

4.7 Hazardous Materials and Hazards

This section discusses the hazardous materials issues related to the existence of hazardous materials associated with the Plan area, as well as construction and operation of subsequent development projects. This section provides an overview of the regulatory setting that is applicable to health and safety regarding hazardous materials in the Plan area and potential project impacts and appropriate mitigation measures, as necessary.

4.7.1 Environmental Setting

Definitions

Materials and waste are generally considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term “hazardous material” is defined in the State Health and Safety Code (Chapter 6.95, Section 25501[o]) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

A hazardous waste, for the purpose of this EIR, is any hazardous material that is abandoned, discarded, or recycled, as defined in the State Health and Safety Code (Chapter 6.95, Section 25125). The transportation, use, and disposal of hazardous materials, as well as the potential releases of hazardous materials to the environment, are closely regulated through many state and federal laws.

The Plan area currently includes a variety of land uses: commercial and light industrial developments; residential developments, open spaces; and railroad tracks. Commercial and industrial land uses involving hazardous materials and other substances can become a health hazard to humans or the environment if not properly contained or managed. A wide array of potential hazardous materials sources originate from commercial land uses, such as gasoline service stations, dry cleaners, and other facilities that utilize or store solvents, chemicals or other hazardous materials. Industrial land use typically involves storage of large quantities of fuel or hazardous materials in above-ground or underground storage tanks. These sources of hazardous materials are present in the existing environment within the project area, and if encountered by construction workers or the general public, can cause exposures that may result in adverse environmental and health effects.

This project setting section discusses the potential presence of soil and groundwater contamination within the project area and hazardous materials commonly found in building materials, as buildings may be demolished in connection with this project.

Soil and Groundwater

To identify sites with soil and groundwater contamination in the project vicinity, ESA performed a regulatory agency database search for the project area using the California Regional Water

Quality Control Board (RWQCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases. These databases search regulatory agency lists of sites with a documented release of hazardous materials or petroleum products. Regulatory agency lists included in the database search included: Federal Superfund (EPA National Priorities List); State Response; Voluntary Cleanup; Landfill Disposal Sites; Military Sites, Leaking Underground Fuel Tank (LUFT) Sites; and Other Sites.

Project construction would involve excavation for facility improvements and, therefore, could potentially encounter contaminated soil or groundwater. In the investigations discussed below, groundwater has been reported at depths ranging from 29 to 45 feet below ground surface. Sites located within the planning area with documented releases to soil or groundwater that could potentially expose construction workers or the public to impacted soil or groundwater are listed in **Table 4.7-1**. These cases are discussed further below.

**TABLE 4.7-1
 HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED WITHIN THE PLAN AREA**

Site Name	Address	Cleanup Status	List
Tosco #3652	1380 El Camino Real	Completed – Case Closed	LUFT
Rayberg Lumber	1460 El Camino Real	Completed – Case Closed	LUFT
Beltramo Property	1452, 1458 and 1460 El Camino Real	Open – Site Assessment	Other
Red Carpet Car Wash	1436 El Camino Real	Open - Remediation	LUFT
Norge/Atherton Cleaners	1438 El Camino Real	Open – Site Assessment	Other
Shell	1400 El Camino Real	Completed – Case Closed	LUFT
Chevron 9-6375	1377 El Camino Real	Completed – Case Closed	LUFT
Stanford Cadillac	1300 El Camino Real	Completed – Case Closed	LUFT
Wo Sing Cleaners	570 Derry Lane	Open – Site Assessment	Other
BP Oil (Independent)	1200 El Camino Real	Completed – Case Closed	LUFT
Kulakoff Development	1190 El Camino Real	Completed - Case Closed	LUFT
College Park Convalescent	1275 Crane Street	Completed – Case Closed	LUFT
Nicholson Property	931 Menlo Oaks Drive	Completed – Case Closed	LUFT
Magnussen Buick-GMC	550 El Camino Real	Completed – Case Closed	LUFT
Stanford Lincoln Mercury	444 El Camino Real	Open – Site Assessment	LUFT
Exxon 7-0225	389 El Camino Real	Completed – Case Closed	LUFT
Exxon 7-3910	145 El Camino Real	Completed – Case Closed	LUFT

LUFT – Leaking Underground Fuel Tank List

Bold face type indicates ongoing investigation or remediation

SOURCE: RWQCB GeoTracker, DTSC EnviroStor 2009

Closed Leaking Underground Fuel Tank (LUFT) Sites

As shown in Table 4.7-1, the project area contains 12 closed LUFT sites. Cleanup of LUFT facilities is performed under the direction of the lead agency, either the San Mateo County Health Department Groundwater Protection Program (GPP) or the RWQCB. Case closure is typically granted by the oversight agency when soil or groundwater affected by a release of petroleum hydrocarbons and its constituents (such as benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl-tertbutylether (MTBE)) has been substantially cleaned up and no longer poses a threat to the quality of groundwater beneath the site. It should be noted that residual contaminants may remain in soil or groundwater at closed sites. Low levels of hydrocarbons tend to degrade over time. Excavation for project construction at closed LUFT sites, however, may encounter low levels of petroleum hydrocarbons in soil or groundwater. The risks associated with encountering subsurface contamination is discussed further in the Impacts and Mitigations section below.

