APPENDIX D

Hazardous Materials Technical Memorandum

DIVISION 20 PORTAL WIDENING/ TURNBACK FACILITY PROJECT

ADMINISTRATIVE DRAFT HAZARDOUS MATERIALS TECHNICAL MEMORANDUM

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OVERVIEW

The Los Angeles County Metropolitan Transportation Authority (Metro) is proposing service improvements for its Red and Purple Lines with the Proposed Metro Division 20 Portal Widening/Turnback Facility Project (Project). The Project aims to address the service and capacity limitations with three core improvements, which include:

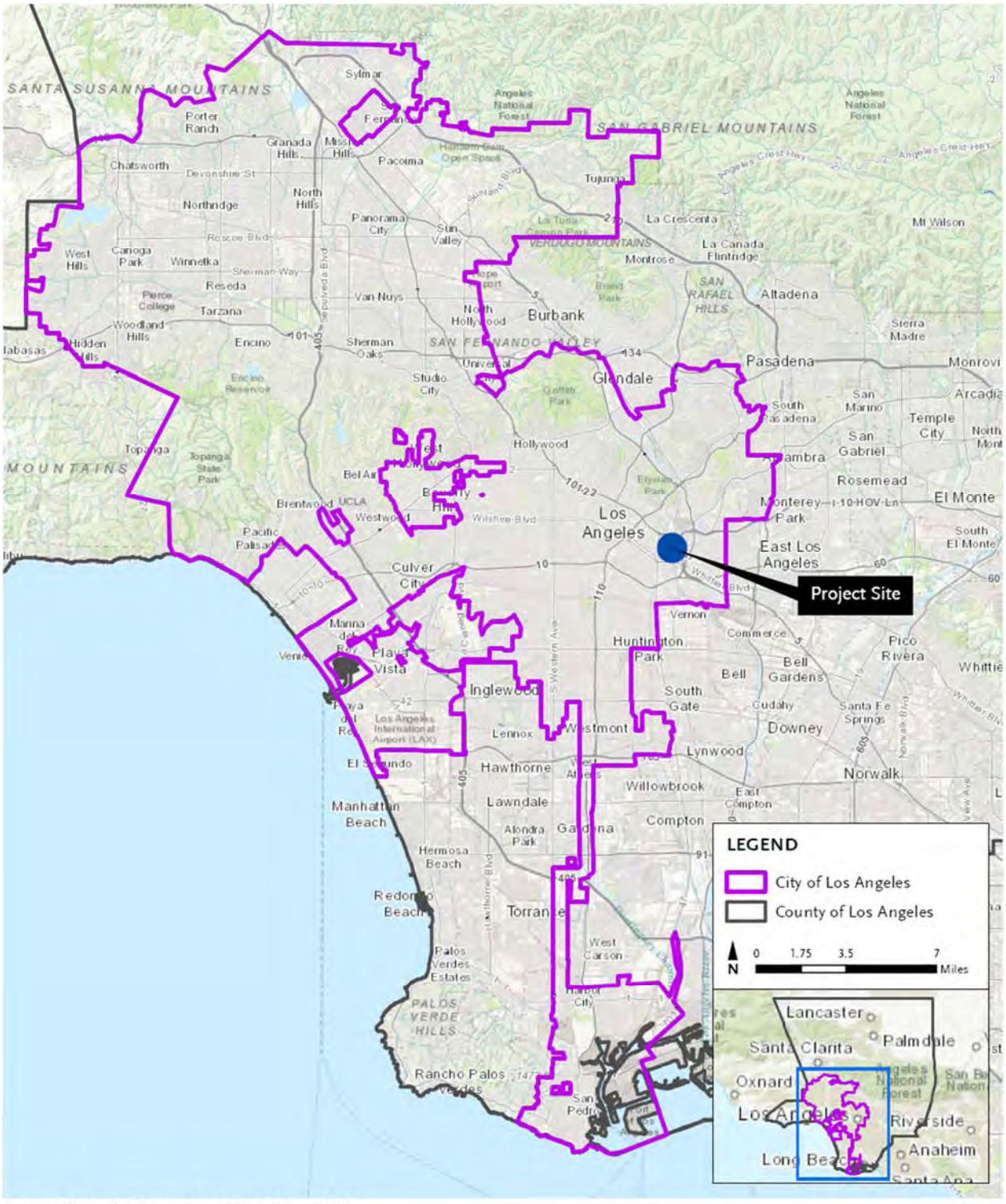
- Widening the heavy rail tunnel south of the U.S. Highway 101 (US-101) freeway to accommodate additional special trackwork and high-speed train movements;
- Developing a new, surface-level Turnback Facility in the existing Division 20 Rail Yard; and
- Reconfiguring and expanding the surface-level rail storage tracks.

The Project is located in the Metro Red/Purple Line Maintenance Yard (Division 20 Rail Yard or Santa Fe Yard) near the Los Angeles River. This memo evaluates the potential hazardous materials impacts due to construction and operations of the Project and is based on: (a) publicly available environmental data and reports; (b) a Draft Phase I Environmental Site Assessment of Former Pickle Works[1] property prepared by Kleinfelder, dated December 20, 2017; (c) a Draft Phase II Environmental Site Assessment of Viertel's property prepared by Kleinfelder, dated January 4, 2018; and (d) a Phase II Environmental Site Assessment of ADCO/Atlas Property, prepared by Kleinfelder, dated November 30, 2017. This technical memorandum documents that with mitigation, the Project will have no significant adverse impacts related to hazardous materials.

PROJECT LOCATION

The Project Site is located in the northeast edge of Downtown Los Angeles, in Los Angeles County, as shown in Figure 1. More specifically, it is within an area of Los Angeles known as Central City North. The Division 20 Rail Yard is an approximately 45-acre site that supports the Metro Red and Purple Line train storage and maintenance facilities. It is generally bounded by the Los Angeles River to the east, Santa Fe Avenue to the west, Ducommun Street to the north, and 6th Street Bridge to the south. The footprint of the Project, including expansion of the existing boundaries west towards Santa Fe Avenue and north towards Commercial Street, are shown in Figure 4. The western boundary of the Project Site includes commercial/industrial properties along Santa Fe Avenue, as well as the One Santa Fe (OSF) mixed-use complex immediately south of the 1st Street Bridge. Immediately to the south and southwest of the Project Site is the Arts District, which is comprised of residential, industrial, and commercial uses, and art galleries and exhibition warehouse spaces. Land uses to the north include commercial/industrial buildings, and the Los Angeles River is located to the east beyond freight rail tracks. The parcels involved in the Project are listed and described in Table 1: Project Site by Parcels, below.

[1] This property is also referred to as the Citizens Warehouse/Lysle Storage Company building in various sections of this document.



Source: Terry A. Hayes Associates Inc., 2017.

