

4.7 HAZARDS AND HAZARDOUS MATERIALS

The analysis summarized in this section is based on the Initial Site Assessment (ISA) completed for this project by Parikh Consultants, Inc. (Parikh) in February 2013.

Appendix K includes this ISA. The ISA was prepared to identify and evaluate potential sources or indications of hazardous substance contamination in the project site.

4.7.1 EXISTING CONDITIONS

Project Site

To examine historical uses in the vicinity of the project site, historical aerial photography and maps were reviewed. Maps from as early as 1908 show the presence of railroad tracks, as well as a paint manufacturing building and a food cannery at the intersection of East Hendy Avenue and Fair Oaks Avenue. A fuel oil tank is noted on the southeast side of the cannery. The maps also show the presence of a crude oil tank on the southeastern portion of the property, a steel fuel oil tank on the northwestern portion of the property, and a “Machine Shop” on the southeast side of the project site.

Currently, the project site is surrounded by a variety of private properties in a mix of residential, commercial, and industrial uses. The east side of the project site features a Home Depot retail store, Caltrain railroad tracks, Heritage Park townhome community, and a sports bar. West of the project site uses include an industrial campus (Northrop Grumman), Caltrain tracks, and the Heritage Park residential complex.

Sensitive Receptors

Some residential populations, including children, the elderly, and the infirm, are more susceptible to health effects from hazardous materials than the general population. Such populations are considered “sensitive receptors” for certain types of environmental impacts. Construction on contaminated properties that could potentially generate vapors or dust-containing contaminants may potentially pose a health risk to these receptors.

No school or hospital is located within 0.25 miles of the project site, although several residential properties are located immediately adjacent. The nearest school facilities are Ellis Elementary School, located approximately 0.3-mile southwest of the project site at 550 East Olive Avenue, and Boost Up Kids Academy, located 0.3-mile northwest of the site at 404 East Evelyn Avenue.

Roadway/Railway Area Hazardous Materials

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

Fair Oaks Avenue and portions of the surrounding area have supported vehicular activity since the 1940s and railroad activity since the mid-19th century. It is therefore highly likely that the surface soils along these roadways are affected by deposition of aerial lead. However, the area is predominately paved, thus there is minimal dirt on which the run-off could have collected lead.

In contrast, the nearby Caltrain tracks are set in a soil and gravel-covered area. Soils along the railroad tracks may be impacted from locomotive exhaust, chemically-treated railroad ties, slag ballast used to set the ties, or aerially deposited lead from nearby automobile activity in the area.

In addition, more recently placed pavement markings consisting of yellow paint and thermoplastic striping also present a potential risk if not handled and disposed of properly.

Asbestos-Containing Material

Potential asbestos containing materials (ACMs) could exist within the project site. Asbestos is toxic and recognized as a human carcinogen.¹ Asbestos is commonly found in older building materials that may be affected during demolition and renovation activities. Building materials installed prior to 1981, including the current Fair Oaks Avenue overhead bridge itself, are generally considered likely to contain asbestos-containing materials.

¹ Agency for Toxic Substances and Disease Registry, 2001.

Hazardous Materials Sites

The ISA identified potential soil and groundwater contamination from the release of hazardous materials at two properties, as well as one structure that may contain hazardous materials. These areas of potential concern are located within the project site, as described in **Table 4.7-1** and shown in **Figure 4.7-1**. Releases at each of the two properties may have impacted subsurface conditions.

Table 4.7-1 Properties of Environmental Concern

	Site Name and Location	Hazardous Materials Expected to be Present
1	Caltrain tracks under the Fair Oaks Avenue overhead structure	Potential heavy metals, polynuclear aromatic hydrocarbons (PNAs), and total petroleum hydrocarbons (TPH) in the form of diesel, motor oil, and gasoline in soil and/or groundwater associated with former and current rail activity.
2	Fair Oaks Avenue overhead structure	Potential asbestos containing materials and lead based paint associated with the age of the structure.
3	“Superfund” site (401 East Hendy Avenue) at former Westinghouse facility (currently operated by Northrop Grumman)	Potential elevated levels of PCBs and various volatile organic compounds in soil and/or groundwater associated with former Westinghouse operations, including the manufacture of transformers. Facility records indicate that contaminated groundwater may extend underneath Fair Oaks Avenue and Hendy Avenue towards the Home Depot parking lot.

Source: Parikh, 2013.

