

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

5.1 INTRODUCTION

This document is the Mitigation Monitoring and Reporting Program (MMRP) for the Sheldon Road/SR 99 Interchange Project. This MMRP has been prepared pursuant to Section 21081.6 of the California Public Resources Code, which requires public agencies to “adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” A MMRP is required for the proposed project because the EIR has identified significant adverse impacts, and measures have been identified to mitigate those impacts.

The numbering of the individual mitigation measures follows the numbering sequence as found in the EIR/EA. All revisions to mitigation measures that were necessary as a result of responding to public comments and incorporating staff-initiated revisions have been incorporated into this MMRP.

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The MMRP, as outlined in the following table, describes mitigation timing, monitoring responsibilities, and compliance verification responsibility for all mitigation measures identified in this Final EIR/EA.

City of Elk Grove will be the primary agency, but not the only agency responsible for implementing the mitigation measures. In some cases, the County or other public agencies will implement measures. In other cases, the project constructor contractor will be responsible for implementation of measures and the City’s role is exclusively to monitor the implementation of the measures. In those cases, the project construction contractor is required to implement specific mitigation measures prior to and/or during construction. The City will continue to monitor mitigation measures that are required to be implemented during the operation of the project.

The MMRP is presented in tabular form on the following pages. The components of the MMRP are described briefly below:

Mitigation Measures: The mitigation measures are taken from the Recirculated Draft EIR/EA, in the same order that they appear in the Recirculated Draft EIR/EA. The MMRP contains revisions to mitigation measures, as well as new mitigation measures.

Mitigation Timing: Identifies at which stage of the project mitigation must be completed.

Monitoring Responsibility: Identifies the department within the City, public agency, or consultant responsible for mitigation monitoring.

Compliance Verification Responsibility: Identifies the department within the City or other public agency responsible for verifying compliance with the mitigation. In some cases, verification will include contact with responsible local, state, and federal agencies.

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**TABLE 5-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
2.1.3 COMMUNITY IMPACTS (SOCIAL, ECONOMIC) AND ENVIRONMENTAL JUSTICE				
MM 2.1.3-1	Standard relocation measures are required by law and would be adhered to throughout relocation efforts. Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees would be entitled to moving expenses. All benefits and services would be provided equitably to all relocated residential and business without regard to race, color, religion, age, national origins, or disability as specified under Title VI of the Civil Rights Act of 1964.	<i>City of Elk Grove Real Property Management</i>	<i>During Right-of-way acquisition</i>	
2.1.4 UTILITIES AND EMERGENCY SERVICES				
MM 2.1.4-1a	During construction, one lane of the Sheldon Road/SR 99 overcrossing shall be kept open at all times to maintain emergency vehicle access through the area. At no time during the construction period will the entire width of the overcrossing be closed to emergency vehicle traffic.	<i>City of Elk Grove Development Services</i>	<i>Throughout construction period</i>	
MM 2.1.4.1b	Prior to the start of construction, a Traffic Management Plan shall be developed that would reduce delays and obstructions caused by construction detours to the greatest extent possible. The Plan developers shall coordinate with emergency service providers (i.e., fire and police) during plan development to insure that traffic control measures proposed in the plan would meet the needs of the service providers. These detours shall be provided to all emergency service entities prior to their implementation, to avoid impacts to emergency response times.	<i>City of Elk Grove Development Services</i>	<i>Prior to start of construction</i>	
2.1.5 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE SYSTEM				
MM 2.1.5-1	Traffic conditions at the off-site study intersections will be monitored for peak hour volume and levels of service, and improvements necessary to maintain levels of service consistent with Policy CI-10 of the City of Elk Grove General Plan will be	<i>City of Elk Grove Development</i>	<i>Prior to start of construction</i>	

