2.2.4 HAZARDOUS WASTE/MATERIALS

REGULATORY SETTING

Federal

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

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

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

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

State

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

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

Any right-of-way that is acquired and deeded or otherwise transferred to Caltrans needs to be certified as free of hazardous waste prior to change of ownership.

Local

Pertinent regulations governing the proposed project originate at the federal and state levels, but are primarily implemented and enforced at the local or regional level. Most hazardous material

regulation and enforcement in the cities of Elk Grove and Sacramento is overseen by the Sacramento County Environmental Management Department, which refers large cases of hazardous material contamination or violations to the Central Valley Regional Water Quality Control Board (CVRWQCB) and the California State Department of Toxic Substances Control (DTSC). It is not at all uncommon, however, for other agencies to become involved when issues of hazardous materials arise. These other agencies could include the Sacramento Metropolitan Air Quality Management District (SMAQMD) (in its permitting of asbestos abatement and toxic air contaminants) and both the Federal and State Occupational Safety and Health Administrations (OSHA) (in the preparation of hazardous material remediation site safety plans intended to protect the health and prevent the contamination of construction and remediation workers from hazardous materials exposure risks).

City of Elk Grove General Plan

The City of Elk Grove General Plan identifies policies and action items that relate to hazardous materials issues within the City, as they relate to the proposed project:

- **SA-7** The City of Elk Grove will work to identify and eliminate hazardous waste releases from both private companies and public agencies.

- **SA-8 Action 4** Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed on or identified on any hazardous material/waste database search shall require that the site and surrounding area be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.

City of Sacramento General Plan

The City of Sacramento General Plan identifies policies and action items that relate to hazardous materials issues within the City, as they relate to the proposed project:

- **Hazardous Materials Policy 1** Work with the County, State, federal agencies and responsible parties to identify, contain, and clean up sites that contain hazardous materials.

- **Hazardous Materials Policy 8** Ensure that areas where hazardous materials have been found are remediated, before development of new areas, to the extent necessary to protect the health and safety of all possible users and adjacent properties, consistent with applicable laws and regulations.

AFFECTED ENVIRONMENT

A Phase I Environmental Assessment was conducted by Sacramento County on April 5, 2002 and included a reconnaissance of the project area and the surrounding vicinity; a review of recent and historical aerial photographs of the project area; a review of environmental databases provided by *BBL* of Solana Beach, California, a data services company; a review of files at the Sacramento County Environmental Mangement Department in Sacramento; and interviews with

regulatory personnel. Additionally, in August 2001, a record search was done by *Vista Information Solutions*. Based on these evaluations, the potential for hazardous waste is low within the project study limits, with the exception of yellow thermoplastic highway striping located on the existing roadway.

Additionally, a Phase I Environmental Site Assessment was conducted by Kleinfelder, Inc. on March 29, 2004 to update current site conditions around the interchange.

The Phase I Environmental Assessments conducted by Sacramento County and Kleinfelder, Inc. were prepared in accordance with generally accepted standards of environmental assessment practice in California. The assessments were conducted for the purpose of evaluating environmental conditions with respect to hazardous or potentially hazardous substances in the vicinity of the project area.

Historical uses of the property site

Historical documents were reviewed from 1940, and they revealed that land use in the vicinity of the interchange was used primarily for agricultural and rural residential land use. Additionally, several types of businesses are and were located adjacent to the subject site between 1984 and 2004: a gas station, a golf shop, storage facilities, retail stores, a car dealership, a fencing company, and churches.

Phase I Findings by Sacramento County in 2001

The 2001 records search completed by the data research company, *BBL* of Solana Beach, California and Vista Information Solutions found records of underground storage tanks (USTs); a site within a 0.8 km (0.5-mile) radius of the project area that has contamination or may have contamination due to sources other than USTs; one waste disposal incident was reported within the project area; and domestic or agricultural water supply wells may be present on properties that were observed on site or at other sites. There was some visual evidence that would indicate past or present USTs and above ground storage tanks (ASTs) on site and on the adjacent properties.

