makes no sense, or are we just "settling for less" here once again because we're Stanislaus County and not the Bay Area? Hopefully, there is future right of way in the plans to do just that - when the planners finally realize the need for it.

4

4) Is there enough right of way to expand the freeway to six lanes in the future - if not more? If not, there should be. It would be very shortsighted not to have done that - after all these years of planning and learning from the mistakes of the past - IF we've learned from any of them at all.

5

5) Is the project being constructed to meet the standards for possible designation as a Federal Interstate Highway? If not, then it should be. This is where I digress from the overall scope of the current project. The local elected officials and I do not agree on the importance and significance of raising Modesto's visibility for economic growth by ensuring our place on the Federal Interstate Highway Map. Proposals to upgrade Highway 99 to interstate status come and go. Shortsighted Stanislaus County elected officials have failed to get on board with those

6

proposals because of the cost, while Modesto remains the 3rd largest city in the nation without a Federal Interstate Highway running through it or immediately adjacent to it - after Fresno and Bakersfield. Our lack of visibility and economic realities here in the Northern San Joaquin Valley reflect that misguided planning policy and opportunity. Highway 99 is Modesto's vital highway connection to Sacramento and Los Angeles. Highway 132 should be constructed to be our vital link to the Bay Area rather than dependence on the current 120/205 routes. Both Highways 99 and 132 need to be designated Interstate Highways in the future and construction and reconstruction on these two highways need to take that into account now. At the very least, the overpasses related to the 99/132 interchange need to be constructed to meet interstate highway height minimums - even if that means redesign and delay of the project - unless the current roadbed of 99 can be lowered in the future for the current design "flaw" if there is one. 6

Thank-you for the opportunity to submit my comments by email. I hope that email submittals are considered and treated equally with those able to attend the open house.

//Scott Murray
Modesto city resident

[Response-I1]
Response to Comments from Scott Murray

Thank you for your comments.

- I1-1** Thank you for your support of the project. Your feedback is appreciated. The purpose of the EIR/EA is to evaluate and disclose each significant effect on any environmental resource. The EIR/EA is a summary of technical studies and findings, but it aims to summarize the technical information in a way that the general public can understand. Each section of the EIR describes potentially affected areas, environmental consequences and potential avoidance, minimization and/or mitigation measures (AMMs). The EIR/EA summary also provides a brief project description, brief information on the Modesto Soil Stockpiles, and a summary table of potential impacts of alternatives and permits and approvals needed. Chapter 3 of the EIR/EA provides a summary of CEQA findings and discussion of significant impacts. Any comments submitted as part of the EIR/EA public comment period process have been reviewed by the Project Development Team or DTSC and responded to and incorporated into the Final EIR/EA. Comments made by others as part of the EIR/EA public comment period have also been reviewed and responded to and are included in this appendix as part of the public record. Section 4.2.4 (Public Information Meetings, Neighborhood Meetings, Open Houses) of the EIR/EA provides a summary of comments that have been provided by the public through various public meetings to date. A Public Hearing Summary Report has been prepared to document the February 22, 2017, EIR/EA Public Hearing Meeting proceedings and is available in the public record.
- I1-2** Please see Master Response #4 (Project Funding). Projects must be packaged to be fundable under reasonably available sources and according to funding cycles. Once submitted, a project is programmed, or prioritized for state and federal funding. As such, the Project Development Team may recommend phasing the project to account for available and constrained funding and to ensure that a reasonable amount of the project is funded. The Project Development Team recommended that the project be funded in two phases because only \$82 million in funding for the project has been identified and programmed, or prioritized, for fiscal years 2018/2019 at this time. Funding is still being identified for Phase 2. The recent approval of Measure L will allow Stanislaus County to leverage funds that can be put toward Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design.

II-3 Please see Master Response #3 (Logical Termini). In addition, the initially proposed Alternative 1 would have connected to existing SR 132 (Maze Boulevard) via a new alignment with an S-curve, as initially proposed, or via the North Dakota Avenue alignment, as refined during the preliminary design process. While this build alternative would have met the purpose and need, Alternative 1 would have had distinct limitations. The S-curve design at the west end of the proposed project would not have been a feasible design solution for traffic operations and potential future expansion of the highway to the west, due to the potential realignment of SR 132 and construction of a new two-lane facility from North Dakota Avenue to Gates Road, which is currently in the early planning phase. The costs associated with the construction of the S-curve are estimated at \$3.25 million (\$1.3 million capital costs and \$1.95 million right-of-way costs). As such, the cost of the initially proposed Alternative 1 is estimated at \$3.25 million above the cost estimated for either of the build alternatives. Therefore, the initially proposed Alternative 1 was eliminated from further discussion by the Project Development Team in March 2014.

Regarding the bottleneck concern, excessive queuing is not anticipated at either intersection. In 2028, the Maze/Dakota intersection is projected to operate at a level of service (LOS) A/B in the AM/PM, respectively, in the Build Condition and SR 132/Dakota is projected to operate at LOS B/A in the AM/PM, respectively. A westbound left-turn queue from SR 132 to southbound Dakota would be 71 feet in the AM and 93 feet in the PM. In 2048, the Maze/Dakota intersection is projected to operate at LOS A in both the AM and PM in the Build Condition, and SR 132/Dakota is projected to operate at LOS B in both the AM/PM. A westbound left turn from SR 132 to southbound Dakota would be a 193-foot-long queue in the AM and 146 feet in the PM. For comparison, roughly 8 cars waiting to turn is equivalent to 200 feet in length.

II-4 A full interchange at North Carpenter Road is not proposed for this project because of the short nonstandard weaving distances that would be required between ramps to and from SR 99 and the SR 99/SR 132 freeway-to-freeway connectors/ramps. For example, as tractor trailer trucks are decelerating along SR 132 eastbound and moving to get into the right lane to enter the SR 132 eastbound off-ramp to SR 99 southbound, the tractor trailers would conflict with vehicles accelerating to get onto SR 132 eastbound from North Carpenter Road. The same is true on SR 132 westbound between the SR 99 southbound off-ramp to SR 132 westbound and a potential off-ramp from SR 132 westbound to North Carpenter Road. As trucks are accelerating from the SR 99 southbound off-ramp to SR 132 westbound, vehicles already on SR 132 westbound would be decelerating and weaving to the right to get off at a proposed SR 132 westbound off-ramp to North Carpenter Road. These traffic

movements are unsafe because there is not enough distance between the ramps for the vehicles to transition and weave safely into position.

An eastbound loop on-ramp and westbound conventional off-ramp for the proposed SR 132/North Carpenter Road interchange were evaluated during the development of the environmental document. As a result of the nonstandard distance between the proposed interchange and the SR 99/SR 132 freeway-to-freeway interchange connectors and the proposed new public road connection to Kansas Avenue/Needham Street Bridge Overcrossing intersection, the evaluation determined the standard solution of braiding the various ramps and connectors would not be cost feasible and the environmental/right-of-way impacts would be unacceptable, as determined by the Project Development Team and supported by the various responsible agencies including Caltrans. Furthermore, no approval decision exceptions were developed that would justify the nonstandard weaving sections without braiding the ramps and connectors.

Upon completion of Phase 1, traffic traveling east on SR 132 to SR 99 will use North Dakota Road rather passing through the North Carpenter Road at Maze Boulevard intersection. Traffic moving west from SR 99 will travel on the new SR 132 and will not be able to exit onto North Carpenter Road. Traffic will not be allowed to access from North Carpenter Road to travel eastbound. This will remove some of the congestion along North Carpenter Road.

- I1-5** The future SR 132 will operate at a Level of Service A during both the AM and PM peak periods under the 2028 and 2048 Build Alternative. At the highest level of service, the expansion of the freeway to four lanes is more than sufficient to achieve improved mobility on the corridor without additional capacity.
- I1-6** The design will be consistent with the current designation as a State Route. Although the current project does not assume a future reclassification of State Route 99 or 132 to a Federal Highway, expanding the visibility, improving the connectivity of the City of Modesto, and linking to the Bay Area is part of a larger plan to connect SR 99 with I-580 via a controlled-access freeway/expressway and will be advanced under a separate project. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages; and part of the right-of-way west of North Dakota Avenue has already been acquired. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including the existing SR 132 (Maze Boulevard) alignment. The use of North Dakota Avenue as part of the new SR 132 route is temporary until future segments of the controlled-access freeway/expressway are built. In addition, the current design for Alternatives 1 and 2 meets interstate highway minimum heights of 16 feet 6 inches

for all designed overpass structures and exceeds the required minimums for the Needham Street Bridge Overcrossing. Existing structures along SR 99 do not meet the minimum height requirement, as they are grandfathered under the new requirement; however, this project does not affect the existing structures, and thus they are not included in the scope of the project.

[Comment-I2]
Comments from Bruce R. Frohman

12

March 1, 2017

Mr. Phil Vallejo

Caltrans

Central Sierra Environmental Analysis Branch

Suite 200, 855 M Street

Fresno Ca 93721

Subject: State Route 132 West Freeway/Expressway Project and Caltrans Modesto Soil

Stockpile Draft Final Remedial Action Plan

Dear Mr. Vallejo,

This letter is to protest the Environmental Impact Report on the above subject project as inaccurate, incomplete and unsatisfactory in many respects.

Objection to Cap for Toxic Waste Site

The most egregious deficiency in the EIR is regarding the contaminated soil action plan. You propose to put a concrete cap on the contaminated site and allege that doing so is a perfectly safe solution in perpetuity. At the February 22, 2017 meeting at Mark Twain School in Modesto, Caltrans misrepresented to the public that your solution posed no health danger to the public.

1

In the past, your agency failed to comply with site monitoring agreements with the California Department of Toxic Substance Control with careless disregard for public health and safety. No guarantee exists that Caltrans will maintain the integrity of the concrete cap after installation. The cap will crack and deteriorate and eventually become worthless. Caltrans has no budget to maintain the cap.

2

Exhibit 1 enclosed is a partial list of violations I noted while monitoring the toxic waste sites from 2011 to 2014. Exhibit 2 is a copy of April 5, 2013 correspondence with Scott Calkins, a member of the Stanislaus Council of Governments Citizens Advisory Committee documenting mishandling of toxic waste material from the site. In 2005, Shaw Environmental Labs recommended removal of the soil to a toxic waste site—Exhibit 3.

3

Exhibit 4 is a copy of a statement that I submitted to Caltrans in 2012 about the need to take immediate action to remediate the toxic waste site. I wrote it before I realized that a cap would not be a satisfactory solution. Exhibit 5 is a partial list of people living near the toxic waste site who are believed to have become ill as a result of exposure to soil from the site; the exposure is directly attributable to Caltrans negligence in the maintenance of the site.

4

The exhibits represent preliminary discovery of Caltrans negligence in the management of the soil stockpiles. Additional testimony is available.

5

Those living near the toxic waste site want removal of the entire soil stockpile and contaminants. To avoid litigation, remove all toxic soil to a class one hazardous waste site. Please don't be pound foolish with taxpayer dollars.

Adverse Impacts to Wildlife Refuge

Exhibit 6 indicates that no consultation with the U.S. Fish and Wildlife Service has occurred since 2002 regarding possible adverse impacts to the wildlife refuge located adjacent to Route 132 and the San Joaquin River. The EIR has not updated the consultation of 2002. Endangered species have not been surveyed recently. The project will cause more noise, pollution and traffic to adversely affect the refuge—the impact cannot be considered “no effect”.

6

Route 132 is on a levee within the wildlife refuge. Additional traffic could weaken or cause the levee to break. The levee cannot handle increased ~~in~~ traffic that will result from the project.

Adverse Environmental Impacts to the City of Modesto

Exhibit 7 is a summary of the conversation I had with former Caltrans Project Manager Christine Hibbard on March 8, 2012 at her Stockton office regarding adverse environmental impacts of the project as proposed at the time. The newest iteration of the project addresses none of the environmental objections to the prior proposal; objections are germane to the current project.

7

Exhibit 8 represents additional issues that the Environmental Impact Report needs to address. It supports a logical conclusion that until adequate funding is obtained to minimize adverse environmental impacts, the project should not proceed.

8

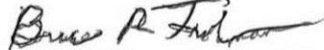
Incomplete and/or Possible Inaccuracies in the Public Record

This writer has endeavored to be as accurate and concise as possible regarding objections to the proposed project. Caltrans imposed very short deadlines for review and comment, holding only one public comment session. Any error is unintentional. The only public comment was held on February 22, 2017, a day when Stanislaus County was under a state of emergency due to a flash flood warning which did not expire until February 23, 2017 at 4PM. Citizens who wanted to attend the meeting to provide input were hindered by the emergency.

9

Caltrans abridged germane public comment by arbitrarily discarding all statements made prior to the current comment period even though nearly all comments would be relevant to the current project. Caltrans has not made a good faith effort to obtain public comment.

10

Signed, 

Bruce R Frohman, Modesto City Council Member 1999-2003

PO Box 1623

Modesto Ca 95353

EXHIBIT 1

SUMMARY OF CALTRANS VIOLATIONS OF AGREEMENT WITH DTSC

Failed to prevent public access to the toxic waste mounds.

Allowed water to run off waste mounds into nearby storm drains. (Water is to be kept on site.)

Failed to keep mounds covered in vegetation, allowing dust from the piles to blow into nearby neighborhood.

Failed to control vegetation on edges of mound, resulting in a brush fire that destroyed 7 homes south of the site in 2014.

11

EXHIBIT 2

Hello Bruce,

I'm sorry for not getting back to you more quickly on my impressions from the meeting everyone at our house has been sick this week.

I did meet both Sam and Nathan to talk about how plan to move forward with the soil stockpile project. I guess I did not leave with a very optimistic feeling about the direction DTSC seems to be heading. DTSC seems most concerned about how they sell whatever Caltrans finally proposes to the public. It is clear that Caltrans is in the drivers seat and DTSC is only along for the ride and unlikely to press or challenge Caltrans to do anything they had not planned on from the start.

Nathan spent the largest part of our meeting asking me about who I had been in contact with, from local to state officials, and the interview took on the feeling of an interrogation. Beyond that he was only curious about how I thought DTSC should deliver information to the public. What frustrates me is that DTSC is not more helpful in investigating how Caltrans has been managing the soil stockpiles for the past 50 years and the harm their mismanagement has caused our community.

I asked both Sam and Nathan questions about why the contaminated soil from stockpile #3 had been taken to the Forward Inc landfill in Manteca and not the Stanislaus County landfill. Both had trouble answering the question and claimed not to be the experts. Sam finally said that Steven Meeks at the water board had made the final decision about where to take the soil, but both were uncertain why it ended up in Manteca. It is my impression that they are being disingenuous when they claim to know so little about such critical decisions.

I also asked about Caltrans practices and policies regarding the gate/valve in the storm water retention basin next to stockpile #3 and the regrading of that retention basin during the Kansas ramp project. Sam claimed that the current maintenance supervisor has not opened the valve in four years that he has been there. When asked more questions about the use of the valve it became clear that Caltrans has no policy regarding when it could be opened and does not inform anyone when the events occur even though this would put contaminated water into the Tuolumne River. When I asked if the permit filed for the Kansas ramp project included regrading the retention basin again Sam was uncertain. I pointed out that the soil and silt at the bottom of the retention basin should have been tested prior to regrading because it could have held high levels of constituents of concern (metals) if storm water from piles #2 and #3 had been allowed to evaporate or percolate there for decades.

It was my impression that DTSC plans to hold Caltrans harmless for all past practice regarding the management of the stockpiles and I find this unconscionable. I believe that Caltrans practices have violated the Clean Water Act in regard to the way they have failed to manage storm water runoff. Any final settlement that does not include restitution to the community for past practice and only looks at future responsibility would only add more insult to 50 years of injury caused by their neglect.

Both Caltrans and DTSC would like to sweep this all under the rug without ever admitting a single failure on their part.

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I tried my best to remain cordial, but I did not leave the meeting with the impression that anyone was about to take responsibility for this longstanding environmental blunder.

Sincerely,
Scott

On Fri, Apr 5, 2013 at 9:16 PM, Bruce Frohman <bfrohman@thevision.net> wrote:
Good evening, Scott.

What was your impression of your meeting with Cal Trans and DTSC last month?

Best,

Bruce

EXHIBIT 3

April 2013 Report: Modesto Eastern End of 132 Freeway Project Still Delayed
by Bruce R Frohman

In the last report about a year ago, this reporter outlined problems with the design of the 132 freeway construction project and with the mounds of dirt in the 132 right-of-way near the 99 freeway believed to contain toxic waste.

As of this writing, Cal Trans is working with the California Department of Toxic Substances (DTSC) to determine how heavily contaminated the dirt mounds are and what to do about them. Until a decision is made about remediation of the dirt piles, construction on the eastern end of the 132 freeway project cannot begin. The western end of Highway 132 freeway is already under construction between Interstates 580 and 5 and will probably be finished before the eastern end is started.

DTSC REPORT

On April 15th, Nathan Schumacher of the California Department of Toxic Substances provided an update to this writer on the study of the toxic waste mounds. His report is based upon research conducted by an independent contractor for Caltrans. He stated in an email:

"State action levels for Barium are 5,200 parts per million for residential uses and 63,000 parts per million for commercial uses. Above these levels, studies have shown harmful effects from Barium.

"Barium exists in Modesto s ambient environment at between 17 and 120 parts per million.

"For Stockpile #1, Barium ranges from 37 to 1700 parts per million with an average of 82. These amounts are all found deeper than 6 below ground surface. Usually the higher concentrations are at lower depths inside this pile.

"For Stockpile #2, Barium ranges from 49 to 64,000 parts per million with an average of 5440. These amounts are all found deeper than 6 below ground surface. Again, the higher concentrations are at lower depths inside this pile as well.

"For Stockpile #3, Barium ranges from 35 to 126,000 parts per million with an average of 4310. These amounts are all found deeper than 6 below ground surface. Once again, the higher concentrations are at lower depths inside this pile as well."

When Caltrans deposited the dirt in the 132 freeway right of way in the 1960's, the bottom of the FMC settling pond was scraped first and then deposited in the right of way. Clean dirt was then added to the top of the piles to finish them off. At the time that the dirt was moved, the toxicity of the soil was unknown. It wasn't until the 1980's that the severity of the contamination was realized, coincident to the start of the remediation of the soil at the old FMC site.

Conclusion About The Report And New Information Background History

Barium exists in toxic levels within the piles of dirt in the 132 freeway right of way. Therefore, the DTSC will need to make a determination as to the best method of remediation so that the contaminants do not enter the groundwater or create public health issues.

Unlike the FMC property, the Caltrans 132 right of way site was loosely monitored and no clean up effort was ever undertaken. In 2005, a study undertaken by Shaw Environmental Labs recommended that

15

Caltrans remove the soil in the piles to a hazardous waste site. A determination was made at the time that since Caltrans had no immediate plans to build a freeway, the piles could be left as long as they were properly monitored and people were kept out of the right of way.

Now, DTSC will be using the results of the latest study to update the recommendation of Shaw Environmental Labs. The recommendation could include removing all, some or none of the piles. The least expensive recommendation is thought to be sealing the piles permanently in concrete.

WHAT HAPPENS NEXT

The DTSC is expected to make a recommendation about the future of the mounds containing the toxic waste some time within the next 6 months. After the recommendation is made, an agreement between DTSC and Caltrans will be signed to do the required remediation. Next, Caltrans will have the work done. Once the issues with the toxic waste mounds are completed, design of the new freeway can be completed and construction will begin. No firm dates can be determined until the toxic waste issues are completed.

Stanislaus County Supervisor Terry Withrow, who represents the district containing the 132 Freeway Right Of Way, reported recently that more money has been found to build the first phase of the eastern end of the freeway. He indicated that the facility from freeway 99 to the west may be built beyond the originally planned stopping point at Dakota Road. This possibility is based on the assumption that funding will not be lost because of the delay in the start of construction.

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EXHIBIT 4

I request that the following statement be inserted into the record and receive confirmation that this has been done. These are questions that I failed to ask and have answered when I attended last night's meeting at Mark Twain school.

FMC has been cleaning up its toxic waste site for over 20 years while Cal Trans has been sitting on 120,000 cubic yards of comparable materials for nearly 50 years. If FMC had to do clean up and remediation of its site, including ground water filtration, how has Cal Trans escaped similiar clean up for a site immediately next to residential housing?

16

Last night, I met a lady who lives on the street next to the site who says she has seen neighbors become severely ill. Terhesa Gamboa, 209-576-8484, says she knows a lady who lives on the street and can refer you to her. Could what she has been saying be true?

Since Cal Trans has known about the site for quite awhile, why hasn't it already put a cement cap on it if doing so is the "safe" thing to do?

It makes me sick to think that I did not know about this toxic waste when I was on the Modesto City Council. I would have initiated a full investigation and action plan had I known. Randy Adams told me of his concern about kids getting through the fences surrounding the piles and playing in the dirt. Doesn't that concern mean a cement cap or soil removal from the site would be an immediate priority?

17

Looking on the internet, Barium appears to be quite a dangerous material. Keywords, Is Barium Dangerous?

18

If the site has to be capped and the material unremovable, I don't know how a freeway can safely be built without disturbing the pile during construction. Has Cal Trans successfully done this with any other freeway? It is one thing to put concrete over a toxic pile, but to have huge trucks rolling over it, shaking the concrete almost constantly seems like playing with fire. Ever see the cracks of the concrete on a freeway? Water eventually gets into the cracks.

19

How can the groundwater beneath 120,000 cubic yards of toxic soil in the 132 freeway right of way not be contaminated after 50 years?

20

Thinking about that soil lying there for 50 years, it is regrettable that the process of building this freeway didn't started sooner; then the existence of the site would have come out sooner. On the other hand, what would have been the outcome of a toxic dump buried under a freeway for 50 years?

21

Am I making a mountain out of a toxic hill?

I also request that Cal Trans put answers to these questions into the record so that the public is able to review my questions and read the answers.

Signed,

Bruce R Frohman
1312 October Way
Modesto Ca 95358
209-521-8218

EXHIBIT 5

LIST OF CITIZENS WHO MAY HAVE SUFFERED ADVERSE HEALTH EFFECTS FROM
TOXIC WASTE SITE WITHIN THE STATE ROUTE 132 RIGHT OF WAY
COMPILED BY JULIE BRUGHELLI

Name	Address	Ailment	Outcome
[REDACTED]	Loletta Street	Colon Cancer	Death
[REDACTED]	same street	Breast Cancer	Illness
[REDACTED]	same street	Cancer	Death
[REDACTED]	formerly Loletta Street	Breast Cancer	Illness
[REDACTED]	same street	Unknown	Illness
[REDACTED]	unknown near site	Breast Cancer	Illness
[REDACTED]	unknown near site	Breast Cancer	Illness
[REDACTED]	unknown near site	Cancer	Death
[REDACTED]	Florine Lane	Cancer	Death
[REDACTED]	Shirley Ct	Breast Cancer	Illness
[REDACTED]	Shirley Ct	Cancer	Illness
[REDACTED]	unknown near site	Rare form of cancer	Death Age 48
[REDACTED]	Shirley Ct	Breast Cancer	Illness
[REDACTED]	same house	Cancer	Death
[REDACTED]	same house	Cancer	Illness
[REDACTED]	Shirley Ct	Cancer	Death
[REDACTED]	Florine Lane	Colon Cancer	Illness
[REDACTED]	Florine Lane	unknown	Death
[REDACTED]	Florine Lane	Brain ailment	Illness
[REDACTED]	Shirley Ct	Breast cancer	Illness
[REDACTED]	same house	Cancer	Illness
[REDACTED]	Elm Ave	Breast and lung cancer	Death
[REDACTED]	same house	Cancer	Death
[REDACTED]	Elm Ave	Cancer	Death
[REDACTED]	Arboleda Way	Breast Cancer	Death
[REDACTED]	Arboleda Way	Cancer	Death
[REDACTED]	Elm Ave	Brain Disease	Illness
[REDACTED]	Florine Lane	Brain Cancer	Illness
[REDACTED]	same street	Cancer in spine	Death Age early 40's
[REDACTED]	Florine Lane	Lung Ailment	Illness
[REDACTED]	same house	Cancer	Illness
[REDACTED]	same house/different time	Cancer	Death
[REDACTED]	Elm Ave	Stomach Ailment	Illness

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EXHIBIT 6

Dear Mr. Frohman,

I just transcribed this and thought I would pass it along. I found it interesting and disturbing.

In a Staff Report Presentation to the StanCOG Policy Board, Carlos Yamzon, Senior Planner, wrote:

“CalTrans conducted informal consultation with the USFWS (US Fish and Wildlife Service) in 2002 and concurrence was reached that there will be “no effect” to federally listed special-status species and therefore no additional consultation is necessary. Per guidance from the CalTrans Biologist, we are assuming that the “no effect” concurrence from the USFWS has not expired. Therefore our biological resources study will not require formal consultation with the United States Fish and Wildlife Service, however, there is a potential impact on two state-listed special –status species and therefore the project will require coordination with the California Department of Fish and Game. “

I find it disturbing that based on an “informal consultation” 10 years ago that StanCOG and CalTrans are “assuming” that concurrence has not expired. This doesn’t have anything to do with the Toxic Substances subject but it does reflect the casual attitude that exists about the Environmental Impact Report. There is also in the EIR document something called a “Community Impact Report” which according to Mr. Yamzon has been completed but I cannot find any information about it.

Best,
Annie DeLong
Farm Fresh Productions

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EXHIBIT 7

March 8, 2012

Christina Hibbard
Cal Trans
132 Freeway Phase One Project Manager
PO Box 2048
Stockton Ca 95201

Dear Ms. Hibbard:

Thank you for agreeing to meet on March 9, 2012 to discuss the project maps. The following is a summary of the information I want to present to you. I have created this document in case we don't have adequate time to discuss all of the issues.

EIR Comments Based On Maps Presented To The PIP Committee on February 22, 2012 Regarding The 132 Freeway.

The proposed project is like trying to put a square peg into a round hole. Not enough land or money has been allocated to build a project that meets existing Cal Trans freeway construction standards. The best alternative is one that maximizes safety, minimizes air pollution, and optimizes traffic flow. In order to implement the best alternative, speed limits within part of the project area will need to be reduced to less than 65 mph. 24

The City of Modesto California sits within an air basin in the Central Valley of California. The air basin has been identified by the U.S. Government as a serious air quality non-attainment area. The region is often out of compliance regarding air quality regulations and is subject to financial penalties. Poor air quality is a major impediment to economic growth in the region.

Any freeway built in the air basin must minimize the creation of additional air pollution in its construction and design. The net result should either decrease total air pollution or minimize the increase in the amount of pollution. 25

As proposed, the present project introduces numerous problems that have the net effect of increasing air pollution. Here is a summary of the problems it creates, along with mitigation solutions, proceeding from east to west on the project.

The first problem is the intersection of Franklin Avenue with the Needham Avenue Overpass, and the 99 north Freeway exit onto 132 west freeway. All these roads meet at one proposed intersection. Because the first phase of the freeway budget does not have sufficient funds to build a flyover for northbound 99 to westbound 132, large volumes of traffic from four different directions will funnel into a signalized intersection for a period of at least 10 years. If additional funds do not become available to build the flyover, this bottleneck intersection could exist in perpetuity and gradually worsen over time. A substantial amount of air pollution will be created as automobiles and trucks wait for the signal to funnel traffic through the intersection. 26

Air pollution can be mitigated via a traffic circle, which minimizes wait times from all directions and reduces traffic accidents by up to 90 percent. 27

The cost to build the traffic circle may be greater than the cost to signalize the intersection due to additional right of way that would be needed to build the circle. However, the savings for motorists in time and burned fuel, the reduction in accidents and reduction in air pollution at the intersection will result in greater long term savings in a relatively short time.

Another mitigation for the intersection will be to discourage interregional traffic from using the first phase 132 28

freeway via appropriate signs. The northbound 99 exit for 132 freeway west should use the same destination information as the present 132 exit sign. The destination on the exit sign should read "Vernalis" instead of "San Francisco" and a second sign should continue to advise motorists to use highway 120 to get to San Francisco. Until Cal Trans can build a continuous freeway in the 132 right of way between Freeway 99 and I-580, the sign with this label should remain in place. Similarly, the sign on east bound 580 near the 205 interchange should continue to instruct motorists to use 205 to get to Modesto.

28

The second problem with the traffic signal concept at the above mentioned signalized intersection is that motor vehicles will start up from a complete stop and, going west bound on the 132 freeway, immediately encounter a 65 mph speed limit. This abrupt change in speed limit encourages motor vehicles to increase velocity rapidly, causing a great amount of air pollution to be generated in a short distance.

The mitigation for the second problem is to gradually increase the speed limit as cars move further away from the signal headed west bound. This technique of traffic control will then enable an off ramp to safely be built for a westbound 132 freeway off ramp at Carpenter Road.

The traffic signal also poses a third problem, for east bound 132 traffic. With a speed limit of 65 mph all the way to freeway 99, traffic will not be slowed soon enough to avoid rapid stops, leading to possible accidents as stopped traffic is backed up waiting for the signal at the Needham overpass. Such stops would generate extra air pollution as vehicles use more energy to maintain speed rather than save energy by gradually slowing down.

29

The mitigation for the third problem is to slow traffic gradually beginning west of Carpenter Road. This will also allow safe on ramps to be built from Carpenter Road to east bound 132 freeway.

The latest Cal Trans 132 Freeway design presented at an informational meeting in the STANCOG conference room on February 20, 2012, shows that there will be no exit ramp at Carpenter Road for west bound freeway 132 traffic. Not only will Modesto residents and businesses on the west side of freeway 99 be denied an exit from the 132 freeway, but all of them north of the 132 freeway will still need to take the 132 freeway exit northbound off of freeway 99 in order to get to their establishments as the Kansas Avenue offramp is being removed. Residents and commercial vehicles will need to proceed through the signalized intersection, go north to Kansas Avenue, where there currently is a second signalized intersection, and then go west on Kansas Avenue. This will increase the distance everyone will need to drive to get to homes and businesses by about 1/2 mile and add 3 to 5 minutes to the drive time, adding air pollution and gasoline costs to the drive.

Clearly, not enough land has been acquired to build a full interchange at Carpenter Road. Carpenter Road is the only major north/south arterial serving the entire west side of the City of Modesto. Failure to provide adequate access and egress to this road will result in added air pollution and travel time as motorists seek longer routes with more urban driving. If the purpose of the freeway is to move traffic, the failure to build an adequate interchange is counterproductive.

30

The solution to the lack of adequate land is to build the best interchange with the available land. It is feasible to build access east and westbound with less than the Cal Trans standard for a freeway interchange if the speed limit is reduced in the area of the interchange. Your engineers and consultant have told me that this can be done.

If Cal Trans does not have enough money to build out the entire phase one, Cal Trans can abbreviate the west end of the phase one freeway construction by ending the freeway at Carpenter Road and routing the west bound 132 traffic south to Maze Boulevard, the present alignment, until phase two is built. Employing this option would save a number of fruit orchards that have recently been planted within the freeway right of way west of Carpenter Road.

Proceeding west from the Carpenter Road interchange, the construction of this project will create a new problem at Dakota/Kansas and 132 freeway intersection. The project does not have enough money to build an overpass. A new signalized intersection will generate more starts and stops for traffic and new delays that presently do not exist on the current alignment of state route 132. If this project is to go forward, a traffic circle should be built at the intersection to facilitate the constant flow of traffic. This will save \$250,000-500,000 in the cost of traffic signal lights as well as future maintenance of the lights. Accidents at the intersection will be 90 percent less than

31

with traffic signals and air quality will also be less impacted.

Both proposed maps plan to route freeway travelers back to the Maze Road alignment at or west of Dakota Avenue with an at grade signalized intersection. Another traffic circle should be built at the new intersection as a lot of residents and businesses south of Maze Blvd will continue to use Maze rather than go north to the freeway and then jog south. A traffic circle at Dakota and Maze or at the new intersection west of Dakota and Maze will have the same cost and environmental benefit as the intersection of Dakota/Kansas and the freeway.

32

The savings in using traffic circles at the two intersections in the area of Dakota Avenue will more than pay for the cost of additional right of way for the traffic circle at the Needham overpass intersection.

The Donner Lake interchange proves that traffic circles work well in an urban setting. Although Cal Trans has not used them much in the past, the worth of the circles has been proved and should be employed with greater frequency.

My support of this project is conditional on a design that best serves my community. I find the proposed design on the leg of the project that is discussed in this document seriously flawed. I acknowledge that numerous compromises were made on the Freeway 99 section of the project, but those compromises do not help the area of the community which I represent.

33

The lack of adequate funding to meet standards gives us two choices. We can either build a mediocre project that meets standards but leaves the community unhappy. Or we can build a project with lower speed limits that is functional and satisfactory.

Signed,

Bruce R Frohman
Modesto City Council member 1999-2003
PO Box 1623
Modesto Ca 95353

EXHIBIT 8

Numerous Challenges Face 132 Freeway Project

The partially funded 132 Freeway project can be compared to putting a square peg into a round hole. It does not fit. Not enough land or money has been secured to build a project that meets existing Cal Trans freeway construction standards.

34

The best alternative is one that maximizes safety, minimizes air pollution, and optimizes traffic flow. In order to implement the best alternative, speed limits within part of the project area would need to be reduced to less than 65 mph, standard freeway speed for urban areas. Cal Trans avoids building substandard roadways to the extent possible.

The City of Modesto, California sits within an air basin in the Central Valley of California. The air basin has been identified by the U.S. Government as a serious air quality non-attainment area. The region is often out of compliance with air quality regulations and is subject to financial penalties.

Poor air quality is a major impediment to economic growth in the region, not the lack of adequate transportation corridors. Freeways promote urban growth, but do not guarantee business growth.

35

Any freeway built in the Central Valley's air basin must minimize the creation of additional air pollution in its construction and design. The net result should either decrease total air pollution or minimize the increase in pollution.

As presently proposed, the project introduces problems that have the net effect of increasing air pollution. Based on current maps, here are a few of the problems the new freeway would create.

The project does not have sufficient funding to build a fly over ramp from north bound freeway 99 onto the new west bound 132 freeway. Therefore, all 132 traffic will need to take an offramp that will deliver cars and trucks to the intersection of Franklin Avenue and the Needham Avenue Overpass on the west side of the railroad.

36

The north bound freeway 99 off ramp at Kansas Avenue will be permanently closed. Therefore, citizens and businesses north of Kansas Avenue, including Modesto Junior College West Campus, will need to take the same exit ramp used by 132 freeway users or go north to the next exit, which is the infamously congested Briggsmore interchange.

37

In summation, large volumes of traffic from four different directions will funnel into a signalized intersection at the 132 west offramp/Needham Avenue overpass for a period of at least 10 years. If additional funds do not become available to build the flyover, this bottleneck intersection could exist in perpetuity and will gradually worsen over time. A substantial amount of air pollution will be created as automobiles and trucks wait for the signal to funnel traffic through the intersection.

Air pollution can be mitigated via a traffic circle, which minimizes wait times from all directions and reduces traffic accidents by up to 90 percent.

38

The cost to build the traffic circle may be greater than the cost to signalize the intersection due to additional right of way that would be needed to build the circle. However, the savings for motorists in time and burned fuel, the reduction in accidents and reduction in air pollution at the intersection will result in greater long term savings in a relatively short time.

Another mitigation for the intersection will be to discourage interregional traffic from using the first phase 132 freeway via appropriate signs. The northbound 99 exit for 132 freeway west should use the same destination information as the present 132 exit sign. The destination on the exit sign should read "Vernalis" instead of "San Francisco" and a second sign should continue to advise motorists to use highway 120 to get to San Francisco. Until Cal Trans can build a continuous freeway in the 132 right of way between Freeway 99 and I-580, the sign with this label should remain in place. Similarly, the sign on east bound 580 near the 205 interchange should continue to instruct motorists to use 205 to get to Modesto.

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The mitigation for the second problem is to gradually increase the speed limit as cars move further away from the signal headed west bound. This technique of traffic control will then enable an off ramp to safely be built for a westbound 132 freeway off ramp at Carpenter Road.

The traffic signal also poses a third problem, for east bound 132 traffic. With a speed limit of 65 mph all the way to freeway 99, traffic will not be slowed soon enough to avoid rapid stops, leading to possible accidents as stopped traffic is backed up waiting for the signal at the Needham overpass. Such stops would generate extra air pollution as vehicles use more energy to maintain speed rather than save energy by gradually slowing down.

40

The mitigation for the third problem is to slow traffic gradually beginning west of Carpenter Road. This will also allow safe on ramps to be built from Carpenter Road to east bound 132 freeway.

The latest Cal Trans 132 Freeway design presented at an informational meeting in the STANCOG conference room on February 20, 2012, shows that there will be no exit ramp at Carpenter Road for west bound freeway 132 traffic. Not only will Modesto residents and businesses on the west side of freeway 99 be denied an exit from the 132 freeway, but all of them north of the 132 freeway will still need to take the 132 freeway exit northbound off of freeway 99 in order to get to their establishments as the Kansas Avenue offramp is being removed. Residents and commercial vehicles will need to proceed through the signalized intersection, go north to Kansas Avenue, where there currently is a second signalized intersection, and then go west on Kansas Avenue. This will increase the distance everyone will need to drive to get to homes and businesses by about 1/2 mile and add 3 to 5 minutes to the drive time, adding air pollution and gasoline costs to the drive.

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41

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Employing this option would save fruit orchards that have recently been planted within the freeway right of way west of Carpenter Road.

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Proceeding west from the Carpenter Road interchange, the construction of this project will create a new problem at Dakota/Kansas and 132 freeway intersection. The project does not have enough money to build an overpass. A new signalized intersection will generate more starts and stops for traffic and new delays that presently do not exist on the current alignment of state route 132. If this project is to go forward, a traffic circle should be built at the intersection to facilitate the constant flow of traffic. This will save \$250,000-500,000 in the cost of traffic signal lights as well as future maintenance of the lights. Accidents at the intersection will be 90 percent less than with traffic signals and air quality will also be less impacted.

Both proposed maps plan to route freeway travelers back to the Maze Road alignment at or west of Dakota Avenue with an at grade signalized intersection. Another traffic circle should be built at the new intersection as a lot of residents and businesses south of Maze Blvd will continue to use Maze rather than go north to the freeway and then jog south. A traffic circle at Dakota and Maze or at the new intersection west of Dakota and Maze will have the same cost and environmental benefit as the intersection of Dakota/Kansas and the freeway.

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The savings in using traffic circles at the two intersections in the area of Dakota Avenue will more than pay for the cost of additional right of way for the traffic circle at the Needham overpass intersection.

The Donner Lake interchange proves that traffic circles work well in an urban setting. Although Cal Trans has not used them much in the past, the worth of the circles has been proved and should be employed with greater frequency.

My support of this project is conditional on a design that best serves my community. I find the proposed design on the leg of the project that is discussed in this document seriously flawed. I acknowledge that numerous compromises were made on the Freeway 99 section of the project, but those compromises do not help the area of the community which I represent.

43

The lack of adequate funding to meet standards gives us two choices. We can either build a project that meets standards but leaves the community unhappy. Or we can build a project with lower speed limits that is functional and satisfactory.

Signed,

Bruce R Frohman

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT); [Magsayo, Grace B@DOT](mailto:Magsayo_Grace_B@DOT)
Subject: FW: Comments from Bruce Frohman
Date: Wednesday, February 15, 2017 10:51:56 AM

FYI... I did not realize he did not respond to all.

Thanks,
Philip V.

From: Vallejo, Philip@DOT
Sent: Wednesday, February 15, 2017 10:51 AM
To: 'Bruce Frohman' <bfrohman@icloud.com>
Subject: RE: Comments from Bruce Frohman

Hi Mr. Frohman,

Yes, you will need to resubmit any comments and/or objections to the Environmental Document as part of the current public record.

Please feel free to contact me with any questions.

Thank You,

Philip Vallejo
Acting Senior Environmental Planner
California Department of Transportation
Central Region Environmental Division
Office (559) 445-6172
Cell (559) 779-6612

From: Bruce Frohman [<mailto:bfrohman@icloud.com>]
Sent: Wednesday, February 15, 2017 10:19 AM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Re: Comments from Bruce Frohman

Dear Mr. Vallejo,

Thank you for your note.

In order to answer your question, I need to know whether you can bring forward my comments from 2014. They contained serious environmental concerns. If you are unable to locate my previous correspondence, then I will need to submit a new statement.

The bullet points below only indicate my dissatisfaction with the design and do not reflect my objections to the EIR.

Please let me know ASAP as I need some time to reconstruct my statement.

Thank you for your consideration.

Cordially,

Bruce R Frohman
Modesto City Council Member 1999-2003

On Feb 15, 2017, at 9:06 AM, Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov> wrote:

Hi Mr. Frohman,

I would like to confirm that the comments identified in the three bullets below adequately summarize all of the comments you want identified as part of the public record? If you have any additional comments please let me know.

Thank You ,

Philip Vallejo
Acting Senior Environmental Planner
California Department of Transportation
Central Region Environmental Division
Office (559) 445-6172
Cell (559) 779-6612

From: Bruce Frohman [<mailto:bfrohman@icloud.com>]
Sent: Wednesday, February 08, 2017 9:51 AM
To: Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>
Cc: Lugo, Jennifer@DOT <jennifer.lugo@dot.ca.gov>; Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Re: Comments from Bruce Frohman

Thank you for considering my viewpoint.

On Feb 8, 2017, at 9:45 AM, Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov> wrote:

Hi All,

I spoke with Mr. Frohman this morning. He would like to make sure that his comments from the 2014 workshop are considered and incorporated as part of the final environmental document. We discussed 3 items of significant concern for him. Please consider the items below as official comments to the draft environmental document.

- He wants to see the stockpiles removed. He understands that the concrete capping can work but in the long run, when the concrete deteriorates and cracks, the stockpile material can leak. | 44
- He doesn't want to see elevated freeway at the stockpiles (Emerald Ave area) | 45
- He wants to see a full interchange at Carpenter, without signals | 46

Mr. Frohman can be contacted at the email address in the CC line of this email. His phone number is 209-521-8218

Thank you.

Grace B. Magsayo, P.E.
Project Manager
Program/Project Management
Office 209-948-7976
Mobile 209-483-1734

From: Magsayo, Grace B@DOT
To: Lugo, Jennifer@DOT
Subject: FW: State Route 132 Freeway West Project Modesto
Date: Monday, February 13, 2017 9:29:11 AM

Here it is. Thanks for reminding me.

-----Original Message-----

From: Bruce Frohman [<mailto:bfrohman@icloud.com>]
Sent: Tuesday, February 07, 2017 3:15 AM
To: Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>
Subject: State Route 132 Freeway West Project Modesto

Good morning,

Would you please advise me what changes have been made to the original design of this project since the previous plan was considered in 2014?

47

Do you plan to remove the toxic waste soil stockpiles currently in the Freeway right of way?

48

Thank you for the courtesy of a reply.

Cordially,

Bruce R Frohman
Box 1623
Modesto Ca 95353
209-521-8218
Modesto City Council Member 1999-2003

From: [Vallejo, Philip@DOT](mailto:Vallejo.Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo.Jennifer@DOT)
Subject: Fwd: EIR 132 Freeway Project--west Modesto
Date: Tuesday, February 07, 2017 8:55:38 AM

Sent from my iPhone

Begin forwarded message:

From: Bruce Frohman <bfrohman@icloud.com>
Date: February 7, 2017 at 3:07:29 AM PST
To: philip.vallejo@dot.ca.gov
Cc: <thevalleycitizen@sbcglobal.net>
Subject: EIR 132 Freeway Project--west Modesto

Dear Mr. Vallejo,

I was involved in the unsuccessful 2014 effort to get this project rolling. During the planning, I provided numerous suggestions for improving the design and function of the facility while mitigating adverse environmental impacts. My perception of the current project is that my previous concerns have been largely ignored in the latest plan.

49

I would like to know how the new design you are proceeding with differs from the previous design we considered in 2014. From what I can tell, little change has been made.

Also, I request that all of my comments from the previous design be brought forward and inserted into the record of comments regarding the current environmental impact statement. Absent any changes from the previous plan, my objections remain relevant. Please confirm that this request is being honored.

50

Thank you for the courtesy of a reply.

Respectfully,

Bruce R Frohman
Modesto City Council Member 1999-2003
PO Box 1623
Modesto Ca 95353
209-521-8218

P.s. The Valley Citizen is a community blog that has given a lot of information on this ongoing saga. Eric Caine is the editor. You can read articles about the project by going to thevalleycitizen website.

**[Response-I2]
Responses to Comments from Bruce R. Frohman**

Thank you for your comments. The Lead Agency (Caltrans) has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I2-1 (DTSC) The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4 (Containment) contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. Additionally, regarding Draft Final RAP Alternative 4 (Containment), Caltrans concurs with DTSC. Draft Final RAP Alternative 4 achieves the overall goal of long-term protection of human health and the environment. Information provided by Caltrans at the February 22, 2017 public hearing was consistent with the information contained in the Draft EIR/EA.

I2-2 (DTSC) The comment is acknowledged and will be part of the public record. Both groundwater and surface water/storm water monitoring has been conducted at the Caltrans Modesto Soil Stockpiles under the oversight of the Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board.

Caltrans currently conducts groundwater and surface water sampling at the stockpiles and maintains the fencing and vegetative cover.

Draft Final RAP Alternative 4, Containment – which is the recommended alternative in the Draft Final RAP – contains stockpiles behind retaining walls, bridge abutments, and beneath the pavement. This alternative requires Caltrans to enter into

an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed. These measures are protective of human health.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, both groundwater and storm water monitoring has been conducted at the Caltrans Modesto Soil Stockpiles in accordance with, and under the oversight of, DTSC and the Central Valley Regional Water Quality Control Board (RWQCB). Caltrans has worked closely with DTSC and the RWQCB to address groundwater and surface water monitoring for the stockpiles. Among other things, these agencies regulate contaminant releases and the impact of such releases to human health and the environment. Caltrans has not received a violation or faced an enforcement action related to groundwater or surface water monitoring of the Caltrans Modesto Soil Stockpiles. Accordingly, to the best of Caltrans' knowledge, Caltrans has complied with all site monitoring requirements.

Caltrans' installation of the groundwater monitoring system and implementation of its sampling and analysis plan were accepted by both the DTSC and the RWQCB. Since the wells were installed, all groundwater monitoring reports have been and continue to be submitted to these regulatory agencies. Each report has been available to the public at the DTSC and stockpile technical report website links.

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

Caltrans has conducted annual, multi-event rainy season storm water sampling at the stockpile site since 2013. To date, 11 sampling events have occurred. The storm water sampling and analysis plan was prepared in coordination with, and under the oversight of, the Department of the DTSC and the RWQCB.

All storm water reports have been and continue to be submitted to DTSC and RWQCB. Each report has been available to the public at the DTSC and stockpile technical report website links.

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

Prior to initiating construction of the State Route 132 West project and implementing the containment alternative, as recommended in the Draft Final Remedial Action Plan, Caltrans will be required to develop a Remedial Design Implementation Plan (RDIP). The RDIP will be prepared in coordination with, and under the oversight of, the DTSC and the RWQCB. In addition to numerous environmental safeguards that will be addressed in the RDIP, an Operation and Maintenance Plan specific to the containment system will also be included. The Operation and Maintenance Plan will prescribe the terms and conditions by which the integrity of the containment system will be evaluated. Implementation of the containment alternative legally obligates Caltrans to maintain dedicated financial assurance to maintain the integrity of the cap. The DTSC will conduct regular inspections of the cap and prepare a 5-year review documenting integrity conditions as well as the effectiveness of the Operation and Maintenance Plan. The Operation and Maintenance Plan must be accepted by the DTSC and the RWQCB prior to containment system construction.

