

3.11 HAZARDS AND HAZARDOUS MATERIALS

3.11.1 INTRODUCTION

This discussion provides an evaluation of K Line Northern Extension (KNE) as it relates to hazards and hazardous materials. It includes descriptions of the federal, state, and local regulatory setting, existing conditions, and the impacts from construction and operation of the proposed alignments and stations, design option, and maintenance and storage facility (MSF), as well as mitigation measures where applicable. For more detailed information, refer to the KNE Hazards and Hazardous Materials Technical Report (Appendix 3.11-A).

3.11.2 REGULATORY FRAMEWORK

3.11.2.1 FEDERAL

The following federal laws and regulations are relevant to construction and operation of the project:

- Resource Conservation and Recovery Act (RCRA) (42 United State Code [USC] Section 6901 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act (42 USC Section 9601 et seq.)
- Clean Air Act (42 USC Section 7401 et seq.)
- Clean Water Act – National Pollutant Discharge Elimination System (Section 402[p])
- Safe Drinking Water Act (42 USC Section 300[f] et seq.)
- Toxic Substances Control Act (15 USC Section 2601 et seq.)
- Federal Insecticide, Fungicide and Rodenticide Act (7 USC Section 136 and 40 Code of Federal Regulations [CFR] Parts 152 to 171)
- Hazardous and Solid Waste Amendments to the RCRA (42 USC Section 6901 et seq.)
- Superfund Amendments and Reauthorization Act (42 USC Section 9601 et seq.)
- Hazardous Materials Transportation Act (49 USC Section 1801-1819 and 49 CFR Parts 101, 106, 107, and 171-180)
- Occupational Safety and Health Act (29 USC Section 651 et seq.)
- Emergency Planning and Community Right to Know Act (40 CFR Parts 350-372)

3.11.2.2 STATE

Primary state agencies with jurisdiction over public health hazards and hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Boards. The U.S. Environmental Protection Agency (USEPA) authorizes the DTSC to administer RCRA in the State of California. Other state agencies involved in hazardous materials management are the Department of Industrial Relations (California Occupational Safety and Health Administration [Cal/OSHA]

implementation), Office of Emergency Services (Office of Emergency Services–California Accidental Release Prevention Implementation), California Department of Fish and Wildlife, California Air Resources Board (CARB), California Highway Patrol, California Department of Transportation, State Office of Environmental Health Hazard Assessment (Proposition 65 implementation), and the California Integrated Waste Management Board.

The following state laws and regulations are relevant to construction and operation of the project:

- California Environmental Quality Act (CEQA) (Section 21000 et seq.) and CEQA Guidelines (Section 15000 et seq.)
- California Public Resources Code Section 21151.4¹
- Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)
- Hazardous Waste Control Law (California Health and Safety Code Section 25100 et seq.)
- Hazardous Materials Release Response Plans and Inventory Law (California Health and Safety Code Section 25500 et seq.)
- California Code of Regulations Title 22, Division 4.5²
- Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
- California Government Code Section 65962.5 (Cortese List)³
- California Code of Regulations Title 8
- California Accidental Release Prevention Program
- State Aeronautics Act
- Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

3.11.2.3 REGIONAL

No regional regulations are applicable to the project regarding hazards and hazardous materials.

¹ This code requires the lead agency to consult with any school district with jurisdiction over a school within 0.25 mile of the project about potential effects on the school if the project might reasonably be anticipated to emit hazardous air emissions or handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

² This regulation contains the Environmental Health Standards for the Management of Hazardous Waste, which includes California waste identification and classification regulations.

³ The Cortese List is a planning document used by the state, local agencies, and developers to help comply with CEQA requirements in providing information about the location of hazardous materials release sites.

3.11.2.4 LOCAL

All Metro rail projects must be designed in accordance with the most recent Metro Rail Design Criteria (MRDC).

Los Angeles County and the City of Los Angeles and City of West Hollywood have codes, ordinances, plans, and agencies that regulate permitting, design, construction, and operational activities as they pertain to hazards and hazardous materials:

- Los Angeles County
 - ▶ County Certified Unified Program Agency
 - ▶ County Division of Environmental Health Services
 - ▶ Los Angeles County General Plan
 - ▶ Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan
 - ▶ Los Angeles County Local Hazard Mitigation Plan
- City of Los Angeles
 - ▶ City of Los Angeles General Plan
 - ▶ City of Los Angeles Local Hazard Mitigation Plan
 - ▶ City of Los Angeles Methane Ordinance
- City of West Hollywood
 - ▶ City of West Hollywood General Plan
 - ▶ City of West Hollywood Hazard Mitigation Plan

3.11.3 METHODOLOGY

3.11.3.1 CEQA METHODOLOGY

The purpose of this analysis is to evaluate the project against CEQA thresholds of significance as the basis for determining the level of impacts related to hazards and hazardous materials.

A Limited Phase I Environmental Site Assessment (ESA) was conducted on the three alignments and the design option; a second Limited Phase I ESA was conducted at the MSF site (Connect Los Angeles Partners 2023a and 2023b). The purpose of these ESAs was to provide information about potential hazardous materials and properties that are identified on the Cortese list and how these sites may affect the project.

3.11.3.2 SIGNIFICANCE THRESHOLDS

In accordance with Appendix G of the 2022 CEQA Guidelines, the project would have a significant impact related to hazards and hazardous materials if it would:

- **Impact HAZ-1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- **Impact HAZ-2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- **Impact HAZ-3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- **Impact HAZ-4:** Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- **Impact HAZ-5:** 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, the project would result in a safety hazard or excessive noise for people residing or working in the project area.
- **Impact HAZ-6:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **Impact HAZ-7:** Expose people or structures, either directly or indirectly, 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.

3.11.4 RESOURCE STUDY AREA

The resource study area (RSA) for the hazardous materials assessment is defined as a 0.25-mile radius around the alignments and stations, the design option, and the MSF. This RSA pertains to the assessment of direct impacts related to the use, storage, and transport of hazardous material and wastes, as well as impacts to schools.

3.11.5 EXISTING SETTING

This existing setting discussion summarizes current conditions related to hazards and hazardous materials within and near the KNE RSA.

3.11.5.1 REGIONAL SETTING

The KNE alignments, stations, and design option are located in a highly urban setting, which includes single-family neighborhoods, multifamily housing, and commercial districts. The KNE San Vicente–Fairfax Alignment has commercial development on both sides of the alignment from the south end until it crosses the I-10 highway. The alignment then travels beneath single-family neighborhoods until it reaches Venice Boulevard. Commercial development is present on both sides of San Vicente Boulevard from

Venice Boulevard until it crosses La Brea Avenue. Single-family housing is present from La Brea Avenue until the alignment crosses Cochran Avenue, then multifamily housing with scattered commercial businesses is present until the alignment is near Wilshire Boulevard where museums and commercial businesses are present. Commercial businesses are present on the west side of the alignment with multifamily housing on the east side until Colgate Avenue, after which commercial businesses are present along both sides of the alignment until it crosses La Cienega Boulevard. A shopping center is present on both sides of the alignment until San Vicente Boulevard is reached, then single-family housing is on both sides with some commercial businesses until reaching Melrose Avenue. The remainder of the alignment has commercial businesses on both sides.

The KNE Fairfax Alignment has commercial businesses on both sides from the point where the KNE San Vicente–Fairfax Alignment splits off near First Street until it rejoins the KNE Fairfax Alignment at Santa Monica Boulevard.

The KNE La Brea Alignment travels beneath single-family neighborhoods after it separates from the KNE San Vicente–Fairfax and Fairfax Alignments until it reaches La Brea Avenue. Commercial businesses are on both sides of this alignment until it crosses Santa Monica Boulevard, after which there is mixed-use commercial and multifamily housing until it rejoins the other alignments.

The Hollywood Bowl Design Option travels beneath an area of mixed-use commercial and multifamily housing with scattered single-family housing. It ends in an area of entertainment (Hollywood Bowl) and parking.