During the 2001 site investigation, no hazardous chemicals were observed onsite. Until 1980, numerous types of building materials such as roofing paper, shingles, drywall, drywall texturing, linoleum, and mastic contained considerable amounts of asbestos. Because the construction date of the existing structures (including homes, trailers, Sheldon Road/SR 99 overpass, frontage roads, and a park and ride lot) are pre-1980 and the building materials have not been identified, it is conceivable that friable asbestos containing materials (ACMs) were used in their construction. In the event that these buildings are to be demolished and/or removed from the property, based on the age of the structures, they may result in the airborne release of asbestos from ACMs.

Phase I Findings by Kleinfelder 2004

Figure 2.2.4-1, Sitemap of Potential Hazardous Locations shows the location of site conditions and Site Photographs are included in **Figures 2.2.4-2** and **2.2.4-3.**

Propane Tanks

A representative of Kleinfelder conducted a site reconnaissance on March 15, 2004. Three propane tanks were observed adjacent to proposed roadways for Alternatives 2A and 3A. Although the propane tanks ranged in conditions from poor to good, obvious evidence of a release from the tanks was not apparent.

Asbestos Concerns

Several large warehouses located northwest of the Sheldon Road/SR 99 interchange were present in aerial photographs dating back to 1957. Based on the age of the structures, asbestos containing building materials may be present. Transformers observed during the site reconnaissance (pole mounted and pad mounted) appeared in good condition with no obvious evidence of a release and no reports of release.

Pesticides and Herbicides

Former land use adjacent to the Interchange included agricultural fields and livestock grazing. Due to the agricultural background of the project site, it is possible that persistent pesticides remain onsite.

Wells

Several wells (domestic and irrigation) were observed on properties adjacent to the subject site during Kleinfelder's March 15, 2004 site reconnaissance. The Laguna Village Trailer Park may contain a septic tank.

Contaminated Soil

Small amounts of black staining (resembling motor oil) were observed throughout the site and were observed up to 10 cm (four inches) in diameter.

Aerially Deposited Lead

Aerially deposited lead (ADL) is known to exist along the California State Highway System. Elevated concentrations of lead, from the use of leaded gasoline, and other metals are sometimes associated with older roadways. The areas of primary concern in relation to highway facilities are soils along routes that have had high traffic volumes or high vehicle emissions due to congestion or stop and go situations during the time period that leaded gasoline was in use. Most ADL contamination is due to automobile emissions that were deposited prior to 1986.

Soil Piles

Three large piles of soil were observed near the interchange. The soil piles are believed to be associated with past earthwork in the vicinity of the subject site. The largest soil pile was observed approximately 610 meters (2,000 feet) northeast of the Sheldon Road/SR 99 interchange; the second soil pile was observed approximately 914 meters (3,000 feet) southeast

of the Sheldon Road/SR 99 interchange; and the third, and smallest, soil pile was observed approximately 762 meters (2,500 feet) southwest of the Sheldon Road/SR 99 interchange.

Regional Ground Water Quality

The Elk Grove Water Service provides water to facilities and residences located adjacent to Sheldon Road. According to the *Annual Water Quality Report, 2002*, (June 2003, www.egws.org), drinking water in the area may contain small amounts of some contaminants. Contaminants that may be present in source water include: microbial contaminants (bacteria and viruses), inorganic contaminants (e.g. salts and metals), pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. Iron and manganese levels in groundwater appear to exceed the Maximum Contaminant Level (MCL) [1] for drinking water.

IMPACTS

No Build Alternative

Under the No Build alternative, any hazardous materials that would otherwise be disturbed by construction activities would remain undisturbed. Additionally, hazardous materials that would be used during project construction would not be used under the No Build alternative becaue the project would not take place.