I2-3 To date, Caltrans has not received a notice of violation or enforcement action from the DTSC or RWQCB regarding any aspect of the Caltrans Modesto Soil Stockpiles. Caltrans has cooperated fully with the DTSC and RWQCB regarding public access, surface water runoff, and vegetation at the stockpile site. Please refer to Caltrans Response I2-11. Regarding the comment about a 2005 Shaw Environmental Labs recommendation to remove stockpile soil to a toxic waste site (Exhibit 3), it is believed that the comment is referring to a 2004 report prepared on behalf of Caltrans by Shaw Environmental, Inc. titled Remedial Action Options Report, SR 132/SR99 Stockpiles, Modesto, California, State Route 132 at State Route 99, Stanislaus County, California, July 27, 2004. The purpose of the report was to evaluate stockpile analytical results (Heavy Metal Contamination, Preliminary Site Investigation Report, Modesto, California, State Route 132 at State Route 99, Stanislaus County, California, June 1, 2004, Shaw Environmental, Inc.) respective of varying soil management options. The main recommendation of the remedial options report was to submit stockpile analytical data to the DTSC and RWQCB. The 2004 remedial options and heavy metal contamination reports were submitted to DTSC and RWQCB. The reports were listed in Appendix K - List of Technical Studies in the State Route 132 West Freeway/Expressway Project Draft EIR/EA, as well as Appendix B – Administrative Record, in the Draft Remedial Action Plan. Please refer to Responses I2-12, I2-13, I2-14, and I2-15.

I2-4 (DTSC) Please refer to Responses I2-16, I2-17, I2-18, I2-19, I2-20, I2-21, and I2-22.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-5 (DTSC) The comment is acknowledged and will be part of the public record. Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility, was evaluated in the Draft Final RAP but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and it is less cost-effective than Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West Project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-6 The California Department of Fish and Wildlife's databases were used in the preparation of the Draft EIR/EA. Preparation of the State Route 132 Natural Environment Study involved accessing the California Department of Fish and Wildlife's California Natural Diversity Database to determine the potential presence of state-listed and special-status species in the project study area. The database was accessed in May 2017, June 2016, January 2016, October 2015, and October 2014 (refer to Section 2.3.2 of the EIR/EA and the Natural Environment Study [http://www.dot.ca.gov/d10/project-docs/stanislaus/sr132west/docs/SR132TechnicalStudiesVol_1.pdf]).

A request for verification of potential species under the jurisdiction of the National Marine Fisheries Service (NMFS) was made on May 16, 2017 (see Appendix I of this document). Preparation of the State Route 132 West Freeway/Expressway Natural Environment Study also included a request on June 20, 2016, October 26, 2015, and October 9, 2014 to U.S. Fish and Wildlife Service for a list of species listed as threatened or endangered with the potential to occur in Stanislaus County.

Data from the U.S. Fish and Wildlife Service, California Natural Diversity Database (CNDDDB), and the California Native Plant Society were reviewed to identify species listed as threatened or endangered that occur or have the potential to occur in the study area. Caltrans also coordinated with U.S. Fish and Wildlife Service personnel in 2002 to confirm that the project area was outside the range for the federally listed endangered San Joaquin kit fox, and therefore that species was excluded from the impact analysis. The Draft EIR/EA was distributed to the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife during the Draft EIR/EA and Draft Final RAP circulation period from January 18, 2017 to March 17, 2017. The U.S. Fish and Wildlife Service did not comment on the Draft EIR/EA. Refer to the Chapter 6, Distribution List, for a complete list of agencies that were sent the Draft EIR/EA for review.

According to the EIR/EA, the only special-status species with a potential to occur in the study area is the burrowing owl (*Athene cunicularia*). Only one listed threatened or endangered animal species, the Swainson's hawk (*Buteo swainson*), would have the potential to occur in the study area. There is also a potential that migratory birds protected under the U.S. Migratory Bird Treaty Act may occur within the study area. If burrowing owls or Swainson's hawk nests are observed within the biological study area during preconstruction surveys, the California Department of Fish and Wildlife would be consulted to determine the appropriate avoidance and minimization measures. The California Department of Fish and Wildlife would also be consulted during preconstruction surveys to determine the extent of the no-work buffer zones that would be placed around any identified migratory birds or raptor nests.

The EIR/EA noted that the project could have significant effects on biological resources, as detailed in Section 2.3 (Biological Environment) of the EIR/EA. However, with implementation of measures identified therein, these impacts would be reduced to less-than-significant levels and are therefore considered to have "no effect." The wildlife refuge and levee in question are located approximately 8 miles west of the project limits. As such, the project would not result in impacts to the levee or the refuge.

I2-7

Please see Master Response #1 (Purpose and Need). The project area is highly constrained by existing, built-out development along the corridor toward SR 99 and mostly agricultural lands toward North Dakota Avenue. The current alignment of the project within the right-of-way acquired by Caltrans in 1958 provides the least impactful use of right-of-way because it has been reserved for the highway corridor, and no development has occurred within its boundaries. Accordingly, most development has occurred on the north side of Kansas Avenue and south of the project alignment. Minimal additional right-of-way is required to complete the project. Alternative 2 has been identified as the preferred alternative because it

provides the best balance between avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need. Furthermore, comments received at the various project public meetings and during the design process were incorporated into the design where possible. Please see response to comments I2-24 through I2-33, which are responses to your attached Exhibit 7: March 8, 2012 comment letter.

- I2-8** Exhibit 8 comments have been addressed in the responses to comments I2-34 through I2-43. Phasing the construction of the project will not result in adverse environmental impacts. The same impact footprint will be realized whether the project is constructed in one phase or two phases. In fact, by moving traffic from Maze Boulevard to the new SR 132 alignment upon completion of phase one while phase two is under construction may result in an improvement to air quality and traffic operations along Maze Boulevard sooner than if the project were constructed in one phase.
- I2-9** The Draft EIR/EA with attached Draft Final RAP circulated for public comment from January 18, 2017 to March 17, 2017. Notices were mailed to the project mailing list and also advertised in the local newspapers announcing the availability of the document and the opportunity to comment on the project. Public comments were accepted during this review period. Please see Master Response #5 (Public Participation and Environmental Review Process) for more information about the number of opportunities for public participation in the project. The February 22, 2017 meeting was held as scheduled and, although there was a storm, the meeting was well attended and no one else stated they were hindered by the storm.
- I2-10** Caltrans has included all comments received during the public comment period as required by law. Additionally, all comments obtained during the scoping phase of the project were considered during the development of the Draft EIR/EA and preliminary project design. Please see Master Response #5 (Public Participation and Environmental Review Process).
- I2-11** 1. The Caltrans Modesto Soil Stockpiles are surrounded by a Caltrans-maintained, padlocked, access-controlled, 6-foot-high chain-link right-of-way fence. Caltrans has taken numerous precautions to prevent public access to the stockpiles. For example the Caltrans Modesto Soil Stockpiles are surrounded by a Caltrans-maintained padlocked, access-controlled, chain-link right-of-way fence that is signed "State Property, No Dumping, No Parking, No Trespassing, Violators will be Prosecuted." Breaches to perimeter stockpile right-of-way fencing are regularly repaired to prevent unauthorized access.

2. While it's plausible that a storm event of significant intensity and duration would cause water to run off the Caltrans Modesto Soil Stockpiles, observations from storm water sampling at the site since 2013 have not recorded such an occurrence. Stockpile 1 is covered by naturalized vegetation and surrounded by a vegetated peripheral buffer area that impedes off-site runoff. Additionally, the City of Modesto has not installed curb and gutter drainage collection and conveyance next to Stockpile 1 and, consequently, water from the stockpile does not run off to a nearby storm drain.

Although a portion of the west-facing slope of Stockpile 2 is outside the Caltrans right-of-way fence and extends approximately 200 feet along the eastern edge of Emerald Avenue between Loletta and Kansas Avenue, the City of Modesto has not installed curb and gutter drainage collection and conveyance next to the slope and runoff water from the slope is not transmitted to a storm drain. Instead, runoff from the west-facing slope is managed by a vegetated side slope and straw wattles positioned between the right-of-way fence and the top of the stockpile. Precipitation falling directly on the portion of the stockpile outside the right-of-way fence pools in the shoulder along the east edge of Emerald Avenue.

Along the southern slope of Stockpile 2 where northbound Bennett Avenue intersects the east-west alley, runoff, in all probability, has at times since 2013, flowed south down the sloped access ramp and beyond the right-of-way fence. The nearest curb and gutter drainage inlet in this area is approximately 150 feet south of the access ramp on Loletta. In February 2014, a swale was constructed at the base of the access ramp to intercept and redirect flow to areas within the Caltrans right-of-way.

At the eastern end of Stockpile 2, the east-facing slope is above the depressed segment of State Route 99 below. The depressed segment exists both north and south of Kansas Avenue. The side slope is vegetated. A drainage way north of Stockpile 2 outlets to the same depressed segment. All Caltrans drainage inlets within the depressed segment collect and convey storm water to the Kansas Avenue pump station, which lifts the storm water collected in the depressed segment to a pipeline that pipes the water beneath Stockpile 3, where it outfalls to the retention basin next to Stockpile 3. The storm drains and basin are owned and maintained by Caltrans.

It is possible that under extreme precipitation events, storm water in the basin, if overfilled and creating a safety hazard to the northbound lanes of State Route 99, would be released to the State Route 99 median drainage system. Connection between the basin and the median system would occur via gate valve at the southern end of the basin. The median drainage system outfalls to the Tuolumne River to the south. To date, maintenance personnel have stated that the gate valve from the basin to the median system has not been opened. In an effort to chemically characterize

retention basin water, should it be released to the Tuolumne River, Caltrans began collecting samples from the area closest to the gate valve when storm water was present. All samples have been collected in accordance with the storm water sampling and analysis plan prepared in coordination with, and under the oversight of, the Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board ().

Results from the sampling, and a duplicate sample collected by the RWQCB, have not exceeded water quality threshold values for drinking water, as established by the California Department of Health Services. Consequently, based on the character of water quality samples near the gate valve, if water had been released by the gate valve at the time of the sampling, the release would not have resulted in a water quality impact to the Tuolumne River.

Remaining areas of Stockpile 2 are covered with naturalized vegetation.

Stockpile 3 is vegetated. Runoff has never been observed migrating beyond the Stockpile 3 right-of-way.

All storm water reports have and continue to be submitted to DTSC and RWQCB. Each report has been available to the public at the DTSC and stockpile technical report website links.

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

In addition to the above, the engineered design of the Draft Final RAP Alternative 4 (Containment) segment will incorporate the results of a detailed hydraulic analysis to design storm water capture and conveyance features necessary to retain storm water within state right-of-way and prevent off-site flow. Storm water runoff from state highway facilities is also managed in accordance with the provisions of the storm water permit issued by the State Water Resources Control Board.

3. Efforts to establish vegetation in bare soil areas not covered by naturalized vegetation have occurred via application of hydroseed. Vegetative growth and root development is difficult to establish without consistent irrigation. Naturalized vegetation has provided the most surface area coverage. In 2014, erosion control materials with dust control tackifiers were applied. These measures should effectively control the issue of blowing dust.

4. To reduce potential fire hazards, Caltrans, at a minimum, mows the stockpiles annually prior to the 4th of July. Vegetation is an important element of Caltrans Modesto Soil Stockpiles maintenance as it helps to prevent erosion, impede/reduce surface water runoff, and minimize dust generation.

As reported in *The Modesto Bee* on May 17, 2014, the fire that destroyed townhouses southwest of Stockpile 2 was the result of “an illegal outdoor open pit fire.” *The Bee* further reported that “the incident began as a vegetation fire on the raised berm of earth at Emerald and Kansas avenues, but with winds around 17 mph and the temperature near or above 90, it moved quickly.”

The fire that originated on Stockpile 2 was likely ignited by trespassers who illegally accessed the site. Caltrans did not cause or start the brush fire. As reported by firefighters on the scene, and documented in the *Bee* article referenced in the preceding paragraph, wind conditions on the day of the fire appear to have played a significant role in spreading fire to the townhouses. The townhouses are located approximately 100 feet southwest of Stockpile 2.

I2-12 (DTSC) The comment is acknowledged and will be part of the public record. The Department of Toxic Substances Control (DTSC) reviewed work plans for the characterization and removal of soil associated with Modesto Ramp Rehabilitation Project, State Route 99 – Kansas Avenue. The sampling and analysis indicated that the excavated soil associated with the Ramp project was below screening level thresholds for contaminants. Based on these results and the off-site management of excavated soil, the Ramp project did not pose an unacceptable risk to human health. However, since soil testing indicated that the soil had the potential to contain designated waste, it was taken to a Class II landfill for the protection of groundwater. Forward Inc. Landfill was the Class II landfill selected by Caltrans.

In this case, a designated waste is a nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a Waste Management Unit could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

The description above relates only to soils that are destined for Waste Management Units (WMUs) or landfills. WMUs are those waste units or landfills that accept varying types of wastes and have the potential to create acidified leachates within the unit. These acidified leachates have a tendency to dissolve metals, including naturally occurring metals from soils and/or other solids within the WMU. The leachates can then cause significant contamination threats to groundwater beneath the WMUs, especially in those older Class III-type landfills that are not lined. Even

the newer Class III-type landfills do not have the proper liners and protections in place to handle designated wastes, thus the requirement to use Class II WMUs for these types of waste. The Class II WMUs have a more robust liner and leachate collection system in place. If used as planned, the soils within the stockpiles of the SR 132 West Project are not expected to produce acidified leachates that could in turn create designated waste issues that are typically seen in WMUs or landfills.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, Caltrans made a conservative decision to protect groundwater quality even though contaminants did not exceed regulatory action levels. After Caltrans was informed that the originally selected Class III landfill was in violation due to releases of metal constituents into the environment, Caltrans chose the next closest facility because soil from Stockpile #3 did contain some metals. For that reason, and due to proximity to the project site, the soil was disposed of at a landfill that was not in violation. The Forward landfill was the closest Class II facility to the project site.

I2-13 (DTSC) The comment is acknowledged and will be part of the public record. Caltrans has stated that the gate/valve at Stockpile 3 has not been opened. Storm water runoff testing shows that contaminants of concern have no significant impact on water quality and are protective of human health.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, on February 27, 2017, Caltrans representatives Grace Magsayo, Rick Estrada, Dan Ryan, and John Miller met with Mr. Calkins at the site. Mr. Calkins inspected the valve so he could see that it had not been opened. This is documented in Chapter 4, Comments and Coordination (February 27, 2017 – SP#3, Modesto).

Storm water runoff associated with the Caltrans Modesto Soil Stockpiles was most recently sampled in January 2016. Storm water samples were collected from four locations next to the stockpiles and two background locations away from the stockpiles and analyzed for dissolved metals, chloride, nitrate as nitrogen, sulfate, sulfide, total alkalinity, bicarbonate alkalinity and carbonate alkalinity, total dissolved solids, and total suspended solids. The results were generally consistent with background values, except for barium for a runoff sample collected next to the south side of soil Stockpile 2, and strontium for all four storm water samples. While results measured for both barium and strontium were higher than those reported for background samples, none of the concentrations in these samples exceeded their primary or secondary Maximum Containment Levels, and all were within the same general range of concentrations recorded in previous sampling events. Groundwater was most recently sampled in April 2015. None of the reported dissolved metals

concentrations for the groundwater samples collected exceeded their respective numeric water quality threshold values. Except for nitrate in the samples collected from two wells, none of the reported general minerals for the groundwater samples collected equaled or exceeded their respective California primary Maximum Contaminant Levels. Barium and strontium were reported at concentrations similar to historical levels and remained significantly less than their numeric water quality thresholds. The remaining dissolved metals were also reported at concentrations similar to historical levels.

While there may be potential impacts from the presence of barium contaminants in three soil stockpiles, containment of the three soil stockpiles through use as construction materials for the new proposed highway, as described in the Draft Final RAP and in Section 2.2.5.1, and implementation of mitigation measures SHAZ-1 through SHAZ-10 would mitigate impacts to less-than-significant levels. These measures include the preparation of safety and management plans along with a land use covenant to restrict the types of land use allowed on the site. The plans would address containment assessment, management, and reporting to ensure the ongoing integrity of the containment feature for the protection of human health and the environment. Additional measures include the disposal of waste in accordance with applicable regulations, the minimization of soil stockpile reconfiguration, and conducting perimeter air quality monitoring and groundwater and storm water quality monitoring during construction to minimize hazardous materials impacts related to the soil stockpiles to less-than-significant levels.

I2-14 (DTSC) The comment is acknowledged and will be part of the public record. Storm water testing from the stockpiles shows that contaminants of concern have no significant impact on water quality. Levels of contaminants of concern in storm water from the stockpiles are below water quality objectives and are protective of human health.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, Caltrans manages storm water runoff in accordance with California State Water Resources Control Board Order 2012-0011-DWQ. The permit regulates storm water and non-storm water discharges from Caltrans properties and facilities, and discharges associated with operation and maintenance of the State highway system. The permit is located at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2012/wq2012_0011_dwq_conformed_signed.pdf

I2-15 (DTSC) The comment is acknowledged and will be part of the public record. Results of sampling are presented in site investigation reports, including Heavy Metal Contamination Preliminary Site Investigation Report, Modesto California, (Shaw, 2004); Site Investigation Report, Soils Investigation for Heavy Metals, State Route

99, Stanislaus County, California, (Shaw, 2006); Final Preliminary Endangerment Assessment Report, Caltrans Modesto Soil Stockpiles, State Route 132/99 Interchange, Stanislaus County, California, (Shaw, 2009) and Supplemental Site Investigation, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California (Geocon, March 2013).

The Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California (Geocon, June 2014) was reviewed and approved by DTSC in consultation with the Central Valley Regional Water Quality Control Board. It describes four remedial alternatives evaluated by Caltrans. These alternatives are: Alternative 1: No Action; Alternative 2: Institutional Controls; Alternative 3: Removal; and Alternative 4: Containment. The Draft Final Remedial Action Plan, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California (Geocon, October 2014) was reviewed and approved by DTSC in consultation with the Central Valley Regional Water Quality Control Board for the purpose of public notice.

The Draft Final RAP describes the site's physical characteristics; results of site characterization; results of the human health risk assessment; applicable or relevant and appropriate requirements (ARARs); summary of the Final Feasibility Study; a conceptual design for the recommended alternative – containment by construction of the State Route 132 West Freeway/Expressway Project; land use controls; monitoring; a schedule for implementation of the recommended remedial alternative; measures associated with the California Environmental Quality Act; a health and safety plan; and public participation including public notice, community update, public hearing/meeting; and comment on the Draft Final RAP.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-16 (DTSC) The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to authorized Caltrans workers, maintaining the vegetative cover, surface water/groundwater monitoring, and prohibiting placement or removal of soil at the site. These measures are protective of human health.

The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of

barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-17 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to authorized Caltrans workers, maintaining the vegetative cover, surface water/groundwater monitoring, and prohibiting placement or removal of soil at the site. These measures are protective of human health.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan, contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West Freeway/Expressway Project. Unpaved portions will have clean fill cover.

Containment of the stockpiles within the State Route 132 West Freeway/Expressway Project will achieve the overall goal of long-term protection of human health and environment.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-18 (DTSC) The comment is acknowledged and will be part of the public record. Most of the barium in the soil in the stockpiles is below screening levels for residential use. Soils in the stockpiles with elevated concentrations of barium are located at depths of 5 feet or greater below ground surface.

The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-19 (DTSC) The comment is acknowledged and will be part of the public record. Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil will likely be needed to meet the design grade of the elevated section of State Route 132. As currently planned, the majority of Stockpile 3 will be consolidated within the State Route 132 Overcrossing abutment where Needham Avenue meets State Route 132. Excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

To minimize dust and ensure public safety during construction, the soil in the stockpiles will be thoroughly wetted down in all work areas before work is started and during work. Air monitoring will be required in the work areas.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan, contains stockpiles behind retaining walls, bridge abutments, and beneath the pavement. Unpaved portions will have clean fill cover. This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, Caltrans has successfully capped contaminants before. Since 1995, Caltrans has successfully managed contaminated soil with hazardous waste levels of lead under formal agreement and oversight of the Department of Toxic Substances Control. Based on contaminant levels, site conditions, and construction features, Caltrans has contained lead-contaminated soil behind retaining walls, bridge abutments, and beneath pavements and areas of clean soil covers on highway improvement projects throughout the state. DTSC has determined that the management conditions and requirements are protective of human health and the environment.

In addition to lead, Caltrans has managed contaminated materials associated with the following Caltrans projects: BKK-Victoria Golf Course Soil Cover, State Route 405, Carson; Guadalupe Parkway Expansion, State Route 87, San Jose; Jibboom Junkyard, I-5, Sacramento.

- I2-20 (DTSC)** The comment is acknowledged and will be part of the public record. There may be several reasons why the groundwater beneath the stockpiles has not been significantly impacted from the stockpiles over the past 50 years, but the following explanation may be one of the more plausible reasons. Due to the insoluble nature of barium (particularly as barium sulfate in the stockpiles) and 50+ years of rain-flushing activities on the stockpiles, significant quantities of dissolved barium from the stockpiles in the groundwater would not be expected. This is not to say that small amounts of dissolved barium did not make it to the groundwater below over the many years the stockpiles existed, but only that the amounts discharged to the groundwater beneath the stockpiles would have been such that their concentrations would have been nearly indistinguishable from naturally occurring barium concentrations or from those concentrations that potentially originated from the FMC facility up-gradient of the stockpiles. This may have been due to percolating rainwater that would have made its way through the stockpiles to the groundwater below, which would have been significantly diluted by the several millions of gallons of groundwater that flow naturally beneath the stockpiles each year. This

understanding is supported by the historical analytical groundwater sampling data collected from the groundwater beneath the stockpiles. The groundwater analytical data indicate that the barium and other contaminants of concern (COC) in the stockpiles in their present state did not significantly impact the groundwater and currently do not pose a significant threat to the groundwater. The groundwater analytical data show that the barium and other COC concentrations in the groundwater are below water quality objectives and do not pose an unacceptable risk to human health.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-21 (DTSC) The comment is acknowledged and will be part of the public record. Contaminants are often left in place as part of a cleanup remedy. However, when this is done, the proponent, in this case Caltrans, enters into an Operation and Maintenance Agreement with DTSC and prepares an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan requires an annual inspection of the cap and other features of the containment remedy including groundwater monitoring. The containment remedy is also evaluated every 5 years to make sure it is operating as designed.

Completion of the State Route 132 West Freeway/Expressway Project will contain the stockpiles and achieve the overall goal of long-term protection of human health.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-22 (DTSC) The comment is acknowledged and will be part of the public record. The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-23 Please refer to the response to Comment I2-6.

I2-24 Please refer to the response to Comment I2-7.

I2-25 Please see Master Response #10 (Air Quality Improvements).

I2-26 Traffic delays are projected to improve at the intersection of Franklin Avenue and the Needham Street Bridge Overcrossing. Currently, the Kansas Avenue/SR 99 northbound ramps operate at a level of service (LOS) C during the AM and PM peak periods and will worsen to LOS D under the 2028 No-Build Alternative during the AM and PM peak periods. Under the 2048 No-Build Alternative, the Kansas Avenue/SR 99 northbound ramps will worsen to LOS F and E during the AM and PM periods, respectively. Under both Build Alternatives, level of service at the Kansas Avenue/Franklin Street intersection will improve to LOS C during the AM and PM peak periods throughout both the 2028 and 2048 horizon years. Please see Section 2.1.6 of the EIR/EA. Also refer to Master Response #10 (Air Quality Improvements) for a discussion of why air quality impacts are not anticipated for this project.

I2-27 The improvements to the intersection at SR 132 and North Dakota Avenue will reduce delay and improve levels of service (LOS) from LOS A/C (AM/PM) in 2028 and B/C in 2048 under the No-Build Alternative to LOS A/A in 2028 and A/B in 2048 under the Build Alternatives. In turn, this would result in less air pollution caused by delay and congestion of vehicles at the intersection. Although traffic circles were not proposed or investigated for this project, there is an opportunity to

evaluate the effectiveness of traffic circles during the final design phase of the project. Please see Master Response #10 (Air Quality Improvements).

- I2-28** Use of the appropriate destination information is key in directing traffic patterns according to a designed route. The suggestion for revised destination information is noted, and the appropriate signage for this intersection will be reviewed and incorporated based on the California Manual of Uniform Control Devices (MUTCD).
- I2-29** Speed limits for the new expressway will be determined during the final design phase of the project. The suggestion for a gradual speed reduction is noted, and the appropriate speed limits will be reviewed and incorporated based on the Caltrans Highway Design Manual.
- I2-30** Upon completion of Phase 1, traffic traveling east on SR 132 to SR 99 will use North Dakota Avenue rather than passing through the North Carpenter Road at Maze Boulevard intersection. Traffic moving west from SR 99 will travel on the new SR 132 and will not be able to exit onto North Carpenter Road. Traffic will not be allowed to access SR 132 from North Carpenter Road to travel eastbound on SR 132. In addition, vehicles traveling west on SR 132 will not be allowed to exit SR 132 at North Carpenter Road. This will remove some of the congestion along North Carpenter Road.
- A full interchange at North Carpenter Road is not proposed for this project because of the weaving distance between ramps to and from SR 99 and the SR 99/SR 132 freeway-to-freeway connectors/ramps. An eastbound loop on-ramp and westbound conventional off-ramp for the proposed SR 132/North Carpenter Road interchange were evaluated during the development of the environmental document. As a result of the nonstandard distance between the proposed interchange and the SR 99/SR 132 freeway-to-freeway interchange connectors and the proposed new public road connection to Kansas Avenue/Needham Street Bridge Overcrossing intersection, the evaluation determined the standard solution of braiding the various ramps and connectors would be cost-prohibitive. The environmental/right-of-way impacts would be unacceptable, as determined by the Project Development Team and supported by the various responsible agencies including Caltrans. Furthermore, no approval decision exceptions were developed that would justify the nonstandard weaving sections without braiding the ramps and connectors. Stopping the proposed freeway at this location would not allow the connectivity to SR 99 that is part of the Purpose and Need of the project.
- I2-31** Please refer to the response to Comment I2-27. Also see Master Response #3 (Logical Termini).

- I2-32** Please refer to the response to Comment I2-27.
- I2-33** Please refer to the response to Comment I2-7. Phasing the construction is needed because the project funding is based on a combination of local, state, and federal sources; and, currently, funding has been identified only for Phase 1. The recent approval of Measure L will allow Stanislaus County to leverage funds, which can be put toward Phase 2. Please refer to Master Response #4 (Project Funding) for more information.
- Please see the response to Comment I2-29.
- I2-34** Please see Master Response #1 (Purpose and Need). The two Build Alternatives described in the EIR/EA best meet the purpose and need of the project and reduce community and environmental impacts, as identified during the development of the environmental document. Use of the existing, reserved right-of-way (acquired by Caltrans for the project in 1958) further minimizes impacts to the community, including relocations. Reducing the speed limit would not alleviate the current or future traffic congestion.
- Please refer to the response to Comment I2-33, in regard to why phasing is needed and how speed limits will be finalized for this project.
- I2-35** Please see Master Response #10 (Air Quality Improvements).
- I2-36** Please see Master Response #4 (Project Funding).
- I2-37** Please refer to response to Comment I2-26.
- I2-38** Please refer to response to Comment I2-27.
- I2-39** Use of the appropriate destination information is key in directing traffic patterns. The suggestion for revised destination information approaching connections to State Route 132 from the east and west is noted, and the appropriate signage for these intersections will be reviewed and incorporated in the project design based on the California Manual of Uniform Control Devices (MUTCD). Temporary destination signage during the construction phases of the project as well as the interim between the opening of Phase 1 and Phase 2 will be considered during final design as a means to reduce interregional traffic.
- I2-40** Please refer to response to Comment I2-29.
- I2-41** Please refer to response to Comment I2-30.
- I2-42** Please refer to responses to Comments I2-31 and I2-32.

I2-43 Please refer to response to Comment I2-33.

I2-44 (DTSC) Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments, and beneath the pavement. Unpaved portions will have clean fill cover. This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-45 Traveling west to east, the profiles for Phase 1 would begin at-grade from North Dakota Avenue until just east of Morse Road. The profile would then transition below grade (be depressed) west of the North Rosemore Avenue Overcrossing and continue below grade past the North Carpenter Road Overcrossing. East of this overcrossing, the profile would rise above grade (be elevated) to cross over the North Emerald Avenue Undercrossing and would continue this way over the proposed SR 132/SR 99 interchange. Along SR 99, the profile would match the current profile of SR 99.

A "climbing" elevated structure, from east of the North Emerald Avenue Undercrossing to SR 99, is needed to transition from the below-grade segment from east of the North Rosemore Avenue Overcrossing to west of the North Carpenter Road Overcrossing and achieve the necessary vertical clearance to cross over and connect to SR 99. Without this design feature, the overall functionality of the design would be compromised and would not meet current highway design standards.

I2-46 A full interchange at North Carpenter Road is not proposed for this project because the weaving distance between ramps to and from SR 99 and the SR 99/SR 132 freeway-to-freeway connectors/ramps would be insufficient. For example, as tractor trailer trucks are decelerating along SR 132 eastbound and moving to get into the right lane to enter the SR 132 eastbound off-ramp to SR 99 southbound, the tractor trailers would conflict with vehicles accelerating to get onto SR 132 eastbound from North Carpenter Road. The same is true on SR 132 westbound between the SR 99 southbound off-ramp to SR 132 westbound and a potential off-ramp from SR 132 westbound to North Carpenter Road. As trucks are accelerating from the SR 99 southbound off-ramp to SR 132 westbound, vehicles already on SR 132 westbound would be decelerating and weaving to the right to get off at a proposed SR 132

westbound off-ramp to North Carpenter Road. These traffic movements are unsafe because there is not enough distance between the ramps for the vehicles to transition and weave safely into position.

An eastbound loop on-ramp and westbound conventional off-ramp for the proposed SR 132/North Carpenter Road interchange were evaluated during the development of the environmental document. As a result of the nonstandard distance between the proposed interchange and the SR 99/SR 132 freeway-to-freeway interchange connectors and the proposed New Public Road Connection to Kansas Avenue/Needham Street Bridge Overcrossing intersection, the evaluation determined the standard solution of braiding the various ramps and connectors would not be cost feasible and the environmental/right-of-way impacts would be unacceptable, as determined by the Project Development Team and supported by the various responsible agencies including Caltrans. Furthermore, no approval decision exceptions were developed that would justify the nonstandard weaving sections without braiding the ramps and connectors (i.e., providing longer flyovers and loops to lengthen the distances between on-ramp entrance points and off-ramp exit points).

I2-47 The current design is generally the same as that presented in 2014. The only significant change is the relocation of the off-ramp from southbound SR 99 to I Street to a location farther north. Drivers will now exit near the proposed SR 132/SR 99 Interchange.

I2-48 (DTSC) Please refer to response to Comment I2-5. DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I2-49 Please refer to response to Comment I2-47. The Project Development Team values public engagement in the project development process. Public input has been used to refine and inform the design of the project, along with environmental and engineering considerations; and public comments are recorded and maintained as part of the public record by the Project Development Team. Comments from public information meetings, neighborhood meetings, and open houses to date are summarized in Section 4.2 (Public Participation) of the EIR/EA. A Public Hearing Summary Report has been prepared to document the February 22, 2017 EIR/EA Public Hearing Meeting proceedings and is available in the public record. Meeting minutes from the various PIP meetings have been recorded and are maintained as part of the administrative record by Caltrans and the Project Development Team.

I2-50

On February 15, 2017, Acting Chief of the Caltrans Central Sierra Environmental Analysis Branch, Philip Vallejo, responded to an email with the same request and indicated that previously submitted comments and/or objections should be resubmitted as part of the EIR/EA public review period in order to be published as part of the current public record. All comment letters that have been received are included in this appendix and have been responded to by Caltrans or DTSC.

[Comment-I3]
Comment from Jeff Martinez

13

From: [Vallejo, Philip@DOT](mailto:Vallejo.Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo.Jennifer@DOT)
Subject: FW: 132 West Expressway/Freeway
Date: Friday, February 24, 2017 7:27:21 AM

fyi

-----Original Message-----

From: Jeff Martinez [<mailto:jeffmartinez1972@comcast.net>]
Sent: Friday, February 24, 2017 6:26 AM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>; Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>; chahn@stancog.org
Subject: 132 West Expressway/Freeway

132 West Expressway/Freeway

After reading as much as I can find online and going to meetings I am still having a hard time figuring out how this was the best alternative for the traffic at the moment and into the future. With phase 1 being one lane in both directions and no off ramps until 2026 when phase 2 starts make little since. If I am correct that means they are going to construct and pave two lanes in phase 1 and than six years later start construction all over again. Is that cost effective? What happens if there is no funds available in 2026, do we have a 80 million dollar two lane road half finished? Are there any guarantees that the whole project will reach competition? I still wish they would revisit alternative 5 the widening of the current 132.

1
2
3

Also I still have concerns about the stockpiles and if they are safe when the report says a portion of stockpile 2 is a Class 1 hazardous. It also makes me nervous that in the removal sections it always says no funds available for removal. Was removal ever really considered?

4

Another issue is noise from the traffic, which I have read the is going to be significant from the study's, but not enough for sound walls based computer generated data. First have you every been out along Kansas and Morse roads. It's a great country neighborhood that is quiet and without some kind of sound protection (sound wall or extending the below grade past Morse road) it's going to change the quiet nature of the neighborhood. I read that in the sound tests they only estimated that 20% of the traffic is tracker trailers, that seems low when I would of expected most of the traffic that would use the expressway would be big rigs. Sorry for the long letter, but this project has a direct effect on where I live. I hope that you consider my comments and concerns from someone that has lived in this quiet neighborhood for 30 years.

5

I am also going to add this letter to the comment card from the meeting and send it in the mail.

One last thought if they is no sound walls or the below grade section extended past Morse road my choice is for the No Build Alternative.

6

Thank you
Jeff Martinez
209 247-8152
Jeffmartinez1972@comcast.net

Sent from my iPad

From: [Magsayo, Grace B@DOT](mailto:Magsayo_Grace_B@DOT)
To: [Estrada, Rick@DOT](mailto:Estrada_Rick@DOT)
Cc: [Luo, Jennifer@DOT](mailto:Luo_Jennifer@DOT); [Post, Thomas; Kismetian, Anton@DOT](mailto:Post_Thomas; Kismetian_Anton@DOT); [Maver, Sean](mailto:Maver_Sean)
Subject: RE: 132 West Expressway
Date: Friday, February 24, 2017 8:58:21 AM

Hi Rick,
I'm copying this to the core team. These questions are involved enough that we probably should document them. Also, the question about the stockpiles will have to be forwarded to DTSC. We have an agreement with DTSC that any question that comes up about the stockpiles, we will send it to them. Thanks.

-----Original Message-----
From: Estrada, Rick@DOT
Sent: Friday, February 24, 2017 8:04 AM
To: Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>
Subject: FW: 132 West Expressway

Questions someone had from the SR-132 meeting, and they sent them to me. These aren't public comments, this is simple someone who called and said they were curious about the project. They didn't want to make these as comments nor be included in the final report.

Hopefully, these are general questions where we have answers - or near-answers already prepared. I'd hate to see your day be consumed by these

Rick Estrada
Public Information Officer
Department of Transportation, District 10 - Stockton
Office: (209) 941-6562
Fax: (209) 948-3895
E-mail: Rick.Estrada@DOT.ca.gov

www.dot.ca.gov/dist10
Follow us on Twitter: www.twitter.com/CaltransDist10 Like us on
Facebook: www.facebook.com/caltransdistrict10

Let us know how we're doing!
<https://www.surveymonkey.com/r/RNBZG55>

-----Original Message-----
From: Jeff Martinez [<mailto:jeffmartinez1972@comcast.net>]
Sent: Friday, February 24, 2017 6:06 AM
To: Estrada, Rick@DOT <Rick.Estrada@dot.ca.gov>
Subject: 132 West Expressway

Q. What is a Class 1 hazard? I was told none of the 3 stockpiles were a Class 1. I showed a page from the report on page (section appendix G Final Feasibility Study 5.2.7 Alternative 3 Removal) where it says a portion (primarily from stockpile 2) in a Class 1 (California hazardous). They answer were they can't classify the soil until its moved or removed, but both also said the soil is safe and would cost too much to remove and replace with good clean soil. In the report I also read that there is no funds available for removal on almost every section titled removal. Was removing the soil from the three stockpile ever really considered? And as far as cost for replacing the removed soil couldn't they use some of the soil from where the underpasses are being built to save on cost.

7

Q 2. I could only find one area around Elm that they might build a sound wall. At the meeting I asked two different

8

men that were at the table with the large blue prints about sound walls. One man told me flat out my area was not going to have a sound wall and the other man said the area for sound walls have not been finalized. I live in the quiet neighborhood near Morse road and are they going to build a sound wall? And if they don't, have they considered extending the below grade portion past Morse road instead of starting the below grade at Mercy road. | 8

Q: Is they going to be any more meeting for the public? And how can we stay informed about when the construction will start? | 9

Q: I saw in the report and wanted to make sure that I was understanding the facts correctly. It showed that in 2020 all three proposals rated the traffic as a F rating and in 2028 it still be be a F rating. Is that correct? | 10

Comments: After reading as much as I can find online and going to meetings I am still having a hard time figuring out how this was the best alternative for the traffic at the moment and into the future. With phase 1 being one lane in both directions and no off ramps until 2026 when phase 2 starts make little since. If I am correct that means they are going to construct and pave two lanes in phase 1 and than six years later start construction all over again. Is that cost effective? What happens if there is no funds available in 2026, do we have a 80 million dollar two lane road half finished? Are there any guarantees that the whole project will reach competition? I still wish they would revisit alternative 5 the widening of the current 132. | 11

Another issue is noise from the traffic, which I have read the is going to be significant from the study's, but not enough for sound walls based computer generated data. First have you every been out along Kansas and Morse roads. It's a great country neighborhood that is quiet and without some kind of sound protection (sound wall or extending the below grade past Morse road) it's going to change the quiet nature of the neighborhood. I saw read that in the sound tests they only estimated that 20% of the traffic is tracker trailers, that seems low when I would of expected most of the traffic that would use the expressway would be big rigs. Sorry for the long letter, but this project has a direct effect on where I live. I hope that you consider my comments and concerns from someone that has lived in this quiet neighborhood for 30 years. One last thought if they is no sound walls or below grade extended past Morse road my choice is for the No Build Alternative. | 12

Thank you
Jeff Martinez
209 247-8152
Jeffmartinez1972@comcast.net

Sent from my iPad

**[Response-I3]
Responses to Comments from Jeff Martinez**

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I3-1 This response assumes that the “Alternative” mentioned in Comment I3-1 refers to phasing of the project and not the difference between Alternatives 1 and 2. Phasing the construction is needed because the project funding is based on a combination of local, state, and federal sources; and, currently, funding has been identified only for Phase 1. The recent approval of Measure L will allow Stanislaus County to leverage funds, which can be put toward Phase 2.

Phase 1 includes the construction of a new two-lane expressway on the southern half of the proposed alignment from North Dakota Avenue on the west end of the project to the Needham Street Bridge Overcrossing on the east end of the project. At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue from the new SR 132 facility to Maze Boulevard. At the completion of Phase 2, the project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west directions of travel and a single-point urban interchange at North Carpenter Road. Phase 2 would add two additional lanes to the Phase 1 roadway to the north and would not require reconstruction of the roadway. Please refer to Section 1.1 (Introduction) of the EIR/EA and Master Response #1, Purpose and Need.

I3-2 Please see Master Response #4 (Project Funding). Although, currently, funding is not sufficient to construct the entire project in Phase 1, the recent approval of Measure L will allow Stanislaus County to leverage funds, which can be put toward Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design.

I3-3 Please refer to the response to Comment I3-2. Also see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5) for a discussion of why the widening and improvements to existing SR 132 were abandoned as an alternative.

I3-4 (DTSC) The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to Caltrans workers, maintaining the vegetative cover, surface water/groundwater monitoring, prohibiting placement or removal of soil at the site. These measures are protective of human health.

Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility, was evaluated in the Draft Final Remedial Action Plan, but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and is less cost-effective than Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. Additionally, from the beginning, the “removal” alternative was included in an assessment of potential remedial action alternatives. As established in the U.S. Environmental Protection Agency’s (USEPA’s) *Guidance for Conducting Remedial Investigations and Feasibility Studies* under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, USEPA, 1988), potentially applicable remedial technologies and process options are screened against the criteria of effectiveness, implementability, and cost. Following screening, remaining technologies are evaluated against nine criteria in order to support an informed decision regarding the most appropriate remedy for the stockpiles. The screening process is detailed in the *Final Feasibility Study, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California*,

June 2014, Geocon Consultants, Inc. The Feasibility Study (Appendix G of the Draft State Route 132 West Freeway/Expressway EIR/EA) was prepared to identify remedial action objectives, general response actions, and process options for the three soil stockpiles. The study also developed and screened remedial alternatives and presented an individual and comparative analysis of each one retained.

Removing the soil stockpiles was addressed in the Final Feasibility Study and fully evaluated in the Draft Final Remedial Action Plan as Alternative 3. Although the removal was a remedial alternative that was one of the final four recommended, it was not advanced as the selected remedy for several reasons. While considered a viable technology that was overall protective of human health and the environment, complied with state and federal requirements, demonstrated long-term effectiveness and performance, reduced toxicity, mobility, and volume, showed short-term effectiveness, is technically implementable, and is acceptable from a regulatory and community standpoint, removal caused the greatest short-term impacts related to air quality and traffic due to operation of excavation equipment and the hauling of an estimated 175 truckloads of soil per day on local roads for 30 days. Such operations would fall under the San Joaquin Valley Air Pollution Control District's Indirect Source Review Rule 9510. Based on the excavation and trucking estimates, removal would emit over 250,000 pounds of greenhouse gas emissions (CO²). To accommodate design features of the project, removal would also require import of the same volume of removed soil, causing duplicative short-term impacts. Additionally, construction of the 132 West project does not include the estimated \$20,000,000 needed to remove, dispose of, and import an equivalent volume of clean soil. Stockpile removal would be considered a separate Caltrans project, requiring a separate standalone environmental document, and a removal-specific Remedial Action Plan. As supported by the Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board, the recommended alternative (containment), as presented in the Draft Final Remedial Action Plan, effectively isolates contaminants behind retaining walls, bridge abutments and beneath highway pavements. The recommended alternative is protective of human health and environment.

I3-5

Please see Master Response #11 (Noise Impacts and Abatement). Noise barriers were assessed in Areas 2 and 3, which include the Morse Road/Kansas Avenue intersection. Areas 2 and 3 include the south and north sides of the new SR 132 alignment between North Carpenter Road and North Dakota Avenue, respectively. For each noise barrier found to be acoustically feasible, reasonable criteria were evaluated and cost allowances were calculated.

The noise analysis of the barrier at this location (Barrier C) is shown in Appendix C of the 2016 Noise Study Report to meet the reasonable noise reduction design goal

of 7 decibels. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers. Barrier B (located in Area 2) was not recommended because it did not meet the criteria of reasonableness based on cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Abatement was considered to reduce traffic noise from other roadways, but was also not feasible due to the number of driveway openings.

Traffic noise levels in Area 3 would approach or exceed the noise abatement criteria (NAC) Activity Category B (for residential areas) of 67 dBA-Leq(h) and substantially exceed existing noise levels under both alternatives. A noise barrier was evaluated for feasibility at wall heights in the range of 6 to 16 feet. At a height of 16 feet, the noise barrier would provide a minimum of 5 dB of noise reduction for one impacted receiver. However, the noise barrier modeled in this area would not meet the feasible and reasonable criteria of at least a 7 A-weighted decibels decrease at one or more benefitted receivers, as defined in the Caltrans Protocol or 23 CFR 772. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers. Therefore, a noise barrier would not be considered reasonable for receivers in Area 3.

Also, the SR 132 new alignment from North Carpenter Road to Mercy Drive (Area 2) would be constructed below grade (lower than the residential dwellings), and it was determined that a noise barrier would not be feasible in this area due to partial shielding from retaining walls and ambient traffic noise generated from other roadways. Therefore, a noise barrier would not be considered reasonable for receivers in Area 2 or 3. Please refer to Section 2.2.7 (Noise) of the EIR/EA.

Traffic analysis determined that truck (both two axles and three or more axles) volumes represent 21 percent of annual average daily traffic. In addition, the traffic noise model excludes motorcycles and accounts only for automobiles and trucks (both two axles and three or more axles). In addition, average daily traffic and truck traffic on SR 99 is expected to decrease under both build alternatives.

I3-6

Please refer to the response to Comment I3-5. The SR 132 new alignment from approximately North Carpenter Road to Mercy Drive would be constructed below grade (lower than the residential dwellings). The recessed area limits were set due to engineering economy. Recessing the roadway back to North Dakota Avenue would be a large expense of both earthwork and retaining walls. Also, a large sewer main trunk line crosses the proposed SR 132 in the area near Altamont Court. Relocation of the sewer line is not feasible from a cost perspective.

Your preference for the No-Build Alternative is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance between avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

I3-7 (DTSC) The comment is acknowledged and will be part of the public record. Wastes are classified based on certain criteria. A solid waste is a hazardous waste if it is specifically listed as a known hazardous waste or meets the characteristics of a hazardous waste. Listed wastes are wastes from common manufacturing and industrial processes, specific industries and can be generated from discarded commercial products. Characteristic wastes are wastes that exhibit any one or more of the following characteristic properties: ignitability, corrosivity, reactivity or toxicity.

Landfills are classified based on the type of waste they can accept. There are three classes of landfills: Class I, or hazardous waste landfill, Class II, or nonhazardous waste landfill, and Class III, or inert waste landfill. A hazardous waste is only allowed in a Class I landfill.

Although there is soil in the stockpiles that meets the criteria for classification as a hazardous waste, most of the soil in the stockpiles is below screening levels for residential use and does not meet the criteria for being classified a hazardous waste. Soil in the stockpiles meeting the hazardous waste criteria is located at depths of 5 feet or greater below ground surface. If removed from the site, this soil would be classified as hazardous waste and would need to be disposed of in a Class I landfill.

Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility was evaluated in the Draft Final Remedial Action Plan, but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and is less cost-effective than Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill

cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. For the question on funding and whether or not stockpile removal was actually considered, please see the response to Comment I3-4.

I3-8 A noise barrier was evaluated for this area and was not determined to meet the feasible and reasonable criteria of at least a 7 A-weighted decibels decrease at one or more benefitted receivers, as defined in the Caltrans Protocol or 23 CFR 772. Please refer to the response to Comment I3-5.

I3-9 Although there are no additional public meetings planned as part of the EIR/EA process, information regarding project activities would be shared with the public via the project website at <http://www.dot.ca.gov/d10/x-project-sr132west.html>. Construction of Phase 1 is anticipated to begin in 2018, and construction of Phase 2 would begin in 2026. Affected property owners and occupants will also be notified when right-of-way acquisition activities begin.

I3-10 The existing SR 132 (Maze Boulevard) currently operates at an acceptable Level of Service (LOS) D or better between North Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable LOS C or better. However, traffic operations would degrade over time so that by 2028 the intersection of the existing highway and North Carpenter Road would operate at LOS F, an unacceptable service level; and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable LOS F. As detailed in Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities), future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied.

I3-11 Please refer to the response to Comment I3-2.