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	funded and constructed. It is important to note that the implementation of the mitigation measure is uncertain because the engineering and environmental feasibility studies for the improvements cannot be completed at this time. Further, the City's ability to fund and construct the improvements is uncertain.	<i>Services</i>		
MM 2.1.5-2	Prior to the start of construction, a Traffic Management Plan (TMP) shall be developed that would reduce delays and obstructions caused by construction activities to the greatest extent possible. The Plan developers shall coordinate with public and school transportation providers during plan development to insure that traffic control measures proposed in the plan would meet the needs of the service providers. Construction detours shall be provided to all public and school transportation providers who utilize the project area prior to the TMP's implementation, to avoid impacts to public and school transportation services.	<i>City of Elk Grove Development Services</i>	<i>Prior to start of construction</i>	
MM 2.1.5-3	The contractor shall complete a Traffic Control Plan that would reduce construction-related traffic congestion to the greatest extent feasible, and submit it to Caltrans for review and to the City of Elk Grove Public Works Department for approval, prior to beginning construction. The Caltrans Traffic Manual, Chapter 5, provides information on "Traffic Controls for Highway Construction and Maintenance Operations," and may be referenced during the development of the Traffic Control Plan. The Traffic Control Plan should consider the placement of electronic signs in advance of the Sheldon Road/SR 99 interchange off-ramps to provide advance notification of construction activities and showing the duration of the project's construction dates. Additionally, the sign may recommend that motorists use alternate interchanges, such as the Cosumnes River Boulevard-Calvine Road interchange and the Laguna Boulevard-Bond Road interchange during the Sheldon Road/SR 99 Interchange Improvement project construction period. To the extent possible, construction shall be limited during the AM and PM peak hours to avoid exacerbating congestion in the area.	<i>City of Elk Grove Development Service and Caltrans</i>	<i>Prior to start of construction</i>	
MM 2.1.5-4	Construction traffic involving heavy haulers moving demolition material from the project site or moving fill to the project site shall operate outside of AM and PM peak traffic hours. This requirement shall be included in the construction contract.	<i>City of Elk Grove Development Services</i>	<i>Throughout construction</i>	
MM 2.1.5-5	Following the completion of construction activities, the construction contractor shall repair any project-related roadway damage in both the City of Elk Grove and the City of Sacramento, including new overlays on affected roadways. This requirement shall	<i>City of Elk Grove Development</i>	<i>After completion of construction</i>	

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	be included in the project construction contract.	<i>Services</i>		
2.1.6 CULTURAL RESOURCES				
MM 2.1.6-1	<p>While there are no historic properties or historical resources in the project APE, the following measures will be implemented to reduce any potential impacts to undiscovered cultural resources:</p> <p>If buried cultural materials are encountered during construction, work shall stop in that area until a qualified archaeologist can evaluate the nature and significance of the find(s). In addition, further investigations may be needed if the project changes to include areas not previously surveyed.</p> <p>If human remains are discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities shall cease in vicinity of the find and the County Coroner must be notified of the find immediately so that he/she may ascertain the origin of the remains. The provisions of 36 CFR 800.13 shall be followed to avoid, minimize, or mitigate adverse effects to the discovered remains.</p>	<i>City of Elk Grove Development Services</i>	<i>Throughout construction</i>	
2.2.2 WATER QUALITY AND STORMWATER RUN-OFF				
MM 2.2.2-1	<p>Prior to grading activities, the construction contractor shall prepare a Storm Water Pollution and Prevention Plan (SWPPP) for the project to be administered through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. The SWPPP shall address spill prevention and include a countermeasure plan describing measures to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products. These measures shall be consistent with the City of Elk Grove's Drainage Manual and Land Grading and Erosion Control Ordinance may include (1) restricting grading to the dry season; (2) protecting all finished graded slopes from erosion using such techniques as erosion control matting and hydroseeding; (3) protecting downstream storm drainage inlets from sedimentation; (4) use of silt fencing and hay bales to retain sediment on the project site; and (5) any other suitable measures. The SWPPP shall be submitted to the Central Valley Regional Water Quality Control Board and to the City for review and approval.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to start of construction</i>	
MM 2.2.3-1	<p>Prior to approval of grading or improvement plans, whichever occurs first, the City of Elk Grove shall conduct a soil sample and laboratory test to determine the expansion</p>	<i>City of Elk Grove Development</i>	<i>Prior to start of construction</i>	