Build Alternatives (2A and 3A) Impacts

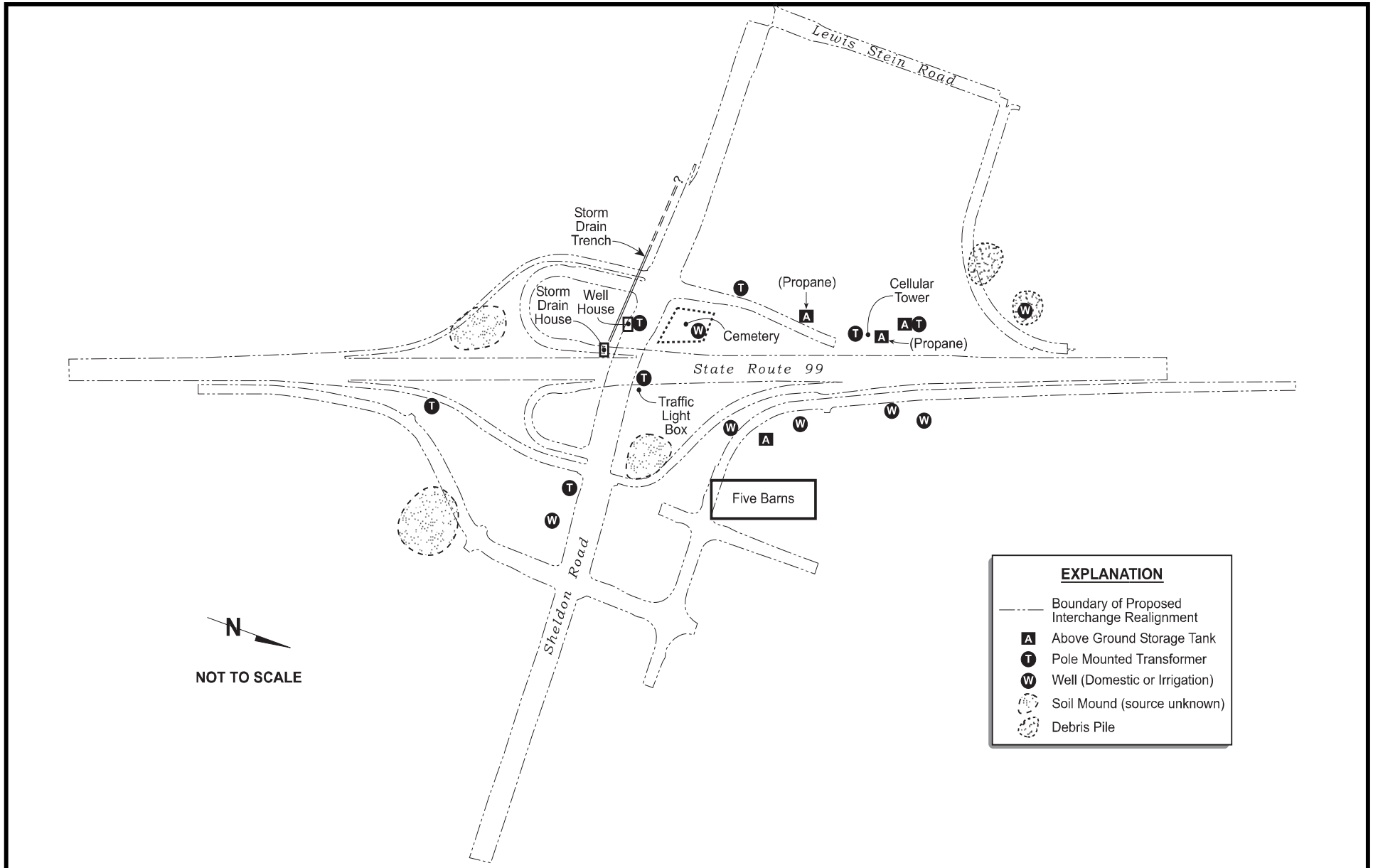
Construction Impacts

Pesticides and Herbicides

Former land use adjacent to the Interchange included agricultural fields and livestock grazing. Due to the agricultural background of the project site, it is possible that persistent pesticides remain onsite. Construction in the area where persistent pesticides may exist may expose people to these hazardous materials.

Impact 2.2.4-1 Development within the Sheldon Road/SR 99 interchange area may expose residents or construction workers to residues from past herbicide or pesticide applications.