Phasing the construction is needed because the project funding is based on a combination of local, state, and federal sources; and, currently, funding has been identified only for Phase 1. The recent approval of Measure L will allow Stanislaus County to leverage funds, which can be put toward Phase 2. Construction funding for Phase 2 will be identified in the future as the project progresses in design.

Phase 1 includes the construction of a new two-lane expressway on the southern half of the proposed alignment from North Dakota Avenue on the west end of the project to the Needham Street Bridge Overcrossing on the east end of the project. At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue to Maze Boulevard. At the completion of Phase 2, the project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west directions of travel and a single-point urban interchange at North Carpenter Road. Phase 2 would add two additional lanes to the Phase 1 roadway to the north and would not require reconstruction of the roadway. Please refer to Section 1.1 (Introduction) of the EIR/EA.

For the reasons stated in response to comment I3-6, Alternative 2 has been identified as the preferred alternative.

I3-12 Please refer to the responses to Comments I3-5 and I3-6.

[Comment-I4]
Comments from Anthony Plaza

I4

From: [Abom, Lauren](#)
To: [Peters, Phillip](#)
Subject: FW: Re: FW: 132 Freeway/Expressway Project
Date: Thursday, March 02, 2017 3:31:28 PM

Below is another comment on the Draft ED.

From: Elisabeth Hahn [mailto:ehahn@Stancog.org]
Sent: Thursday, March 02, 2017 3:13 PM
To: Abom, Lauren; Post, Thomas; Kendall Flint
Cc: Rosa Park
Subject: Fwd: Re: FW: 132 Freeway/Expressway Project

Tom, Kendall and Lauren,

Please see the emails below. I am forwarding this to you for your records.

Caltrans received a comment (see the bottom of this email string) from a representative of the Salida Hulling Association, which they may want to treat as a formal comment to the EIR.

Thank you, Elisabeth

From: Anthony Plaza [mailto:salidahulling@msn.com]
Sent: Thursday, March 02, 2017 9:16 AM
To: Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>
Subject: 132 Freeway/Expressway Project

Hello,

As manager of Salida Hulling Association, I would like to ask several questions that would relate to our operations here at the co-op. We are located at 350 Dakota Ave. Modesto, CA 95358. When we built the Almond Huller/Sheller we were asked to make improvements to Dakota Ave. for our entry to our almond plant. The entry way is on the east side of Dakota Ave. just south of Kansas Avenue. My first question is will my trucks coming and going be able to turn right and left out of our entry way? Will their be a left turn lane for traffic safety? | 1

Also, when we built our plant our co-op was asked to improve the intersection at Hwy 132 and Dakota Ave. Needless to say, we were required to over \$700,000.00 thousand dollars for the improvements. We even purchased traffic lights that never were put up for that intersection. We were told by the Stanislaus County and Cal-Trans that when other development is put in we would receive some compensation reimbursement for the money we put up. How does the co-op go about requesting our reimbursement and what percentage of the funds we spent would be appropriate for reimbursement? I will have to do some research to get the exact amount we spent on the intersection improvements. | 2

Best Regards;

Anthony Plaza
Manager

**[Response-I4]
Responses to Comments from Anthony Plaza**

Thank you for your comments.

I4-1 The current design does not preclude turns in either direction on North Dakota Avenue. Upon completion of Phases 1 and 2 of the project, there will be a center turning lane that will allow left turns from the Salida Hulling Association.

I4-2 This comment is outside the scope of the SR 132 West project, but was forwarded to Matt Machado (Public Works Director) at Stanislaus County on March 6, 2017. On May 4, 2017, Mr. Machado responded to members of the Project Development Team via email regarding your reimbursement claim. Unfortunately, these improvements will not be eligible for reimbursement because a reimbursement agreement was not established and the costs associated with the ultimate signal improvements were not incurred.

On October 23, 2007, the Board of Supervisors of the County of Stanislaus certified the EIR for the Salida Hulling Association (SHA) and approved the Use Permit Application No. 2002-30-Salida Hulling Association. Conditions of Approval/Mitigation Measures (“Measures”) Numbers 60-64 of the Stanislaus County Planning Commission’s Staff Report (September 6, 2007) (found on page 46 of the Board of Supervisors item) discuss the reimbursement terms relating to these improvements. Please refer to the Action Agenda Summary, which can be found at <http://www.stancounty.com/bos/agenda/2007/20071023/PH915.pdf>.

Per Measures 60-64, SHA would be responsible for improvements made to westbound Maze Boulevard (SR 132) right-turn onto northbound North Dakota Avenue and to the southbound North Dakota Avenue left- and right-turn movements onto eastbound Maze Boulevard (SR 132) in order to effectively turn large trucks through these traffic movements. Measure 62 states that SHA may apply for reimbursement costs for the installation of a traffic signal at the SR 132/North Dakota Avenue intersection through a reimbursement mechanism to be developed between SHA, Stanislaus County and/or Caltrans. Measure 62 further states that in the event that the above-described traffic signal cannot be operational prior to the opening of the proposed project, SHA could enter into an agreement with Caltrans and Stanislaus County that the monies needed to fully construct the recommended traffic signal are deposited up-front into a public account and the improvement is guaranteed to be in place within the timeline for formal approval and construction of the traffic signal. However, no agreement was established between the parties, and therefore the improvements are not eligible for reimbursement. Also, signal poles and equipment were never purchased; therefore, costs were never incurred for the ultimate signal improvement. Measure 64 therefore affirms that SHA shall be

responsible for its proportionate share of intersection improvement required under Cumulative Base conditions.

[Comment-I5]
Comments from Brian and Bonnie Weese

I5

Brian & Bonnie Weese

337 Dakota Avenue, Modesto CA 95358 | (209) 529-6482 | bw3dog@comcast.net

February 25, 2017

Phillip Vallejo
California Dept. of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno CA 93721

RE: 132 West Bypass – Comment Card

The "Public Hearing" meeting on 2/22/17 was very disorganized and frustrating to residents seeking answers to their questions. This was not a public hearing but an obvious effort to avoid answering direct questions and taking responsibility for the decisions made by Caltrans, Stanislaus County/StanCOG and the City of Modesto. No one would answer questions as to what agency was taking responsibility for these decisions! Residents would have been better served if the information was provided to the entire audience at one time, eliminating the confusion and contradictions. Where is the transparency? Considering we pay taxes, where can residents turn for representation? This meeting made it clear Caltrans is certainly not concerned with our welfare!

1

We vote no build of any of your proposals concerning 132, Dakota Avenue, Kansas Bypass.

2

The Caltrans Consultant at the Dakota table showed residents a list noting the amount of property slated to be taken from residents living on Dakota Ave to create a "temporary" 4 lane road on Dakota. He said he could not answer any questions as to when the final decision would be made on the stealing of our property. Any "fair market value" will not adequately or fairly compensate residents for the loss in value of homes and quality of life! List shows we may have 6800 feet stolen from our front yard, which will remove our beloved Magnolia trees and orange tree – not to mention the loss of our driveway and lawn! How can we safely enter/exit our home? If any land is taken it should be from the Huller across the street from residents since they established their obtrusive business after our homes were built. The property loss will not affect the Huller as personally as it would devastate residents who have worked hard to buy their homes and will experience financial loss not to mention the stress directly connected with your flawed and extreme plans. Your Consultant said it wouldn't be fair to only take property from the Huller. Really? Your Consultant was not helpful and did not show proper courtesy when dealing with this upsetting news.

3

4

I then spoke with Stanislaus County Supervisor Terry Withrow and Matt Machado, Public Works, who told me they didn't believe Caltrans will actually take any Dakota Avenue property, and encouraged me to turn in the comment sheet suggesting keep Dakota to 2 lanes. I believe they were attempting to reassure me, but this conflicting information increased my frustration to finding out the truth.

5

There are many temporary road improvements in California which become permanent over time. Frankly, we do not trust your motives or goals stated. The idea of creating "temporary" lanes on Dakota to connect 132 with the new Kansas bypass is illogical for two reasons: Ineffective and Expensive

4
5

My husband, Brian, commuted 25 years from Modesto to Livermore via 132. His extensive experience shows that bottlenecks are created when the number of road lanes are reduced at any point. The increase/decrease in lanes creates worse traffic conditions than leaving a single lane. People speed up then slow back down, creating congestion and accidents. One doesn't have to be an expert to know this, simple observations and experience show this. Dakota will become a parking lot, with a solid wall of cars on 4 lanes sandwiched in between the 2 lanes on 132 and the Kansas bypass. Will our property, cut down trees be returned to property owners after Dakota is no longer required as a "temporary" route? Once Dakota becomes a parking lot, drivers will bypass the new intended route and use alternative roads instead, including continuing East on 132 to Maze. Will trucks be prohibited from continuing East on 132 to 99?

6

Caltrans claims the total project cost will be \$214 million. Tax payers know that most building projects actually cost much more than the initial estimation. If the final plan is to continue the Kansas bypass West of Dakota to Gates Road, why spend the extra resources/tax payers' money on a "temporary" route on Dakota? Is this Caltrans' goal or just an outright lie? Why start a project without sufficient funds to complete it? Will the existing roads in Stanislaus County be repaired in addition to this monstrous project by Measure L funds as well? Who makes the decision where Measure L funds go?

7

Wouldn't your engineers agree the shortest route between two points is a straight line? Obviously, a straight line from 132 to 99 is 132! Therefore, a simple and more logical way to reduce the congestion on 132 is to actually widen 132 and improve the connection the entire length from 580 to 99. No one has provided a truthful answer as to why this is not being considered. Perhaps the Gallo's are influencing Caltrans? It's ironic that the Gallo's paid for a new bypass near Casa De Fruita as a result in a vehicular death involving one of the Gallo family members but it appears they are preventing a bypass/improvement of 132 near their own property.

8

The entire 132 West bypass project is utterly flawed and the purpose and need Caltrans claims are questionable. Your project will create more traffic congestion, reduce the quality of life for nearby residents, financially cripple us, and does not adequately contain the toxins in the waste piles behind Kansas.

9

Consider how you would feel personally if you lived on Dakota. Call us if you'd like to buy our house for the amount we paid. We're considering leaving California after living here all our lives.

10

Your project will negatively affect the taxpayers you are paid to serve!



Bonnie Weese



Brian Weese

[Response-I5]
Responses to Comments from Brian and Bonnie Weese

Thank you for your comments.

- I5-1** Caltrans is the lead agency for the SR 132 West project. The Project Development Team values public engagement in the project development process. The recommendation for project decisions is shared among members of the Project Development Team, which consists of Caltrans, StanCOG, Stanislaus County, and City of Modesto representatives. However, other agencies, such as the California Department of Toxic Substances Control and the Central Valley Regional Water Quality Control Board, also influence project-related decisions. Please refer to Master Response #5 (Public Participation and Environmental Review Process) for more extensive information on the public participation and review process. Caltrans uses the open house format for public meetings because it allows individual attention and answers to specific questions.
- I5-2** Your preference for the No-Build Alternative is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.
- I5-3** The right-of-way phase of the project will begin in 2018, during the PS&E phase of the project. Please see Master Response #8 (Property Acquisitions).
- I5-4** Pursuant to a condition of approval identified in the 2007 Final EIR for the Salida Hulling Company, right-of-way was dedicated to the County to provide 55 feet east of the existing Dakota Avenue centerline along the parcel's entire frontage. This dedication was based on future roadway widening of Dakota Avenue. Based on preliminary design, right-of-way acquisition is not required for this parcel.
- I5-5** North Dakota Avenue would be widened to two lanes in each direction. Future traffic projections indicate a need for these improvements. The 2018 traffic numbers show an average daily traffic volume of 4,500 vehicles in the No-Build Condition on this segment of Dakota Avenue. The 2048 bi-directional average daily traffic volume on this segment of Dakota Avenue is projected to be 13,100 vehicles in the No-Build Condition, nearly 3 times the number of current users. The Build Condition shows 28,100 vehicles using this segment on an average daily basis. A future project to realign SR 132 between North Dakota Avenue and Gates Road is in the planning stages. With the opening of that realigned segment of SR 132, Dakota would no longer serve as the connector to SR 132 for westbound travelers.

I5-6 As detailed in Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities), future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied. The new project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. With the opening of that realigned segment of SR 132, Dakota would no longer serve as the connector to SR 132 for westbound travelers.

Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including Dakota Avenue and the existing SR 132 (Maze Boulevard) alignment. Property owners may request that trees removed during the acquisition process are replaced.

I5-7 Please see Master Response #3 (Logical Termini) and Master Response #4 (Project Funding).

Measure L allocates funds to the municipalities within Stanislaus County to repave streets, fill potholes, and upgrade local transportation infrastructure. As the local transportation authority (LTA) and metropolitan planning organization (MPO) for Stanislaus County, StanCOG is responsible for Measure L. The one-half-cent sales tax measure was approved by Stanislaus County voters in 2016 and is largely intended to fund local street maintenance and road repairs (50 percent). Measure L expenditures will be monitored by a Citizens Oversight Committee appointed by the local City Council or Board of Supervisors.

I5-8 Alternative 5 (widen the existing SR 132/Maze Boulevard) was an alternative that was considered but withdrawn. Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5), Master Response #3 (Logical Termini) and refer to Section 1.7, Alternatives Considered but Eliminated from Further Discussion, in the EIR/EA.

I5-9 Please see Master Response #1 (Purpose and Need). The project would reduce traffic congestion and is not anticipated to reduce quality of life within the project area. Because it would sit on existing Caltrans right-of-way for most of the new alignment, neither build alternative would bisect existing subdivisions/neighborhoods within the project study area. Some relocation and acquisition of

some businesses and residences, displacements and acquisitions would occur on the periphery of the neighborhoods (mainly the Elm Tract neighborhood) and within areas west of SR 99; however, the relocations would not introduce a geographical gap or division to existing neighborhoods. Also, neither build alternative would separate local residents from community facilities or prevent access to community services.

The project will not bisect an established community and is therefore not expected to result in impacts to community character or cohesion. Established communities are located both to the north of Kansas Road and to the south of Kansas Road, south of the project alignment. Residential displacements would occur for houses located on the periphery of residential areas along SR 99 and would also occur within areas west of SR 99 that are not associated with established neighborhoods. Although the two build alternatives would result in disproportionately high or adverse impacts on minority or low-income populations, the proposed project would provide many benefits to minority and low-income populations that would offset many of the adverse effects. Net benefits include improvements to regional and interregional circulation, congestion relief, and improved operations, that would benefit these communities. Please refer to Section 2.1.4 (Community Impacts) of the EIR/EA for more information on the avoidance, minimization and mitigation measures that would be put in place to reduce potential impacts to residences or businesses.

Regarding adequately containing the stockpiles, Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. Vibrations from traffic will not cause contaminants to migrate from the stockpiles into the groundwater.

I5-10 Please see Master Response #8 (Property Acquisitions).

[Comment-I6]
Comments from Joseph and Jane King

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16

March 15, 2017

Phil Vallejo, Acting Chief
California Department of Transportation
Central Sierra Environmental Analysis Branch
855 M Street, Suite 200
Fresno, CA 93721

Title: State Route 132 West Freeway/Expressway Project
Draft Environmental Impact Report/Environmental Assessment and Draft Final Remedial Action Plan
State Clearinghouse Number: (SCH#) 2010012010
Expenditure Authorization (EA): 10-40350
Project ID: 1000000424

Mr. Vallejo,

This letter is intended to summarize the concerns/comments for the property located at 231 North Dakota Avenue with respect to the above referenced project. These comments are submitted to your agency as part of the public review process mandated by the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

In accordance with § 15200 of the State CEQA Guidelines, these comments fit within the purpose of the public review process through: "(a) sharing expertise, (b) disclosing agency analyses, (c) checking for accuracy, (d) detecting omissions, (e) discovering public concerns, and (f) soliciting counter proposals."

The issues raised in this letter have been divided into two categories, General Project Comments and Property Specific Comments. Our comments are based on our experiences and knowledge of the project area and scope. This experience and knowledge comes from 30 years of living within the project boundary, reviewing the project documents, and attending project meeting for the past two decades.

General Project Comments

- *Project Alternatives:* The two final project alternative proposed in the Draft EIR were very similar in alignment, the connection to state route 99 being the primary difference. We are requesting that a new project alternative be considered that connects the proposed State Route 132 alignment along Kansas Avenue to the existing Maze Boulevard at a point west of Dakota Avenue.

1

Property Specific Comments

- *Driveways:* Driveway access and the ability to make left turns onto northbound Dakota Avenue are important to our quality of life. Based on the Draft EIR and the public meeting held on February 22, 2017, it is our understanding that existing driveways along the western side of Dakota Avenue would remain unchanged and that left turn movements to northbound Dakota Avenue would be allowed. However, there are technical studies that show cross sections of Dakota Avenue containing medians that would prohibit left turn movements. Furthermore, the Draft EIR discusses the possibility of limiting driveway access to improve traffic operations. We are requesting that all driveways accessing our property remain unchanged and the ability to make left turn movements to northbound Dakota Avenue be retained.

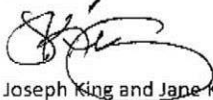
2

- *Sound Impacts:* Both project alternatives will have a significant sound impact to our property. Referencing Section 2.2.7 Noise of the Draft EIR (pg 251), our property is located within Noise Analysis Area 1. The Noise Study Report, specifically Appendix C, showed a substantial increase in noise levels over the existing noise level. However, a noise barrier was not considered or analyzed because of potential gaps resulting from driveway access. We are requesting that a sound barrier be studied for this area. In addition to sound attenuation, the barrier would provide a safety benefit and visual benefit. In addition to a sound barrier, we are requesting that alternative methods for noise reduction be studied. Per the Draft EIR, the increase in noise as a result of this project would be significant and negatively impact our quality of life.

3

Please send to me your agency's responses to my comments along with further information on the environmental planning phase of this project.

Sincerely,



Joseph King and Jane King
231 North Dakota Avenue
Modesto, CA 95358

[Response-I6]
Responses to Comments from Joseph and Jane King

Thank you for your comments.

I6-1 A total of nine alternatives were developed and evaluated as part of the project development process. These included the Mass Transit Alternative, the Transportation Demand Management Alternative, the Transportation System Alternative, Alternative 1, Alternative 2, and the No-Build Alternative, as well as the initially proposed Alternative 1, Alternative 3, and Alternative 5. Through careful review of both environmental and engineering considerations, as well as public input, only two alternatives were found to adequately meet the project's objectives with fewer impacts to the environment, resulting in the two build alternatives and No-Build Alternative considered in the Draft EIR/EA.

Each build alternative has unique features, which are described in Section 1.4.1 (Build Alternatives) of the EIR/EA. The alignments of the two alternatives are similar between North Dakota Avenue and SR 99; however, the major difference involves the construction of a southbound SR 99/Needham Street off-ramp under Alternative 1, compared to the reconstruction of the southbound SR 99 Kansas Avenue off-ramp under Alternative 2. The similarities of the two alternatives are due to the availability of existing, reserved right-of-way (acquired by Caltrans for the project in 1958), the ability of the project alternatives to meet the project purpose and need, and reducing community and environmental impacts. Alternatives 1 and 2 were determined to be the best options that would meet these criteria. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need. Please refer to Master Response #5 (Public Participation and Environmental Review Process) and Section 1.4 (Project Alternatives).

Please see Master Response #3 (Logical Termini).

I6-2 The current design for North Dakota Avenue indicates that there will be no center median barrier, which will allow for left turns onto northbound North Dakota Avenue. The area between the two directions of travel, which was included on several Preliminary Design Plan Sheets in various technical studies, will be a 13-foot-wide center median area at the same level of the roadway, which is intended to allow for access from private driveways, while discouraging weaving between the two directions of travel. The road will be widened to accommodate the additional

lanes, and driveway access will not be restricted. The most current cross sections for the ultimate project are included in Appendix F of this document.

I6-3

Please refer to Master Response #11 (Noise Impacts and Abatement). Noise barriers were assessed in this area (Area 1), but they would not meet the feasibility criteria due to access constraints and therefore were not recommended. Several noise barriers would need to be constructed between the driveways. These noise barriers would be ineffective at reducing noise because the breaks in the barriers to accommodate the driveways would be too close together, allowing noise to travel around the barrier to the houses. In addition, placing the barriers too close to the driveway access would result in a safety concern due to limited visibility. Additional information regarding the noise abatement analysis can be found in Chapter 7 of the Noise Study Report and Section 2.2.7 (Noise) of the EIR/EA.

[Comment-I7]
Comments from Wes Olsen

17

Wes Olsen
1018 Arboleda Drive
Modesto, CA 95351

Mr. Randy Adams
DSTC PROJECT MANAGER
8800 Cal Center Drive
Sacramento, CA 95826

Dear Mr. Adams,

This letter is in regards to community input regarding the revised route of Highway 132 in Modesto, California along with the suggested remedial actions to deal with the stockpiles of toxic soil near and around Kanas Ave and Carpenter Road.

Numerous times in the Community Update it mentioned the importance of not disturbing the contaminated soils in the stock pile. Yet the Caltrans proposal suggested, is for the soil to be capped over with clean soil and retaining walls to be built around the sides of stockpiles. Then it is proposed for the bypass to be built over the top of the stockpiles. Really? This does not prevent the toxic materials from leaching into the ground water. The traffic going over the bypass will create constant vibrations disturbing the toxic soil below increasing its ability to work its way into the ground water.

1

I can understand why Caltrans prefers solution number 4. It would be so much cheaper to build the bypass this way at the cost of health risks and cancer to the residents that live in this area.

I can see nothing is going to stop this project regardless of the objections of the residents and the fact you, Caltrans, and the State are going to put people's health in jeopardy and diminish the property values of the homes in the area.

2

The only reasonable alternative to be taken is for the toxic stockpiles to be removed and the bypass project to be dropped as suggested in alternative number 3.

3

Hopefully a large law firm will hear of this project and file a class action lawsuit.

I travel highway 132 every week at different times and have never experienced congested traffic either leaving Modesto or returning to Modesto by 132. The bypass project is nothing more than government waste. The money for this project needs to be spent to repair roads and bridges that actually need repair. As far the people in the area are concerned and the ones that actually use highway 132 this bypass project is like the Alaskan project where they built the bridge to nowhere.

4

Sincerely,
Wes Olsen

Wes Olsen
1018 ARBoldera DR
Modesto, CA 95351



SACRAMENTO, CA 957

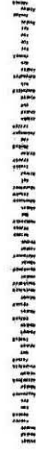
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DTSC
RECEIVED

FEB 13 2017

MR. RANDY ADAMS
DSTC Project Manager
SAC REGIONAL OFFICE 8800 CAL CENTER DRIVE
RASH SACRAMENTO, CA 95826

95826-320000



**[Response-I7]
Responses to Comments from Wes Olsen**

Thank you for your comments. The Lead Agency (Caltrans) has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I7-1 (DTSC) The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

Vibrations from traffic will not cause contaminants to migrate from the stockpiles into the groundwater.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I7-2 (DTSC) The comment is acknowledged and will be part of the public record. DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level

considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation and direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as it has the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, based on the screening criteria and comparative evaluation process, Draft Final RAP Alternative 4 (Containment) is the recommended alternative in the Draft Final Remedial Action Plan. It is recommended because of the effectiveness in providing long-term and overall protection of human health and the environment, technical feasibility, cost-effectiveness, and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff. As a CEQA responsible agency, the California Department of Toxic Substances Control will make a final determination regarding Draft Final RAP Alternative 4, Containment, after Caltrans certifies the Final Environmental Impact Report. Section 2.2.5 (Hazardous Waste/Materials) of the EIR/EA identifies 24 avoidance, minimization, and mitigation measures to reduce the impacts related to hazardous wastes during the construction of the new project.

I7-3 (DTSC) The comment is acknowledged and will be part of the public record. Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility, was evaluated in the Draft Final RAP but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant

and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and it is less cost-effective than Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I7-4 Future traffic projections have demonstrated a need for the proposed project. Please see Master Response #1 (Purpose and Need).

[Comment-I8]
Comments from Ramon and Susie Salinas

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT)
Subject: FW: SR132 - Stanislaus County
Date: Monday, February 27, 2017 7:49:42 AM

FYI

From: Ramon and Susie Salinas [mailto:ssalinas@pacbell.net]
Sent: Sunday, February 26, 2017 2:53 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>; Magsayo, Grace B@DOT <grace.magsayo@dot.ca.gov>; ehahn@stancog.org; Adams, Randy@DTSC <Randy.Adams@dtsc.ca.gov>; Schumacher, Nathan@DTSC <Nathan.Schumacher@dtsc.ca.gov>
Cc: wwestcn@gmail.com; Terhesa Gamboa <terhesa@sbcglobal.net>
Subject: SR132 - Stanislaus County

Comments to file in the record

Hello,

My husband Ramon Salinas and i went to the State Route 132 West meeting on Feb 22, 2017 and I wanted to express our comments. We live on Altamont Ct which is off Kansas Ave between Rosemore Rd and Dakota Ave. We live an a cul-de-sac that opens to Kansas Ave - within 50 yards. That means we will see and hear the traffic on the new State Route 132 from our driveway and front yard. In addition the new SR132 will widen directly in front of our Cul-de-sac which i'm sure will be a frequent accident place as drivers accelerate at that point.

1

We were told that our area would not get a sound barrier wall due to the fact that there is already a brick wall around our tract homes - although it is open to our cul-de-sac homes. We found out that part of the new SR 132 would be recessed below Kansas Ave, but then leveled back to Kansas at Mercy all the way to Dakota. Why can't the road stay recessed all the way to Dakota Ave or at least Morse Rd beyond the residential tract homes?

2

Personally we would not like to have SR132 near our residential homes at all. The current 132 Maze Boulevard is already available and the only possible change that is needed is at Carpenter Road/Maze corner where traffic could turn West to get to Kansas. Then, it won't affect all the residential tract homes along Kansas Ave which is way more then currently facing the current Maze Blvd (listed on your flyers as the need for the change). It makes no sense to force traffic by a lot more residences then currently on Maze Blvd (from Dakota to Carpenter rd). I don't believe you were going to remove Maze Blvd so now you will just have two roads of traffic affecting additional residences - not fix the current situation.

3

The money saved by not disrupting our residential area could be used to fix current roads in Modesto.

Please add ssalinas@pacbell.net to the project mailing list.

Sincerely,

Susie Salinas _____
ssalinas@pacbell.net
209-380-1961

[Response-I8]
Responses to Comments from Ramon and Susie Salinas

Thank you for your comments.

I8-1 Please see Master Response #11 (Noise Impacts and Abatement). Your residence is located in Noise Analysis Area 3. Noise barriers were assessed for this area, but they did not meet the minimum thresholds for noise reduction. The noise analysis of the barrier at this location (Barrier C) is shown in Appendix C of the 2016 Noise Study Report. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers. Therefore, a noise barrier would not be considered reasonable in Area 3.

In regard to conflicts between Altamont Court and SR 132 (south of Kansas Road), based on the Highway Safety Manual published by the American Association of State Highway and Transportation Officials, there is a direct correlation between crash frequency and average daily traffic volumes. Lower traffic volumes would result in greater spacing between vehicles, allowing drivers more time to react to sudden changes in traffic flow, such as a stopped vehicle. Fewer vehicles would also result in fewer conflicts at intersections and driveways. Other alternatives that would involve the removal of driveway access are no longer under consideration.

I8-2 The recessed area limits were set due to engineering constraints. Recessing the roadway back to North Dakota Avenue would also incur a large expense of both earthwork and retaining walls. Also, a large sewer main trunk line crosses the proposed SR 132 in the area near Altamont Court, which would require redesign and relocation.

I8-3 Improving existing SR 132, as described in Alternative 5, would not have used the existing Caltrans right-of-way within the route adopted for the project and would have resulted in more than twice as many relocations compared to those relocations proposed under Alternatives 1 and 2. Once all phases of the project are complete, the new SR 132 will be a controlled-access freeway/expressway connecting SR 99 to I-580, removing commercial and agricultural truck traffic from local roadways including Maze Boulevard (existing SR 132). Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

[Comment-I9]
Comments from Karen and Ray Cimino Family

From: **Karen Cimino** Karibaby07@aol.com
Subject: Comments on EIR for Proposed 132 Expressway
Date: March 12, 2017 at 6:18 PM
To: philip.vallejo@dot.ca.gov

After reviewing the EIR and attending the meeting on the proposed Highway 132, here are some comments.

What seemed like a good location more than half a century ago, 1956, is now outdated, impractical and unsafe for many reasons. During these past decades since the 1950s the city and county has quadrupled in population, valley traffic has vastly increased. Along this particular corridor west of Hwy 99 there has been much development approved by past elected officials from both the city and the county for residential communities, agricultural and commercial businesses. Today entire neighborhoods and businesses are in harm's way as a result of their haphazard rulings and will be subjected to situations that the EIR admits cannot be mitigated away.

1

The contaminated berms are a problem. This was made evident decades ago when the state successfully sued Mr. Bonzi for contaminating the ground water from the berm's carcinogenic chemicals leaching into the ground water. Even today many fatal health problems are ongoing in this area. The casual reference to the large number of cancers in this area as "a cancer cluster" is disgraceful. To each family the affected victims were "loved ones". The EIR failed to interview local physicians and oncologists who over many years have cared for this unusually large number of cancer patients noted in this area. Brain tumors, kidney, bladder, breast, colon, leukemias, lymphomas, multiple myeloma are cancers that are known to be caused from exposure to these carcinogenic chemicals and have been diagnosed in areas surrounding the berms. This project has been on the books for years. Why haven't funds been allocated through these decades to remove the problem berms instead of waiting until now and stating that it would be too expensive to do the right thing in the time allotted with the existing project budget? Everyone knew the problem was not going to correct itself. The current plan risks future health consequences. The EIR is not adequate.

2

The current plan shown at the February 22nd meeting was confusing and

3

unimpressive. The stale idea that 79 acres already owned by Caltrans in this location would mandate that the project should move forward in this location is obsolete. The already acquired land would not even allow for the new road to be built legally as a safe four lane highway up to Dakota. The project's goal to build a safer, faster expressway to avoid schools, churches and residences that exist on the current Hwy 132 is just being moved to a similar residential area. The new Hwy 132 would force families and established businesses to relocate. The noise and other issues unable to be mitigated according to the EIR move the current 132 problem to a new neighborhood 100 yards away.

3

The dead halt of the new road at Dakota Avenue has potential for safety issues that need to be addressed satisfactorily to avoid any fatal accidents. Officials need to figure out a way for these fast moving vehicles to safely transition on to the old Hwy132. And the future added traffic from the new to the old should be anticipated and dealt with to avoid more serious injuries and fatalities.

4

Mixing the residential and ag traffic from Wood Colony into this already problematic equation seems unnecessary and dangerous especially since the traffic on Dakota is mainly made up of local people going to school and jobs in Modesto.

5

In all this planning and writing of the EIR I have to believe no person on the project has driven down Kansas Avenue west past Dakota, because if they had they would see that Kansas Avenue ends one block west. Putting the jug handle on Dakota going west would only send traffic around the block for years to come before the next leg to the project is built. I don't think the tax payers would want to spend money for this boondoggle.

6

The project proposes to build an expressway that would decrease the city traffic congestion today and better serve the traffic needs of the area for future growth in population and for businesses for decades to come. This hopefully will leave the city of Modesto more attractive and less congested. Is it possible that the city should be considering positioning this expressway outside the small boundaries decided on 60 years ago? Before this project breaks ground maybe a fresh set of

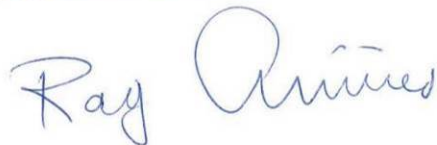
7

eyes need to review the plan to bring it up to date.

7

Respectfully,

Karen and Ray Cimino Family



Sent from my iPad

[Response-I9]

Responses to Comments from Karen and Ray Cimino Family

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I9-1 Please see Master Response #1 (Purpose and Need). The project is consistent with the City of Modesto General Plan Community Services and Facilities Element, which includes improvements to SR 132 along the general alignment of Kansas Avenue. It is also consistent with various General Plan policy strategies including the Community Growth Policy, Circulation and Transportation Policy, and the Agricultural Resources Policy. Please refer to Section 2.1.1.2 (Consistency with State, Regional and Local Plans and Programs) of the EIR/EA for more information on the alignment of the project with local planning efforts.

When the relocation of SR 132 west of SR 99 was planned in the 1950s, the proposed alignment relocated SR 132 traffic onto SR 99 between Kansas Avenue and L Street for continuity. Since that time, SR 99 has grown into a major north-south corridor that is heavily relied upon for regional and interregional travel. Capacity on SR 99 in the corridor is constrained due to the built-out condition of the area. Currently, SR 99 includes six lanes through the project limits, but is ultimately projected to require up to 12 lanes. However, at this time it is anticipated that future projects would add only two additional lanes.

When Caltrans began planning for the relocation of SR 132 to the proposed alignment, SR 99 was the planned terminus with a 1950s-era trumpet (Type F-5) interchange connection. Caltrans and Federal Highway Administration (FHWA) design standards have changed so that the original connection is now substandard in design as well as interchange spacing.

The Stanislaus County region has experienced significant growth, which causes severe traffic congestion on the local roadways and the freeways/expressways. As a result, StanCOG, Caltrans, and the surrounding municipalities have initiated multiple studies on the existing SR 99, SR 108, SR 132, and SR 219 corridors. In 1991, Caltrans completed a Project Study Report that identified two freeway alternatives with multiple freeway-to-freeway connectors at the new SR 132/SR 99 interchange that would require substantial acquisition of new right-of-way and would have a significant impact to the existing area. In 1993, Caltrans completed a Revised Project Study Report that considered additional alternatives and recommended a lower-cost

four-lane at-grade expressway. In 1997, Caltrans updated the Revised Project Study Report in which four new build alternatives were identified and included the rejection of some previously proposed alternatives.

Between 2001 and 2003, StanCOG and Caltrans began investigating SR 132 West and SR 132 East as separate facilities. In 2003, Caltrans completed the SR 99 and SR 132 Transportation Concept Reports. These reports documented two key points: SR 99 is over capacity throughout the Stanislaus County region and will continue to be over capacity after it is expanded to its ultimate configuration; and SR 132 West and SR 132 East projects will need to provide for effective connectivity that does not add to the congestion problems on SR 99. In 2003, Caltrans was proceeding with the Project Approval and Environmental Document phase, but the project was placed on hold after it was determined that there was a need to complete additional system planning studies to resolve the SR 132 West and SR 132 East connectivity concerns. Local agencies also expressed concerns regarding the alternatives proposed in previous Project Study Reports due to the impact to the local community and the lack of local agency consensus.

In 2008, StanCOG completed the Feasibility Study for SR 132 East/West Connectivity Project in which various SR 132 improvements were identified to improve east-west connectivity in Modesto. These improvements include providing direct connection from SR 132 to Needham Street, 5th Street, and 6th Street as part of the SR 132 West Expressway project to improve connectivity to SR 132 East and minimize the traffic impact to SR 99. The study recommended proceeding with completion of the SR 132 West project, including the recommended arterial street connections within the first phase of improvements. A Project Study Report-Project Development Support was prepared by StanCOG in November 2009 to serve as a Project Initiation Document.

A total of nine project alternatives were evaluated by the Project Development Team, resulting in the two build alternatives and No-Build Alternative currently under consideration. These included the Mass Transit Alternative, the Transportation Demand Management Alternative, the Transportation System Alternative, Alternative 1, Alternative 2, and the No-Build Alternative, as well as the initially proposed Alternative 1, Alternative 3, and Alternative 5. Alternatives 1 and 2 were determined to be the best options that would meet these criteria. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

The project area is highly constrained by existing built-out development along the corridor toward SR 99 and mostly agricultural lands toward North Dakota Avenue.

The current alignment of the project within the right-of-way acquired by Caltrans in 1958 provides the least impactful use of right-of-way because it has been reserved for the highway corridor and no development has occurred within its boundaries. Accordingly, most development has occurred on the north side of Kansas Avenue and south of the project alignment. Minimal additional right-of-way is required to complete the project. Alternative 2 has been identified as the preferred alternative because it provides the best balance between avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

I9-2 (DTSC) The comment is acknowledged and will be part of the public record. For information related to the Bonzi Sanitary Landfill, 2650 Hatch Road, Modesto, California, please refer to the following link:

https://geotracker.waterboards.ca.gov/profile_report?global_id=L10009514929

The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to authorized Caltrans workers, maintaining the vegetative cover, surface water/groundwater monitoring, and prohibiting placement or removal of soil from the site. These measures are protective of human health.

The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation and direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health

problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility and in the soil stockpiles, are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. Like DTSC, Caltrans lacks the expertise to address cancer concerns. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure.

- I9-3** Please see Master Response #1 (Purpose and Need). The new roadway has been designed according to Caltrans Design Standards. The current alignment of the project within the right-of-way acquired by Caltrans in 1958 provides the least impactful use of right-of-way because it has been reserved for the highway corridor and no development has occurred within its boundaries.

Please refer to Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5) for a discussion of why Alternative 5 was abandoned as a potential alternative.

- I9-4** Travelers would not experience a dead halt at Dakota Avenue. Westbound Maze Boulevard has a single lane that travels through the intersection. Dakota Avenue would have a single lane making a free right turn to westbound Maze Boulevard. The two lanes would be next to each other for approximately 300 feet, at which point there would be a merge length of approximately 720 feet. This is the standard length of transition per Caltrans Highway Design Manual given the design speed of the facility. Based on the Highway Safety Manual published by the American Association of State Highway and Transportation Officials, there is a direct correlation between crash frequency and average daily traffic volumes. Lower traffic volumes would result in greater spacing between vehicles, allowing drivers more time to react to sudden changes in traffic flow, such as a stopped vehicle. Fewer

vehicles would also result in fewer conflicts at intersections and driveways. Please refer to the *Improve Operations* section within Section 1.2 (Purpose and Need), for further information on accidents and fatalities.

Please see Master Response #3 (Logical Termini).

I9-5 Traffic on surrounding roadways was factored into the travel demand model to determine traffic impacts on the new SR 132. The analysis shows that traffic delay is expected to improve on SR 132, including traffic on the surrounding roadway network. Please refer to Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities) of the EIR/EA.

I9-6 Please see Master Response #3 (Logical Termini).

I9-7 Please refer to Response to Comment I9-1.

[Comment-I10]
Comments from Virginia Hammond

March 14, 2017

Philip Vallejo, Acting Senior Environmental Planner, District 6
855 M. Street Suite 200
Fresno, CA 93271
philip.vallejo@dot.ca.gov

Attention: Philip Vallejo

The meeting notice for February 22, 2017 was for a public hearing. When I arrived at the public hearing, I discovered it was an “Open House.” My notes which I entered on the record to the court reporter were composed with the expectation I would be able to publicly speak and address my concerns and share some ideas.

1

The notes for the record were as followed:

Top Concerns:

- Impact on Southbound 99 late afternoon/evening traffic south of Kansas Ave
- Impact on Carpenter Road concerning reasonable accommodations for our Disabled Community
- Impact of further isolating residents south of the project from the larger community

2
3
4

Comments:

I want to start by referring to your draft plan Appendix H.

“If the planned SR-132 Project were not constructed, an alternative form of cap could be installed over the stockpiles. The alternative cap could consist of constructing a layer of clean soil (typically one foot thick) over the stockpiles. Prior to constructing the cap, the surface of the stockpiles would be graded for drainage to ensure primarily that stormwater did not pond on top of the stockpiles. Following construction, the cap surface would be vegetated to protect against stormwater and wind erosion. This form of cap would provide a similar degree of protection of human health and the environment as capping by the SR-132 project.”

5

I propose the current planned SR-132 project not be constructed and that the alternative form of cap as quoted above be used, and on that cap we build a pedestrian/bicycle freeway that aligns with current federal, state and city bicycle and pedestrian goals, and I propose connecting this new freeway to the existing Virginia Corridor making this a viable alternative transportation project eligible for funding.

Vegetative solutions have been used in environmental disasters such as the dioxin disaster of 1976 in Seveso Italy. Today a lush green park, memorial and tourist attraction (Bosco Delle Querce) is located on this site.

6

Current trends in urban development are to remove central freeways and replace them with pedestrian/bicycle freeways. A number of cities have done this or are in the process of doing this including Portland, Boston and Dallas.

7

We have a tremendous opportunity to beautify and unite Modesto. Please consider my proposal and how close we are to connecting with the Corridor and what it would mean to the future of Modesto.

I wish to expound on my comments entered on the record February 22, 2017
I request you include the following to my existing public comments.

Addendum to February 22, 2017 Commentary:

Regarding the impact on Southbound 99 late afternoon/evening traffic south of Kansas Ave:

As stated in the state route 132 draft report (page 5), the purpose of the proposed project are to improve regional and inter-regional circulation, relieve traffic congestion along the existing 132, and lastly, "improve operations for the existing and proposed transportation network because the operational efficiency is reduced by the proximity and direct access to schools, churches, businesses, and residences by way of existing driveways along existing SR 132 (Maze Boulevard)."

This project *is not* about reducing the flow of rush hour traffic. This project *is not* about the increase fatality rate on 120 since widening 132 west of Modesto to interstate 5 is not a viable option in this study.

Viable non expressway options are available in this draft plan, but not promoted to the public. Therefore, this project *is not* about cleaning the environment, but about using environment concerns as an excuse to proceed with a freeway proposal. When asked at the open house February 22nd, the lead representative from The Department of Toxic Substances Control could not provide me with another instance where a freeway was built over a known hazardous waste site using this type of capping.

This project *does not* address the growing commuter traffic.

This project takes funding away from proposed projects such as the South County Corridor which can address the impact of Southbound 99 as it can provide a faster, safer option for bay area commuters by providing freeway access from Interstate 5 near Patterson to highway 99 near Turlock.

Building the South County Corridor will likely result in reduced traffic on Maze Boulevard as motorist can cut across south of Modesto from interstate 5 to highway 99. Page 63 of the South County Corridor Feasibility Study by Stancog estimates construction to begin between 2021-2026. This date is sooner or possibly concurrent with the projected start of phase 2 of this proposed route 132 project.

Regarding the impact on Carpenter Road concerning reasonable accommodations for our Special Needs Disabled Community:

Inches from the fence erected around Stockpile 1 on Carpenter Road near Kansas avenue is a bus stop for Modesto Area Express routes 36 and 26. Exiting at this stop is a sizable group of passengers, some specifically accompanied. These citizens work, shop, frequent business in this immediate community. These citizens are part of our disabled and special needs community. The acknowledgment of our disabled and special needs community are nowhere to be found among this 840 page proposal. I've not come across any proposal to provide reasonable accommodations in accordance with the Americans With Disability Act. Where is the planning to acknowledge the needs of this community? Who is going to take the responsibility to compensate and/or provide the services that will be disrupted and/ or discontinued do to the implementation of this freeway proposal? Please understand that habilitation and rehabilitation of some with special needs is a comprehensive and sometimes complex process and can take years of hard work to achieve their desired goals.

Regarding the impact of further isolating residents south of the proposed freeway/stockpile sites

Our family moved to our residence on Scout Way in the late 1980's. It was at a time when commuting to Tracy, CA was a regular occurrence for my husband, and West Modesto was convenient and new affordable housing was available.

I quickly perceived that our part of Modesto was not as important as the remaining city. We did not have district representation on the city council at that time. We perceived many instances where the city did not consider our needs. Specifically, on one occasion before the Charles M Sharpe park was built on Torrid Ave (which is still a considerable distance from our house), I met with the parks department. During the meeting the assistant director pointed to a map on the wall and was very proud Modesto had a park for every neighborhood. When I informed him I lived on Scout Way and asked where my neighborhood park was. He said my children would need to cross Maze Boulevard and go to Mellis Park 1.9 miles away.

12

Given the history of neglect to this community over prior years, the lower income level and higher minority population presented in this study, and since we are already separated from Modesto on the east and north by highway 99, the 132 project will further isolate and separate us and present obstacles to the businesses we frequent on Carpenter Road. It is my opinion this project will increase the existing social inequity of my community in comparison to the remaining City of Modesto.

Regarding my Comments:

I presented a reasonable alternative on February 22nd for our community based on an approved plan in this draft by the Department of Toxic Substances Control for capping and vegetating. I further refer to Federal Title 23 as a reason for a pedestrian and bicycle freeway on the current stockpile locations. If a pedestrian bicycle bridge over highway 99 can be constructed, then access to the Modesto Irrigation laterals as mentioned in this draft on page 304 can make connection to the class 1 Virginia Corridor a reality. Please also refer and comply with the goals of "Toward An Active California" (State Bicycle and Pedestrian Plan) in addressing the social equity needs of my community and consider it in the equity lens of the plan E2:2 "as a critical component to serving disadvantaged communities"

13

You can solve the problems with Maze Boulevard today. You can shut it down at Carpenter Road. While I do not like the idea of increased traffic on Carpenter Road, what you are proposing is far worse and extremely dangerous for the children, disabled, and elderly who cross carpenter at Kansas Ave. Your proposal will increase traffic with the exit at Carpenter Road that cuts into the heart of the places we do business in our community.

14

This plan as proposed with either alternative 1 or 2 will produce far more costs and unintended consequences than are presented in this proposal. The city allowed the construction of houses and businesses knowing Caltrans intentions. I think the City of Modesto will be greatly harmed by this project.

15

Virginia M. Hammond
404 Scout Way
Modesto, CA 95351
vmhammond@comcast.net

[Response-I10]
Responses to Comments from Virginia Hammond

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I10-1 The meeting was conducted in an open house format with stations around the room for the public to review. Public notices were circulated in the local newspapers and included that the meeting would be held in an open house format. Each station was manned by staff to provide information as needed. This meeting style is one of many ways in which public meetings can be organized. Caltrans Environmental Review meetings may be structured in different formats, with a goal of communicating key information about the project and capturing as much public comment as possible.

Comments recorded via court reporter at the Public Hearing Meeting have been included in the Public Hearing Transcript (PHT1). A response has been provided for each comment received.

I10-2 Traffic analysis shows that either build alternative would improve the level of service on SR 99 in 2048 when compared to the No-Build Alternative.

I10-3 The Project Development Team recognizes and appreciates the important needs of vulnerable populations such as those of the disabled community. Any improvements to North Carpenter Road will meet the Americans with Disabilities Act (ADA) standards including sidewalks with ramps at roadway crossings and signals with accessible audible pedestrian phases. Specifically, a signalized intersection at North Carpenter Road will accommodate crossings by bicyclists and pedestrians. Both build alternatives will provide a pedestrian/bicycle path along the east side of North Carpenter Road, which will benefit both bicyclists and pedestrians at this intersection. Additional intersection safety improvements may be considered during final design. The design presented in the EIR/EA is only preliminary and has been conducted at a level appropriate for environmental review but not for final design of the project. In addition, the City of Modesto is responsible for improvements to local roadways within City right-of-way. Specific requests should be forwarded to the City of Modesto for consideration. The opinions expressed by affected residents during the environmental review process will be considered as the design progresses. The Project Development Team will continue to collaborate with stakeholders through community meetings or workshops to support enrichment of the environment for the transportation system users and local communities.

I10-4 Because it would sit on existing Caltrans right-of-way for most of the new alignment, neither build alternative would bisect the existing subdivisions/neighborhoods within the project study area. Acquisition of some businesses and residences would occur on the periphery of the neighborhoods (primarily the Elm Tract neighborhood) and within areas west of SR 99; however, the relocations would not introduce a geographical gap or division to existing neighborhoods. Also, neither build alternative would separate local residents from community facilities or prevent access to community services.