The MSF site is located in a light industrial area near Los Angeles International Airport (LAX) airport.

The following discussions describe the hazards in the region that could affect the KNE alignments and stations, the Hollywood Bowl Design Option, and the MSF.

3.11.5.1.1 HAZARDOUS SUBSTANCE AND WASTE SITES (RECOGNIZED ENVIRONMENTAL CONDITION [REC] SITES)

The Limited Phase I ESAs (Connect Los Angeles Partners 2023a, 2023b) conducted for the KNE alignments and stations, the design option, and the MSF identified numerous properties within or near each RSA with storage, disposal, transportation, or a documented release of hazardous substances or petroleum products into the subsurface and had regulatory records regarding the release. Subsurface soil, soil gas, and/or groundwater contamination may also exist in unanticipated locations because of current or historical activities. Certain businesses, including gas stations, dry cleaners, auto repair facilities, and industrial manufacturing facilities, may use, store, manage, and dispose of a variety of hazardous substances and/or petroleum products, including cleaning solvents, gasoline, diesel, and oil, as part of their business activities. Some areas may also contain fill, which is common in urban settings, and was often placed many decades ago and often contains demolition materials, industrial process waste or other materials (e.g., slag, clinkers [a stony residue from burned coal], pavement or building materials) that are or may be contaminated with substances such as petroleum products, heavy metals, or other chemicals. In some cases, soil used as fill originated from a contaminated property. Although these properties may not have a documented reported release and may not be listed in one or more regulatory databases, particularly if these businesses were present and operated prior to the 1980s, contamination may still be present.

Other sources of contamination may include ongoing leaks, drips, or similar small releases over time; illicit dumping of wastes; or movement of contaminants in the subsurface via groundwater flow or soil gas migration. In these cases, contamination may be encountered in a location that otherwise was not associated with a REC site.

Subsurface materials in the RSA include fill and alluvial sediments eroded from the south flank of the Santa Monica Mountains. Groundwater may be present within these materials as shallow as 10 feet below the ground surface across the RSA. Contaminants in the subsurface may migrate with groundwater flow, sometimes affecting properties adjacent to or beyond the property from which they originated.

The contamination encountered may pose a risk to human health and the environment. Depending on the contaminant encountered in the subsurface and its concentration, a variety of health risks may exist in connection with an exposure to them.

3.11.5.1.1 ALIGNMENTS AND STATIONS

KNE SAN VICENTE–FAIRFAX ALIGNMENT

There are 39 REC sites within the RSA for the KNE San Vicente–Fairfax Alignment; 17 of these sites are on the Cortese list (Connect Los Angeles Partners 2023a). These facilities are identified in Table 3.11-1, and the location of each is depicted on Figure 3.11-1 through Figure 3.11-8.

TABLE 3.11-1. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA

MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
1	APN 5033-001-035	Open	Cameo Cleaners, LLC/Siskin Investment/Rocket Cleaners	3650 Crenshaw Boulevard, Los Angeles
2*	APN 5046-022-016	Closed	Shell Service Station	3645 Crenshaw Boulevard, Los Angeles
3	APN 5046-001-048	Open	Won Kap Yi/California Fine Cleaners/System Cleaners	3631 Crenshaw Boulevard, Los Angeles
4	APN 5044-004-009	Closed	Crenshaw Car Wash	3518 Crenshaw Boulevard, Los Angeles
5*	APN 5044-004-025	Closed	ARCO #0027	3412 Crenshaw Boulevard, Los Angeles
6*	APN 5050-001-030	Closed	Exxon #7-2560	4406 West Adams Boulevard, Los Angeles
7*	APN 5051-007-001	Closed	ExxonMobil #18-LLF	4380 West Adams Boulevard, Los Angeles
8*	APN 5059-003-020	Closed	Chevron #9-1400	2538 Crenshaw Boulevard, Los Angeles
9*	APN 5059-003-020	Closed	Unocal #5029/Union 76	2545 Crenshaw Boulevard, Los Angeles
55	APN 5070-013-003	No Case Exists	Midtown Cleaners	4764 Pico Boulevard, Los Angeles
11	APN 5070-013-003	No Case Exists	Plains Exploration and Production Co./Union Oil Co. of CA	4848 West Pico Boulevard, Los Angeles



MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
28	APN 5084-032-030	Open	Splendid Cleaners	1226 South Cochran Ave, Los Angeles
29	APN 5085-012-036	Open	Former Danny's Dry Cleaning	5511-5519 San Vicente Blvd, Los Angeles
58	APN 5510-027-038	No Case Exists	1X Griffin Related Properties	6135 Wilshire Blvd, Los Angeles
50	N/A	N/A	Part of Salt Lake Oil Field	Refer to Figure 3.11-23 for a map of the boundaries of the Salt Lake Oil Field.
31*	APN 5511-038-029	Open	Mas Auto Service	371 South Fairfax Ave, Los Angeles
32	APN 4004-034-019	Open	The Grove at Farmers Market	6301 West 3 rd St, Los Angeles
33*	APN 5511-001-022	Closed	Former World Oil #64	7900 Beverly Blvd, Los Angeles
60	APN 5511-013-002	No Case Exists	Cleansville USA	8430 Beverly Blvd, Los Angeles
38	APN 5514-012-027	Closed	Mobil #18-LN8 (Former 11-LN8)	8489 Beverly Blvd, Los Angeles
39*	APN 4337-017-900	Closed	West Hollywood Sheriff Station	720 N San Vicente Blvd, West Hollywood
40	APN 4337-017-903	Open	LA Metro Division 7 Bus Facility	8800 Santa Monica Blvd, West Hollywood
41	APN 4339-010-032	Closed	Santa Palm Car Wash	8787 Santa Monica Blvd, West Hollywood
42	APN 4339-007-014	Open	Former Canyon Cleaner Facility	8725 Santa Monica Blvd, West Hollywood
43	APN 5529-001-028	Closed	West Hollywood Mobil Service	8380 Santa Monica Blvd, West Hollywood
44*	APN 5554-025-900	Closed	Chevron #9-0769T	8383 Santa Monica Blvd, West Hollywood
45	APN 5554-015-031	Open	Peter's Magnolia Cleaners	8301-8307 Santa Monica Blvd, West Hollywood
46	APN 5529-019-902	Open	Crescent Shopping Center	8100-8136 Santa Monica Blvd, West Hollywood
47	APN 5529-024-001	Open	Four Seasons Dry Cleaning & Laundry	8040-8042 Santa Monica Blvd, West Hollywood
48*	APN 5529-024-026	Closed	World Oil #65	8020 Santa Monica Blvd, West Hollywood
34*	APN 5529-014-035	Closed	76 Products Station #7261	7960 Santa Monica Blvd, West Hollywood
59	APN 5530-001-018	No Case Exists	Sanfair Cleaners	7877 Santa Monica Blvd, West Hollywood
25*	APN 5531-017-020	Open	West Hollywood Gateway Redevelopment Project	1005, 1023, 1033, 1037, 1043, and 1045 N La Brea Ave; 7144 and 7118 Santa Monica Blvd, West Hollywood
35A*	APN 5532-017-046	Open	Avon Car & Truck Rental/Onni Santa Monica, LP	6901 W Santa Monica Blvd, West Hollywood
35B*	APN 5532-017-046	Closed	Professional Tire & Auto	6921 W Santa Monica Blvd, West Hollywood



MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
36*	APN 5532-006-039	Closed	Massachi-Chevron	1255 N Highland Ave, Los Angeles
37	APN 5547-033-400	Closed	Asset Management (Retail Strip Mall)	1300-1314 N Highland Ave, Los Angeles
26*	APN 5548-015-036	Closed	Chevron #9-9377	1459 Highland Ave, Los Angeles
57	APN 5548-004-069	No Case Exists	Chevron	1787 N Highland Ave, Los Angeles
27	APN 5575-024-017	Closed	Hollywood Hills Cleaners	1900 N Highland Ave, Los Angeles