Figure 1: Site Location Map

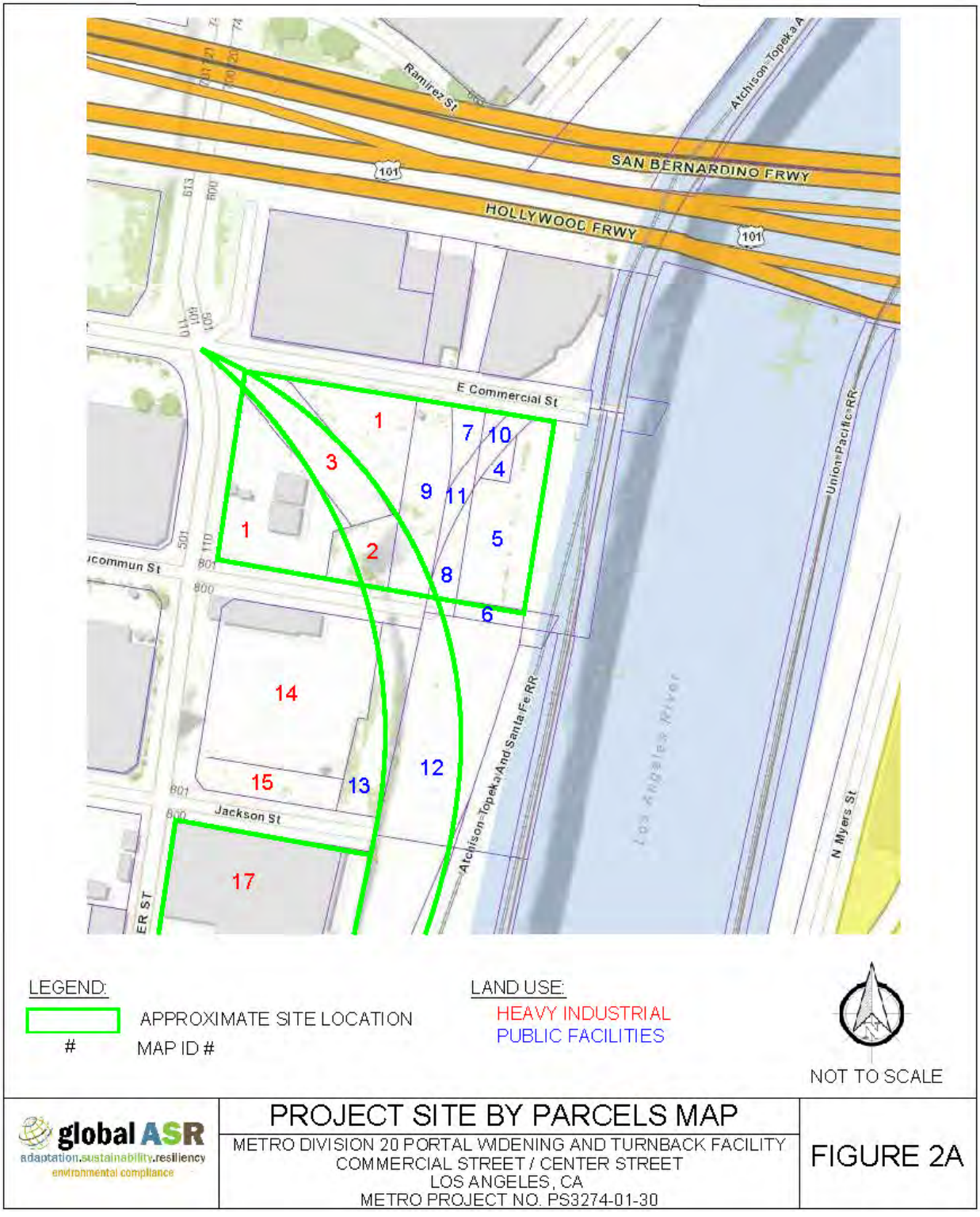


Figure 2A: Project Site by Parcels Map

Figure 2B: Project Site by Parcels Map

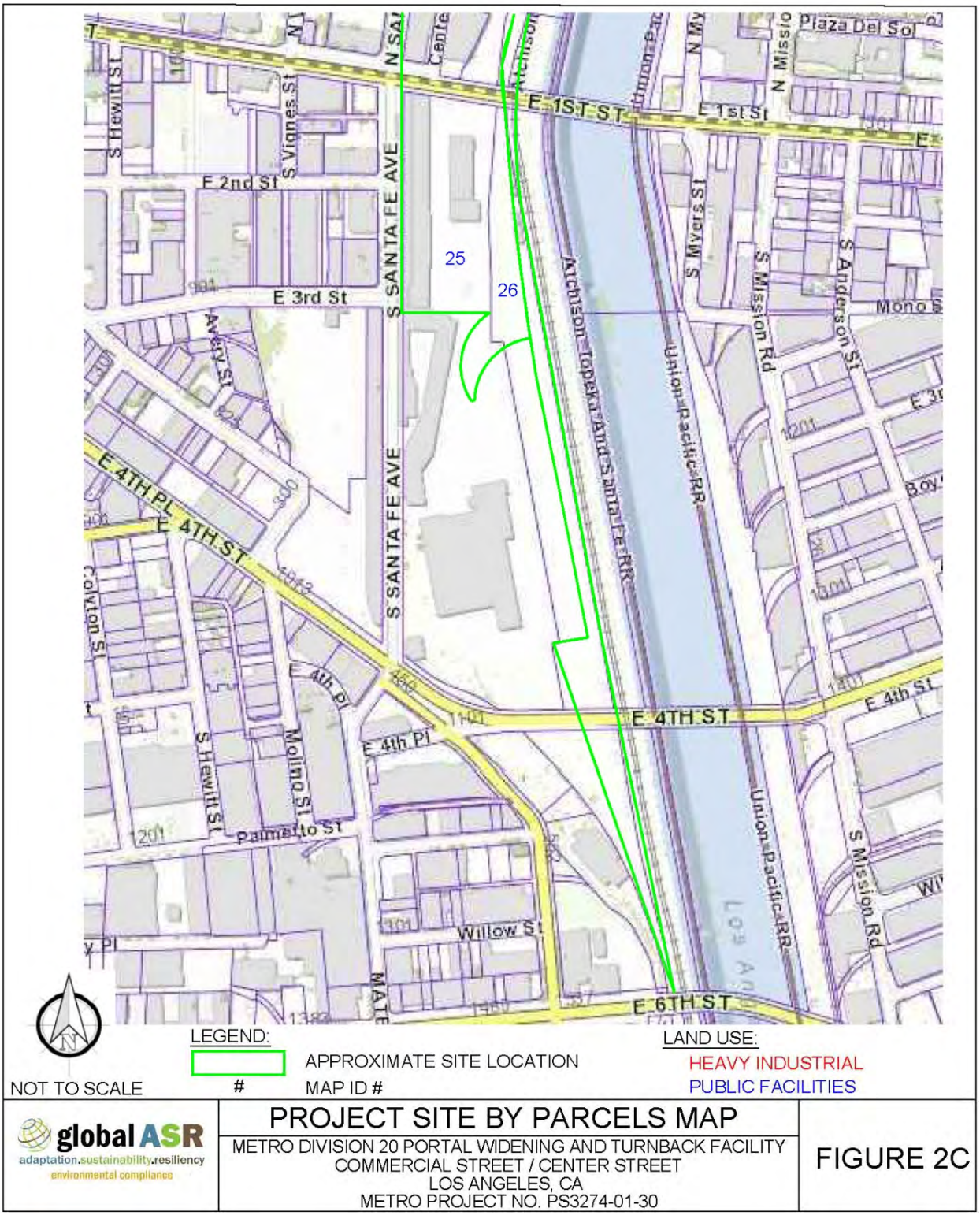
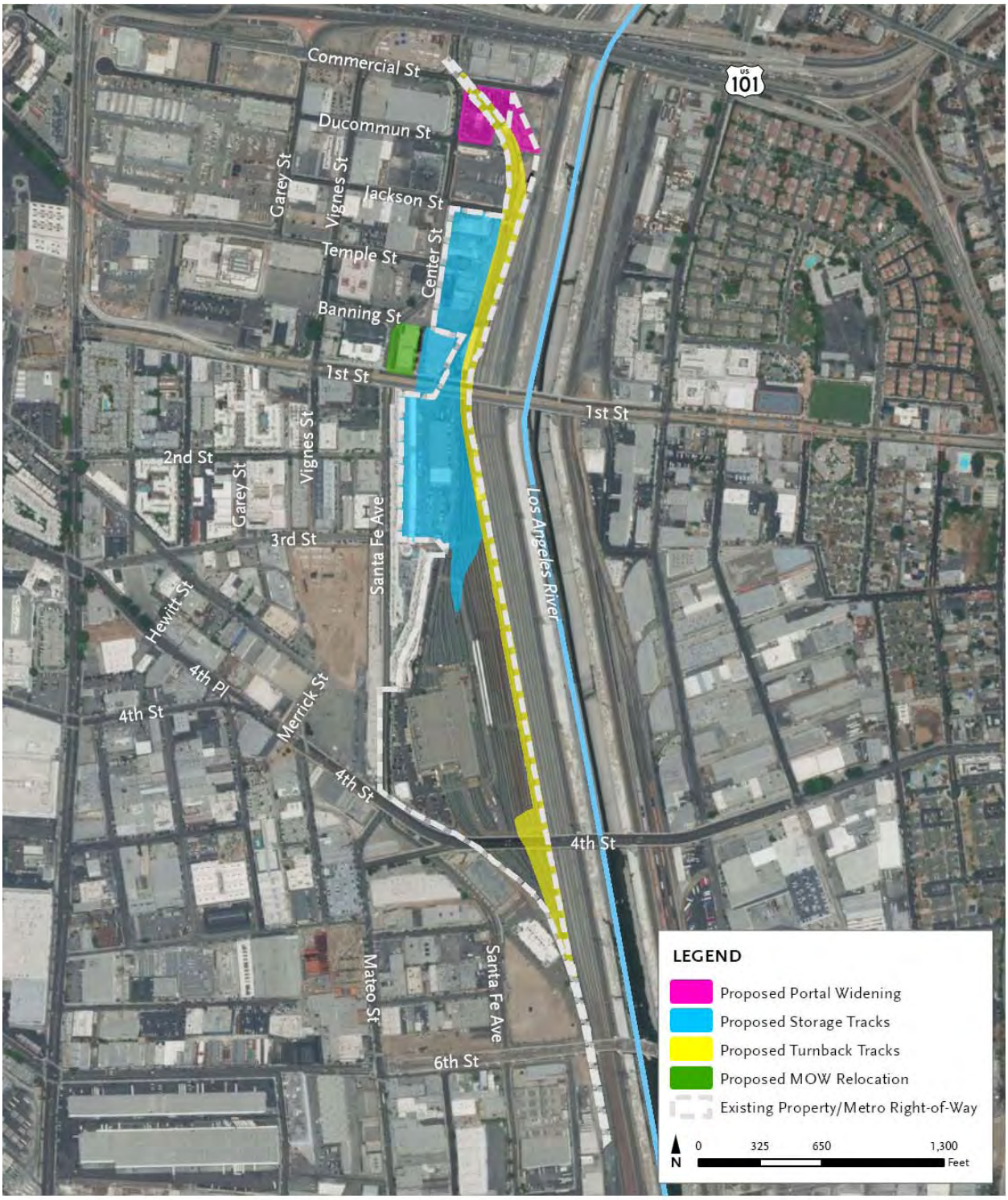


Figure 2C: Project Site by Parcels Map

Figure 3: Methane Zone Parcel Map



NOTE: Exact location of storage tracks and turnback tracks to be determined.