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	<p>potential and stability of the soil for development of the project site. If it is determined that the area contains expansive soils, one or more of the following mitigation measures shall be employed to remove the expansive soils:</p> <p>Expansive soils shall be excavated and replaced with non-expansive materials. The required depth of excavation shall be specified by a registered civil engineer based on actual soil conditions;</p> <p>Expansive soils shall be treated in place by mixing them with lime. Lime-treatment alters the chemical composition of the expansive clay minerals such that the soil becomes non-expansive; or</p> <p>Other engineering practices for mitigation of expansive soil conditions considered appropriate by Caltrans and the City of Elk Grove Public Works Department shall be implemented.</p>	<i>Services</i>		
MM 2.2.3-2	<p>Under the requirements of the Clean Water Act amendments of 1972, the project construction contractor would be required to file a notice of intent (NOI) under the State's NPDES General Construction Permit (CAS0002). The City would be required to adhere to conditions under the City's NPDES permit set forth by the Regional Water Quality Control Board (RWQCB) and also prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to be administered throughout all phases of grading and project construction. The SWPPP would incorporate BMPs to ensure that potential water quality impacts during construction are minimized. BMPs that would be implemented during site grading and construction are included in the Water Quality Section of this EIR/EA. Implementation of this mitigation would reduce the potential for erosion and sedimentation impact to water resources.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to start of and throughout construction</i>	
2.2.4 HAZARDOUS WASTE/MATERIALS				
MM 2.2.4-1	<p>During the plans, specifications, and estimates (PS&E) phase of project development, Phase II soil sampling for herbicide/pesticide contamination shall be conducted within areas of potential herbicide/pesticide contamination (former agricultural lands primarily in the northeast quadrant). If substances are detected at concentrations that could pose a health hazard and/or violate local, state, or federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the City, in consultation with the Sacramento County Environmental Management Department,</p>	<i>City of Elk Grove Development Services</i>	<i>During PS&E and prior to the start of construction</i>	

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	deems the site remediated and clear for development.			
MM 2.2.4-2a	During the plans, specifications, and estimates (PS&E) phase of project development, a California Certified Asbestos Consultant shall conduct asbestos material sampling to identify ACMs. If substances are detected at concentrations that could pose a health hazard, physical barriers will be installed to prevent asbestos emissions upon removal of ACMs (i.e., tenting). An onsite asbestos removal professional trained in the Asbestos Hazard Emergency Response Act (AHERA) and meeting the U.S. Environmental Protection Agency Asbestos Abatement Consultant Certification requirements shall be retained to oversee proper asbestos waste maintenance and handling.	<i>City of Elk Grove Development Services</i>	<i>During PS&E, prior to the start of construction, and during removal of ACMs</i>	
MM 2.2.4-2b	Any identified asbestos containing building materials present in each of the structures to be dismantled shall be removed under acceptable engineering methods and work practices by a licensed asbestos abatement contractor prior to removal. These practices include, but are not limited to: containment of the area by plastic, negative air filtration, wet removal techniques and personal respiratory protection and decontamination. The process shall be designed and monitored by a California Certified Asbestos Consultant. The abatement and monitoring plan shall be developed and submitted for review and approval by the appropriate regulatory agency (the Sacramento Metropolitan Air Pollution Management District).	<i>City of Elk Grove Development Services and SMAQMD</i>	<i>During removal of ACMs</i>	
MM 2.2.4-2c	Demolition activities for the existing overpass structure shall be performed in compliance with National Emission Standards for Hazardous Air Pollutants (NESHAP), which requires permits from Sacramento Metropolitan Air Quality District. This requirement shall be included in construction contracts.	<i>City of Elk Grove Development Services and SMAQMD</i>	<i>Throughout demolition of overpass</i>	

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MM 2.2.4-3a	During the plans, specifications, and estimates (PS&E) phase of project development, Phase II sampling shall be conducted within areas where lead could be present (paint on buildings to be demolished and yellow thermoplastic striping). If hazardous levels of lead materials are found, the materials shall be removed and disposed of by a licensed and certified lead removal contractor. The contractor shall take appropriate precautions to protect workers, the surrounding community, and to dispose of construction waste containing lead in accordance with local, state, and federal regulations.	<i>City of Elk Grove Development Services</i>	<i>During PS&E, prior to the start of construction, and throughout removal of hazardous materials</i>	
MM 2.2.4-3b	During the plans, specifications, and estimates (PS&E) phase of project development, Phase II soil sampling shall be conducted within areas of potential aerially deposited lead contamination (along existing Caltrans right-of-way). If lead is detected in the soil at concentrations that could pose a health hazard and/or violate local, state, or federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the City, in consultation with the Sacramento County Environmental Management Department, deems the site remediated and clear for development. If signs of potential contamination (odors, discolored soil, etc.) are observed during construction activity in areas where Phase II sampling was not conducted, sampling and analysis and appropriate remediation shall be conducted.	<i>City of Elk Grove Development Services and Sacramento County Environmental Management Department</i>	<i>During PS&E, prior to the start of construction, throughout removal of hazardous materials, and throughout construction</i>	
MM 2.2.4-3c	Project construction activities shall be conducted in compliance with Caltrans Guidelines associated with aerially deposited lead. This requirement shall be included in construction contracts.	<i>City of Elk Grove Development Services</i>	<i>Throughout removal of ADL, and throughout construction</i>	