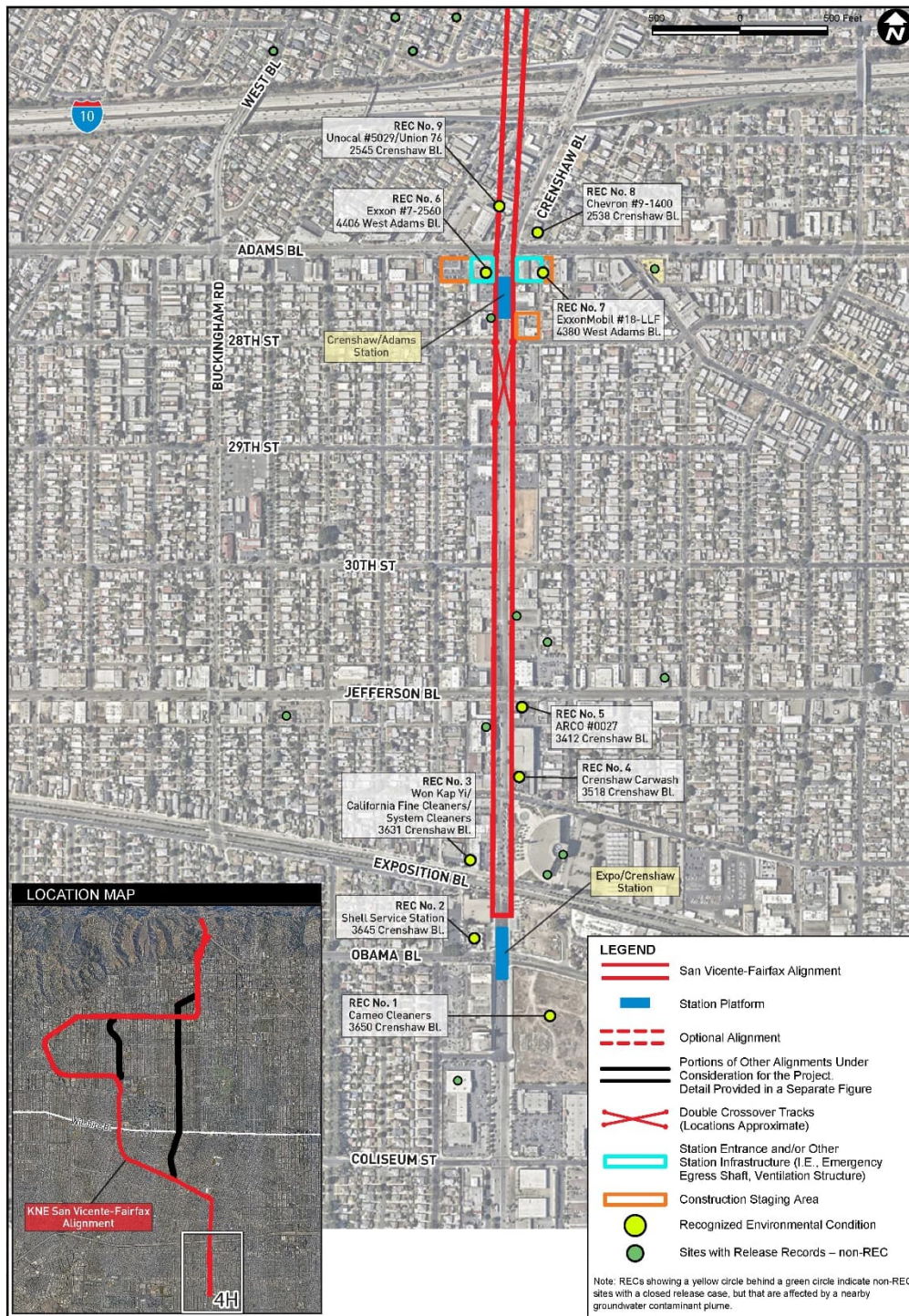
Source: Connect Los Angeles Partners 2023a

* Sites with an asterisk (*) and shown in **bold** are on the Cortese list.

Note: Map ID numbers refer to Figure 3.11-1 through Figure 3.11-8 and may not be consecutive or in numerical order.

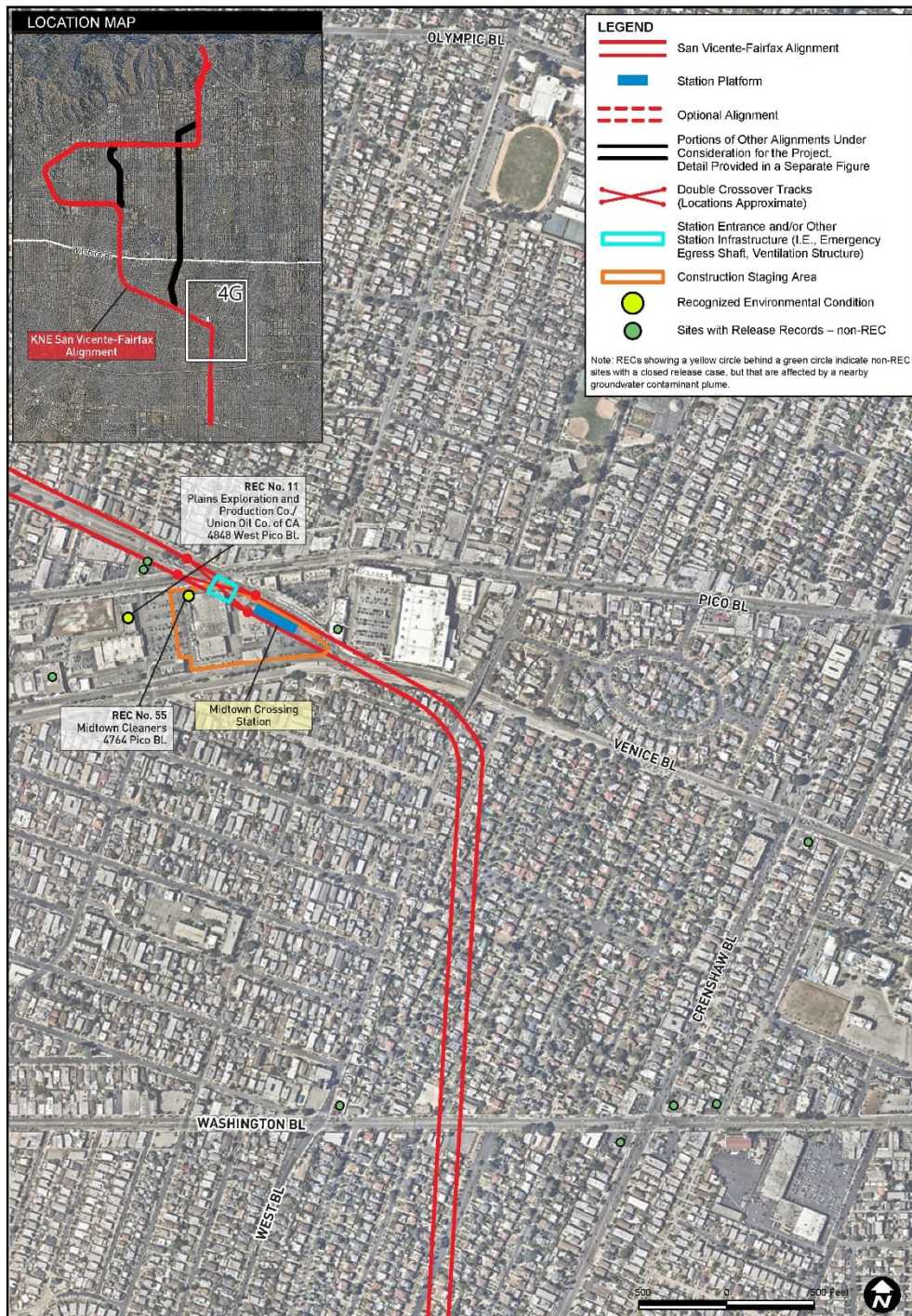
N/A = not applicable

FIGURE 3.11-1. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 1 OF 8)