Source: Terry A. Hayes Associates Inc., 2018.

Figure 4: Project Site and Description Map

There are no institutional facilities or public open spaces in the immediate vicinity. However, there is SCI-Arc, an architecture college across the street from OSF and the Division 20 Rail Yard. Additionally, the 6th Street Viaduct project will include several parks and open spaces including a park underneath the new bridge that will open in 2020. This park will be adjacent to the southern end of the Project (www.sixthstreetviaduct.org). OSF is the closest residential development and is adjacent to and west of the Division 20 Rail Yard. The closest school is East LA High School, approximately 0.27 miles south-southeast from the Project. The nearest hospital is White Memorial Medical Center, approximately 0.75 miles east from the Project.

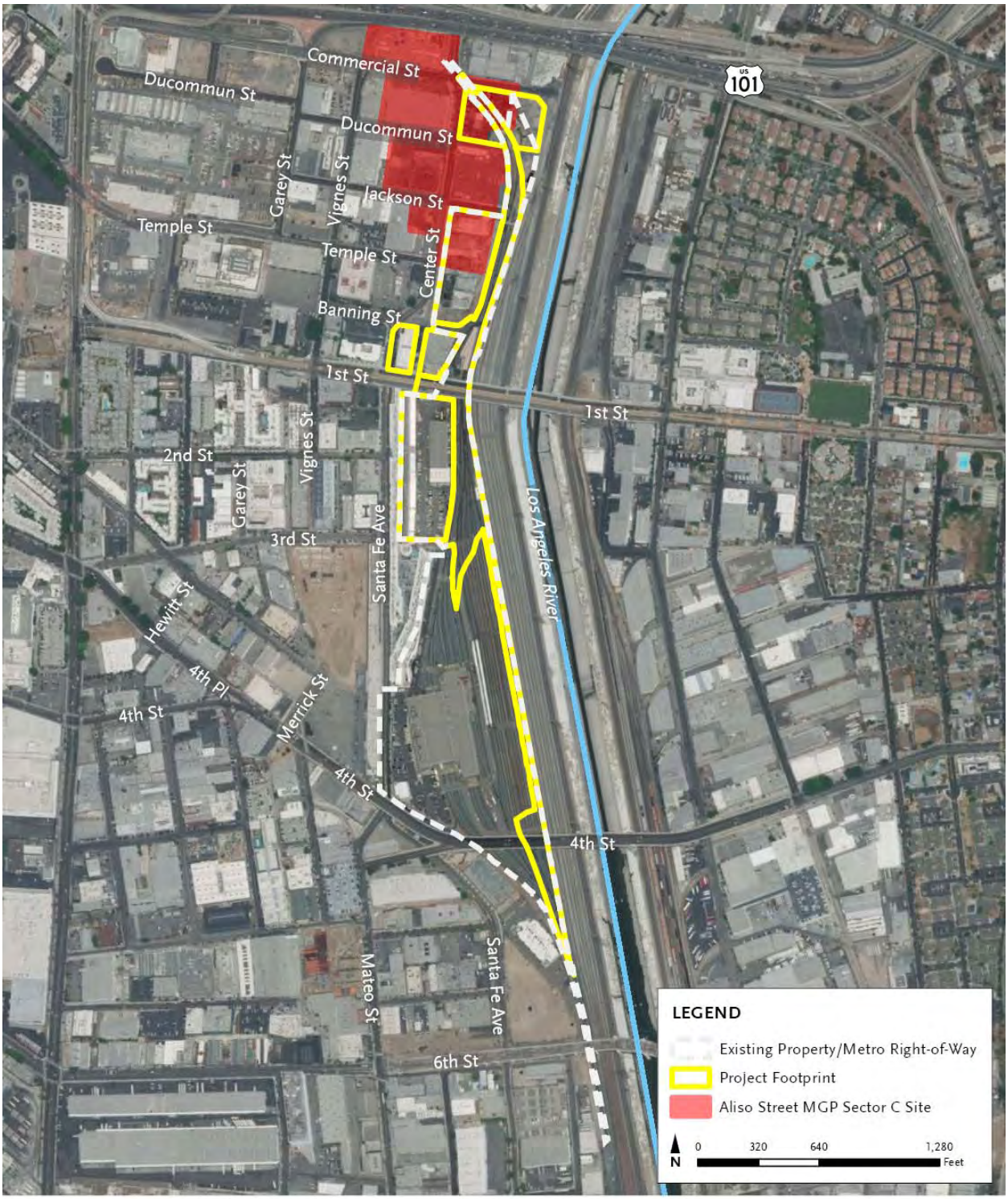
The Draft Phase I Environmental Site Assessment (Kleinfelder, Feb 2017) prepared for the Project contains a review of the National Pipeline Mapping System (Pipeline and Hazardous Materials Safety Administration, 2017) and found that there are no mapped natural gas transmission pipelines or hazardous liquid pipelines located with the Project footprint.

Additionally, the Project is located within the City of Los Angeles and within a methane zone/methane buffer zone (AECOM, 2016). The Project is therefore subject to the City's methane code[2].

HISTORICAL AND CURRENT LAND USE

The Southern California Gas Company (SoCal Gas) owned and operated a manufactured gas plant (MGP) on an area of Aliso Street (known as the Aliso Street MGP) beginning in 1887. The plant ceased operations in the early 1930s. The former structures on the property included a large aboveground gasholder (approximately 6 million cubic feet capacity) and water cooling towers. During World War II and beginning in 1942, under a contract to the U.S. Defense Plant Corporation, SoCal Gas converted much of its Aliso Street MGP facilities to the production of butadiene, a raw material used in the manufacture of synthetic rubber. This plant was operated by SoCal Gas from 1943 to 1947. Most of the butadiene plant facilities were demolished in 1952, except for the large gasholders including the one on the property that was removed in 1973 (Kleinfelder, Feb 2017 and Kleinfelder, Sept 2017). The following properties contain land that was once a part of the Aliso Street MGP: Viertel's Towing Company, and a portion of the Adco/Atlas Properties. The location of the former Aliso Street MGP is shown in Figure 5.

[2] Los Angeles, City of, Department of Building and Safety; http://www.ladbs.org/services/core-services/plan-check-permit/methane-mitigation-standards, accessed November 16th, 2017



Source: Terry A. Hayes Associates Inc., 2018; Department of Toxic Substances Control, 2002.

Figure 5: Project Site in Relation to Aliso Street MGP Sector C

Viertel's Towing Company

As stated in Table 1, the Division 20 Portal is located within the former Aliso Street MGP footprint (specifically in Sector C, Blocks K, Q and R). Parcel 5173-020-010 currently contains a small one-story office building which is occupied by Viertel's Towing Company and used for towing and parking cars. The building is surrounded by asphalt pavement with parking on the north, east, south and west sides (Kleinfelder, Feb 2017). These properties are shown in Figure 2A and listed in Table 1 as Map ID #s 1, 2, and 3.

Metro Temporary Storage Yard

Railroad tracks and railroad spurs on the site date back as early as 1888, and may have been around even earlier than that. Potential soil contamination associated with historical railroad use may be present within the railroad rights-of-way (ROWs), and along the railroad spurs (Kleinfelder, Feb 2017). These parcels are shown in Figure 2A and listed in Table 1 as Map ID #s 4 through 11.

Metro Bus Layover and Sheriff Facility

The Metro Bus Layover and Sheriff Facility is located at the former Manley Oil parcels which were formerly part of the former Aliso Street MGP within Sector C, Block N. This property is currently owned by Metro and is used as a bus layover facility. The building located in the northwest section of the property is owned by Metro, but is used by the Los Angeles Sheriff's Department (LASD) as an operations center (offices). These parcels are shown on Figure 2A as Map ID #s 13 through 15.

Adco/Atlas Properties[3]

These properties are shown in Figure 2B and listed in Table 1 as Map ID #s 16 through 19.

Northern Portion

The portion of the Site between Jackson Street and Temple Street was developed between 1894 and 1950 with a coal storage building and various structures occupied by a store, residences, Los Angeles Mineral Mill (land plaster and marble dust), Crescent Oil Company, and the Diamond Oil Company. Between 1950 and 1952, the western portion of the property was occupied by an Absorption Plant (cooling towers, control house, and butadiene tanks) associated with the former Aliso Street MGP. Between 1954 and the present, the western portion has been developed with structures that have been occupied by Southern California Poultry Company, Poppy Food Company, and National Cold Storage. National Cold Storage was present until at least 2004. The poultry plant reportedly closed in September 2011. The site is currently vacant.

