

IV.G HAZARDS AND HAZARDOUS MATERIALS

1. INTRODUCTION

This section addresses the project's potential environmental impacts related to hazards and hazardous materials, including analysis of surrounding uses that may be hazardous to the project site. The information contained in this section is derived from the Phase I Environmental Site Assessment (ESA), dated October 11, 2001, and the Phase II ESA, dated May 25, 2005, for the Broadway and Hill Street sites, the Phase I ESA, dated February 9, 2005, and the Phase II ESA, dated August 15, 2005, for the 12th Street site and the Asbestos and Lead-Based Paint Survey of the Broadway and Hill Street sites, dated May 31, 2005, all prepared by Converse Consultants. The purpose of these studies was to identify the environmental conditions on the site, and the likely presence of any hazardous substances under conditions that indicate an existing release, past release or a material threat of a release into structures, property, groundwater or into surface drainage on the site.

2. EXISTING CONDITIONS

Site Conditions

The three sites that comprise the proposed project are located in the South Park neighborhood of Downtown Los Angeles. The sites are adjacent to the high-rise office complex commonly known as the Transamerica Center, which consists of the SBC Tower, Transamerica Center 2 and Transamerica Center 3. Other land uses in the immediate vicinity of the three project sites include retail stores, wholesale outlets, offices, textile manufacturing, warehouses, parking structures, surface parking lots and service stations. Prominent land uses within the South Park neighborhood area include the Los Angeles Convention Center, Staples Center, the Fashion Institute of Design and Merchandising (FIDM) and the California Hospital Medical Center. The proposed residential units on the project site and in the surrounding vicinity, as well as the medical center, which is located less than a half mile from the project site, would be sensitive receptors for potentially hazardous materials. The closest K-12 school to the project site is Los Angeles Unified School District's South Los Angeles High School No. 1, located at 1921 South Maple Avenue, approximately three-quarters of a mile from the proposed project sites.

Regulatory Agency Records Review

A review of available federal and state databases was conducted by Converse Consultants during the preparation of the Phase I ESAs in October 2001 and February 2005 for the Broadway/Hill Street sites and the 12th Street site, respectively, to identify properties with recognized environmental conditions within the area of the project site. The radii of investigation for federal and state agency lists was selected

in accordance with the American Society of Testing Materials (ASTM) Standards for Environmental Site Assessments. The following federal and state lists were reviewed:

- National Priorities List (NPL): The list of NPL, or United States Environmental Protection Agency (U.S. EPA) Superfund sites, considered to pose an immediate threat to human health and the environment.
- Comprehensive Environmental Response Compensation and Liability Information Systems List (CERCLIS): CERCLIS is the Superfund database list that contains information on all aspects of hazardous waste sites until listed on the NPL.
- Emergency Response Notification System (ERNS): ERNS tracks the initial notification and response to all reported petroleum and hazardous materials spills.
- Resource Conservation and Recovery Information System (RCRIS-TDS): RCRIS includes information on sites which generate, transport, store, treat and/or dispose (TDS) of hazardous wastes defined by the Resource Conservation and Recovery Act (RCRA).
- Resource Conservation and Recovery Act (RCRA) List: Tracks all events and activities related to facilities that generate, transport and treat, store or dispose of hazardous waste.
- Annual Workplan (AWP): Known Hazardous Waste Sites, California Department of Toxic Substances Control's (DTSC's) Annual Workplan, formerly the Bond Expenditure Plan (BEP), identifies known hazardous substance sites targeted for cleanup.
- CAL-SITES: The CAL-SITES list (previously known as the Abandoned Site Program Information System [ASPIS]) contains information on potential hazardous waste sites that have been identified by the Historical Abandoned Site Survey Program.
- California Hazardous Material Incident Report System (CHMIRS): This database contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.
- CORTESE (State of California Office of Planning and Research, Government Code Section 65962.5): The database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release and all solid waste disposal facilities from which there are known contamination migrations.
- The Facility Index System (FINDS): The FINDS list contains both facility information and "pointers" to other sources that contain more detail. These sources include: RCRIS, PCS, AIRS, FATES (FTTS), CERCLIS, DOCKET, FURS, FRDS, SIA, CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.
- Proposition 65 Notification Records (NOTIFY 65): NOTIFY 65 contains facility notifications about any release which could impact drinking water or expose the public to a potential health risk.
- Toxic Pits (TPC): Toxic Pits Clean-Up Act places strict limitations on the discharge of liquid hazardous wastes into the surface impoundments, toxic ponds, pits and lagoons. Regional Water Quality Control Boards (RWQCBs) are required to inspect all surface impoundments annually. In addition, every facility was required to file a Hydrogeological Assessment Report. Recent legislation allows the Department of Health Services (DHS) to exempt facilities that closed on or before December 31, 1985, if it can be shown that no environmental risk remains.

- State Landfills/Solid Waste Information System (SWIS): The California Waste Management Board maintains an inventory of active, inactive and closed solid waste disposal and transfer facilities.
- WMUDS/Solid Waste Assessment Test (SWAT): The State Water Resource Control Board ranks all solid waste disposal sites throughout the state on the basis of the potential threat they may pose to water quality. Sites are tested to see whether there is hazardous waste leakage from the landfill.
- Leaking Underground Storage Tanks (LUST): California RWQCB, Underground Storage Tank Leak List, a list of known leaking underground storage tanks.
- Permitted Underground Storage Tanks–State Water Quality Board (UST): The Cortese Bill (AB 2013) enacted in 1983, required registration of all USTs with the State Water Quality Board by July 1, 1984. About 176,000 tanks and surface impound were registered between 1984 and 1987. An Amendment (AB 1413) was passed in 1987, effectively removing the State Water Quality Board from the registration process starting January 1, 1988. The data reflects the information collected by the state between 1974 and 1987. Home and farm heating fuel tanks with the capacities of 1,110 gallons or less and structures such as “sumps, separators, storm drains, catch basins, oil field gathering lines, refinery pipelines, lagoons, evaporation ponds, well cellars, separation sumps, lined and unlined pits, sumps and lagoons” except those defined as UST under HSWA may be regulated to protect water quality under the Porter-Cologne Water Quality Control Act.
- Toxic Chemical Release Inventory System (TRIS): TRIS identifies facilities that release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.
- Hazardous Waste Information System (HAZNET): This list consists of data extracted from hazardous materials manifests received by the Department of Toxic Substances Control.
- The Facility Inventory Database (CA FID) contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.
- Active Toxic Site Investigation (SLIC): This report contains a list of Active Toxic Site Investigations that are under the direction of the RWQCB.
- Former Manufactured Gas (Coal Gas) Sites List: This list contains information on the existence of coal gas sites.