Beltramo Property

This property consists of four large one-story buildings on 1.5 acres. The site was reportedly occupied by a welding shop in the 1920s and early 1930s, followed by a lumber yard and hardware store until 2001. As of 2006, the property was occupied by a variety of tenants: small businesses including a nail salon, a garden furniture store, a flooring store, a window retail store, and various open space storage areas.¹ In 2006, the owners of the property received land use entitlements from the City for redevelopment of the property with 26,800 square feet of new commercial development and 16 residential units. The approvals were valid for two years. In 2008, the property owners requested and were granted a two-year extension of the approvals. A second extension request is currently pending with the City.

Contamination by tetrachloroethene (PCE) and its daughter products was discovered in April 2006 during decommissioning of three dry wells. The source of the contamination appears to have been a neighboring former dry cleaner.² PCE concentrations in groundwater exceeded the RWQCB Environmental Screening Level for commercial land. Over the next two years, 22 soil borings were advanced to evaluate the presence of PCE in soil and groundwater. PCE exceeded the commercial Environmental Screening Level for numerous soil and groundwater samples collected in those borings.

In September 2008, 17 soil vapor probes were installed for the collection of soil gas samples for laboratory analysis. Concentrations of PCE in soil vapor were detected between 12 and 10,000 $\mu\text{g}/\text{m}^3$ in the area planned for residential development and between 90 and 280,000 $\mu\text{g}/\text{m}^3$ in the area planned for commercial development. PCE concentrations in both these areas exceed their respective residential and commercial California Human Health Screening Levels (CHHSLs). TRC, the environmental consultant, recommended the following measures prior to redevelopment: (1) engineering controls be installed, such as a vapor barrier to prevent intrusion of PCE-impacted

¹ TRC, Inc., *Human Health Risk Assessment Report, Beltramo Property at 1452, 1458, and 1460 El Camino Real, and 1457 and 1473 San Antonio Street, Menlo Park, CA*, March 26, 2010.

² TRC, Inc., *Human Health Risk Assessment Report, Beltramo Property at 1452, 1458, and 1460 El Camino Real, and 1457 and 1473 San Antonio Street, Menlo Park, CA*, March 26, 2010.

³ $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter, or parts per billion

soil vapor from intruding into planned structures; (2) a deed restriction prohibit groundwater use at the site due to PCE concentrations exceeding ESLs; (3) and a soil and groundwater management plan addressing handling of PCE-impacted soil and groundwater during construction. A human health risk assessment was prepared for the Plan area and upon review the DTSC recommended engineering measures to control future indoor air intrusion, preparation of a soil management plan to manage soils during construction, and preparation of a health and safety plan to protect workers from hazards.⁴ The site will remain as an open case until it has been demonstrated to the satisfaction of DTSC that no threat to human health or the environment remains.

Red Carpet Car Wash

This site was operated as a car wash and fueling system as early as 1966. The site is contaminated primarily with TPH-gasoline, BTEX and MTBE from a former underground storage tank leak. Trace concentrations of volatile organic compounds (VOCs), primarily chlorinated solvents, have been detected and may have originated from dry cleaners formerly located in the site vicinity. TPH-gasoline remains in soil at concentrations up to 3,900 mg/kg in the vadose zone (the depth where the groundwater surface fluctuates) between 24 and 37 feet below ground surface. Floating hydrocarbon product has been observed in one well since 2005. As an interim remedial measure, an absorbent sock has been installed in this well and is replaced at bi-monthly to monthly intervals. Several remedial actions for site cleanup have been considered, and the injection of a chemical oxidant to break down hydrocarbons in the saturated zone has been proposed as a recommended cleanup method (E2C, Inc, 2006). However, to date the site is still undergoing investigation to determine the full vertical and lateral extent of contamination.⁵ Further evaluation and approval by Department of Toxic Substances Control would be needed prior to any redevelopment.