Southern Portion

The portion of the site between Temple Street and Banning Street was historically occupied by sparsely-spaced residences in 1888. Since 1894, structures on this portion of the Site have been occupied by Citizens Ice Co. Works, Southern California Poultry Company, Poppy Food Company, and National Cold Storage. The southern structure has multiple rooms that were formerly used as poultry processing and storage areas including a network of refrigeration and cooling system piping throughout the buildings,

[3] This property is also referred to as the National Cold Storage facility in various sections of this document.

warehouse, and offices. It also had paved parking and loading docks areas, and rail spur along the eastern portion of the site. Buildings on this portion of the site were occupied until at least 2004. These structures are currently vacant.

Metro Division 20

The Division 20 Rail Yard is east and adjacent to the former Aliso Street MGP Sector C site. Railroad tracks and railroad spurs have been present on the property since at least 1888 (AECOM, 2016). The Division 20 Rail Yard currently consists of a maintenance and storage yard for the heavy rail train cars that run underground in the Metro Red and Purple Line subway. The collection of two-story buildings contains a train wash, a non-revenue vehicle shop, and a storage building. These properties are shown in Figures 2A, 2B, and 2C and listed in Table 1 as Map ID #s 12, 20, 21, 22, 23, 25 and 26.

The Citizens Warehouse/Lysle Storage Company Building

The Citizens Warehouse/Lysle Storage Company building is located along Center Street between 1st Street and Banning Street and adjacent to the southern limits of the former Aliso Street MGP Sector C site. Buildings (residences) first appeared in 1888. By 1894, the property began its transition to industrial uses and a coal yard occupied the northern half of the site. By 1907, the residences were gone, and the Diamond Coal Company had expanded across the northern half. It had an open coal yard with railroad spurs, offices, and various storage/warehouse buildings.

The southern half of the site also had residences in 1888, along with stores and a restaurant. By 1894, the James Hill and Sons Company Pickle Works facility occupied the site. This facility consisted of an office, shipping room, stock room, generators, and receiving tanks (located in the on-site building), small storage sheds and numerous pickle vats to the north of the building. By 1906, the Western Door & Sash Company had a two-story warehouse onsite. In the 1980s, the building was converted into studio lofts (Artists-in-Residences). In 2008, a 75-foot by 99-foot portion at the southern end of the building was demolished; then the area was dedicated for highway purposes as part of 1st Street Bridge expansion activities. This property is shown in Figure 2B and listed in Table 1 as Map ID #24.

100-120 North Santa Fe Avenue

A public-domain records search indicates that the property is developed with a one-story building built in 1937/1938. Field observation showed that the building is currently occupied by commercial tenants. Based on information provided by Metro, this property was offered for sale by the owner to Metro. Additional information is included in Appendix G.

This property is shown in Figure 2B and listed in Table 1 as Map ID #27.

HISTORICAL AND CURRENT ENVIRONMENTAL ACTIVITY

Due to the long-term, historical industrial use of the Project area and the use of hazardous materials and petroleum products, the potential for soil, soil vapor and groundwater impacts beneath the Project area exists. The Project has structures that may contain asbestos-containing materials (ACMs), lead-based paint (LBP), and Polychlorinated Biphenyl (PCB)-containing building materials such as caulking and lamp ballasts that require special handling during renovation or demolition. For individual property impacts please see Table 1.

Table 1 – PROJECT SITE BY PARCELS							
MAP ID #	**ACCESSOR IDENTIFICATION NUMBER**	**ADDRESS(ES)**	**OWNER**	**ZONING**	**STRUCTURES / IMPROVEMENTS**	**OCCUPANT AND CURRENT USE**	**PROJECT IMPACTS**
1	5173-020-010	500 North Center Street; 811 East Ducommun Street	Center St Realty Investors, LLC (to be acquired by Metro)	M3-1-RIO Heavy Industrial Use	Property appears to be developed with a small structure on the south-central portion.	Viertel's Tow Yard occupies this property. Facility is an official police garage location.	1, 2, 3, 4, 5, 6, 7, 9 and 10
2	5173-020-910	Not Assigned	Richard E Viertel and Bonnie J Viertel Metro (to be acquired by Metro)	M3-1-RIO Heavy Industrial Use	Metro Red and Purple Line subway portal area noted.	These parcels are associated with existing Metro facilities, including the Metro Red and Purple Line subway portal area, which traverses beneath APN 5173-020-911 (discussed above).	1, 2, 3, 4, 5, 6, 7, 9 and 10
3	5173-020-911	Not Assigned	Richard E Viertel and Bonnie J Viertel Metro (to be acquired by Metro)	M3-1-RIO Heavy Industrial Use			1, 2, 3, 4, 5, 6, 7 and 10
4	5173-020-901	830 East Commercial Street	Metro	PF-1XL-RIO Public Facilities	No structures observed.	Metro uses this property as a temporary storage yard.	1, 2, 5, 8, and 9
5	5173-020-902	840 East Commercial Street; 841 East Ducommun Street	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9
6	5173-020-903	Not Assigned	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9
7	5173-020-905	Not Assigned	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9
8	5173-020-906	Not Assigned	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9
9	5173-020-907	826 East Commercial Street; 827 and 831 East Ducommun Street	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, 9 and 10
10	5173-020-908	830 and 840 East Commercial Street	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9
11	5173-020-909	Not Assigned	Metro	PF-1XL-RIO Public Facilities			1, 2, 5, 8, and 9

MAP ID #	ACCESSOR PARCEL NUMBER	ADDRESS(ES)	OWNER	ZONING	STRUCTURES / IMPROVEMENTS	OCCUPANT / CURRENT USE	PROJECT IMPACTS
12	5173-021-902	830 and 836 East Ducommun Street; 837 East Jackson Street	Metro	PF-1XL-RIO Public Facilities	Permanent structures are not present on this parcel. Rail lines and Conex storage containers are present associated with the Metro Red and Purple Line.	This property is part of the Metro Division 20 Rail Yard.	1, 2, 5, 8, and 9
13	5173-021-903	823 and 829 East Jackson Street; 826 East Ducommun Street	Metro	PF-1XL-RIO Public Facilities	Approximate 5,000 square-foot building on northwestern portion of parcel. Remaining areas consist of asphalt-paved parking areas.	This property is owned by Metro and is used as a bus layover facility. The building is owned by Metro, but is used by the Los Angeles Sheriff's Department (LASD) as an operations center (offices).	1, 2, 3, 4, 5, 6, 7, and 9
14	5173-021-905	410 North Center Street; 810 East Ducommun Street	Metro	M3-1-RIO Heavy Industrial Use			
15	5173-021-906	815 East Jackson Street	Metro	M3-1-RIO Heavy Industrial Use			
16	5173-022-001	234 North Center Street	Metro	M3-1-RIO Heavy Industrial Use	The northern portion of the site (north of Temple Street) is improved with two large structures. The northern structure is a large warehouse with a small interior loading dock inside the northeast corner. The southern structure has multiple rooms that were formerly used as poultry processing and storage areas. The southern portion of the site is improved with a large structure with apparent additions. This building consists of multiple levels at different locations. The building contains former freezer storage areas, warehouse, office, and equipment storage areas. A narrow, covered walkway along the eastern side of the buildings, connects the northern and southern buildings. Canopy covered loading docks/platforms are present on site. Paved parking/loading docks areas; rail spur along eastern portion of the Site; network of refrigeration/cooling system piping throughout buildings, and associated equipment.	This property appears to be unoccupied. Based on signage on the structures, National Cold Storage formerly occupied the property.	1, 2, 3, 4, 5, 6, 7, 8, and 9
17	5713-022-002	815 and 820 East Temple Street	Metro	M3-1-RIO Heavy Industrial Use			1, 2, 3, 4, 5, 6, 7, 8, and 9
18	5173-022-004	200, 210, 224, and234 North Center Street; 809 and 813 East Banning Street	Metro	M3-1-RIO Heavy Industrial Use			1, 2, 3, 4, 5, 6, 7, 8, and 9
19	5173-022-005	Not Assigned	Metro	M3-1-RIO Heavy Industrial Use			1, 2, 3, 4, 5, 6, 7, 8, and 9