[1] MCLs are the highest level of a contaminant that is allowed in drinking water.



Source: Kleinfelder Engineers, 2004

City of Elk Grove
Development Services

Figure 2.2.4-1
Sitemap of Potential Hazardous Locations

MITIGATION MEASURES

MM 2.2.4-1 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, deems the site remediated and clear for development.

Asbestos

Between 1978 and 1979 the federal government banned nearly all uses of friable asbestos in building materials. Therefore, existing structures within the project area built subsequent to 1979 are considerably less likely to contain asbestos in their building materials. However, most of the existing structures within the project area predate 1979 and potentially contain asbestos in their building materials. There are approximately 32-36 structures within the project area that may be demolished by Alternative 2A or 3A, many of which were constructed prior to 1978/79.

The potential also exists for buried asbestos-containing cementitious pipe (often referred to as "Transite") to be present beneath the project site. Transite pipes were commonly used for water transportation as part of historical agricultural practices.

Impact 2.2.4-2 The potential exists for possible asbestos containing materials (ACMs) from buildings, the existing overpass structure, and cementitious pipe currently located on the project site. Demolition of these structures could release asbestos into the atmosphere.

MITIGATION MEASURES

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.

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).

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.

Lead Materials

A number of structures that exist in the project area were constructed prior to the 1970 ban of lead-based paints. Exposure to lead from older vintage paint is possible when it is in poor condition or during its removal. Workers can be exposed to airborne lead during renovation, maintenance or removal work. Potential health and safety impacts associated with the project area could affect anyone in the area (including workers and residents) who may be exposed to lead-based paint.

A trench constructed of exposed soil along the north side of Sheldon Road appears to collect storm water runoff from the roadway. Residual concentrations of hydrocarbons may have collected in the runoff.

Lead Based Paint

The structures observed on the project site have the potential to contain lead due to the use of lead based paint in older structures. Until lead based paint was banned nationwide for consumer use in 1978, lead based paint was a common material used in construction and remodeling. Because the date of construction is pre-1978, and the building materials have not been identified, it is conceivable that lead based paint was used in their construction. In the event that these buildings are to be demolished and/or removed from the property, based on the age of the structures, the construction workers could be exposed to the airborne release of inorganic lead from the lead based paint.

Yellow Thermoplastic Highway Striping

Yellow thermoplastic highway striping may contain heavy metals such as lead and chromium, in concentrations that can be hazardous based on California hazardous waste regulations. Removal of these striping materials and older paint formulations from the pavement may create residues

that exceed regulatory thresholds for lead. These striping materials may also emit toxic fumes when heated.

Aerially Deposited Lead

Soils adjacent to SR 99 may be contaminated with ADL. Disturbance of these soils could expose people in the area to airborne inorganic lead.

Impact 2.2.4-3 During demolition, removal, construction, and grading activities, construction within the Sheldon Road/SR 99 interchange area could result in the disturbance of lead-based materials and expose persons to airborne lead material.

MITIGATION MEASURES

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.

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.

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.

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.[2] 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.

Leaking Underground Storage Tanks

Residual soil contamination associated with known releases from USTs may remain at 8706 East Stockton Boulevard and 8821 East Stockton Boulevard. Also, soil contaminated with waste oil may remain at 8151 Sheldon Road. If stained or odiferous soils are encountered during construction activity at these properties, additional assessment may be required.

It should also be noted that agricultural properties often use or dispense fuel stored in underground or above ground storage tanks. These tanks often do not have permits to operate and their locations are unknown. Obvious evidence of USTs was not observed during Phase I site reconnaissance; however, if any unknown USTs are encountered, mitigation would be required.

Impact 2.2.4-4 Residual soil contamination associated with known and unknown releases from underground storage tanks (USTs) may remain on properties surrounding the interchange. During removal and construction activities, construction within the Sheldon Road/SR 99 interchange area could result in the disturbance of contaminated soils and expose persons to hazardous airborne material.

