

4. ENVIRONMENTAL IMPACT ANALYSIS

E. HAZARDS AND HAZARDOUS MATERIALS

1. INTRODUCTION

This section analyzes the potential exposure of workers and occupants to hazards and hazardous materials that could occur during construction and operation of the Project. The analysis is largely based on a Phase I Environmental Site Assessment (Phase I ESA)¹ and a Summary Report for Limited Soil and Soil Gas Investigation (Soil and Soil Gas Investigation)² conducted for the Project Site. These reports are provided in Appendices A-2 and F of this Draft EIR. The Phase I ESA is informed by previous reports prepared for the Project Site and the surrounding vicinity, including a 2014 Phase I ESA for the Project address,³ and an Asbestos Bulk Survey Report for the property,⁴ as well as various hazardous materials investigations for nearby properties.

2. ENVIRONMENTAL SETTING

a. Historical Site Conditions

As described in the Phase I ESA, the Project Site has supported a variety of uses and was developed as early as 1890, when dwellings, out structures, and vacant parcels occupied the Project Site. By 1906, the Project Site was improved with 17 dwelling units and a church, and only three vacant lots remained. A hotel for girls was constructed in 1908; this building was demolished in 1926. A public auto garage and auction house existed on-site by 1919, a home of disabled soldiers occupied the property in 1922, and an automobile sales room was constructed in 1926. A gas station began operating at the southeast intersection of S. Figueroa Street and W. Olympic Boulevard in 1932. An auto repair shop was operating at 607 W. 11th Street by 1937. By 1950, the Project Site was occupied by a gas station, parking lots, a garage, stores, vacant lots, an auto sales-repair facility, a dwelling and an auto trimming facility. In 1951, another auto repair shop was operating at 1049 S. Flower Street, while a gas station training center operated at 1020 S. Figueroa Street between approximately 1960 and 1962. Office buildings, parking lots, vacant lots, and a warehouse facility were added to the Project Site by 1962; and an American Legion building occupied the property by 1963. The existing hotel building was constructed in 1964 as the Doric Motor Hotel and branded as the Holiday Inn Hotel by 1967. The hotel was expanded in 1989, by which time many of the previous uses had been demolished and the existing hotel, surface parking areas, and gas station at the intersection of Figueroa Street and Olympic Boulevard were the only improvements remaining on the Project Site.

¹ Terra-Petra, *Phase I Environmental Site Assessment (Phase I ESA), LUXE City Center Hotel, 1020 S. Figueroa St, Los Angeles, California (90015), June 2015 and included in Appendix B-1 of the Initial Study, which is Appendix A-2 of this Draft EIR.*

² Terra-Petra, *Summary Report for Limited Soil and Soil Gas Investigation, LUXE Hotel, 1020 S. Figueroa St, Los Angeles, CA, June 27, 2016.*

³ Ceres Corporation, *Phase I Environmental Site Assessment, Commercial Property, 1020 South Figueroa St., Los Angeles, CA, April 22, 2014, included in Exhibit L of the Phase I ESA.*

⁴ Hart Laboratory, Inc., *Asbestos Bulk Survey Report for the Property located at: The Luxe Hotel, 1020 S. Figueroa St., Los Angeles, CA, November 12, 2013, included in Exhibit O of the Phase I ESA.*

The gas station was removed in 1990. During removal of the gas station and its underground storage tanks (USTs), subsurface contamination was reported at the USTs and fuel pumps. The contamination was identified as petroleum products (i.e., gasoline and diesel) and benzene, toluene, ethylbenzene, and xylenes (BTEX), prompting the installation and operation of a soil vapor extraction system (VES) remediation system from 1991 to 1993. Wells were installed to a depth of 51 to 61 feet below ground surface (bgs) to remediate the subsurface contamination. Seasonal perched groundwater accumulated in the wells in January 1993 and the VES system was converted to a dual-phase pump-and-treat system. The VES system ultimately removed 90 percent (over 5,000 pounds) of the contaminants. Low- to high-levels of gasoline and BTEX were left to remain in a clayey soil layer between 30 and 50 feet bgs because consultants determined in 1994 that the clayey soil layer was an effective migratory barrier, to the point that the VES system would no longer be effective in remediating contaminants to below clean up levels, but also to the point that the potential for migration of contaminants into groundwater (approximately 110 feet bgs) would be low. Consultants detected no petroleum hydrocarbons in groundwater at the Project Site. Based on these conditions, the Los Angeles Fire Department (LAFD) issued a No Further Action letter on June 10, 1994. The property was subsequently listed on the LUST Database with a “Completed – Case Closed” status on June 30, 1994. The former gas station was then converted to a surface parking lot presently utilized by the Luxe City Center Hotel (Luxe Hotel).

The existing Luxe Hotel building has been renovated numerous times since its construction in 1964, including recent renovations in 2002, and in 2008, when the hotel was re-branded from a Holiday Inn to the Luxe Hotel and underwent additional renovations in 2008 through 2013. Regulatory database listings indicate that renovation activities likely included the abatement of asbestos-containing materials (ACMs), although the full extent of the abatement is unknown, and the Phase I ESA concluded that ACMs are likely present in building materials. This conclusion is supported by two recent environmental investigations for the on-site building. The first, a 2004 Phase I ESA prepared by Ceres Corp, reported the removal of 3.37 tons of asbestos-containing materials (ACMs) from the building during renovation of the Holiday Inn in 2000. The second, a 2013 Asbestos Bulk Survey Report prepared by Hart Laboratory, Inc., documented positive test results for the presence of ACMs in ceiling-over-spray in hallways throughout the building (excluding the 2nd floor), in pipe insulation at several locations, and in hot water tank insulation. In addition to ACMs, the Phase I ESA concluded that lead-based paints (LBPs) are likely present in building materials due to hotel’s construction date.

In 2012, a 1,500-gallon, double-compartment, diesel above-ground storage tank (AST) and required safety systems were installed in the ground level of the parking deck to supply the hotel’s emergency generators and water sprinkler systems. These life-safety systems were previously supplied by a 530-gallon diesel UST located under the hotel’s entrance driveway and landscaped median. Shallow soil testing beneath the 530-gallon UST and associated piping revealed only low concentrations of hydrocarbon near the facilities. Specifically, low levels of benzene and toluene were reported at a depth of 15 feet bgs and low levels of diesel were reported in two samples at a depth of 4 feet bgs. Since these concentrations were well below remediation levels, the USTs were abandoned in place under a Covenant and Agreement recorded with the City on June 21, 2013 that required the facilities be removed if the hotel driveway was ever removed during on-site renovation or construction activities. In light of the low hydrocarbon concentrations and Covenant and Agreement, the LAFD issued a Closure Letter for the UST and associated piping to be abandoned in place in September 13, 2013.

b. Existing Conditions

(1) Existing On-Site Improvements

The 2.7-acre Project Site is currently developed with the Luxe Hotel, situated on the northwest portion of the Project Site, and two surface parking lots located adjacent to the north and south sides of the Luxe Hotel. The Luxe Hotel is a 112,748 square foot, nine-story, 100-foot-tall building that includes 178 guest rooms, a main lobby, meeting space area, interior restaurant, an indoor/outdoor bar and lounge area, fitness center, and a one-level parking deck with parking below and above the deck. The parking lot on the north corner of the Project Site at Olympic Boulevard and S. Figueroa Street is used for hotel guest parking and special event parking. A fenced portion of the parking lot at the south end of the Project Site is used by the Luxe Hotel for "overflow" parking, limousine staging, and construction/maintenance vehicle parking. The portion of this parking lot that fronts on 11th Street and is not fenced, is leased and operated by Flower Holdings, LLC as a paid parking lot for special event and public parking.

(2) Hazardous Materials Database Site Listings

As part of the Phase I ESA, environmental agency databases that log known hazardous site conditions were reviewed to ascertain whether the Project Site or any properties located within the Project vicinity were listed on such Federal, State, local, or other databases. These databases list properties by location and provide information regarding past use and presence of hazardous conditions. The databases and relevant listings for the Project Site and nearby properties are summarized below. The complete results of the database search is included as Appendices A and L to the Phase I ESA.

(a) Project Site

The Project Site is listed on the following federal and state hazardous materials databases as a result of the former and ongoing hazardous materials conditions stated above:

- **California Facility Inventory Database for Underground Storage Tanks (CA FID UST)**: as the Emerik Hotel Corp. at 1020 S. Figueroa Street and Unocal 76 at 730 W. Olympic Boulevard.
- **Statewide Environmental Evaluation and Planning System – Underground Storage Tanks (SWEEPS UST)**: as the Emerik Hotel Corp. at 1020 S. Figueroa Street for having 1 UST from 2/29/88 to 3/9/93, and as Unocal 76 at 730 W. Olympic Boulevard as having four USTs: two gasoline USTs, one diesel UST and one waste oil UST.
- **Emissions Inventory (EMI)**: as Emerik Hotel Corp. at 1020 S. Figueroa Street with a Facility Identification number of #73664.
- **Hazardous Waste Information System (HAZNET)**: as Holiday Inn at 1020 S. Figueroa Street for generating unspecified aqueous solution in 2006; as Unocal #3300 at 730 W. Olympic Boulevard for generating aqueous solution with total organic residues less than 10 percent in 1993; as Holiday Inn/Emerik Corp. at 1020 S. Figueroa Street for generating waste oil and mixed oil in 1999 and for generating asbestos-containing waste in 2000; as Holiday Inn at 1020 S. Figueroa Street. for unidentified hazardous waste generation in 1997, 1998 and 2013; and as Luxe City Center Hotel at 1020 S. Figueroa Street for unspecified hazardous waste generation in 2012.
- **Recovered Government Archive Leaking Underground Storage Tank (RGA LUST)**: as Unocal #3300 at 730 W. Olympic Boulevard in 1996 and 2001–2012.