The Converse Consultants Phase I ESAs for the Broadway and Hill Street sites and the 12th Street site identified the following listed conditions at the project site.

Project Sites

Broadway and Hill Street Sites

According to the Phase I ESA for the Broadway and Hill Street sites, the California Facility Inventory Database (CA FID UST) and the Hazardous Substance Storage Container Database (HIST UST), which contain a historical listing of active and inactive underground storage tank locations, show a 6,000-gallon and a 10,000-gallon tank on the property located at 1111 South Broadway (Broadway site). According to the database listing, the tanks were installed in 1948 and were used to store “Product.”

12th Street Site

According to the Phase I ESA for the 12th Street site, the CA FID UST and HIST UST databases also show a former 9,950-gallon tank containing diesel fuel with no leaks reported at 1201 South Main Street (12th Street site). The tank was installed in 1964, removed in 1990 as discussed further in the Los Angeles Fire Department (LAFD) section below, and thus has an inactive status.¹

Neighboring Sites

Sites with recorded potentially hazardous environmental conditions within a half-mile radius of the project site were listed in both the Phase I ESA of the Broadway and Hill Street sites and the Phase I ESA of the 12th Street site. Only those facilities listed in the LUST, CHIMRS and CORTESE databases are sites where known leaks, spills or contaminations have occurred and, therefore, represent concerns as to whether any contamination of subsurface soils or ground water may have occurred. Sites listed in these databases include:

- 110 E 9th Street within one-quarter-mile radius of the project site
- Unocal #3300 on 730 Olympic
- The Convention Center at 1201 Figueroa
- 909 South Broadway
- The Pillack Property at 1410 Grand Avenue
- Mobil #11-H3K at 1600 South Hill Street

All of these leaks, spills or contaminations are historical and remedial actions were completed. There are also two active toxic site investigations within one-half-mile radius of the project site, listed in the SLIC database. The City of Los Angeles Staples Center is one site listed in SLIC, and the status of the investigation is remediation. The second site, at 1450 Grand Avenue, is lower in elevation than the project site and, thus, does not pose a hazards threat to the project sites. Therefore, though many sites are identified in the Phase I ESAs as containing potentially hazardous environmental conditions in the surrounding area, none of these sites represent a threat to the proposed project and, thus, were not further investigated in the Phase II ESAs.

Converse Consultants also reviewed additional regulatory agency records for hazards in the project area, and the results of their search are found on the following pages.

¹ Converse Consultants, February 9, 2005. *Phase I Environmental Site Assessment Report: 1201 South Main Street, Los Angeles.*

Division of Oil, Gas and Geothermal Resources (DOGGR)

The relevant California Department of Conservation, DOGGR Field Map was reviewed. The sites are within the Los Angeles Downtown Oil Field. No oil or gas wells are located on the Broadway, Hill Street, 12th Street sites or adjacent properties. The nearest plugged and abandoned “dry-hole” is located approximately 900 feet to the southwest of the southern property line of the Broadway and Hill Street sites. This “dry-hole” is titled “Broadway Corehole” and was drilled in 1963 to a depth of 6,220 feet.²

City of Los Angeles Fire Department (LAFD)

The LAFD has several files on record for a 10,000-gallon diesel fuel underground storage tank (UST) on the 12th Street site. There is an Underground Storage Tank Removal Plan, submitted by Ensotech and approved by LAFD on June 27, 1990, to remove the 10,000 gallon UST, along with one suction pump and associated piping. The plans indicated that the UST was located 76 feet northwest of Main Street and 78 feet southwest of 12th Street. Ensotech was contracted by the Los Angeles Herald Examiner to remove and dispose of the UST and to obtain all required permits and inspections. The UST, suction pump and associated piping were removed under proper permits and manifests on July 26, 1990. Analysis indicated Total Petroleum Hydrocarbons (TPH)-diesel contamination in the eastern portion of the tank pit at 12,704 mg/kg above limits established by the California State Water Resources Control Board, Leaking Underground Fuel Tank (LUFT) Manual. Remediation was completed on November 16, 1990 by Ensotech. Approximately 150 cubic yards of diesel-contaminated soil was treated, sampled, backfilled and compacted. Soil sample analysis results ranged from non-detect to 832 parts per million (ppm) for TPH-diesel and were non-detect for benzene, toluene, ethyl benzene and xylenes (BTEX). A “No Further Action” Letter was submitted by the LAFD to the Los Angeles Herald Examiner on December 28, 1990. A copy of the LAFD Closure Letter is included in the *Phase I Environmental Assessment Report for 1201 Main Street*.³

² Converse Consultants, October 11, 2001. *Phase I Environmental Site Assessment Report: Herald Examiner, 1111 South Broadway and 1108 South Hill Street, Los Angeles*, pg. 12; and Converse Consultants, February 9, 2005. *Phase I Environmental Site Assessment Report: 1201 South Main Street, Los Angeles*, p. 24.

³ Converse Consultants, February 9, 2005. *Phase I Environmental Site Assessment Report: 1201 South Main Street, Los Angeles*, pp. 25–28.