As indicated in **Table 4.7-1**, current and historic land uses may have resulted in hazardous material releases and accumulation. Some of the TPH compounds (particularly those present in gasoline), can affect the human central nervous, and chronic exposure to PNAs can lead to lung, skin, and bladder cancers. Potential impacts associated with hazardous materials are discussed further in **Subsection 4.7.3, Impacts and Mitigation Measures**.

Review of environmental records indicates that the Superfund site is located at the northwest corner of Fair Oaks Avenue and the Caltrain tracks. The groundwater in one of the monitoring wells at this facility shows elevated levels of PCBs and various volatile organic compounds known to be hazardous to human health. Data collected nearby indicates that the contaminated groundwater may extend underneath Fair Oaks Avenue towards the Home Depot parking lot.

4.7.2 REGULATORY SETTING

National

The U.S. EPA is the main federal agency responsible for enforcing regulations relating to hazardous materials and wastes. The U.S. EPA works collaboratively with other agencies to enforce materials handling and storage regulations and site cleanup requirements.

Primary federal laws pertaining to hazardous materials and wastes include the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Responsibility, Compensation, and Liability Act of 1980 (CERCLA). RCRA includes procedures and requirements for reporting releases of hazardous materials, and for cleanup of such releases. RCRA also includes procedures and requirements for handling hazardous wastes or soil or groundwater contaminated with hazardous wastes. CERCLA delineates the liability for contamination between current property owners and others. The Hazardous Materials Transportation Act is administered by the DOT via its performance of inspections and training, and its issuance of transportation guidelines; the federal government delegates enforcement authority to the states.

State of California

The Department of Health Services (DHS), the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB) are the state agencies that regulate hazardous materials.

The DTSC administers U.S. EPA's standards regarding public health effects of soil contamination, while the RWQCB administers state water quality standards for surface and groundwater. Lead responsibility for remediation depends on the proposed use of a parcel, the character of waste contaminants, and the need for site monitoring.

Relevant state laws that address soil and water pollution, hazardous materials storage, handling, transport and disposal include the State Water Code, Underground Storage Tank Code, Cortese Act (listing of hazardous waste and substances sites) and Proposition 65 (safe drinking water and toxics enforcement).

Sunnyvale General Plan

The Safety and Noise element of the General Plan contains the following relevant policies associated with hazards and hazardous materials:

Safety and Noise

- SN-1.5 Promote a living and working environment safe from exposure to hazardous materials.
- SN-1.6 Operate a response system that will provide effective control and investigation of hazardous materials emergencies.

Project Consistency

State and local agencies will enforce and oversee construction and operational activities to ensure compliance with all applicable federal and state laws. Oversight agencies include the City of Sunnyvale Public Works Department, the City and County Fire Official, and others.

Consistent with State and City regulations, an initial site assessment (ISA) was prepared to determine whether any contamination may exist on the project site or adjacent properties. Consistent with policies SN-1.5 and 1.6, the ISA identified past activities in the project vicinity and documented any known hazardous materials sites.

The project would not handle substantial amounts of hazardous materials or generate hazardous waste, and therefore would not trigger any conflict with General Plan policies SN-1.5 and 1.6. Furthermore, the project site is not in an area susceptible to wildfires. Therefore, the project would be in compliance with all General Plan policies related to hazardous materials.

4.7.3 IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines identifies environmental issues to be considered when determining whether a project could have significant effects on the environment. As stated in Appendix G, a project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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 create a significant hazard to the public or the environment;
- 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;
- For a project in the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urban areas or where residences are intermixed with wildlands;

Discussion of No Impacts

Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The City proposes to rehabilitate an existing bridge that would not entail the routine use, transport, or disposal of hazardous materials as part of day-to-day operations. Furthermore, the project site is not located within one-quarter mile of an existing or proposed school. The nearest school facilities are Ellis Elementary School, located approximately 0.3-mile southwest of the project site at 550 East Olive Avenue, and Boost Up Kids Academy, located 0.3-mile northwest of the project site at 404 East Evelyn Avenue. Therefore, no impact would occur and no mitigation would be required.

Would the project 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 create a significant hazard to the public or the environment?

As discussed in the Phase I ISA, there is an identified Superfund site immediately adjacent to the project site, located at 401 East Hendy Avenue. However, this Superfund site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, informally known as the “Cortese list.” A review of the Cortese list, as provided by Environmental Data Resources (August, 2012) reveals the presence of four Cortese sites within approximately 0.5 mile of the project site. Given that none of these sites are located at the project site, it is unlikely that they would create a significant hazard to the public or environment as a result of the project. Thus no impact would occur and no mitigation would be required.