- **Historical Underground Storage Tank (HIST UST)**: as Service Station 3300 at 730 W. Olympic Boulevard for having 4 UST: two gasoline USTs, one diesel UST and one waste oil UST; and as Union Oil Service Station 3300 at 730 W. Olympic Boulevard for one waste oil UST.
- **Environmental Data Resources US Historical Auto Station (EDR US Hist Auto Stat)**: as Speck Timmerman at 607 W. 11th Street in 1937 as an auto repair shop.
- **Leaking Underground Storage Tank (LUST)**: as Unocal Corp. at 730 W. Olympic Boulevard with a current case status of "Completed - Case Closed" as of June 30, 1994.
- **Underground Storage Tank (UST)**: as Holiday Inn at 1020 S. Figueroa Street

(b) Adjacent & Nearby Properties

The database review identified numerous properties within a 0.25-mile radius of the Project Site as also being listed on at least one hazardous materials database. Many of these properties were listed on the EDR US Hist Auto Stat Database, a proprietary database created by searching selected national collections of historical business directories that may, in EDR's opinion, have been occupied by gas stations, auto repair shops, or other automotive-related uses. Because information on these properties is based solely on historical business directories, they are generally older listings (1924 to 1942 within the 0.25-mile search radius) with no or little information known about them beyond their business name and listed address. The Phase I ESA did not consider these historic listings as an environmental concern for the Project or Project Site.

Properties listed on modern hazardous materials databases within the 0.25-mile search radius of the Project Site are summarized below. As concluded in the Phase I ESA, based on the nature and extent of these properties, the nature and distance of any reported releases, the position of reported releases with respect to the regional groundwater flow direction, current regulatory status, and/or the absence of reported releases, the Phase I ESA did not consider the properties described below to represent a recognized environmental condition (REC) that would adversely affect the Project or Project Site.

(i) City of Los Angeles

A property (listed as the City of Los Angeles and identified as occurring at the northwest corner of the Project Site at Figueroa Street and Olympic Boulevard) is listed on the SWEEPS UST Database, and the CA FID UST database.⁵

(ii) Felix Chevrolet

A property (listed as Felix Chevrolet and identified in the Database as occurring at 714 W Olympic) and located roughly 92 feet east-northeast of the Project Site is listed on the SWEEPS UST, CA FID UST, and HAZNET databases.⁶

⁵ The property listing is defined in one data base as occurring at 1012 S Figueroa Street and located approximately 32 feet north-northeast of the Project Site. The property also appears to be described as 716-730 Olympic Boulevard in another database; a varied description for the same corner. The distances from the Project Site reflected are from a centroid rather than the edge of the Project Site. Descriptions may vary slightly, however the data is sufficient for identifying potential RECs that pose a threat to a project site.

(iii) Downtown Car Wash (Olympic Tower project site)

The Downtown Car Wash, located diagonally across intersection of W. Olympic Boulevard and S. Figueroa Street (approximately 130 northeast of the Project Site), is listed in the LUST database with a "Cased Closed" status (July 23, 2013), as well as on the RCRA-SQS, FINDS, CA FID UST, UST, HIST UST, and EDR US Hist Auto Stat databases. These listings are primarily associated with the removal of a 15,000-gallon (split, 9,000 gallon/6,000 gallon) UST in January 2013. The depth to groundwater within the underlying Gage aquifer was estimated to be at 120 feet bgs and the flow direction was estimated to be toward the southwest, away from the Project Site.⁷ However, on-site groundwater monitoring showed first water at a depth of 60 to 65 feet bgs with a flow gradient also to the southwest.

(iv) Arco Gas Station

A nearby property (listed as Arco #5033), located approximately 375 feet south-southwest of the Project Site, is listed on the LUST database with a current case status of "Completed - Case Closed" as of April 9, 2013. Based on a review of data maintained on the GeoTracker database, a gasoline release to soil was discovered on August 31, 1995, and following remediation, a No Further Action letter was issued by LAFD on April 9, 2013.

(v) Oceanwide Plaza Project Site

The property located south across 11th Street, approximately 175 feet south-southeast of the Project Site, where the Oceanwide Plaza mixed-use project is currently under construction, is listed on the LUST database with a current case status of "Completed - Case Closed". Based on data maintained on the GeoTracker database, a heating oil/fuel oil release to soil only was discovered on December 2, 2003. Contaminated soils were excavated and removed from the Project Site and the case was closed on March 9, 2007. The site was recently excavated to accommodate the subterranean levels of the Oceanwide Plaza Project and the property has not been listed on additional regulatory databases as a result, indicating the absence of any additional subsurface contamination.

(vi) LA LIVE and Staples Center Arena Properties

The LA LIVE property, located across S. Figueroa Street approximately 160 southwest of the Project Site is listed on the SLIC database with a current case status of "Completed - Cased Closed" as of June 1, 2005. The Phase I ESA reviewed a Los Angeles Regional Water Quality Control Board (LARWQCB) letter to Anschutz Entertainment Group, dated April 26, 2004, titled, *No Further Requirements for Staples Center Parcels A and C (Parking Lots 3 and 4), Los Angeles, California (SLIC No.0856, Site ID 2040115)*. The letter summarized the case history for the LA LIVE site, which as follows: Parcel A was occupied by a car wash from 1960 to 1970. In December 1997, a limited, shallow soil and soil gas survey was done. Low total petroleum hydrocarbon (TPH) levels were reported and no further investigation was recommended. In early 1999, a demolition contractor reported strong gasoline odors in surface soils. Subsequent investigations revealed gasoline-impacted soils from approximately 15 to 60 feet bgs in an area approximately 4,500 square feet (0.1 acre) in size, and elevated gasoline and BTEX concentrations were reported in perched groundwater at 60 feet bgs in

⁶ The identification as "Felix Chevrolet" reflects the listing in the database and may refer to an office tenant as well as other characterization of the building.

⁷ Depths to groundwater for the tests at different test sites reflect the groundwater conditions at the time of the respective tests and the elevations above sea level of the site locations tested. Therefore, depths to groundwater for the various tests may vary.

an area located approximately 500 feet northwest of the Project Site. A Soil Vapor Extraction (SVE) remediation system was installed and operated from May 2000 to January 2004, recovering approximately 18,716 pounds of gasoline during that period. VOCs were reported at levels exceeding respective maximum contaminant levels (MCLs) in a groundwater confirmation sample at 115 feet bgs, and the VOC source was reported as unknown. Mactec, Inc. reported in a letter dated March 11, 2004 to Ninyo & Moore that was attached as an exhibit to the LARWQCB letter that "Several chlorinated chemicals were found in ground water that held no connection to the LA LIVE site history or materials usage as described in that project's Phase I ESA report, and none of the chemicals were detected in soil samples [taken from above the groundwater level] on the LA LIVE site. The conclusion that these detections in ground water are probably attributed to off-site sources seems reasonable." LA LIVE is listed a second time on the SLIC database for subsurface contamination of TPH, metals and volatile organic compounds (VOCs), as well as being listed on the UST database.

The LA LIVE property was developed between 2005 and 2009 into the current entertainment and retail complex, which required that property be excavated to a depth of approximately 30 feet bgs for entertainment complex's subterranean levels. The Phase I ESA presumed that any impacted soil to a depth of approximately 30 feet bgs would have been removed from the property during the excavation phase.

The Staples Center Arena (as Democratic National Convention – Staples Arena), located diagonally across the intersection of S. Figueroa Street and Chick Hearn Ct/11th Street, approximately 161 feet southwest of the Project Site, was listed on the CERCLIS database on June 1, 2005. The description of the database listing is "To track counter-terrorism actions and funding for the Democratic national convention at the Staples Center in LA".

(3) Hazardous Materials on the Project Site

(a) Subsurface Soil and Soil Gas Contamination

(i) Background and Sampling Methodology

As discussed above, residual soil contamination in the form of petroleum hydrocarbons (i.e., gasoline and diesel) and BTEX is known to remain in a clayey soil layer between 30 to 50 feet bgs at the north corner of the Project Site, the result of leaking facilities at a former gas station at this location. Because the Project proposes excavation to a depth of 45 to 50 feet bgs to accommodate up to four levels of subterranean parking, excavation activities could be expected to encounter this residual soil contamination.

The Phase I ESA considered this condition to be a REC for the Project and recommended further investigation to identify the concentration and lateral extent of residual soil contaminants, as well as to determine if the residual contaminants are generating soil gasses (e.g., VOCs) that could pose health risks to construction workers and future inhabitants. The Phase I ESA also considered the VOC-impacted groundwater contamination at a depth of approximately 115 feet bgs in the Project vicinity (originally identified at the LA LIVE property and of unknown origin) to be a REC if the plume was wide enough to encroach the Project Site and recommended soil gas sampling and testing from soil gas monitoring probes placed at depths of 5 and 15 feet below the proposed subterranean garage bottom elevations to confirm a determination regarding the potential for a VOC vapor plume at the Site, and the potential for VOC intrusion into the proposed on-site structures. Although not identified as a REC, the Project Site is located within a City-designated Methane Zone and the Phase I ESA recommended methane testing to determine whether

methane is present at the Project Site. Based on these recommendations, Terra-Petra conducted a Soil and Soil Gas Investigation in January 2016 to address the RECs and potential for methane to be present in on-site soils.