California State Fire Marshall (CSFM)

There are no underground pipelines under the CSFM's jurisdiction at or near the Broadway or Hill Street sites. However, a 6-inch-diameter crude oil pipeline operated by St. James Oil is located in the vicinity of the 12th Street site (CSFM ID#0531).⁴

City of Los Angeles, Department of Water and Power (DWP)

According to DWP, there are seven transformers that supply the three project sites. Six of these transformers supply the Broadway building and one supplies the Press building (Hill Street site). The DWP indicates that the transformers contain less than 50 ppm of Polychlorinated Biphenyls (PCBs) and are, therefore, classified as non-PCB containing.

City of Los Angeles, Department of Public Works, Bureau of Sanitation

Two historical industrial waste permits are on file. The first waste permit is dated July 31, 1952 and grants permission to the Los Angeles Examiner to discharge Boiler Blowdown and Cooling Water into the sewer system. The second permit is dated June 14, 1956 and grants the Examiner Division to discharge waste liquids "Stated to be 5,000 gallons per 21-hour day from Photographic Engraving and Developing."

Phase I and II Environmental Site Assessment Findings

In October 2001 and February 2005, Phase I ESAs were prepared for the Broadway and Hill Street sites and the 12th Street site, respectively. The following findings included in the two Phase I ESAs led to preparation of Phase II ESAs to further characterize site conditions and determine the potential for hazards and hazardous materials impacts resulting both to and from the proposed project.

Broadway and Hill Street Site Phase I ESA Findings

The following findings during the Phase I ESA of the Broadway and Hill Street sites, conducted by Converse Consultants in October 2001, led to the preparation of a Phase II ESA to determine the proposed project's impacts:

- Two sets of steel cover plates associated with two USTs were found in the sidewalk to the north side of the Broadway building. LAFD records from 1948 and 1952 indicate that the contents of these tanks may have been fuel oil. These USTs did not appear to be in service, but there is no

⁴ Converse Consultants, October 11, 2001. *Phase I Environmental Site Assessment Report: Herald Examiner, 1111 South Broadway and 1108 South Hill Street, Los Angeles*, p. 14 and Converse Consultants, February 9, 2005. *Phase I Environmental Site Assessment Report: 1201 South Main Street, Los Angeles*, p. 24.

record that they were abandoned in accordance with current regulations. Proper closure of these USTs pursuant to LAFD guidelines and oversight was recommended.

- Presumed Asbestos Containing Materials (PACMs) were observed at various locations throughout the Press building and the Broadway building, as well as the breezeway structure at the property. An asbestos survey was recommended to determine the asbestos content of a material.
- Some painted surfaces in the buildings were found to be in poor condition, and therefore, a lead-based paint survey was recommended to identify locations of lead-based paint. A lead-based paint survey was recommended.
- Hydraulic elevator equipment was found in the sub-basement of the Press building and the basement of the Broadway building. Leaks and petroleum odors were observed at the equipment locations. Further assessment was recommended to determine whether the hydraulic elevator equipment contaminated the subsurface.
- Ink tanks currently used as storage space in the basement of the Broadway building and a former lead smelter and ink tank in the sub-basement of the Press building warranted further investigation to identify any impacts to the subsurface, walls or floors related to this equipment.
- The large quantity of fluorescent light fixtures stored in the sub-basement of the Press building necessitated further study prior to disposal to determine the PCB content. PCB containing materials must be disposed of in accordance with applicable regulations and/or guidelines.
- The northwest corner of the property was once the location of an oil and gas station (1927 through at least 1950). This part of the property was redeveloped to a "Roll Paper Storage" area and is an underground structure with parking on the roof. Excavation to build this subterranean structure may have removed any potential contamination from the service station, but further assessment prior to or during development was recommended to reduce uncertainties of contamination.
- The property was determined to be located within the Los Angeles Downtown Oil Field.
- An additional property reconnaissance conducted in April 2005 identified the following additional areas of concern: sumps, clarifiers, and a boiler room in the Broadway building basement, a sump in the Press building sub-basement, a former photography lab in the Mezzanine of the Broadway building and a battery storage area on the second floor of the Broadway building.

12th Street Site Phase I ESA Findings

The following findings during the Phase I ESA of the 1201 South Main Street site (12th Street site) conducted by Converse Consultants led to preparation of a Phase II ESA to determine the proposed project's potential impacts:

- This site lies within a City of Los Angeles designated "Methane Zone," which means there is a risk of methane intrusion emanating from geologic formations. The "Methane Zone" is subject to development regulations pertaining to ventilation and methane gas detection systems depending on the area's designated category.
- A 10,000-gallon diesel UST was formerly located at the site. The tank was removed in 1990 and the LAFD issued a "no further action" letter.

- The former 12th Street garage building on the site contained two gasoline pumps. No records were found relating to the disposition of USTs associated with the gasoline dispensing, which occurred during the site's use as an auto repair and storage garage.
- The historic buildings occupying the site between 1906 and 1964 both contained elevators that were probably operated through the use of hydraulic oil, which is considered to have the potential to cause subsurface contamination.

Broadway and Hill Street Site Phase II ESA Findings

Based on the Phase I, the Phase II ESA for 1111 South Broadway ("Broadway site") and 1108 South Hill Street ("Hill Street site") collected soil and wipe samples from the Broadway building basement, mezzanine and second floor, the sub-basement of the Press building, and an area in the parking lot to further investigate potential areas of concern noted in the Phase 1.

The following summarizes the sample findings:

Broadway Site

Basement: Soil samples from the basement of the Broadway building were tested for Total Petroleum Hydrocarbons (TPH) as diesel and gasoline, volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and PCBs. Sample sites are shown in **Figure IV.G-1, Broadway Building Basement Boring Locations.**

The analytical results indicated no detectable concentrations of TPH as gasoline, VOCs or SVOCs.

PCBs were not detected above the method detection limits with the exception of one sample (B11) at 1 foot detected 0.0449 mg/kg of PCB, which is below the U.S. EPA Preliminary Remediation Goal (PRG) for residential soil of 0.22 mg/kg.