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MM 2.2.4-3d	The Contractor shall prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling removed yellow thermoplastic and yellow paint residue in accordance with Title 8, California Code of Regulations, Section 1532.1, "Lead," for specific Cal OSHA requirements when working with lead. Additionally, the Lead Compliance Plan shall contain the elements listed in Title 8, California Code of Regulations, Section 1532.1(e)(2)(B). Before submission to the engineer, an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene shall approve the Lead Compliance Plan. The Plan shall be submitted to the Engineer at least seven (7) days prior to beginning removal of yellow thermoplastic and yellow paint. The yellow thermoplastic striping shall be removed and disposed of in accordance with the Caltrans Standard Specifications, Sections 15-2.02B and 15-2.03 and Standard Special Provisions for removal of yellow traffic stripe and pavement markings.	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction, throughout removal of yellow thermoplastic striping and yellow paint residue containing lead, and throughout construction</i>	
MM 2.2.4-4a	During the plans, specifications, and estimates (PS&E) phase of project development, Phase II soil sampling shall be conducted within areas where UST and waste oil releases have been known to occur. If contaminated soil is detected at concentrations that could pose a health hazard and/or violate local, state, or federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the City, in consultation with the Sacramento County Environmental Management Department, deems the site remediated and clear for development.	<i>City of Elk Grove Development Services and Sacramento County Environmental Management Department</i>	<i>During PS&E, prior to the start of construction, and throughout removal of hazardous materials</i>	

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MM 2.2.4-4b	If any unknown UST is encountered during excavation, additional assessment shall be required depending on the conditions encountered (e.g. odor or sheen apparent). Work shall stop until the completion of a Phase II Hazardous Waste Investigation is completed to determine the extent of the contamination and remediation. In the event that contamination is not found, the construction may proceed, but if contamination is found, a hazardous waste remediation plan shall be developed and implemented throughout construction. If substances are detected at concentrations that could pose a health hazard and/or violate local, state, or federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the City in consultation with the Sacramento County Environmental Management Department deems the site remediated and clear for development.	<i>City of Elk Grove Development Services and Sacramento County Environmental Management Department</i>	<i>Throughout construction</i>	
MM 2.2.4-4c	The Environmental Management Department recommends that the Transportation Division develop a contingency plan to manage Underground Storage Tanks (USTs) if they are encountered during project implementation. The Hazardous Management District should be consulted if contaminated soils are encountered during construction. A contingency plan should be developed in the event that construction activities uncover unforeseen contamination that may hinder the progress of the project; and it is recommended that the Transportation Division consult with the County Counsel's Office regarding potential liabilities if contamination is encountered during construction activities.	<i>City of Elk Grove Development Services and Sacramento County Environmental Management Department</i>	<i>Prior to the start of construction, and throughout construction</i>	
MM 2.2.4-5	If right-of-way is obtained from any parcel containing water supply wells, the wells shall be properly abandoned under permit and observation by the Sacramento County Environmental Management Department, and all applicable state and local regulations. It is recommended that the City of Elk Grove closely inspect any farm property from which right-of-way may be acquired.			

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MM 2.2.4-6a	<p>The City of Elk Grove shall identify the source of the fill dirt to verify if fill material originated from a contaminated site. During the plans, specifications, and estimates (PS&E) phase of project development, Phase II soil sampling of the soil piles shall be conducted to determine if they contain hazardous materials. In the event that the soil is not contaminated, the construction may proceed, but if the soil is contaminated, a hazardous waste remediation plan shall be developed and implemented throughout construction. If substances are detected at concentrations that could pose a health hazard and/or violate local, state, or federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the City in consultation with the Sacramento County Environmental Management Department deems the site remediated and clear for development.</p>	<p><i>City of Elk Grove Development Services and Sacramento County Environmental Management Department</i></p>	<p><i>During PS&E, prior to the start of construction, and throughout removal of hazardous materials</i></p>	
MM 2.2.4-6b	<p>If contaminated soil is encountered elsewhere during excavation or grading, the construction contractors shall stop work and contact an environmental hazardous materials professional to conduct an onsite assessment. If the materials are determined to pose a risk to the public or construction workers, the construction contractor shall prepare and submit a remediation plan to the appropriate agency and comply with all federal, state, and local laws. Soil remediation methods could include excavation and onsite treatment, excavation and offsite treatment or disposal, and/or treatment without excavation. Construction plans shall be modified or postponed to ensure construction will not inhibit remediation activities and will not expose the public or construction workers to hazardous conditions.</p>	<p><i>City of Elk Grove Development Services</i></p>	<p><i>Throughout construction</i></p>	
<p>2.2.5 AIR QUALITY</p>				