Norge/Atherton Cleaners

The owners of this site were identified by San Mateo County Groundwater Protection Program as potentially responsible parties for the PCE contamination identified at the Beltramo property, discussed above. As the owners have not responded to the County Groundwater Protection Program requests, the Groundwater Protection Program is referring this case to the Department of Toxic Substances Control for environmental oversight and enforcement.⁶

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- ⁴ Department of Toxic Substances Control (DTSC), *EnviroStor Database for Beltramo Property*, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001067, accessed June 30, 2010.; Department of Toxic Substances Control (DTSC), *EnviroStor Database*, http://www.envirostor.dtsc.ca.gov/public/map.asp?global_id=&x=-119.1357421875&y=37.82280243352756&zl=5&ms=640,480&mt=m&findaddress=True&city=MENLO%20PAR K&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&corrective_action=true&permit_site=true&permit_and_ca_site=true, accessed July 15, 2009.
- ⁵ State Water Resources Control Board (SWRCB), *Geotracker Database, Red Carpet* http://www.geotracker.swrcb.ca.gov/profile_report.asp?global_id=T0608100964, accessed June 30, 2010a.
- ⁶ San Mateo County Health Department (SMCHD), *Potential Release of Tetrachloroethylene at 1438 El Camino Real, Menlo Park, CA*, December 23, 2008.

Wo Sing Cleaners

Since 2002, several subsurface investigations by one or more environmental consultants have been performed at the site to evaluate soil, soil gas, and groundwater quality. The results of these investigations have indicated that elevated concentrations of VOCs, primarily PCE, are located below the site. A soil gas investigation delineated one zone approximately 7,400 square feet in size with PCE concentrations in soil gas ranging from 8,900 µg/m³ to 140,000 µg/m³. Another zone of lesser contamination, up to 540 µg/m³ was also identified. A risk assessment performed for the site based on this data indicates that the risk to future occupants from existing contamination exceed the one in one million cancer risk used as a threshold for five of six potential residential scenarios. A remedial action plan has been prepared for the site but the project is still undergoing monitoring and remediation.⁷ Further evaluation and approval by Department of Toxic Substances Control would be needed prior to any redevelopment.

Stanford Lincoln Mercury

Two 400-gallon underground storage tanks, formerly containing gasoline and waste oil, were removed from this site in November 2007. Site investigations identified soil contamination at depths between 25 and 35 feet below ground surface and the presence of TPH-gasoline, TPH-diesel, ethyl benzene, xylenes, and naphthalene in groundwater at concentrations exceeding Environmental Screening Levels.⁸ Additional soil and groundwater investigation has been implemented as of June 2010 to further evaluate the contamination at this site as overseen by the San Mateo County Environmental Health department.⁹

Structural and Building Components

Hazardous materials, such as asbestos, lead, and polychlorinated biphenyls (PCBs), may be contained in older building materials and released during demolition or renovation of existing facilities. Redevelopment in the planning area would most likely involve the demolition of some existing structures. It is possible that some hazardous building material may be encountered depending upon whether the buildings were constructed prior to the dates these hazardous building materials were phased out of use.

Asbestos Potential

Asbestos is a naturally-occurring fibrous material that was used as a fireproofing and insulating agent in building construction before such uses were banned by the U.S. Environmental Protection Agency (EPA) in the 1970's, although some nonfriable¹⁰ use of asbestos in roofing materials still exists. The presence of asbestos can be found in such materials as ducting

⁷ State Water Resources Control Board (SWRCB), *Geotracker Database, Wo Sing Cleaners*
http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608132242&assigned_name=SLIC, accessed June 30, 2010b.

⁸ Aqua Science Engineers, *Workplan for Additional Soil and Groundwater Assessment*, also available at http://www.geotracker.swrcb.ca.gov/esi/uploads/geo_report/6600612819/T0608126581.PDF. November 30, 2008.

⁹ State Water Resources Control Board (SWRCB), *Geotracker Database, Stanford Lincoln Mercury*,
http://www.geotracker.swrcb.ca.gov/profile_report.asp?global_id=T0608126581, accessed July 1, 2010c.

¹⁰ Nonfriable asbestos refers to asbestos-containing materials (ACMs) that contain asbestos fibers in a solid matrix that does not allow for them to be easily released.

insulation, wallboard, shingles, ceiling tiles, floor tiles, insulation, plaster, floor backing, and many other building materials. Asbestos and asbestos-containing materials (ACMs) are considered both a hazardous air pollutant and a human health hazard. The risk to human health is from inhalation of airborne asbestos, which commonly occurs when asbestos-containing materials are disturbed during demolition and renovation activities.

Lead Potential

Lead and lead compounds can be found in many types of paint. In 1978, the Consumer Product Safety Commission set the allowable lead levels in paint at 0.06 percent by weight in a dry film of newly applied paint. In the 1970s, the chief concern of lead paint was its cumulative effect on bodily systems, primarily when paint chips containing lead were ingested by children. Research in the early 1980s showed that lead dust is of special concern, because the smaller particles are more easily absorbed by the body. Common methods of paint removal, such as sanding, scraping, and burning, create excessive amounts of dust. Lead dust is especially hazardous to young children because they play on the floor and engage in a great deal of hand-to-mouth activity, increasing their potential for exposure. Lead-based paints are considered likely present in buildings constructed prior to 1960, and potentially present in buildings built prior to 1978.