To test for methane and soil gas pressure in shallow soils, the Soil and Soil Gas Investigation installed and operated 13 shallow soil monitoring probes at a depth of four feet bgs throughout accessible portions of the Project Site for a single day on January 4, 2016. To test for residual gasoline and BTEX contamination, as well to test for soil gasses associated with these contaminants, methane, or the VOC plume of unknown origin, six deep borings were advanced in strategic and accessible locations throughout the Project Site (i.e., three borings were advanced into the northern surface parking lot and three borings were advanced into the southern surface parking lot). The three borings advanced into the northern parking lot (DP-1, DP-2, and DP-3) were strategically located to correlate with areas of known residual contamination and advanced to a depth of 65 feet bgs (with 5-foot testing intervals), while the three borings over the southern surface parking lot (DP-4, DP-5, and DP-6) were advanced to a total of 65 feet, but were sampled to the proposed excavation depth of 45 feet (with 5-foot testing intervals). The location of the shallow monitoring probes and six deep borings are depicted in **Figure 4.E-1, Soil Monitoring Locations**.

Core samples were collected from each of the six deep borings and transported to appropriate laboratories, where the samples were tested at 5-foot intervals for TPH and VOCs. Prior to transport, VOC emissions were monitored from each soil sample using a handheld photo-ionization detector (PID). Following removal of the core samples, the six deep borings were then converted to deep soil gas monitoring probes, with nested probes at 50, 55, and 65 feet bgs, except at DP-5, where groundwater was encountered at 65 feet bgs, and so nested probes were set at 48, 53, and 63 feet bgs. Deep probe sets were each monitored twice for combustible gas, such as methane, and soil gas pressure using a GEM portable gas detector. Where combustible gas concentrations were detected, an inline activated carbon filter was used at the detector inlet to strip non-methane hydrocarbons from the sample stream and to allow the measurement of combustible gas as methane. Lastly, samples were collected from all six deep borings on January 18, 2016 in gas-tight syringes and laboratory tested for VOCs and gasoline with appropriate detection levels for evaluating concentrations against US Environmental Protection Agency (US EPA) residential Regional Screening Levels (RSLs). Duplicate soil gas samples were collected and tested where appropriate.

When considering the results of the Soil and Soil Gas Investigation, it is important to consider that subsurface investigation was not feasible on portions of the Project Site that are developed with existing structures, such as the existing Luxe Hotel and parking deck structure. According to databases reviewed for the Phase I ESA, the Project Site has been developed since at least 1890, thus pre-dating the existing on-site improvements. As a result, additional testing would be required following the demolition of the existing on-site improvements to determine the subsurface soil conditions beneath the existing structures.

(ii) Physical Properties of Soils

During the collection of core samples, the physical properties of the core sample are logged. In general, soils at the six deep borings consisted of alluvium consisting of clay, sand and silt, and gravel. In contrast, DP-4 contained artificial fill material from 0.5 to 10 feet bgs consisting of silt, sand, gravel, red brick fragments, with underlying alluvium consisting of clay, sand, silt, and gravel. Boring DP-1 presented a strong gasoline odor at 30 feet bgs, while Boring DP-2 presented a strong gasoline odor 35 feet bgs and a slight gasoline odor at 45 feet bgs.

(iii) Methane

With regard to shallow soil methane, none of the 13 shallow soil gas probes monitored with the portable GEM gas detector revealed detectable levels of methane, with all pressures reported at less than 2-inches of water column.

Methane was only detected in two of the six deep soil probes, DP-1 and DP-2, both of which are located in the vicinity of the former gas station, VES remediation system, and areas of residual contamination as reported in the LAFD No Further Action letter. Methane levels at DP-1 were detected through analytical laboratory testing at 200 parts per million by volume (ppmv) (just above the detection level of 100 ppmv) at a depth of 55 feet bgs. Methane concentrations in DP-2 were recorded at 3,000 ppmv in the field with the portable GEM gas detector. Additional sampling and analytical laboratory testing of methane in DP-2 revealed methane concentrations of 5,000 and 7,460 ppmv at 50 feet bgs during two separate testing events. Gas composition testing of the soil gas sample from DP-2 for complete compositional analysis and analyses for stable isotopes of delta ¹³C and delta D of methane, and delta ¹³C of carbon monoxide showed the methane gas at probe DP-2 to be of microbial origin with the carbon dioxide composition likely showing the effects of microbial oxidation, and concluded that the methane is likely associated with the microbial anaerobic degradation of the residual gasoline contamination in the vicinity of DP-2.

(iv) Soil VOCs

Field sampling using the handheld PID identified VOC emissions in soil samples collected from boring DP-1 at depths of 30 and 35 feet bgs, at concentrations of 1,175 ppmv and 602 ppmv, respectively. The handheld PID testing also identified VOC emissions ranging from 6.5 ppmv to 19.4 ppmv in samples from 40 to 55 feet bgs. VOCs were not detected at any of the other sample depths from DP-1. VOC emissions were also identified using the handheld PID in soil samples from DP-2 at 35 and 40 feet bgs, at concentrations of 747.1 ppmv and 931 ppmv, respectively. The handheld PID testing also identified VOC emissions ranging from 1.8 ppmv to 15.2 ppmv in samples from depths of 35, 45, and 50 feet bgs. Handheld PID measurements for all other recording depths revealed no detectable methane at DP-2. VOCs were not detected in the three deep soil borings on the southern surface parking lot (DP-4, DP-5, and DP-6).

Laboratory testing of the core samples taken from the deep soil borings generally confirmed the PID measurements taken in the field and showed detectable levels of VOCs in the core samples from borings DP-1, DP-2, and DP-3 at depths of 30 feet bgs or greater (of note, the field measurements did not identify VOCs in the core sample taken from DP-3). Of the VOC analytes, concentrations of 1,2,4-trimethylbenzene (a flammable, colorless aromatic hydrocarbon in liquid form), ethylbenzene (a highly flammable, colorless liquid with an odor similar to that of gasoline), and naphthalene (a semi-volatile organic compound) exceeded US EPA residential land use RSLs in the core sample from boring DP-1 at 30 feet bgs.⁸ Concentrations of 1,2,4-trimethylbenzene also exceeded the residential land use RSL in the core sample from boring DP-2 at a depth of 35 feet bgs. The reported concentration of 1,2,4-trimethylbenzene in the core sample from DP-1 also exceeded the industrial land use RSL at 30 feet bgs. All other VOC detections in soil samples were below residential and industrial land use RSLs, or no VOCs were detected.

⁸ The US Environmental Protection Agency (EPA) Regional Screening Levels (RSL) are risk-based concentrations to be protective for humans (including sensitive groups) over a lifetime. RSLs are to be used as screening tool in determining if site remediation is appropriate for the intended use of the site.

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(v) Soil Total Petroleum Hydrocarbons (TPH)

TPH concentrations were detected in the core samples taken from borings DP-1 and DP-2, which is in the vicinity of the former gas station, VES remediation system, and residual contamination reported in the LAFD No Further Action letter. Specifically, laboratory analysis of the core sample from boring DP-1 revealed TPH concentrations ranging from not detectable to 1,376 milligrams per kilogram (mg/kg). Detectable levels of TPH were only found in the soil sample taken at 35 feet bgs. The core sample from boring DP-2 also contained TPH concentrations ranging from not detectable to 86.5 mg/kg. Detectable levels of TPH were only found in the soil sample taken at 35 feet bgs. In the core samples from both borings DP-1 and DP-2, the detectable TPH concentrations consisted of gasoline and diesel. TPH concentrations were not detected in the core samples from the four other deep soil borings.

(vi) Soil Gas VOC and TPHg (Gasoline) Investigation

No leak detection compounds were detected in the sampling and testing activities at the deep soil gas monitoring probes for detectable VOC and gasoline, as completed by the JEL mobile laboratory on January 18, 2016. Detectable concentrations of 13 VOC analytes were reported in soil gas samples, with detectable VOC concentrations reported at each deep boring location. The testing identified several compounds that exceeded California Human Health Screening Levels (CHHSLs)⁹, including: 1,2-dichloroethane (ethyl dichloride)¹⁰ in samples from boring DP-1 at 50, 55, and 65 feet and in samples from boring DP-2 at 50 and 55 feet bgs, benzene in a sample from DP-2 at 65 feet bgs, ethylbenzene in a sample from boring DP-1 at 55 feet bgs and in a sample from boring DP-2 at 65 feet bgs, naphthalene in a sample from boring DP-1 at 55 feet bgs and in a sample from boring DP-2 at 50 feet bgs, and lastly, trichloroethylene (TCE) in a sample from boring DP-6 at 65 feet bgs. The detection of TCE at boring DP-6 is notable because all subsurface contamination identified prior to the JEL mobile laboratory investigation is associated with the former gas station, VES remediation system, and residual contamination at the north corner of the Project Site. The source of the TCE was not identified in the Soil and Soil Gas Investigation.