20	5173-022-901	Not Assigned	Metro	PF-1XL-RIO Public Facilities	Permanent structures are not present on these parcels. Rail lines associated with the Metro Red and Purple Line and a paved access road are present on these parcels.	This property is part of the Metro Division 20 Rail Yard.	5, 8, and 9
21	5173-022-902	Not Assigned	Metro	PF-1XL-RIO Public Facilities			
22-23	5173-023-900, 51743-023-901	820 East Banning Street	Metro	PF-1XL-RIO Public Facilities	Rail lines associated with the Metro Red and Purple Line, a paved access road, and a car wash structure are present on these parcels.	This property is part of the Metro Division 20 Rail Yard. Rail cars pass through the car wash structure at a reduced speed.	5, 8, and 9
24	5173-023-903	1001 East 1st Street;110 and 112 North Center Street	City of Los Angeles	PF-1XL-RIO Public Facilities	This property is developed with a two-story structure that covers most of the parcel.	This is the Citizens Warehouse/Lysle Storage Company building, former James K. Hill Pickleworks Building, It was formerly a pickle factory (that portion of the building has since been demolished). It was then occupied as an artist's live/work loft. It is currently unoccupied.	3, 4, 6, 7, and 9
25	5163-017-900	1000 East 1st Street; 100, 214, 230, 300, and 330 South Santa Fe Avenue	Metro	PF-1XL-RIOPublic Facilities	A long, narrow warehouse structure is located along the western side of the parcel, and two adjoining structures are located on the central portion of the parcel. Rail spurs are present between the two buildings.	This property is part of the Metro Division 20 Rail Yard. The long, narrow warehouse structure on the western portion of the parcel is referred to as Building 61A and it is presently used as a storage warehouse. The two adjoining buildings on the central portion of the parcel are referred to as Building 61B. The approximate southern two-thirds of the building are used for supply storage purposes. The northern portion is used as a non-revenue repair shop.	2, 3, 4, 5, 6, 7, 8, and 9

MAP ID #	ACCESSOR PARCEL NUMBER	ADDRESS(ES)	OWNER	ZONING	STRUCTURES / IMPROVEMENTS	OCCUPANT / CURRENT USE	IMPACTS
26	5163-017-901	1000 East 1st Street; 100, 214, 230, 300, and 330 South Santa Fe Avenue	Metro	PF-1XL-RIO Public Facilities	Rail lines associated with the Metro Red and Purple Line. Several structures containing high- voltage electrical equipment, are present along the eastern side of this parcel, east of the rail lines. Due to specialized training required to access the high-voltage electrical buildings on the eastern portion of the parcel, Kleinfelder did not access these buildings.	This property is part of the Metro Division 20 Rail Yard. The structures on the eastern portion of the parcel contain high-voltage electrical equipment. Some of the buildings are owned and maintained by the Los Angeles Department of Water and Power. The remaining buildings are owned and maintained by Metro's Traction and Power Division.	2, 5, 6, 7, 8, and 9
27	5163-017-900 5173-013-016	100 to 120 North Santa Fe Avenue	(to be acquired by Metro)	PF-1XL-RIO Public Facilities	This property is developed with a one-story structure (built 1937/1938) that covers most of the parcel.	This property is currently occupied as office/warehouse but has for sale sign.	3, 4, 5, 6, 7, and 9

Source: Kleinfelder Phase I Environmental Site Assessment, Metro Division 20 Portal Widening and Turnback Facility, Commercial Street/Center Street, Los Angeles, CA February 2017 and Global ASR
These figures are represented on Figures 2.a, 2.b and 2.c. Figure 3 show methane zone and methane buffer zone per City of Los Angeles Department of Building and Safety (LADBS)

Project Impacts:
1 – Former MGP by-products that include Polycyclic Aromatic Hydrocarbons (PAHs), Volatile Organic Compounds (VOCs), and heavy metals
2 – Total Petroleum Hydrocarbons (TPH)
3 – Asbestos-containing building materials
4 – Lead-Based Paint (LBP)
5 – Asbestos containing materials in subgrade utilities
6 – Polychlorinated Biphenyl (PCB) containing building materials
7 - Universal Waste
8 – Treated Wood Waste (TWW)
9 – Methane Zone (per City of Los Angeles Department of Building and Safety)
10 – Methane Buffer Zone (per City of Los Angeles Department of Building and Safety)

Per California Government Code Section 65962.5, the Viertel's Towing Company and the Metro Red/Purple Line tunnel and portal opening were jointly identified on the Department of Toxic Substances Control (DTSC) EnviroStor database as Aliso Street MGP Sector C, Block K (EnviroStor ID #s 60000171 and 60001890). The site is located on the northeast corner of Ducommun and Center Streets. The DTSC has overseen the investigation and cleanup of this property under the Voluntary Cleanup Agreements with SoCal Gas.

AECOM, 2016 reported that Tetra Tech, Inc. prepared a Removal Action Completion Report, which summarizes the historical environmental assessments and investigations prepared for the subject property. Site-specific investigations summarized in the Removal Action Completion Report include:

- Field Investigations by GeoTransit, 1993 and 1994
- Preliminary Endangerment Assessment (PEA) by Earth Technology Corporation (ETC), 1998
- Remedial Investigation, Tetra Tech/ TRC, 2002 to 2003

The above reports indicated the presence of polycyclic aromatic hydrocarbons (PAHs), benzene, lead, TPH-diesel, TPH-gas, 1,3-butadiene, styrene, toluene, xylenes, and zinc as Contaminants of Potential Concern (COPC).

Viertel's Towing Company - Former Aliso Street MGP, Section C, Block K

This property is shown on Figure 2A and listed in Table 1 as Map ID #s 1, 2, and 3

Tetra Tech performed a remedial investigation (RI) between April 2002 and January 2003 to further determine the nature and extent of contamination at Sector C Block K. Tetra Tech prepared a Master Workplan, and TRC performed field activities and data collection. A total of 27 borings and 7 monitoring wells were installed on the site. The RI concluded that limited contamination (PAHs, TPH-gasoline, TPH-diesel, petroleum-related VOCs, solvents, and metals) was found in only two discreet areas of the site. The contamination in the two discrete areas was above the cleanup goal for benzo(a)pyrene equivalents, but not for benzene.

Tetra Tech recommended a limited soil removal action. The removal action was intended to achieve the industrial/commercial worker cleanup goal for carcinogenic PAHs, benzo(a)pyrene equivalents and benzene, and also achieve the groundwater cleanup goals for benzene. The removal action was implemented, and the Removal Action Completion Report was completed in August 2009.

DTSC issued a letter in response to the Removal Action Completion Report dated November 24, 2009 stating, "The report describes in detail all the remedial actions for soil undertaken at the site and meets all the conditions and requirements specified in the Removal Action Workplan. Based on the Removal Action Completion Report, DTSC concludes that Southern California Gas Company has successfully implemented the site Removal Action Workplan dated September 2005, allowing unrestricted commercial or industrial use of the Site and that no further action is required concerning the site soils. However, the groundwater beneath the site is contaminated with petroleum hydrocarbons and is stated -to be cleaned up under the groundwater operational unit and therefore was not part of this Removal Action Completion Report.

The DTSC and SoCal Gas entered into a Land Use Covenant Master Agreement (LUC) dated June 12, 2013 (Docket Number HAS-O&MEA 13/14-078), which provides that SoCal Gas will conduct necessary inspections, reporting activities, and pay the Department's costs associated with the Covenant (DTSC, 2016). The LUC does include prohibited uses such as: a residence, hospital for humans, public or private school for persons under 21 years of age, day care center, any other sensitive uses resulting in the indoor habitation of humans for greater than 12 hours per day.

Specifically, the LUC lists the following prohibited requirements:

- No soil disturbing activities below 25 feet without written approval of a soils management plan by DTSC.
- No extraction of groundwater except as approved by DTSC in a Groundwater Management Plan.
- No drilling for any water, oil, or gas without prior notice to SoCal Gas and written approval by SoCal Gas and DTSC.
- Non-interference with groundwater monitoring well network and groundwater remediation treatment, if any.
- Any contaminated soils brought to the surface by grading, excavation; trenching or backfilling shall be managed in accordance with applicable provisions of state and federal law.
- 14 days written notice to DTSC and SoCal Gas prior to any building, filling, grading, or excavating at the Property.

The Draft Phase II ESA report prepared by Kleinfelder dated January 4, 2018 indicate that the Viertel's site was impacted by by-products related to former MGP use as well as present/recent use as a towing garage. The report included detailed results which are summarized below:

In soil, Naphthalene and ethlylbenzene were the only detected VOCs in soil which exceeded the residential DTSC SLs and naphthalene was the only detected VOC in soil which exceeded the industrial/commercial DTSC SL in samples analyzed. Except for arsenic, none of the analyzed metals in soil were found to exceed the commercial/industrial DTSC SLs. Arsenic was detected above the industrial/commercial DTSC SL in all but 22 of the samples analyzed, however, the detections were below the generally-accepted California upper-bound background arsenic concentration of 12 mg/kg (DTSC, 2008). Lead was detected above 10 times the STLC in four samples (KLF-1-0.5, KLF-3-2.5, KLF-10-5, and EMI/KLF-017-5) and above 20 times the TCLP in two samples (KLF-3-0.5 and EMI/KLF-017-5). Mercury was detected above 10 times the STLC in sample KLF-3-0.5. The lead STLC laboratory results for one of the four samples analyzed exceeded the threshold concentration of 5 mg/L (EMI/KLF-017-5 was reported with an TLC concentration of 11 mg/L) which indicates the soil would be classified as California hazardous waste. The lead TCLP laboratory results for the two samples analyzed for TCLP were below 5 mg/L indicating the soil would not be classified as RCRA hazardous waste. The mercury STLC laboratory result for sample KLF-3-0.5 was reported as not-detected at a practical quantitation level of 0.5 mg/L which is below the threshold concentration of 5 mg/L indicating the soil would be classified as nonhazardous waste. Benzo(a)pyrene, dibenz(a,h)antracene, indeno(1,2,3-cd)pyrene , and naphthalene were the SVOCs detected at concentrations which exceeded their respective commercial/industrial screening levels in the soil samples analyzed. Gasoline-range organics (C6-C12) were identified at concentrations ranging from 1.3 mg/kg to 130 mg/kg, which exceeds the Tier 1 screening level of 100 mg/kg. Dieselrange organics (C13-C22) were identified at concentrations ranging from 14 to 410 mg/kg,

which exceeds the Tier 1 Screening level of 230 mg/kg. Oil-range organics were below their Tier 1 screening level.