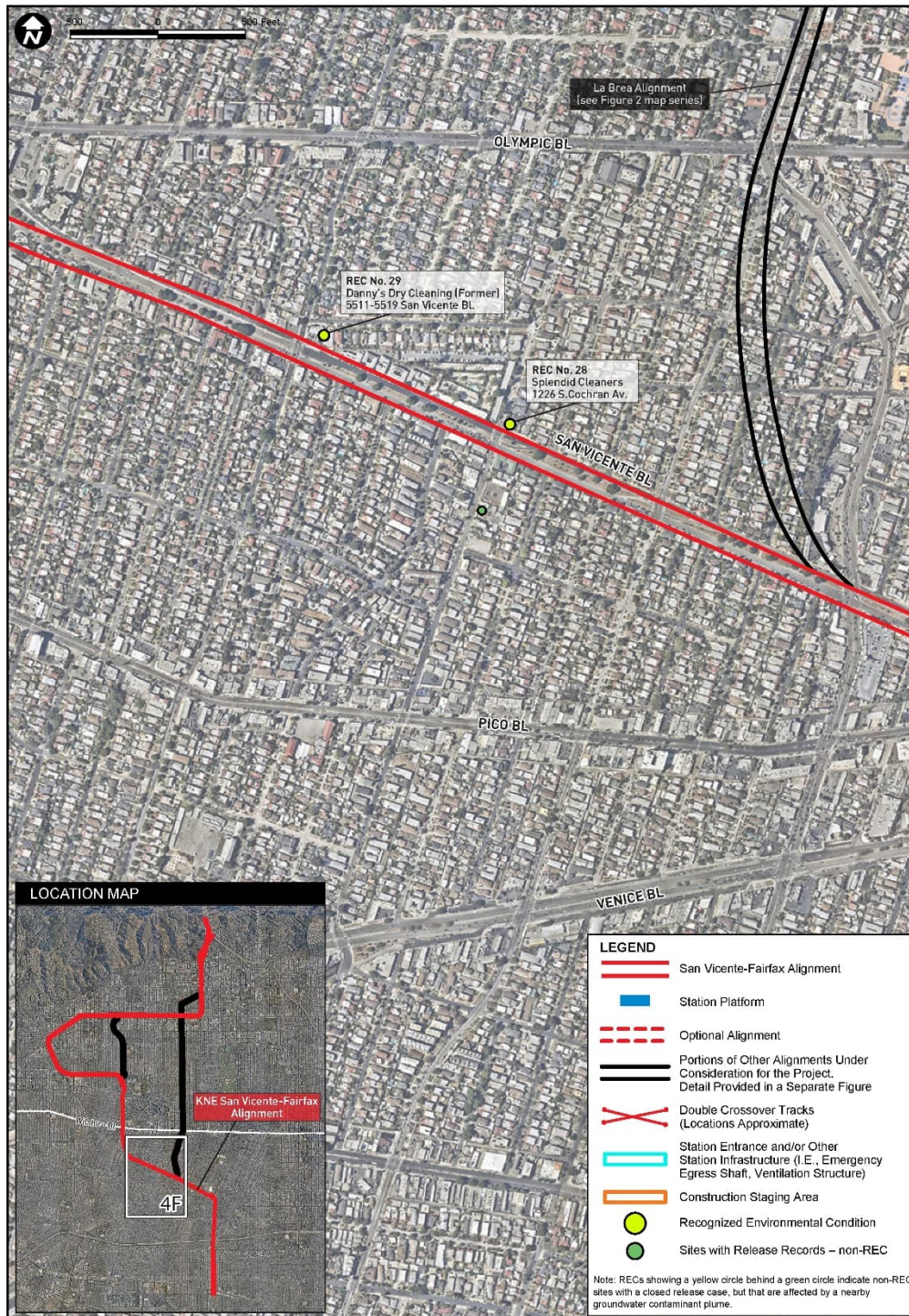
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-2. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 2 OF 8)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-3. REC SITES WITHIN KNE SAN VICENTE-FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 3 OF 8)



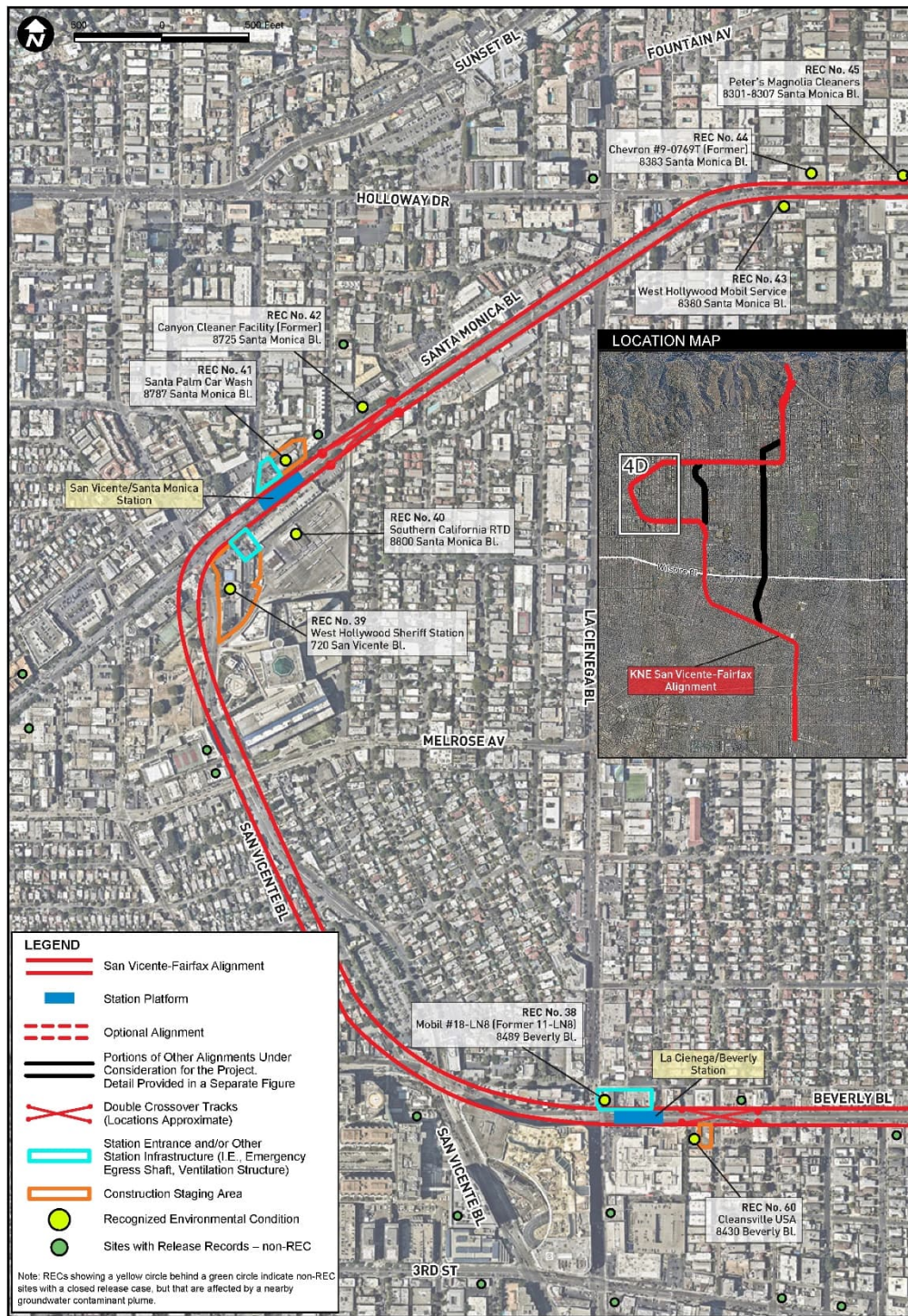
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FIGURE 3.11-4. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 4 OF 8)