No metals were reported above the residential PRG, except for arsenic, which was detected within background concentrations for soils in Southern California. While concentrations of lead were below the residential PRG, in one sample (B16) at 1 foot it was reported above the soluble threshold limit concentration (STLC) used to define hazardous waste in California.

Second Floor: A wipe sample was collected underneath the battery storage area and analyzed for lead. Lead was reported at 0.231 mg/kg, which is below the residential PRG of 150 mg/kg and below the STLC.

Figure IV.G-1, Broadway Building Basement Boring Locations

Mezzanine: A wipe sample was collected from the former photography lab area and analyzed for silver, chloride, sulfate, phosphate and nitrate. Silver was reported at 0.110 mg/kg, which is below the residential PRG of 390 mg/kg. Only trace quantities of the remaining analytes were detected.

Hill Street Site – Press Building

Sub-basement: Soil samples from the sub-basement of the Press building were analyzed for TPH-gasoline, TPH-diesel, VOCs and SVOCs (sample locations shown in **Figure IV.G-2, Press Building Sub-basement Boring Locations**). Only one sample (B2) at 1 foot detected low concentrations of TPH as diesel (634 mg/kg in the C13-C22 range and 3,160 mg/kg in the C23-C40 range). These detections are below the RWQCB soil cleanup guidelines (1,000 mg/kg) and no detectable concentrations were found at 5 feet.

All metals detected were below the respective PRGs for residential soil, with the exception of arsenic. Arsenic was reported above the California modified PRG of 0.062 mg/kg in three of the seven soil samples analyzed from the area, but below the naturally occurring background level for California soils. The concentrations ranged from 1.55 mg/kg to 2.25 mg/kg.

No TPH as gasoline, VOCs or SVOCs were detected above method detection limits.

Parking Lot: A geotechnical boring was to be completed in the parking area on the Hill Street site on April 24, 2005, and it could not be finished due to the odors detected in the soil cuttings. A co-located environmental boring (at GP-1 shown in **Figure IV.G-3, Press Building Parking Area Sample Location**) was completed to a depth of 55 feet to investigate the odors. The sample detected TPH as gasoline in the C4-C12 range 0.559 mg/kg, which is below the RWQCB soil guideline (500 mg/kg), and the VOCs, n-Propylbenzene, (0.0058 mg/kg) and trichloroethane, VOC, (0.009 mg/kg), which concentrations are below the PRGs for residential soil.

12th Street Site Phase II ESA Findings

The following findings were made through the preparation of the Phase II ESA for 1201 South Main Street (12th Street site) and the corresponding soil samples from 12 borings at depths of approximately 1, 5 and 10 feet below ground surface and three trenches at depths of 3 feet, 2.5 feet and 4.5 feet for trenches 1, 2 and 3, respectively, sampled to investigate the historic UST, garage building and elevators. Geoprobe borings GP-5 and GP-6, over the historical UST pit location were advanced to refusal at 18.5 feet for GP-5 and 18 feet for GP-6. GP-7, on the eastern-central portion near the historical auto repair and elevator, was advanced to refusal at 20.5 feet. GP-8 and GP-9, bored in an area suspected to be a former dispensing island, were advanced to refusal at 14.5 feet and 14 feet, respectively.

Elevated concentrations of lead, TPH as diesel, other fuel-related VOCs, SVOCs and Tetrachloroethylene (Perc) were detected GP-3 (shown on **Figure IV.G-4, 12th Street Site Boring Locations**) located just southwest of the center of the site in the former automobile service area. The highest concentrations were detected at 5 feet where the boring met resistance, probably due to some man-made structure. Another boring (GP-2 shown in **Figure IV.G-4**) also met with resistance at 1.5 feet. The following contaminants were detected at the GP-3 boring at a depth of 5 feet:

- TPH as diesel, C13–C22 range, detected at a concentration of 6,020 mg/kg exceeds the RWQCB, Los Angeles Region, clean-up guideline of 1,000 mg/kg.
- TPH as diesel, C23–C40 range, detected at a concentration of 14,100 mg/kg exceeds the RWQCB clean-up threshold of 10,000 mg/kg.
- VOCs and SVOCs typical of heavy or aged fuel releases were found at detectable levels. However, the concentrations detected were below the respective PRGs for residential soil.
- Tetrachloroethylene (Perc) was detected at 73.7 parts per billion (ppb), which is below the PRG for residential soil of 480 ppb.
- Lead was detected at a concentration of 6,250 mg/kg, which exceeds the 150 mg/kg PRG for residential soils.

Lead concentrations detected in areas other than boring GP-3 at 5 feet were reported below the PRG-r of 150 mg/kg for lead. However, some samples did exceed 10 times the STLC. These samples were GP-11 at 5 feet (75.5 mg/kg), GP-3 at 1 foot (51.1 mg/kg) and GP-1 at 10 feet (85.5 mg/kg) (all shown in **Figure IV.G-4**). Arsenic was reported above the CAL-modified PRG for residential soil of 0.062 mg/kg in 13 of the 18 soil samples. Concentrations ranged from 1.15 mg/kg to 5.5 mg/kg, which is within background.

Finally, soil pH analysis was run on four samples. Three samples, GP-1 at 1 foot, GP-1 at 5 feet and GP-3 at 5 feet, were in the range of 7.45, while sample GP-3 at 1 foot was more basic with a pH of 9.89. Soil with a pH of less than or equal to 2 (≤ 2) or greater than or equal to 12.5 (≥ 12.5) is considered hazardous.

Six samples were analyzed for PCBs, but no detectable concentrations were reported.

Figure IV.G-2, Press Building Sub-basement Boring Locations

Figure IV.G-3, Press Building Parking Area Sample Location

Figure IV.G-4, 12th Street Site Boring Locations

Trenching samples (shown in **Figure IV.G-4**) indicated no significant levels of contamination, but extensive past artifacts of prior use, such as concrete structures, piping and assorted fill were encountered and development of the property will probably meet with additional artifacts. No indication of groundwater was encountered and would not be expected since reported depth is believed to exceed 150 feet.