In groundwater, Arsenic, barium, chromium, cobalt, thallium, vanadium and zinc were detected in the groundwater sample analyzed. Arsenic, chromium, cobalt, and thallium were detected below Tier 1 ESLs. Vanadium and Zinc were detected above Tier 1 ESLs. The groundwater sample was not filtered and therefore the detected metals may represent a combination of suspended solids and metals in solution rather than only metals in solution. Anthracene was the only SVOC detected in the groundwater sample analyzed. Anthracene was detected at 12 µg/L, which exceeds the Tier 1 ESL of 0.73 µg/L. Six VOCs were detected in the groundwater sample analyzed. Naphthalene was detected at a concentration of 2.9 µg/L, which exceeds the Tier 1 ESL of 0.17 µg/L. Gasoline, diesel and oil-range organics were detected in the groundwater sample analyzed, but did not exceed their respective LA&VRWQCB MSSLs.

In soil vapor, tetrachloroethylene was the only compound to exceed the residential screening level. In the indoor air sample, acrolein, benzene, benzyl chloride, 1,2-dibr, bromo-3-chloropropane, 1,2-dibromoethane, 1,4-dioxane, 2-hexanone, naphthalene and tert-butyl alcohol exceeded their respective residential and commercial/industrial DTSC SLs. In the outdoor air sample, benzene, benzyl chloride, 1,2,-dibromo-3-chloropropane, 1,4-dichlorobenzene, 1,4-dioxane, hexachloro-1,3-butadiene, naphthalene and tert-butyl alcohol were identified at concentrations exceeding their respective residential and commercial/industrial ESLs. Based on comparison of indoor air to soil vapor and outdoor air results, the indoor air VOCs do not appear to originate from soil vapor intrusion but are more likely from outdoor air or operations inside the building.

Metro Temporary Storage Yard

These parcels are shown in Figure 2A and listed in Table 1 as Map ID #s 4 through 11.

This location falls within the former Aliso Street MGP boundaries (Sector C Block K) for which voluntary cleanup activities are on-going. A Removal Action Completion Report (RACR) was completed November 24, 2009. Land use restrictions were required and completed on March 9, 2016. The DTSC issued a certification for the property on April 7, 2016.

Metro Bus Layover and Sheriff Facility

These parcels are shown on Figure 2A as Map ID #13 through 15.

Los Angeles County Metropolitan Transportation Authority Bus layover and Sheriff Facility also known as the former Manley Oil Company operated as a crude oil bulk plant and maintained two 10,000-gallon USTs (1952). The facility maintained at least five ASTs with capacities up to 21,000 gallons. It was also formerly part of the Aliso Street MGP and reportedly contained a machine shop. Current status is listed as “Certified O&M – Land Use Restrictions Only”. Assessment activities were performed under Aliso Street MGP Sector C, Block N (EnviroStor ID # 60000170). A RACR was completed and approved by DTSC on November 3, 2006. Supplemental work was performed in 2007 and results were presented in a Site Characterization Report completed on April 27, 2007. Land use restrictions were put in place at this property in 2013.

Former Adco/Atlas Properties, Former Aliso Street MGP, Section C, Block Q

These properties are shown in Figure 2B and listed in Table 1 as Map ID #s 16 through 19.

According to Phase II ESA by Kleinfelder dated November 30, 2017, the Adco/Atlas Property, is listed in the EnviroStor and Voluntary Cleanup Program (VCP) databases. Block R of the former Aliso Street MGP is located adjoining to the east of the northern portion of the site. This area falls within the boundaries for which voluntary cleanup activities are on-going. A Remedial Investigation Report was completed November 4, 2013. DTSC certification is anticipated in 2017 and land use restrictions are anticipated in 2018. Based on information reviewed in the DTSC EnviroStor online database for this listing, Block R was combined with Block Q (the northern portion of the subject site).

The facility so called "So Cal Gas/Aliso Sector C, Blocks Q&R" Southeast and Southwest corners of Jackson and Center Streets is listed in the EnviroStor and voluntary clean-up program (VCP) database (EnviroStor ID # 60000172). This location falls within the former Aliso Street MGP boundaries for which voluntary cleanup activities are on-going. A Remedial Investigation Report was completed March 6, 2012, and a subsequent Remedial Investigation Report completed February 25, 2014. DTSC approved the Remedial Investigation Report with deed restrictions. Land use restrictions will be required for this property. DTSC certification and land use restrictions are anticipated by 2018.

Subsurface soil has been impacted with several heavy metals, including arsenic, lead, and hexavalent chromium, at levels above the Department of Toxic Substances Control (DTSC) DTSC-Screening Levels (SLs) or U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for commercial/industrial soils and in some cases, in excess of the California Code of Regulations Title 22 Soluble Threshold Limit Concentration (STLC), which would cause classification of soils as a California hazardous waste if removed.

Methane was detected in five field samples immediately following the construction of the vapor wells. Release of methane gas and mitigation measures during demolition and construction should be considered.

Concentrations of detected constituents, including metals, TPH, VOCs, and SVOCs in soil and soil vapor during Kleinfelder's August 2017 investigation are substantially similar to those detected during previous investigations at the Site. Therefore, no additional assessment is recommended; however, a soil management plan and DTSC notification will be required prior to construction at the Site.

814 East Temple Street

"Poppy Poultry", also known as the "Duck Factory" is located at 814 East Temple Street. This facility is listed in the CA Facility Index System (FID) UST and Statewide Environmental and Environmental Planning System (SWEEPS) underground storage tank (UST) databases with an inactive status. The number of tanks at this facility is indicated to be "0"; however, details are not provided in the EDR listings for this facility.

Metro Division 20

The Division 20 Rail Yard was searched on publicly available databases (EnviroStor[4i] and Geotracker[5]) and no specific records were identified within either database. Potential soil contamination associated with historical railroad use may be present within the railroad right-of-way areas, and along the railroad spurs. The properties are shown in Figures 2A, 2B, and 2C and listed in Table 1 as Map ID #s 20, 21, 22, 23, 25 and 26.

The Citizens Warehouse/Lysle Storage Company Building

This property is shown in Figure 2B and listed in Table 1 as Map ID #24.

Although the Aliso Manufacturing site was north of this property, the groundwater contamination extends to beneath this site. Therefore, numerous groundwater monitoring wells are present onsite as part of the Aliso Street MGP well network. The nearest wells are located on the property that adjoins to the north of the Site, and within Center Street to the west of the Site.

Potential shallow soil impacts from the existing railroad spurs may still be there, although some of them were likely removed when the existing building with basement was constructed in 1907.

The site building is currently vacant but is being used without permission by transients for shelter/living purposes. It contains graffiti and is littered throughout with trash and debris, including biological waste from transient use. In addition, evidence of water intrusion (e.g., visible mold) was observed inside the building.

The site is situated within the northeastern portion of the Union Station Oil Field. Naturally occurring oil seeps have been documented at various locations. Oil seeps were reported along both sides of the Los Angeles River during concrete lining of the river channel in 1940, and along the Los Angeles River between the US-101 and Cesar Chavez Street. Moreover, the Site is located within a City of Los Angeles Methane Zone. The potential exists for naturally-occurring oil seeps and oil field gases (including methane) to be present beneath the site.

100 to 120 Santa Fe Avenue

This property is shown in Figure 2B and listed in Table 1 as Map ID #27.

This property is developed with one-story commercial building built in 1937/1938 and based on field observation is currently occupied.

[4] EnviroStor is the Department of Toxic Substances Control's data management system for tracking our cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further.

[5] GeoTracker is an online database that (1) provides access to statewide environmental data and (2) tracks regulatory data for the following types of sites: Leaking Underground Storage Tanks (LUST) cleanup sites; Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites); Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]); Land Disposal sites (Landfills); Permitted UST facilities (Note: Permitted UST information is now being maintained by CERS http://cers.calepa.ca.gov/ and GeoTracker's Permitted UST data is no longer up-to-date);Waste Discharge Requirement (WDR) sites; Agricultural Waivers Program (Irrigated Lands Regulatory Program, ILRP) sites.

Field observation shows ground water monitoring wells to the east of the property along Center Street and abandoned rail road along Banning Street. Records search on EnviroStor and Geotracker did not show any environmental issues related to this property/ies.

Photos of the property and its immediate vicinity are included in Appendix G.