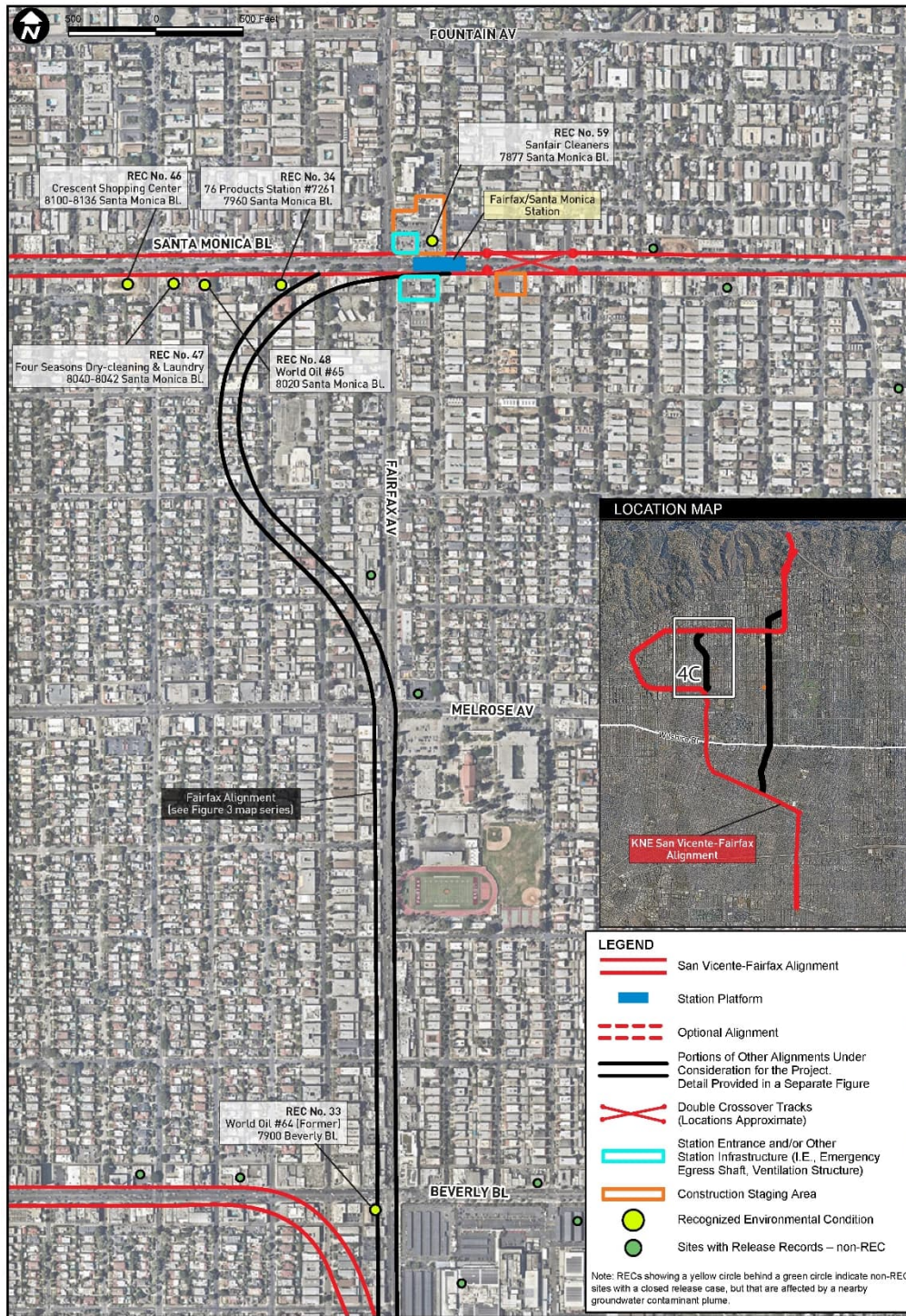
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-5. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 5 OF 8)



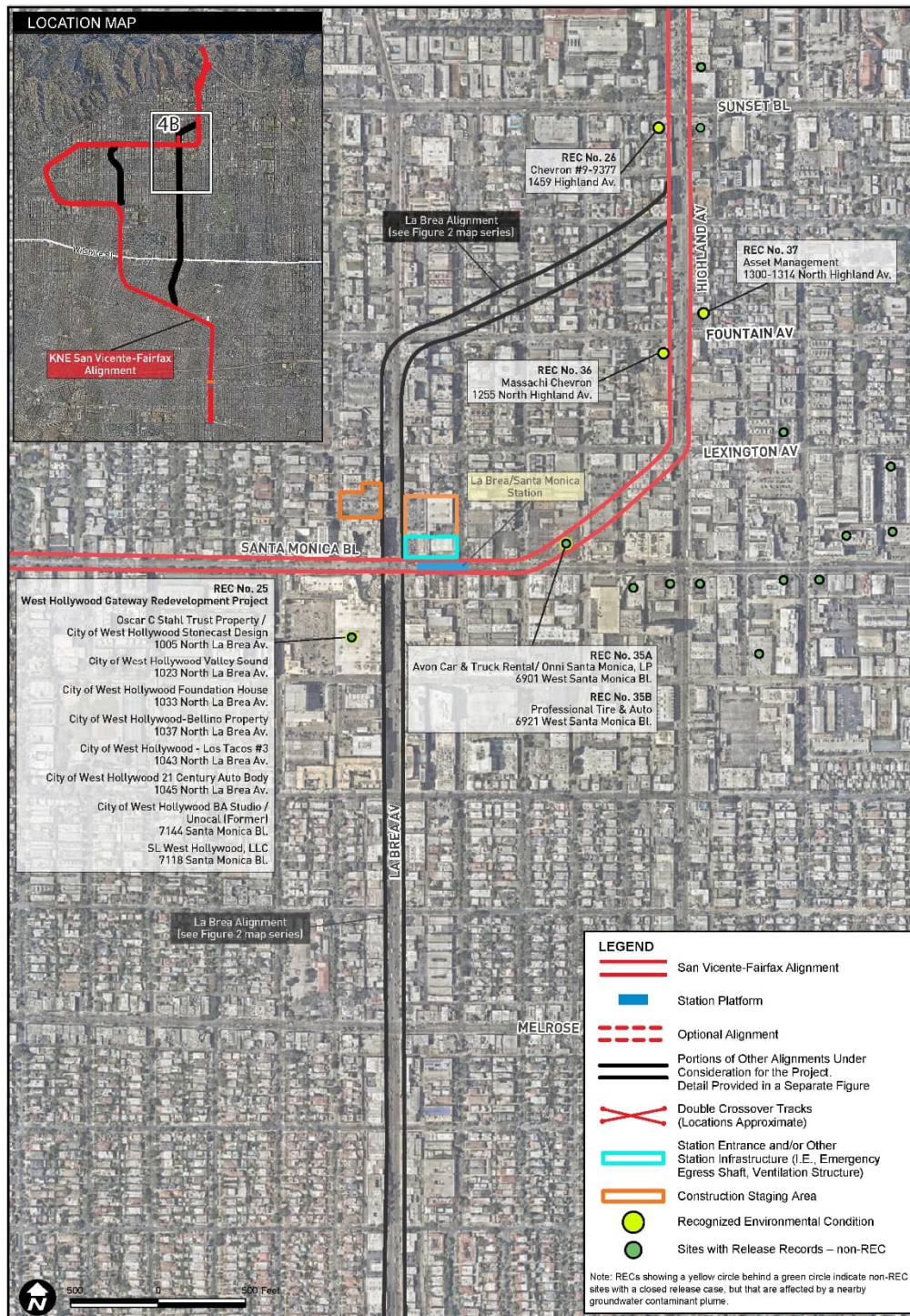
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-6. REC SITES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 6 OF 8)