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<p>MM 2.2.5-1a</p>	<p>The City of Elk Grove shall submit to the SMAQMD a construction emission/dust control plan and receive approval before groundbreaking. Construction of the proposed project is required to comply with all applicable SMAQMD rules and regulations, specifically Rule 403 regarding fugitive dust, Rule 442 regarding architectural coatings, and Rule 453 regarding asphalt paving. In accordance with the recommendations of the SMAQMD, the City of Elk Grove shall also implement the following measures to reduce temporary construction emissions:</p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>	<p><i>Prior to the start of construction and throughout construction</i></p>	

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<p>MM 2.2.5-1b</p>	<p>As recommended by the SMAQMD (2003), the City shall implement the following measures (where feasible) to reduce NOx and visible emissions from heavy-duty diesel equipment.</p> <p>The City shall provide a plan for approval by the SMAQMD demonstrating that the heavy duty [> 50 horsepower (hp)], off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at the time of construction. The project representative shall submit a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp that will be used an aggregate of 40 or more hours during any portion of the project. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction operations occur. At least 48 hours before subject heavy-duty off-road equipment is used, the City shall provide the SMAQMD with the anticipated construction timeline including start date, and the name and phone number of the project manager and onsite foreman. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate matter traps, engine profit technology, after-treatment products, and/or such options as become available.</p> <p>The City shall ensure that emissions from off-road, diesel-powered equipment used on the project site do not exceed 40 percent opacity for more than three (3) minutes in any one (1) hour. Any equipment found to exceed 40 percent opacity (or Ringlemann 2.0) shall be repaired immediately, and the SMAQMD shall be notified of noncompliant equipment within 48 hours of identification. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of visual survey results shall be submitted throughout the duration of the construction project, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly survey shall include the quantity and type of vehicles surveyed, as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. The above recommendations shall not supersede other SMAQMD or state rules and regulations.</p> <p>The city's primary contractor shall be responsible for ensuring that all heavy-duty equipment is properly tuned and maintained, in accordance with manufacturers' specifications.</p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>	<p><i>Prior to the start of construction and throughout construction</i></p>	

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MM 2.2.5-1c	<p>As recommended by the SMAQMD (1994b), the City shall reduce fugitive dust emissions, in compliance with Rule 403, by implementing the measures listed below.</p> <p>All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water, a chemical stabilizer or suppressant, or vegetative ground cover.</p> <p>All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.</p> <p>When materials are transported offsite, all material shall be covered, effectively wetted down to limit visible dust emissions, or maintained with at least 15 cm (six [6] inches) of freeboard space from the top of the container.</p> <p>All operations shall limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.</p> <p>After material is added to or removed from the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions using sufficient water or a chemical stabilizer/suppressant.</p> <p>Onsite vehicle speeds on unpaved roads shall be limited to 15 mph.</p> <p>Wheel washers shall be installed for all trucks and equipment exiting unpaved areas or wheels shall be washed to remove accumulated dirt before such vehicles leave the site.</p> <p>Sandbags or other erosion control measure shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than one (1) percent.</p> <p>The extent of the areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.</p>	<i>City of Elk Grove Development Services and SMAQMD</i>	<i>Throughout construction</i>	

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MM 2.2.5-1d	Prior to groundbreaking for the project, the City of Elk Grove shall pay, and obtain proof of payment of, the off-site air quality mitigation fee of \$8,168.00 to SMAQMD.	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction</i>	
2.2.6 NOISE				
MM 2.2.6-1	Open graded asphalt concrete (OGAC) shall be applied to the entire length of the roadways within the project area.	<i>City of Elk Grove Development Services</i>	<i>During PS&E and throughout construction</i>	
2.3.1 NATURAL COMMUNITIES				
MM 2.3.1-1	In order to mitigate for impacts to vernal pool habitat, the project proponent shall mitigate according to USFWS guidelines. If a Section 404 Permit is necessary for impacts to the vernal pools and the impact acreage is minimal [< 0.4 ha (< 1 acre)], then the compensatory mitigation will be conducted according to the USFWS programmatic Section 7 consultation as outlined in <i>Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California</i> . The mitigation identified in the <i>Programmatic Formal Endangered Species Act Consultation</i> document is as follows: Preservation component. For every 0.4 hectares (1.0 acre) of habitat directly or	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	