PCBs Potential

PCBs are organic oils that were formerly placed in many types of electrical equipment, such as transformers and capacitors, primarily as electrical insulators. They may also be found in hydraulic fluid used for hoists, elevators, etc. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects and that PCBs are highly persistent in the environment. The EPA has listed these substances as carcinogens. PCBs were banned from use in electrical capacitors, electrical transformers, vacuum pumps, and gas turbines in 1979.

Underground Storage Tanks

An underground storage tank system is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. Until the mid-1980s, most underground storage tanks were made of single-walled bare steel which can corrode over time resulting in leakage. Faulty installation or maintenance procedures also lead to underground storage tank leakage, in addition to potential releases associated with spills. Recently revised underground storage tank regulations have significantly reduced the incidents of underground storage tank leakage from new underground storage tank systems and the consequential soil and groundwater contamination. However, there are some older underground storage tank systems that remain in service and many sites contaminated by leaking underground storage tanks that are still under investigation and clean-up. Underground storage tanks installed prior to the mid-1980's that have leaked as well as improperly installed underground storage tanks have resulted in fuel spills that can present contamination issues in the region. In addition, it is not uncommon for older underground storage tanks to have been abandoned in place with no documentation of location or abandonment technique.

4.7.2 Regulatory Setting

The Specific Plan is subject to government health and safety regulations applicable to the transportation, use, and disposal of hazardous materials. This section provides an overview of the regulatory setting that is applicable to the health and safety in the Plan area.

Federal

Hazardous Materials Management

The primary federal agencies with responsibility for hazardous materials management include the EPA, U.S. Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the U.S. Department of Transportation (DOT). Federal laws, regulations, and responsible agencies are summarized in **Table 4.7-2** and are discussed in detail in this section.

**TABLE 4.7-2
 FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT**

Classification	Law or Responsible Federal Agency	Description
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA))	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from “cradle to grave.”
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the “cradle to grave” system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
Hazardous Materials Transportation	U.S. Department of Transportation (DOT)	Has the regulatory responsibility for the safe transportation of hazardous materials. The DOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	U.S. Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR).
Structural and Building Components (Lead-based paint, PCBs, and asbestos)	Toxic Substances Control Act (TSCA)	Regulates the use and management of PCBs in electrical equipment, and sets forth detailed safeguards to be followed during the disposal of such items.
	U.S. EPA	The EPA monitors and regulates hazardous materials used in structural and building components and effects on human health.

CFR – Code of Federal Regulations.
 RCRA – Resource Conservation Recovery Act

State and local agencies often have either parallel or more stringent regulations than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the state or local agency section.

State

Unified Program

In January 1996, the California Environmental Protection Agency (Cal EPA) adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements: hazardous waste generators and hazardous waste on-site treatment; underground storage tanks; aboveground storage tanks; hazardous materials release response plans and inventories; risk management and prevention programs; and Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level. The Certified Unified Program Agency (CUPA) is the local agency that is responsible for the implementation of the Unified Program.

Hazardous Materials Management

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires that any business that handles hazardous materials prepare a business plan, which must include the following:

- Details, including floor plans, of the facility and business conducted at the site;
- An inventory of hazardous materials that are handled or stored on site;
- An emergency response plan; and
- A safety and emergency response training program for new employees with annual refresher courses.

The Office of Emergency Services serves as the central point in state government for the emergency reporting of spills, unauthorized releases, or other accidental releases of hazardous materials and shall coordinate the notification of the appropriate state and local administering agencies that may be required to respond to those spills, unauthorized releases, or other accidental releases.

Hazardous Waste Handling

The Department of Toxic Substances Control (DTSC), under the umbrella of Cal EPA, regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the

environment. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely.

Under the federal Resource Conservation and Recovery Act of 1976 (RCRA), whose responsibilities are described in Table 4.7-2, above, individual states may implement their own hazardous waste programs in lieu of RCRA, as long as the state program is at least as stringent as federal RCRA requirements. In California, DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The State of California has adopted DOT regulations for the intrastate movement of hazardous materials. State regulations are contained in Title 26 of the California Code of Regulations (CCR). In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California. The two state agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans).

Medical Waste

Within the regulatory framework of the California Medical Waste Management Act, the Medical Waste Management Program of the California Department of Health Services (CDHS) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste offsite treatment facilities and transfer stations throughout the state. The CDHS also oversees all medical waste transporters. The Medical Waste Management Program provides support and oversight to the San Mateo County Health Department (SMCHD), which enforces the Medical Waste Management Act locally.

Occupational Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations. Cal/OSHA standards are generally more stringent than federal regulations.