MITIGATION MEASURES

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

[2] Accessed: http://www.dot.ca.gov/hq/esc/oe/specifications/SSPs/99-SSPs/Sec_10/15/15-300_A08-17-01.doc on January 12, 2004.

Environmental Management Department, deems the site remediated and clear for development.

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.

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.

Irrigation and Water Supply Wells

Domestic and irrigation wells may be present within the project area. Several wells (domestic and irrigation) were observed by Kleinfelder's Phase I site reconnaissance on properties adjacent to the project area.

Impact 2.2.4-5 If right-of-way is taken from any parcels containing domestic or irrigation wells, wells may be abandoned. Incorrectly abandoned wells have the potential to pose a water supply contamination hazard or a falling hazard.

MITIGATION MEASURES

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.

Soil Piles

Three large piles of soil were observed near the interchange. The soil piles appeared to be associated with past earthwork in the vicinity of the subject site. The largest soil pile was observed approximately 610 meters (2,000 feet) northeast of the Sheldon Road/SR 99 interchange; the second soil pile was observed approximately 914 meters (3,000 feet) southeast of the Sheldon Road/SR 99 interchange; and the third, and smallest soil pile was observed approximately 762 meters (2,500 feet) southwest of the Sheldon Road/SR 99 interchange. Soil piles of unknown origin have the potential to contain hazardous materials.

Impact 2.2.4-6 Soil piles of unknown origin have the potential to contain hazardous materials. The potential for human exposure to hazardous materials exists if the soil piles are disturbed during construction.

MITIGATION MEASURES

MM 2.2.4-6a 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.

MM 2.2.4-6b 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.

CEQA FINDINGS

The proposed project may result in significant impacts from hazardous waste or materials if it would result in:

- 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

Pesticides and Herbicides

Development within the Sheldon Road/SR 99 interchange area may expose residents or construction workers to residues from past herbicide or pesticide applications. This would be considered a **potentially significant impact**. Implementation of mitigation measure **MM 2.2.4-1** would reduce the potential for harm to a **less than significant impact**.

Asbestos

The demolition of buildings, the existing overpass structure, and cementitious pipe currently located on the project site could release asbestos into the atmosphere and expose workers to ACMs. This would be considered a **potentially significant impact**. Implementation of mitigation measures **MM 2.2.4-2a**, **MM 2.2.4-2b**, and **2.2.4-2c** would reduce the potential for harm to a **less than significant impact**.

Lead Materials

During demolition, removal, construction, and grading activities, construction within the Sheldon Road/SR 99 interchange area could result in the disturbance of lead-based materials and expose persons to airborne lead material. This would be considered a **potentially significant impact**. Implementation of mitigation measures **MM 2.2.4-3a**, **MM 2.2.4-3b**, **2.2.4-3c,** and **2.2.4-3d** would reduce the potential for harm to a **less than significant impact**.

Leaking Underground Storage Tanks

Residual soil contamination associated with known and unknown releases from underground storage tanks (USTs) may remain on properties surrounding the interchange. During removal and construction activities, construction within the Sheldon Road/SR 99 interchange area could result in the disturbance of contaminated soils and expose persons to hazardous airborne material. This would be considered a **potentially significant impact**. Implementation of mitigation measures **MM 2.2.4-4a**, **MM 2.2.4-4b**, and **2.2.4-4c** would reduce the potential for harm to a **less than significant impact**.

Irrigation and Water Supply Wells

If right-of-way is taken from any parcels containing domestic or irrigation wells, wells may be abandoned. Incorrectly abandoned wells have the potential to pose a water supply contamination hazard or a falling hazard. This would be considered a **potentially significant impact**.

Implementation of mitigation measure **MM 2.2.4-5a** would reduce the potential for harm to a **less than significant impact**.

Soil Piles

Soil piles of unknown origin on site have the potential to contain hazardous materials. The potential for human exposure to hazardous materials exists if the soil piles are disturbed during construction. This would be considered a **potentially significant impact**. Implementation of mitigation measures **MM 2.2.4-6a** and **MM 2.2.4-6b** would reduce the potential for harm to a **less than significant impact**.