Asbestos and Lead-Based Paint Survey Results

Broadway and Hill Street Sites

Based on the Phase I, an Asbestos and Lead Based Survey Report, dated May 31, 2005, was prepared for the Broadway and Hill Street sites. Asbestos-Containing Materials (ACMs) and lead-based paint were found in both the existing Broadway and Press buildings. Asbestos was found in the flooring, ceiling and wall materials, as well as in the piping and roofing of both buildings. The entire roofing system and roof penetration mastics contain asbestos, and pipes that are not bare metal or cement or fiberglass are ACMs. Also, the exterior stucco of the Press building was found to contain 0.18 percent asbestos, defining the material as an Asbestos-Containing Construction Material (ACCM). Both interior and exterior painted surfaces were identified as lead-based paint. Tables and maps of ACM and lead-based paint locations are provided in the *Asbestos and Lead-Based Paint Survey Report*.

12th Street Site

No ACMs or lead-based paint were found on the 12th Street site, as the site is paved over and used as a parking lot.

Methane Gas

The project site lies within a City Methane Zone, as shown on **Figure IV.G-5, Methane Zone Boundary**. Methane gas naturally occurs in areas of subterranean petroleum deposits, such as oil fields. Subsurface concentrations of methane gas can result in seepage of the gas to the surface and into buildings through basements. Methane gas is non-toxic, odorless, colorless and highly flammable at certain concentrations. At high concentrations methane can act as an asphyxiant. The City of Los Angeles methane seepage regulations provide requirements for buildings and paving in areas classified as a Methane Zone or Methane Buffer Zone.⁵ The City has adopted specific testing protocols and design standards related to building in these zones.

⁵ The City of Los Angeles Municipal Code, Section 91.7103.

Emergency Response Plan

The City of Los Angeles Emergency Operations Organization coordinates among emergency service organizations and government agencies to manage the critical resources necessary in the time of emergency. The Emergency Operations Organization is made up of many operational divisions. The Public Works Division and the Fire Suppression and Rescue Division are responsible for preventing and responding to emergencies involving hazardous materials Citywide.⁶ Individual emergency response and evacuation plans are required by state law for businesses that use specified hazardous materials or involve the threat of a potential release of a hazardous material.⁷

3. REGULATORY FRAMEWORK

a. Federal Regulations

Applicable federal regulations include the U.S. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), which regulate the use, removal and disposal of asbestos-containing material (ACM) and are implemented by the South Coast Air Quality Management District (SCAQMD) and the Occupational Safety and Health Act (OSHA), which sets standards for safe exposure limits of chemicals to which construction workers are exposed. OSHA guidelines require that specific health and safety plans be implemented during construction for given chemical exposure risks. These guidelines are relevant to the proposed project, because OSHA regulates methane gas and lead exposure.

Because remediation of contaminated soils may be necessary to mitigate hazards impacts for this project, the Resource Conservation and Recovery Act (RCRA) is pertinent. RCRA was established by the U.S. EPA and is implemented by the California Hazardous Waste Control Law (HWCL). RCRA sets standards for hazardous waste treatment, storage, disposal and remediation of contaminated soils involves the treatment and disposal of hazardous materials. The U.S. EPA sets preliminary remediation goals for soil contaminants, and these were used to assess the level of soil contamination on site.

⁶ Emergency Preparedness Department of the City of Los Angeles, March 1996. Emergency Operations Master Plan and Procedures. Retrieved from <http://www.lacity.org/epd/epdp2a3a.htm> on November 1, 2005.

⁷ *L.A. CEQA Thresholds Guide*, City of Los Angeles, Environmental Affairs Department, May 14, 1998.

Figure IV.G-5, Methane Zone Boundary

b. State Regulations

DOGGR enforces regulations regarding the permitting, establishment, completion, and abandonment/reabandonment of gas and oil wells. If oil or gas wells were found on the project site, proper abandonment would be required by DOGGR.

The California State Hazardous Waste Control Law (HWCL) establishes regulations for hazardous waste, and Cal-EPA, Department of Toxic Substances Control (DTSC) administers the state hazardous waste program. HWCL applies to hazardous waste generated from soil remediation and hence, is applicable to the proposed project.

Cal/OSHA regulates lead exposure during construction activities as well as airborne contaminants such as lead, asbestos, and soil gases. Employers must implement an Injury and Illness Prevention Program (IIPP), which is a safety program to protect workers from workplace hazards, such as those involved in the demolition/renovation of existing buildings and construction of the proposed project.

The SCAQMD regulates emissions of asbestos during demolition and renovation activities through specific removal, handling and clean-up procedures (Rule 1403, Asbestos Emissions from Renovation/Demolition Activities).

c. Local Regulations

Chapter IX, Article 1, Division 71, Section 91.7103 of the Los Angeles Municipal Code lays out the Los Angeles Methane Seepage Regulations for buildings and paved areas located in either a Methane Zone or Methane Buffer Zone.

The Los Angeles Fire Department regulates hazardous materials for the City of Los Angeles by issuing permits for hazardous materials handling and administering sections of the Los Angeles City Fire Code applicable to hazardous materials.

4. ENVIRONMENTAL IMPACT ANALYSIS

a. Significance Criteria

As discussed in the *L.A. CEQA Thresholds Guide*, a project would normally have a significant impact on the environment if it would “involve the use, generation, disposal, transport or management of potentially hazardous or explosive substances (including, but not limited to, oil, pesticides, chemicals or radiation) in sufficient quantities to cause a potential hazard, or if the project would require a new or

revised risk management plan, emergency response or emergency evacuation plan.”⁸ The determination of significance shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework;
- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substances;
- The degree to which the project may require a new, or interfere with an existing, emergency response or evacuation plan and the severity of the consequences; and
- The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance.