The project will not bisect an established community and is therefore not expected to result in impacts to community character or cohesion. Established communities are located both to the north of Kansas Road and to the south of Kansas Road, south of the project alignment. Residential displacements would occur for houses located on the periphery of residential areas along SR 99 and would also occur within areas west of SR 99 that are not associated with established neighborhoods. Although the two build alternatives would result in disproportionately high or adverse impacts on minority or low-income populations, the proposed project would provide many benefits to minority and low-income populations that would offset many of the adverse effects. Net benefits include improvements to regional and interregional circulation, congestion relief, and improved roadway operations, which would benefit these communities. Please refer to Section 2.1.4 (Community Impacts) in the EIR/EA for more information on the avoidance, minimization and mitigation measures that would be put in place to reduce potential impacts to residences and businesses.

I10-5 (DTSC) The comment is acknowledged and will be part of the public record. The proposed pedestrian/bicycle “freeway” (trail) was not an alternative evaluated in the Draft Final Remedial Action Plan because it does not meet the Purpose and Need of the project to 1) improve regional and interregional circulation within Modesto and Stanislaus County, 2) relieve traffic congestion along existing SR 132 (Maze Boulevard), and 3) improve operations for the existing and proposed transportation network. However, as noted if the State Route 132 West Project were not constructed, then containment of the stockpiles would consist of a clean soil cap with a vegetative cover over the stockpiles. Consideration for including a pedestrian/bicycle trail is something that could be considered as an amendment to the Draft Final RAP at that time.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I10-6 (DTSC) The comment is acknowledged and will be part of the public record. The proposed park was not an alternative evaluated in the Draft Final Remedial Action Plan. If the

State Route 132 West Project were not constructed, then containment of the stockpiles would consist of a clean soil cap with a vegetative cover over the stockpiles. Consideration for adding park features is something that could be considered as an amendment to the Draft Final RAP at that time.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I10-7 Please see Master Response #7 (Pedestrian and Bicycle Accommodations).

I10-8 Your individual comments, as well as comments provided at the February 22, 2017 Public Hearing meeting, have been included in the public record. Please refer to Master Response #1 (Purpose and Need) and Section 1.2 (Purpose and Need) of the EIR/EA for a detailed discussion of the project's objectives. Please refer to Master Response #3 (Logical Termini) regarding why improvements proposed as a part of this project will end at North Dakota Avenue. Please refer to Master Response #6 (Improvements to Existing 132 (Maze Boulevard) – Alternative 5) for a discussion of why Alternative 5 was abandoned as a potential alternative. Please refer to Master Response #2 (Accidents and Fatalities) regarding the most recent accident data for existing SR 132.

The project would widen SR 132 to four lanes between SR 99 and Dakota Avenue. Furthermore, the project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway, which would be wider than existing SR 132. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. SR 120 is outside the project limits and is not a part of this project. Future improvements to SR 99 are proposed as separate projects.

I10-9 (DTSC) The comment is acknowledged and will be part of the public record. The American Standard Products Site in Richmond, California, is a site where a road was built over a hazardous substances site. The project is also referred to as the Richmond Parkway. The Union Pacific Curtis Park Site in Sacramento, California, is another example of where a road was built over a hazardous substances site.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition to the two project build alternatives (Alternative 1 and Alternative 2) and the No-Build Alternative, three additional non-expressway

alternatives were considered and are discussed in the EIR/EA Section 1.4 Project Alternatives. These include the Transportation Demand Management (TDM), Transportation System Management (TSM), and Mass Transit alternatives. These alternatives were evaluated and were determined to be inadequate in meeting the project purpose and need and therefore were removed from further study. Traffic volumes on existing SR 132 (Maze Boulevard) are anticipated to increase substantially, despite regional efforts to promote ridesharing, bicycle and pedestrian, and transit options. The No-Build, Transportation Demand Management and Mass Transit alternatives also do not improve system connectivity. In addition, non-expressway existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service D or better between North Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. The project seeks to address the transportation deficiencies associated with existing SR 132, which are projected to worsen and result in unacceptable traffic conditions in the future.

I10-10 The project is intended to benefit both commuter and local traffic. Both build alternatives would meet the purpose and need by shifting most of the truck and commuter traffic onto the proposed new alignment and improving regional circulation and operations on the local transportation network. The project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including the existing SR 132 (Maze Boulevard) alignment. The use of North Dakota Avenue as a part of the new SR 132 route is temporary until future segments of the controlled-access freeway/expressway are built.

I10-11 Please refer to the response to Comment I10-3.

I10-12 Please refer to the response to Comment I10-4.

I10-13 Please see Master Response #7 (Pedestrian and Bicycle Accommodations). The Project Development Team has also reviewed the referenced California Bicycle and Pedestrian Plan Strategy E2:2 and considered the option of a bicycle/pedestrian bridge over SR 99. The project will be developed in accordance with Caltrans Deputy Directive DD-64-R1: Complete Streets – Integrating the Transportation System, which calls for a network of integrated, multimodal projects or complete streets. However, the Class 1 Virginia Corridor does not currently exist, and constructing a bicycle/pedestrian bridge over SR 99 without an existing connection on the east side of SR 99 would not meet the criteria for independent utility at this

time. The Federal Highway Administration regulations require that a project be a functional and reasonable expenditure even if no additional transportation improvements are made in the area, otherwise known as independent utility. In addition, there are significant engineering limitations to a bicycle/pedestrian bridge over SR 99. Both the grade and vertical clearance required to cross over the existing freeway may preclude the utility of the facility.

I10-14 Existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service (LOS) D or better between North Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable LOS C or better. However, traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and North Carpenter Road would operate at LOS F, an unacceptable service level; and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable LOS F. As detailed in Section 2.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied. Lastly, LOS is expected to improve from LOS C, D, E, and F during the evening peak hour under the existing and future No-Build Alternatives (2009, 2020, 2028, 2048), respectively, to LOS A and B during the evening peak of the future Build Alternatives (2028 and 2048).

I10-15 The project is consistent with the City of Modesto General Plan Community Services and Facilities Element, which includes improvements to SR 132 along the general alignment of Kansas Avenue. It is also consistent with various General Plan policy strategies, including the Community Growth Policy, Circulation and Transportation Policy, and the Agricultural Resources Policy. Of the alternatives previously considered, Alternatives 1 and 2 would result in fewer environmental and community impacts relative to other alternatives. Please see Section 2.1.1.2 (Consistency with State, Regional and Local Plans and Programs) of the EIR/EA for more information on the alignment of the project with local planning efforts.

[Comment-I11]
Comments from Lori Wolf

I11

From: Vallejo, Philip@DOT
To: Lugo, Jennifer@DOT
Subject: FW: contact info
Date: Friday, March 17, 2017 2:57:11 PM

From: Lori Wolf [mailto:lori_wolf52@yahoo.com]
Sent: Friday, March 17, 2017 1:59 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Re: contact info

Thank you. Well I figured it out, in the Public Notice placed in the Modesto Bee on Wednesday February 15 your first name was spelled everywhere with two l's.....

Here are the reasons that I am adamantly opposed to proceeding with any part of this project.

The entrance and exit ramps and patterns included in the review documents are only going to make travel more complicated not less so. Covering up the contaminated soil with concrete is just plain lame. | 1
| 2

Modesto already has the ugliest and most poorly maintained overpasses in the entire central valley. Why on earth should you be allowed to build another highway that you won't take care of? At least the existing highway has property owners on both sides who manage to control the weeds. | 3

Lastly, this is being touted as promoting safer travel. The existing highway is safe enough, it's the idiots driving on it that are causing the problem. Spending millions to try to fix stupid and let everyone drive faster is a waste of taxpayer money. This proposal was begun fifty years ago and never got built because it really doesn't make sense. There has to be a better solution than the documents that I have reviewed. Go back to the drawing board in general. None of this is better. | 4

Lori Wolf
209-578-0898 home
209-479-8030 cell

On Friday, March 17, 2017 1:54 PM, "Vallejo, Philip@DOT" <philip.vallejo@dot.ca.gov> wrote:

Philip Vallejo
Acting Senior Environmental Planner
California Department of Transportation
Central Region Environmental Division
Office (559) 445-6172
Cell (559) 779-6612

**[Response-I11]
Responses to Comments from Lori Wolf**

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I11-1 The current design of the existing entrance and exit ramps is limited by the amount of available right-of-way within the corridor and the built-out condition of the area. Caltrans and Federal Highway Administration (FHWA) design standards have changed so that the existing connection no longer meets the current standards. The two build alternatives provide the necessary connections between the two routes at the freeway-to-freeway interchange while meeting the current design standards. The final design phase will include a full study of advanced signage options to efficiently route motorists to the appropriate connections.

I11-2 (DTSC) The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final Remedial Action Plan, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed. These measures are protective of human health.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I11-3 The new SR 132 expressway/freeway would be maintained according to the Caltrans Maintenance Manual and Integrated Maintenance Management System (IMMS).

- I11-4** The project is designed to address future traffic conditions on existing SR 132 and improve regional and interregional connectivity in Modesto and Stanislaus County. While safety improvements are not a part of the project purpose and need, these improvements are anticipated to allow for safer travel. Please refer to Section 1.2.1 (Purpose) of the EIR/EA for a list of project objectives. Please refer to Master Response #1 (Purpose and Need) regarding the need for project improvements.

[Comment-I12]
Comments from Scott Calkins

I12

March 13, 2017

From: Scott Calkins

To: Caltrans Regarding State Route 132 West Freeway/Expressway Draft EIR/EA

I am a 50 year resident of Stanislaus County’s District 3 and have been attempting to follow the planning process for SR132 West since 2010. Caltrans and Stancog have made it incredibly difficult for the public to get accurate and timely information about the project, often offering the public no information for more than a year at a time. To be clear the 132 West project has not treated the public as a partner in a collaborative process. Decisions, like the elimination of Alternative 5 were made with no public meetings or input at all. In 2010 I was identified as a stakeholder in order to participate in Plan Implementation Project (PIP) meetings. The PIP was discontinued in 2014 with no notice to stakeholders to explain why they were no longer a part of the process. At Stancog policy board meetings I made several requests to participate or at least sit in on Project Development Team (PDT) meetings and was denied access. The public was effectively locked out of the planning process for years from 2014 forward. Not only did Stancog and Caltrans go dark when it came time to share information with the public, but so did the Department of Toxic Substance Control. Now, after years of not sharing any valuable information about the project Caltrans dumps an 840 page EIR document on the public with insufficient time for review. In addition they provided only a single public meeting with no formal presentation given by any member of Caltrans or Stancog staff. The meeting was a two hour drop in open house that provided very little practical information about the project to the public.

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2

The purpose and need for the project appear to be constructed to provide cover for the reality of building an unnecessary and expensive new bypass to benefit a political elite at the expense of thousands of other Stanislaus County residents. The most reasonable, affordable, environmentally friendly project would still be Alternative 5; to make safety and traffic flow improvements to the Maze Boulevard route. A completely fictional argument was made against this option where regular members of the public had no opportunity to participate.

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The engineering and environmental work done for the project to date are deeply flawed and will provide none of the benefits they claim when the project is complete. The whole EIR document is nothing more than an attempt at green-washing an inherently dirty project. Congestion will be worse with the new traffic and sprawl induced by this project. Air quality will decline at an accelerated rate due to the project’s goal to accommodate increased trucking and long distance commuting. Groundwater and surface water will be at increased risk for contamination. The EIR must conclude that this new alignment of SR132 West will have a significant negative impact on the quality of the human environment and that the “No Build Alternative” would best avoid these impacts and is thus the environmentally superior alternative. California is at, or near a critical environmental turning point, our first priority should be to do no additional harm.

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Many questions still need to be answered by Caltrans and other agencies, including but not limited to the ones that follow.

- Why did Caltrans fail to provide continuous accurate quarterly testing of their eight groundwater monitoring wells near the contaminated soil stockpiles from the time they were installed? Caltrans has not acted in a responsible way to provide complete information in its groundwater study to assess the contamination leaching from the stockpiles over the past 50 years. 7
- Why did Caltrans not follow the recommendation made by DTSC in the 2006 Human Health Risk Assessment to test groundwater at 70-80 feet in order to understand the risk to people using residential wells within a one mile radius? The HHRA included false statements that there are no residential wells within a one mile radius, when in reality there are dozens. 8
- Why did Caltrans not investigate and make public contamination reports from the City of Modesto's Emerald and Elm wells and compare them publicly with constituents of concerns leaching from the stockpiles? In fact the current EIR includes a false statement that the City of Modesto's municipal water system does not use groundwater. 9
- How will Caltrans guarantee residents who have private wells within a one mile radius that their well level and water quality will not be adversely affected by the project? The paved surface area will produce contaminated runoff that could leach into groundwater from retention basins and Caltrans dewatering could adversely impact the depth of groundwater for current users. 10
- Why did Caltrans allow surface runoff from Stockpiles 1 and 2 to flow into residential neighborhoods for 50 years without regard to health and safety of people in their own yards? Many residents just to the South of the stockpiles have been subject to unusual illnesses that Caltrans made no public effort to investigate. 11
- Why did Caltrans ignore maintenance of the stockpile sites that resulted in frequent dangerous fires? Fires in the past few years resulted in burning neighbors out of their homes because of the agencies consistent negligence. 12
- Why was Caltrans allowed to deliver contaminated soil from Stockpile 3 to a landfill in San Joaquin County after Steven Meeks from the Water Board claimed the soil was too contaminated for our own Stanislaus County landfill? Caltrans has been treating Modesto as a toxic waste dump since the 1960's, they are long overdue to remove all of the 140 thousand yards of material to a legitimate toxic material waste site. 13
- Why does Caltrans continue to shirk its responsibility to reduce vehicle miles traveled by providing Valley residents with alternative/ mass transit options for travel to the Bay Area? Continuing to build freeway/expressway projects that promote sprawl only make it more difficult to fund the mass transit we need to fight climate change, reduce congestion and improve air quality. 14
- How can Caltrans depend on other agencies to improve particulate pollution from heavy trucks for example in order to hope to build capacity increasing projects without causing even more harm to failing air quality in the Valley? Caltrans has adopted a "pass the 15

- buck” strategy for pretending to meet air quality while pursuing business as usual on behalf of big oil and trucking interests. | 15
- How will Caltrans provide residents in Stanislaus County accurate data to show air quality before, during and after construction effects on local air quality? Caltrans knows no one is going to hold them accountable to rosy predictions of air quality after they build the SR132 West project, so in effect they have an unlimited license to pollute once they start. | 16
- How can Caltrans claim in the EIR they will plant enough trees to offset the increase in CO2 emissions generated by induced traffic? Where are the peer reviewed scientific studies that show it is possible to plant and maintain that many trees on Caltrans right of way for this project? Caltrans projects like this one are the cause of global warming and not the solution. They should not be allowed to pursue projects by making false claims. | 17
- Why has Caltrans been so unwilling to make rational effective safety improvements to the existing Maze Boulevard route? Caltrans had decades to make incremental improvements to SR 132 West but instead did nothing to try to establish a need for a far more expensive solution. | 18
- Why does Caltrans complain about the private driveway access on the Maze Boulevard route only to incorporate private driveways on the new route along Dakota Avenue? Caltrans has a plan to build congestion into the new project, just like the route we currently have. This project is an expensive way to maintain congestion so that Caltrans will have an endless supply of new projects to keep its engineers busy in perpetuity. | 19
- Why does Caltrans not note in the EIR that this project will increase congestion on SR 99 at a location in Modesto that is already a problem. They prepared the EIR as if people would only be getting off SR 99 to use SR 132 and not imagined the opposite effect. | 20
- How can Caltrans get away with presenting this project in the EIR as having no impact on land use patterns in Stanislaus County? Caltrans knows these projects statewide are well known sprawl generators and this one is likely to cause the loss of thousands of acres of the most fertile farmland in the world. The City of Modesto already cited the construction of the SR 132 West project as the reason behind an attempt to annex thousands of acres in an area West of current city limits known as Wood Colony. Now that the city voted to raise sales taxes with the passage of Measure L local business leaders are anxious to cash in on new development that will pave farmland. | 21
- How will Caltrans work with residents to compensate them for the loss in value of their properties due to the impact of noise pollution? Residential property values in areas near the new bypass will decline by measurable amounts and Caltrans needs a plan in place for those people to receive compensation for their loss. | 22
- How will Caltrans ensure that residents can report any construction noise that occurs before 7am, or after 7pm so that it may be immediately shut down. Construction hours must be observed by all contractors working on the site. | 23
- Why does the EIR fail to accurately describe Phase 1 and Phase 2 of the project? There are radical differences in the report from one section to the next regarding the scope of the phases including some pages that show no connection to SR 99 in Phase 1. Why is | 24

the information about Phase 1 so inaccurate and how can the public know what is being built? 24

- How come Caltrans is not following the intent of its own Deputy Directive 64 to design and build complete streets for all users including bicycles and pedestrians? The bicycle and pedestrian aspects of the project are completely inadequate in the current EIR for 132 West. All North-South routes at Emerald, Carpenter, Rosemore, and Dakota need bicycle and pedestrian access on both East and West side of each street. The project also needs to include a bicycle pedestrian route across SR 99 at the interchange, or at the Kansas Avenue bridge. Caltrans will need to go back to the drawing board to design a project that serves non-motorized members of the public including children and the elderly in a safe equitable manner. This is an environmental justice issue in an area where some residents can not afford cars. 25

- How can Caltrans begin a project with an interchange that they know has fatal design flaws? The design of the interchange is so unsettled even the engineers working on the project are not at all certain what it may eventually look like. The project may completely fail given the number of design variation and exemptions that will be necessary given the poor location of the interchange. 26

- Why did Caltrans recognize this alternative route for 132 West should be abandoned in the 1970's? Is there an earlier study done of this route that concluded that this was a poor location for a new interchange project on SR 99? Caltrans should provide a complete public explanation that reveals why the project was slated to be terminated and exactly what discussions took place and with whom to bring the project back. 27

- Why should a Caltrans project like this one be exempt from farmland mitigation? If anything Caltrans should be responsible for setting the gold standard in mitigation and set aside a minimum five acres to each one they consume given that their projects are known to contribute to sprawl. 28

- Why did the Department of Toxic Substance Control fail to provide the public with an independent 3rd party investigation of the contaminated soil stockpiles? It was evident that DTSC was willing to serve as a co opted member of the Caltrans team and had no interest in challenging any of their findings or making sure that good scientific methods of study were being followed. 29

Finally I make a formal request that the public comment period be extended at least 30 more days from the current March 17th, 2017 deadline in order that residents have a more realistic time frame to understand the consequences of the 840 page EIR document. It is grossly unfair that the agencies had years to work on the report while denying public access to Project Development Team meetings and discontinuing the PIP. The extension of the time period for review should also include another public meeting where formal presentations would be made by at least one member of each agency that participated in the report followed by a question and answer period where members of the public could ask the presenters follow up questions. 30

Sincerely,
Scott Calkins

[Response-I12]
Responses to Comments from Scott Calkins

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I12-1 Please refer to Master Response #5 (Public Participation and Review Process) for information regarding the public engagement process to date and why the PIP meetings were discontinued. Please refer to Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5) for a discussion of why Alternative 5 was abandoned as a potential alternative.

I12-2 As described in Section 4.2.4, StanCOG and Caltrans have provided a total of 18 opportunities for the public to participate in the project planning process. This included eight Plan Implementation Project (PIP) meetings, one Public Scoping Meeting and nine Public Information Meetings ranging from public information, public hearing and neighborhood meetings.

The public hearing was conducted in an informal open house format to facilitate communication and the exchange of information between the project team and the public. Team members were present to address comments and questions. When attendees arrived, they were asked to sign in and were handed a project information sheet and a Community Update. A number of Caltrans, DTSC, Regional Water Quality Control Board, and StanCOG staff attended the project public hearing and were available to respond to comments and questions. Staff invited each attendee to view the displays throughout the room, ask questions, place their written comments in the drop box or mail/email them to Caltrans, or give their oral comments to the court reporter onsite. A Spanish translator was provided for Spanish-speaking attendees. Stations with display boards were set up around the room for the public to review. Each station was manned by staff to provide information as needed.

The comment period for the EIR/EA ran from January 18 to March 17, 2017, which was two weeks longer than the CEQA requirement of 45 days. The EIR/EA is intended to provide as much information relevant to potential impacts associated with the project, per requirements by state and federal law. Please see Master Response #5 (Public Participation and Environmental Review Process).

I12-3 The purpose of the project is to improve regional and interregional connectivity in Modesto and Stanislaus County. The project is needed to address future traffic conditions on existing SR 132 and improve regional and interregional connectivity in

Modesto and Stanislaus County. Under the No-Build Alternative, traffic conditions are expected to deteriorate to unacceptable levels of service (LOS) by 2028 and 2048. Please see Master Response #1 (Purpose and Need).

When the relocation of SR 132 west of SR 99 was planned in the 1950s, the proposed alignment relocated SR 132 traffic onto SR 99 between Kansas Avenue and L Street for continuity. Since that time, SR 99 has grown into a major north-south corridor that is heavily relied upon for regional and interregional travel. Capacity on SR 99 in the corridor is constrained due to the built-out condition of the area. Currently, SR 99 includes six lanes through the project limits, but is ultimately projected to require up to 12 lanes. However, at this time it is anticipated that future projects would add only two additional lanes.

When Caltrans began planning for the relocation of SR 132 to the proposed alignment, SR 99 was the planned terminus with a 1950s-era trumpet (Type F-5) interchange connection. Caltrans and Federal Highway Administration (FHWA) design standards have changed so that the original connection is now substandard in design as well as interchange spacing.

The Stanislaus County region has experienced significant growth, which causes severe traffic congestion on the local roadways and the freeways/expressways. As a result, StanCOG, Caltrans, and the surrounding municipalities have initiated multiple studies on the existing SR 99, SR 108, SR 132, and SR 219 corridors. In 1991, Caltrans completed a Project Study Report that identified two freeway alternatives with multiple freeway-to-freeway connectors at the new SR 132/SR 99 interchange that would require substantial acquisition of new right-of-way and would have a significant impact to the existing area. In 1993, Caltrans completed a Revised Project Study Report that considered additional alternatives and recommended a lower-cost four-lane at-grade expressway. In 1997, Caltrans updated the Revised Project Study Report in which four new build alternatives were identified and included the rejection of some previously proposed alternatives.

Between 2001 and 2003, StanCOG and Caltrans began investigating SR 132 West and SR 132 East as separate facilities. In 2003, Caltrans completed the SR 99 and SR 132 Transportation Concept Reports. These reports documented two key points: SR 99 is over capacity throughout the Stanislaus County region and will continue to be over capacity after it is expanded to its ultimate configuration, and the SR 132 West and SR 132 East projects will need to provide for effective connectivity that does not add to the congestion problems on SR 99. In 2003, Caltrans was proceeding with the Project Approval and Environmental Document phase, but the project was placed on hold after it was determined that there was a need to complete additional system planning studies to resolve the SR 132 West and SR 132 East connectivity concerns. Local agencies also expressed concerns regarding the alternatives proposed in

previous Project Study Reports due to the impact to the local community and the lack of local agency consensus.

In 2008, StanCOG completed the Feasibility Study for SR 132 East/West Connectivity Project in which various SR 132 improvements were identified to improve east-west connectivity in Modesto. These improvements include providing direct connection from SR 132 to Needham Street, 5th Street, and 6th Street as part of the SR 132 West Expressway project to improve connectivity to SR 132 East and minimize the traffic impact to SR 99. The study recommended proceeding with completion of the SR 132 West project, including the recommended arterial street connections, within the first phase of improvements. A Project Study Report-Project Development Support was prepared and approved by StanCOG in November 2009 to serve as a Project Initiation Document.

Containment of the Modesto Soil Stockpiles is also a key project objective. Draft Final RAP Alternative 4, Containment, is the recommended alternative in the Draft Final RAP because of the effectiveness in providing long-term and overall protection of human health and the environment, technical feasibility, cost-effectiveness, and the ability to minimize the potential for contaminants to migrate to groundwater or to be eroded by stormwater runoff.

I12-4 Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5) and Master Response #5 (Public Participation and Environmental Review Process).

I12-5 The purpose of the EIR/EA is to evaluate and disclose each significant effect on any environmental resource. Each section of the EIR/EA describes potentially affected areas, environmental consequences, and potential avoidance and/or minimizations measures. In addition, Chapter 3 of the EIR/EA provides a summary of CEQA findings and discussion of significant impacts. Per Table 2-25 in the EIR/EA, level of service (measure of traffic delay) will improve to a level of service (LOS) B, and later to LOS A, during the morning and evening peak periods under the 2020, 2028, and 2048 Build Alternatives. Concurrence was received from the U.S. Environmental Protection Agency Region 9 on April 25, 2016, and the Federal Highway Administration on April 26, 2016, concluding that the proposed project is not a project of air quality concern. Increases in truck traffic as a result of the project are well below the thresholds of significance for projects of air quality concern, pursuant to 40 Code of Federal Regulations 93.123(b)(1) guidelines.

The project also received a project-level conformity determination from the Federal Highway Administration on June 5, 2017, concluding that the project conforms with the State Implementation Plan in accordance with 40 CFR Part 93. In the conformity determination letter, the Federal Highway Administration stated that the project-level

conformity analyses submitted by Caltrans on April 21, 2017 demonstrates that the project will not create any new violations of standards or increase the severity or number of existing violations. The Federal Highway Administration conformity determination letter can be found in Appendix I.

Upon full containment and with implementation of the construction best management practices described in this section as well as avoidance, minimization, and mitigation measures SHAZ-1 through SHAZ-10, either build alternative would ensure no direct or indirect adverse impacts to water quality or stormwater runoff with respect to the soil stockpiles.

I12-6

CEQA Guidelines (Section 15126.6(e)(2)) require that an environmentally superior alternative be identified. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impacts to the project area and vicinity. If the No-Build Alternative is found to be the environmentally superior alternative, the document must identify an environmentally superior alternative among the other alternatives.

Although the No-Build Alternative would not result in any physical impacts to the environment, it would fail to meet the objectives of the project and would therefore not be considered an environmentally superior project alternative.

Each build alternative meets the purpose of the project. Similar potential impacts with the implementation of Alternatives 1 and 2 would be anticipated in the areas of land use, growth, farmlands, wetlands, utilities, traffic and transportation, cultural resources, water quality, hazardous waste, air quality, and energy. However, Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

The main differences in impacts between the alternatives would be anticipated in the areas of business displacements, visual impacts, hydrology, paleontology, and noise. Alternative 1 would result in fewer impacts to hydrology, paleontology, and noise; while Alternative 2 would have fewer impacts relative to business displacements and visual resources. Alternative 2 is identified as the environmentally superior alternative.

Determination of the environmentally superior alternative does not preclude a CEQA lead agency from adopting other alternatives. The lead agency may adopt a statement of overriding considerations, which describes the agency's decision to approve a project despite its significant adverse environmental impacts. Please see Section 3.4 (Environmentally Superior Alternative) of the EIR/EA.

I12-7 (DTSC) The comment is acknowledged and will be part of the public record. Following a request by DTSC, Caltrans began conducting quarterly sampling and analysis of groundwater in 2012. Groundwater sampling and analysis are currently conducted annually. The groundwater monitoring reports are submitted to DTSC and the Central Valley Regional Water Quality Control Board.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, regulatory involvement associated with the stockpile site began in 2001 with inquiries to Caltrans from the Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (RWQCB). Following discussions with the regulatory agencies, Caltrans, in coordination with, and under the oversight of the DTSC and RWQCB, conducted several investigations to characterize the chemical nature of the stockpiles, including groundwater assessment that resulted in the installation of eight monitoring wells in 2006. Following installation, the wells were sampled and analyzed for the same chemicals detected at the FMC site, as also identified at the stockpile site. Results from sampling determined that water quality parameters did not exceed threshold values for drinking water established by the California Department of Health Services.

Following well installation and sampling in 2006, the SR 132 West Project became inactive and monitoring ceased. Upon re-activation of the project, Caltrans re-initiated sampling in 2012. Results from all sampling in 2006 and 2012 to present have determined that water quality parameters have not exceeded threshold values for drinking water established by the California Department of Health Services.

Caltrans' installation of a stockpile groundwater monitoring system and implementation of its sampling and analysis plan was conducted in coordination with, and under the oversight of, the DTSC and the RWQCB. Since the wells were installed, all groundwater monitoring reports have and continue to be submitted to these regulatory agencies. Following submission, each report has been posted to websites maintained by the DTSC and Caltrans:

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

I12-8 As stated in Caltrans' response to the Department of Toxic Substances Control's August 20, 2007 comments on the May 14, 2007, Human Health Risk Assessment, Caltrans Modesto Soil Stockpiles, Stanislaus County, Shaw Environmental, Inc. (2007 HHRA), Caltrans contended that justification for deep groundwater monitoring was not warranted due to the high likelihood of false positive data bias.

The response was based on a review of water quality data indicating that stockpile wells monitored groundwater already impacted by historical discharge from FMC (see CT Response to Comment I12-7).

The Caltrans Modesto Soil Stockpile monitoring well system was constructed to intercept and monitor the first water-bearing zone affected should leaching occur. Based on adjacent hydrogeologic conditions at the FMC site, the stockpile system was designed to detect the lateral (horizontal) or two-dimensional distribution of contaminants across the stockpile site as compared to water quality determined from background wells. The system is adequate for its purpose and representative of groundwater quality both up-gradient as well as downgradient from the stockpiles due to hydrogeologic conditions beneath the stockpile site, the location of its wells, and the body of water quality data that demonstrates consistent constituent concentrations from repetitive sampling. Also, considering that widespread degradation caused by FMC is primarily Nitrate, Sulfate, Sulfide, Total Dissolved Solids and elevated pH, the stockpile system was properly designed to detect such constituents since they would alter downgradient geochemistry in the first zone. Since hydraulic gradient is a main component of groundwater flow direction, which has ranged from south to southeast beneath the stockpiles since monitoring first occurred in 2006, the lateral distribution of the monitoring well locations is also adequate to collect downgradient samples representative of the flow directions.

With respect to risk to people, qualifying constituents and routes of exposure associated with health risk, including risk from groundwater by a hypothetical groundwater user, were established in the 2007 HHRA (Human Health Risk Assessment). The conclusions of the 2007 HHRA are as follows:

“The risk and hazard estimates for all applicable human receptors have been estimated using a conservative approach, including the use of Reasonable Maximum Exposure (RME) factors and the Maximum Detectable Concentration (MDCs) or 95th Upper Confidence Level (UCL) for COPCs in soil and the MDCs for all groundwater Chemical of Potential Concern (COPCs). Based upon the available soil data and the assumptions described herein, neither the current land-use nor the proposed future land-use scenario poses an unacceptable risk or hazard to off-site residents, trespassers, or construction workers. Additionally, the estimated hazard index for a hypothetical groundwater user is less than the threshold of concern. For this reason, based upon the available data, neither soil nor groundwater at the Site is considered to present an unacceptable risk or hazard to the receptor scenarios evaluated herein.”

The 2007 HHRA was corroborated by the March 1, 2013 Human Health Risk Assessment Update, Caltrans Modesto Soil Stockpiles, State Route 132 Freeway/Expressway, Stanislaus County, California, Geocon Consultants, Inc. The

update was based on soil and groundwater data documented in the March 2013, Supplemental Site Investigation, Caltrans Modesto Soil Stockpiles, State Route 132 Freeway/Expressway, Stanislaus County, California, Geocon Consultants, Inc. The update was based on data collected after 2006. As stated in the update:

“The results of the comparative analysis indicate that the 2012 soil and groundwater data is similar to the 2006 data utilized in the HHRA and do not significantly increase the conservative cancer risk and noncancer hazard estimations. Based on our review, the attached 2007 HHRA remains valid with respect to exposure potential for the current resident/trespasser, future construction worker and off-site resident, and hypothetical shallow groundwater user at the Caltrans Modesto Soil Stockpile Site.”

The 2007 HHRA and 2013 Update have been available to the public at the website link for stockpile technical reports.

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

Regarding the comment that the HHRA included false statements about the existence of residential wells within a one-mile radius of the stockpile site, the HHRA correctly identifies proximity and water supply purposes of the wells in the survey. These uses would address residential purposes. Therefore, false statements regarding residential wells are not included in the HHRA. Additionally, the commenter’s reference to dozens of residential wells within a one-mile radius of the stockpile site was not supported by reference information and cannot be substantiated.

A review of municipal water wells operated by the City of Modesto was conducted in preparation of the draft Environmental Impact Report/Environmental Assessment. The review was made with respect to proximity to the stockpile site and quality of water from the wells. Two active supply wells (#236 and #237) were identified within a mile of the stockpiles and in locations that based on hydraulics and 2006 to present flow data from stockpile monitoring wells, are downgradient of the stockpiles. Although located downgradient, water quality data from the two wells is not indicative of impacts that could be considered specific to the stockpiles. Also see response I12-9.

I12-9

With the exception of one test result for lead (Well 236 – Emerald, March 1989), City of Modesto Well 236 (Emerald) and Well 237 (Elm) do not exceed primary maximum contaminant thresholds for the same constituents monitored by stockpile wells. Concentration values for all constituents monitored in stockpile wells are below primary maximum contaminant threshold values. City of Modesto water quality data for Well 236 – Emerald and Well 237 – Elm can be found at the following website:

https://sdwis.waterboards.ca.gov/PDWW/JSP/MonitoringResults.jsp?tinwsys_is_number=5556&tinwsys_st_code=CA&counter=0

Water quality data for stockpile wells is available at the following websites:

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

Regarding the comment “*In fact the current EIR includes a false statement that the City of Modesto’s municipal water system does not use groundwater.*” The comment is noted.

The comment appears to be in reference to the first paragraph on page 213 of the DEIR/EA, which states:

“The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 indicated that groundwater, which is not a source of municipal drinking water, did not exceed drinking water standards for the constituents analyzed.”

The first paragraph on page 213 refers to the preceding paragraph on page 212, which states:

“To assess groundwater quality next to the site, eight groundwater monitoring wells were installed in 2006. Groundwater was encountered in the vicinity of the project at depths between 30 and 40 feet (below natural grade), with flow toward the southeast.”

As a result of the comment, the first paragraph of page 213 was modified to read:

“The results of analysis of groundwater samples collected from the eight monitoring wells in June and October 2006 indicated that the groundwater did not exceed drinking water standards for the constituents analyzed. Groundwater in the vicinity of the project at depths between 30 and 40 feet is not a source of municipal drinking water.”

I12-10 (DTSC) The comment is acknowledged and will be part of the public record. The construction of the State Route 132 West Project over the stockpiles will not have a significant effect on groundwater levels or cause groundwater to degrade. There are 10 monitoring wells associated with the stockpiles that are currently sampled annually. Surface water sampling is implemented during seasonal storm events.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the SR 132 project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

Contaminants in surface water samples from the stockpiles are below water quality objectives and therefore do not have a significant impact on groundwater quality.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I12-11

While it's likely, that at times in the past, surface runoff from Stockpiles 1 and 2 has flowed beyond the Caltrans right-of-way over the last five decades, storm water sampling at and around the stockpiles since 2013 demonstrates that the surface runoff meets threshold values for drinking water, as established by the California Department of Health Services.

All storm water reports have and continue to be submitted to DTSC and the Regional Water Quality Control Board. Each report has been available to the public at the DTSC and stockpile technical report website links:

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626

http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024

<http://www.dot.ca.gov/d10/x-project-sr132west.html>

Relative to the health and safety of people in their own yards who live in proximity to the stockpiles, as well as people in nearby businesses, Caltrans investigated soil contaminant concentrations at fence lines surrounding the stockpiles closest to those residences and businesses. Results from the additional characterization were documented in the report *Supplemental Site Investigation, Caltrans Modesto Soil Stockpiles, State Route 132 Freeway/Expressway, Stanislaus County, California, Geocon Consultants, Inc., March 2013*. Data from the investigation was used to update the 2007 Human Health Risk Assessment. Based on the data, the findings of the 2007 HHRA were corroborated as documented in the *Human Health Risk*

Assessment Update, Caltrans Modesto Soil Stockpiles, State Route 132 Freeway/Expressway, Stanislaus County, California, Geocon Consultants, Inc., March 1, 2013. In conclusion, the update determined that “The results of the comparative analysis indicate that the 2012 soil and groundwater data is similar to the 2006 data utilized in the HHRA and do not significantly increase the conservative cancer risk and noncancer hazard estimations. Based on our review, the attached 2007 HHRA remains valid with respect to exposure potential for the current resident/trespasser, future construction worker and offsite resident; and hypothetical shallow groundwater user at the Caltrans Modesto Soil Stockpile Site.”

With respect to unusual illnesses residents south of the stockpiles have been subject to and the lack of effort to investigate such occurrences, epidemiological studies related to the stockpiles were beyond the scope of the 2007 Human Health Risk Assessment and risk assessment update. Medical studies of that nature are often conducted by county health departments or the California Department of Public Health.

I12-12

To reduce potential fire hazards, Caltrans, at a minimum, mows the stockpiles annually prior to the 4th of July. Vegetation is an important element of Caltrans Modesto Soil Stockpile maintenance as it helps to prevent erosion, impede/reduce surface water runoff, and minimize dust generation.

As reported in *The Modesto Bee* on May 17, 2014, the fire that destroyed townhouses southwest of Stockpile 2 was the result of “an illegal outdoor open pit fire.” The Bee further reported that “the incident began as a vegetation fire on the raised berm of earth at Emerald and Kansas avenues, but with winds around 17 mph and the temperature near or above 90, it moved quickly.”

The fire that originated on Stockpile 2 was likely ignited by trespassers who illegally accessed the site. As reported by firefighters on the scene, and documented in the Bee article referenced in the preceding paragraph, wind conditions on the day of the fire appear to have played a significant factor in spreading fire to the townhouses. The townhouses are located approximately 100 feet southwest of Stockpile 2.

Maintenance of the stockpiles also includes regular repair of perimeter right-of-way fence breaches to preclude unauthorized access. Fence gates are padlocked.

I12-13 (DTSC) The comment is acknowledged and will be part of the public record. The Department of Toxic Substances Control (DTSC) reviewed work plans for the characterization and removal of soil associated with Modesto Ramp Rehabilitation Project, State Route 99 – Kansas Avenue. The sampling and analysis indicated that the excavated soil associated with the Ramp project was below screening level thresholds for contaminants. Based on these results and the off-site management of excavated soil, the Ramp project did not pose an unacceptable risk to human health.

However, since soil testing indicated that the soil had the potential to contain designated waste, it was taken to a Class II landfill for the protection of groundwater. Forward Inc. Landfill was the Class II landfill selected by Caltrans.

In this case, a designated waste is a nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a Waste Management Unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

The description above relates only to soils that are destined for Waste Management Units (WMUs) or landfills. WMUs are those waste units or landfills that accept varying types of wastes and have the potential to create acidified leachates within the unit. These acidified leachates have a tendency to dissolve metals, including naturally occurring metals from soils and/or other solids within the WMU. The leachates can then cause significant contamination threats to groundwater beneath the WMUs, especially in those older Class III-type landfills that are not lined. Even the newer Class III-type landfills do not have the proper liners and protections in place to handle designated wastes, thus the requirement to use Class II WMUs for these types of waste. The Class II WMUs have a more robust liner and leachate collection system in place. If used as planned, the soils within the stockpiles of the SR 132 West project are not expected to produce acidified leachates that could in turn create designated waste issues that are typically seen in WMUs or landfills.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I12-14

In addition to the two build alternatives (Alternative 1 and Alternative 2), three additional non-expressway alternatives were considered and are discussed in the EIR/EA. These include the Transportation Demand Management, Transportation System Management, and Mass Transit alternatives. These alternatives were evaluated and were determined to be inadequate in meeting the project purpose and need and therefore were removed from further study (see Section 1.7, Alternatives Considered but Eliminated from Further Discussion, in the EIR/EA). Mainly, traffic volumes on existing SR 132 (Maze Boulevard) are anticipated to increase substantially, despite regional efforts to promote ridesharing, bicycle and pedestrian, and transit options; and these non-expressway alternatives do not improve system connectivity. This project is consistent with both the City of Modesto and Stanislaus County general plans, such that growth-related impacts are anticipated to be minimal under both build alternatives. Please refer to Section 2.1.1 (Land Use) and 2.1.2 (Growth) of the EIR/EA for a

discussion regarding land use and growth-related impacts and avoidance, minimization and/or mitigation measures that would be implemented.

I12-15

Implementation of the federal Clean Air Act and its companion state law, the California Clean Air Act, involves a combination of regulations at the federal, regional, state, and project levels and coordination between multiple agencies, including but not limited to Caltrans. The San Joaquin Valley Air Pollution Control District, not Caltrans, is principally responsible for air pollution control within the San Joaquin Valley Air Basin as well as planning, implementing, and enforcing programs designed to reach and maintain state and federal ambient air quality standards in the district. In addition, the California Air Resources Board and the U.S. Environmental Protection Agency maintain and operate various monitoring stations to measure ambient air quality. The Metropolitan Planning Organization StanCOG, Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) also make determinations that the Regional Transportation Plan and Federal Transportation Improvement Program are in conformity or are consistent with the State Implementation Plan for achieving the Clean Air Act. Caltrans projects are required to conform to national and regional air quality standards and implement avoidance, minimization, and mitigation measures that would reduce the potential air quality impacts, as applicable.

The project also received a project-level conformity determination from the Federal Highway Administration on June 5, 2017, concluding that the project conforms with the State Implementation Plan in accordance with 40 CFR Part 93. In the conformity determination letter, the Federal Highway Administration stated that the project-level conformity analyses submitted by Caltrans on April 21, 2017 demonstrates that the project will not create any new violations of standards or increase the severity or number of existing violations. The Federal Highway Administration conformity determination letter can be found in Appendix I.

Please refer to Master Response #10 (Air Quality Improvements) and Section 2.2.6 (Air Quality) of the EIR/EA.

I12-16

The EIR/EA includes an analysis of both existing and future air quality conditions. The project is also subject to both project-level and regional conformity requirements, based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to state implementation plans for attaining National Ambient Air Quality Standards. Emissions analyses have been prepared; the Federal Transit Administration and Federal Highway Authority, in consultation with the Environmental Protection Agency, determined that the project was consistent with the Stanislaus County

Regional Transportation Plan/Sustainable Communities Strategy and with the 2017 Federal Transportation Improvement Program. Please refer to Master Response #10 (Air Quality Improvements) and Section 2.2.6 (Air Quality) of the EIR/EA.

The air quality monitoring station nearest the project study area is the California Air Resources Board's Modesto-14th Street monitoring station at 814 14th Street in Modesto. The station monitors for ozone, carbon monoxide, PM₁₀, and PM_{2.5}. Historic monitoring data from this station is provided in Section 2.2.6 (Air Quality), Table 2-34 of the EIR/EA. Current air quality data for the nearest monitoring station can be viewed at: https://www.arb.ca.gov/qaweb/site.php?s_arb_code=50568.

- I12-17** Landscaping (including tree planting) is just one of the measures proposed to help reduce greenhouse gas emissions and potential climate change impacts from the project. Other proposed mitigation measures include implementing an intelligent transportation management system to move traffic more efficiently through the region. Commute Connections, ridesharing services, and park-and-ride facilities would also be provided by the StanCOG to help manage the growth in demand for highway capacity. During construction, the City of Modesto will be required to comply with local air pollution control district rules, ordinances, and regulations for air quality restrictions, including minimizing idling time for diesel construction equipment. Please refer to Section 3.2.6 (Climate Change) in the EIR/EA.
- I12-18** Please see Master Response #1 (Project Purpose and Need). Please see Master Response #2 (Accidents/Fatalities). Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).
- I12-19** Currently, North Dakota Avenue has a limited number of driveway access points, which will remain in place after construction. North Dakota Avenue will be a conventional expressway between Maze Boulevard and Kansas Avenue, which will allow for limited access from private driveways. The current design for North Dakota Avenue indicates that there will be no center median barrier, which will allow for left turns onto northbound North Dakota Avenue. The area between the two directions of travel, which was included on several Preliminary Design Plan Sheets in various technical studies, will be a 13-foot-wide center median area, at the same level of the roadway, which is intended to allow for access from private driveways, while discouraging weaving between the two directions of travel. The road will be widened to accommodate the additional lanes, and driveway access will not be restricted. The most current cross sections for ultimate project are included in Appendix F of this document.
- Existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service (LOS) D or better between North Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. All of the study

intersections along the existing highway currently operate at an acceptable LOS C or better. However, traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and North Carpenter Road would operate at LOS F, an unacceptable service level; and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable LOS F. As detailed in Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities), future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied. Lastly, LOS is expected to improve from LOS C, D, E, and F during the evening peak hour under the existing and future No-Build Alternatives (2009, 2020, 2028, 2048), respectively, to LOS A and B during the evening peak of the future Build Alternatives (2028 and 2048).

I12-20 As shown in Table 2-26 of the EIR/EA, neither of the build alternatives would increase overall traffic volumes on SR 99, but would change several locations where traffic can access SR 99. Although the build alternatives would not change the overall peak hour level of service on SR 99, they would reduce the peak period vehicle hours of delay by providing additional capacity through auxiliary lanes as a result of eliminating and/or reconfiguring some of the ramps. The reduced vehicle hours of delay under both build alternatives would be beneficial and would not lead to direct or indirect impacts on SR 99.

I12-21 Both build alternatives would convert existing agricultural and scattered Urban Transition uses in Stanislaus County and vacant land (designated for redevelopment planning) in Modesto to a transportation use, thus resulting in minor direct impacts. Despite the changes, neither build alternative would greatly alter the overall land use patterns. Conversion of the land would improve mobility for both regional and local traffic and provide congestion relief. The City of Modesto and Stanislaus County General Plans include policies designed to improve circulation and minimize traffic congestion, and these goals cannot be accomplished without impacting some agricultural land. The project will improve regional and interregional traffic and reduce congestion on local roads. East of Morse Road, the County has designated the area south of Kansas Avenue and west of North Carpenter Road as Urban Transition (a designation designed to ensure that land remains in agricultural use until urban development consistent with the City's general plan designation is approved). Stanislaus County's General Plan identifies all land west of Morse Road as Agriculture. Conversion of farmland within and adjacent to the project limits can only occur with federal, state and local government approval. Please refer to Master

Response #9 (Farmland Impacts) for an expanded discussion of prime and unique farmland impacts.

- I12-22** As part of the EIR/EA, Caltrans conducts standard evaluations of potential noise impacts and considers options for noise abatement to be incorporated into the project design (e.g., noise barriers), in lieu of direct compensation for noise pollution. Please refer to Section 2.2.7 (Noise) of the EIR/EA.
- I12-23** Stanislaus County’s noise ordinance exempts construction activities during the hours of 7:00 a.m. to 7:00 p.m. with a sound level threshold not to exceed 75 decibels. If construction activities exceed the sound level threshold specified in the noise ordinance, coordination with the County would be required, including potential measures to reduce noise levels to maximum thresholds. Some construction activities may require limited work during nighttime hours. A variance or waiver would be required from the County before starting construction activities during nighttime hours. Caltrans will be required to monitor noise levels and shut down construction activities if the contractor fails to conform to the contract requirements. In addition, 24-hour contact information for reporting concerns and complaints during construction will be posted within the project limits and provided to residents and businesses within the project vicinity, in conformance with Caltrans, Stanislaus County and City of Modesto requirements.
- I12-24** Phase 1 includes the construction of a new two-lane expressway on the southern half of the proposed alignment from North Dakota Avenue on the west end of the project to the Needham Street Bridge Overcrossing on the east end of the project (refer to Section 1.3 of the EIR/EA). At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue to Maze Boulevard. At the completion of Phase 2, the project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west directions of travel and a single-point urban interchange at North Carpenter Road. Phase 2 would add two additional lanes to the Phase 1 roadway to the north and would not require reconstruction of the roadway.
- A detailed description of Phase 1 and Phase 2 is included in the EIR/EA in Section 1.1 (Introduction).
- I12-25** Please see Master Response #7 (Pedestrian and Bicycle Accommodations). The Project Development Team has also reviewed the referenced California Bicycle and Pedestrian Plan Strategy E2:2 and considered the option of a bicycle/pedestrian bridge over SR 99. The project will be developed in accordance with Caltrans Deputy Directive DD-64-R1: Complete Streets – Integrating the Transportation System, which calls for a network of integrated, multimodal projects or complete

streets. Complete street concepts apply to roadways in all contexts including local roads and state highways in rural, suburban, and urban areas. The proposed project would not preclude a complete streets facility from being designed approaching the project. The proposed project is compatible with Caltrans' intended Complete Streets goals for transportation facilities within Stanislaus County and is also compatible with the regional bikeway projects in the StanCOG Non-Motorized Transportation Master Plan.