Cal/OSHA regulations (8 CCR) concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances, and communicating hazard information relating to hazardous substances

and their handling. The hazard communication program also requires that Materials Safety Data Sheets (MSDS) be available to employees, and that employee information and training programs be documented. These regulations also require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

State laws, like federal laws, include special provisions for hazard communication to employees in research laboratories, including training in chemical work practices. Specific, more detailed training and monitoring is required for the use of carcinogens, ethylene oxide, lead, asbestos, and certain other chemicals listed in 29 CFR. Emergency equipment and supplies, such as fire extinguishers, safety showers, and eye washes, must also be provided and maintained in accessible places.

Cal/OSHA (8 CCR), like Fed/OSHA (29 CFR) includes extensive, detailed requirements for worker protection applicable to any activity that could disturb asbestos-containing materials, including maintenance, renovation, and demolition. These regulations are also designed to ensure that persons working near the maintenance, renovation, or demolition activity are not exposed to asbestos.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, CDFG, the San Francisco Bay RWQCB, and the San Mateo County Hazardous Materials Emergency Response Team (ERT). The ERT provides first response capabilities, if needed, for hazardous materials emergencies within the Plan area. In addition, the Menlo Park Fire Protection District provides a primary role in initial response to emergency hazardous materials incidents.

Structural and Building Components

Implementation of the project would include demolition of structures, which, due to their age, may contain asbestos, PCBs, or lead and lead-based paint. In addition, removal of existing aboveground tanks or underground storage tanks may be required.

Asbestos

State laws and regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos. Asbestos represents a human health risk when asbestos fibers become airborne (friable) and are inhaled into the lungs.

The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work. Cal/OSHA regulates asbestos removal to ensure the health and safety of workers removing asbestos containing materials and also must be notified of asbestos abatement activities.

Polychlorinated Biphenyls (PCBs)

As previously discussed, PCBs are organic oils that were formerly placed in many types of electrical equipment and in fluorescent lighting ballasts. PCBs are highly persistent in the environment and are toxic. In 1979, the EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act (40 CFR). PCB regulations are found in 40 Code of Federal Regulations 761. TSCA gives EPA's Office of Solid Waste and Emergency Response the authority to develop, implement and enforce regulations concerning the use, manufacture, cleanup and disposal of PCBs. Fluorescent lighting ballasts that contain PCBs, regardless of size and quantity, are regulated as hazardous waste and must be transported and disposed of as hazardous waste in accordance with CHP and Caltrans.

Lead and Lead-based Paint

The California Code of Regulations, Title 22, considers waste soil with concentrations of lead to be hazardous if it exceeds a total concentration of 1,000 ppm and a soluble¹¹ concentration of 5 ppm. Requirements for lead hazard evaluation and abatement activities, accreditation of training providers, and certification of individuals engaged in lead-based paint activities is found in California Code of Regulations Title 17, Section 35001 et seq. Both the federal and California OSHAs regulate all worker exposure during construction activities that involve lead-based paint. The Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training, etc.

Local

Soil and Groundwater Contamination

In San Mateo County, remediation of contaminated sites is performed under the oversight of the San Mateo County Environmental Health (SMCEH) and the San Francisco Bay Regional Water Control Board (RWQCB). The SMCEH implements a local oversight program under contract with the State Water Resources Control Board to provide regulatory oversight of the investigation and cleanup of soil and groundwater contamination from leaking petroleum underground storage tanks

¹¹ Capable of being dissolved, especially in water.

and aboveground storage tanks. At sites where contamination is suspected or known to have occurred, the project sponsor is required to perform a site investigation and prepare a remediation plan, if necessary. For typical development projects, actual site remediation is completed either before or during the construction phase of the project. Site remediation or development may be subject to regulation by other agencies. As noted above, several properties slated for redevelopment have contaminated soil and groundwater which is currently subject to oversight by SMDEH. Future investigation and remediation of soil or groundwater contamination that is known, or has not yet been identified, would be subject to oversight by SMCEH.

San Mateo County Hazardous Waste Management Program

Assembly Bill (AB) 2948 requires counties and cities either to adopt a county hazardous waste management plan as part of their general plan, or enact an ordinance requiring that all applicable zoning subdivision, conditional use permit, and variance decisions be consistent with the county hazardous waste management plan. Once each County had its Hazardous Waste Management Program approved by the State, each city had 180 days to either: 1) adopt a City Hazardous Waste Management Plan containing specified elements consistent with the approved County Hazardous Waste Management Plan; 2) incorporate the applicable portions of the approved Plan, by reference, into the City's General Plan; or 3) enact an ordinance which requires that all applicable zoning, subdivision, conditional use permits, and variance decisions be consistent with the specified portions of the plan. San Mateo County has adopted a Hazardous Waste Management Program that addresses procedures for hazardous materials incidents. The City of Menlo Park adopted the county plan in 1989.