(vii) Underground Storage Tank

A 530-gallon diesel UST and associated piping are currently abandoned in place beneath the hotel driveway and landscaped median. Ceres, Corp. also reported in a 2014 Phase I ESA prepared for the Project Site¹¹ that an abandoned sump was located near the abandoned diesel UST at the southwest corner of the hotel site. The facilities were previously used to fuel the emergency electrical generator and water system pump engines, but were replaced in 2012 with a 1,600-gallon concrete double-compartment diesel AST located in a storage room in the ground floor of the parking deck (observed to be in good condition). The abandoned piping was filled in place and reported to extend from the southwest corner of the hotel site to the northwest corner of the hotel site.

⁹ California Human Health Screening Levels (CHHSLs) are concentrations of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (CalEPA) considers to be below thresholds of concern for risks to human health.

¹⁰ 1,2-dichloroethane (ethyl dichloride) is a synthetic chlorinated hydrocarbon that was used as a fuel additive, a "lead scavenger", in leaded gasoline prior to 1973

¹¹ Ceres Corporation, Phase I Environmental Site Assessment, Commercial Property, 1020 South Figueroa St., Los Angeles, CA, April 22, 2014, included in Exhibit L of the Phase I ESA.

Shallow soil testing beneath the UST and associated piping showed low hydrocarbon concentrations and the LAFD issued a Closure Letter for the UST abandonment and September 13, 2013. Ceres, Corp. concluded that the former UST did not represent a significant environmental concern. The facilities were abandoned in place under a Covenant and Agreement with the City and dated June 21, 2013, provided that they be removed if the hotel driveway was ever removed during on-site renovation or construction activities. It is likely that the low concentrations of hydrocarbons identified during the shallow soil testing are still present in the soils underlying the facilities. As a result, the Soil and Soil Gas Investigation concluded that permitting, soil sampling and testing, and reporting will likely be required by the LAFD following demolition of the existing hotel building and during the removal of those structures to satisfy the existing Covenant and Agreement with City.

(b) Materials Associated with Existing Operations

The hotel utilizes small quantities of hazardous materials and janitorial supplies typical with the operation of a hotel. Site investigations for the Phase I ESA observed numerous facilities and materials necessary for the normal operation of a hotel; however, these facilities and materials were observed to be in good condition with no significant stains, containers or other evidence of current spills of hazardous substances or petroleum products. No other evidence of poor conditions regarding the current or former on-site AST/UST, sumps, hydraulic lifts or other hazardous materials use, handling, storage, generation or disposal was observed at the Project Site. No hazardous remediation efforts are currently occurring on the Project Site.

Hazardous materials have been occasionally transported from the Project Site as part of normal hotel operations or during renovation activities, as evidenced by property's recent listings (i.e., subsequent to the closure and removal of the former on-site gas station in 1990) on the HAZNET database for: generating unspecified aqueous solution in 2006; as Holiday Inn/Emerik Corp. at 1020 S. Figueroa Street for generating waste oil and mixed oil in 1999 and for generating asbestos-containing waste in 2000; as Holiday Inn at 1020 S. Figueroa Street for unidentified hazardous waste generation in 1997, 1998 and 2013; and as Luxe City Center Hotel at 1020 S. Figueroa Street for unidentified hazardous waste generation in 2012.

(c) Asbestos-Containing Materials (ACMs)

Asbestos is a naturally-occurring mineral made up of microscopic fibers that has been widely used in the building industry for a variety of uses, including acoustic and thermal insulation and fireproofing. It is often found in ceiling and floor tiles, linoleum, and pipes, as well as on structural beams and asphalt. However, asbestos can become a hazard when the fibers separate and become airborne. Asbestos has been linked with lung diseases caused by inhalation of airborne asbestos fibers. In 1979, a ban on ACMs in building materials was imposed; however, it is still possible to detect ACMs in buildings built after 1980.

Since the existing hotel building dates to 1964, ACMs were utilized in its construction. The Phase I ESA reviewed a *Phase I Environmental Site Assessment. Commercial Property, 1020 South Figueroa St., Los Angeles, CA.*, prepared by Ceres Corp for industrial and Commercial Bank of China (U.S.A) N.A., dated April 22, 2014, in which Ceres reported that 3.37 tons of ACMs were removed from the Project Site during Holiday Inn renovations in 2000. The Phase I ESA also reviewed a Hart Laboratory, Inc. (Hart) published *Asbestos Bulk Survey Report for the Property located at: 1020 S. Figueroa St., Los Angeles, CA* dated November 12, 2013. Positive test results for ACMs were reported by Hart in ceiling over-spray located in hallways throughout the building (excluding the 2nd Floor), pipe insulation (4-inch abandoned vent elbow), pipe insulation (6-inch hot water elbow) and insulation (large and small hot water tank in mechanical room).

Although previous asbestos remediation efforts have occurred in portions of the existing hotel building, based on the age of the building construction and the relatively limited number of ACM remediation efforts recorded, the Phase I ESA concluded that ACMs are likely still present in building materials on the Project Site.

(d) Lead-Based Paints (LBPs)

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission (CPSC) specified limits on lead content in such products. In 1977, the CPSC banned the production of virtually all house paints containing lead and banned its use in commercial buildings in 1978. LBP is of concern both as a source of exposure and as a major contributor to lead in interior dust and exterior soil. Because the existing hotel building was constructed in 1964, prior to the ban on the use of LBPs in commercial buildings, the Phase I ESA concluded that LBPs are likely present in building materials on the Project Site.

(e) Polychlorinated Biphenyls (PCBs)

PCBs are hazardous materials that were formerly used in such applications as hydraulic fluids, plasticizers, adhesives, fire retardants, etc. PCBs were used in electrical transformers until the 1970's, at which time they were banned. The existing on-site building was constructed in 1964, and therefore the potential for PCBs in on-site electrical transformers does exist.

(f) Radon

Radon is an invisible, odorless, radioactive gas formed by the decay of uranium in the earth's soil that migrates to the surface through cracks and pore spaces in the soil. Radon gas dissipates in outdoor settings and is present at concentrations considered to be harmless. However, radon gas can accumulate inside buildings and enclosed spaces, depending on the building location, ventilation, and other factors. The US EPA recommends indoor remedial measures (such as enhanced ventilation) for residential, school, and office uses when radon concentration exceeds 4.0 picoCuries per liter (pCi/L) on an average annual basis (the US EPA action level). The Project Site is located in a designated US EPA Radon Zone 2, where the predicted average radon concentration is greater than or equal to 2.0 pCi/L and less than or equal to 4.0 pCi/L. The Phase I ESA concluded that there is a low risk of environmental impact at this level because radon would be below the US EPA Action level of 4 pCi/L.

(g) Vapor Encroachment

As described above, subsurface soils on the Project Site contain detectable levels of methane, VOCs and VOC analytes, gasoline, diesel, and BTEX. The concentration of these subsurface contaminants is highest at the north corner of the Project Site, in the area of the former gas station, VES remediation system, and residual soil contamination identified in the LAFD No Further Action letter. Due to the relative success of the VES remediation system, the residual subsurface contaminants are generally not detectable until depths of 30 feet bgs. However, as the Project proposes excavation to a depth of 45 to 50 feet bgs to accommodate four levels of subterranean parking, vapor encroachment could potentially occur at the Project's subterranean levels and result in a potential health hazard for future building construction workers and occupants if these soils are not removed from the Project Site during excavation activities or remediated for

in-situ use. Vapor encroachment barriers and ventilation of subterranean levels may also be required regardless of the removal/remediation of contaminated soils due to the Project Site's location in a designated methane zone. At the time of the Soil and Soil Gas Investigation, portions of the Project Site were inaccessible to methane due to the presence of existing structures. Although thermogenic sources of methane were not detected at the Project Site, there is the potential that thermogenic methane is present below the existing structures at depths to which the site would be excavated.

Further, a former 530-gallon diesel UST and associated piping are abandoned in place below the hotel entrance driveway and landscaped median. Shallow soil testing completed in 2013 showed low hydrocarbon concentrations that through decomposition and/or oxidation could result in VOC intrusion into the subterranean levels if the contaminated soils are not removed from the Project Site during excavation activities or remediated for in-situ use.

c. Regulatory Framework

(1) Hazardous Materials Management

The use, storage, and disposal of hazardous materials are subject to federal, State, and local regulations as further discussed below.

The Federal Resource Conservation and Recovery Act (RCRA) (42 U.S. Code Sections 6901-6992k) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, generators of hazardous waste must register and obtain a hazardous waste activity identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. The State of California has developed the California Hazardous Waste Control Law (HWCL) (Health and Safety Code Sections 25100 et seq. and 22 California Code of Regulations [CCR] Sections 66260.1 et seq.) and the US EPA has authorized RCRA enforcement to the State of California. Primary authority for the statewide administration and enforcement of HWCL rests with Cal/EPA DTSC.

The Federal Occupational Safety and Health Act of 1970, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in 29 Code of Federal Regulations (CFR) Section 1910, et seq., are designed to promote worker safety, worker training, and a worker's right-to-know. The U.S. Department of Labor has delegated the authority to administer OSHA regulations to the State of California. The California OSHA program (Cal-OSHA) (codified in the CCR, Title 8 generally and in the California Labor Code Sections 6300-6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal-OSHA is very similar to the Federal OSHA program. Among other provisions, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP) for potential workplace hazards, including those associated with hazardous materials.