The project includes a 12-foot-wide pedestrian/bicycle path along the east side of North Carpenter Road within the limits of the project. The project would not preclude a complete streets facility from being designed approaching the project from the east side of SR 99 and the north and south sides of SR 132. The proposed project is compatible with Caltrans' intended complete streets goals for transportation facilities within Stanislaus County and is also compatible with the regional bikeway projects in the StanCOG Non-Motorized Transportation Master Plan. The project's multi-modal path would connect residential neighborhoods near the existing SR 132 (Maze Boulevard) with businesses and other destinations north of the realigned SR 132 near Kansas Avenue. As shown in Figure 2-4 in the EIR/EA, environmental justice communities are located primarily along the existing SR 132 (Maze Boulevard) alignment. The new path would provide multi-modal access to the north side of the new SR 132 alignment, which could be used by pedestrians as well as those travelling by bicycle for commute or recreational purposes.

I12-26

The design of the build alternatives has been evaluated for preliminary design by the Project Development Team and meets the project's purpose and need. The design will be compliant with Caltrans Design Standards, except for design exceptions that have been reviewed by the Caltrans Design Oversight staff and may be granted. A full interchange at North Carpenter Road is not proposed for this project because of the weaving distance between ramps to and from SR 99 and the SR 99/SR 132 freeway-to-freeway connectors/ramps.

An eastbound loop on-ramp and westbound conventional off-ramp for the proposed SR 132/North Carpenter Road interchange were evaluated. As a result of the nonstandard distance between the proposed interchange and the SR 99/SR 132 freeway-to-freeway interchange connectors and the proposed New Public Road Connection to the Kansas Avenue/Needham Street Bridge Overcrossing intersection, the evaluation determined the standard solution of braiding the various ramps and connectors would not be cost-feasible. The environmental/right-of-way impacts would be unacceptable, as determined by the Project Development Team and supported by the various responsible agencies including Caltrans. Furthermore, no

approval decision exceptions were developed that would justify the nonstandard weaving sections without braiding the ramps and connectors.

I12-27

When the relocation of SR 132 west of SR 99 was planned in the 1950s, the proposed alignment relocated SR 132 traffic onto SR 99 between Kansas Avenue and L Street for continuity. Since that time, SR 99 has grown into a major north-south corridor that is heavily relied upon for regional and interregional travel. Capacity on SR 99 in the corridor is constrained due to the built-out condition of the area. Currently, SR 99 includes six lanes through the project limits, but is ultimately projected to require up to 12 lanes. However, at this time, it is anticipated that future projects would add only two additional lanes.

When Caltrans began planning for the relocation of SR 132 to the proposed alignment, SR 99 was the planned end with a 1950s-era trumpet (Type F-5) interchange connection. Caltrans and Federal Highway Administration (FHWA) design standards have changed so that the original connection is now substandard in design as well as interchange spacing.

The Stanislaus County region has experienced significant growth, which causes severe traffic congestion on the local roadways and the freeways/expressways. As a result, StanCOG, Caltrans, and the surrounding municipalities have initiated multiple studies on the existing SR 99, SR 108, SR 132, and SR 219 corridors. In 1991, Caltrans completed a Project Study Report that identified two freeway alternatives with multiple freeway-to-freeway connectors at the new SR 132/SR 99 interchange that would require substantial acquisition of new right-of-way and would have a significant impact to the existing area. In 1993, Caltrans completed a Revised Project Study Report that considered additional alternatives and recommended a lower-cost four-lane at-grade expressway. In 1997, Caltrans updated the Revised Project Study Report in which four new build alternatives were identified and included the rejection of some previously proposed alternatives.

Between 2001 and 2003, StanCOG and Caltrans began investigating SR 132 West and SR 132 East as separate facilities. In 2003, Caltrans completed the SR 99 and SR 132 Transportation Concept Reports. These reports documented two key points: SR 99 is over capacity throughout the Stanislaus County region and will continue to be over capacity after it is expanded to its ultimate configuration, and SR 132 West and SR 132 East projects will need to provide for effective connectivity that does not add to the congestion problems on SR 99. In 2003, Caltrans was proceeding with the Project Approval and Environmental Document phase, but the project was placed on hold after it was determined that there was a need to complete additional system planning studies to resolve the SR 132 West and SR 132 East connectivity concerns. Local agencies also expressed concerns regarding the alternatives proposed in

previous Project Study Reports, due to the impact to the local community and the lack of local agency consensus.

In 2008, StanCOG completed the Feasibility Study for SR 132 East/West Connectivity Project in which various SR 132 improvements were identified to improve east-west connectivity in Modesto. These improvements include providing direct connection from SR 132 to Needham Street, 5th Street, and 6th Street as part of the SR 132 West Expressway project to improve connectivity to SR 132 East and minimize the traffic impact to SR 99. The study recommended proceeding with completion of the SR 132 West project, including the recommended arterial street connections within the first phase of improvements. A Project Study Report-Project Development Support was prepared and approved by StanCOG in November 2009 to serve as a Project Initiation Document.

I12-28

Caltrans is not exempt from farmland mitigation. When the EIR/EA evaluated the impacts of the project on farmland, the amount of farmland lost (41.06 acres) as a result of the project was compared to the farmland remaining in the region using the U.S. Department of Agriculture Natural Resources Conservation Service Farmland Conversion Impact Rating. Loss of farmland due to the project will be minor and is estimated to equate to 0.01 percent of the total farmland in the region (refer to Appendix E, *Form NRCS-CPA-106* of the *Community Impact Assessment Report*). In addition, most of the farmland converted to roadway right-of-way is a result of strip acquisitions, which will not negatively impact the vitality of the individual farms along the corridor. Of the 6.7 acres of farmlands with Williamson Act contracts that will be impacted, none will require a full acquisition, which would have resulted in the termination of the contract. Please refer to Section 2.1.3 (Farmlands) of the EIR/EA.

I12-29 (DTSC) Caltrans as the owner of the stockpiles is responsible for the investigation, management, and cleanup activities associated with the stockpiles. As a regulatory department, the Department of Toxic Substances Control (DTSC), in consultation with the Central Valley Regional Water Quality Control Board, provides oversight of these activities to Caltrans.

Beginning in 2005 under an Interagency Agreement between Caltrans and DTSC, Caltrans prepared “Task Orders” for payment by Caltrans of costs incurred by DTSC for oversight and consultative services, review of investigative data and reports, and other information necessary to characterize the stockpiles. This includes workplan development for stockpiles characterization, groundwater monitoring well installation, groundwater and surface water sampling and analysis, human health risk assessment, air quality monitoring, and public participation activities. The Task Orders also include review of Preliminary Endangerment Assessment, Feasibility Study, and Remedial Action Plan reports.

DTSC is committed to overseeing that the implementation of investigation, management, and cleanup activities associated with the stockpiles are protective of human health and the environment and consistent with applicable laws and regulations.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I12-30 The CEQA guidelines state that the review periods for draft EIRs should not be less than 30 days nor longer than 60 days, except in unusual circumstances. The comment period for the draft EIR/EA ran from January 18, 2017 to March 17, 2017, which was two weeks longer than the CEQA requirement of 45 days. Please refer to Master Response #5 (Public Participation and Environmental Review Process).

[Comment-I13]
Comments from Robert and Monica Ramos

I13

From: [Vallejo, Philip@DOT](mailto:Vallejo.Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo.Jennifer@DOT)
Subject: FW: Hwy 132 West Project
Date: Friday, March 17, 2017 2:59:33 PM

From: Monica Ramos [mailto:randmramos@gmail.com]
Sent: Friday, March 17, 2017 2:15 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Cc: robert.s.ramos1@gmail.com
Subject: Hwy 132 West Project

Attn: Phil Vallejo Central Sierra Environmental Analysis Branch
855 M Street, Suite 200
Fresno, CA 93721

Thank you for the opportunity to express concerns regarding the State Route 132 West project. I have many concerns and hope that they will be appropriately addressed.

1. How will Dakota Avenue property owners enter and exit their property? It appears that the project will create a huge problem for homeowners as well as the Salida Almond Hullers. | 1
2. Salida Almond Hullers created a dirt berm on the west edge of their property. If left in place, it will make noise levels from the new Dakota traffic much worse for homeowners as sound is amplified bouncing off the berm. | 2
3. It appears inevitable that the new intersection at Dakota Avenue and Maze Blvd. will produce significantly increased noise (especially from braking and accelerating). Will sound walls be installed for the residents adjacent to the new construction areas? | 3
4. Have you considered making Dakota Ave. a dead end street? Have you considered moving the express way east of the existing road? | 4
5. ...OR take the expressway along the MID right of way, adjacent to the tower line. Surely you could exchange property with Salida Hulling Assoc.. | 5
6. What will you do to minimize the impact of dust and noise during construction? Can you limit equipment moving in reverse? | 6
7. Will utilities be relocated underground where possible? | 7
8. Have you considered making the Dakota section two lanes into Modesto (for east bound traffic) and one lane going out of Modesto for (west bound traffic)? There will be a huge bottleneck just west of the existing Dakota/Maze intersection since H132 is still only two-lanes. | 8
9. Have you considered re-aligning Dakota Ave. to eliminate the jog south of Kansas Ave? | 9
10. What will you do to reduce the unsafe conditions on H132 between Hart Rd. and the San Joaquin River, where currently most of the more serious or fatal accidents occur? The | 10

additional drivers that you will be encouraging to use H132 will exasperate the existing conditions.

| 10

Respectfully,
Robert and Monica Ramos
137 Dakota Ave.
Modesto, CA 95358-8322
randmramos@gmail.com

[Response-I13]
Responses to Comments from Robert and Monica Ramos

Thank you for your comments.

- I13-1** The current design does not preclude turns in either direction on North Dakota Avenue. Upon completion of Phase 2, there will be a center turning lane on North Dakota Avenue; driveway access will not be removed.
- I13-2** Development activities conducted on private properties do not fall under the jurisdiction of Caltrans or the Federal Highway Administration. However, according to the Federal Highway Administration, noise levels do not increase substantially with construction of a barrier/berm on the opposite side of the highway. Some of the energy goes over the barrier, some is reflected to points other than the homes on the opposite side, some is scattered by ground coverings (for example, grass and shrubs), and some is blocked by the vehicles on the highway. Measurements made to quantify this reflective increase have never shown an increase of greater than 1 to 2 decibels, an increase that is not perceptible to the average human ear. However, at this stage in the design process, it is unknown if the berm located on the Salida Almond Hullers' property will remain or be removed.
- I13-3** Area 1, which includes SR 132 (Maze Boulevard) from the project western end to Garrison Avenue, and all areas west of North Dakota Avenue including SR 132 (Maze Boulevard) and Kansas Avenue west of North Dakota Avenue were analyzed for potential noise impacts. Area 1 has several driveways and side streets that would require gaps in the barriers. This greatly reduces the effectiveness of the barrier and causes safety issues such as inadequate sight distances. Therefore, noise barriers in this area were not feasible and not recommended for this project. Please see Master Response #11 (Noise Impacts and Abatement) and refer to Section 2.2.7 (Noise) of the EIR/EA.
- I13-4** A dead end at the end of North Dakota Avenue was not included in the alternatives analysis. The 2008 City of Modesto Final Urban Area General Plan designates North Dakota Avenue as a six-lane expressway. It also continues to the town of Salida, north of Modesto; therefore, it is not within the scope or purview of the project to terminate it. Using the existing street alignment would avoid major right-of-way impacts at this location; therefore, moving the expressway east of the existing road was not considered.
- I13-5** Caltrans purchased the right-of-way for the project in 1958 with the intention to use it for the purposes associated with this project. Thus, using the already reserved right-of-way and associated alignment for the current project is the preferred option.

Proposed property acquisitions have been discussed and carefully considered by the Project Development Team. The revised right-of-way requirements are needed for the functionality of the project design.

I13-6

The contractor will be required to follow the approved dust control plan, which could include the application of water, dust palliative, or both to control dust caused by equipment and public traffic. Temporary increases in equipment emissions would be mitigated by maintaining properly tuned engines, minimizing the idling time of diesel-powered construction equipment to two minutes, using alternative-powered construction equipment (i.e., compressed natural gas, biodiesel, electric), using add-on mitigation devices such as diesel oxidation catalysts or particulate filters, and using equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy-duty equipment. To minimize temporary construction noise, the contractor would ensure that all construction equipment would have sound control devices that are no less effective than those provided on the original equipment. No equipment would have an un-muffled exhaust. The contractor would implement appropriate additional noise control measures, where feasible, including changing the location of stationary construction equipment away from noise-sensitive receivers, turning off idling equipment, scheduling construction activity to workday hours, notifying adjacent residents in advance of construction work, and installing noise blankets or other muffling devices on stationary construction noise sources. It would be difficult to limit equipment from moving in reverse. Please refer to Section 2.2.7 (Noise) of the EIR/EA for a discussion of why substantial noise impacts are not anticipated.

I13-7

Utility relocation is generally determined in the final design stage. However, in general, aboveground utilities will remain above ground but relocated to another location.

I13-8

The current design includes one southbound left-turn lane onto westbound Maze Boulevard. According to the project Traffic Operations Analysis Report (TOAR), level of service (LOS) for the existing Maze Boulevard west of North Dakota Avenue remains the same in 2028 and 2048 both with and without project. This indicates that a significant traffic backup would not occur at this intersection from this project. Furthermore, under the No-Build Alternative, the North Dakota Avenue/Maze Boulevard intersection would operate at LOS A in the morning and LOS C in the evening in 2028, whereas it would operate at LOS A for both morning and evening under the build alternatives. By 2048, the intersection is predicted to operate at LOS B in the morning and LOS D in the evening under the No-Build Alternative, whereas under the build alternatives it would operate at LOS A in the morning and LOS B in the evening. Thus, the project would improve traffic conditions at this intersection.

- I13-9** The North Dakota Avenue centerline will remain the same as in existing conditions. The widening of the new signal-controlled intersection for the new connection eliminates the jog south of Kansas Avenue.
- I13-10** The portion of SR 132 between Hart Road and the San Joaquin River is outside the scope of the current project. Therefore, impacts to traffic were not analyzed for that portion of SR 132. However, this project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the early planning stages and is expected to enter the Project Approval and Environmental Document (PA&ED) phase in December 2017. Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including the existing SR 132 (Maze Boulevard) alignment. The use of North Dakota Avenue as a part of the new SR 132 route is temporary until future segments of the controlled-access freeway/expressway are built.

[Comment-I14]
Comments from Diane Russo

I14

From: [Vallejo, Philip@DOT](mailto:Vallejo.Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo.Jennifer@DOT)
Subject: FW: Hwy 132 Project
Date: Friday, March 17, 2017 12:24:11 PM

From: Diane Russo [mailto:diane.russo@kingspan.com]
Sent: Friday, March 17, 2017 11:46 AM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Hwy 132 Project

Philip,

My name is Diane Russo, my address is 2809 Pinnacles Dr.
RE: House values and noise reduction.

I attended the meeting and found it very informative.

Although, I had a question regarding what will happen to our house values once we have a noisy expressway 100 FT from our housing track. I feel it will decrease the value due to the congestion, and noise. We bought our home in 1987 and love the fact that we can open our windows and it is quiet day and night. The brick wall that is in place will not be enough to cushion the sounds of the constant traffic flow.

1

I understand that our area will not have the sound wall installed. This is a major concern for all of us that reside in our housing track.

2

My husband and I are very concerned and feel that we should have options as to how this will all play out.


*Happy
St. Patrick's Day!*
Diane Russo
2809 Pinnacles Dr.
Modesto, CA 95358
(209)

[Response-I14]

Responses to Comments from Diane Russo

Thank you for your comments.

I14-1

The project may result in a decrease of residential property values where partial acquisitions would occur because of the encroachment of the project's right-of-way, the reduction in property square footage, and/or the increase in traffic noise. Owners of the properties impacted due to partial acquisition of their parcels will be compensated for the loss of property. Properties next to residences that would be acquired may have property values affected; however, long-term beneficial impacts to property values are anticipated due to a reduction in truck traffic on residential streets and congestion relief throughout the study area. Please refer to Section 2.1.3, Farmlands, for more information. As part of the EIR/EA, Caltrans conducts standard evaluations of potential noise impacts and considers options for noise abatement (e.g., noise barriers) to be incorporated into the project design, in lieu of direct compensation for noise pollution. During preparation of the Noise Study Report, all potential noise abatement measures, as identified in the Caltrans noise policy analysis, the *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction, Retrofit Barrier Projects* (Protocol) were considered, as follows:

- Avoiding the impact by using design alternatives (altering the horizontal and vertical alignment).
- Constructing noise barriers.
- Acquiring property to serve as a buffer zone.
- Using traffic management measures to regulate types of vehicles and speeds.
- Acoustically insulating public-use or nonprofit institutional structures.

In terms of avoiding the impact by design alternatives, several alternative project alignments were assessed and have been recommended for consideration. Noise barriers were also evaluated, and one noise barrier was recommended. However, large buffer zones would be required to have a meaningful effect in abating traffic noise. Because of physical constraints from existing developments, the acquisition of large buffer zones was not considered feasible for this project. Also, it would be inconsistent with the purpose and need of the project to limit vehicle types and speeds on a state highway. Thus the use of traffic management was also not considered feasible. Lastly, no interior noise impacts were identified at public use facilities. As such, the Noise Study Report evaluated all potential, effective means of noise abatement and recommended those that are most feasible, reasonable and cost-effective at various locations for this project.

I14-2

Please see Master Response #11 (Noise Impacts and Abatement). Your property is located at 2809 Pinnacles Drive, Modesto, north of Kansas Avenue (near Noise Analysis Area 3). The noise barrier modeled in this area (Barrier C) would not meet the feasible and reasonable criteria of the Caltrans Protocol or 23 CFR 772. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers as discussed above. Therefore, a noise barrier would not be considered reasonable in Area 3.

[Comment-I15]

Comment from Tony Madrigal, Modesto City Council Member, District 2

I15

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT)
Subject: FW: comment on SR 132 Expansion project in Modesto
Date: Friday, March 17, 2017 4:56:58 PM

From: Tony Madrigal [mailto:tmadrigal@modestogov.com]
Sent: Friday, March 17, 2017 4:51 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: comment on SR 132 Expansion project in Modesto

Hi Philip,

I am writing to express my concern about the impact of the right of way acquisition process on local Modesto property owners and business owner because it has not been clear as to how property or business owners will be compensated if they have to be relocated. Please provide clear information including a point of contact on Caltrans staff.

1

Sincerely,

Tony Madrigal
Modesto City Councilmember, District 2
209-579-4776 cell

[Response-I15]

Response to Comment from Tony Madrigal, Modesto City Council Member, District 2

Thank you for your comments.

I15-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. All impacted owners will be provided notification of City of Modesto's intent to acquire an interest in the property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist will be assigned to each property owner to assist them with this process. Caltrans would be responsible for assisting with relocations for individuals and businesses that are undergoing a difficult transition, consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

The Non-residential Relocation Assistance Program provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement property and reimbursement for certain costs involved in relocation. It will provide current lists of properties offered for sale or rent that are suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms, and nonprofit organizations include searching and moving expenses and, possibly, reestablishment expenses or a fixed in-lieu payment. The payment types are summarized as follows:

1. 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.
2. Regarding anything that cannot be moved, the business owner will receive payment for the actual direct loss of the personal property.
3. Expenses related to searching for a new business site will be reimbursed up to \$2,500, for reasonable expenses actually incurred. A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that 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 or more than \$20,000.

A Relocation Agent from the City of Modesto will contact individual owners and occupants to discuss individual needs, relocation benefits, and eligibility requirement and will be fluent in either English or Spanish. A summary of the process and benefits is provided in English and Spanish in Appendix D and discussed in Section 2.1.4 (Community Impacts) of the EIR/EA.

[Comment-I16]
Comments from Terhesa Gamboa

I16

From: [Vallejo, Philip@DOT](mailto:Vallejo_Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo_Jennifer@DOT)
Subject: FW: SR 132 Comments
Date: Friday, March 17, 2017 1:38:04 PM

-----Original Message-----
From: Terhesa Gamboa [<mailto:terhesa@sbcglobal.net>]
Sent: Friday, March 17, 2017 1:00 PM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: SR 132 Comments

Dear Mr. Vallejo,

Please accept my comments in regard to SR 132 West Freeway Expansion.

I strongly object to the SR 132 West Freeway Expansion on behalf of the Woodland West Community Neighborhood as described in the EIR Draft Document. This project will have a severe negative impact on the south west part of the neighborhood. We will have increased noise and pollution from the project. The project should be below grade along the entire length of the neighborhood from west of Morse Road to Rosemore to mitigate the negative impact. Some kind of barrier will need to be added to the plans for aesthetics, noise and safety. To suggest that the project will have minimal impact with not even a sound wall is ludicrous. It seems cost is a factor in this decision which is entirely unacceptable. Bringing truck traffic to an otherwise quiet neighborhood at grade level will no doubt have an adverse impact and should be considered. The project could and should be an asset to the neighborhood and not a detriment.

1

At this time, I support the “No Build” option until details that adversely affect the Woodland West Community Neighborhood can be solved for the greater good of the neighborhood.

2

Sincerely,

Terhesa Gamboa
2608 Albion Way,
Modesto, CA 96358

[Response-I16]
Responses to Comments from Terhesa Gamboa

Thank you for your comments.

I16-1 Please see Master Response #11 (Noise Impacts and Abatement), and refer to Section 2.2.7 (Noise) of the EIR/EA.

The SR 132 new alignment from approximately North Carpenter Road to Mercy Drive would be constructed below grade (lower than the residential dwellings). The depressed portion of the alignment would essentially preserve the existing visual quality of south-facing views for Kansas Avenue and North Rosemore Avenue residents and local motorists. Overall, the visual impact of a depressed new alignment crossing under North Rosemore Avenue would change some of the visual elements. If soundwalls are required, they could have more visual impact than a see-through rail-type barrier and would be less consistent with the existing rural character of the Agricultural landscape unit. Views of open land in the middle ground would be replaced with views of an improved North Rosemore Avenue with curb and gutter, sidewalks, pavement striping, striped bicycle lane, and a see-through railing-type barrier. Views of agricultural landscape character would be replaced with urban residential street character. However, with mitigation, the changes would not be enough to change the overall visual quality, and impacts would be considered less than significant. Visual quality for Viewshed #1 would remain as moderate.

The noise analysis for the barrier in this area (Barrier C) is shown in Appendix C of the 2016 Noise Study Report. Noise Barrier C was evaluated for feasibility but would not meet the minimum noise reduction of 7 decibels to meet the reasonable noise reduction design goal. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers as discussed above. Therefore, a noise barrier would not be considered reasonable for receivers in Area 3.

I16-2 Your preference for the No-Build Alternative is noted and has been included in the public record. The Woodland West Community neighborhood would not be adversely affected by the two build alternatives due to the following design features and avoidance, minimization, and/or mitigation measures.

[Comment-I17]
Comments from Patricia Gallagher

I17

From: [Vallejo, Philip@DOT](mailto:Vallejo,Philip@DOT)
To: [Lugo, Jennifer@DOT](mailto:Lugo,Jennifer@DOT)
Subject: FW: Concerns about the Hwy 132 Project
Date: Friday, March 17, 2017 11:07:38 AM

From: Patricia Gallagher [mailto:patricia.gallagher@kingspan.com]
Sent: Friday, March 17, 2017 10:38 AM
To: Vallejo, Philip@DOT <philip.vallejo@dot.ca.gov>
Subject: Concerns about the Hwy 132 Project

My name is Patricia Gallagher and I live at 2828 Tassajara Drive, the corner of Kansas and Morse.

I attended the last meeting to get information on the project and I have concerns.

The study that was conducted on the sound issue reported that sound was not high enough to warrant a sound wall. We definitely get the sound and vibration from the current traffic flow. Once the new highway is constructed, the amount of traffic will greatly increase as well as the sound. We feel that there is a need for a sound wall for the homes that are affected on Kansas Avenue between Morse to the section where the highway drops down. The brick wall does not absorb all of the current sound and will not be enough once all of the traffic is redirected from Maze Boulevard to Kansas Avenue.

|
1

We also have concerns on the highway being about 100 ft from our back wall to the road. There has been an accident where the car slammed into the brick wall and the bricks flew through windows and the family was very lucky that no one was injured, but the home did have damage. The sound wall would also be a second line of defense, for not only sound, but also to make our homes safer from cars that will be at high speeds.

|
2

Please acknowledge receipt of my concerns.

Thank you,
Patricia Gallagher

Patricia Gallagher
Purchasing Manager | Kingspan Insulated Panels
2000 Morgan Road | Modesto, CA 95358
Direct: 209.758.8827 | Main: 209.531.9091 x 4343
patricia.gallagher@kingspan.com

[Response-I17]
Responses to Comments from Patricia Gallagher

Thank you for your comments.

I17-1 Please see Master Response #11 (Noise Impacts and Abatement), and refer to Section 2.2.7 (Noise) of the EIR/EA. The SR 132 new alignment from approximately North Carpenter Road to Mercy Drive would be constructed below grade (lower than the residential dwellings). The depressed portion of the alignment would essentially preserve the existing visual quality of south-facing views for Kansas Avenue and North Rosemore Avenue residents and local motorists. Overall, the visual impact of a depressed new alignment crossing under North Rosemore Avenue would change some of the visual elements. If soundwalls are required, they could have more visual impact than a see-through rail-type barrier and would be less consistent with the existing rural character of the Agricultural landscape unit. Views of open land in the middle ground would be replaced with views of an improved North Rosemore Avenue with curb and gutter, sidewalks, pavement striping, striped bicycle lane, and a see-through railing-type barrier. Views of agricultural landscape character would be replaced with urban residential street character. However, with mitigation, the changes would not be enough to change the overall visual quality, and impacts would be considered less than significant. Visual quality for Viewshed #1 would remain as moderate.

The noise analysis for the barrier in this area (Barrier C) is shown in Appendix C of the 2016 Noise Study Report. Noise Barrier C was evaluated for feasibility but would not meet the minimum noise reduction of 7 decibels to meet the reasonable noise reduction design goal. Additional noise barriers to reduce the traffic noise levels of other nearby roadways would not be feasible due to access requirements, which would require openings in barriers as discussed above. Therefore, a noise barrier would not be considered reasonable for receivers in Area 3.

I17-2 At a minimum, a fence will divide Kansas Avenue and SR 132. Other physical separation options may be included during final design. Please refer to the response to Comment I17-1 and Section 2.2.7 (Noise) of the EIR/EA for a discussion of why noise abatement would not be suitable at this location.

[Comment-I18]
Comments from Margaret Taro

I18

March 14, 2017

Caltrans
855 M Street
Fresno, CA 93721

To whom it may concern:

Thank you for the opportunity to respond to the proposal for State Route 132.

I have lived on Maze Blvd. (Hwy 132) since 1974, (43 years). I own farmland and five houses on Maze Blvd. and Garrison Avenue; addresses follow:

3472 Maze Blvd.

3500 Maze Blvd.

3530 Maze Blvd. (my residence)

431 Garrison Avenue

530 Garrison Avenue

My family, tenants and I have experienced daily increasing traffic, making it more and more difficult for us to get in and out of our driveways and on and off Garrison Avenue.

A variety of vehicles go continuously east and west on Maze Blvd. Some drivers break the speed laws and some break the passing law as this two-lane country highway has become a veritable speedway.

Recently, when walking to my mailbox, I watched as groups of big rigs with trailers were using 132 which indicates heavy traffic.

I am highly in favor of rerouting 132 to Dakota Ave. and Kansas Ave. for a safer and more convenient entrance and exit to and from Modesto.

I urge you begin this process as soon as possible.

Yours truly,



Margaret Taro
3530 Maze Blvd.
Modesto, Calif. 95358
(209) 524-0186

[Response-I18]
Responses to Comments from Margaret Taro

Thank you for your comments.

I18 Thank you for your comment and your support of the project.

[Comment-I19]
Comments from Rhett Calkins

Date: 3-17-2017

To: Philip Vallejo, Acting Chief, Central Sierra Environmental Analysis Branch, Caltrans

From: Rhett Calkins, Stanislaus County citizen

My comments to the State Route 132 West Draft Environmental Assessment and Draft Final Remedial Action Plan dated December 29, 2016. Signed by Ken Baxter, for Dennis Agar - District 10 Director.

Alternative 1 and Alternative 2 are the same option with very small modifications for cost cutting/budget fitting. This is a result of no input from the public. Public input was shut down 5 years ago. It is now evident from this document, that Caltrans, StanCOG, Stanislaus County, City of Modesto, and Jacobs Engineering have spent 5 years in private working on one option.

1

It should be emphasized to the layperson that the “no build option” is a requirement of CEQA and NEPA and not considered an option by project principles. This should be explained in the document. It is embarrassing that governments use this to allow people to think you are actually considering “no build”. Logic dictates something needs to be done. You choose not to show any of the other options. Lots of work could be proposed. None was proposed. The document makes it appear that you seem to actually propose “no build” as a viable option. The no build option is unacceptable. The no build option is simply an artificial exercise required by law. It is a baseline measure by which to gauge viable alternatives. Where is the real other option? You submit twin options.

2

The old Alternative 5 to do work on the existing route was eliminated very early (July 2010) and removed from any public discussion. Alternative 5 was eliminated seven years ago by the PDT with no notice to the public. PDT meetings from that timeframe document knowledge that they must eliminate Alternative 5 but do not have an explanation. The explanation finally appears as a Memo from Jacobs Engineering directed to Caltrans. Curiously, the official Memo is dated twice, July and August of 2011. Looking at PD

3

In reality the project started with only 2 identical options. The Project Kick-off Meeting on March 31, 2009 stated that the Project Approach (Design Concept) initial design concepts would only look at two design concepts for the new SR 132 project. Both those Alternatives are the one (twins) presented today with little change. Could we get an explanation? Better would be a real option other than one.

4

The Project Design Team (PDT) has left an incomplete trail of meeting notes, only available by official request, many do not list any of the attendees. How can a project of such a grand scope and consequence be so loosely documented? It was by design from the beginning. It is important to know how this project arrived at one option without concern for the general public. Who has made the decisions? It is simply not credible that only one option (twin) is considered. Why was the public not allowed to attend? Why are these notes not available on-line with project documents.

5

The PIP team plays an important role in crafting only one option, The one build option. Members of the public like myself, that wish to discuss other options are discouraged (not invited) to attend any of the meetings that are stacked with pro-build “one option people”. The majority of the PIP members are

6

Staff and politicians of StanCOG, Stanislaus County, City of Modesto, CalTrans, Jacobs Engineering, The public deserves to know who is (was) on the PIP. Publish the meeting minutes and list the members of the PIP in the Environmental document. Millions have been spent. We need to know who influenced this plan. | 6

I find no mention of how Dakota Avenue is part of StanCOG's and the City of Modesto's planned Expressway. This is the officially planned yet virtually unknown StanCOG "2010 Expressway Study", dated January 2011 by Fehr & Peers. Note that Fehr & Peers is also represented on the PIP. Fehr & Peers was also in 2009 PDT meetings for 132. The Dakota "Corridor" along with SR 132 west, are listed as top priorities as Expressways in the county. Since this EIR proposes to cover the project of 132 West for only 4 miles, starting exactly at Dakota Avenue, it would be dishonest not to mention the significance and importance of the planned Dakota Expressway and neatly connecting to the recent Pelandale/99 interchange. In 2010 the PDT asked StanCOG to confirm Dakota is a planned 6 lane facility. The EIR does not put the SR132 into context so that citizens can understand what is next. | 7

The EIR does not mention new capacity improvements to sewer and water facilities installed for the planned expansion of Modesto into the Wood Colony area. Sewer trunk capacity was recently added west on Elm Avenue connecting to a main trunk beyond existing city boundaries. Water main lines were built into the new Pelandale/99 interchange. The EIR does not explain the extent of the immediate land use changes that will occur as a response. | 8

The impact on the community for traffic noise and air quality are not defined. Sound walls have little effect. Quality of life in general will degrade as traffic is moving into the new planned industrial/commercial/existing farm-residential area. Phase 1 and Phase 2 take place over a 10 year period. A grueling amount of time to be incomplete for a 4 mile project lined by businesses and community. The impact has not been conveyed to the public. | 9

Accounting for decades of water runoff / percolation / evaporation / ET at the Modesto Toxic Stockpiles is not done. Underground piping along stockpile 1 and stockpile 2 are shown in old drawings at Caltrans tied into the basin at stockpile 3 on the east side of 99 at Kansas. Routine inspection shows existing drainage facilities appear to exist for the stockpiles. Caltrans staff states no knowledge of facilities connecting Stockpiles 1 and 2 to Stockpile 3. Experts consulting to the project are not aware of the infrastructure. How can this be overlooked? Where did all the water go? Since no one knows, I speculate that some ran off into neighborhoods, some soaked into the stockpiles and some is in pipes along stockpiles 1 and 2 going somewhere that experts do not know. Recent storms easily amount to 6 inches of water in a short period, 6 acres of stockpiles means that 3 acre feet (or 130,680 cubic feet), approximately a million gallons of water is unaccounted for during recent storms. Discover the true drainage infrastructure, soils, elevation profiles from the original design and any modifications to drainage details over the years documented or not documented by Caltrans. Perhaps modifications were not documented, if so then a site investigation starting at facilities seen along Emerald Avenue would be warranted. I have an old drawing from Caltrans showing the designed drains and piping locations for the stockpiles. | 10

The city of Modesto has a domestic well shut down nearby and down-gradient of the stockpiles. Local domestic wells were not identified and not tested. The City has not shared the details of the contamination. Has any discovery taken place by the City, Caltrans, Stanislaus County, DTSC, or the CV Regional Water Control Board? What are the concentrations of contaminants of concern in local wells within a mile of the project? 11

Extensive groundwater contamination existed at the old FMC site. Why is only a horizontal profile of water quality at 30 to 40 feet? Water is pulled by gravity and has taken contaminants with it just like you see at the FMC site. Hasn't the FMC site been pumped, filtered and water returned to the environment in some fashion? An explanation of why the toxic stockpiles do not warrant an equivalent investigation and remediation, is missing. 12

A relatively small amount of soil was removed from Stockpile 3 for the Kansas Ave. northbound ramp work several years back. That soil was not accepted at the Stanislaus County landfill, however it was accepted at a San Joaquin County landfill. What is the difference? Is the Emerald neighborhood better than one landfill but worse than the other? The Emerald neighborhood is not a landfill unless you plan it to be one. 13

Will Caltrans maintain the encased toxic piles to any standard? Who will oversee the maintenance? Will impervious clay line the bottom of the piles? What impervious layer will line the top of the piles? 14

The EIR takes a large bypass on other forms of transportation options needed. It claims that busses are mass transportation. What busses would they be? Our local busses carry few people. In contrast the ACE train is full every day. If this is a desired improvement for traffic flow to the Bay Area then the Altamont Corridor Express train should be considered as part of this project. What are the benefits or drawbacks for the ACE plans as a result of this project? Are we all agreeing to drive cars to the Bay Area? Could ACE be a more efficient solution for offloading commute traffic from country roads and highways? Freight and goods movement could improve with single occupancy vehicles greatly reduced. 15

The total benefit to bicycle and foot traffic is a 10 foot wide location on the east side of Carpenter for 500 feet? Hardly an offset to the disadvantages brought by the project. More bike hazards for the bike and the automobile driver. Very poor planning. 16

It is remarkable that the visual representation (cartoons) remove a great deal of clutter like trash and overhead primary electric facilities. Projects really never end up looking like this. Underground primary 12kV electric distribution is expensive. Pictures seem to convert the Emerald neighborhood to underground electric services and remove the alley access. Is this correct? Shouldn't the view on Carpenter have more traffic? What time of day is this view depicting? Please craft true pictures. These are best saved for advertising or politics. 17

The EIR completely ignored the overwhelming public input from day one. Comments show overwhelming support for making traffic improvements to Maze Blvd SR132. Please show these comments. 18

I suggest that a team of the public be convened that represent a cross section of the County since the plan chooses to direct precious transportation dollars away from competing projects. The PIP needs to be reformed to transparently address options not explored. We need transportation options. Transportation projects with no option should not be dictated by the few. We only have one option here.

19

Can I have more time to review and comment on the EIR?

Thank you,

Rhett Calkins.

**[Response-I19]
Responses to Comments from Rhett Calkins**

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

I19-1 A total of nine project alternatives were evaluated by the Project Development Team, resulting in the two build alternatives and No-Build Alternative currently under consideration. These included the Mass Transit Alternative, the Transportation Demand Management Alternative, the Transportation System Alternative, Alternative 1, Alternative 2, and the No-Build Alternative, as well as the Initially Proposed Alternative 1, Alternative 3, and Alternative 5. These alternatives were eliminated for a variety of reasons, including their inability to meet the proposed project's purpose and need, as discussed in Section 1.7, Alternatives Considered but Eliminated from Further Discussion.

Each build alternative has unique features, which are described in Section 1.4.1 (Build Alternatives). The alignments of the two alternatives are similar between North Dakota Avenue and SR 99; however, the major difference involves the construction of a southbound SR 99 Needham Street off-ramp under Alternative 1, compared to the reconstruction of the southbound SR 99/Kansas Avenue off-ramp under Alternative 2. The similarities of the two alternatives are due to the availability of existing, reserved right-of-way (acquired by Caltrans for the project in 1958), the ability of the project alternatives to meet the project purpose and need, and reducing community and environmental impacts. Alternatives 1 and 2 were determined to be the best options that would meet these criteria.

Please refer to Master Response #5 (Public Participation and Environmental Review Process) for a discussion of public involvement opportunities offered. Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

I19-2 The No-Build Alternative is discussed in Section 1.4.2 of the EIR/EA. The No-Build Alternative provides a basis for comparing the build alternatives. Under NEPA, the No-Build Alternative can be used as the baseline for comparing environmental impacts; under CEQA, the baseline for environmental impact analysis usually consists of the existing conditions at the time of the Notice of Preparation (NOP) or at the time the environmental studies began. However, the absence of the project does not preclude the absence of impacts under the No-Build Alternative. Section

1.4.2 (No-Build Alternative) includes discussion of potential impacts under the No-Build Alternative.

CEQA Guidelines require that an EIR describe “a range of reasonable alternatives to the project.” It further states that “an EIR need not consider every conceivable alternative to a project” Furthermore, under NEPA, the Federal Highway Administration Technical Advisory T 6640.8A, “an EA does not need to evaluate in detail all reasonable alternatives for the project, and may be prepared for one or more build alternatives.” A total of nine project alternatives were evaluated by the Project Development Team, resulting in the two build alternatives and No-Build Alternative currently under consideration. These included the Mass Transit Alternative, the Transportation Demand Management Alternative, the Transportation System Alternative, Alternative 1, Alternative 2, and the No-Build Alternative, as well as the initially proposed Alternative 1, Alternative 3, and Alternative 5. Through careful review of both environmental and engineering considerations, as well as public input, only two alternatives were found to adequately meet the project’s purpose and need, resulting in the two build alternatives and No-Build Alternative.

Each build alternative has unique features, which are described in Section 1.4.1 (Build Alternatives). The alignments of the two alternatives are similar between North Dakota Avenue and SR 99; however, the major difference involves the construction of a southbound SR 99/Needham Street off-ramp under Alternative 1, compared to the reconstruction of the southbound SR 99/Kansas Avenue off-ramp under Alternative 2.

- I19-3** Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5) and Master Response #5 (Public Participation and Environmental Review Process).
- I19-4** Please refer to the response to Comment I19-1.
- I19-5** Several meetings, hearings, and open houses were held to discuss the proposed project. Several alternatives were evaluated prior to arriving at the two listed alternatives discussed in the EIR/EA. Please refer to response to Comment I19-1 and Master Response #5 (Public Participation and Environmental Review Process) for a detailed discussion of public engagement.
- I19-6** The Project Development Team values public engagement in the project development process. Public input has been used to refine and inform the design of the project, along with environmental and engineering considerations, and is summarized in Section 4.2 (Public Participation) of the EIR/EA. In addition, meeting minutes from the various PIP meetings have been recorded and are held as part of the administrative record by Caltrans. Attendees from the various PIP meetings have

included community members, Caltrans Project Development Team members, and consultant and local agency staff, as well as local elected officials. Please refer to Master Response #5 (Public Participation and Environmental Review Process) for a discussion of previous public engagement efforts. Please refer to the response to Comment I19-4 regarding the range of alternatives evaluated as part of the project, as well as the unique features of the two build alternatives. Appendix I: Agency Coordination includes the PIP Team Members, as well as meeting minutes from two meetings.

- I19-7** The project is listed as a “regional project” in the 2014 StanCOG *Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*, with limits between SR 99 and North Dakota Avenue. The 2008 *City of Modesto Final Urban Area General Plan* also designates North Dakota Avenue as a six-lane expressway. The SR 99/Pelandale interchange is located approximately 2 miles north of the project eastern end at North Dakota Avenue/Kansas Avenue, providing an important connection to the expressway at North Dakota Avenue. Text has been added to Section 1.2.3 (Independent Utility and Logical Termini) to provide context.
- I19-8** Utilities that fall within the project study area have been surveyed and included in the EIR/EA under Table 2-16: Major Utilities within the Study Area. These include but are not limited to aboveground power and telephone lines, underground gas lines, and underground fiber-optic communication cables. Please refer to Section 2.1.5 (Utilities/Emergency) of the EIR/EA.
- I19-9** Project impacts on traffic, noise, and air quality have been described in detail in Sections 2.1.6, 2.2.7, and 2.2.6 of the EIR/EA. Also, community impacts were analyzed and discussed in Section 2.1.4 of the EIR/EA. Neither build alternative would bisect the existing subdivisions/neighborhoods within the project study area. While both build alternatives would require the relocation and acquisition of some businesses and residences, displacements and acquisitions would occur on the periphery of the neighborhoods (primarily the Elm Tract neighborhood) and within areas west of SR 99 the relocations would not introduce a geographical gap or division to existing neighborhoods. Neither build alternative would separate local residents from community facilities or prevent access to community services. Local residents and the surrounding community would experience a change in (potentially enhanced) quality of life from increased circulation, congestion relief, and improved operations of the transportation network. This would, in turn, improve access to businesses, residences, and community services and facilities. No community facilities would be directly impacted by either build alternative. Access to community services and facilities would be maintained throughout construction.

Alternative 1 and Alternative 2 would not adversely affect local residents from

accessing community services and would not have any impact on the number of students attending school. Local residents and commuters would benefit from increased mobility and access improvements to businesses, residences, and community services and facilities. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

Noise barriers were evaluated at specific locations along the project limits and are discussed in the 2016 Noise Study Report included in the Technical Studies. Noise barriers were evaluated for feasibility at various wall heights and the ability for the barrier to provide a minimum of 5 decibels of noise reduction for one impacted receiver. Noise barriers were not considered feasible if several driveways and side streets would require gaps in the barriers, since gaps greatly reduce the effectiveness of barriers and cause safety issues such as inadequate sight distances. Please see Master Response #11 (Noise Impacts and Abatement).

The proposed project would not lead to new or worsened violations of national and state air quality standards for particulate matter or carbon monoxide. Operational improvements would reduce precursor and criteria pollutant emissions relative to the No-Build Alternative; however, a temporary increase in precursor and criteria pollutants would occur during construction. Dust generated during stockpile excavation would be monitored in compliance with an air monitoring plan approved by the Department of Toxic Substances Control. Concurrence was received from the U.S. Environmental Protection Agency Region 9 on April 25, 2016, and the Federal Highway Administration on April 26, 2016, concluding that the proposed project is not a project of air quality concern. While mobile source air toxic emissions would occur as a result of future increases in vehicles miles traveled, as discussed in Section 2.2.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities) of the EIR/EA, emissions are estimated to be lower than if the project were not completed and would likely be lower than present emissions as a result of the U.S. Environmental Protection Agency's national control programs, which are intended to lower mobile source air toxic emissions.

Where possible, proposed noise barriers will be constructed early in the construction schedule to help minimize construction impacts to adjacent residences and businesses. Traffic impacts would be minimized where possible through the use of flaggers and signed detours. Roadway closures will be posted several days prior to closure to prepare the public for future delays. Message signs and public notices in local papers will be used to keep the public informed of closures in advance.

The project will be completed in two phases, with each phase taking two years to complete. There will not be 10 years of construction along the corridor. Phase 1 is anticipated to start in 2018 and be completed in 2020. Phase 1 involves the construction of two lanes of traffic from North Dakota Avenue to the Needham Street Bridge Overcrossing and all intersection, interchange, ramp, and bridge work. North Dakota Avenue will be widened to two lanes in each direction from Maze Boulevard to Kansas Avenue with a center left-turn lane. All interchanges and bridges will be constructed to accommodate the added lanes proposed as a part of Phase 2. Construction of Phase 2 is anticipated to start in 2026 and be completed in 2028. At the completion of Phase 2, the proposed project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west directions of travel and a single-point urban interchange at North Carpenter Road. The remaining soundwalls and retaining walls will be constructed. Since all bridges, ramps, interchanges, and intersections will be completed under Phase 1, there would be fewer impacts to local streets during Phase 2.

I19-10

The stockpiles themselves, in both current and past conditions, do not have an operating storm water collection and conveyance system. Storm water falling on the stockpiles throughout the years has most certainly ponded in areas within their boundaries, run off beyond their boundaries, soaked into stockpile and surrounding soil, evaporated, and dissipated through evapotranspiration.

As-built drawings maintained by Caltrans for past highway projects in the immediate vicinity of the stockpiles do depict utility and drainage easements associated with property now occupied by stockpile soil. The only known utility feature shown is an underground irrigation pipeline owned by the Modesto Irrigation District. The irrigation pipeline is present adjacent to and crossing under the eastern edge of Stockpile 2. Also shown on various drawings are underground drainage improvements that include pipelines that were placed for the purpose of collecting and transmitting storm water runoff within the depressed segment of State Route 99 both north and south of Kansas Avenue, to the Kansas Avenue pump station. The pipeline was installed as a drainage improvement project associated with construction of the Modesto Bypass in the 1960s. In turn, the Kansas Avenue pump station lifts the storm water collected in the depressed segment to a pipeline that pipes the water beneath Stockpile 3, where it outfalls to the retention basin next to Stockpile 3. In an effort to clarify and discuss the above drainage information with the commenter, Caltrans provided the commenter with a tour of the stockpile site on February 27, 2017. Also, Caltrans corroborated the “old drawing” drainage information with the commenter via email on May 12, 2017.

Regarding Stockpile 1, there are no known Caltrans-prepared plans that show piping or drainage features adjacent to or beneath the stockpile.