Under the San Mateo County plan, businesses must complete a Hazardous Materials Business Plan (Business Plan) for the safe storage and use of chemicals. Firefighters, health officials, planners, public safety officers, health care providers and others rely on the Business Plan in an emergency. They use it to prevent or lessen damage to the health and safety of people and the environment when a hazardous material is released. The Hazardous Materials Business Plan Program is also known as the Community Right to Know Program and any citizen has the right to review these plans upon request.

Local Plans and Policies

The City of Menlo Park does not currently include any policies or goals that specifically relate to the use of hazardous materials in their existing General Plan. However, the City's Municipal Code, Chapter 16 Zoning Ordinance requires a conditional use permit for hazardous materials use in the M1, M-2, and M-3 zoning districts. In addition, fuel storage for emergency generators associated with office uses can be reviewed through the use permit process in any zoning district that permits office uses. Hazardous materials use permit applications are routed to the Menlo Park Fire Protection District, San Mateo County Environmental Health, West Bay Sanitary District, and City of Menlo Park Building Division for their review and approval prior to Planning Commission review and action.

4.7.3 Impacts and Mitigation Measures

Retail as well as office and other commercial activities in the proposed Plan area would use hazardous chemicals common in these types of settings. These chemicals would include familiar materials, such as toners, paints, lubricants, kitchen and restroom cleaners, and other maintenance materials as well as chemicals used during operations. These common consumer products would be used for the same purposes as in any office or support setting, including residences. Retail uses can also handle hazardous materials that are stored in containers provided by manufacturer. The amounts of hazardous materials that would be stored or handled cannot be determined at this time; however, assumptions can be made that the amounts of hazardous materials and waste would not significantly change from existing conditions. Active automobile service stations are also present within the Plan area that store petroleum products in underground storage tanks. In addition, El Camino Real is a major transportation route that could include the transport of hazardous materials.

Significance Criteria

Implementation of the Plan would be considered to have significant hazardous materials and hazards impacts 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 that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;¹²
- Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip; or
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Based on the proposed plan and its geographical location, the proposed plan would not result in impacts related to the following criteria. No impact discussion is provided for these topics for the reasons listed below.

¹² Government Code Section 65962.5, also referred to as the Cortese List, was originally envisioned as a comprehensive list of release sites maintained by various agencies. However, this list is not currently actively maintained and a search of available databases as has been done for this analysis is considered the equivalent.

- *Private Airstrip.* There are no private airstrips or airports within a two-mile radius of the Plan area. The nearest airport is the Palo Alto Airport of Santa Clara County which is approximately 3 miles east of the Plan area. Therefore, there would be no impact related to airstrips or airports.
- *Emergency Response Plan.* New development in the Plan area would not permanently interfere with the existing road network or with the ability for emergency response vehicles to access all areas within the Plan area. Overall, future development would not impede emergency access routes and would continue to maintain the existing city grid systems. Additionally, the project would not result in permanent road closures that would physically interfere with emergency response or evacuation plans. The proposed closure at Chestnut Street for the Marketplace/Paseo is a one block street that would not overall interfere with emergency response or evacuation plans, as this segment is not a designated emergency evacuation route. Therefore, development within the Plan area would not impair or interfere with any emergency response or emergency evacuation plans.

Impacts

Impact HAZ-1: Disturbance and release of contaminated soil during demolition and construction phases of the project, or transportation of excavated material, or contaminated groundwater could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. (Potentially Significant)

Contaminated Soils and Groundwater

Future development within the Plan area could include excavation for installation of utilities, building foundations, subterranean development, or for regrading purposes. Disturbance of subsurface soils and groundwater at locations that may have been previously contaminated by prior uses could further disperse existing contamination into the environment and expose construction workers or the public to contaminants.

If high enough levels of hazardous materials in excavated soils should go undetected, health and safety risks to workers and the public could occur. Exposure to hazardous materials could cause various short-term and/or long-term health effects. Possible health effects could be acute (immediate, or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Acute effects, often resulting from a single exposure, could result in a range of effects from minor to major, such as nausea, vomiting, headache, dizziness, or burns. Chronic exposure could result in systemic damage or damage to organs, such as the lungs, liver, or kidneys. Health effects would be specific to each hazardous material.

As identified in the setting section above, identified leaking underground storage tanks or spills, leaks, investigations and cleanup databases (SLIC) sites are present within the Plan area. These sites have had identified releases of hazardous materials which has impacted the subsurface soil or groundwater or both. These sites are in varying stages of investigation and cleanup with some having already received site closure. Contamination may also be present at some other unidentified locations where unidentified releases have occurred. It is not uncommon to encounter unexpected conditions once groundbreaking activities commence. Implementation of

the mitigation measure below would minimize the potential exposure to workers, the public and the environment.