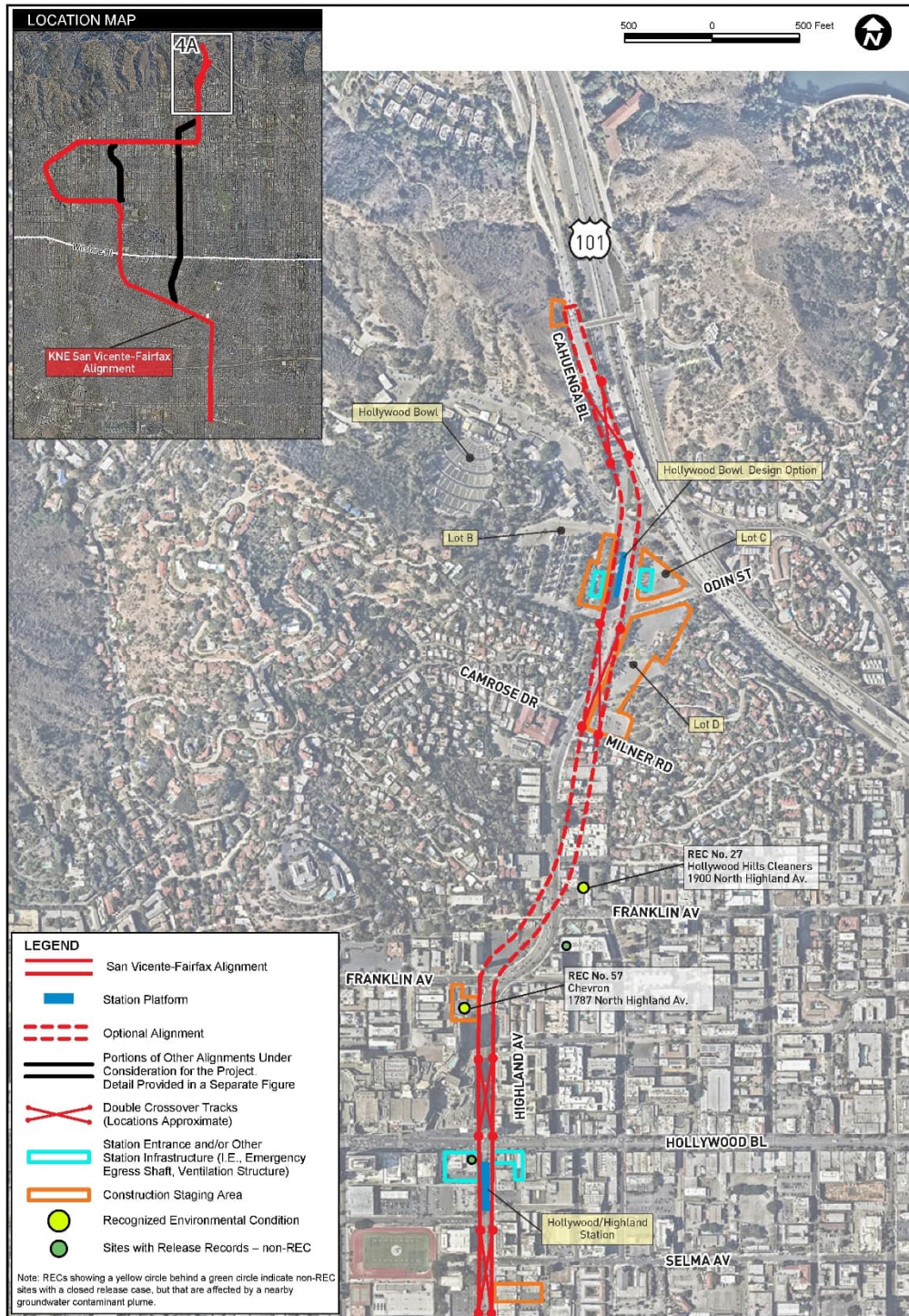
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-7. REC SITES WITHIN KNE SAN VICENTE-FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 7 OF 8)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-8. REC SITES WITHIN KNE SAN VICENTE-FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 8 OF 8)



Source: Connect Los Angeles Partners 2023a

KNE FAIRFAX ALIGNMENT

There are 28 REC sites within the RSA for the KNE Fairfax Alignment; 15 of these sites are on the Cortese list (Connect Los Angeles Partners 2023a). These facilities are identified in Table 3.11-2 and the location of each is depicted on Figure 3.11-9 through Figure 3.11-15.

TABLE 3.11-2. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA

MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
1	APN 5046-022-016	Open	Cameo Cleaners, LLC/Siskin Investment/Rocket Cleaners	3650 Crenshaw Blvd, Los Angeles
2*	APN 5046-001-048	Closed	Shell Service Station	3645 Crenshaw Blvd, Los Angeles
3	APN 5044-004-009	Open	Won Kap Yi/California Fine Cleaners/System Cleaners	3631 Crenshaw Blvd, Los Angeles
4	APN 5044-004-025	Closed	Crenshaw Car Wash	3518 Crenshaw Blvd, Los Angeles
5*	APN 5050-001-030	Closed	ARCO #0027	3412 Crenshaw Blvd, Los Angeles
6*	APN 5051-007-001	Closed	Exxon #7-2560	4406 W Adams Blvd, Los Angeles
7*	APN 5059-003-020	Closed	ExxonMobil #18-LLF	4380 W Adams Blvd, Los Angeles
8*	APN 5059-003-020	Closed	Chevron #9-1400	2538 Crenshaw Blvd, Los Angeles
9*	APN 5070-013-003	Closed	Unocal #5029/Union 76	2545 Crenshaw Blvd, Los Angeles
55	APN 5070-013-003	No Case Exists	Midtown Cleaners	4764 Pico Blvd, Los Angeles
11	APN 5084-032-030	No Case Exists	Plains Exploration and Production Co./Union Oil Co. of CA	4848 W Pico Blvd, Los Angeles
28	APN 5085-012-036	Open	Splendid Cleaners	1226 S Cochran Ave, Los Angeles
29	APN 5510-027-038	Open	Former Danny's Dry Cleaning	5511-5519 San Vicente Blvd, Los Angeles
58	APN 5511-038-029	No Case Exists	1X Griffin Related Properties	6135 Wilshire Blvd, Los Angeles
50	N/A	N/A	Part of Salt Lake Oil Field	Refer to Figure 3.11-24 for a map of the boundaries of the Salt Lake Oil Field
31*	APN 4004-034-019	Open	Mas Auto Service	371 S Fairfax Ave, Los Angeles
32	APN 5511-001-022	Open	The Grove at Farmers Market	6301 W 3 rd Street, Los Angeles
33*	APN 5046-022-016	Closed	Former World Oil #64	7900 Beverly Blvd, Los Angeles
34*	APN 5529-014-035	Closed	76 Products Station #7261	7960 Santa Monica Blvd, West Hollywood
59	APN 5530-001-018	No Case Exists	Sanfair Cleaners	7877 Santa Monica Blvd, West Hollywood
25*	APN 5531-017-020	Open	West Hollywood Gateway Redevelopment Project	1005, 1023, 1033, 1037, 1043, and 1045 N La Brea Ave; 7144 and 7118 Santa Monica Blvd, West Hollywood



MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
35A*	APN 5532-017-046	Open	Avon Car & Truck Rental/Onni Santa Monica, LP	6901 W Santa Monica Blvd, West Hollywood
35B*	APN 5532-017-046	Closed	Professional Tire & Auto	6921 W Santa Monica Blvd, West Hollywood
36*	APN 5532-006-039	Closed	Massachi-Chevron	1255 N Highland Ave, Los Angeles
37*	APN 5547-033-400	Closed	Asset Management (Retail Strip Mall)	1300-1314 N Highland Ave, Los Angeles
26*	APN 5548-015-036	Closed	Chevron #9-9377	1459 Highland Ave, Los Angeles
57	APN 5548-004-069	No Case Exists	Chevron	1787 N Highland Ave, Los Angeles
27	APN 5575-024-017	Closed	Hollywood Hills Cleaners	1900 N Highland Ave, Los Angeles

Source: Connect Los Angeles Partners 2023a

* Sites with an asterisk (*) and shown in **bold** are on the Cortese list.