Impacts would also be considered significant to human health if the project would create a health hazard by introducing a hazard or disturbing, removing or disposing of a hazard found on site or locate people adjacent to a health hazard.⁹ The determination of significance of hazardous material impacts on human health is decided on a case-by-case basis and considers the following factors:

- The regulatory framework for the health hazard;
- The probable frequency and severity of consequences to people from exposure to the health hazard; and
- The degree to which project design would reduce the frequency of exposure or severity of consequences of exposure to the health hazard.

Based on these factors, the project would have a significant impact if it would expose people or structures to substantial research resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

b. Project Impacts

Construction Impacts

Based on the Phase II ESAs,¹⁰ prepared by Converse Consultants, for both the Broadway and Hill Street sites as well as the 12th Street site, potential environmental impacts related to hazards from historical use of the site and the disturbance of potentially contaminated structures and soils during construction are analyzed below.

⁸ Ibid., p. H.1-2.

⁹ Ibid., pp. H.2-2–H.2-3.

¹⁰ Converse Consultants, May 25, 2005. *Phase II Environmental Site Assessment Report: Herald Examiner, 1111 South Broadway and 1108 South Hill Street, Los Angeles*, and Converse Consultants, August 15, 2005. *Phase II Environmental Site Assessment Report: 1201 South Main Street, Los Angeles*.

Broadway Site

The analytical results indicated no detectable concentrations of TPH as gasoline, VOCs or SVOCs at the Broadway site. Low levels of TPH as diesel were detected in several soil samples from the Broadway building basement and one sample detected low levels of PCBs. All of these concentrations are below the respective regulatory thresholds (RWQCB clean-up guidelines of 1,000 mg/kg for TPH-d, C13–C22 and 10,000 mg/kg for TPH-d, C23–C40 and Title 22 of the California Code of Regulations (Chapter 11 Article 3, Characteristics of Hazardous Waste) for PCBs of 50 mg/kg). Since concentrations of these chemicals do not exceed the established regulatory threshold levels, addressing the first significance criterion above, potential impacts related to the presences of these chemicals are not considered to be frequent or severe. Therefore, these detected contaminants in the basement of the Broadway building do not have the potential to result in significant accidental release and/or health hazard impacts.

No metals were reported above the PRG for residential soils, except for arsenic. Arsenic was reported above the CAL-Modified PRG for residential soils of 0.062 mg/kg in one of four soil samples, but less than the Soluble Threshold Limit Concentration (STLC) of 5 mg/kg and below the Total Threshold Limit Concentration (TTLC) of 500 mg/kg and as such would not be considered hazardous waste. Given the consistency of the concentrations of arsenic reported across the site, the levels of arsenic found on the property appear to be within background and do not have the potential to result in significant accidental release and/or health hazard impacts.

Hill Street Site – Press Building

No TPH as gasoline, VOCs or SVOCs were detected above method detection limits in the Press building sub-basement. TPH as diesel was detected in one of the soil samples in the sub-basement of the Press building at concentrations below the RWQCB clean-up guidelines of 1,000 mg/kg for TPH-d in the C13–C22 range and 10,000mg/kg for TPH-d in the C23–C40 range, thus falling below the established regulatory threshold levels. Therefore, these detected contaminants do not have the potential to result in significant accidental release and/or health hazard impacts. All metals detected were below the respective PRGs for residential soils, with the exception of arsenic. Arsenic was reported above the CAL-Modified PRG for residential soils of 0.062 mg/kg in three of the seven soil samples analyzed from the area, but below the background level for arsenic in the State of California.¹¹ Given the consistency of the concentrations of arsenic reported across the site, the levels of arsenic found on the property appear to be within background and do not have the potential to result in a significant accidental release and/or health hazard impact.

¹¹ 1996 University of California, Kearney Foundation Special Report, *Background Concentrations of Trace and Major Elements in California Soils*.

Soil samples taken from the parking area on the Hill Street site revealed concentrations of TPH-g and two VOCs above detection limits. All of the concentrations are well below the RWQCB respective clean-up levels and the PRGs (500 mg/kg for TPH-g, 240 mg/kg for n-Propylbenzene and 0.053 mg/kg for trichloroethane); thus, the concentrations do not exceed the established regulatory threshold levels.

12th Street Site

Concentrations of TPH as diesel, VOCs, SVOCs, Tetrachloroethylene (Perc) and lead that exceeded the established RWQCB guidelines and the PRG for residential soils were detected at one boring location, boring GP-3, on the 12th Street site in the former automobile service area.

Outside the area of GP-3, no metals were detected above the PRG for residential soils with the exception of arsenic. Arsenic was reported above the California Modified PRG for residential soils of 0.062 mg/kg in 13 of the 18 samples analyzed, however, the concentration appear to be within background levels.

Two abandoned USTs at the Broadway site, the historic use of the project sites and the presence of contaminants in the soils at the project sites could result in potentially significant impacts during project construction activities. Site disturbance activities, including demolition of the Press building and the asphalt surface parking lot at the 12th Street site, and site grading and excavation at the Hill Street and 12th Street sites for the subterranean parking structures, could potentially expose construction crews to the soil contamination; therefore, mitigation is recommended. Additionally, during excavation activities, the removal, transport and disposal of soil and subsurface structures with contamination could result in exposure of the public and/or the environment to health hazards. This potential exposure to construction crews, the public and the environment would be short-term and would be reduced to a less than significant impact through implementation of recommended mitigation measures.

Asbestos and Lead-Based Paint

As discussed above, ACMs and lead-based paint were found in both the Broadway and Press buildings. Construction activities, including the rehabilitation of the Broadway building and demolition of the Press building, will result in the release of the ACM fibers and lead-based paint dust. The presence of these materials represents a potentially significant health hazard. Recommended mitigation measures to remove and properly dispose of ACMs and lead-based paint can reduce this impact to less than significant.