Mitigation Measure HAZ-1: Prior to issuance of any building permit for sites where ground breaking activities would occur, all proposed development sites shall have a Phase I site assessment performed by a qualified environmental consulting firm in accordance with the industry required standard known as ASTM E 1527-05. If the Phase I assessment shows the potential for hazardous releases, then Phase II site assessments or other appropriate analyses shall be conducted to determine the extent of the contamination and the process for remediation. All proposed development in the Plan area where previous hazardous materials releases have occurred shall require remediation and cleanup to levels established by the overseeing regulatory agency (San Mateo County Environmental Health (SMCEH), Regional Water Quality Control Board (RWQCB) or Department of Toxic Substances Control (DTSC) appropriate for the proposed new use of the site. All proposed groundbreaking activities within areas of identified or suspected contamination shall be conducted according to a site specific health and safety plan, prepared by a licensed professional in accordance with Cal/OHSA regulations (contained in Title 8 of the California Code of Regulations) and approved by SMCEH prior to the commencement of groundbreaking.

Significance after Mitigation: Less than Significant.

Impact HAZ-2: Disturbance and release of hazardous structural and building components (i.e., asbestos, lead, PCBs, underground storage tanks, and above ground storage tanks) during demolition and construction phases of development or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. (Less than Significant)

Based on the age of some of the structures within the Plan area, some of the existing buildings in the Plan area may contain asbestos, lead-based paint, and/or PCBs.

Asbestos

Potential exposure to asbestos, and its related chronic adverse health effects, is possible throughout demolition and renovation if materials that contain asbestos are present during operations. Based on the age of some of the buildings within the Plan area, it is likely that some asbestos containing materials (ACMs) are present. Affected buildings would need appropriate abatement of identified asbestos prior to demolition or renovation. ACMs are regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. The renovation or demolition of buildings containing asbestos would require retaining contractors who are licensed to conduct asbestos abatement work and notify the Bay Area Air Quality Management District (BAAQMD).

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding

hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work. However, abatement of known or suspected ACMs, as verified by survey, would occur prior to demolition or construction activities pursuant to an asbestos abatement plan developed by a State-certified asbestos consultant as required by law. All ACMs would be removed and appropriately disposed of by a State-certified asbestos contractor. The City Building Division enforces these requirements through its requirements for demolition permits, which require an approved permit from the BAAQMD verifying the complete abatement of asbestos from any structure to be demolished, prior to issuance of a demolition permit. Adherence to all the aforementioned regulatory requirements would ensure that potential impacts related to ACMs would be less than significant, and no mitigation is required.

Lead and Lead-based Paint

Lead-based paint could be separated from building materials during any demolition processes. Separated paint can be classified as a hazardous waste if the lead content exceeds 1,000 parts per million and would need to be disposed of accordingly. Additionally, lead-based paint chips can pose a hazard to workers and adjacent sensitive land uses. Both the Federal and California OSHAs regulate all worker exposure during construction activities that impact lead-based paint. Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolitions, removal, surface preparation for re-painting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training, etc. Potential violations related to lead can be reported to the EPA and the County Environmental Health Division for enforcement.

Demolition and renovation work could create exposure to lead-based paint present in building structures. Dust generating activities that include removal of walls, sanding, welding, and material disposal could produce airborne quantities of lead-laden material. These materials could expose workers and persons in close proximity, including occupants of offsite locations. The Plan area contains buildings with painted surfaces, such as drywall, ceilings, and exterior stucco, which could contain lead-based paint.

Requirements for lead hazard evaluation and abatement activities, accreditation of training providers, and certification of individuals engaged in lead-based paint activities is found in California Code of Regulations Title 17, Section 35001 et seq. California's lead accreditation and certification program began in June, 1994. At that time, new childhood lead poisoning prevention legislation (codified in Health and Safety Code 105250 et seq.) required the California Department of Public Health (CDPH, formerly Department of Health Services) to create a program to certify lead-related construction trades-people and accredit lead-related construction training providers. Final regulations establishing this program took effect April 5, 1995. Revisions to these regulations that established work practice standards for lead-related construction and amended the previously established accreditation and certification requirements went into effect in January, 1999. These regulations were updated in April 2008.

With implementation of an abatement plan, as required, and all the regulatory requirements regarding identification, handling, and disposal of lead based paint, the potential impacts related to demolition activities of lead-based paint materials would be reduced to less-than-significant levels. No mitigation is required.

PCB-containing Materials

The presence of PCB-containing materials may be present within the existing structures in the Project Area. The detection of significant concentrations of PCBs indicates the former use and/or storage of PCBs in the Plan area. Demolition of these structures could disturb these materials and expose workers or the public to adverse effects. Similar to the concerns of asbestos containing materials, an initial survey to determine the presence of PCBs would need to be conducted for a specific site followed by implementation of appropriate measures to handle any materials with PCBs.