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;

For a project in the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The closest airport to the project site is Moffett Federal Airport, owned and operated by the NASA Ames Research Center. It is located over 2.5 miles away between northern Mountain View and northern Sunnyvale. Mineta San Jose International Airport is located approximately 4.5 miles from the project site. Based on the project site’s distance from public airports and private airstrips, the proposed use would not introduce any foreseeable hazards to aircraft or to people residing or working in the project site. No mitigation would be required.

Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urban areas or where residences are intermixed with wildlands?

The project site is currently developed and is located in a suburban area. The larger area surrounding it (the City of Sunnyvale) is in turn surrounded by the urbanized and developed cities of Santa Clara and Mountain View. According to the California Department of Forestry², the nearest community at risk from wildfire is located over one mile from the project site. Because of the distance from any wildland areas, development on the project site would not expose people or structures to wildland

² California Department of Forestry, 2003. Communities at Risk from Wildfire, Interactive WUI Fire Threat Map. Available at: <http://quake.abag.ca.gov/wildfires/>. Accessed: 2/17/14.

fire hazards. Furthermore, the project would rehabilitate an existing bridge and would not expose people or structures to any new risks associated with wildland fires. No mitigation would be required.

Discussion of Less than Significant Impacts

Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

During construction and grading, diesel fuels, solvents, and similar substances would be transported to and used at the project site related to the operation and maintenance of heavy construction equipment. The transport and use of such materials would be for a short-term duration and would be limited to the quantities required for construction and grading. No significant impact would result from the transport or use of such materials over the construction and grading period. The transport of such materials is overseen by numerous federal and state regulations to better ensure public safety. Therefore, no project-specific mitigation is required.

The City proposes to rehabilitate an existing bridge, which would not entail the routine use, transport, or disposal of hazardous materials as part of its day-to-day operations. No significant quantities of hazardous materials would be stored on-site during operation. As such, potential operational period impacts associated with the use, transport, and storage of hazardous materials are considered less than significant. No mitigation would be required.

Discussion of Impacts

Would the project 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?

Impact HAZ-1: Excavation of soils and demolition of existing structures on the site could result in the release of lead, asbestos, and other contaminants. (LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED)

The project requires the excavation of soils and demolition of structures known to contain or potentially containing hazardous materials.

Lead and asbestos

Because of the age of the roadway, construction workers may be exposed to aerially deposited lead in soils and groundwater within the hazardous materials study area, which could result in harmful health hazards. Furthermore, the project involves demolition of older existing roadway elements and structures that potentially contain asbestos and lead based paint. Demolition of these structures therefore has the potential to release lead particles, asbestos fibers, and/or other hazardous materials that could be inhaled by construction workers and the public. **Mitigation Measure HAZ-1** (discussed below) would reduce potential impacts related to the handling and disposal of such materials.

Other contaminants

Two properties with known or potential releases of hazardous materials were identified that could potentially contaminate soil and/or groundwater beneath areas of proposed construction from the project (Areas 1 & 3 of **Table 4.7-1** and **Figure 4.7-1**). This could pose a potential risk to construction workers. Further investigation involving subsurface soil sampling shall be required in order to identify risks associated with construction.

Mitigation Measure HAZ-1: Because of the potential for exposure to hazardous materials and aerially deposited lead, the following measures shall be taken to avoid any potential adverse effects:

- Prior to construction, a Phase II Environmental Site Assessment (ESA) shall be conducted by a licensed professional to determine the potential presence of metals, and organic compounds in soil and groundwater underlying the project site. In particular, the Phase II ESA shall test for contamination at Areas 1 & 3 of the project site, as identified in **Table 4.7-1** and **Figure 4.7-1**. If contaminants are identified in subsurface soils and/or groundwater of areas intended for excavation and construction, the Phase II ESA shall screen the identified contaminant concentrations relative to applicable environmental screening levels developed by the Regional Water Quality Control Board and the Department of Toxic Substances Control for residential use and construction worker health and safety. If contaminant concentrations are above the applicable screening levels, the Phase II report shall make requirements for remedial actions for the protection of public health and the environment. Given evidence of contamination in the areas that pile foundations are to be constructed at the Northrup Grumman superfund site (Area 3), the groundwater shall be tested for PCBs and volatile organic compounds, including various isomers of di-chloro and tri-chloro benzenes. In the event that groundwater is

found to be affected, health and safety provisions shall be put in place and waste management procedures to handle the contaminated water extracted during pile construction shall be developed.