Operational Impacts

Project Impacts

Implementation of the proposed project would not involve the use of hazardous substances with the potential for accidental release or explosion. The only known hazardous substances associated with project operations would be chemical cleaners, landscaping related chemicals or other common household hazardous substances. The potential for accidental release and/or explosion of these substances is low, and no aspects of the project design could result in the accidental release or explosion of a hazardous substance; therefore, no potentially significant hazardous substance impacts related to the project design would occur.

The land uses proposed for the project include residential units, retail and office space, as well as a landscaped courtyard and parking. The proposed uses may involve the use and disposal of chemical cleaners, landscaping related chemicals or other common household hazardous substances. However, the quantities of the materials utilized would be limited to those typically utilized in households and retail settings. As such, project operations would not result in potentially significant health hazard and/or accidental release impacts.

The project involves residential, retail and office land uses and would not result in the need for a new or revised emergency response and evacuation plan. Project operations would not use acutely hazardous materials or involve a potential threatened release of hazardous materials during the operational phase. Therefore, an emergency response plan is not required, and project operations do not have the potential to result in significant emergency response or evacuation plan impacts.

Surrounding Uses

A number of surrounding sites are listed in federal and state environmental databases, some with known historical leaks or hazardous conditions. However, all surrounding listed sites have been analyzed in the Phase I ESAs relative to the proposed project and deemed insignificant risks to the project site due to: the type of regulatory listing; the site's distance from the project site; the location of the listed site with respect to the inferred direction of regional groundwater flow; the remediation status of the case; the type of resource affected by the listed site's contaminants; remedial action being directed and overseen by a regulatory agency; and/or potential responsible parties have been identified.¹² Therefore, though some sites in the vicinity of the project are listed as hazardous sites, the probable frequency and severity of

¹² Converse Consultants, October 11, 2001. *Phase I Environmental Site Assessment Report: Herald Examiner, 1111 South Broadway and 1108 South Hill Street, Los Angeles.*

consequences to the proposed project site from these sites is less than significant. Surrounding uses do not have the potential to result in significant accidental release and/or health hazard impacts.

Methane Gas

The project site is within a City Methane Zone, as shown on **Figure IV.G-5**, associated with the Downtown Los Angeles oil field. Since the project site is located within a City defined Methane Zone, the impact of methane to the project site is considered potentially significant, and mitigation measures are required, according to Section 91.7104.2 of the Municipal Code.

As per City Methane Code requirements, Environmental Support Technologies, Inc. conducted soil gas investigations for Carlin Environmental Consultants at the Broadway building, Press building and at the 12th Street site parking lot on January 27 and 28, 2005.¹³ Four probes were installed between the Broadway and Press buildings to depths ranging from 5 to 15 feet below grade, and five probes were installed in the 12th Street site parking lot to depths ranging from 5 to 8 feet below grade. Difficult drilling conditions prevented the installation of deeper probes with direct-push methods. Soil-gas levels were measured using an RKI Eagle multi-gas detector.

No methane was detected at the 12th Street site, which corresponds to Design Level I, or a Design Methane Concentration level of 0 to 100 parts per million by volume (ppmv) under the City methane seepage regulations. **Table IV.G-1, Building Methane Mitigation Regulations**, describes each of the five Design Levels under the City methane seepage regulations. Methane concentrations were detected between the Broadway and Press buildings, and the Design Methane Concentration was 1,000 ppmv, corresponding to Design Level II under the City methane seepage regulations. The Design Methane Pressure at both locations was 0. However, given the site's location in a City Methane Zone, the potential impact of methane is considered significant. Mitigation measures, as required by the City of Los Angeles, would decrease these impacts to less than significant levels.

¹³ Environmental Support Technologies, February 10, 2005. Soil Gas Probe Installation and Monitoring Results, Former Herald Examiner building, Southwest Corner of West 11th Street and South Broadway; and Parking Lot, Southeast Corner of West 12th Street and South Broadway Street.

**Table IV.G-1
Building Methane Mitigation Regulations**

Site Design Level		Level I		Level II		Level III		Level IV		Level V	
Design Methane Concentration (ppmv)		0-100		101-1,000		1,001-5,000		5,001-12,500		>12,500	
Design Methane Pressure (inches of water pressure)		2	>2	2	>2	2	>2	2	>2	All Pressures	
Passive System	De-watering System ¹	X	X	X	X	X	X	X	X	X	
	Sub-Slab Vent System	Perforated Horizontal Pipes	X	X	X	X	X	X	X	X	X
		Gravel Blanket Thickness Under Impervious Membrane									
		Gravel Thickness Surrounding Perforated Horizontal Pipes									
		Vent Risers	X	X	X	X	X	X	X	X	X
	Impervious Membrane	X	X	X	X	X	X	X	X	X	
Active System	Sub-Slab System	Pressure Sensors Below Impervious Membrane							X	X	
		Mechanical Extraction System ²							X	X	
	Lowest Occupied Space System	Gas Detection System ³		X		X	X	X	X	X	X
		Mechanical Ventilation ^{3, 4, 5}		X		X	X	X	X	X	X
		Alarm System		X		X	X	X	X	X	X
	Control Panel			X		X	X	X	X	X	X
Misc. System	Trench Dam	X	X	X	X	X	X	X	X	X	
	Conduit or Cable Seal Fitting	X	X	X	X	X	X	X	X	X	
	Additional Vent Risers ⁶									X	

X = Indicates a Required Mitigation Component

¹ See Section 91.7104.3.7 for exception.

² The Mechanical Extraction System shall be capable of providing an equivalent of a complete change of air every 20 minutes of the total volume of the Gravel Blanket.

³ See Section 91.7104.3.1 for Narrow Buildings.

⁴ The Mechanical Ventilation systems shall be capable of providing an equivalent of one complete change of the lowest occupied space air every 15 minutes.

⁵ Vent opening complying with Section 91.7104.3.4 may be used in lieu of mechanical ventilation.