PROJECT

Metro is proposing service improvements for its Red and Purple Lines with the Project. Collectively, the Metro Red and Purple Lines carry over 140,000 passengers daily, with ridership expected to increase by 49,000, following the Purple Line extension to the Veterans Affairs West Los Angeles Medical Center. In order to effectively serve the additional patronage during weekday peak hours, planned service improvements include operating trains every 4-minutes on each line, which is every 2-minutes in the trunk portion of the system, and expanding the fleet. Currently, eastbound trains in the trunk portion of the system use special trackwork at Union Station to reverse directions, or 'turnback'.

However, the capability of turning back trains is capped at no better than 7.5-minutes on each line, or 3.75-minutes combined due to the original design of Union Station. The Project aims to address the service and capacity limitations with three core improvements, which include:

- Widening of the heavy rail tunnel south of U.S. Highway 101 (Portal Widening) to accommodate additional special trackwork and high-speed train movements;
- Development of a new, surface-level turnback facility (Turnback Facility) in the existing Division 20 Rail Yard; and

Reconfiguration and expansion of the surface-level rail storage tracks.

Additionally, the Project would install a new traction power substation and emergency backup power generator and modify the 1st Street Bridge to provide train access to the new storage tracks. Figure 4 identifies key components of the Project. Modification of the 1st Street Bridge includes modifying the piers and removing the superstructure to increase flexibility and since the new storage tracks require more space between the piers.

The Project would demolish a total of approximately 306,875 square feet of existing buildings at the following addresses: 815 East Temple Street, 234 Center Street, 210 Center Street, 1001 East 1st Street, and 214 South Santa Fe Avenue. Furthermore, the Project would vacate Jackson Street, Banning Street, and Ducommun Street in their segments east of Center Street.

Construction Activity

The project would be constructed using conventional construction techniques and equipment, specific to the Southern California region. Major project elements would include the following: demolition of existing structures; excavation, grading, tunnel widening, cut and cover construction, constructing new buildings, increasing capacity at the traction power substation (TPSS) site, utility relocations; bridge modifications; and construction of at-grade and below grade track.

All work would conform to industry specifications and standards. Construction equipment would include trenching equipment, bulldozers, rollers, cranes, concrete trucks, pumping equipment, flatbed trucks, dump trucks, and rail mounted equipment. Additionally, temporary traffic detours and truck routes would be required during construction.

In the unlikely event that a utility extends into the street, and that necessitates a lane closure, this would be scheduled to be the least disruptive, and traffic management plans would be approved by the City of Los Angeles prior to construction starting in that specific area. Construction staging areas would be located within Division 20 property.

Project construction would follow all applicable local, state, and general building and safety laws. Working hours would vary to accommodate special circumstances. If night hours are expected, a variance would be requested from the City. Standard construction methods would be used for traffic, noise, vibration, and dust control, consistent with all applicable laws. Construction of the project would begin in January 2019 and finish in November 2023.

Demolitions would comply with applicable regulations, and the disposal and/or recycling of materials would be performed in accordance with standard construction practices and in accordance with Metro's GEN-51: Construction and Demolition Debris Recycling and Reuse Policy. Demolition activities are estimated to occur at several locations.

Approximately 100,000 cubic yards of soil associated with the portal widening and leveling of the Project Site in the area of expansion would be excavated and exported from the Project Site. Maximum depth would be about 35 feet below grade at the deepest reach of the portal to 3 to 4 feet in areas of general work throughout the yard.

Underground utilities would need to be relocated, modified, or protected in areas where they would interfere with construction, or if they become damaged as a result of construction. The types of utility relocation are gas lines, electrical lines, communication lines, fiber optic cables, stormwater lines, sewer lines and water lines. The Project would also likely include new connections/laterals to existing water, stormwater, and sewer lines, and potentially the removal of existing abandon oil lines and gas lines, and underground tanks. Most of this work would be completed prior to the commencement of other construction activities. The EIR will include more information on the types and locations of utilities that could be affected.

Trackwork construction would involve preparing the track bed and ballast, and building the new LRT tracks, in an active rail maintenance and staging yard. TPSS construction would involve adding on to the existing TPSS located in Division 20. Electrical transformers and communication equipment would be added to increase the capacity of that station to bring power to the train system. The project would also entail modification to the 1st St. Bridge, installation and testing of train control systems, and installation and testing of Traction Power components.

IMPACTS

Below is a discussion of the project impacts on the properties, and the regulations that are applicable to mitigating the impact.

Construction Impacts

The Project extends over several parcels and the Project will include demolition and construction activities, as discussed above. These activities will include asphalt and concrete removal, excavation, grading, trenching, welding, and other site development activities. Metro has rigorous procedures for contractor performance in all contract documents which includes contractor-generated hazardous waste requirements (Section 01 57 19 –Temporary Environmental Control) and non-hazardous waste management (Section 01 74 19 – Waste Management and Disposal). For this project, contractors will remove wastes generated and unused hazardous materials as part of their work; therefore, hazardous waste and unused hazardous materials will not be stored on site.

Notifications will vary depending on Project activities and LUC or other restrictions placed on each property. For example, an LUC for the Division 20 Portal parcel requires notification to DTSC and SoCal Gas whenever ground disturbing activities occur. In this example, Metro would notify both DTSC and SoCal Gas prior to ground disturbing activities. In addition to notifications, Metro will satisfy the requirements of LUCs or other restrictions associated with each parcel.

Asbestos containing materials (ACM), lead based paint (LBP), and polychlorinated biphenyl (PCB) –containing building materials and lamp ballast may be present in the existing buildings identified for demolition. Universal wastes, is a special category of lower risk hazardous waste that can be recycled (i.e. mercury-containing lamps and thermostats, batteries, and others) may also be present in these buildings that will be demolished. If ACM, LBP, PCBs, and/or universal wastes are present, these materials will be removed, segregated and disposed by licensed contractors in accordance with local, State, and federal requirements. Regulatory requirements include South Coast Air Quality Management District (SCAQMD) Rule 1403 for ACM and Title 22 California Code of Regulations (CCR) Division 4.5 for universal waste. Additionally, Metro has a procedure for handling these substances as specified in the Baseline Construction Specifications (Metro, May 2012) Section 01 35 70– Asbestos-Related Construction Work, Section 01 35 69 – Lead-Related Construction Work and Section 01 35 29 – Health, Safety and Emergency Response Procedures for Contaminated Sites, which will be furnished in the construction contract. Properties/Parcels and their related impacts are listed in Table 1, above.

Small quantities of spilled fuel oil and grease drippings from construction equipment may occur during construction. Such materials generally have a low relative risk to human health and the environment. If there is a large spill, the spill area will be bermed or controlled as quickly as is practical to minimize the footprint of the spill. Contaminated soil and materials produced during cleanup of a spill will be placed into drums for offsite disposal in accordance with local, State, and federal requirements. If a spill or leak into the environment involves hazardous materials equal to or greater than the specific reportable quantity, Metro will notify the appropriate federal, State, and local reporting requirements. Details of spill prevention and response must be adhered to as per Metro standard specification 01 35 43 – Environmental Procedures for Hazardous Materials and Section 01 35 29 – Health, Safety and Emergency Response Procedures for Contaminated Sites that will be placed in the construction contract documents. The project will also require a stormwater pollution prevention plan (SWPPP) from the construction contractor, which will also include spill prevention and response requirements pertinent to construction.

Contaminated soil is expected to be encountered during construction activities at this site. All areas identified as part of the former Aliso Street MGP site has potential for encountering contaminated soils contaminated with PAHs, VOCs, and heavy metals. Soils contaminated with VOCs will be managed per the requirements of SCAQMD Rule 1166. Soils contaminated with other COPCs will be managed according to regulatory requirements. Excavation of soils contaminated by heavy metals (i.e. lead) will be managed according to SCAQMD Rule 1466 requirements. Metro's baseline construction specifications Section 01 35 43 – Environmental Procedures for Hazardous Materials, Section 01 35 35 – Water Pollution Control, Section 01 57 19 – Temporary Environment Control; Section 01 74 19 – Waste Management and Disposal, and Section – 01 35 29 Health, Safety, and Emergency Response Procedures for Contaminated Sites also include provisions on management, handling and disposal of contaminated soils.

Most of the hazardous waste generated during construction, such as treated wood railroad ties, unused or off specification paint and primer, paint thinner, solvents, and vehicle and equipment maintenance-related materials, can be recycled as allowed by regulations and if not recycled will be disposed of according to regulatory requirements. Empty containers (i.e., drums and totes) will be returned to vendors, if possible. The quantities of hazardous waste (e.g., ACM and LBP) that cannot be recycled are not expected to significantly impact the capacity of the Class I landfills located in California.

Solid waste generated from construction activities may include track segments, switches, scrap lumber, plastic, metal, glass, asphalt and concrete, and empty non-hazardous material containers. Typical management practices for this material include recycling when possible, proper storage of waste to prevent wind dispersion, and routine pick-up and disposal of waste to approved local Class III landfills. Solid wastes from construction are not expected to significantly impact the capacity of the Class III landfills in the County of Los Angeles.