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	<p>indirectly affected, at least two vernal pool credits will be dedicated within a Service-approved ecosystem preservation bank, or, based on Service evaluation of site-specific conservation values, 1.2 hectares (3.0 acres) of vernal pool habitat may be preserved on the project site or on another non-bank site as approved by the Service.</p> <p>Creation component. For every 0.4 hectares (1.0 acre) of habitat directly affected, at least one vernal pool creation credit will be dedicated within a Service-approved habitat mitigation bank, or, based on Service evaluation of site-specific conservation values, 0.8 hectares (2.0 acres) of vernal pool habitat will be created and monitored on the project site or on another non-bank site as approved by the Service.</p> <p>Under both alternatives (2A and 3A) effective on-site creation of vernal pools is unlikely. Therefore, the project would purchase vernal pool credits from a Service-approved ecosystem preservation bank, such as Bryte Ranch Conservation Bank, to mitigate for impacts to vernal pools.</p>			
MM 2.3.1-2a	<p>The East Stockton Boulevard crossing of Whitehouse Creek shall be constructed so as to minimize fill of Whitehouse Creek. Fill placed in the creek to construct the crossing shall be limited to the minimal amount of area necessary to construct the crossing. The crossing shall be designed to maintain the hydrologic and biologic integrity of Whitehouse Creek.</p>	<i>City of Elk Grove Development Services</i>	<i>Throughout construction</i>	
MM 2.3.1-2b	<p>In order to mitigate for permanent impacts (i.e., fill) to Whitehouse Creek, the project proponent will purchase in-kind mitigation credits at a 1:1 ratio at a U.S. Army Corps of Engineers-approved mitigation bank within the region.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction</i>	

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Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
MM 2.3.1-3a	<p>Construction activities in or near the bed of the creek shall be minimized to the greatest extent possible, in order to minimize the area of damage caused by construction activity associated with the construction of the creek crossing. The following techniques could be used to help avoid and minimize impacts to Whitehouse Creek during construction:</p> <p>The construction area for creek work shall be established prior to the start of construction work in the creek. The creek construction area shall be marked with orange construction fencing to clearly demarcate the limits of the construction area, and to prevent construction equipment and workers from entering sensitive areas outside the construction area.</p> <p>Work within the creek bed shall be limited to the dry season (approximately April 15 to October 15) to minimize impacts to bank erosion and water quality. Impacts to adjoining portions of Whitehouse Creek shall be minimized by implementing best management practices (BMPs), such as utilizing construction mats within the creek channel and implementing an erosion and sediment control plan that minimizes impacts to water quality within Whitehouse Creek.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	
MM 2.3.1-3b	<p>Whitehouse Creek shall be restored to its original topography to mitigate for temporary impacts (i.e. damage resulting from construction activities) and these areas shall be planted with wetland vegetation and subject to a CDFG and ACOE-approved re-vegetation and monitoring plan.</p>	<i>City of Elk Grove Development Services</i>	<i>After completion of construction in the Whitehouse Creek area</i>	

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
MM 2.3.1-4a	<p>The City shall retain, where feasible, all native trees larger than 15 cm (6”) diameter at breast height (dbh) and all non-native trees larger than 48 cm (19”) dbh. Where possible, the following measures shall be followed to protect trees identified for preservation:</p> <ul style="list-style-type: none"> • For trees within the project area that are designated for preservation, a circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of each tree; • Temporary protective fencing shall be installed at least 0.3 meters (1.0 foot) outside the driplines of the protected trees prior to initiating construction in order to avoid damage to the tree canopies and root systems; • Final grading plans shall show all protected trees, tree tag numbers, and trees’ protected dripline areas, and shall show the location of the required protective temporary fencing; • Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work in the area. All pruning shall be in accordance with American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) “Tree Pruning Guidelines”; • No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed; • No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of preserved oak trees; 	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	<ul style="list-style-type: none"> • No grading (grade cuts or fills) shall be allowed within the driplines of protected oak trees; • Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any oak tree; • No trenching shall be allowed within the dripline of oak trees. If it is absolutely necessary to install underground utilities within the dripline of an oak tree, the utility line shall be bored or jacked under the supervision of a certified arborist; • The construction of impervious surfaces within the driplines of oak trees shall be stringently minimized. When it is absolutely necessary, a piped aeration system per City standard detail shall be installed under the supervision of a certified arborist; • No sprinkler or irrigation system shall be installed in such a manner that it sprays water or requires trenching within the driplines of oak trees. An above ground drip irrigation system is recommended; • During construction try to maintain the same watering frequency around trees that they are used to receiving; • Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species that shall be planted within the driplines of oak trees are those that are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants; • Make sure any weed control chemicals utilized prior to laying of new asphalt are not applied where they can leach into the dripline area of any tree; and <p>Clearing of weeds and debris from the protected dripline area shall be done by hand. The use of weed eaters and leaf blowers shall be permitted.</p>			