The Safe Drinking Water and Toxic Enforcement Act (22 CCR Sections 12000 et seq.), Proposition 65, lists chemicals and substances believed to have the potential to cause cancer or deleterious reproductive effects in humans, restricts the discharges of listed chemicals into known drinking water sources at levels above the regulatory levels of concern, requires public notification of any unauthorized discharge of hazardous waste,

and requires that a clear and understandable warning be given prior to a known and intentional exposure to a listed substance.

At the regional level, South Coast Air Quality Management District (SCAQMD) Rule 1113 (Architectural Coatings) governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. The Project, including paint and solvent used on the new mixed-use buildings, would comply with SCAQMD Rule 1113.

At the local level, the LAFD monitors the storage of hazardous materials for compliance with local requirements. Specifically, businesses and facilities that store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LAFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LAFD also issues permits for hazardous materials handling and enforces California's Hazardous Materials Release Response Plans and Inventory Law (Health and Safety Code Sections 25500 et seq.). Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds must comply with the reporting requirements and file a Business Emergency Plan (BEP) with the local administering agency (i.e., LAFD). The LAFD also administers the applicable sections of the Los Angeles City Fire Code, including Division 8, Hazardous Materials Disclosures. Those businesses that store hazardous waste or hazardous materials must submit a Certificate of Disclosure to the LAFD.

(2) Methane Gas

The City has prepared a map of methane zones and methane zone buffer areas within the City. Pursuant to the City mapping, the Los Angeles Department of Building Safety (LADBS) locates the Project Site within a Methane Hazard Zone (methane zone). Los Angeles Municipal Code (LAMC), Chapter IX, Article 1, Division 71, Section 91.7103, also known as the Los Angeles Methane Seepage Regulations, establishes requirements for buildings and paved areas located in areas classified as being located either in a methane zone or a methane buffer zone. Requirements for new construction within such zones include methane gas sampling to determine the Site Design Level and, depending on the detected concentrations of methane and gas pressure at the site, application of design remedies for reducing potential methane impacts. The design remedies include Methane Control Systems that are based on the Site Design Level, with more involved mitigation systems required at the higher Site Design Levels.

(3) Underground Storage Tanks (USTs)

USTs are regulated under Subtitle I of RCRA and its regulations which establish construction standards for new UST installations (those installed after December 22, 1988), as well as standards for upgrading existing USTs and associated piping. Since 1998, all non-conforming tanks were required to be either upgraded or closed.

The State regulates USTs pursuant to Health and Safety Code, Division 20, Chapter 6.7, and CCR Title 23, Division 3, Chapter 16 and Chapter 18. The State's UST program regulations include among others,

permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. Oversight of the statewide UST program is assigned to the State Water Resources Control Board (SWRCB) which has delegated authority to the LARWQCB and typically on the local level, to the fire department. The LAFD administers and enforces Federal and State laws and local ordinances for USTs at the Project Site. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LAFD Inspectors. If a release is documented that affects groundwater, the project file is transferred to the LARWQCB for oversight.

(4) Asbestos-Containing Materials (ACMs)

In California, any facility known to contain ACMs is required to have a written asbestos management plan (also known as an Operations and Maintenance Program [O&M Program]). Removal of ACM must be conducted in accordance with the requirements of SCAQMD Rule 1403. Rule 1403 regulations require that the following actions be taken: (1) a survey of the facility prior to issuance of a permit by SCAQMD; (2) notification of SCAQMD prior to construction activity; (3) asbestos removal in accordance with prescribed procedures; (4) placement of collected asbestos in leak-tight containers or wrapping; and (5) proper disposal.

(5) Lead-Based Paint (LBP)

Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 establishes the rules and procedures for conducting demolition and construction activities and establishes exposure limits, exposure monitoring, and respiratory protection for workers exposed to lead.

(6) Polychlorinated Biphenyls (PCB)

PCBs are regulated by the EPA under the Toxic Substances Control Act (TSCA). These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment. The disposal of PCB wastes is also regulated by TSCA (40 CFR 761), which contains life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste.

3. ENVIRONMENTAL IMPACTS

a. Methodology

The evaluation of hazardous conditions and materials associated with construction and/or operation of the Project is based, in part, on the Phase I ESA and Soil and Soil Gas Investigation provided in Appendices A-2 and F of this Draft EIR.

The Phase I ESA identified the potential presence of hazardous materials occurring on the Project Site. The Phase I ESA methodology included a visual inspection of the Project Site; review of pertinent background and historical information (historic aerial photographs, historic topographic maps, ownership review, City directories and Sanborn Fire Insurance Maps); contact with appropriate regulatory agencies; observation of land use on surrounding properties; review of regulatory database reports and local records; and

photographic documentation of the Project Site. In addition, the Phase I partially relied on previous hazardous materials investigations conducted for the Project Site and surrounding vicinity, including a *Phase I ESA* prepared for the Project Site by Ceres Corp in April 2014 and an *Asbestos Bulk Survey Report* prepared for the existing hotel building by Hart Laboratory, Inc. in November 2013, among other reports. These previous hazardous materials investigations are included in Exhibits L and O of the Phase I ESA.

Based on the recommendation of the Phase I ESA, a Soil and Soil Gas Investigation was subsequently conducted. As discussed in greater detail above, the Soil and Soil Gas Investigation installed 13 shallow soil gas probes and collected core samples from six deep soil borings located strategically throughout accessible areas of the Project Site (the deep soil borings were later converted to soil gas monitoring probes and probes were monitored with the soil gas monitoring equipment after the soil core samples were removed). The core samples and soil gas samples were subjected to testing in the field and in certified laboratories to determine the presence and concentration of subsurface contamination and soil gases suspected to be present on the Project Site and nearby properties based on the review of regulatory databases and prior environmental investigations. The Soil and Soil Gas Investigation also tested the 13 shallow soil gas probes and six deep probe sets for the presence of methane in accordance with LAMC Chapter IX, Article 1, Division 71, Section 91.7103, also known as the Los Angeles Methane Seepage Regulations, because the Project Site is located in a designated Methane Hazard Zone.

The investigative findings, laboratory results, and results of the various database searches were reviewed to identify the potential hazardous impacts for construction and/or operation of the Project.

b. Thresholds of Significance

Appendix G of the State *CEQA Guidelines* provides a set of screening questions that address impacts with regard to hazards and hazardous materials. These questions are as follows:

Would the project:

- 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 likely release of hazardous materials into the environment?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

As discussed in the Initial Study, provided in Appendix A-2 of this Draft EIR, and in Chapter 6, *Other CEQA Considerations*, the Project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of a school because the nearest school to the Project Site is Olympic Primary Center (kindergarten), which is located approximately 0.4 miles northeast of the Project Site. The Initial Study also concluded that the Project Site is not within an airport land use plan and it is not within two miles of a public use airport or private air strip, and no impact would occur. With respect to adopted emergency response or evacuation plan, short-term construction activities may temporarily affect access adjacent streets (e.g. S. Figueroa Street is a designated disaster route in the City's General Plan Safety Element and the County's Department of Public Works Disaster Route map). In these instances, the Project would implement traffic control measures, (e.g., construction flagmen, signage, etc.) to maintain flow and access, and in accordance with City requirements, develop a Construction Management Plan, as provided for in PDF-TRAF-1: Construction Management Plan, which includes designation of a haul route, to ensure that adequate emergency access is maintained during construction. The potential impact on emergency access and response times is addressed further in Draft EIR Section 4.I.1, *Fire Protection*. That analysis identifies the specific measures that would be implemented to facilitate travel under emergency situations. Project operation would not cause an impediment along an emergency evacuation route or impair the implementation of the City's emergency response plan, resulting in a less than significant impact. Lastly, the Project Site is located in the highly urbanized downtown area of Los Angeles and would not expose people or structures to a significant risk involving wildland fires. Therefore, no further analysis of these topics in this section is necessary.

The *L.A. CEQA Thresholds Guide* incorporates the screening questions contained in Appendix G. In accordance with the City's thresholds, the determination of significance for impacts on risk of upset and emergency preparedness, as well as for impacts on human health hazards, shall be made on a case-by-case basis, considering the following factors:

(1) Risk of Upset/Emergency Preparedness

- Compliance with 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 substance;
- 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.

(2) Human Health Hazards

- Compliance with 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 screening questions of the State *CEQA Guidelines* and City's *L.A. CEQA Thresholds Guide*, the Project would have a significant hazards and hazardous materials impact if it:

HAZ-1 Would not comply with applicable regulations regarding the handling and storage of hazardous materials; or would expose persons to substantial risk resulting from the release of hazardous materials or from exposure to a health hazard in excess of regulatory standards.

c. Project Characteristics

The Project would demolish all existing on-site improvements (i.e., the Luxe Hotel, the podium parking structure, surface parking lots, and all other related improvements) in order to construct a new mixed-use hotel, residential and commercial development as further described in Chapter 2, Project Description, of this EIR. Parking for vehicles would be provided within up to four subterranean levels of the Podium structure. To accommodate four subterranean levels, the Project would excavate the Project Site to a depth of approximately 45 to 50 feet bgs, resulting in the excavation of approximately 201,944 cubic yards of soil material, all of which would be exported off-site. The 530-gallon diesel UST and associated piping abandoned in place beneath the existing hotel driveway and landscaped median are required to be removed during the Project's demolition and excavation phases. Accordingly, the following PDF would be implemented:

PDF-HAZ-1: Removal of UST and Associated Piping: The 530-gallon diesel UST and associated piping abandoned in place beneath the existing hotel driveway and landscaped median shall be removed in accordance with the provisions of the Covenant and Agreement recorded with the City on June 21, 2013, including the required permitting, soil sampling and testing, and reporting to the LAFD.