Wastewater generated at the construction site will include sanitary wastes, dust suppression drainage, and equipment wash water. Construction-related sanitary wastes, collected in portable self-contained chemical toilets, will be pumped periodically. Potentially contaminated equipment wash water will be contained at designated wash areas and transported to a wastewater treatment facility via a licensed hauler. Temporary construction impacts will be isolated to the project site.

Metro will comply with the requirements of the National Pollution Discharge Elimination System (NPDES) Construction General Permit by acting as the Legally Responsible Person (LRP) in securing a waste discharge identification (WDID) number for the project and requiring the Construction Contractor to develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Section A of the General Permit prior to the commencement of soil disturbing activities. Metro's baseline construction specification Section 01 35 35 – Water Pollution Control and Section 01 57 19 – Temporary Environment Control also include stormwater pollution prevention requirements.

Fugitive dust emissions from the construction activities at the site will be managed to comply with SCAQMD Rule 1403 as well as Metro Specifications Section 01 35 35 – Water Pollution Control, Section 01 57 19 – Temporary Environment Control and other applicable project specific requirements.

The hazardous materials to be used during project demolition and construction include gasoline, diesel fuel, oil, and lubricants as well as minimal amounts of cleaners, solvents, adhesives, and paint materials.

No acutely hazardous materials would be used or stored onsite during construction. These hazardous materials will be managed per applicable federal, state, and local regulations as well as pertinent Metro baseline construction specifications and other project specific requirements.

Metro contract documents also require all contractors to develop a Waste Management Plan for the handling and disposal of non-hazardous waste under Metro baseline specification Section 01 74 19 – Waste Management and Disposal. The contract documents also require all contractors to develop a Contractor Generated Hazardous Waste Management Plan to comply with California Code of Regulations Title 22 Division 4.5 under Metro baseline specifications Section 01 57 19 – Temporary Environmental Control).

Best management practices (BMPs) will be implemented and consistent with hazardous materials and hazardous waste storage, handling, emergency spill response, and reporting. As a result of the implementation of the above procedures and coordination with DTSC, impacts associated with the project during construction would not be significant. Additionally, compliance with the following policies and Baseline Construction Specifications will further reduce air quality emissions and waste generation impacts from this site: Metro's Green Construction Policy, Recycling and Reuse Policy, Waste Management Plan requirement (Section 01 74 19) and Sustainability Plan requirement (Section 01 35 66).

During the construction phase of the project, Metro will ensure that the Construction Contractor will be required to comply with the regulations mentioned above in addition to the Metro Contract Specifications also specified above. Compliance with those items will ensure a less than significant impact.

Figure 3 shows the northern section of the project limits that are in the methane buffer zone and the methane zone per City of Los Angeles Department of Building and Safety (LADBS). Some of the parcels are both in the buffer zone and the methane zone (i.e. #1, #2 and #9 as shown in Table 1 and Figure 3). The rest of the parcels fall within the methane zone. Prior to and during construction the provisions of City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) and site testing standards required in LADBS Information Bulletin/ Public – Building Code Document No. P/BC 2014-101 will be adhered to as applicable.

Recently, Metro has embarked on implementing an Environmental Management System (EMS) for construction projects under ISO 14001:2015 standard. The purpose of EMS is to establish procedures and protocols allows for a plan-do-check-act procedures for continual improvement. Therefore, Metro has committed to complying with environmental regulations, and ensuring that they are implemented. Through the EMS program Metro aims to minimize the impact of its construction activities to the environment. The EMS for construction program will further ensure that the construction impact of the project on the environment will be minimized.

Operational Impacts

As the Project transitions from construction to operations, Metro will continue to implement and adhere to the requirements of LUCs or other restrictions associated with each parcel. For example, in

the event maintenance activities on the Division 20 Portal parcel require soil disturbance, Metro will notify, per the LUC, the DTSC and SoCal Gas of the planned maintenance activities and the planned soil disturbance. With the exception of subsurface tunnel maintenance activities, direct contact with soil (i.e., soil ingestion and dermal contact) is unlikely to occur once the Project would be operational. Also, Metro would be required under the LUC for the Division 20 Portal parcel to update, as necessary, and submit to DTSC a Soils Management Plan and Site Health and Safety Plan before the start of maintenance activities.

Hazardous wastes and unused hazardous materials are not expected during normal operations, but maintenance activities by contractors may require the periodic use of hazardous materials. Universal wastes (e.g., florescent lamps and batteries) and unusable materials will be handled, stored and managed per California Universal Waste Requirements.

Non-hazardous solid wastes generated during operation of the project will include solid waste from routine maintenance (e.g., used air filters), and domestic wastes. Maintenance-derived wastes and domestic wastes will be recycled to the extent practical. Those maintenance-derived wastes that cannot be recycled will be transported for disposal at a Class III landfill. The remaining solid wastes will be removed on a regular basis for disposal at a Class III landfill.

Best management practices (BMPs) will be implemented and consistent with hazardous materials and hazardous waste storage, handling, emergency spill response, and reporting. As a result of the implementation of the above procedures, impacts associated with the project during the operation phase would not be significant.

Division 20 is currently enrolled in Metro's agency-wide Environmental Management System (EMS) under the ISO 14001:2015 standard. The purpose of EMS is to establish procedures and protocols allows for a plan-do-check-act procedures for continual improvement. Therefore, Metro has committed to complying with environmental regulations, and ensuring that they are implemented. Through the EMS program Metro aims to minimize the impact of its day-to-day public transportation operations to the environment. The EMS for operations program at Division 20 will further ensure that the impact on the environment will be minimized.

Mitigation Measures

The Project will comply with all applicable laws, regulations, and City of Los Angeles ordinances for Hazardous Materials and their own procedures as outlined in the Metro Baseline Construction Contract Specifications for the project and in Metro's Board Adopted Policies. The following mitigation measure is based on: (a) the known or suspected project area conditions; (b) construction and operational impacts identified; and (c) review of prior Metro project documents where similar conditions existed, and mitigation measures were imposed on those projects.

HM-1: Prior to building demolition, surveys for PCB-containing building materials i.e., caulking, joint sealant shall be conducted (also known as hazardous building materials survey). If necessary, destructive sampling shall be used. All hazardous building materials identified would be removed or otherwise abated per regulatory requirements prior to demolition.

References

AECOM, Draft Hazardous Materials Technical Memorandum for the Metro Red/Purple Line Core Capacity Improvements Project, January 16, 2016.

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Kleinfelder, Limited Phase II, Environmental Site Assessment ADCO/ATLAS Property 200 Center Street, Los Angeles, CA, October 24, 2017 and November 30, 2017.

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Kleinfelder, Phase I Environmental Site Assessment, Viertel's Central Division, 500 N. Center Street, Los Angeles, CA, October 13, 2017

Kleinfelder, Draft - Phase II Environmental Site Assessment, Viertel's Central Division, 500 N. Center Street, Los Angeles, CA, January 4, 2018

Kleinfelder, Draft - Phase I Environmental Site Assessment, Former Pickle Works, 1001 E. 1st Street, Los Angeles, CA, December 20, 2017

Los Angeles County Metropolitan Transportation Authority (Metro), Baseline Construction Contract Specifications for Heavy Rail and Maintenance of Way Buildings, May 2012.

City of Los Angeles Methane Code - http://www.ladbs.org/docs/default-source/publications/ordinances/methane-code---ordinance-no-175790.pdf?sfvrsn=10; http://www.ladbs.org/docs/default-source/publications/ordinances/methane-code---ordinance-no-180619.pdf?sfvrsn=12; http://www.ladbs.org/docs/default-source/publications/information-bulletins/building-code/methane-hazard-mitigation-standard-plan-simplified-method-for-small-additions-ib-p-bc2014-102.pdf?sfvrsn=13

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Appendices

The following appendices are available upon request from Metro.

- **Appendix A – Draft Phase I Environmental Site Assessment ADCO/ATLAS Property, East of Center Street Between Jackson and Banning Streets, Los Angeles, CA September 2016**

- **Appendix B – Limited Phase II Environmental Site Assessment ADCO/ATLAS Property, 200 Center St. Los Angeles, CA November 30, 2017**

- **Appendix C: Phase I Environmental Site Assessment Metro Division 20 Portal Widening and Turnback Facility Commercial Street/Center Street Los Angeles, CA February 1, 2017**

- **Appendix D: Phase I Environmental Site Assessment, Viertel's Central Division, 500 N. Center Street, Los Angeles, CA, October 13, 2017**

- **Appendix E: Draft - Phase II Environmental Site Assessment, Viertel's Central Division, 500 N. Center Street, Los Angeles, CA, January 4, 2018**

- **Appendix F: Draft - Phase I Environmental Site Assessment Former Pickle Works, 1001 E. 1st Street, Los Angeles, CA, December 20, 2017**

- **Appendix G: Available information for 100 to 120 North Santa Fe Avenue, Los Angeles, CA**