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
<p>MM 2.3.1-4b</p>	<p>For all protected trees that require removal due to project implementation, a tree mitigation and monitoring plan shall be submitted to Caltrans and the City of Elk Grove for approval prior to the start of construction. The number of trees to be replanted will be based on the number of inches of protected trees to be removed. A mitigation planting plan or landscape plan shall be submitted to Caltrans and the City of Elk Grove and include the following mitigation measures:</p> <p>A tree survey shall be conducted by an arborist certified by the International Society of Arboriculture (ISA) to enumerate and evaluate all trees on the site that meet the standards in the City Tree Ordinance and General Plan.</p> <p>All tree locations shall be mapped onto the final approved plans and wherever possible, direct loss of protected trees shall be avoided.</p> <p>For all protected trees that require removal due to project implementation, a tree mitigation and monitoring plan shall be submitted to the City of Elk Grove. The number of trees to be replanted will be based on the number of inches of protected trees to be removed. The mitigation planting plan shall include the number, location and species of the replacement trees; irrigation methods to help tree establishment and ensure survival; planting and maintenance schedules for a three-year establishment period or replanting as needed.</p> <p>Trees that are not to be removed that are within 61 meters (200 feet) of grading activities shall be protectively fenced 1.5 meters (5.0 feet) beyond the dripline and root zone of each oak tree (as determined by an arborist). This fence, which is meant to prevent activities that result in soil compaction beneath the canopies or over the root zone, shall be maintained until all construction activities are completed. Grade changes shall be minimized to the extent feasible within or adjacent to the dripline of existing trees.</p>	<p><i>City of Elk Grove Development Services and Caltrans</i></p>	<p><i>Prior to the start of construction and throughout construction</i></p>	
<p><i>City of Elk Grove July 2005</i></p>	<p align="center">5.0-19</p>	<p><i>Sheldon Road/SR 99 Interchange Improvement Project Final Environmental Impact Report/Environmental Assessment</i></p>		