As discussed above, the Project Site is located within a City-designated Methane Zone and although thermogenic sources of methane were not identified during the soil gas sampling of accessible Site areas, methane resulting from the microbial anaerobic degradation of the residual gasoline contamination in the vicinity of the former on-site gas station were identified. As a result, special controls would be implemented to address potential hazards associated with subsurface gases during construction and operation of the Project. With regard to operation, the Project's design would implement a methane mitigation system designed in accordance with Division 71 of LAMC Section 91.7104.

Demolition of the existing improvements, excavation and grading of the Project Site, and construction of the Project's podium structure and mixed-use buildings would comply with the existing regulations cited in the Regulatory Section above, including those pertaining to hazardous materials management, and the detailed regulatory procedures for ACMs and LBP. Project improvements would also incorporate the recommendations of the Phase I ESA and Soil and Soil Gas Investigation prepared for the Project and included as Appendices A-2 and F of this Draft EIR.

d. Project Impacts

Threshold HAZ-1: The Project would have a significant hazards and hazardous materials impact if it would not comply with applicable regulations regarding the handling and storage of hazardous materials; or would expose persons to substantial risk resulting from the release of hazardous materials or from exposure to a health hazard in excess of regulatory standards.

(1) Residual Soil Contamination

Impact Statement HAZ-1: *Excavation would encounter contaminated soils and abandoned fuel facilities, which if not properly handled in accordance with applicable federal, state, and local regulations, could expose people to contaminants, resulting in a potentially significant impact. Excavation of the Project Site could also pose a risk to construction workers and future building occupants due to soils with pollutant concentrations above federal and state remediation levels. This is considered a potentially significant impact. Lastly, historic business directories suggest land uses often associated with soil contamination were demolished and replaced prior to modern hazardous materials tracking requirements and remediation standards. The existing on-site structures prevent soils proposed for excavation from being tested for subsurface contamination. As a result, the potential presence of soil contamination in untested areas of the Project Site is considered a potentially significant impact.*

As discussed above, a gas station and auto repair shop at the intersection of S. Figueroa Street and W. Olympic Boulevard was removed from the Project Site in 1990 and replaced with the existing surface parking lot. During removal of the gas station, soil contamination was reported at the USTs and fuel dispensers. Although a VES remediation system removed 90 percent of the total estimated gasoline that leaked from the station (over 5,000 pounds) and LAFD issued a No Further Action letter on June 10, 1994, soil testing conducted for the Project's Soil and Soil Gas Investigation revealed the continued presence of low- to high-concentrations of gasoline, BTEX, and VOCs in a clayey soil layer and extending from approximately 30 to 40 feet bgs. Because the Project proposes excavation to a depth of 45 to 50 feet bgs to accommodate up to four subterranean levels, these soils would likely require special handling during excavation, including additional analytical characterization, soil segregation, and transport off-site to be recycled/disposed of in accordance with Federal, State and local regulations. In addition, a 530-gallon diesel UST, transition pump, and associated underground piping were abandoned in place below the existing hotel driveway and landscaped median under a Covenant and Agreement with the City. Petroleum hydrocarbons were identified in shallow soil samples in the vicinity of the abandoned UST and associated piping. Specifically, soil sampling reported low levels of benzene and toluene at a depth of 15 feet bgs and low levels of diesel in two samples at a depth of 4 feet bgs. The removal of these facilities and low levels of petroleum hydrocarbons would also require special handling during demolition of the Luxe Hotel and excavation of the Project Site. The need for excavation, removal, transport, or recycling/disposal of contaminated soils or the abandoned fuel facilities soils is considered a potentially significant impact.

Hazards to construction workers include exposure to the residual soil contaminants, which includes petroleum hydrocarbons (gasoline and petroleum), VOCs, benzene, ethylbenzene, naphthalene, TCE, and 1,2-dichloroethane (ethyl dichloride). The concentrations of 1,2-dichloroethane, benzene, ethylbenzene, naphthalene, and TCE in subsurface soils were detected at levels exceeding US EPA residential RSLs and Cal/EPA residential land use CHSSLs in soils at a depth of greater than 45 feet bgs. As the Project proposes excavation to a depth of up to 50 feet bgs, the presence of elevated levels of soil contaminants, particularly those above established RSLs and CHSSLs (which are generally considered the threshold for remediation)

presents a potential human health hazard for building construction workers, and to future building occupants via the air intrusion pathway from soil to indoor air.

Worker safety and health are generally regulated by OSHA and Cal/OSHA. OSHA and Cal/OSHA standards establish exposure limits for certain air contaminants. Exposure limits define the maximum amount of hazardous airborne chemicals to which an employee may be exposed over specific periods. When administrative or engineering controls cannot achieve compliance with exposure limits, protective equipment or other protective measures must be used. Employers are also required to provide a written health and safety program, worker training, emergency response training, and medical surveillance.

The CalOSHA program regulates worker exposure to airborne contaminants (such as those identified in the subsurface soils) during construction under Title 8, Section 5155, Airborne Contaminants, which establishes which compounds are considered a health risk, the exposure limits associated with such compounds, protective equipment, workplace monitoring, and medical surveillance required for compliance. Even with the implementation of applicable worker safety regulations, the potential for construction workers and future building occupants to be exposed to potentially flammable or otherwise hazardous materials in exceedance of applicable thresholds is considered a potentially significant impact because applicable regulations do not provide site-specific procedures and mechanisms to ensure regulatory compliance, or to protect and train workers for the presence of these materials.

The Historical Sanborn Maps, Historical City Directories, and the EDR US Hist Auto Database list three automobile-related businesses as once operating on the Project Site, but provide no additional information on the former businesses. These three listings are an auto repair shop (as Speck Timmerman) at 607 W. 11th Street in 1937; an auto repair shop at 1049 S. Flower Street in 1951, 1958, and 1967; and a gas station training center at 1020 S. Figueroa Street in 1960 and 1962. Automobile-related businesses, particularly gas stations and repair shops, are often sources of subsurface soil contamination due to their daily use and transport of hazardous materials and their reliance of relatively large storage vessels, including USTs, to store these hazardous materials. Since the Project Site is rather large, building addresses are periodically re-assigned, and the existing hotel building was constructed in 1964, prior to modern hazardous materials testing reporting requirements, there is the potential that these three businesses, or other past uses, have resulted in an unknown subsurface condition at the Project Site. This is a somewhat frequent occurrence in the South Park district of downtown's Central City Community, as evidenced by the VOC-impacted groundwater condition of unknown origin identified during the development of LA LIVE and the Staples Center. There is also the potential that the Luxe Hotel once included operations that resulted in an unreported release of hazardous materials. This was a common occurrence in hotels that provided on-site dry cleaning operations prior to modern reporting requirements. While the Project's Soil and Soil Gas Investigation collected samples for testing and characterization on the portions of the Project Site that are currently accessible to sampling equipment, much of the Project Site remains inaccessible because of the existing structures. Thus, no samples were collected from below the existing structures and the subsurface soil conditions, including the presence or absence of residual contamination, cannot be fully characterized at this time. Given the relatively early development of the Project Site and vicinity and the lack of information of historic uses which are often associated with subsurface soil conditions, the potential presence of additional contaminants and the potential exposure of construction workers to these contaminants is considered a potentially significant impact.

(2) Materials and Conditions Associated With the Demolition of the Luxe Hotel Building

Impact Statement HAZ-2: *Impacts regarding demolition of the Luxe Hotel building would be less than significant. The identification, handling, removal, and/or disposal of ACMs, LBP and PCBs would be completed in compliance with regulatory requirements, and therefore impacts would be less than significant.*

Based on the age of the existing Luxe Hotel building and the results of an *Asbestos Bulk Survey Report for the Property located at: The LUXE Hotel, 1020 S. Figueroa St., Los Angeles, CA*, prepared by Hart Laboratory, Inc. and dated November 12, 2013, various areas of the Luxe Hotel building are known to contain ACMs. Specifically, ACMs were identified in ceiling over-spray located in hallways throughout the building, in pipe insulation, and in insulation for hot water tanks in a mechanical room. The hotel building is also located on the HAZNET Database for generating 3.37 tons of asbestos-containing waste during renovations of the Holiday Inn in 2000. Based on this information, the Phase I ESA concluded that ACMs are likely still present in building materials in the building. Similarly, the Phase I ESA concluded that LBPs are likely present in the existing hotel building because it was constructed in 1964, before the 1978 federal ban on LBPs in residential and commercial structures. The Phase I ESA also noted a utility-owned transformer in a locked utility room at the north end of the ground floor parking garage. This transformer should be considered to be a suspect PCB-containing unit. Also, there is also a potential for other non-dry floor-mounted electrical transformers to be present, which could contain PCBs. Under normal operating conditions, ACMs, LBPs and PCBs are not considered a hazard to human health and would pose no substantial health risk to visitors to the hotel. However, during demolition, the release of asbestos fibers resulting from disturbance of certain ACMs, or the release of lead dust caused by removal of LBPs, or release of PCBs, could, if not adequately prevented or contained, pose a threat to human safety.