While rainfall totals have exceeded averages for the 2016- 2017 rain year, rainfall totaling 6 inches and greater has not fallen during a single rain event. While a total volume for such an event can be arrived at empirically, the said volume of water associated with 6 inches across the surface area of the stockpiles would be significantly reduced by processes that include percolation and evapotranspiration, as well as runoff dictated by physical features such as topography, slope grades, drainage patterns, etc.

I19-11 (DTSC) The comment is acknowledged and will be part of the public record. The Central Valley Regional Water Quality Control Board reviewed data from the referenced City well and compared it with data from other City wells. With the exception of Uranium, no other data were above the maximum contaminant level in the referenced well. Uranium is a naturally occurring element in groundwater in this area.

The following link provides information for municipal wells in Modesto:

https://sdwis.waterboards.ca.gov/PDWW/JSP/MonitoringResults.jsp?tinwsys_is_number=5556&tinwsys_st_code=CA&counter=0

The Central Valley Regional Water Quality Control Board has previously offered to sample private wells.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I19-12 (DTSC) The comment is acknowledged and will be part of the public record. The FMC site is currently under the oversight of the Central Valley Regional Water Quality Control Board. Groundwater at the FMC site is currently being pumped and treated. The source of contaminants in the groundwater at the FMC site originated from surface impoundments containing liquids/sludge which caused contaminants in the liquid/sludge to migrate into groundwater.

Groundwater monitoring wells at the stockpiles were installed to determine whether the contaminants in the stockpiles have migrated into groundwater under the stockpiles.

Based on sampling analysis of groundwater under the stockpiles, there has been no significant migration of contaminants from the stockpiles into groundwater. Contaminants in the groundwater under the stockpiles are below water quality objectives, and do not pose an unacceptable risk to human health.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, the Caltrans Modesto Soil Stockpile monitoring well system

was constructed to intercept and monitor the first water-bearing zone affected should leaching occur. Based on adjacent hydrogeologic conditions at the FMC site, the stockpile system was designed to detect the lateral (horizontal) or two-dimensional distribution of contaminants across the stockpile site as compared to water quality determined from background wells. The system is adequate for its purpose and representative of groundwater quality both upgradient as well as downgradient from the stockpiles due to hydrogeologic conditions beneath the stockpile site, the location of its wells, and the body of water quality data that demonstrates consistent constituent concentrations from repetitive sampling. Additionally, considering that widespread degradation caused by FMC is primarily Nitrate, Sulfate, Sulfide, Total Dissolved Solids and elevated pH, the stockpile system was properly designed to detect such constituents since they would alter downgradient geochemistry in the first zone. Since hydraulic gradient is a main component of groundwater flow direction, which has ranged from south to southeast beneath the stockpiles since monitoring first occurred in 2006, the lateral distribution of the monitoring well locations is also adequate to collect downgradient samples representative of the flow directions.

Questions or concerns related to water quality impacts associated with the FMC site should be directed to the Central Valley Regional Water Quality Control Board. The Regional Board staff managing the FMC site can be reached by telephone or email at:

Walter Floyd – Project Case Manager; (916) 464-4651;
Walter.Floyd@waterboards.ca.gov

Marie McCrink – Case Manager Supervisor; (916) 464-4670;
Marie.McCrink@waterboards.ca.gov

I19-13 (DTSC) The comment is acknowledged and will be part of the public record. The Department of Toxic Substances Control (DTSC) reviewed work plans for the characterization and removal of soil associated with Modesto Ramp Rehabilitation Project, State Route 99 – Kansas Avenue. The sampling and analysis indicated that the excavated soil associated with the Ramp project was below screening level thresholds for contaminants. Based on these results and the off-site management of excavated soil, the Ramp project did not pose an unacceptable risk to human health. However, since soil testing indicated that the soil had the potential to contain designated waste, it was taken to a Class II landfill for the protection of groundwater. Forward Inc. Landfill was the Class II landfill selected by Caltrans.

In this case a designated waste is a nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a Waste Management

Unit could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

The description above relates only to soils that are destined for Waste Management Units (WMUs) or landfills. WMUs are those waste units or landfills that accept varying types of wastes and have the potential to create acidified leachates within the unit. These acidified leachates have a tendency to dissolve metals, including naturally occurring metals from soils and/or other solids within the WMU. The leachates can then cause significant contamination threats to groundwater beneath the WMUs, especially in those older Class III-type landfills that are not lined. Even the newer Class III-type landfills do not have the proper liners and protections in place to handle designated wastes, thus the requirement to use Class II WMUs for these types of waste. The Class II WMUs have a more robust liner and leachate collection system in place. If used as planned, the soils within the stockpiles of the SR 132 West project are not expected to produce acidified leachates that could in turn create designated waste issues that are typically seen in WMUs or landfills.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

I19-14 (DTSC) The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments, and beneath the pavement of the SR 132 project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

There will not be an impervious clay liner under the stockpiles. Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil, will likely be needed to meet the design grade of the elevated section of State Route 132. As currently planned, the majority of Stockpile 3 will be consolidated within the SR 132 Overcrossing abutment where Needham Avenue

meets SR 132. Excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. In addition, this alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

I19-15 As stated in Section 1.4 (Project Alternatives), the Mass Transit Alternative would "improve or add mass transit (for example, bus or rail) facilities." However, the Mass Transit Alternative would not meet the purpose and need of the project; specifically, additional bus or rail would not address the project volumes of truck traffic (21 percent of total traffic volumes) and would not enhance the ability to transport goods and services. Also, the San Joaquin Regional Rail Commission's ACE forward would extend ACE service to downtown Modesto by 2019, thereby providing regional rail service from Modesto to the Bay Area.

I19-16 Please see Master Response #7 (Pedestrian and Bicycle Accommodations).

I19-17 The visual renderings presented in Section 2.1.7 (Visual/Aesthetics) are representations of what the area will look like after construction. The level of detail that can be included is limited. The telephone poles and electric lines will be relocated to an area outside the viewshed as shown and will remain above ground. The alley access shown in the image will be removed and replaced with a fence along the right-of-way to limit access.

I19-18 All comments provided during public circulation are included in this document. Please see Master Response #5 (Public Participation and Review Process) and Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

I19-19 A total of nine project alternatives were evaluated by the Project Development Team, resulting in the two build alternatives and No-Build Alternative currently under consideration. These included the Mass Transit Alternative, the Transportation Demand Management Alternative, the Transportation System Alternative, Alternative 1, Alternative 2, and the No-Build Alternative, as well as the initially proposed Alternative 1, Alternative 3, and Alternative 5.

Please refer to Master Response #5 (Public Participation and Environmental Review Process) for more information on public participation opportunities offered during the planning and environmental review phases.

[Comment-PH1]
Comments from Frank J. Varni



PH1

Comment Card

NAME: FRANK J VARNI
ADDRESS: 2142 W. WHITMORE CITY: MOD. ZIP: 95358
REPRESENTING: LVF ENTERPRISES

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

OPTION #2 IS THE PERFERRD ROUTE 1

REMOVING ON-RAMP & OFFRAMP AS THEY EXIST WOULD DISTROY BUSSENESS ALONG KANSAS. 2

A GOOD EXAMPLE IS NORTH 9TH ST. LETS NOT MAKE THE SAME MISTAKE.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017
Attention: Philip Vallejo
California Department of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno, CA 93721

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[Response-PH1]

Responses to Comments from Frank J. Varni

Thank you for your comments.

PH1-1 Your preference for Alternative 2 has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

PH1-2 The project will require the closure of some existing ramps, the modification of some existing ramps, and the construction of some new ramps, which may have an impact on surrounding businesses due to the change in freeway traffic circulation patterns. The changes to existing ramps are necessary to provide acceptable freeway traffic operations and to maintain the local road access to SR 99. The project could affect access to businesses and potentially reduce freeway-related traffic. Measures to reduce impacts are outlined in Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA.

Under Alternative 2, the southbound SR 99 off-ramp to Kansas Avenue would remain open, but the northbound SR 99 on- and off-ramps would be closed. Southbound freeway traffic would be affected as the existing southbound SR 99 on-ramp from Kansas Avenue would be changed to a collector-distributor ramp (a type of road that parallels and connects a freeway's or highway's main travel lanes to a frontage road or on-ramp) that would become 5th Street. From 5th Street, traffic continuing onto southbound SR 99 would have to enter at the H Street on-ramp. Businesses in this location may be impacted if motorists choose to use services with more traditional freeway access rather than the new access; however, access to Kansas Ave will be maintained from SR 99.

[Comment-PH2]
Comments from Edmond Morad



Comment Card

NAME: EDMOND MORAD

BUS. ADDRESS: 830 KANSAS AVE CITY: MODESTO ZIP: 95351

REPRESENTING: MY SELF

MY ADDRESS: 3208 POPILLON CT., MODESTO CA. 95356

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

- 1) I WOULD LIKE TO SELECT OPTION #2 ROUTE
BECAUSE THE SOUTH BOUND, EXIT FROM 99 REMAINS AS IS.
KANSAS 1
- 2) I BELIVE OPTION #2 WILL HAVE LESS IMPACT ON THE BUSINESSES
ON KANSAS. 2

***Place your comments into the Comment Box tonight or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
California Department of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno, CA 93721

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[Response-PH2]
Responses to Comments from Edmond Morad

Thank you for your comments.

- PH2-1** Your preference for Alternative 2 is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.
- PH2-2** Please refer to the response to Comment PH2-1.

[Comment-PH3]

Comments from Lewis Cimino, M.D.



Comment Card

NAME: Lewis Cimino, M.D.
 ADDRESS: 4101 Kansas Ave CITY: Modesto ZIP: 95358
 REPRESENTING: _____

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

There is no need to disrupt
our country roads (Kansas, Dakota)
for this project. It should
be a true express way from
99 all the way out to Gates
Road and leave Kansas and
Dakota alone

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH3]
Response to Comment from Lewis Cimino, M.D.

Thank you for your comments.

PH3-1 Please see Master Response #1 (Purpose and Need) and Master Response #3 (Logical Termini).

[Comment-PH4]

Comment from Mary S. Matthews



Comment Card

NAME: MARY S MATTHEWS
 ADDRESS: 819 LOLETTA AVE CITY: MODESTO ZIP: 95351
 REPRESENTING: SELF

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

WE ALREADY HAVE PROBLEMS WITH THE HOMELESS POPULATION
IN OUR ALLEY AND UP ON THE CALTRANS BERM (STOCKPILE 2)
ACCORDING TO THE DRAWINGS THERE WILL BE PLENTY OF
ROOM BETWEEN THE BOUNDARY FENCE AND THE SOUNDWALL
FOR THEM TO INVADÉ EVEN MORE THAN THEY ALREADY
DO. WE HAVE FIRES ALMOST YEARLY CAUSED BY
THE HOMELESS, WHAT STEPS WILL BE TAKEN TO
PREVENT THIS PROBLEM?

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH4]
Response to Comment from Mary S. Matthews

Thank you for your comments.

PH4-1 Measures to secure Caltrans right-of-way and deter occupation of the right-of-way may include installing chain link and/or steel bar security fencing, steepening slopes adjacent to walls and structures and installing block slopes pavers under bridges. To reduce potential fire hazards, Caltrans, at a minimum, mows the stockpiles annually prior to the 4th of July. Vegetation is an important element of Caltrans Modesto Soil Stockpile maintenance as it helps to prevent erosion, impede/reduce surface water runoff, and minimize dust generation. Maintenance of the stockpiles also includes regular repair of perimeter right-of-way fence breaches to preclude unauthorized access. Fence gates are locked. Although fires may be caused by the homeless, only one fire has been reported to have occurred at the stockpile (2014).

[Comment-PH5]

Comments from Patricia Wilhelm



Comment Card

NAME: Patricia Wilhelm
 ADDRESS: 1717 Kansas Ave CITY: Modesto ZIP: 95358
 REPRESENTING: myself

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

- Why does the ^{SR}132 need to end at Dakota 1
- Makes no sense
- Why can't the current 132 be widened and improved 2
- ~~how~~ that proposal would eliminate the need to upset that Barium site

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH5]
Responses to Comments from Patricia Wilhelm

Thank you for your comments.

PH5-1 Please see Master Response #3 (Logical Termini).

PH5-2 Widening the existing SR 132 roadway would still require that the Caltrans Modesto Soil Stockpiles would still need to be addressed. Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

[Comment-PH6]

Comments from Hement Khatri



Comment Card

NAME: HEMENT KHATRI - QUALITY INN (HOTEL)
 ADDRESS: 500 KANSAS AVE CITY: MODESTO ZIP: 95351
 REPRESENTING: Self

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

1. ACCORDING TO EIR REPORT, MY PROPERTY IS A "FULL TAKE" WHEREAS ACCORDING TO ENGINEERING/DESIGN, MY PROPERTY IS NOT IMPACTED. NEED CLARIFICATION. 1
2. IF THE PROJECT GOES AHEAD AND MY PROPERTY (A BUSINESS) NOT TAKEN THEN I AM CONCERNED ABOUT THE NOISE & EXPOSURE THAT WILL IMPACT MY HOTEL. 2

***Place your comments into the Comment Box tonight or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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**[Response-PH6]
Responses to Comments from Hement Khatri**

Thank you for your comments.

PH6-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The Quality Inn property at 500 Kansas Avenue, Modesto (029-015-026) is located on Maps 3A and 3B of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the property will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required to widen the roadway and adjust the curb cut to the property. Access to the restaurant will be maintained during and upon completion of construction. No relocation is required at this time. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase. All required land within the proposed right-of-way will be acquired by the City of Modesto prior to construction. Please refer to Master Response #8 (Property Acquisitions) and Section 2.1.4.2 (Relocations and Real Property Acquisitions) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PH6-2 Please refer to the response to Comment PH6-1. In the Draft EIR/EA, this property was shown as a full acquisition; however, the design has been updated so that it will require only a partial acquisition, and thus an additional noise analysis was conducted to evaluate noise impacts for this property. Please see Master Response #11 (Noise Impacts and Abatement).

An analysis of potential noise impacts resulting from the proposed improvements has been completed to determine what impacts either alternative would have on the hotel, and was included in an addendum to the Noise Study Report. Since the rooms at the Quality Inn have no balconies or patios, frequent human outdoor use was modeled and assessed at the pool area. Predicted existing and future noise levels at the hotel would be 65 A-weighted decibels (dBA) and 67 dBA, respectively. The change in noise levels from existing and future conditions would be 2 dBA, which is not noticeable to the human ear. There is no significant change in noise levels due to the existing high traffic volumes along existing SR 99. In addition, any traffic noise generated from the new SR 132 alignment would be partially shielded by the hotel building. In an effort to further reduce future traffic noise, noise barriers were modeled along the new SR 132 alignment and connector ramp from northbound SR 99 to westbound SR 132. A noise barrier 16 feet tall would not provide a minimum of 5 dB of noise reduction for one impacted receiver due to the existing shielding from the hotel building. Per 23 Code of Federal Regulations 772 and the Caltrans

Noise Protocol, the construction of additional noise barriers to reduce traffic noise levels from Kansas Avenue would not be acoustically feasible due to access requirements, which would require openings in barriers. The noise analysis for this property has been updated and is included in the revised Noise Study Report.

[Comment-PH7]
Comments from Rachel Bradley



Comment Card

NAME: Rachel Bradley
ADDRESS: 1637 Elm Ave CITY: Modesto CA ZIP: 95358
REPRESENTING: Self

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

Please Revisit your list on the MAP
list. Confused on the Partial / full decisions
We need to know in detail time frame of
the starts of Project and how much you
will finally take of our land!
Keep us in the Loop
Please

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017
Attention: Philip Vallejo
California Department of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: _____



[Response-PH7]
Responses to Comments from Rachel Bradley

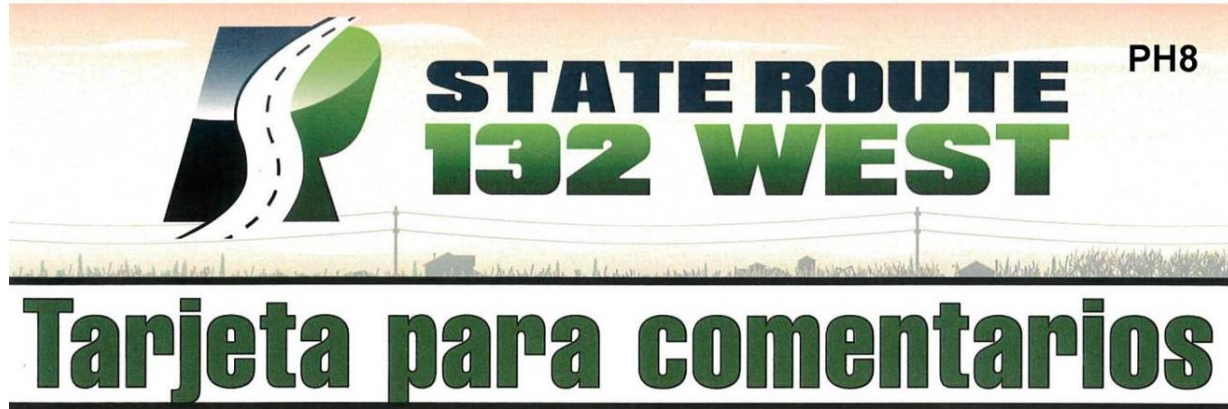
Thank you for your comments.

PH7-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. Your property is located on Map 2 of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the project will partially impact your property. It is anticipated that approximately 34,400 square feet of your property may be required for the proposed roadway design, slope work and fencing. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase. Please see Master Response #8 (Property Acquisitions).

PH7-2 Phase 1 is anticipated to begin in 2018, be completed within 12 to 15 months, and be open to traffic by 2020. Construction on your property would occur during Phase 2, which is expected to begin in 2026 and be completed by 2028. Please refer to Master Response #8 (Property Acquisitions) for additional information. You will be added to the project mailing list for future communications.

[Comment-PH8]

Comments from Alejandra Muñoz



NOMBRE: Alejandra Muñoz
 DIRECCIÓN: 500 Kansas Ave CIUDAD: Modesto CÓDIGO POSTAL: 95351
 ¿A QUIÉN REPRESENTA?: St. A. Guayabitos Restaurant (Ramos Diaz Enterprises inc)

Por favor, agregame a la lista de correo del proyecto.

Me gustaría que los siguientes comentarios se archivaran en el expediente * (escriba en letra de imprenta):

- 1- Porque no le avizaron a todos negocios Latinos en el idioma español? 2- Porque no avizaron a los residentes de estas propiedades? | 1 2
- 3- Que van a pasar con toda la inversión que hice en esta Propiedad para hacer mi negocio? | 3
- 4- Quien me pagaria mis gastos personales y lo de los empleados? | 4
- 5- Me van a proveer otro edificio con permisos para operar mi negocio y con cuanto me van a alentar para levantar otra vez mi negocio. 6- Si agarro ayuda legal que pagara los honorarios de abogados | 5 6

* Coloque sus comentarios en el cuadro de comentarios de esta noche O envíe sus comentarios a la siguiente dirección:

Los comentarios deben ser recibidos antes del 17 de marzo de 2017

Atención: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

¿Cómo se enteró de esta reunión? periódico hoja informativa alguien me dijo de otra manera: por q avizar me Rosa



**[Response-PH8]
Responses to Comments from Alejandra Muñoz**

Thank you for your comments.

PH8-1 To announce the Public Hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the Public Hearing venue changed from the Red Event Center to Mark Twain Junior High School. An English and Spanish postcard advertising this change was mailed on February 8, 2017 to approximately 2,500 residents, tenants, and business owners within the project area. DTSC also sent out the Modesto Soil Stockpiles factsheet (English and Spanish) to the project mailing list on February 6, 2017. A revised Public Notice with the new location was published by StanCOG in *The Modesto Bee* and *Vida en el Valle* on February 8, 2017. The Public Notice was published one last time in the same newspapers above on February 15, 2017. The Hearing Notice was also published in English and Spanish on the Stanislaus Council of Government's website at <http://www.stancog.org/trans-ps.shtm> and on the Caltrans District 10 website at <http://www.dot.ca.gov/d10/x-project-sr132west.html>. Copies of the Draft Final RAP were also available on the DTSC Envirostor Database at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 and http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024.

For additional information on the public engagement process to date, please see Master Response #5 (Public Participation and Environmental Review Process).

*Para anunciar la Audiencia Pública, StanCOG publicó un Aviso Público en The Modesto Bee (versión en inglés) y Vida en el Valle (versión española) el 18 de enero de 2017. El 30 de enero de 2017, la Audiencia Pública Cambió del Red Event Center a Mark Twain Junior High School. Una tarjeta postal inglesa y española que anunciaba este cambio fue enviada por correo el 8 de febrero de 2017 a aproximadamente 2.500 residentes, inquilinos y dueños de negocios dentro del área del proyecto. El 6 de febrero de 2017, DTSC también envió la hoja informativa de Modesto Soil Stockpiles (inglés y español) a la lista de correo del proyecto. Un aviso público revisado con la nueva ubicación fue publicado por StanCOG en The Modesto Bee y Vida en el Valle el 8 de febrero, 2017. El Aviso Público fue publicado una última vez en los mismos periódicos anteriores el 15 de febrero de 2017. El Aviso de Audiencia también fue publicado en inglés y español en el sitio web del Consejo de Gobierno de Stanislaus en <http://www.stancog.org/trans-ps.shtm> y en el sitio web del Distrito 10 de Caltrans en [State Route 132 West Freeway/Expressway Final EIR/EA
J-207](http://www.dot.ca.gov/d10/x-project-</i></p></div><div data-bbox=)*

sr132west.html. También se pueden obtener copias del borrador del RAP final en la base de datos del DTSC Envirostor en http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 y [http://www.envirostor.dtsc.ca.gov/public/profile_report.asp? Global_id = 50280024](http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?Global_id=50280024).

Para obtener información adicional sobre el proceso de participación pública hasta la fecha, consulte la Respuesta # 5 (Participación Pública y Proceso de Revisión Environmental).

PH8-2

Notices were circulated to the general public in Modesto, as well as the project direct mailing list. To announce the Public Hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the Public Hearing venue changed from the Red Event Center to Mark Twain Junior High School. The Hearing Notice was also published in English and Spanish on the Stanislaus Council of Government's website at <http://www.stancog.org/trans-ps.shtm> and on the Caltrans District 10 website at <http://www.dot.ca.gov/d10/x-project-sr132west.html>. Copies of the Draft Final RAP were also available on the DTSC Envirostor Database at http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 and http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=50280024.

*Se distribuyeron avisos al público en general en Modesto, así como la lista de correo directo del proyecto. Para anunciar la Audiencia Pública, StanCOG publicó un Aviso Público en *The Modesto Bee* (versión en español) y *Vida en el Valle* (versión en español) el 18 de enero de 2017. El 30 de enero de 2017, la audiencia pública cambió de Red Centro de eventos para la escuela secundaria Mark Twain. El Aviso Público fue publicado una última vez en los mismos periódicos anteriores el 15 de febrero de 2017. El Aviso de Audiencia también fue publicado en inglés y español en el sitio web del Consejo de Gobierno de Stanislaus en <http://www.stancog.org/trans-ps.shtm> y en el sitio web del Distrito 10 de Caltrans en <http://www.dot.ca.gov/d10/x-project-sr132west.html>. También se pueden obtener copias del borrador del RAP final en la base de datos del DTSC Envirostor en http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001626 y [http://www.envirostor.dtsc.ca.gov/public/profile_report.asp? Global_id = 50280024](http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?Global_id=50280024).*

PH8-3

The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 500 Kansas Avenue, Modesto (029-015-026) is located on Maps 3A and 3B of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the front building close to the roadway (the restaurant)

will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required from the front yard to widen the roadway and adjust the curb cut for access to the property. Access to the restaurant/sandwich shop will be maintained during and upon completion of construction. No relocation is required at this time. Please see Master Response #8 (Property Acquisitions).

Equipo de Desarrollo de Proyectos: Se han revisado los Mapas de Impactos de Parcelas Propuestas y se pueden encontrar en el Apéndice F del EIR / EA. La propiedad en 500 Kansas Ave, Modesto (029-015-026) se encuentra en el Mapa 3A y 3B de los mapas revisados. Bajo la alternativa 1 y la alternativa 2 (la alternativa preferida), el edificio delantero cerca de la carretera (el restaurante) permanecerá. Puede ser necesaria una toma y / o servidumbre parcial de aproximadamente 2.460 pies cuadrados para ensanchar la calzada y ajustar el corte de la acera para acceder a la propiedad. El acceso al restaurante se mantendrá durante y al término de la construcción. No se requiere ninguna reubicación en este momento. Consulte la Respuesta maestra # 8 (Adquisiciones de propiedades).

PH8-4

The buildings at 500 Kansas Avenue will no longer be taken as a part of the project. Property owners will be justly compensated for the partial loss of property as a result of the project. However, compensation for personal or employee expenses or loss of business as a part of this project will not be provided. Please see Master Response #8 (Property Acquisitions). The roadway and access to your business will remain open during construction. To mitigate temporary, construction-related impacts, a Traffic Management Plan will be developed to outline the procedures for traffic re-routing, detour plans, construction scheduling, and public notification. These procedures will ensure that clear signage and information about limited mobility and access are provided to the residents, business owners, and patrons.

Los edificios en 500 Kansas Avenue ya no serán tomados como parte del proyecto. Los propietarios serán justamente compensados por la pérdida parcial de la propiedad como resultado del proyecto. Sin embargo, no habrá ninguna compensación por gastos personales o de empleados o pérdida de negocios como parte de este proyecto. Consulte la Respuesta maestra # 8 (Adquisiciones de propiedades). La carretera y el acceso a su negocio permanecerán abiertos durante la construcción. Para mitigar los impactos temporales relacionados con la construcción, se desarrollará un Plan de Gestión del Tráfico para delinear los procedimientos para el reencaminamiento del tráfico, los planes de desvío, la programación de la construcción y la notificación pública. Estos procedimientos asegurarán que se proporcionen letreros claros e información sobre la movilidad y el acceso limitados a los residentes, propietarios de negocios y clientes.

PH8-5

The buildings at 500 Kansas Avenue will no longer be taken as a part of the project. There will not be any compensation for expenses associated with building permits or business operations. Please refer to the response to Comment PH8-4.

Los edificios en 500 Kansas Avenue ya no serán tomados como parte del proyecto. No habrá ninguna compensación por los gastos relacionados con los permisos de construcción o las operaciones comerciales. Consulte la respuesta al comentario PH8-4.

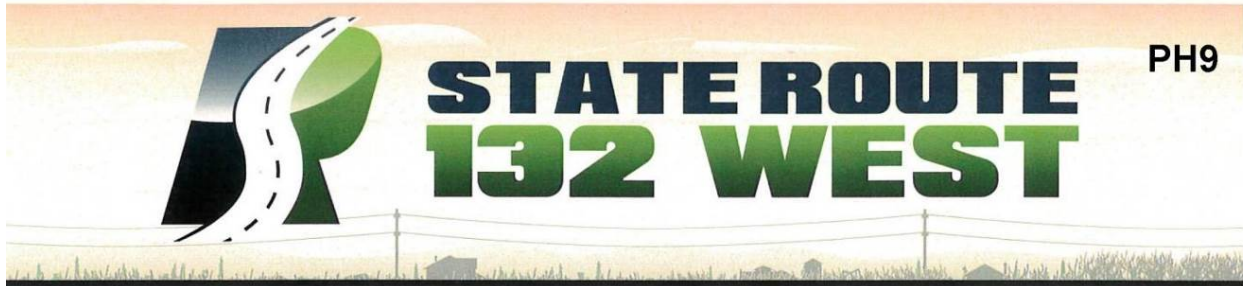
PH8-6

The Project Development Team recognizes and appreciates the challenges associated with relocations and the loss of property for the affected residents. The City of Modesto would be responsible for right-of-way acquisition and will acquire all land within the proposed right-of-way prior to construction. All property acquisitions have been carefully considered, and Caltrans will be responsible for assisting with relocations for individuals and businesses that are undergoing a difficult transition, consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Although Caltrans does not provide compensation for legal fees that may be incurred, the Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. Under Alternative 1 and Alternative 2 (the preferred alternative), the front building close to the roadway (the restaurant) will remain. No relocation is required at this time.

Equipo de Desarrollo de Proyectos: El Equipo de Desarrollo de Proyectos reconoce y aprecia los retos asociados con las reubicaciones y la pérdida de propiedad de los residentes afectados. La Ciudad de Modesto sería responsable de la adquisición del derecho de paso y adquirirá todas las tierras dentro del derecho de paso propuesto antes de la construcción.

Todas las adquisiciones de propiedad han sido cuidadosamente consideradas y Caltrans será responsable de asistir con las reubicaciones de individuos y negocios que están pasando por una transición difícil, consistente con los requisitos de la Ley de Asistencia de Reubicación y Adquisición de Bienes Raíces de 1970. Aunque Caltrans no provee Compensación por honorarios legales que se pueden incurrir, los Mapas de Impactos de Parcelas Propuestos han sido revisados pueden ser encontrados en el Apéndice F del EIR / EA. Bajo la alternativa 1 y la alternativa 2 (la alternativa preferida), el edificio delantero cerca de la carretera (el restaurante) permanecerá. No se requiere ninguna reubicación en este momento.

[Comment-PH9]
Comments from Ricardo Arrieta



Comment Card

NAME: Ricardo Arrieta
ADDRESS: 609 Elm Ave CITY: Modesto ZIP: 95351
REPRESENTING: myself

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

I like the alternative 2 option.
I like the Kansas exit. Also the sound wall
is more back in my property. Alternative 1
would force me to move to a new
house. I would have to sell.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017
Attention: Philip Vallejo
California Department of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno, CA 93721

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[Response-PH9]
Responses to Comments from Ricardo Arrieta

Thank you for your comments.

PH9-1 Your preference for Alternative 2 is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

PH9-2 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 609 Elm Street in Modesto (029-015-023) is located on Map 3A and Map 3B. Under Alternative 1 and Alternative 2 (the preferred alternative), a partial acquisition or easement of approximately 30,764 square feet of your property may be required. Impacts associated with Alternative 1 would be associated with the construction of the roadway and soundwall. Impacts associated with Alternative 2 would be associated with the construction of the roadway, retaining wall, guardrail and soundwall. No relocation is anticipated at this time. All impacted owners will be provided notification of the acquiring agency's intent to acquire an interest in the property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist will be assigned to each property owner to assist them with this process. Please refer to Master Response #8 (Property Acquisitions) and Section 2.1.4.2 (Relocations and Real Property Acquisitions) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

[Comment-PH10]

Comments from Jean Calkins



Comment Card

NAME: Jean Calkins
 ADDRESS: 1317 Ohio CITY: MODESTO ZIP: 95358
 REPRESENTING: Self

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

DO NOT BUILD THIS PROJECT will only
Tear up a good neighborhood - Destroy farmland
that cannot be replaced. Costs of 214 Million
dollars for a 4 mile road which is unneeded.
Use our transportation money to repair and
improve our existing roads and bridges.
Highway 99 is totally filled up now and this
project only mis-aligns 132 even further
on the west/east side of Modesto.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017
 Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH10]
Responses to Comments from Jean Calkins

Thank you for your comments.

PH10-1 Your preference for the No-Build Alternative is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

The project will not bisect an established community and is therefore not expected to result in impacts to community character or cohesion. Established communities are located both to the north of Kansas Road and to the south of Kansas Road, south of the project alignment. Residential displacements would occur for houses located on the periphery of residential areas along SR 99 and would also occur within areas west of SR 99 that are not associated with established neighborhoods. Please see Master Response #9 (Farmland Impacts) and Section 2.1.3 (Farmlands) of the EIR/EA.

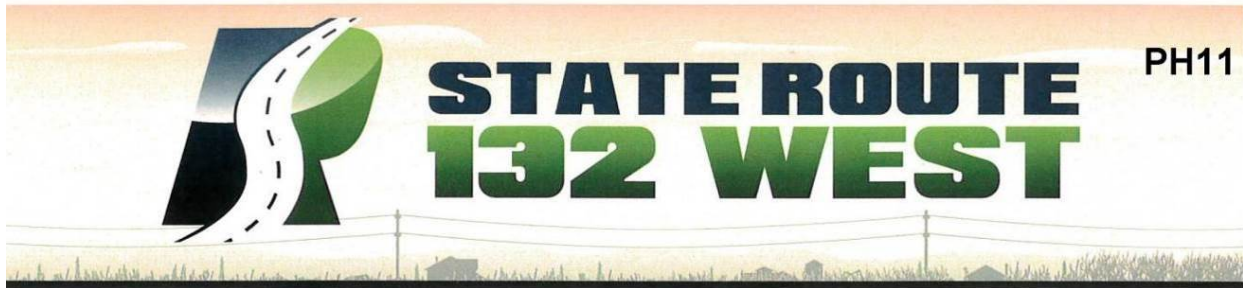
Both build alternatives would result in the conversion of prime and unique farmland, which includes encumbered land under Williamson Act contracts. Of the farmland properties impacted, nine have Williamson Act contracts. The conversion of small slivers, or linear strips, of land to transportation use should not affect the Williamson Act contract status of the remainder of the parcel because the amount of acreage remaining on the parcel is substantial enough to avoid cancellation of the contract.

PH10-2 This project does not include repairs or improvements to other roads or bridges, beyond what is described in the EIR/EA. Funding for this project includes only items described in the Project Description Section 1.3 (Farmlands) of the EIR/EA. However, Caltrans is continuously working statewide to improve the existing infrastructure, which may include other facilities in the area in the future. Please see Master Response #1 (Purpose and Need) for more information.

PH10-3 As shown in Table 2-26 of the EIR/EA, neither of the build alternatives would increase overall traffic volumes on SR 99, but both Alternative 1 and Alternative 2 (the preferred alternative) would change several locations where traffic can access SR 99. Though the build alternatives would not change the overall peak hour level of service on SR 99, both would reduce the peak period vehicle hours of delay as a result of eliminating and/or reconfiguring some ramps and by providing additional capacity through auxiliary lanes. The reduced vehicle hours of delay under both build alternatives would be beneficial and would not lead to direct or indirect

impacts on SR 99. The project would also include a direct-connector flyover ramp from northbound SR 99 to westbound SR 132. Please refer to Master Response #1 (Purpose and Need) for more information.

[Comment-PH11]
Comments from Ignacio Contreras



Comment Card

NAME: Ignacio Contreras
 ADDRESS: 820 Kansas Ave CITY: Modesto ZIP: 95351
 REPRESENTING: My self
Home 2507 Bridle path Ln
 Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

- ① I would like to select option #2 Route
 Because The South Bound Kansas Ext from 99
 Remain as is. 1
- ② I Believe option #2 will Have Less Impact on The
 Business on Kansas 2

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH11]
Responses to Comments from Ignacio Contreras

Thank you for your comments.

- PH11-1** Your preference for Alternative 2 is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.
- PH11-2** Please see response to Comment PH11-1.

[Comment-PH12]

Comments from Lou Varni



Comment Card

NAME: Lou Varni (209) 492-9355
 ADDRESS: 615 Kansas Ave CITY: Modesto ZIP: 95350
 REPRESENTING: LVF Enterprises LVfenterprises@
SBCglobal.net

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

I prefer option #2. Kansas Ave must have at least one direct egress/ingress to Highway 99. Without a direct link to Hwy 99 the commercial corridor along Kansas Ave will die. Many, many small business will close and hundreds of people will lose their jobs. The area will become a blighted area. An example of this is North 9th Street along Briggsman Ave - that is what will happen to this Kansas Ave Business Corridor - This should be a gateway to Modesto not a deserted abandoned site.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

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 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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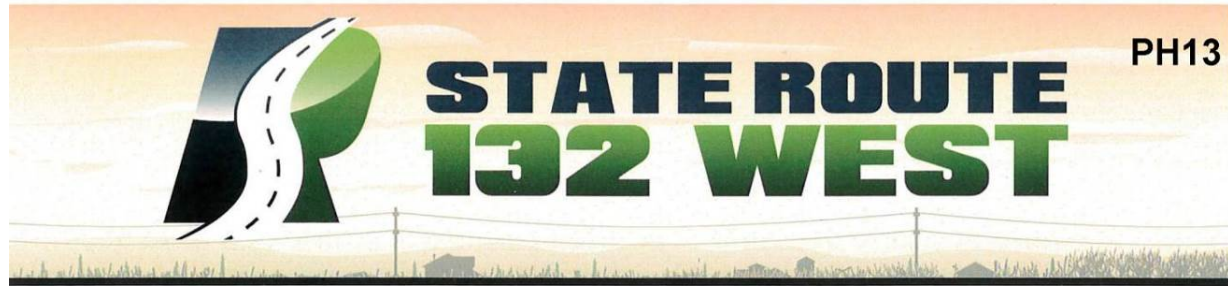
[Response-PH12]
Responses to Comments from Lou Varni

Thank you for your comments.

PH12-1 Your preference for Alternative 2 is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

[Comment-PH13]

Comments from Vijay Solanki



Comment Card

NAME: Vijay Solanki
 ADDRESS: 722 Kansas Ave CITY: Modesto CA ZIP: 95351
 REPRESENTING: Self

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

*Last Time when the City of Modesto close the Road, our Business drop 90% For 3 to 4 months. We are small Business, We had to lay off. All the Staff.
 ① closer of the Hwy is NOT acceptable to use. if you are closing the highway We want to be fully compensated. if this project move forward. The other thing A Property on the Hwy create A lot of Business During Season, this is How we Survive through slow season We will need to be well compensated during and after the project is completed.*

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH13]
Responses to Comments from Vijay Solanki

Thank you for your comments.

PH13-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. Your property at 722 Kansas Avenue in Modesto (029-015-021) is located on Map 3A and Map 3B. Under Alternative 1 and Alternative 2 (the preferred alternative), a partial acquisition or easement of approximately 2,550 square feet of your property may be required. The driveway would be realigned under Alternative 1 and would remain in the same location under Alternative 2. Please refer to the Master Response #8 (Property Acquisitions) and Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

As discussed in the EIR/EA, implementation of either build alternative would improve east-west travel within the study area, which would enhance regional and interregional circulation and highway operations. These improvements would benefit local and regional commerce by providing faster and more efficient transportation of goods and services throughout the region. However, short-term economic and business impacts would occur from business displacements, potential loss of tax revenue, and changes to business access.

The roadway and access to your business will remain open during construction. Please refer to the best management practices outlined in Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities) of the EIR/EA for a list of measures that will minimize traffic access disturbance to your property. These procedures will ensure that clear signage and information about limited mobility and access are provided to the residents, business owners, and patrons.

PH13-2 Please refer to the response to Comment PH13-1.

[Comment-PH14]

Comment from Hector Cortes



Comment Card

NAME: Hector Cortes
 ADDRESS: 737 Loletta Av CITY: Modesto ZIP: 95351
 REPRESENTING: _____

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

We have not been told whether or not our property is a partial or full take. We were told it is a partial but not what (how much) portion of property

Hector Cortes

737 Loletta Av.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH14]
Response to Comment from Hector Cortes

Thank you for your comments.

PH14-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 737 Loletta Avenue in Modesto (029-017-017) is located on Map 3A and Map 3B. Property at 737 Loletta Avenue will not be physically impacted by the project, and there is no plan for right-of-way to be acquired. However, the design is preliminary, and easements or acquisitions will be finalized in the final design phase. All impacted owners will be provided notification of the acquiring agency's intent to acquire an interest in the property, including a written offer letter of just compensation specifically describing those property interests. Please see Master Response #8 (Property Acquisitions) and Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

[Comment-PH15]
Comments from Don Calkins



Comment Card

NAME: Don Calkins
ADDRESS: 1317 OHIO Ave CITY: Modesto ZIP: 95368
REPRESENTING: _____

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

I favor the no build option for a lot of reasons.
1. Alternate #1 and #2 will not solve problems of too much traffic that will end up in Modesto and 99. The alternate pass seems to be also a bottleneck.
2. Cost \$\$\$ (my money)
3. I use part of 132 almost daily and it works fine for me.
4. Loss of Farm Land

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017
Attention: Philip Vallejo
California Department of Transportation
Acting Senior Environmental Planner
855 M Street, Suite 200
Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: _____



[Response-PH15]
Responses to Comments from Don Calkins

Thank you for your comments.

PH15-1 Your preference for the No-Build Alternative is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance between minimizing environmental impacts, right-of-way acquisition, and cost, while meeting the project's purpose and need. Future traffic projections indicate a need for these improvements. Please see Master Response #1 (Purpose and Need) for more information.

Altamont Pass along I-580 is approximately 40 miles west of the project limits and was not studied as a part of this project. The new SR 132 roadway from North Dakota Avenue to SR 99 will be an access-controlled freeway/expressway with no driveway access, which would prevent traffic bottlenecks.

PH15-2 This project is of major regional importance and is part of an extensive plan to improve the efficient and safe movement of commercial and residential traffic within the county, region, and state, for the benefit of the traveling public. Under the No-Build Alternative, traffic conditions are expected to deteriorate to unacceptable levels of service (LOS) by 2028 and 2048. Please see Master Response #1 (Purpose and Need) and Master Response #4 (Project Funding).

PH15-3 Future traffic on SR 132 (Maze Boulevard) will increase, requiring a need for improvements. Please see Master Response #1 (Purpose and Need).

PH15-4 Please see Master Response #9 (Farmland Impacts).

[Comment-PH16]

Comment from Bert Tabrizi



Comment Card

NAME: BERT TABRIZI
 ADDRESS: 131A MOTTENRY AVE CITY: MODESTO ZIP: CA 91350
 REPRESENTING: _____

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

WHAT'S THE IMPACT OF THE PROJECT ON JODKANAS
AVE AFTER FURTHER STUDY.

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

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[Response-PH16]
Response to Comment from Bert Tabrizi

Thank you for your comments.

PH16-1 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 500 Kansas Avenue, Modesto (029-015-026) is located on Maps 3A and 3B of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the front building close to the roadway (the restaurant) will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required from the front yard to widen the roadway and adjust the curb cut for access to the property. Access to the restaurant/sandwich shop will be maintained during and upon completion of construction. No relocation is required at this time. Please see Master Response #8 (Property Acquisitions).

[Comment-PH17]

Comments from Dennis Sevilla



Comment Card

NAME: DENNIS SEVILLA
 ADDRESS: 704 RACHELLE DR CITY: MODESTO ZIP: 95351
 REPRESENTING: SEVILLA FAMILY

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

WE ARE OPPOSED TO THE PROPOSED EXTENSION IN THE MIDST OF THE POPULATED
AREA, AND EVEN CONSIDER YOUR ORIGINAL PLAN FROM SEVERAL DECADES AGO AS
OUTDATED FOR WHAT MODESTO HAS GROWN INTO. FROM OUR PERSPECTIVE, CARPENTER AVE
HAS BECOME MORE TRAVELED, AND MORE CONGESTED THAN HWY 132, AND SHOULD BE
ATTENDED TO, INSTEAD. RATHER THAN SOLVING THE POLLUTED SOIL PROBLEM BY
ENCASEMENT, TRANSPORT THE SOIL TO THE UNPOPULATED VACANT PROPERTY AREA ALONG
THE TOULUMNE RIVER (OFF ROBERTSON RD) TO RAISE THE LEVELS TO PREVENT FUTURE
FLOODING, AND BEED THE PROPOSED HWY PROPERTIES TO MODESTO CITY FOR MIXED
HOUSING & BUILDING DEVELOPMENT. THIS IS MORE NEEDED THAN THE 132
EXTENSION!

*Place your comments into the Comment Box tonight or mail your comments to the following address:
Comments must be received by March 17, 2017
 Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: _____



[Response-PH17]
Responses to Comments from Dennis Sevilla

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH17-1 Your preference for the No-Build Alternative is noted and has been included in the public record. When the relocation of SR 132 west of SR 99 was planned in the 1950s, the proposed alignment relocated SR 132 traffic onto SR 99 between Kansas Avenue and L Street for continuity. Since that time, SR 99 has grown into a major north-south corridor that is heavily relied upon for regional and interregional travel. Capacity on SR 99 in the corridor is constrained due to the built-out condition of the area. Currently, SR 99 includes six lanes through the project limits, but is ultimately projected to require up to 12 lanes. However, at this time, it is anticipated that future projects would only add two additional lanes.

When Caltrans began planning for the relocation of SR 132 to the proposed alignment, SR 99 was the planned end with a 1950s-era trumpet (Type F-5) interchange connection. Caltrans and Federal Highway Administration (FHWA) design standards have changed such that the original connection is now substandard in design as well as interchange spacing. Please see Master Response #1 (Purpose and Need).

PH17-2 Please see Master Response #1 (Purpose and Need). Motorists traveling westbound on SR 132 from SR 99 will follow the new SR 132 and will not be able to exit onto North Carpenter Road, which will indirectly prevent additional traffic on North Carpenter Road as a result of the project.

PH17-3 (DTSC)

The comment is acknowledged and will be part of the public record. There was no specific alternative in the Draft Final RAP that evaluated removing the stockpiles and using the soil for the construction or raising of levees. The use of the stockpile soil for construction or raising of levees may not be feasible due to the presence of contaminants in the stockpiles and related regulatory requirements for managing contaminated soil off site. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West Project. Unpaved portions will have clean fill cover. Use of stockpile soil in

levees would not achieve the same level of protection that Draft Final RAP Alternative 4, Containment provides.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH17-4 Your preference for the No-Build Alternative is noted. Please see Master Response #1 (Purpose and Need).

[Comment-PH18]

Comments from Maureen Dick



Comment Card

NAME: MAUREEN DICK
 ADDRESS: 1671 ELM AVE CITY: MODESTO CA ZIP: 95358
 REPRESENTING: MYSELF

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

SEE ATTACHED. 1 PAGES

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: _____



MARCH 1, 2017

Let's use common sense and not government/Caltrans sense on the proposed 132 West Expressway.

Expressway – a highway especially planned for high speed traffic, usually having few if any intersections, limited points of access or exit, and a divider between lanes for traffic moving in opposite directions. Also called a **limited access highway**.

- 1. Don't build the expressway unless you can do it right. If it's a 4-way expressway then construct it as a 4-way expressway. Don't start it off as a 2-way and then put us through more construction when funding is available for the other 2 lanes. | 1
- 2. "A highway especially planned for high speed traffic" – the proposed expressway has two ninety degree turns; Maze to Dakota and Dakota to the Expressway. That does not fit the term expressway. | 2
- 3. "And access from private driveways along North Dakota Avenue to Maze Boulevard" – pg 17 of proposed draft. The right of way impact map 1 of 3 shows at least 10 driveways that will access the proposed route. Again this does not fit the term expressway. | 3
- 4. Rumor has it that there might not be enough funding for the proposed expressway to be elevated or goes underground at the main intersections and therefore will result in 4-way stops at Rosemore, Carpenter, and Emerald. | 4

Why are you trying to build something that already exists?

And the toxic stockpiles that you say are safe. Who are you kidding? I don't care how the soil test results came out. There will never be enough soil samples taken to my liking to truly show the amount of toxic sludge waste in those stockpiles. (See attached "FMC Corporation-Modesto, CA.) Where did all those chemicals, heavy metals and who knows what else go? Did they dissipate or evaporate? Did they turn into gases which have not been disturbed and are just waiting for construction to activate them? With all the precautions that have been taken over the years in order to retrieve soil and water samples and all the precautions to have removed and transported soil from Stockpile #3 when the Highway 99 off ramp was being redone shows that you know it too. That soil should have never been removed until the environment reports were complete. Caltrans snuck that one over on us. Which makes me wonder what else has been snuck over on us; **oh yeah, the stockpiles are not toxic.** | 5
| 6
| 7

Like I said in the beginning, let's use common sense and not government/Caltrans sense. Not to mention the wealthy influence on the existing 132/Maze Boulevard.