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
2.3.2 WETLANDS AND OTHER WATERS OF THE UNITED STATES				
MM 2.3.2-1	<p>Any waters of the U.S. that would be lost or disturbed shall be replaced or rehabilitated on a “no net loss” basis in accordance with the USACOE mitigation guidelines. Onsite creation of wetland habitat is preferred to offsite mitigation. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the Corps. The City of Elk Grove Planning Department shall verify successful mitigation of any wetlands impacts.</p> <p>Due to the nature of the project and the project area, effective on-site creation of wetlands is unlikely. Therefore, the project would purchase wetland credits from a Corps-approved preservation bank to mitigate for impacts to wetlands.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction, throughout construction, and after completion of construction activities</i>	
2.3.4 SPECIAL STATUS ANIMAL SPECIES OCCURRENCES				
MM 2.3.4-5	<p>Though the site is currently not occupied by burrowing owls, preconstruction surveys for this species shall be conducted by a qualified biologist within the 30 days prior to construction to ensure that no burrowing owls have occupied the project area. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be resurveyed.</p> <p>If owls are subsequently identified within the project area, though are not likely to be directly or indirectly impacted by project construction, then the project proponent shall implement the following measures to minimize disturbance to this species:</p> <p>A buffer area approximately 100 meters (328 feet) in radius will be established around occupied burrows. This radius will be identified by the placement of orange construction fencing.</p> <p>If temporary ground disturbing activities are to occur within 50 to 100 meters (164 to 328 feet) of occupied burrows, then these areas will be restored to their original condition so as to maintain burrowing owl foraging habitat.</p> <p>No disturbance activities should occur within 50 meters (164 feet) of occupied burrows.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	
MM 2.3.4-6	<p>If construction is proposed during the bird breeding season (February–August), a focused survey for raptors and other nesting birds shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests or roosts onsite. If active nests or roosts are found, no construction activities shall take place within 152 meters (500 feet) of the nest until the</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	young have fledged. Trees containing nests, or burrows that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to March). If no active nests are found during the focused survey, no further mitigation will be required.			
MM 2.3.4-7	A qualified biologist shall conduct a preconstruction survey for roosting bats within the abandoned outbuildings within the project area. If the survey shows evidence of the presence of bats in the structures, appropriate exclusionary measures shall be implemented to prevent the bats from establishing maternity roosts. If the survey shows evidence of active roosts, then development activities shall not occur within 152 meters (500 feet) of the nests until the young have fledged (usually after the end of August).	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	
2.3.5 THREATENED AND ENDANGERED SPECIES				
MM 2.3.5-6a	If the elderberry shrub cannot be avoided by the proposed project, then it will be transplanted to a conservation area approved by the USFWS. A qualified monitor will be on-site for the duration of the transplanting of the elderberry shrub to insure that no unauthorized take of VELB occurs. Transplantation should be conducted between November and mid-February. The conservation area receiving the transplant must be at least 548 square meters (1,800 square feet) in size. As many as five (5) additional elderberry plantings and up to five (5) associated native species plantings may also be planted within this area. The transplanted shrub shall receive supplemental watering through the first summer.	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	
MM 2.3.5-6b	In addition to the transplanting requirements, each elderberry stem measuring 2.5 cm (1.0 inch) or greater in diameter at ground level must be replaced in the conservation area with elderberry seedlings or cuttings at the ratios presented in Table 2.3.5-6 . In addition, native species will be planted in the conservation area at the ratios presented in Table 2.3.5-6 .	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
MM 2.3.5-7a	<p>If project construction is to occur between March 1 and September 15 (the Swainson’s hawk nesting period), a qualified biologist will conduct two surveys for actively nesting Swainson’s hawks within the project area, as well as within a 1.6 km (1.0 mile) radius of the project area, prior to the start of construction. The surveys shall take place at least one week apart, with the second taking place two days prior to the start of construction. If active Swainson’s hawk nests are found within 1.6 km (1.0 mile) radius of the construction site, the City of Elk Grove shall consult with the DF&G and the City shall retain a qualified biologist. Clearing and construction shall be postponed or halted within 76 meters (250 feet) of the nests (or another buffer acceptable by DF&G) until additional nesting attempts no longer occur. If a nest tree is found on the project site prior to construction and is proposed for removal, then appropriate permits from DF&G shall be obtained and mitigation implemented pursuant to DF&G guidelines. Complete avoidance of nesting Swainson’s hawks will be assumed if project work occurs outside of the nesting time period (March 1 to September 15), or if no active nests are identified within 1.6 km (1.0 mile) of the project area. If project construction is to occur within 1.6 km (1.0 mile) of an active nest, a qualified biologist will monitor the nest for the possibility of abandonment. If an identified active nest becomes abandoned as a result of the implementation of the project, and if nestling(s) are still alive, the project proponent will fund the recovery and hacking of the nestling(s). If construction will occur over the course of more than a single breeding season, this mitigation shall be applied prior to the start of each breeding season for every year during which construction takes place.</p>	<p><i>City of Elk Grove Development Services</i></p>	<p><i>Prior to the start of construction and throughout construction</i></p>	

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
MM 2.3.5-7b	<p>While the avoidance mitigation described above would reduce the potential impacts to Swainson’s hawk nesting sites, implementation of the project would contribute to the loss of potential foraging habitat in the area, and compensatory mitigation is required to mitigate this loss. Mitigation for impacts to Swainson’s hawk foraging habitat shall follow CDFG’s 1994 <i>Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (Buteo swainsoni) in the Central Valley of California</i> (CDFG 1994). The City of Elk Grove will mitigate for the loss of Swainson’s hawk foraging habitat by purchasing credits at a CDFG-approved mitigation bank at a replacement ratio of 1:1 for suitable foraging habitats. The City will further mitigate for impacts to Swainson’s hawk habitat by purchasing credits at a CDFG-approved mitigation bank at a ratio of 0.5:1 specifically for the management of habitat for prey production. These mitigation lands will be managed and monitored in perpetuity by the trustees of the mitigation bank. The City will comply with any additional measures required by CDFG.</p>	<i>City of Elk Grove Development Services</i>	<i>Prior to the start of construction and throughout construction</i>	