- Where excavation that reaches groundwater (at expected depth of 20 feet), construction dewatering will be required. The contractor shall evaluate the subsurface conditions before selecting a dewatering method. Groundwater should be lowered to at least 2 feet below the bottom of excavation to provide workable condition. All dewatering systems shall be properly designed to prevent pumping soil fines with the discharge water. The contractor shall sample and test the groundwater for soil fines content from the discharge, as needed. If soil fines are pumped, the contractor shall revise dewatering operations. Otherwise, failure of shoring, partial instability of trench bottom resulting in intolerable ground settlement/movement of existing utilities and unsafe working conditions may occur. The contractor shall provide discharge sampling locations for each pump. The contractor is encouraged to perform their own investigation, test program, etc. prior to construction in order to satisfy their design requirements for an effective dewatering program. The contractor should confirm the design groundwater level (for shoring) prior to actual construction.
- If remedial actions are necessary to address hazardous materials in the soil and/or groundwater, the City shall consult with the appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environmental, both during and after construction, posed by soil contamination and/or groundwater contamination. The City shall obtain and submit written approval documentation for any remedial action, if required by a local, state, or federal environmental regulatory agency prior to project occupancy. Remedial actions may include but are not limited to:
 - Soil and/or groundwater removal or treatment
 - Site-specific soil and groundwater management plan
 - Site-specific health and safety plan signed by a Certified Industrial Hygienist
 - Risk management plan
 - Disposal process including transport by a state-certified hazardous material hauler to a state-certified disposal/recycling facility licensed to accept/treat the identified waste.
- The City shall prepare a soil monitoring plan prior to the issuance of permits for demolition or construction and shall implement the plan during all phases of construction. Disturbed soils shall be monitored for visual evidence of

contamination (e.g., staining or discoloration). Soil shall be monitored for the presence of VOCs using appropriate field instruments such as organic vapor measurement with photoionization detectors (PIDs) or flame ionization detectors. If the monitoring procedures indicate the possible presence of contaminated soil, a contaminated soil contingency plan shall be implemented that shall include procedures for segregation, sampling, and chemical analysis of soil. Contaminated soil shall be profiled for disposal and shall be transported with appropriate hazardous or non-hazardous waste manifests by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat the type of waste indicated by the profiling process. The contaminated soil contingency plan shall be developed and in place during all construction activities. In the event that these processes generate any contaminated groundwater that must be disposed of outside of the dewatering/NPDES process, the groundwater shall be profiled, manifested, hauled, and disposed of in the same manner.

- The pavement markings on roadways in the project site (consisting of yellow paint and possibly thermoplastic stripes) shall also be addressed for safe and appropriate disposal.
- If repair, rehabilitation, or demolition of the Fair Oaks Avenue overhead structure is required, an asbestos containing materials (ACM) investigation shall be performed by an inspector certified by Asbestos Hazardous Response Act (AHERA) under Toxic Substance Control Act (TSCA) Title II and certified by Cal OSHA under State of California rules and regulations (California Code of Regulations, Section 1529). A lead based paint (LBP) investigation shall also be performed by a state certified contractor. This work shall be performed during the design phase. If hazardous materials are identified in the survey, they shall be removed from the site and properly disposed of in accordance with CAL/OSHA requirements:
 - Known or suspected asbestos-containing materials shall be abated by a certified asbestos abatement contractor in accordance with BAAQMD regulations and notification requirements.
 - Intact lead-based paint found to be secure (not flaking, peeling or cracked) may be discarded along with demolition debris during the demolition of the structure.
 - Loose and peeling paint shall be disposed of as state and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds.

- Hazardous wastes shall be appropriately managed, labeled, transported, and disposed of by trained workers in accordance with local requirements.
- The demolition and removal of materials potentially containing lead-based paint would be required to follow the CAL/OSHA Lead in Construction Standard, Title 8, California Code of Regulations (CCR).
- Other hazardous materials associated with buildings, such as fluorescent lights and electrical switches, shall be disposed of in accordance with DTSC hazardous waste regulations.

Significance after Mitigation: Less than Significant. Implementation of **Mitigation Measure HAZ-1** would mitigate risks of lead-based paint and asbestos containing materials to a less-than-significant level. It would also ensure the safety of construction workers and the public with regard to the excavation and safe disposal of excavated materials.

4.7.4 REFERENCES

City of Sunnyvale. 2011. Sunnyvale General Plan. Safety and Noise Element.
Available: <http://ecityhall.sunnyvale.ca.gov/cd/GeneralPlan.pdf#page=170>.

Parikh Consultants, Inc. 2013. Phase I Initial Site Assessment.

Figure 4.7-1 Hazards and Hazardous Sites