The removal of ACMs would be subject to specific and detailed SCAQMD and Cal/OSHA requirements to ensure proper training, containment, handling, notification, and disposal and would be performed by a licensed asbestos abatement contractor. As required by SCAQMD Rule 1403, the existing Luxe Hotel building and all other improvements proposed for demolition would be surveyed for the presence of ACMs. The Project would also submit verification to the City of Los Angeles Department of Building and Safety that an asbestos survey has been conducted. Once the survey is deemed adequate, SCAQMD would issue a permit for the removal of ACMs, which would occur in accordance with SCAQMD's prescribed procedures, including the placement of asbestos leak-tight containers or wrapping, and properly disposing of asbestos materials at facilities licensed to accept asbestos waste. Compliance with regulatory requirements would ensure that impacts associated with ACMs during demolition of the Luxe Hotel building would be less than significant.

The removal of LBP would be subject to specific and detailed Cal/OSHA requirements to ensure proper containment, handling, notification, and monitoring and would be performed by a licensed LBP abatement contractor. Prior to demolition of the Luxe Hotel building, the Project would conduct a lead-based paint survey, and verification of the survey would be submitted to the City of Los Angeles Department of Building and Safety prior to the issuance of demolition permits. If LBP is found, it would be removed following all procedural requirements and regulations outlined in CCR Title 8, Section 1532.1, for its proper removal and disposal. Compliance with regulatory requirements would ensure that impacts associated with LBP and other lead-containing materials would be less than significant.

Checking for the potential presence of PCBs, and if discovered the removal of such materials, would be carried out pursuant to the TSCA (40 CFR 761) and the HWCL. Such checks would be performed for oil-containing electrical devices should they be present (electrical transformers, fluorescent lamp ballasts, high voltage capacitors, high voltage electrical switches, high voltage circuit breakers, etc.) at the time of building demolition. Compliance with regulatory requirements would ensure that impacts associated with PCBs would be less than significant.

(3) Methane

Impact Statement HAZ-3: *The Project is located in LADBS designated Methane Hazard Area (Methane Zone). Methane gas found in soil samples was determined to be of microbial origin and caused by anaerobic microbial degradation of residual gasoline deposits in the subsurface soil, and not of thermogenic origin. With implementation of a methane mitigation system designed in accordance with Division 71 of LAMC Section 91.7104, impacts with regard to methane would be less than significant.*

Worker exposure to methane is regulated by OSHA under 29 Code of Federal Regulations Section 1910.146. This section regulates worker exposure to a “hazardous atmosphere” within confined spaces where the presence of flammable gas vapor or mist is in excess of 10 percent of the lower explosive limit. With regard to worker safety, the oxidation and continued degradation of petroleum hydrocarbons (i.e., gasoline and diesel) have resulted in methane gas in subsurface soils. Methane is not toxic; however, it is combustible and potentially explosive at concentrations between 50,000 and 150,000 parts per million (ppm) in the presence of oxygen and an ignition source, and may pose a hazard to construction workers by exposing them to gasses which could become explosive under certain conditions. This potential for the Project to expose workers to flammable conditions, particularly if there is no site-specific mechanism to warn workers that methane levels are approaching combustible levels, is considered a potentially significant impact.

As discussed above, elevated methane levels were found at two deep soil probes (DP-1 and DP-2) at the north corner of the Project Site. No methane was detected in any of the 13 shallow soil probes or in the four other deep soil borings. Analytical results of the methane collected in boring DP-2 showed that it was of microbial origin and caused by the anaerobic degradation of residual gasoline contamination from the former release at the gas station at the north corner of the Project Site. Methane detected at DP-1 at a depth of 55 feet bgs is likely also attributable to anaerobic biodegradation of residual gasoline deposits at depth. The source of methane was concluded to not be of thermogenic origin (from the underlying geologic formation/natural gas deposit). This finding was supported by the lack of methane at any of the other sampling locations.

The Los Angeles Methane Seepage Regulations, Chapter IX, Article 1, Division 71, Section. 91.7101 sets forth the minimum requirements for control of methane intrusion emanating from geologic formations. The requirements do not regulate flammable vapor that may originate in and propagate from other sources, which include, but are not limited to, ruptured hazardous material transmission lines, underground atmospheric tanks, or similar installations. Thus, the requirements of the Los Angeles Methane Seepage Regulations do not pertain to methane detected in the probes DP-1 and DP-2.

Nonetheless, because the Project Site is located in a City-designated Methane Zone and methane is known to be present in subsurface soils, the Project would implement a methane mitigation system designed in accordance with Division 71 of LAMC 91.7104, as recommended by the Soil and Soil Gas Investigation. With

the implementation of a methane mitigation system designed in accordance with the requirements of Division 71 of LAMC Section 91.7104, impacts with regard to methane would be less than significant.

(4) Construction and Operation of the Project

***Impact Statement HAZ-4:** Impacts regarding the handling and storage of hazardous materials would be less than significant. The Project would require the use of products for construction and operations that are routinely used in performing everyday household, hotel, and retail activities consistent with regulatory requirements; it would not require the use of hazardous materials beyond these routinely used products.*

Construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. All materials would be used, stored, and disposed of in consumer quantities and in accordance with applicable laws and regulations and manufacturers' instructions. Furthermore, any emissions from the use of such materials would be minimal and localized to the Project Site. Therefore, construction of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No mitigation measures are required.

Operations of the Project would consist of the typical, common activities associated with development of residential, hotel, and retail uses, along with associated amenities, e.g. recreation area. No hazardous materials would be utilized during day-to-day operation of the Project other than typical household, vehicle, pool and spa, and landscape maintenance materials (i.e., cleaning supplies, paints, oil, grease, pesticides, herbicides, water disinfectants, fertilizers, etc). The use of these materials would be in small quantities and in accordance with the manufacturers' instructions for use, storage, and disposal of such products. Therefore, operation of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

e. Cumulative Impacts

***Impact Statement HAZ-5:** The Project's cumulative impacts, inclusive of impacts from cumulative projects, would be less than significant. The Project would not have significant impacts regarding hazardous materials with the implementation of identified mitigation measures and would not contribute to cumulative impacts. Implementation of nearby development would be in compliance with regulatory requirements that would avoid significant impacts for those projects.*

The Project would not result in a cumulatively considerable impact related to residual soil contamination that could expose persons to substantial risk resulting from the release of hazardous materials or from exposure to a health hazard in excess of regulatory standards. As described in the Existing Conditions Section above, the Phase I ESA identified all potentially hazardous conditions in the vicinity of the Project. The survey for potentially hazardous conditions was inclusive of among other sites, the nearest cumulative development sites including those for the Oceanwide Plaza mixed-use project currently under construction across S. Figueroa Street southwest of the Project Site, and the proposed Olympic Tower mixed use project across S. Figueroa Street and W. Olympic Boulevard to the northwest. The Phase I analysis concluded that based on distance, topography, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, none of the sites listed in agency databases in the vicinity of the Project Site are considered to represent a likely past, present or material threat of release that would adversely affect the

Project Site. A subsurface VOC plume of unknown origin at 115 feet bgs and exceeding MCLs was identified at the Staples Arena and during the development of LA LIVE, approximately 161 feet southwest and across Figueroa Street from the Project Site. The properties are listed on the SLIC database with a current case status of "Completed – Case Closed" as of June 1, 2005. The Phase I ESA concluded that based on the reported direction of groundwater flow in the site vicinity, to the southwest, the Project Site is in a location considered to be cross-gradient from these sites, unless the contamination plume is very wide, wide enough to extend eastward from the sites to the Project Site, in which case groundwater at approximately 115 feet bgs beneath the Project Site may be impacted by VOC. As the Project only proposes excavation to a depth of 50 feet bgs, the plume, if it were to encroach under the Project Site, would not have a significant impact on the Project. Further, none of the soil and soil gas testing completed on the Project indicated the plume has encroached the Project Site.

As discussed throughout this section, a former gas station experienced a leak of petroleum-related hydrocarbons into underlying soils to a depth of up to 60 feet bgs. While the lateral extent of the residual soil contamination was not fully characterized by the Phase I ESA or Soil and Soil Gas Investigation prepared for the Project, there is no indication that the contamination extends beyond the property boundary, is migrating, or has the potential to affect off-site properties. Recent development north of the Project Site across W. Olympic Boulevard did not reveal evidence of contaminants related to the release during environmental investigation and excavation for that project.

The Project would not result in a cumulatively considerable impact related to materials and conditions related to building demolition that could expose persons to substantial risk resulting from the release of hazardous materials or from exposure to a health hazard in excess of regulatory standards. As listed and mapped in Chapter 3.0 of this Draft EIR, 116 development projects are currently under construction or are in the planning stages in the vicinity of the Project. None of these related projects propose demolition within the immediate vicinity of the Project Site, such that workers, residents, guests, or visitors to the Project would be exposed to ACMs, LBP or PCBs from the demolition of existing structures. New construction in the immediate vicinity, such as the Oceanwide Plaza mixed-use project currently under construction across S. Figueroa Street southwest of the Project Site, and the proposed Olympic Tower mixed use project across S. Figueroa Street and W. Olympic Boulevard to the northwest. These projects, as well as other cumulative projects, would not utilize ACMs, LBP or PCBs as these materials are no longer permitted in the use of building construction. As discussed above, demolition of the existing on-site structures would occur in accordance with all applicable regulations and procedures to prevent the release of hazardous materials into the surrounding environment and ensure these materials are treated at facilities licensed to do so.