Note: Map ID numbers refer to Figure 3.11-9 through Figure 3.11-15 and may not be consecutive or in numerical order.

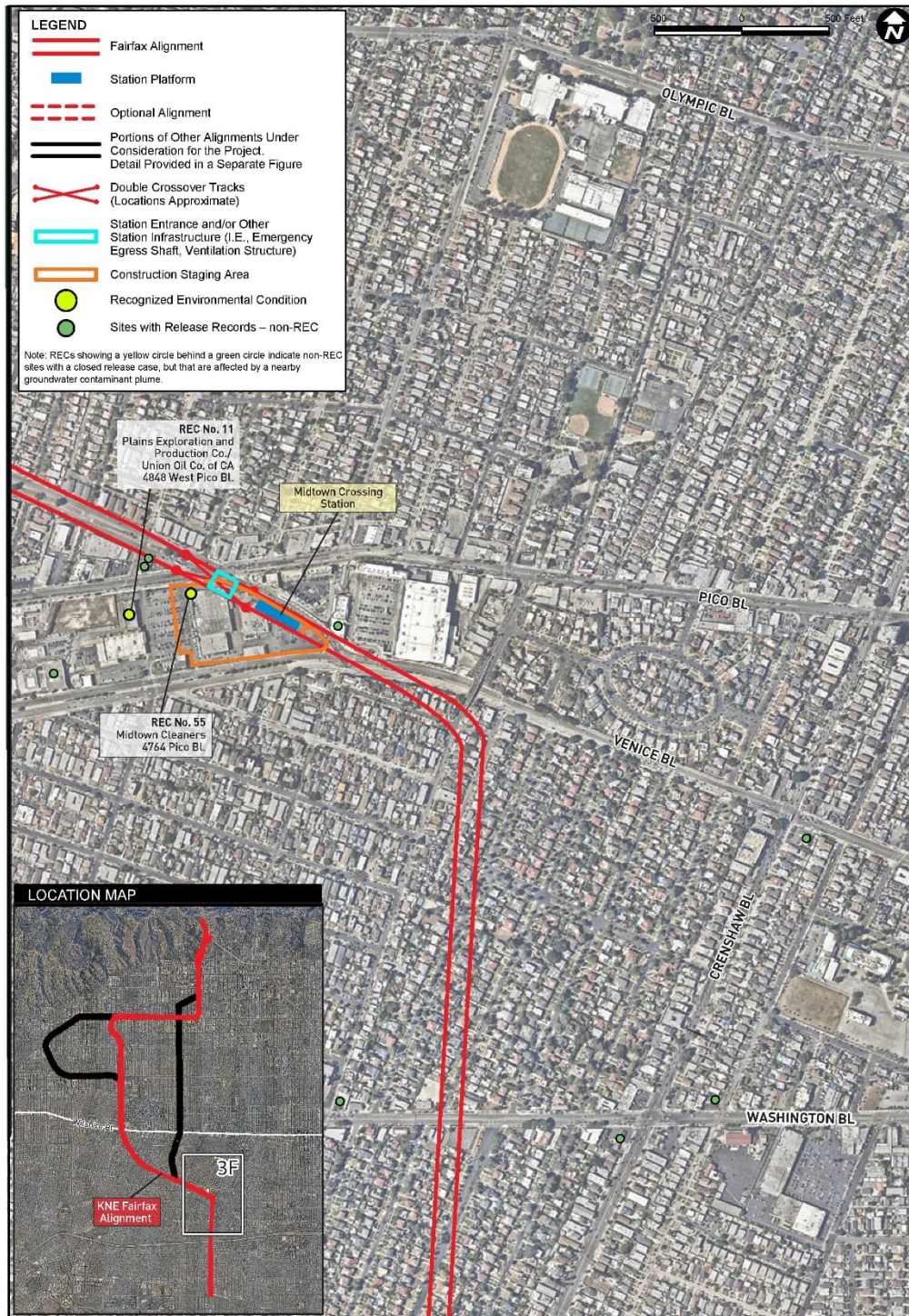
N/A = not applicable

FIGURE 3.11-9. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 1 OF 7)



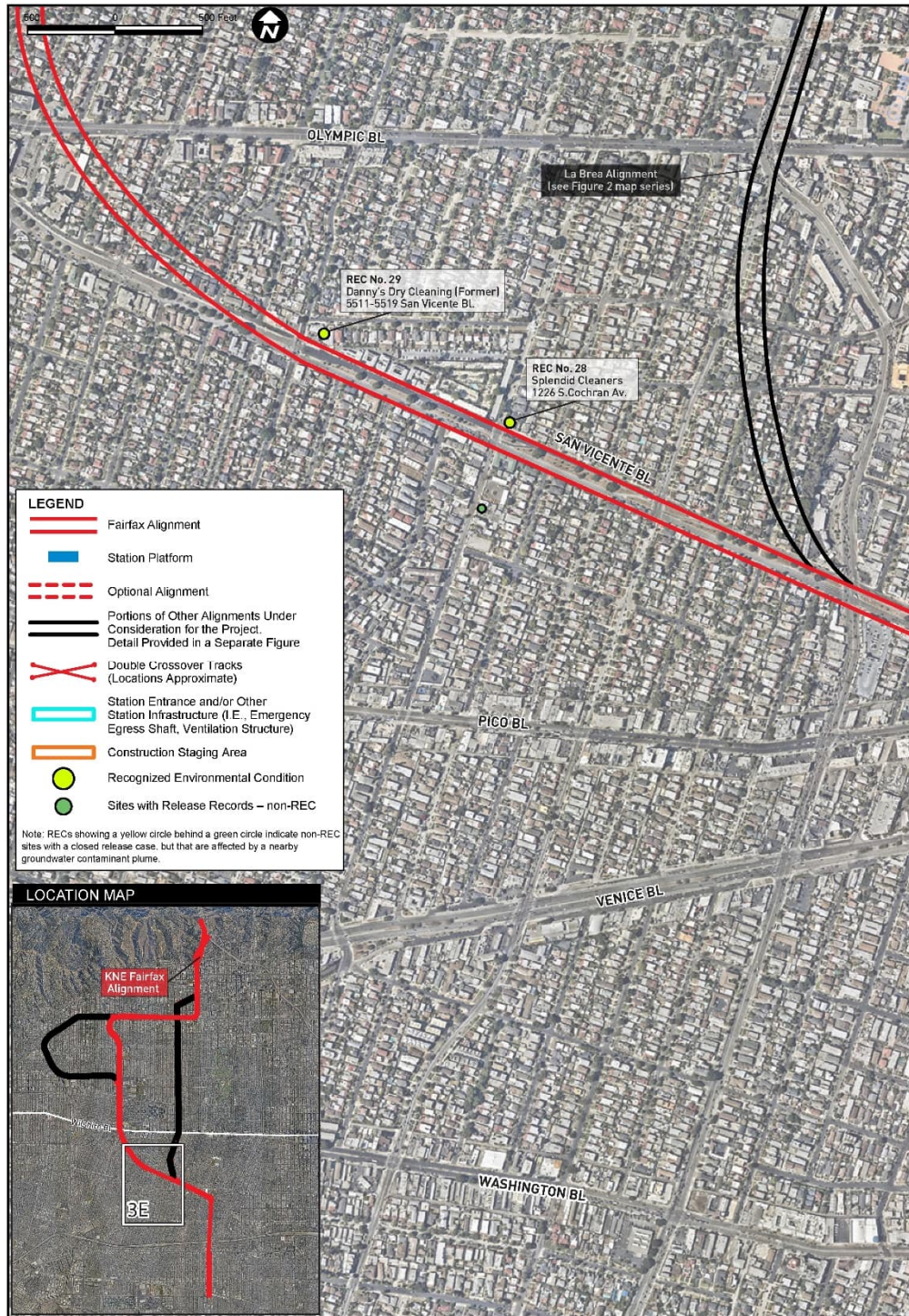
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-10. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 2 OF 7)