Maureen Dick

①

FMC CORPORATION – MODESTO, CA

Department of Toxic Substances Control August 2006

“Soil contaminated with barium, arsenic, and polynuclear aromatic hydrocarbons and soil containing petroleum hydrocarbons.”

1. Barium – Soluble barium components are poisonous. Affects nervous system causing cardiac irregularities, tremors, weakness, anxiety, dyspnea (shortness of breath) and paralysis. – Wikipedia

Barium – Personal Protection: Splash goggles, lab coat, dust respirator, approved/certified respirator, gloves, and boots. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. – Material Safety Data Sheet (MSDS)

2. Arsenic – Arsenic and many of its compounds are especially potent poisons. – Wikipedia

Arsenic - Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. – MSDS

3. Polynuclear aromatic hydrocarbons – Highly carcinogenic. High prenatal exposure to PAH is associated with lower IQ and childhood asthma. PAH pollution during pregnancy – low birth rate, premature delivery, and heart malformations. Cord blood of exposed babies shows DNA damage linked to cancer. Increased behavioral problems at ages six and eight. – Wikipedia

Polynuclear aromatic hydrocarbons – This product contains polynuclear aromatic hydrocarbons some of which have produced cancer in laboratory animals and humans. Vapor can produce eye, skin, and respiratory tract irritation. This material is a flammable material.

Inhalation – Harmful if inhaled. Over exposure to vapors and mists can cause respiratory and nasal irritation, anesthetic effects, dizziness, possible unconsciousness and asphyxiation, stupor, weakness fatigue, nausea, and

8

②

headache. Long term overexposure may cause damage to the brain, liver, kidneys or central nervous system.

Ingestion – Gastrointestinal irritation, nausea, vomiting, diarrhea, death, aspiration into the lungs which can be fatal.

Skin contact- Discoloration, moderate irritation, drying of skin, defatting and possible dermatitis. Dermal exposure plus sunlight could cause a phototoxic reaction that resembles sunburn

Eye contact- May cause severe irritation, redness, tearing or blurred vision. - MSDS

8

4. Petroleum Hydrocarbons – Also know as Total Petroleum Hydrocarbons – Some of the TPH compounds can affect your central nervous system. One compound can cause headaches and dizziness at high levels in the air. Another compound can cause a nerve disorder called “peripheral neuropathy” consisting of numbness in the feet and legs. Other TPH compounds can cause effects on the blood, immune system, lungs, skin, and eyes. – Agency for Toxic Substances and Disease Registry

3

SUBMITTED IN 2013

My concerns:

1. The health and welfare of my family, my friends, my community, and myself. | 9
2. For Stanislaus County to grow and prosper and all factors of "Water, Wealth, Contentment, Health" are considered in every decision. | 10
3. My "Vision" is to not have the SR132W Expressway go in my backyard or my neighbor's backyards. My "Vision" is not to have any further air pollution, noise pollution and ground contamination in my neighborhood that isn't necessary. | 11
4. I wish CalTrans had not disturbed the FMC/Caltrans Stockpile that was removed and transported during the closure of the Kansas Avenue off ramp project. These stockpiles are part of the SR132W Expressway project and the while the stockpiles were being tested at the SR132W project site, the stockpile in the Kansas Avenue off ramp project was being hauled away. Moved and disturbed, without any of the tests results released. Just because these were two different projects, the same criteria should have applied. | 12
5. And therefore I want all elected officials, government officials, county officials and the public to know all aspects of all future projects and to work together, not independently, for everyone's "Water, Wealth, Contentment, Health". | 13

Maureen Dick
1671 Elm Ave
Modesto, CA 95358
(209) 526-3174
tommoedick@sbcglobal.net

④

[Response-PH18]
Responses to Comments from Maureen Dick

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH18-1 Please see Master Response #4 (Project Funding).

PH18-2 According to the Caltrans Highway Design Manual, an expressway is characterized as having at least partial control of access, which may or may not be divided or have grade separations at intersections. The posted speed on North Dakota Avenue is 45 miles per hour and is expected to remain at 45 miles per hour or lower. Because driveway access will be maintained on North Dakota Avenue, this portion of the project is defined as a conventional highway. The freeway designation refers to the same segment between North Dakota Avenue and the Needham Street Bridge Overcrossing. The turns on North Dakota Avenue are consistent with design practice and standards at signal-controlled intersections.

The use of North Dakota Avenue as part of the new SR 132 route is temporary until future segments of the controlled-access freeway/expressway are built west of North Dakota Avenue. As a result, driveway access to North Dakota Avenue must be maintained. North Dakota Avenue will be a conventional highway during both phases of this project and will not be classified as an expressway or freeway because it will include driveway access and no center median.

PH18-3 Please refer to the response to Comment PH18-2.

PH18-4 Traveling west to east, the profiles for Phase 1 would begin at-grade from North Dakota Avenue until just east of Morse Road. The profile would then transition below grade (be depressed) west of the North Rosemore Avenue Overcrossing and continue below grade past the North Carpenter Road Overcrossing. East of this overcrossing, the profile would rise above grade (be elevated) to cross over the North Emerald Avenue Undercrossing and would continue this way over the proposed SR 132/SR 99 interchange. Along SR 99, the profile would match the current profile of SR 99. Please see Appendix F and Section 1.3 (Project Description) in the EIR/EA.

The funding for Phase I is based on the design that includes grade separations at these intersections. The current design of the roadway will create below-grade separations at Rosemore Avenue and North Carpenter Road, and an above-grade separation at Emerald Avenue. Please see Master Response #4 (Project Funding).

PH18-5 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to Caltrans workers, maintaining the vegetative cover, surface/groundwater water monitoring, and prohibiting placement or removal of soil from the site. These measures are protective of human health.

Over 440 soil samples were collected to characterize the nature and extent of contaminants in the stockpiles. Results of sampling are presented in site investigations reports, including the Heavy Metal Contamination Preliminary Site investigation Report, Modesto California, (Shaw, 2004); Site Investigation Report, Soils Investigation for Heavy Metals, State Route 99, Stanislaus County, California, (Shaw 2006); Final Preliminary Endangerment Assessment Report, Caltrans Modesto Soil Stockpiles, State Route 132/99 Interchange, Stanislaus County, California, (Shaw , 2009) and Supplemental Site Investigation, Caltrans Modesto Soil Stockpiles, State Route 132 West Freeway/Expressway Project, Stanislaus County, California, (Geocon, March 2013).

The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-6 (DTSC)

The comment is acknowledged and will be part of the public record. The contaminants in the stockpiles are solids. They do not dissipate, evaporate, or turn into gasses. Contaminants in the stockpiles have not migrated off-site. Construction activities will not “activate” contaminants in the stockpiles. There has been no significant migration of contaminants from the stockpiles.

Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil will likely be needed to meet the design grade of the elevated section of SR 132. As currently planned, the majority of Stockpile 3 will be consolidated within the SR 132 Overcrossing abutment where Needham Avenue meets SR 132. As described, excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

To minimize dust and ensure public safety during construction, the soil in the stockpiles will be thoroughly wetted down in all work areas before work is started and during work. Air monitoring will be required in the work areas.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-7 (DTSC)

The comment is acknowledged and will be part of the public record. The Department of Toxic Substances Control (DTSC) reviewed work plans for the characterization and removal of soil associated with Modesto Ramp Rehabilitation Project, State Route 99 – Kansas Avenue. The sampling and analysis indicated that the excavated soil associated with the Ramp project was below screening level thresholds for contaminants. Based on these results and the off-site management of excavated soil, the Ramp project did not pose an unacceptable risk to human health. However, since soil testing indicated that the soil had the potential to contain designated waste, it was taken to a Class II landfill for the protection of groundwater. Forward Inc. Landfill was the Class II landfill selected by Caltrans.

In this case, a designated waste is a nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a Waste Management Unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

The description above relates only to soils that are destined for Waste Management Units (WMUs) or landfills. WMUs are those waste units or landfills that accept varying types of wastes and have the potential to create acidified leachates within the unit. These acidified leachates have a tendency to dissolve metals, including naturally occurring metals from soils and/or other solids within the WMU. The leachates can then cause significant contamination threats to groundwater beneath the WMUs, especially in those older Class III-type landfills that are not lined. Even the newer Class III-type landfills do not have the proper liners and protections in place to handle designated wastes, thus the requirement to use Class II WMUs for these types of waste. The Class II WMUs have a more robust liner and leachate collection system in place. If used as planned, the soils within the stockpiles of the SR 132 West project are not expected to produce acidified leachates that could in turn create designated waste issues that are typically seen in WMUs or landfills.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-8 (DTSC)

The comment is acknowledged and will be part of the public record. The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles

include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-9 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to Caltrans worker, maintaining the vegetative

cover, surface/groundwater water monitoring, prohibiting placement or removal of soil from the site. These measures are protective of human health.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-10 The project is consistent with the Modesto Urban Area General Plan and the Stanislaus County General Plan, except where noted in the EIR/EA in Table 2-3. The environmental process requires that projects be evaluated to determine the individual and cumulative impacts the project will have on the environment and community-related resources. The EIR/EA was prepared and circulated to the public in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Quality Act (NEPA). Comments on the project, the Draft Final RAP and the EIR/EA were taken during the circulation period and at the Public Hearing on February 22, 2017. Environmental and community-related impacts associated with the project, including water, economic, and public health, were disclosed and evaluated in the EIR/EA. Where impacts were determined to be unavoidable, those impacts were minimized and mitigated as described and summarized in Section 3.2.5 (Unavoidable Significant Environmental Effects) of the EIR/EA.

PH18-11 (DSTC)

The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response. Also, please see Master Response #1 (Purpose and Need), Master Response #10 (Air Quality Improvements), Master Response #5 (Public Participation and Environmental Review Process) and Master Response #11 (Noise Impacts and Abatement).

In addition, moving truck traffic to a freeway/expressway would increase safety by minimizing the potential for rear-end collisions that could result from sudden stopping and associated potential for hazardous spills from trucks and vehicles traveling on SR 132.

PH18-12 (DTSC)

Please refer to the response to Comment PH18-7.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH18-13

Local officials have worked collaboratively with the Project Development Team over the course of the project. A stakeholder outreach group known as the Plan Implementation Project Team met several times between 2010 and 2014. The team was composed of representatives from Caltrans, StanCOG, the public works departments of the local jurisdictions, the Chamber of Commerce, the Manufacturers Council for the Central Valley, businesses, the general public, and elected officials. In addition, Caltrans and StanCOG have been coordinating with federal and state agencies since 2002. Several elected officials from the City of Modesto and Stanislaus County were also present at the Public Hearing Meeting on February 22, 2017. Specific information regarding all public meetings and agency meetings and coordination is discussed in Chapter 4.0 of the EIR/EA.

[Comment-PH19]
Comments from David R. Abel



Comment Card

NAME: David R Abel
 ADDRESS: 2404 Wolfeboro Ln CITY: Modesto ZIP: 95358
 REPRESENTING: Self

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

Enclosed!

***Place your comments into the Comment Box tonight
or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: Stan COG meeting



David Abel

2/27/17

2404 Wolfeboro Ln

Modesto Ca 95358

First off I'd like to say I think your awakening a sleeping giant, there's more toxic garbage in those stock piles than anyone knows about. If those stock piles were clean, that would mean that the F.M.C site, where the dirt came from would also be clean and suitable for building on, which to date I don't believe it is. And if it were clean, being prime highway frontage you'd think someone would do something with it.

Secondly I don't understand how Cal Trans or someone has not had cover or maintain the stock piles, to keep the run off from going into are drainage system

Thirdly I believe that your going to build two lanes on the southern side of the new 132 expressway, and that there will be no soundwalls along the

north side of Kansas, this might be O.K on the East side of Rosemore but on the West of Rosemore where it comes up to grade, being about the same elevation as Kansas, I fill that if not for all homes at least 100 yards before and a 100 yards after the 8 to 10 houses that face Kansas and have no fence in front or back of it, how ever you want to look at it. And this needs to be done in the 1st phase of the build not the second or third

3

Finally when you get to Dakota I am unclear, how many lanes there are going to be and which side they are going to be on. I've heard your going to build 2 maybe 4 lanes, I personally think 2 lanes would enough + that they need to be on the East side of Dakota, there for you wouldn't have to pay for the land or the houses that sit on the West side of Dakota. Also it looks to me that your going to put an on/off ramp on the north west corner of Kansas & Dakota which means your going to have to

4

5

disturb or buy land or the land and
the home, when if you could use any
of the other Three corner all that you
would disturb or have to buy would
be old Almond or Walnut trees. 5

Thank you

David R Abel

David R Abel

WARNING!!! Disturbing dormant poison can reactivate
Want to know more? Ask Jim here till 8:00 PM.

FMC CORPORATION – MODESTO, CA

Stockpiles between Kansas and Elm are not soil not dirt.

Department of Toxic Substances Control August 2006

Consist of only toxic

“Soil contaminated with barium, arsenic, and polynuclear aromatic hydrocarbons and soil containing petroleum hydrocarbons.”

sludge
drain off

1. Barium – Soluble barium components are poisonous. Affects nervous system causing cardiac irregularities, tremors, weakness, anxiety, dyspnea (shortness of breath) and paralysis. – Wikipedia

From
60 years

Barium – Personal Protection: Splash goggles, lab coat, dust respirator, approved/certified respirator, gloves, and boots. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. – Material Safety Data Sheet (MSDS)

of the
FMC
Chemical
plant.

2. Arsenic – Arsenic and many of its compounds are especially potent poisons. – Wikipedia

Arsenic - Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. – MSDS

3. Polynuclear aromatic hydrocarbons – Highly carcinogenic. High prenatal exposure to PAH is associated with lower IQ and childhood asthma. PAH pollution during pregnancy – low birth rate, premature delivery, and heart malformations. Cord blood of exposed babies shows DNA damage linked to cancer. Increased behavioral problems at ages six and eight. – Wikipedia

Polynuclear aromatic hydrocarbons – This product contains polynuclear aromatic hydrocarbons some of which have produced cancer in laboratory animals and humans. Vapor can produce eye, skin, and respiratory tract irritation. This material is a flammable material.

Inhalation – Harmful if inhaled. Over exposure to vapors and mists can cause respiratory and nasal irritation, anesthetic effects, dizziness, possible unconsciousness and asphyxiation, stupor, weakness fatigue, nausea, and

headache. Long term overexposure may cause damage to the brain, liver, kidneys or central nervous system.

Ingestion – Gastrointestinal irritation, nausea, vomiting, diarrhea, death, aspiration into the lungs which can be fatal.

Skin contact- Discoloration, moderate irritation, drying of skin, defatting and possible dermatitis. Dermal exposure plus sunlight could cause a phototoxic reaction that resembles sunburn

Eye contact- May cause severe irritation, redness, tearing or blurred vision. - MSDS

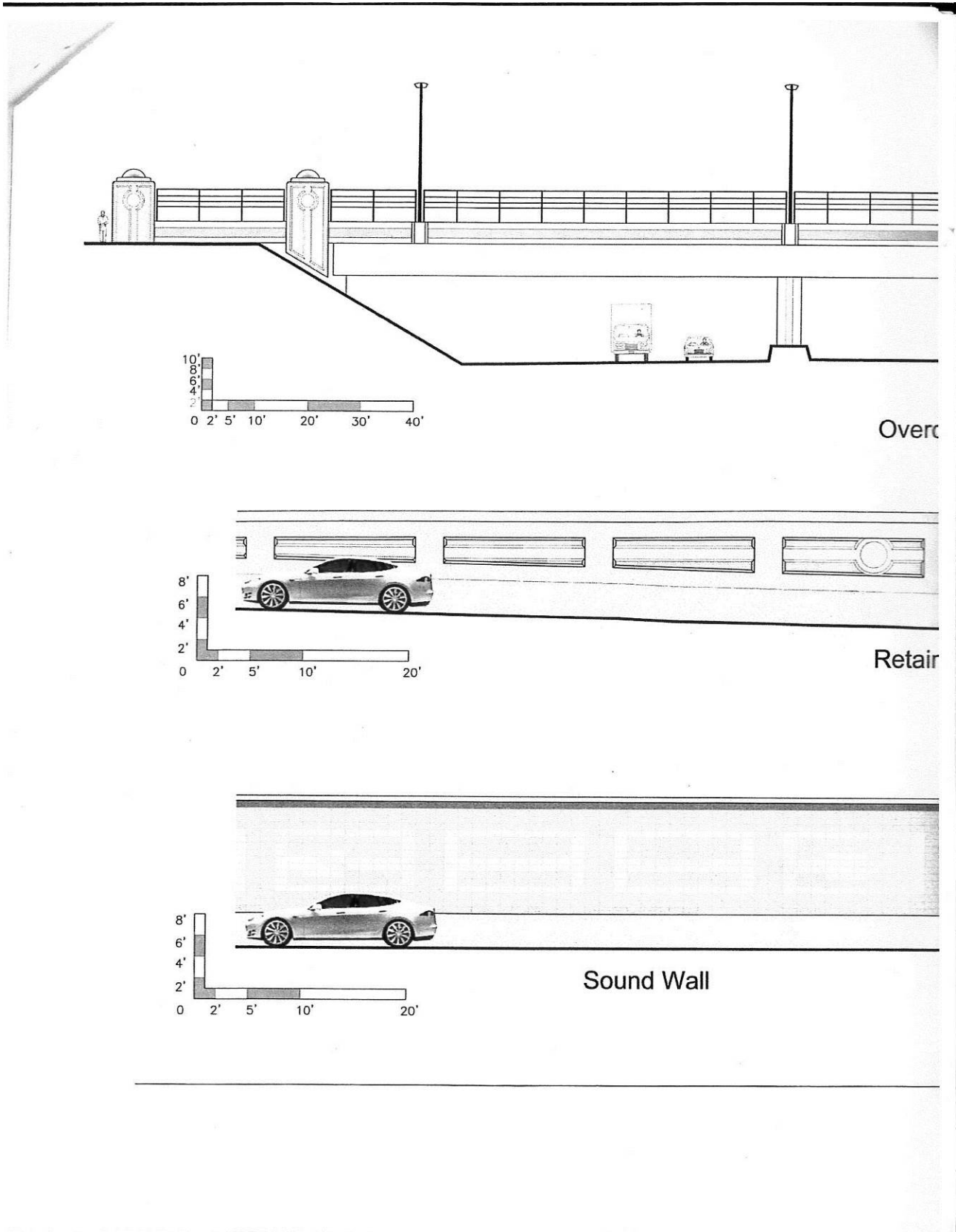
4. Petroleum Hydrocarbons – Also known as Total Petroleum Hydrocarbons – Some of the TPH compounds can affect your central nervous system. One compound can cause headaches and dizziness at high levels in the air. Another compound can cause a nerve disorder called “peripheral neuropathy” consisting of numbness in the feet and legs. Other TPH compounds can cause effects on the blood, immune system, lungs, skin, and eyes. – Agency for Toxic Substances and Disease Registry

BUREAU OF MINES 1961 YEAR, VOLUME 1 (1962)

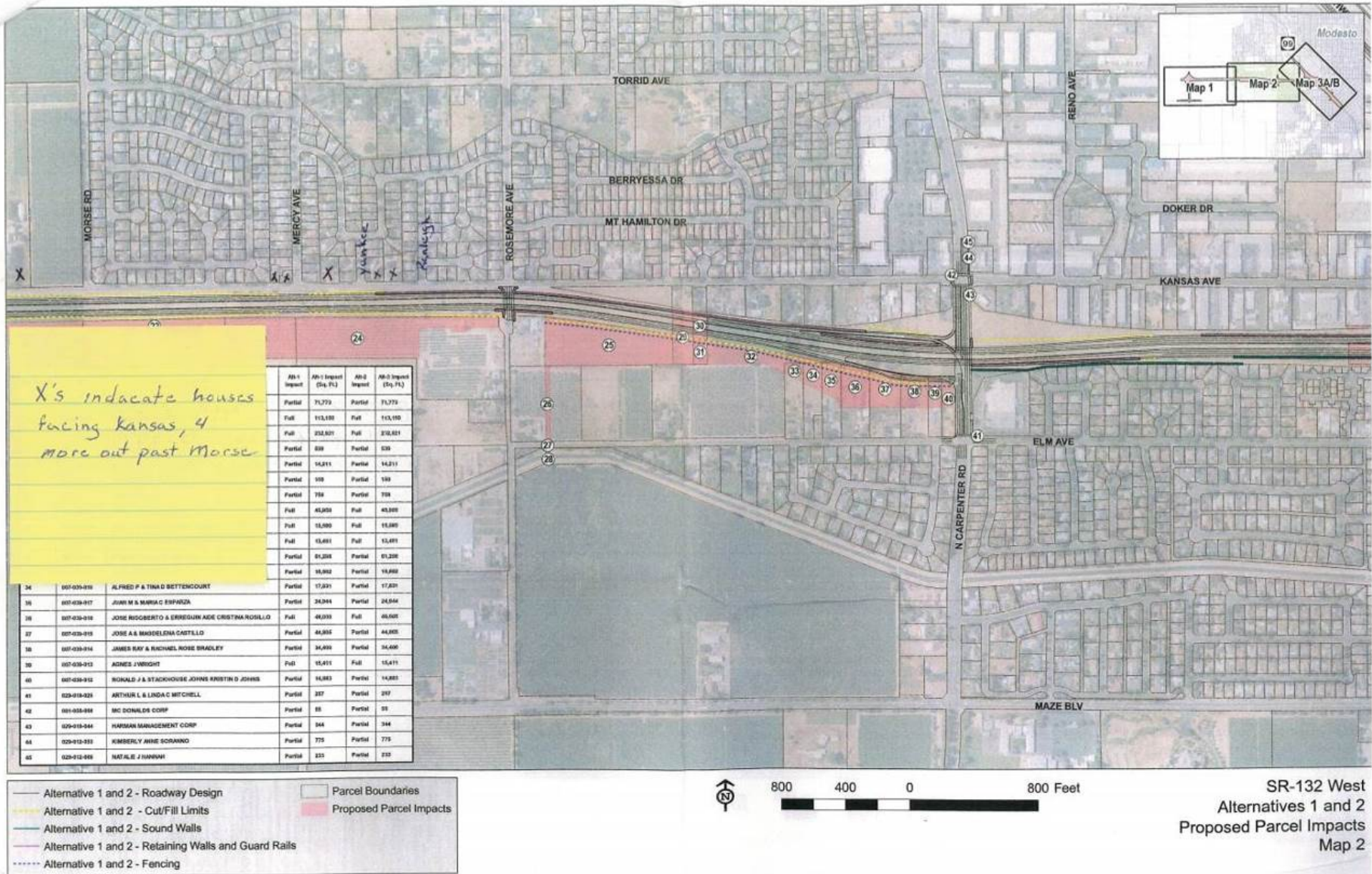
FMC Corp. began producing barium hydroxide monohydrate at its Modesto, Calif. plant.

1. Barium Hydroxide – It is corrosive and toxic – Wikipedia

Barium Hydroxide – Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation wear suitable respiratory equipment. If you feel unwell, seek medical attention. Splash goggles, lab coat, dust respirator, approved/certified respirator, and gloves. Causes damage to the following organs: blood, kidneys, lungs, the nervous system, liver, and mucous membranes. DANGER! Corrosive - MSDS



Appendix J • Comments and Responses



[Response-PH19]
Responses to Comments from David R. Abel

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH19-1 (DTSC)

The comment is acknowledged and will be part of the public record. Under the former Modesto Redevelopment Agency, the FMC site was being developed for commercial use. In 2007 under DTSC oversight, an Interim Removal Action Plan was implemented at the FMC site that cleaned up soil contamination to a level that is suitable for commercial use. The FMC site is currently under the oversight of the Central Valley Regional Water Quality Control Board.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH19-2 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to authorized Caltrans workers, maintaining the vegetative cover, surface/groundwater water monitoring, and prohibiting placement or removal of soil from the site. These measures are protective of human health.

Contaminants in the stockpiles are not readily soluble in water from rainfall events. Therefore contaminants in surface water runoff from the stockpiles have no significant impact to water quality. Runoff/surface water from the stockpiles is generally contained within the perimeter of the stockpiles.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH19-3

The new SR 132 alignment from North Carpenter Road to Mercy Drive (Area 2) would be constructed below grade (lower than the residential dwellings). It was determined that a noise barrier would not be effective in this area due to partial shielding from retaining walls and ambient traffic noise generated from other roadways. Please see Master Response #11 (Noise Impacts and Abatement). Please refer to Section 2.2.7 (Noise) of the EIR/EA.

PH19-4 North Dakota Avenue would be widened to two lanes in each direction during Phase 1 and would be the same for either alternative. The widening of North Dakota Avenue allows for one northbound lane and one northbound/right-turn lane from Dakota Avenue onto the new SR 132, one southbound lane, and one southbound/right-turn lane from North Dakota Avenue onto existing SR 132. The free right turn options help facilitate ease of traffic flow onto SR 132 and existing SR 132 from North Dakota Avenue and would reduce congestion and queueing on North Dakota Avenue. Furthermore, traffic analysis indicates that although the existing intersection at North Dakota Avenue and Maze Boulevard operates at LOS A, during the morning and evening periods, by 2048, the intersection would operate at LOS B in the morning and LOS D in the evening under the No-Build Alternative. Under the two build alternatives, the intersection will operate at LOS A in the morning and LOS B in the evening in 2048.

Please refer to Master Response #3 (Logical Termini) for further information.

PH19-5 The property in the northwest corner of the intersection is located within Caltrans-owned right-of-way.

[Comment-PH20]

Comments from Anna McCuiston



Comment Card

NAME: Anna McCuiston
 ADDRESS: 3412 Waynesboro Dr CITY: Corcoran ZIP: 95307
 REPRESENTING: Stanislaus County - Business owners

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

1. I agree with Alternative 3; Removal - Remove 160,000 cubic yards of stock pile soil to disposal facility 1
2. Fixes nothing for the death rate on 132. 2
3. No Build option! 3

***Place your comments into the Comment Box tonight or mail your comments to the following address:**
Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: social media Local Land Sweeps



**[Response-PH20]
Responses to Comments from Anna McCuiston**

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH20-1 (DTSC)

Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility was evaluated in the Draft Final RAP but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and it is less cost-effective than Draft Final RAP Alternative 4, Containment.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP. DTSC will make a final determination regarding Draft Final RAP Alternative 4, Containment, after Caltrans certifies the Final Environmental Impact Report. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill/liner or asphalt cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH20-2 Please see Master Response #2 (Accidents/Fatalities on Existing SR 132/Maze Boulevard).

PH20-3

Your preference for the No-Build Alternative is noted and has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

[Comment-PH21]

Comments from Melissa Kenney



Comment Card

NAME: Melissa Kenney
 ADDRESS: 637 S. Dakota Ave CITY: Modesto ZIP: 95358
 REPRESENTING: Shishir S. Handewar

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print):

1. I agree with Alternative 3: Removal of 100,000 cubic yards of stockpile soil to an off-site disposal facility. 1

2. This project will not fix traffic or road problems - waste of money. 2

***Place your comments into the Comment Box tonight or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: Social Media



**[Response-PH21]
Responses to Comments from Melissa Kenney**

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH21-1 (DTSC)

The comment is acknowledged and will be part of the administrative record. Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility, was evaluated in the Draft Final RAP but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and it is less cost-effective than Draft Final RAP Alternative 4, Containment.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill/liner or asphalt cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH21-2 Please see Master Response #1 (Purpose and Need).

[Comment-PH22]

Comments from Lewis Cimino, M.D.



NOMBRE: Lewis Cimino, M.D.
 DIRECCIÓN: 4101 Kansas Ave CIUDAD: Modesto CÓDIGO POSTAL: CA 95358
 ¿A QUIÉN REPRESENTA?: Memorial Medical Center

Por favor, agregame a la lista de correo del proyecto.

Me gustaría que los siguientes comentarios se archivaran en el expediente * (escriba en letra de imprenta):

As a TRAUMA Surgeon working in Modesto
the past 40 years, I have intimate first hand
knowledge of the frequent serious and often fatal
motor vehicle accidents that have occurred on 1
 Hwy 132. I have cared for several hundred
victims (my patients) over the years, even
lost close friends. The proposal to divert
MORE traffic on to an already dangerous
and inadequate highway is CRIMINAL and 2
Not Defendable.

* Coloque sus comentarios en el cuadro de comentarios de esta noche O envíe sus comentarios a la siguiente dirección:
 Los comentarios deben ser recibidos antes del 17 de marzo de 2017
 Atención: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

¿Cómo se enteró de esta reunión? periódico hoja informativa alguien me dijo de otra manera: LRCimino, MD



[Response-PH22]
Responses to Comments from Lewis Cimino, M.D.

Thank you for your comments.

PH22-1 Please see Master Response #2 (Accidents/Fatalities on Existing SR 132/Maze Boulevard).

PH22-2 The project would construct a four-lane freeway/expressway on a new alignment. The proposed project would begin at the intersection of existing SR 132 (Maze Boulevard) and Dakota Avenue and extend north along North Dakota Avenue for roughly half a mile. At the proposed intersection with North Dakota Avenue, the new alignment would extend east to SR 99 at the Needham Street Overcrossing Bridge. The proposed project would also involve improvements to the 5th and 6th Street connections to SR 99. Once all phases of the project are complete, the new SR 132 will be a controlled-access freeway/expressway connecting SR 99 to I-580, removing commercial and agricultural truck traffic from local roadways, including Maze Boulevard (existing SR 132). Please see Master Response #1 (Purpose and Need) and Master Response #2 (Accidents/Fatalities).

[Comment-PH23]

Comments from John J. Kenney



Comment Card

NAME: John J. Kenney
 ADDRESS: 6135 Dakota Ave. CITY: Modesto ZIP: 95358
 REPRESENTING: Land Owner - Stanislaus County

Please add me to the project mailing list.

I would like the following comments filed in the record* (please print): *I believe:*

1. Fixes no death rate on 132 - most west of Dakota
2. Alternative 3: Removal of 160,000 cubic yards
(you would make any land owner removes @ our cost)
3. This will NOT fix the traffic on 132, N-599,
120 or the traffic over the Altamont Pass
4. Fix current roads

***Place your comments into the Comment Box tonight or mail your comments to the following address:**

Comments must be received by March 17, 2017

Attention: Philip Vallejo
 California Department of Transportation
 Acting Senior Environmental Planner
 855 M Street, Suite 200
 Fresno, CA 93721

How Did You Hear About This Meeting? newspaper newsletter someone told me about it other: Land Owner



[Response-PH23]

Responses to Comments from John J. Kenney

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PH23-1 Please see Master Response #2 (Accidents/Fatalities on Existing SR 132/Maze Boulevard). The project would begin at the intersection of Dakota Avenue and existing SR 132 and does not extend west of Dakota Avenue. Please see Master Response #3 (Logical Termini).

PH23-2 (DTSC)

The comment is acknowledged and will be part of the public record. Contaminants are often left in place as part of a cleanup remedy. However, when this is done, the proponent, in this case Caltrans, enters into an Operation and Maintenance Agreement with DTSC and prepares an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan requires an annual inspection of the cap and other features of the containment remedy. The containment remedy is also evaluated every 5 years to make sure it is operating as designed.

Alternative 3, Removal, which removes the contaminant source by excavating and transporting the 160,000 cubic yards of stockpile soil to an off-site disposal facility was evaluated in the Draft Final RAP but not selected as the recommended alternative. While this alternative is technically feasible and is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and achieves the criteria for long-term effectiveness, reduction of toxicity, mobility and volume, short-term effectiveness, and implementability, Alternative 3, Removal, causes the greatest short-term impacts related to air quality and is less cost-effective than Draft Final RAP Alternative 4, Containment.

DTSC concurs with Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP. This alternative contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles. This alternative is cost-effective and technically feasible and is in compliance with ARARs and

achieves the criteria for long-term effectiveness, reduction of mobility, short-term effectiveness, and implementability.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PH23-3 This project is needed because future traffic projections indicate a need for these improvements. The existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service (LOS) D or better between North Dakota Avenue and SR 99 but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable LOS C or better. However, traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and North Carpenter Road would operate at LOS F, an unacceptable service level and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable LOS F. As detailed in Section 2.1.6 (Traffic and Transportation/ Pedestrian and Bicycle Facilities), future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied.

The project is intended to benefit both commuter and local traffic. Both build alternatives would meet the purpose and need by shifting most of the truck and commuter traffic onto the proposed new alignment and improving regional circulation and operations on the local transportation network. The project is also part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including the existing SR 132 (Maze Boulevard) alignment.

Traffic at SR 120 and over the Altamont Pass at I-580 is outside the project limits and is not a part of this project. Future improvements to SR 99 are proposed as separate projects.

[Comment-PHT1]

**Transcript of Verbal Public Comments Received at the February 22, 2017 Open Forum
Public Hearing, Mark Twain Junior High School Gym, 707 South Emerald Avenue, Modesto**

Deposition of CAL TRANS PUBLIC HEARING ON DRAFT REMEDIAL ACTION PLAN OPEN FORUM PUBLIC HEARING

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PHT

OPEN FORUM PUBLIC HEARING
ON DRAFT REMEDIAL ACTION PLAN
CALTRANS MODESTO SOIL STOCKPILES
STATE ROUTE 132 WEST FREEWAY/EXPRESSWAY PROJECT

TRANSCRIPT OF VERBAL PUBLIC COMMENTS

Wednesday, February 22, 2017

6:00 p.m. to 8:00 p.m.

Mark Twain Junior High School Gym

707 South Emerald Avenue

Modesto, CA

Reported by:

LISA S. COELHO, CSR #9487

Palermo Reporting Services

1301 G Street, Suite A

Modesto, CA 95354

(209) 577-4451

Deposition of CAL TRANS PUBLIC HEARING ON DRAFT REMEDIAL ACTION PLAN OPEN FORUM PUBLIC HEARING

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VERBAL COMMENTS MADE BY THE FOLLOWING:

KATHY FARIA

MARGARET TARO

JULIE BRUGHELLI

BERNICE HENDON

STEVE HAGEMANN

MARIA VILLASENOR

JEFF MARTINEZ

DENNIS SEVILLA

HEMENT KHATRI

SHARON CUSTER

RAMON SALINAS

ALEJANDRA MUNOZ (Through Interpreter Roberto Radrigan)

VIRGINIA HAMMOND

AIDE ERREGUIN

THOMAS DICK

FRANK VARNI

--oOo--

1 MS. KATHY FARIA: My name is Kathy Faria. I'm at
2 817 Ranleigh Way, Modesto, California.

3 And my comment is dealing with the purpose and
4 need of their reroute of 132 when I don't see the big
5 traffic issues that 132 does have. Every once in a while,
6 yes, it gets congested, but I feel like in Modesto we have
7 bigger issues with traffic, especially the
8 Carpenter-Briggsmore overpass over 99.

9 Especially now with -- at the west MJC campus and
10 putting in more classrooms, more facilities, the traffic
11 out there is a nightmare from morning -- basically from
12 7:00 to 8:00 o'clock, and then in the evening, from 3:30
13 almost to 6:00, it backs up. It is horrible. It is an
14 ugly mess. They need some other transition off the
15 freeway to that campus. It has been a nightmare for
16 years. And now that -- because maybe there are more funds
17 for MJC to add more classes, all the remodeling, the
18 population of students has increased at that west campus.

19 Okay. This is dealing with the stockpiles, the
20 three different stockpiles that are out there that are
21 fenced off. And they have four different alternatives for
22 what they're -- actions they're going to do and consider.
23 They're in favor with alternate No. 4, but to me, covering
24 it with cement does not solve the problem at all. It
25 doesn't get rid of the issue. It's just covering another

1 problem instead of alternate No. 3, removal of this dirt
2 that they know is contaminated, that's been contaminated 3
3 since the early 1900s. And, again, they know that's not
4 safe for our environment, and that's a big concern.

5
6 MS. MARGARET TARO: Margaret Taro, 3530 Maze,
7 M-A-Z-E, Boulevard, Modesto, 95358.

8 And I am in favor of changing 132 west to Dakota
9 and Kansas. And I live at 3530 Maze Road, which it's more
10 difficult to get my car out of the driveway all the time. 4
11 And there's so much traffic there, that I think it's time
12 to move and make a quicker, more safe entrance into and
13 out of Modesto. And I own five houses there on the corner
14 of Maze and Garrison. And I have tenants in four of them,
15 and I'm sure that the tenants would all appreciate
16 relocating Maze for their safety as well. And that's it,
17 and I thank you.

18
19 MS. JULIE BRUGHELLI: My name is Julie Brughelli.
20 (Address redacted per Ms. Brughelli).

21 And my comment is I have lived here since this 5
22 plan was began, the square mile. I've lived in this area.
23 It came in -- it came in behind my house as a child. We
24 moved away. It's FMC toxic chemical plant that they're
25 disturbing the soil on. They don't know -- and I've asked

1 them. I've had meetings with all of them and met with
2 them from every agency. They never could tell me what
3 they made there, let alone what chemicals were made there.
4 They don't know. 60 years -- please put that -- 60 years
5 that sludge went into open soil. It was not contained.

5

6 When they decided to put the so-called dirt,
7 which is all toxic sludge, and make these hills, these
8 berms, they dug that sludge up and plopped it everywhere,
9 60 years' worth. So maybe three months of poisoning,
10 making bricks; two months or five years making hospital
11 equipment; other years of making nothing but chemicals.
12 That was made. So we do know that arsenic and that -- we
13 know that's in it. It lies dormant until you disturb it,
14 and then it activates it.

6

15 We do not know how many other countless chemicals
16 may be reactivated by putting this expressway on those --
17 on that pile. I have lists of the toxins and what some of
18 them do, which are deadly. I have the list. And so that
19 is going to go back into our air, even if it's capped.
20 It's going to break down and be in our air, and if we
21 could see it, we would see how far it spreads. So we
22 can't see it; right? We cannot see it. Just like you
23 don't see steam until a cold day; then you can see how
24 much steam is flowing.

25 What they're doing to me is sinful to the

1 community. They didn't have hardly any homes there at the
2 time they put it there, but now they have over 4,000. I
3 have lists of people with cancers and diseases directly
4 related to some of these on my list, 200. And they've
5 never bothered to even ask me or look. I've been to the
6 Council since 2010. You know, just because you're poor --
7 and some of those families are over there, especially
8 with -- east of Carpenter, some of those families don't
9 even get newspapers.

7

10 I went out with bullhorns at nighttime to let
11 them know about past meetings when they said we didn't
12 care, and I got people involved. But they keep changing
13 this around and shaking it up, And they don't note when
14 there's the meetings and they don't get newspapers and
15 they don't understand all this. Some of them don't even
16 speak English and don't quite get the whole thing about
17 toxins. They just know that an expressway's coming.
18 That's sad.

8

19
20 MS. BERNICE HENDON: My name is Bernice Hendon.
21 I live at 225 North Dakota Avenue, Modesto, 95358.

22 And we're under full -- we fully understand that
23 our house is a full take. They've notified us of that
24 over seven months ago, and they just reiterated that they
25 will be fully taking our property.

9

1 So my thing is now I can't keep holding out.
2 They need to work it out with us to get this -- I have a
3 disabled child. I need to be able to move on, and I can't
4 sit here and get the phone call one month that they're
5 going to possibly take it and the next month there's a
6 chance that they're going to only take a portion of it.
7 Now, tonight they're saying they're taking the house
8 completely, but they're not for sure when funding's going
9 to happen. So I need to get in touch with somebody that
10 can get us moved so we can get out of the way. That's it.

9

11
12 MR. STEVE HAGEMANN: Steve Hagemann representing
13 Stanislaus County Office of Education, 1100 H Street,
14 Modesto, California, 95354.

15 And I just need a little more detailed
16 information on lot 99 -- VPN number or the VP -- yeah, VPN
17 number 029-015-025. It appears that the property is a
18 full take for -- but not in the construction zone, and we
19 just need more clarification on if it's a full take, how
20 it's going to work and so we can make plans.

10

21 And my e-mail address to contact me is
22 shagemann@stancoe.org.

23
24 MS. MARIA VILLASENOR: My name is Maria
25 Villasenor, and my address is 419 Laurel Avenue.

1 Okay. Want to know what -- I have a couple of
2 questions, and one of them is when they built -- I live --
3 you know where I live? There's a canal and behind it --
4 behind the canal, it's my house on Laurel Avenue, the
5 canal, and then Petersen School. And then it's the 132;
6 it's Maze Boulevard. We're there. Is it going to affect
7 Maze Boulevard all the way out to the 132, or what is
8 going to -- is congestion of the traffic going to be worse
9 or better? Because I feel that we need -- we already have
10 a lot of noise as it is because we're right by the
11 freeway.

11

12 There is -- behind my house where the embankment
13 of the canal is, there is a fence. And the City put up
14 that fence, but it's made out of wire. And the person
15 that owned the house before had a taller fence made. It's
16 like 8 feet tall. But a lot of people pass through there,
17 especially in the summer, and they -- they get into
18 people's houses because they have a clear view of all of
19 our homes.

12

20 What I want to know, is there any way -- or what
21 can we do or where do we go to see if they can build us a
22 wall for traffic and for people that are able to see into
23 our backyards and get into our -- into our property?

24

25 MR. JEFF MARTINEZ: My name is Jeff Martinez. I

1 live on 829 Chalone Drive, C-H-A-L-O-N-E, Modesto.

2 The reason -- I've, you know, read the report,
3 844-page report, online, the pdf. And the site No. 2,
4 they've got it listed as a hazardous Class 1 substance or 13
5 soil, I guess, and it makes no sense to me why they're not
6 going to remove it. Capping it I don't think is the
7 answer. Everything I've read talks about funding, no
8 funding available. If they're going to do the freeway, 14
9 why don't they do it right the first time.

10 The other, you know, problem I have with it is
11 it's going to be two lanes until 2026, one in each
12 direction, which means you're going to have cars that like
13 to go faster than the speed limit, which I don't, that are 15
14 going to be right on your tail, which is going to cause
15 road rage and have cars passing on the shoulder that are
16 in a hurry to go around. It's going to create problems.
17 And it's also out in the country from Dakota until
18 Carpenter. It's a pretty quiet neighborhood, and the
19 police don't watch that part of the road.

20
21 MR. DENNIS SEVILLA: My name is Dennis Sevilla,
22 S-E-V-I-L-L-A. I live at 704 Rachelle Drive in Modesto,
23 California.

24 And this is just several thousand feet away from
25 the deposits, the contaminated deposits, that Caltrans has

1 off Emerald Avenue. My thinking is that they should
2 remove that rather than try to enclose the sink -- like
3 they have the spent uranium or contaminated material that
4 they had from the East Coast. And my thinking is that
5 they should instead transport the material to close to the
6 Modesto sewage plant where they have approximately 100
7 plus or minus acres right next to the Tuolumne River that
8 is overflowed.

16

9 Because the important thing nowadays is to
10 raise -- try to raise the levees to prevent flooding, and
11 this kind of solves the problem. Because I've seen in the
12 past where the tomato companies have tried to help the
13 situation by dumping some of the refuse over there just to
14 help raise the levees. I think that would be a solution
15 instead of just leaving it where you have a concentrated
16 population where they have Loletta and Elm Street where
17 they have all the contaminated soils there.

17

18 From the reports they've said that it's
19 relatively safe, relatively safe; however, I would like to
20 see them do a study on whether the people have contracted
21 cancer or have died from cancer within that group and the
22 area between Elm, Loletta, Emerald. They would have more
23 bearing on whether it's safe or not, I'm afraid.

18

24

25 MR. HEMET KHATRI: My name is Hemet Khatri, and I

1 represent the property Quality Inn on 500 Kansas Avenue.
2 The comments, No. 1, the environmental impact
3 report says they were taking over my property 100 percent;
4 whereas, engineering is saying that my property is not 19
5 impacted. I am confused. I need to know one way or the
6 other. And No. 2 comment is if they don't take my
7 property, I am concerned. If they don't take my property
8 and this project goes on, I'm concerned about, No. 1, the 20
9 noise factor with the on-ramp so close to my hotel. It's
10 a hotel; people want to be able to sleep.
11 And, No. 2, the exposure of my hotel. Apparently
12 the overpass is going to be so high that it's going to 21
13 totally cover my building. People won't be able to see
14 it, that there's a hotel there, so how that is going to
15 affect my business. That's it.
16
17 MS. KATHY FARIA: Kathy Faria.
18 On the map of the preliminary, they show the
19 route of 132 to Dakota to Kansas. I have big issues that
20 they are going ahead with this project when straight out,
21 the property has not been purchased at Dakota and Kansas, 22
22 the two farmlands where one big house is there and another
23 one is an almond orchard. So that would be -- I'm
24 sorry -- west, north.
25 Then coming up Kansas from Dakota, the property

1 hasn't been purchased from the farmers there, so they're | 22
2 in progress of wanting to build this route when property |
3 hasn't even been purchased. They're saying the estimated |
4 date for the first phase to be done in 2020. To me which |
5 is a ridiculous idea when they say they're going to put in | 23
6 two lanes by 2020. Then they're going to go back by 2028 |
7 and put in another two lanes. What a freakin' waste of |
8 money. Excuse my French. What a waste of money. If |
9 you're going to build it, build it all at once, if you're |
10 going to do it, or don't do it at all. |

11 And there's alternative 1, there's alternative 2, | 24
12 and there's no alternative. I want no alternative. |

13
14 MS. SHARON CUSTER: So my name is Sharon Custer,
15 and I live at 901 Ranleigh, R-A-N-L-E-I-G-H, Way in
16 Modesto, 95358.

17 And I have a couple of questions. As far as the |
18 proposals, I'm in agreement with a lot of my neighbors |
19 that the proposed plans do not make sense. You're only |
20 taking the freeway access from 99 to Dakota, and then |
21 you're moving traffic right back onto 132. You're only -- 25
22 phase 1 that you barely have funding for is only going to |
23 be two lanes, which is what we currently have on 132, so |
24 that doesn't make sense. And you're diverting the |
25 traffic. When they get to Dakota, they have to make a |

1 left and get back onto 132.

2 In addition, the final buildout of it is only
3 going to be -- is not going to be until 2028. Where's the 25
4 funding for this going to be? So you're going to do this
5 project, and you don't even have all the funding for it.

6 My other question is I have asked numerous times
7 about the feasibility of improving Highway 132/Maze
8 Boulevard in order to improve the traffic flow if they are
9 dead set on making improvements. I have yet -- everybody 26
10 says that there is -- there are studies that have been
11 done; it will impact too many driveways. But nobody's
12 given a really valid reason. There's no -- I have not
13 seen any documentation or studies for the feasibility of
14 improving and expanding 132 from the freeway all the way
15 down.

16 And then can't remember what the other thing was,
17 but let me go ahead and add I still have concerns about
18 their plan for encapsulating the toxic waste and just how
19 safe that really is going to be. You know, many toxic 27
20 waste piles are fine until you try to touch them and then
21 find out that the integrity of the cylinder, whatever was
22 encaps -- whatever was stored gets compromised when you
23 try to move it. So I have concerns about that.

24 So -- and also the misinformation as far as the
25 sound walls go. We were told that there was going to be 28

1 sound walls up to Carpenter, because from Carpenter out,
2 that section of the expressway was going to be below 28
3 ground. And it's obvious from the plans that it's not,
4 so -- but my vote is I prefer the no change. But if
5 there's going to be a change, I want a clear explanation 29
6 why 132 -- the expansion of 132, improvement of 132 would
7 not be a better alternative.

8
9 MR. RAMON SALINAS: Ramon Salinas, 808 Altamont
10 Court, Modesto, California, 95358.