The Project would not result in a cumulatively considerable impact or health hazard related to the release of methane in excess of regulatory standards. The presence of subsurface methane is a condition specific to an individual development site. As discussed above, the Project would implement a methane mitigation system designed in accordance with Division 71 of LAMC Section 91.7104. The development of related projects would be also required to implement applicable methane mitigation systems in accordance with applicable methane seepage requirements if located within a City-designated methane zone.

The Project would not result in a cumulatively considerable impact related to the exposure of persons to substantial risk resulting from the release of hazardous materials or from exposure to a health hazard in excess of regulatory standards. Project construction and operation would use, store, and dispose of routine hazardous materials in accordance with applicable regulations. All related projects would be subject to the

same federal, State, regional, and local regulations pertaining to hazards and hazardous materials. As described in the regulatory framework discussion above, if any of the related projects handle materials in excess of routine quantities, they would be required to file a BEP with the LAFD in accordance with California's Hazardous Materials Release Response Plans and Inventory Law; the BEP would detail the hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials.

4. MITIGATION MEASURES

As discussed above, Project excavation would encounter residual soil contaminants, which could result in a release of hazardous materials into the environment and/or expose workers to hazardous materials. Further, it is possible the Project Site may have contained previous uses, of which there is minimal information available, and subsurface soil conditions beneath the existing structures cannot be fully characterized at this time. As a result, Mitigation Measures MM-HAZ-1 through MM-HAZ-3 are provided below. These mitigation measures require excavation activities to occur in accordance with a Soil Management Plan and Health and Safety Plan, and require additional soils testing following demolition of the existing structures.

MM-HAZ-1: Soil Management Plan. Because the Project Site contains subsurface contaminants that would be encountered during excavation activities, the Applicant shall retain a qualified environmental consultant to prepare a Soil Management Plan for Contaminated Soils (SMP) during Project design development, which will be submitted to the City of Los Angeles Department of Building and Safety for review and approval prior to the commencement of excavation and grading activities. The SMP shall be implemented during excavation and grading activities on the Project Site to ensure that any contaminated soils are properly identified, excavated, and disposed of off-site, as follows:

- The SMP shall be prepared and executed in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil. The SMP shall require the timely testing and sampling of soils so that contaminated soils can be separated from inert soils for proper disposal. The SMP shall specify the testing parameters and sampling frequency. Anticipated testing includes total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). During excavation, Rule 1166 requires that soils identified as contaminated shall be sprayed with water or another approved vapor suppressant, or covered with sheeting during periods of inactivity of greater than an hour, to prevent contaminated soils from becoming airborne. Under Rule 1166, contaminated soils shall be transported from the Project Site by a licensed transporter and disposed of at a licensed storage/treatment facility to prevent contaminated soils from becoming airborne or otherwise released into the environment.
- Prior to the commencement of grading and excavation, the findings of the *Phase I Environmental Site Assessment (ESA) for the LUXE City Center Hotel* and *Summary Report for Limited Soil and Soil Gas Investigation, Luxe Hotel* shall be reported to the County of Los Angeles Fire Department Health and Hazardous Materials Division (HHMD), Site Mitigation Unit (SMU) (323-890-4045) and the City of Los Angeles Fire Department (LAFD) for review and comment. The recommendations of the HHMD and LAFD shall be incorporated in the SMP.

- A qualified environmental consultant shall be present on the Project Site during grading and excavation activities in the known or suspected locations of contaminated soils or the UST, and shall be on call at other times as necessary, to monitor compliance with the SMP and to actively monitor the soils and excavations for evidence of contamination.
- The diesel underground storage tank (UST), transfer pump, and approximately 200 feet of piping currently abandoned in place under the existing hotel driveway shall be removed in accordance with the Covenant and Agreement dated June 25, 2013 and Los Angeles Municipal Code (LAMC) Section 57.31.52 (Abandonment of Underground Storage Tanks). As required by LAMC Section 57.31.52, the Applicant shall notify the LAFD prior to tank removal, inert (remove or neutralize any flammable materials and vapors) the UST prior to transport, and establish to the satisfaction of the LAFD that no release of hazardous materials has occurred. The UST shall be properly disposed of by a licensed contractor in accordance with applicable regulations.
- During the Project's excavation phase, the Project Applicant shall remove and properly dispose of impacted materials in accordance with the provisions of the SMP. If soil is stockpiled prior to disposal, it will be managed in accordance with the Project's Storm Water Pollution Prevention Plan, prior to its transfer for treatment and/or disposal. All impacted soils would be properly treated and disposed of in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil, as well as applicable requirements of the California Department of Toxic Substances (DTSC), and Los Angeles Regional Water Quality Control Board (LARWQCB).

MM-HAZ-2: Health and Safety Plan. Given the presence of known soil contamination on at least the northern portion of the Project Site, a Health and Safety Plan shall be prepared in compliance with OSHA Safety and Health Standards (29 Code of Federal Regulations 1910.120) and Cal/OSHA requirements (CCR Title 8, General Industry Safety Orders and California Labor Code, Division 5, Part 1, Sections 6300-6719) and submitted for review by the Department of Building and Safety. The Health and Safety Plan would address, as appropriate, safety requirements that would serve to avoid significant impacts or risks to workers or the public in the event that elevated levels of subsurface gases are encountered during grading and excavation. The Health and Safety Plan would also address potential vapor encroachment from the soil contamination from the former gas station into the subterranean levels of the building. Gas monitoring devices would be in place to alert workers in the event elevated gas or other vapor concentrations occur when basement slab demolition or soil excavation is being performed. Contingency procedures would be in place in the event elevated gas concentrations are detected, such as the mandatory use of personal protective equipment, evacuation of the area, and/or increasing ventilation within the immediate work area. Workers would be trained to identify exposure symptoms and implement alarm response. Construction fencing would be installed around development areas to restrict public access from surrounding properties and other Phases of the Project Site, further reduce the potential for contaminated soils to become airborne, and provide additional distance between the public and excavation activities to allow for gas and vapor dilution. The Health and Safety Plan would have emergency contact numbers, maps to the nearest hospital, gas monitoring action levels, gas response actions, allowable worker exposure times, and mandatory personal protective equipment requirements. The Health and Safety Plan would be signed by all workers involved in the demolition and excavation of on-site soils to demonstrate their understanding of the risks of excavation.

MM-HAZ-3: Additional Site Testing. The Applicant shall conduct additional subsurface soil and a soil gas sampling and testing in accordance with the recommendations of the *Summary Report for Limited Soil and Soil Gas Investigation, Luxe Hotel*, prepared by Terra-Petra and dated June 27, 2016. The additional site testing shall be completed in the location of existing on-site structures, subsequent to their demolition and prior to the excavation of soils at these locations. The findings of the soil and soil gas sampling effort shall be documented in a revised Soil and Soil Gas Investigation Report, which shall be submitted to the Los Angeles Department of Building and Safety and Los Angeles Fire Department prior to the commencement of excavation in the location of the former structures. Any additional recommendations pertaining to remediation, public health, and worker safety in the revised Soil and Soil Gas Investigation Report shall be incorporated into an updated Soil Management Plan and Health and Safety Plan.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

As discussed above, the Project's proposed excavation to a depth of 45 to 50 feet bgs would encounter known soil contamination at a depth of 30 to 40 feet bgs on the northern corner of the Project Site. As a result, Mitigation Measure MM-HAZ-1 is proposed to reduce potential impacts. MM-HAZ-1 requires the Applicant to retain a qualified environmental consultant to prepare a Soil Management Plan for Contaminated Soils (SMP), which would be submitted to the City Department of Building and Safety for approval prior to the commencement of excavation activities and followed during excavation and grading activities. With the implementation of MM-HAZ-1, the Project's excavation activities would comply with applicable regulations and prevent the release of contaminated soils into the environment, reducing impacts to a less than significant level.

The excavation of contaminated soils may pose a hazard to construction workers in the vicinity of the soils by exposing them to explosive gasses or materials that are above levels determined to be detrimental to human health if time of exposure is not properly reduced or eliminated; or could expose the public if on-site contamination were not contained and removed in accord with regulations for the protection of public safety. As a result, Mitigation Measure MM-HAZ-2 is proposed to reduce potentially significant impacts. Mitigation Measure MM-HAZ-2 requires the preparation of a Health and Safety Plan in compliance with OSHA Safety and Health Standards and submitted for review by the Department of Building and Safety. The Health and Safety Plan would address, as appropriate, safety requirements that would serve to avoid significant impacts or risks to workers or the public for the elevated levels of subsurface gases that would be encountered during grading and excavation. With the implementation of MM-HAZ-2, the Project's impacts to the public generally and worker safety in particular would be reduced to a less than significant level.

Subsurface soil conditions for large portions of the Project Site cannot be determined at this time because the presence of existing structures makes testing infeasible in the location of these structures. As a result, Mitigation Measure MM-HAZ-3 is recommended to fully characterize the extent of soil contamination at the Project Site. Mitigation Measure MM-HAZ-3 requires additional soil and soil gas sampling and testing in the location of existing structures, subsequent to their demolition but prior to the commencement of excavation in their former location. With implementation of Mitigation Measure MM-HAZ-3, impacts as a result of unknown subsurface soil conditions would be reduced to a less than significant level.