Generally, the majority of PCB containing electrical transformers has been abated of PCBs. For the isolated locations where PCBs remain, appropriate identification and removal work would be required according to Federal and State standards. PCBs are managed under the Toxic Substances Control Act (TSCA) and the PCB regulations found at 40 Code of Federal Regulations 761. TSCA gives EPA's Office of Solid Waste and Emergency Response the authority to develop, implement and enforce regulations concerning the use, manufacture, cleanup and disposal of PCBs. Therefore, with adherence to regulatory requirements, the potential for PCBs in aboveground structures to impact Specific Plan activities would be reduced to less-than-significant levels.

Therefore, with adherence to the regulatory requirements that apply to hazardous building materials, the potential impacts from disturbance of these materials during demolition activities are reduced to less-than-significant levels.

Significance: Less than Significant.

Impact HAZ-3: Hazardous materials used on any individual site during construction activities (i.e., fuels, lubricants, solvents) could be released to the environment through improper handling or storage. (Potentially Significant)

Any future construction activities would require the use of certain hazardous materials, such as fuels, oils, lubricants, solvents, and glues. Inadvertent release of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. Larger developments could potentially include onsite storage and/or use of quantities of materials capable of significantly impacting soil and groundwater. Projects that disturb more than one acre would be required to adhere to the requirements of the General Construction Permit issued by the Regional Water Quality Control Board as discussed in Section 4.8, *Hydrology and Water Quality*. One of the requirements of the permit is the implementation of a storm water pollution prevention plan which includes measures to prevent the accidental release of hazardous materials used

during construction. Implementation of the mitigation measure provided below would reduce the impacts to a less-than-significant level.

Mitigation Measure HAZ-3. All development and redevelopment shall require the use of construction Best Management Practices (BMPs) to control handling of hazardous materials during construction to minimize the potential negative effects from accidental release to groundwater and soils. For projects that disturb less than one acre, a list of BMPs to be implemented shall be part of building specifications and approved of by the City Building Department prior to issuance of a building permit.

Significance after Mitigation: Less than Significant.

Impact HAZ-4: Future development would include land uses that would handle various commercial, transportation and household hazardous materials in a range of quantities, and could cause an adverse effect on the environment through accidental upset. (Less than Significant)

Development and redevelopment in the Plan area would include commercial/retail, and residential uses that may handle, store, and transport various hazardous materials and consequently generate hazardous wastes. In general, current regulations require that all hazardous materials and wastes are stored, handled, and disposed of according to a host of safety requirements that are intended to protect human health and the environment. For general commercial/retail land uses as well as residential uses, hazardous materials are generally handled and transported in relatively small quantities and because the health effects associated with them are generally not as serious as industrial uses, significant adverse effects on the environment are less common.

As noted previously, the City of Menlo Park conditionally permits the use of hazardous materials only in the M-1, M-2, and M-3 zoning districts, with the exception of fuel storage for emergency generators in association with office buildings, which can be conditionally permitted in any zoning district that permits offices (including the Plan area). Any applicant proposing an emergency generator in the Plan area that would handle hazardous materials would be required to submit a Hazardous Materials Business Plan for review and approval by the San Mateo County Environmental Health (SMCEH). The City of Menlo Park has a policy for reviewing the use of hazardous materials that it coordinates with the county and the Menlo Park Fire Protection District. Once approved this plan will be kept on file and updated as necessary. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Menlo Park Fire Protection District should emergency response be required. The Hazardous Materials Business Plan typically includes the following:

- The types of hazardous materials or chemicals stored and/or used on site;
- The location of such hazardous materials;

- An emergency response plan including employee training information; and
- A plan that describes the manner in which these materials are handled, transported and disposed.

Although portions of the Plan area would be within one-quarter mile of a school (such as Menlo School, Nativity School, and St. Raymond's School), hazardous materials use would be limited to either small quantities or emergency generator fuel that has been reviewed and approved by relevant agencies for adequate protections. As a result, the impact on nearby schools would be less than significant.

Significance: Less than Significant.

Cumulative Impacts

Hazardous material impacts typically occur in a local or site-specific context versus a cumulative context combined with other development projects. It is possible, however for combined effects of transporting and disposal of hazardous materials to be affected by cumulative development.

Future development, with implementation of the identified mitigation measures above, would have a less than significant hazardous materials impact to the public or the environment within the vicinity of the project area. Other foreseeable development within the area, although likely increasing the potential to disturb existing contamination and potentially increase the handling of hazardous materials, would be required to comply with the same regulatory framework as the proposed Specific Plan. These stringent regulatory requirements includes federal and state regulatory requirements for transporting (CalEPA and Caltrans) hazardous materials or cargo (including fuel and other materials used in all motor vehicles) on public roads or disposing of hazardous materials (CalEPA, Department of Toxic Substances Control, San Mateo County Environmental Health). Therefore, the effect of the project on hazardous materials, in combination with other foreseeable projects, would be less than significant. Therefore, no mitigation is required.

Mitigation: None required.