11 I'm concerned for Altamont Court that there's not
12 going to be a sound wall and that -- today we hear the
13 single tractors that do farmland, and we're going to -- 30
14 you know, without that being considered, we're concerned
15 with the sound and the pollution and everything that's
16 going to come with the -- it being level to Kansas today.
17 That's what the proposal says. So that's what our concern
18 is from our neighborhood. So that's about -- that's all I
19 got.

20
21 MS. KATHY FARIA: Kathy Faria.

22 And concern about the contaminants in the
23 stockpiles of barium, strontium, and lead, and the 31
24 long-term effect already that it has had on our residents
25 that live in these areas. It was told to us that

1 officials have gone around door-to-door to find out
2 history and background of cancers, brain tumors, people in
3 the family dying, and the patterns and this, and we
4 haven't seen any records on this. So we really need to
5 see the records to have the concerns on these issues
6 because all those contaminants are still there in the
7 soil.

31

8 You're addressing them as an issue, so we know
9 it's an issue. And, again, some of it is you want to bury
10 it with cement, cover it up. That still leaks in the soil
11 and out through the soil. People are living just almost
12 on top of these stockpiles, so it would be nice to have
13 public record and truthful public records of what these
14 contaminants are doing to some of our long-term residents
15 that have been here since the 1900s.

32

16
17 MS. ALEJANDRA MUNOZ: (Through Interpreter)
18 Alejandra Munoz, 500 Kansas Avenue. Guayabitos
19 Restaurant, 500 Kansas Avenue, Suite A, Modesto, 95351.

20 I am worried that they are going to actually
21 demolish the building. One of the -- all the money that I
22 have invested in that restaurant. And to open that
23 business actually, I spent \$140,000. That is in addition
24 of the money that I lost while I was getting the business
25 ready to go. And it's not only me because I do have

33

1 employees. There is people that are working with.

2 It indicates that they are going to demolish all
3 these. What's going to happen with all of us? I am
4 worried about many things. More than anything, because
5 when I opened the business, the City did not -- oh, the
6 permits, permits and all the things were very difficult to
7 get. I have to work a lot in order to get -- to get those
8 permits. And on top of that, I have to pay rent for all
9 those months that I was trying to get the permits.

10 Therefore, what she's trying to say is that she
11 had a lot of investment and she wants to know what's going
12 to happen, because if they demolish the building, she's
13 out of a business.

33

14 After I opened the business, I have to invest a
15 lot more in order to advertise it and to -- and to make --
16 to make it known to people. And it was a lot of work
17 because it's a very small restaurant. And if I invested
18 that money that I had and I invested in that business, and
19 what I wanted to do what guarantee a future for my sons.
20 If I wasn't interested on the future of -- my own future
21 and that of my kids, I would -- I would just get a job as
22 an employee somewhere.

23 Okay. The other thing that I want to know, what
24 is -- what benefits I am going to get in case that they
25 demolish. Who is going to pay for all that? For the --

1 She means the money that she invested.

2 Are they going to help me to look for another

3 place to work? Okay. The lease -- I'm obligated for the

4 lease for three more years. 33

5 Oh, she got it for five years and with an option

6 to extend it for another three. Okay. So that's her

7 question. What's going to happen and who is going to take

8 care of all the expenses that the move would mean?

9 There's another question. The plan that they

10 showed to me, it showed that it was -- the whole thing was

11 to be demolished: the hotel, the sandwich shop, the

12 restaurant. But she wants to know why not the next-door 34

13 building. I mean is there -- the one that is really right

14 next to the exit of the freeway. Because that -- that

15 wasn't shown on the plan. She find it odd that they are

16 doing hers and not the other. That's what she means. And

17 we are in the same lot. I mean, what make them safe and

18 not me? That's what the question is. That she wants to

19 know if the only Spanish-speaking businesses, were they 35

20 actually notified in Spanish. Because I went to the next

21 door store, and they were not aware of this meeting.

22

23 MS. VIRGINIA HAMMOND: My name is Virginia

24 Hammond. My address is 404 Scout Way, Modesto.

25 I have some concerns regarding the proposed

1 project. First, the impact on southbound 99 late
2 afternoon and evening, traffic south of Kansas; the impact
3 on Carpenter Road concerning reasonable accommodations
4 under the Americans With Disabilities Act for our disabled
5 community; and, third, the impact of further isolating
6 residents south of the project from larger community.

36

7 And I have some comments. I want to start by
8 referring to your draft plan, Appendix H.

9 Quote, "If the planned SR-132 project were not
10 constructed, an alternative form of cap could be installed
11 over the stockpiles. The alternative cap could consist of
12 constructing a layer of clean soil (typically one foot
13 thick) over the stockpiles. Prior to constructing the
14 cap, the surface of the stockpiles would be graded for
15 drainage to ensure primarily that stormwater did not pond
16 on top of the stockpiles. Following construction, the cap
17 surface would be vegetated to protect against stormwater
18 and wind erosion. This form of cap would provide a
19 similar degree of protection of human health and the
20 environment as capping by the SR-132 project," end quote.

37

21 I propose the current planned SR-132 project not
22 be constructed and that the alternative form of cap as
23 quoted above be used and on that cap we build a
24 pedestrian/bicycle freeway which aligns with current
25 federal, state, and city bicycle and pedestrian goals.

1 And I propose connecting this new freeway to the existing
2 Virginia Corridor, making this a viable alternative 37
3 transportation project eligible for funding.

4 Vegetative solutions have been used in
5 environmental disasters such as the dioxin disaster of 38
6 1976 in Seveso, Italy. Today a lush green park, memorial
7 and tourist attraction, Bosco Delle Querce, is located on
8 this site.

9 Current trends in urban development are to remove
10 central freeways and replace them with pedestrian/bicycle
11 freeways. A number of cities have done this or are in the
12 process of doing this, including Portland, Boston, and 39
13 Dallas.

14 We have a tremendous opportunity to beautify and
15 unite Modesto. Please consider my proposal and how close
16 we are to connecting with the Corridor and what it would
17 mean to the future of Modesto.

18
19 MS. AIDE ERREGUIN: Okay. My name is Aide
20 Erreguin. My address is 1661 Elm Avenue in Modesto.

21 And I want to know why all my neighbors they're 40
22 taking partial and they take my property a full. That's
23 my -- that's my -- to double-check or revise what's going
24 on around this property on this street. Thank you.

25 ///

1 MS. SHARON CUSTER: Sharon Custer.
2 And the last comment I wanted to make was that I
3 really don't appreciate the way that they did the meeting.
4 They tried to do the same thing last time so that they had 41
5 everybody separated going from station to station so that
6 questions that people asked were not -- the general
7 attendees could not hear the questions and the responses.
8 So if they're going to do this again -- and I'm
9 hoping that we get another public comment before they make
10 a decision to move forward and approve the environmental
11 reports and stuff -- they need to have another meeting 42
12 where people can come sit, hear everybody's questions and
13 everybody's concerns, and everybody can hear the responses
14 as a group instead of separating us all into little groups
15 of people going around.
16
17 MR. THOMAS DICK: My name is Thomas Dick. I live
18 at 1671 Elm Avenue; it's on the west side of Carpenter.
19 My main concern is the berms, the stockpiles.
20 They have got a lot of nasty stuff in them, and I want to
21 make sure -- I know they're going to encapsulate them, but
22 I want to make sure that they don't go and put a lot of 43
23 earth movers and graders up there and start moving that
24 dirt around. I've been told that they're supposed to put
25 clean dirt on top of it and then encapsulate it. I can

1 maybe live with that. But I'm going to be watching, and I
2 don't want to see any of that dirt moved because I know it
3 will put those chemicals back up in the air. And I'm
4 close enough with wind blowing, I can catch it.

43

5 And then another one I just -- because I'm on Elm
6 and I can't find anybody to tell me if the water pipeline
7 that irrigates those properties down there on Elm is
8 getting removed or taken out or replaced. And some of
9 that property hasn't been bought yet.

44

10 And they're not putting a retaining wall up on
11 our side, on the Elm side, and they -- nobody seems to
12 know how much of that land is going to be taken at this
13 point. In fact, one of my neighbors, her whole property
14 shows being taken and she doesn't -- she had no clue. So
15 can't seem to find anybody here that can answer those
16 questions for me; it's a little frustrating. So thank
17 you.

45

18
19 MR. JEFF MARTINEZ: My name is Jeff Martinez.

20 And I was speaking with the guys on the maps, and
21 I was asking them about where I live, if they're going to
22 build a sound wall. And they were saying no sound walls,
23 and it's -- we have an existing sound wall now around the
24 tract of homes that I live, but it's only a 6-foot wall
25 and they're saying that's sufficient enough. And the

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1 decibel level based on the report I read that was created
2 in 2016 December says the decibel level, it is going to go
3 up 7 or 8 decibels. And I don't even think that's truly
4 accurate because it's all computer-based. And if you go
5 out to the houses at night, the sound travels quite a bit
6 more than it does in a city part of town.

46

7 And I just hope they can go with the no-build
8 alternative. You know, everything I keep seeing on this
9 and reading, it's just like doing a half a project. You
10 know, they're going -- the road is rated as an F rating
11 right now. And in 2028 when it's depleted, it's still
12 going to be an F rating based on the reports. How is that
13 progress? And that's with the four lanes. That's all.

47

14
15 MR. FRANK VARNI: Frank Varni, 615 Kansas Avenue,
16 our business. And my home address is 2142 West Whitmore,
17 Modesto, 95358.

18 We prefer option No. 2 for the reason that the
19 businesses along that stretch are very productive and add
20 jobs and are economically good for the -- for that area.
21 A good example, what happens if you do close the off-ramp
22 and on-ramp is North Ninth Street where there was hotels,
23 motels -- or motels and other businesses that were
24 profitable and now it's just vacant and deserted. So we
25 don't need that right next to -- we don't need it

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1 anywhere, and we don't need it right in this critical
2 development.

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1 STATE OF CALIFORNIA,)
2)
3 COUNTY OF STANISLAUS.)
4

5 I, LISA S. COELHO, a Certified Shorthand Reporter
6 in and for the County of Stanislaus, State of California,
7 do hereby certify:

8 That on February 22, 2017, thereof, I reported
9 verbatim in shorthand writing the foregoing proceedings;

10 That I thereafter caused my shorthand writing to
11 be reduced to typewriting, and that the foregoing
12 transcript constitutes a full, true, and correct
13 transcription of all proceedings had and given.

14 IN WITNESS HEREOF, I have hereunto set my hand
15 and affixed my Official Seal this 28th day of February
16 2017.

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LISA S. COELHO, CSR #9487
Certified Shorthand Reporter

[Response-PHT]

Responses to Transcript of Verbal Public Comments Received at the February 22, 2017 Open Forum Public Hearing, Mark Twain Junior High School Gym, 707 South Emerald Avenue, Modesto

Thank you for your comments. The Lead Agency has prepared responses to the comments received, with coordination and review by the SR 132 West Project Development Team, and DTSC has responded to each DTSC-applicable comment. Specifically, DTSC has responded directly to comments pertaining to the Caltrans Modesto Soil Stockpiles, when appropriate.

PHT-1 Please see Master Response #1 (Purpose and Need).

The Carpenter-Briggsmore interchange intersections were evaluated in the project Traffic Operations Analysis Report (TOAR) and the proposed improvement at the proposed SR 132 West/North Carpenter Road partial interchange. However, the existing interchange is not part of the SR 132 West project because the improvement necessary for the existing interchange does not meet the purpose and need of the current project. Therefore, traffic issues at Carpenter-Briggsmore are beyond the scope of this project.

The project is part of a larger plan to connect SR 99 with Interstate 580 (I-580) via a controlled-access freeway/expressway. The further extension of the new SR 132 corridor (along Kansas Avenue), west of North Dakota Avenue to Gates Road, is currently in the planning stages. Part of the right-of-way west of North Dakota Avenue has already been acquired for this controlled-access freeway/expressway. Once SR 99 and I-580 are connected via an expressway, through traffic, including truck traffic, will be removed from local roadways, including the existing SR 132 (Maze Boulevard) alignment. The use of North Dakota Avenue as a part of the new SR 132 route is temporary until future segments of the controlled-access freeway/expressway are built.

PHT-2 Commuters from the north and south along SR 99 would likely access the Modesto Junior College west campus (MJC West) from the SR 99 at North Carpenter Road Interchange. A second alternative would be for SR 99 northbound commuters to use the new SR 132 at the SR 99 Interchange. Northbound traffic from SR 99 may choose to exit at a new off-ramp that ends at Needham Street. From Needham Street, northbound commuters to the MJC West campus would likely travel northbound along North 9th Street to access the campus. Southbound SR 99 traffic would likely still use the SR 99 at North Carpenter Avenue exit. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding

and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

Furthermore, Alternative 2 will result in southbound traffic continuing to use the existing Kansas Avenue off-ramp and following the same 9th Street course as described above. Eastbound commuters to the MJC West campus would travel east along existing SR 132 (Maze Boulevard), turn north onto North Dakota Avenue, then east onto the new SR 132 (Kansas Avenue) and exit onto North Carpenter Road, northbound. As a result, travel past the existing SR 132 (Maze Boulevard) neighborhoods between North Dakota Avenue and SR 99 would be minimized. The additional capacity provided at the SR 99/SR 132 interchange, North Dakota Avenue, and the new SR 132 plus limited access along the new SR 132 alignment will reduce congestion within the area.

PHT-3 (DTSC)

The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if

such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-4 Thank you for your comment and support of the project.

PHT-5 (DTSC)

The comment is acknowledged and will be part of the public record. From the 1930s to the 1970s, property beneath and northeast of the SR 99 and Kansas Avenue Interchange was occupied by chemical processing facilities operated by Barium Products LTD, Westvaco Chlorine Products Corporation, and Food Machinery and Chemical Corporation (FMC). Ores and minerals including barite (barium sulfate) and celestite (strontium sulfate) were processed for use in greases, lubricating oil and pigment blanks. Various other chemicals were manufactured, including sodium sulfide and arsenic compounds.

The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

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- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-6 (DTSC)

The comment is acknowledged and will be part of the public record. The contaminants in the stockpiles will not be affected by construction of the State Route 132 West project.

Draft Final RAP Alternative 4, Containment – which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil will likely be needed to meet the design grade of the elevated section of SR 132. As currently planned, most of Stockpile 3 will be consolidated within the SR 132 overcrossing abutment where Needham Avenue meets SR 132. Excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

To minimize dust and ensure public safety during construction, DTSC will require that all areas of the stockpiles be thoroughly wetted down before work is started and during work. Air monitoring will also be required.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

Please refer to the response to Comment PHT-5.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-7 (DTSC)

The comment is acknowledged and will be part of the public record. The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental

Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-8

To announce the public hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the public hearing venue changed from the Red Event Center to Mark Twain Junior High School. An English and Spanish postcard advertising this change was mailed on February 8, 2017 to approximately 2,500 residents, tenants, and business owners within the project area. DTSC also sent out the Modesto Soil Stockpiles factsheet (English and Spanish) to the project mailing list on February 6, 2017. A revised Public Notice with the new location was published by StanCOG in *The Modesto Bee* and *Vida en el Valle* on February 8, 2017. The Public Notice was published one last time in the same newspapers above on February 15, 2017. The hearing notice was also published in English and Spanish

on the Stanislaus Council of Government's website at [http://www.stancog.org/trans-
ps.shtm](http://www.stancog.org/trans-
ps.shtm) and on the Caltrans District 10 website at [http://www.dot.ca.gov/d10/x-
project-sr132west.html](http://www.dot.ca.gov/d10/x-
project-sr132west.html).

PHT-9 Please see Master Response #8 (Property Acquisitions). The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. Based on the current preliminary design, your property at 225 North Dakota Avenue in Modesto (007-022-024) is located on Map 1 and may be fully acquired. Relocation will be conducted in conformance with the Caltrans Relocation Assistance Program and the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Under Commitment CI-2, all impacted owners would be provided notification of the acquiring agency's intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist would be assigned to each property owner to assist them with this process. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase.

Following completion of the final environmental document, relocation assistance can proceed, which is anticipated to begin in early 2018. The estimated lead time to complete a residential relocation is 120–180 days. However, it is understood that owner-occupants may require additional time for relocation as they must secure a home loan and go through the escrow process, which can take 30–60 days. Please see Master Response #8 (Property Acquisitions), and refer to Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-10 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 524 Kansas Avenue in Modesto (029-015-025) is located on Map 3A and 3B of the revised maps. The Stanislaus County Office of Education building will no longer be acquired in full as a part of the project. A partial acquisition and/or easement of approximately 1,180 square feet may be required from the front of the property to widen Kansas Avenue. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase. Please refer to Master Response #8 (Property Acquisitions), and refer to Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-11 The project will improve traffic congestion along Maze Boulevard (SR 132). Eastbound traffic intending to access SR 99 will be routed to North Dakota Avenue

and then the realigned segment of SR 132. The property at 419 Laurel Avenue, Modesto, CA is located outside the construction limits for the project. However, it is within the Noise Analysis Area 4. According to the Caltrans Technical Noise Abatement Policy (2011), all receptors that could be impacted by the proposed project need to be modeled and assessed. This is usually within a distance of 500 feet. Receptors located beyond 500 feet from the project area, such as your property, do not need to be considered for analysis unless there is reasonable expectation that noise impacts would extend beyond that boundary. Therefore, receptors located over 500 feet from the proposed improvements are not likely to notice a change in the noise levels, and impacts are not anticipated. Please see Master Response #11 (Noise Impacts and Abatement). Furthermore, the TNM 2.5 noise model has limited capabilities for calculating noise level impacts at receivers farther than 500 feet from the noise source and therefore leads to inaccurate calculations for these situations.

For each build alternative, two noise barriers were evaluated together as Noise Barrier D for Area 4. Under Alternative 1, one barrier would be located along the edge-of-pavement of the eastbound lanes of the proposed SR 132 alignment, extending from North Carpenter Road to the southbound SR 99 on-ramp. The other barrier would extend from the eastbound edge of the proposed SR 132 alignment to L Street. Under Alternative 2, a ground-mounted barrier would extend from North Carpenter Road to L Street. An on-structure barrier would be located along the SR 99 on-ramp. The barriers were evaluated for feasibility at wall heights in the range of 6 to 16 feet. Noise reductions in the range of 5 to 17 decibels (dB) are predicted for this range of wall heights. Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of a barrier (Noise Barrier D) on the south side of the proposed new alignment and east of North Carpenter Road, continuing on the west side of the frontage road along SR 99 between the proposed SR 132/SR 99 interchange and the L Street crossing. Please refer to Section 2.2.7: Noise of the EIR/EA.

PHT-12 The property at 419 Laurel Avenue is outside the construction limits for the project. The SR 132 West project does not involve any work on the canal or along Laurel Avenue. Your comment has been forwarded to the City of Modesto's Project Manager, John Rawles.

PHT-13 (DTSC)

The comment is acknowledged and will be part of the public record. Although there is soil in the stockpiles that meets the criteria for classification as a hazardous waste, most of the soil in the stockpiles is below screening levels for residential use and does not meet the criteria for being classified a hazardous waste. Soil in the stockpiles meeting the hazardous waste criteria is located at depths of 5 feet or

greater below ground surface. If removed from the site, this soil would be classified as hazardous waste and would need to be disposed of in a Class 1 landfill.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-14 Please see Master Response #4 (Project Funding).

PHT-15 At the completion of Phase 1, the expressway would have full access control (no street connections) and grade separations at intersections from SR 99 to North Dakota Avenue and access from private driveways along North Dakota Avenue to Maze Boulevard. At the completion of Phase 2, the project would be a four-lane freeway from SR 99 to North Dakota Avenue with a center median separating the east and west directions of travel and a single-point urban interchange at North Carpenter Road. Phase 2 would add two additional lanes to the Phase 1 roadway to the north and would not require reconstruction of the roadway.

PHT-16 (DTSC)

The comment is acknowledged and will be part of the public record. There was no specific alternative in the Draft Final RAP that evaluated removing the stockpiles and using the soil for the construction or raising of levees. The use of the stockpile soil for construction or raising of levees may not be feasible due to the presence of contaminants in the stockpiles and related regulatory requirements for managing contaminated soil off site. Draft Final RAP Alternative 4, Containment, which is the

recommended alternative in the Draft Final RAP contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West Project. Unpaved portions will have clean fill cover. Use of stockpile soil in levees would not achieve the same level of protection that Draft Final RAP Alternative 4, Containment provides.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-17 (DTSC)

The comment is acknowledged and will be part of the public record. There was no specific alternative in the Draft Final RAP that evaluated removing the stockpiles and using the soil for the construction or raising of levees. The use of the stockpile soil for construction or raising of levees may not be feasible due to the presence of contaminants in the stockpiles and related regulatory requirements for managing contaminated soil off site. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP contains the stockpiles behind retaining walls, bridge abutments, and beneath the roadway pavement of the SR 132 West Project. Unpaved portions will have clean fill cover. Use of stockpile soil in levees would not achieve the same level of protection that Draft Final RAP Alternative 4, Containment provides.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-18 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to authorized Caltrans workers, maintaining the vegetative cover, surface/groundwater water monitoring, and prohibiting placement or removal of soil from the site. These measures are protective of human health.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP contains stockpiles behind retaining walls, bridge abutments

and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-19 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The Quality Inn property at 500 Kansas Avenue, Modesto (029-015-026) is located on Maps 3A and 3B of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the property will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required to widen the roadway and adjust the curb cut to the property. Access to the restaurant will be maintained during and upon completion of construction. No relocation is required at this time. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase. All required land within the proposed right-of-way will be acquired by the City of Modesto prior to construction. Please refer to Master Response #8 (Property Acquisitions) and Section 2.1.4.2 (Relocations and Real Property Acquisitions) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-20 Please refer to the response to Comment PHT-19. In the Draft EIR/EA, this property was shown as a full acquisition; however, the design has been updated so that it will require only a partial acquisition, and thus an additional noise analysis was conducted to evaluate noise impacts for this property. Please see Master Response #11 (Noise Impacts and Abatement).

An analysis of potential noise impacts resulting from the proposed improvements has been completed to determine what impacts either alternative would have on the hotel, and was included in an addendum to the Noise Study Report. Since the rooms at the Quality Inn have no balconies or patios, frequent human outdoor use was modeled and assessed at the pool area. Predicted existing and future noise levels at the hotel would be 65 A-weighted decibels (dBA) and 67 dBA, respectively. The change in noise levels from existing and future conditions would be 2 dBA, which is not noticeable to the human ear. There is no significant change in noise levels due to the existing high traffic volumes along existing SR 99. In addition, any traffic noise generated from the new SR 132 alignment would be partially shielded by the hotel building. In an effort to further reduce future traffic noise, noise barriers were modeled along the new SR 132 alignment and connector ramp from northbound SR 99 to westbound SR 132. A noise barrier 16 feet tall would not provide a minimum of 5 dB of noise reduction for one impacted receiver due to the existing shielding from the hotel building. Per 23 Code of Federal Regulations 772 and the Caltrans

Noise Protocol, the construction of additional noise barriers to reduce traffic noise levels from Kansas Avenue would not be acoustically feasible due to access requirements, which would require openings in barriers. The noise analysis for this property has been updated and is included in the revised Noise Study Report.

- PHT-21** The proposed bridge and some of the ramp structures at the new SR 99 interchange east of SR 99 will be higher than the existing Kansas Avenue Overcrossing, which may partially obstruct the view of the hotel from the highway. Please see Master Response #8 (Property Acquisitions) for additional information.
- PHT-22** Property acquisition at the southwest and northwest corners of the North Dakota Avenue/Kansas Avenue intersection have not yet occurred because agencies typically do not proceed with property acquisition until the environmental document has been finalized, to avoid the purchase of land for a project that may not occur. However, all parcels within the proposed right-of-way will be acquired by the City of Modesto prior to construction. Please see Master Response #8 (Property Acquisition).
- PHT-23** Please see Master Response #4 (Project Funding).
- PHT-24** Your preference for the No-Build Alternative has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.
- PHT-25** Please see Master Response #1 (Purpose and Need) and Master Response #4 (Project Funding).
- PHT-26** Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

PHT-27 (DTSC)

The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil will likely be needed to meet the design grade

of the elevated section of SR 132. As currently planned, most of Stockpile 3 will be consolidated within the SR 132 Overcrossing abutment where Needham Avenue meets SR 132. Excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

To minimize dust and ensure public safety during construction, DTSC will require that all areas of the stockpiles be thoroughly wetted down before work is started and during work. Air monitoring will also be required.

This alternative requires Caltrans to enter into an Operation and Maintenance Agreement with DTSC and prepare an Operation and Maintenance Plan for DTSC's review and approval. The Operation and Maintenance Plan will require an annual inspection of the pavement and other features of the containment remedy. Groundwater monitoring will also continue. DTSC will also evaluate the containment remedy every 5 years to make sure it is operating as designed.

The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level

considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-28 Your preference for the No-Build Alternative has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

Please see Master Response #11 (Noise Impacts and Abatement). It was determined that Barrier B (in Area 2) would not meet the abatement criteria and therefore was not recommended because it did not meet the criteria of reasonableness based on cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Abatement was considered to reduce traffic noise from other roadways but was also not feasible due to the number of driveway openings. Additionally, the new SR 132 alignment from North Carpenter Road to Mercy Drive (Area 2) would be constructed below grade (lower than the residential dwellings); and it was determined that a noise barrier would not be feasible in this area due to partial shielding from retaining walls and ambient traffic noise generated from other roadways. Please refer to the Noise Section (2.2.7) of the EIR/EA.

PHT-29 Please see Master Response #6 (Improvements to Existing SR 132 (Maze Boulevard) – Alternative 5).

PHT-30 Noise impacts were evaluated along the entire length of the project alignment to determine where noise abatement (barriers) would be acoustically feasible and reasonable to include as part of the design. Please see Master Response #11 (Noise Impacts and Abatement). Noise barriers were assessed in Area 3, which includes the Altamont Court/Kansas Avenue intersection. It was determined that Barrier C (in Area 3) would not meet the abatement criteria and therefore was not recommended because it did not meet the criteria of reasonableness based on cost allowances and

the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Abatement was considered to reduce traffic noise from other roadways but was also not feasible due to the number of driveway openings. Additionally, the SR 132 new alignment from North Carpenter Road to Mercy Drive (Area 2) would be constructed below grade (lower than the residential dwellings); and it was determined that a noise barrier would not be feasible in this area due to partial shielding from retaining walls and ambient traffic noise generated from other roadways. Please refer to Section 2.2.7 (Noise) of the EIR/EA.

PHT-31 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to Caltrans workers, maintaining the vegetative cover, surface/groundwater water monitoring, prohibiting placement or removal of soil from the site. These measures are protective of human health.

The maximum surface soil concentrations of arsenic, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

The number of persons who live near the stockpiles who have serious, and in some cases, fatal, health problems are concerning. The county health department at 209-558-7000 should be contacted, as they have the resources to determine if these health problems are greater than would be expected under normal circumstances. The county health department can assess the potential consequences of past exposure, whereas the Department of Toxic Substances Control (DTSC) does not have the expertise to do this.

Other than arsenic and carcinogenic PAHs, none of the chemicals considered potentially toxic, found at the FMC facility, and in the soil stockpiles are known to cause cancer. And both arsenic and PAHs were detected at close to background concentrations. So it is highly unlikely that chronic exposure to the contents of the stockpiles would cause more than one cancer in a million persons similarly exposed.

- (CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-32 (DTSC)

The comment is acknowledged and will be part of the public record. The stockpiles, as currently managed by Caltrans on Caltrans property, do not pose an unacceptable risk to human health for: 1) Caltrans workers; 2) trespassers; and 3) residents adjacent to the stockpiles. Current management activities consist of maintaining the perimeter fencing, limiting access to Caltrans workers, maintaining the vegetative cover, surface/groundwater water monitoring, prohibiting placement or removal of soil from the site.

Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover. It achieves the overall goal of long-term protection of human health and environment by eliminating the exposure pathway to human receptors and minimizes the infiltration of surface water into groundwater under the stockpiles.

The soil stockpiles that make up this site contain material from part of one of the evaporation ponds of the former FMC facility. More than 16 chemicals were analyzed for and detected in the soil making up the stockpiles. The chemicals detected in the soil stockpiles and evaluated in the human health risk assessment for the stockpiles include all the chemicals considered potentially toxic and found at the FMC facility. These chemicals include arsenic, barium, strontium, carcinogenic polycyclic aromatic hydrocarbons (PAHs), vanadium, lead and nickel. These specific chemicals do not evaporate in the air and can only potentially migrate away from the stockpiles through wind-blown dust, transport as soil in surface water runoff, and leaching to underlying groundwater. With respect to dust and surface water runoff, surface soil at the fence line and the edges of the stockpiles were analyzed to see if such migration may have occurred. These concentrations are not significantly different than concentrations measured in surface soil in the stockpiles and do not pose an unacceptable risk to human health. With respect to potential leaching, groundwater sampling showed that there are no cancer-causing chemicals detected in

groundwater. The presence of low concentrations of arsenic, a carcinogen, in groundwater is believed to be naturally occurring. Therefore, there has been no significant migration of these chemicals from the soil stockpile off-site either through wind-blown dust or through leaching to groundwater.

The maximum surface soil concentrations of arsenic, carcinogenic PAHs, and vanadium in the stockpiles are within the range of local soil background concentrations. The maximum surface soil concentrations of barium and nickel are less than concentrations established by the U.S. Environmental Protection Agency (U.S. EPA) to be safe. Strontium and nitrate, also identified as chemicals used by FMC, were detected in the stockpiles at concentrations lower than any level considered safe. The U.S. EPA calculates these safe levels (residential Regional Screening Levels (RSLs)) by assuming that persons are living on the site (in this case, stockpiles) for more than 25 years and exposed to site soil virtually every day of that exposure duration by incidentally ingesting the soil, breathing dust, and through direct contact with the soil. Of these exposure pathways, incidental soil ingestion is, by far, the dominant pathway, and dust inhalation or direct contact with contaminated soil are very minor ways for persons to be exposed. At this site, these calculated safe levels are protective of the residents living nearby.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-33 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 500 Kansas Avenue in Modesto (029-015-026) is located on Map 3A and 3B of the revised maps. Under Alternative 1 and Alternative 2 (the preferred alternative), the front building close to the roadway (the restaurant) will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required to widen the roadway and adjust the curb cut for access to the property. Access to the restaurant/sandwich shop will be maintained during and upon completion of construction. No relocation is required at this time. Please refer to Master Response #8 (Property Acquisitions) and refer to Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-34 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. The property at 500 Kansas Avenue in Modesto (029-015-026) is located on Map 3A and 3B of the revised maps. Under Alternative 1 and Alternative

2 (the preferred alternative), the front building close to the roadway (the restaurant) will remain. A partial acquisition and/or easement of approximately 2,460 square feet may be required to widen the roadway and adjust the curb cut for access to the property. Access to the restaurant/sandwich shop will be maintained during and upon completion of construction. No relocation is required at this time. Please refer to Master Response #8 (Property Acquisitions) and refer to Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-35 To announce the public hearing, a Public Notice was published by StanCOG in *The Modesto Bee* (English version) and *Vida en el Valle* (Spanish version) on January 18, 2017. On January 30, 2017, the Public Hearing venue changed from the Red Event Center to Mark Twain Junior High School. An English and Spanish postcard advertising this change was mailed on February 8, 2017 to approximately 2,500 residents, tenants, and business owners within the project area. DTSC also sent out the Modesto Soil Stockpiles factsheet (English and Spanish) to the project mailing list on February 6, 2017. A revised Public Notice with the new location was published by StanCOG in *The Modesto Bee* and *Vida en el Valle* on February 8, 2017. The Public Notice was published one last time in the same newspapers above on February 15, 2017. The hearing notice was also published in English and Spanish on the Stanislaus Council of Government's website at <http://www.stancog.org/trans-ps.shtm> and on the Caltrans District 10 website at <http://www.dot.ca.gov/d10/x-project-sr132west.html>.

For additional information on the public engagement process to date, please see Master Response #5 (Public Participation and Environmental Review Process).

PHT-36 In regard to your concern about southbound SR 99 traffic volumes, the two build alternatives would reduce the annual average daily traffic count on SR 99 compared to the No-Build Alternative.

The Project Development Team recognizes and appreciates the important needs of vulnerable populations such as those of the disabled community. Any improvements to North Carpenter Road will meet the Americans with Disabilities Act (ADA) standards, including sidewalks with ramps at roadway crossings and signals with accessible audible pedestrian phases. Specifically, a signalized intersection at North Carpenter Road will accommodate crossings by bicyclists and pedestrians. Both build alternatives will provide a pedestrian/bicycle path along the east side of North Carpenter Road, which will benefit both bicyclists and pedestrians at this intersection. Additional intersection safety improvements may be considered during final design.

Lastly, in regard to your comment about the potential to isolate residents south of the new alignment, because the roadway would sit on the existing Caltrans right-of-way for most of the new alignment, neither build alternative would bisect the existing subdivisions/neighborhoods within the project study area.

PHT-37 (DTSC)

The comment is acknowledged and will be part of the public record. The proposed pedestrian/bicycle “freeway” (trail) was not an alternative evaluated in the Draft Final RAP. However, as noted if the State Route 132 West Project were not constructed, then containment of the stockpiles would consist of a clean soil cap with a vegetative cover over the stockpiles. Consideration for including a pedestrian/bicycle trail is something that could be considered as an amendment to the Draft Final RAP at that time.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-38 (DTSC)

The comment is acknowledged and will be part of the public record. The proposed park was not an alternative evaluated in the Draft Final Remedial Action Plan. If the State Route 132 West Freeway/Expressway Project were not constructed, then containment of the stockpiles would consist of a clean soil cap with a vegetative cover over the stockpiles. Consideration for adding park features is something that could be considered as an amendment to the Draft Final RAP at that time.

DTSC sincerely appreciates the commenter’s thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-39 Please see Master Response #7 (Pedestrian and Bicycle Accommodations).

PHT-40 The Proposed Parcel Impact Maps have been revised and can be found in Appendix F of the EIR/EA. Your property at 1661 Elm Avenue in Modesto (007-039-016) is located on Map 2 of the revised maps. The extent of property acquisitions vary throughout the project alignment based on the project design, and the right-of-way needed for improvements in a particular area. At this time, a partial acquisition or easement of 10,723 square feet may be required to accommodate the new SR 132 eastbound to North Carpenter Road ramp, slope work and fencing.

However, the design is preliminary, and easements or acquisitions will be finalized in the final design phase. All required land within the proposed right-of-way will be acquired by the City of Modesto prior to construction. Please see Master Response #8 (Property Acquisitions) and refer to Section 2.1.4.2 (Relocations and Real Property Acquisition) of the EIR/EA for additional information on residential and/or business relocations, the right-of-way acquisition process and measures to reduce potential impacts to affected owners and occupants.

PHT-41

The meeting was conducted in an open house format with stations around the room for the public to review. Public notices were circulated in the local newspapers and included that the meeting would be held in an open house format. Each station was manned by staff to provide information upon request. This meeting style is one of many ways in which public meetings can be organized. Caltrans Environmental Review meetings may be structured in different formats, with a goal of communicating key information about the project and capturing as much public comment as possible. Team members were present to address comments and questions. A welcome board greeted attendees as they entered the meeting room. Members of the public signed in at the meeting and were encouraged to submit written comments on comment cards. Consultant Team staff gave each attendee information sheets stating the project description, purpose, background, cost, funding source, timeline, and a contact name for those interested in obtaining more information. An information sheet also contained a map showing the project locations. A court reporter was provided to record oral comments from attendees upon request.

Attendees were able to meet directly with officials and consultants to address their specific questions.

PHT-42

Although there will not be additional meetings during the preliminary approval and environmental document (PA&ED) phase, opportunities may be available during the plans, specifications and estimate (PS&E) phase, also known as final design. Please see the response to Comment PHT-41. Please refer to Master Response #5 (Public Participation and Environmental Review Process) for more information on public engagement.

PHT-43 (DTSC)

The comment is acknowledged and will be part of the public record. Draft Final RAP Alternative 4, Containment, which is the recommended alternative in the Draft Final RAP, contains stockpiles behind retaining walls, bridge abutments and beneath the pavement of the State Route 132 West project. Unpaved portions will have clean fill cover.

Although Stockpiles 1 and 2 will remain in the present location they now occupy, increasing their height with clean soil will likely be needed to meet the design grade of the elevated section of SR 132. As currently planned, most of Stockpile 3 will be consolidated within the SR 132 Overcrossing abutment where Needham Avenue meets SR 132. Excess soil from the consolidation of Stockpile 3 will be placed on top of Stockpile 2 and covered with clean soil.

To minimize dust and ensure public safety during construction, DTSC will require that all areas of the stockpiles be thoroughly wetted down before work is started and during work. Air monitoring will also be required.

DTSC sincerely appreciates the commenter's thoughtful questions and suggestions as well as their participation in this process.

(CT) Caltrans concurs with the DTSC response above and incorporates it as its own response.

PHT-44 There is an irrigation easement along the existing State right-of-way along Elm Avenue. Water lines along Elm Avenue are not proposed to be removed or replaced; however, a temporary disruption of water service may occur during construction as a result of relocating lines adjacent to Elm Street. Property owners will be notified in advance of any temporary water service interruptions. If impacts occur to the irrigation lines, the lines will be perpetuated and relocated. All construction-related impacts would be temporary in nature, and no utility services to the community would be permanently affected.

PHT-45 The Proposed Parcel Impact Maps have been revised and are included in the EIR/EA and can be found in Appendix F. However, the design is preliminary, and easements or acquisitions will be finalized in the next phase. All required land within the proposed right-of-way will be acquired by the City of Modesto prior to construction. Please refer to Master Response #8 (Property Acquisitions) for additional information. Please also see Master Response #5 (Public Participation and Environmental Review Process).

PHT-46 Please see Master Response #11 (Noise Impacts and Abatement). Noise impacts were evaluated along the entire length of the project alignment to determine where noise abatement (barriers) would be acoustically feasible and reasonable to include as part of the design. For a noise barrier to be acoustically feasible, the barriers must meet cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Noise barriers were assessed in Areas 2 and 3, which include the Morse Road/Kansas Avenue intersection. Areas 2 and 3 include the south and north sides of the new SR 132 alignment between North Carpenter Road and North Dakota Avenue, respectively. It was determined that Barrier B (in

Area 2) would not meet the abatement criteria and therefore was not recommended because it did not meet the criteria of reasonableness based on cost allowances and the noise reduction design goal of 7 A-weighted decibels at one or more benefitted receivers. Abatement was considered to reduce traffic noise from other roadways but was also not feasible due to the number of driveway openings. Additionally, the SR 132 new alignment from North Carpenter Road to Mercy Drive (Area 2) would be constructed below grade (lower than the residential dwellings), and it was determined that a noise barrier would not be feasible in this area due to partial shielding from retaining walls and ambient traffic noise generated from other roadways. Please refer to Section 2.2.7 (Noise) of the EIR/EA.

PHT-47 Your preference for the No-Build Alternative has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance between minimizing environmental impacts, right-of-way acquisition, and cost, while meeting the project's purpose and need.

This project will help relieve traffic in the area, and future traffic projections indicate a need for these improvements. Existing SR 132 (Maze Boulevard) currently operates at an acceptable level of service (LOS) D or better between North Dakota Avenue and SR 99, but is anticipated to deteriorate to unacceptable levels in the future. All of the study intersections along the existing highway currently operate at an acceptable LOS C or better. However, traffic operations would degrade over time so that, by 2028, the intersection of the existing highway and North Carpenter Road would operate at LOS F, an unacceptable service level, and, by 2048, the intersections of the existing highway with Rosemore Avenue, North Carpenter Road, and Emerald Avenue would operate at unacceptable LOS F. As detailed in Section 2.1.6 (Traffic and Transportation/Pedestrian and Bicycle Facilities), future congestion in 2048 along the 3.3-mile stretch between North Dakota Avenue and SR 99 would reduce travel speeds by 12.1 miles per hour during the morning commute and 12.3 miles per hour during the evening commute. This would increase travel times and decrease the level of service along SR 132 (Maze Boulevard) and at every area intersection studied. Under the future 2028 build alternative, level of service (LOS) will be improved to between LOS A and LOS C for the entire existing SR 132 (Maze Boulevard), as demonstrated in Table 2.2.4 of the EIR/EA.

PHT-48 Your preference for Alternative 2 has been included in the public record. Alternative 2 has been identified as the preferred alternative because it provides the best balance between minimizing environmental impacts, right-of-way acquisition, and cost, while meeting the project's purpose and need.

The proposed project will require closure of some existing ramps, modification of some existing ramps, and construction of some new ramps, which may have an

impact on surrounding businesses due to the change in freeway traffic circulation patterns. The changes to existing ramps are necessary to provide acceptable freeway traffic operations and maintain the local road access to SR 99. Although the project could affect access to businesses and a potential reduction in freeway-related traffic, it would not result in economic blight of the area.

Alternative 1 would realign, lengthen, and raise the Kansas Avenue Overcrossing. The build alternative would also remove the existing southbound SR 99 off-ramp to Kansas Avenue and the southbound SR 99 loop on-ramp from Kansas Avenue. Removing the SR 99 off-ramp could affect access for businesses in the vicinity. A new SR 99 access configuration at the Needham Street Bridge Overcrossing would result in out-of-direction travel for patrons and employees of businesses located nearby. Businesses may also experience a potential reduction in freeway-related traffic. Because the Kansas Avenue Overcrossing would be replaced, the profile of Kansas Avenue would be raised several feet, which would possibly require driveways close to the bridge to be closed or moved. This could make access to the affected properties more difficult; however, access will be maintained. To accommodate these businesses and maintain access, new driveways have been designed. These new driveways account for the vertical change needed to raise the Kansas Avenue Overcrossing, but also provide a standard grade so vehicles are not entering and exiting along a steep slope.

Under Alternative 2, the southbound SR 99 off-ramp to Kansas Avenue would remain open, but the northbound SR 99 on- and off-ramps would be closed. Southbound freeway traffic would be affected, as the existing southbound SR 99 on-ramp from Kansas Avenue would be changed with an on-ramp to a collector-distributor ramp (a type of road that parallels and connects a freeway's or highway's main travel lanes to a frontage road or on-ramp) that would become 5th Street. From 5th Street, traffic continuing onto southbound SR 99 would have to enter at the H Street on-ramp. Businesses in this location may be impacted if motorists choose to use services with more traditional freeway access rather than the new access.

Alternative 2 has been identified as the preferred alternative because it provides the best balance among avoiding and/or minimizing environmental impacts, project feasibility, right-of-way acquisition, overall cost, and ability to meet the project's purpose and need.

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Appendix K List of Technical Studies

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Volume 1

Relocation Impact Report (June 2017)

Air Quality Study Report (May 2016), Air Quality Study Report Addendum (July 2017)

Air Quality Conformity Analysis (June 2016)

Noise Study Report (January 2016), Noise Study Report Addendum (July 2017)

Noise Abatement Decision Report (May 2016)

Water Quality Assessment Report (April 2016)

Revised Natural Environment Study (October 2016)

Preliminary Drainage Report (September 2014)

Floodplain Study (October 2015)

Cultural Resources Reports

- Archaeological Survey Report (October 2011)
- Supplemental Archaeological Survey Report (October 2014)
- Historic Property Survey Report (December 2011)
- Supplemental Historic Property Survey Report (October 2014)
- Historic Resource Evaluation Report (December 2011)
- Supplemental Historic Resource Evaluation Report (October 2014)
- Extended Phase I Geoarchaeological Testing Plan (April 2017)
- Results of the Extended Phase I Geoarchaeological Testing Plan (August 2017)

Visual Impact Assessment (November 2015)

Paleontological Evaluation Report and Preliminary Paleontological Mitigation Plan (October 2015)

Final Traffic Operations Analysis Report (July 2012)

Final Traffic Analysis Addendum (March 2014)

Design Year 2048-Southbound State Route 99/I Street Off-Ramp Relocation Operations Analysis (August 2015)

Community Impact Assessment (August 2017)

Geotechnical/Geologic Summary Report (October 2010)

Draft Geotechnical Design Report Basin Infiltration Rates for State Route 132 West Expressway (March 2012)

Volume 2

Hazardous Waste Reports

- Initial Site Assessment (October 2010 and October 2015)
- Limited Phase II Assessment (April 2012)
- Aerially Deposited Lead Assessments (December 2012 and October 2015)
- Asbestos-Containing Material/Lead-Containing Paint Hazardous Material Survey Reports (May 2015)
- Phase II Environmental Site Assessment (October 2015)
- Phase II Environmental Site Assessment Addendum (June 2017)

Available Online

Modesto Soil Stockpile Reports

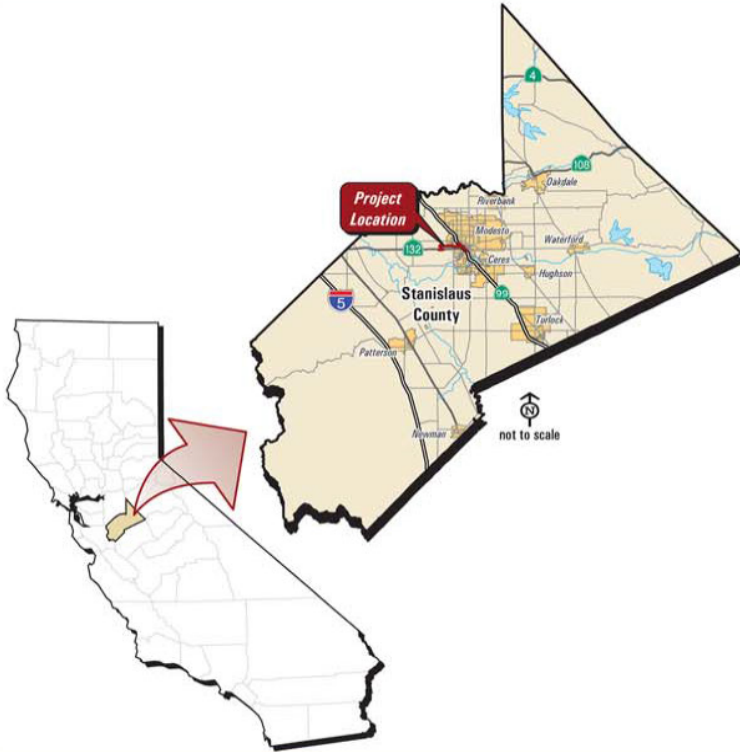
The Modesto Stockpile Reports are located at <http://www.dot.ca.gov/d10/x-project-sr132west.html>

- Heavy Metal Contamination Preliminary Site Investigation Report (June 2004)
- Remedial Action Options Report (July 2004)
- Characterization of Soil Stockpiles (January 2007)
- Groundwater Assessment Report (June 2007)
- Human Health Risk Assessment (HHRA) (May 2007)
- Particulate Matter Test Report (June 2007)
- Final Preliminary Endangerment Assessment (June 2009)
- Additional Well Installation and Groundwater Monitoring Report (Nov. 2012)
- Groundwater Monitoring Reports (March 2012–April 2017)
- Stockpile 3 Excavation Summary Report (March 2013)
- Human Health Risk Assessment (HHRA) Update (March 2013)
- Surface Water Sampling Reports (April 2013-March 2017)
- Soils Stockpiles Feasibility Study (June 2014)
- Draft Final Remedial Action Plan (August 2017)



FREWAY/EXPRESSWAY PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT WITH FINDING OF NO SIGNIFICANT IMPACT AND DRAFT FINAL REMEDIAL ACTION PLAN



For project updates and other project information, please go to: <http://www.dot.ca.gov/dist10/environmental/projects/sr132west/>



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