⁶ The total quantity of installed Vent Risers shall be increased to double the rate for the Passive System.

Source: http://www.ladbs.org/rpt_code_pub/Methane_Code.pdf

The methane mitigation system requirements shown in **Table IV.G-1** are based on appropriate Site Design Level. Site Design Level is determined by the Design Methane Concentration, the highest concentration of methane gas, and the Design Methane Pressure, the highest pressure of methane gas, as determined by site testing. **Table IV.G-1** specifies the minimum methane mitigation systems, such as, the passive, active and miscellaneous systems, depending on the concentration and pressure of the

methane present at the site. Mitigation requirements under the three systems included in **Table IV.G-1** are defined below:¹⁴

- **Alarm System:** a group of interacting elements consisting of components and circuits arranged to monitor and annunciate the status of gas concentration levels or supervisory signal-initiating devices and to initiate the appropriate response to those signals;
- **Cable or Conduit Seal Fitting:** an approved fitting provided in a cable or conduit system to prevent the passage of gases, vapors or flames through electrical cable or conduit;
- **De-watering System:** a permanent water removal system, consisting of perforated pipes, gravel, sump pumps and pits, designed to permanently maintain the ground water level 1 foot below the sub-slab vent system;
- **Gas Detection System:** one or more electrical devices that measure the methane gas concentration and communicate the information to the occupants, building management, central station or alarm company with audible or visual signals;
- **Gravel Blanket:** a layer of gravel, sand or approved material designed to transmit gas to the vent riser without obstructing the venting system;
- **Impervious Membrane:** a continuous gas barrier made of material approved by the Department of Building and Safety and installed beneath a building for the purpose of impeding methane migration to the interior of the building;
- **Mechanical Extraction System:** a system operated by a machine which is designed to remove methane gas from below the impervious membrane through the use of fans, blowers or other powered devices;
- **Mechanical Ventilation:** a fan, blower or other similar group of interacting elements operated by a machine within the building, which introduce and/or remove air from an enclosed space;
- **Perforated Horizontal Pipe:** an approved pipe which contains a series of small holes or narrow openings placed equidistant along the length of the approved pipe, which is placed horizontally beneath the foundation of a building, for the purpose of venting accumulated methane gas and preventing the development of elevated gas pressures or for drainage of ground water to an approved location;
- **Pressure Sensor:** a device that measures and communicates surrounding gas pressure to an alarm or control system;
- **Single Station Gas Detector:** a device consisting of electrical components capable of measuring methane gas concentration and initiating an alarm;
- **Trench Dam:** an approved subsurface barrier installed within a furrow or ditch adjacent to the foundation of a building, for the purpose of preventing the migration of methane gas beneath that foundation; and
- **Vent Riser:** an approved pipe, which is placed vertically with joints and fittings connected to Perforated Horizontal Pipes to convey and discharge the gas to the atmosphere.

¹⁴ Ibid., Section 91.7102.

c. Cumulative Impacts

The hazardous impacts associated with a proposed project usually occur on a project-by-project basis, rather than in a cumulative nature. Because project implementation would comply with regulatory controls to abate the site-specific hazards, any potential cumulative impacts associated with the project would be decreased, as the harmful substances and subsequent exposure to a health hazard would be removed from the project site. Therefore, cumulative impacts associated with the proposed project are considered to be less than significant.

d. Mitigation Measures

Asbestos Mitigation

MM-HAZ-1. Prior to demolition and renovation, the project applicant shall comply with applicable legal requirements related to asbestos removal and demolition activities involving ACM, including the requirements of the SCAQMD Rule 1403 for ACMs.

Lead-Based Paint Mitigation

MM-HAZ-2. The project applicant shall comply with the requirements outlined by Cal/OSHA Lead in Construction Standard, Title 8, CCR 1532.1 during demolition activities. Lead-contaminated debris shall be managed and disposed of in accordance with the applicable provisions of the California Health and Safety Code.

Soil Contamination Mitigation

MM-HAZ-3. Prior to the demolition/grading activities contractors shall be required to have a construction worker safety plan that complies with OSHA Safety and Health Standards and shall address, as appropriate, air monitoring for sub-surface work activities, personnel protective and safety equipment, and worker training.

MM-HAZ-4. Prior to or during excavation and/or grading of the Broadway site, the USTs abandoned in place at the Broadway site shall be evaluated, and removed or closed in place in accordance with applicable regulatory requirements and with the oversight of the LAFD. If contamination is observed during the UST closure activities, the contaminated soil shall be tested and managed in accordance with applicable regulatory requirements and with the oversight of the LAFD.

- MM-HAZ-5. Prior to or during excavation and/or grading soil contamination above regulatory standards in the area of each project site shall be evaluated and excavated/disposed of, treated in place, or otherwise managed in accordance with applicable regulatory requirements and with the oversight of the LAFD.
- MM-HAZ-6. Prior to excavation and/or grading the applicant shall prepare and provide to contractors a soil management plan that describes the type of contaminants and subsurface features that may be encountered at the project sites and procedures for evaluating and managing such materials.
- MM-HAZ-7. Grading and demolition contractors shall be required by construction specifications to secure approval of haul routes to export or otherwise transport off-site excavated materials prior to commencement of such activity.

Methane Mitigation

- MM-HAZ-8. Prior to issuance of a building permit, applicant shall comply with the City Methane Seepage Regulations, Section 91.7100 et. seq. of Los Angeles Municipal Code.
- MM-HAZ-9. Should any unrecorded oil well be found during excavation and grading, it shall be abandoned in accordance with DOGGR. Regulations. Prior to issuance of any building permit within a lot affected by discovery of an unrecorded oil well, the applicant shall submit a final clearance letter issued by DOGGR regarding the proper abandonment of the well(s).

e. Adverse Effects

With implementation of the mitigation measures listed above, potential impacts related to hazards and hazardous materials would be reduced to a less than significant level.