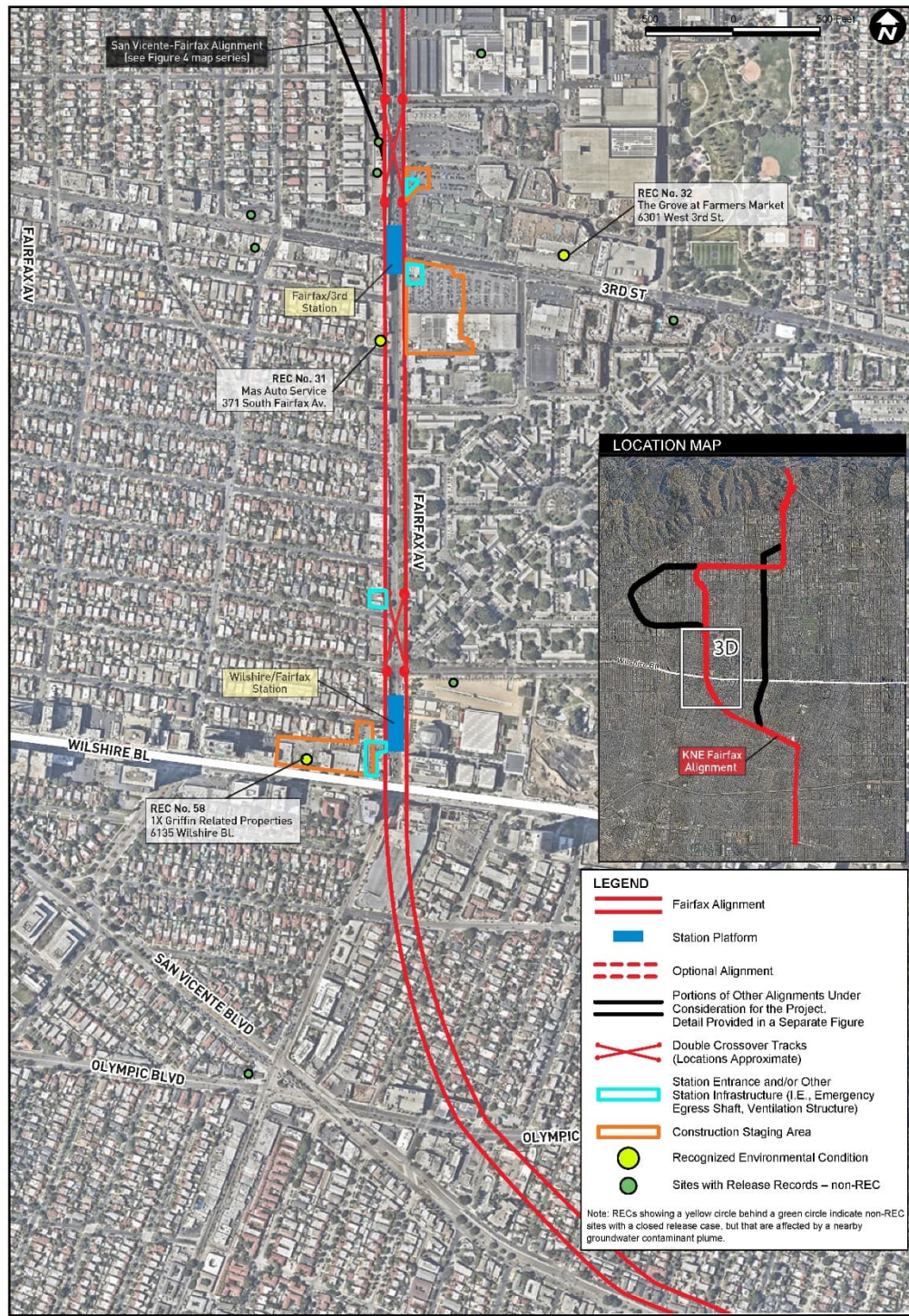


Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-11. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 3 OF 7)

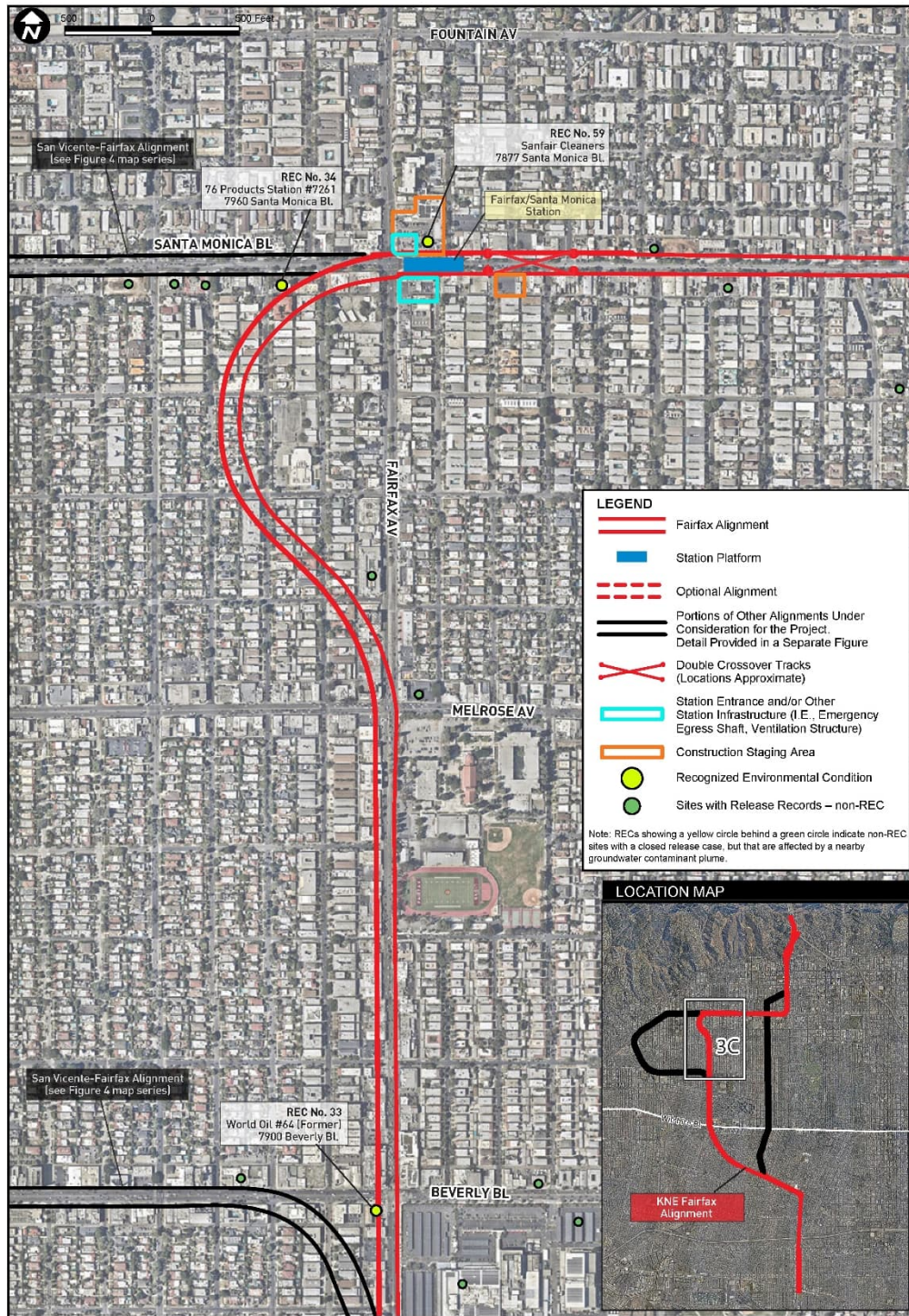


Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-12. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 4 OF 7)


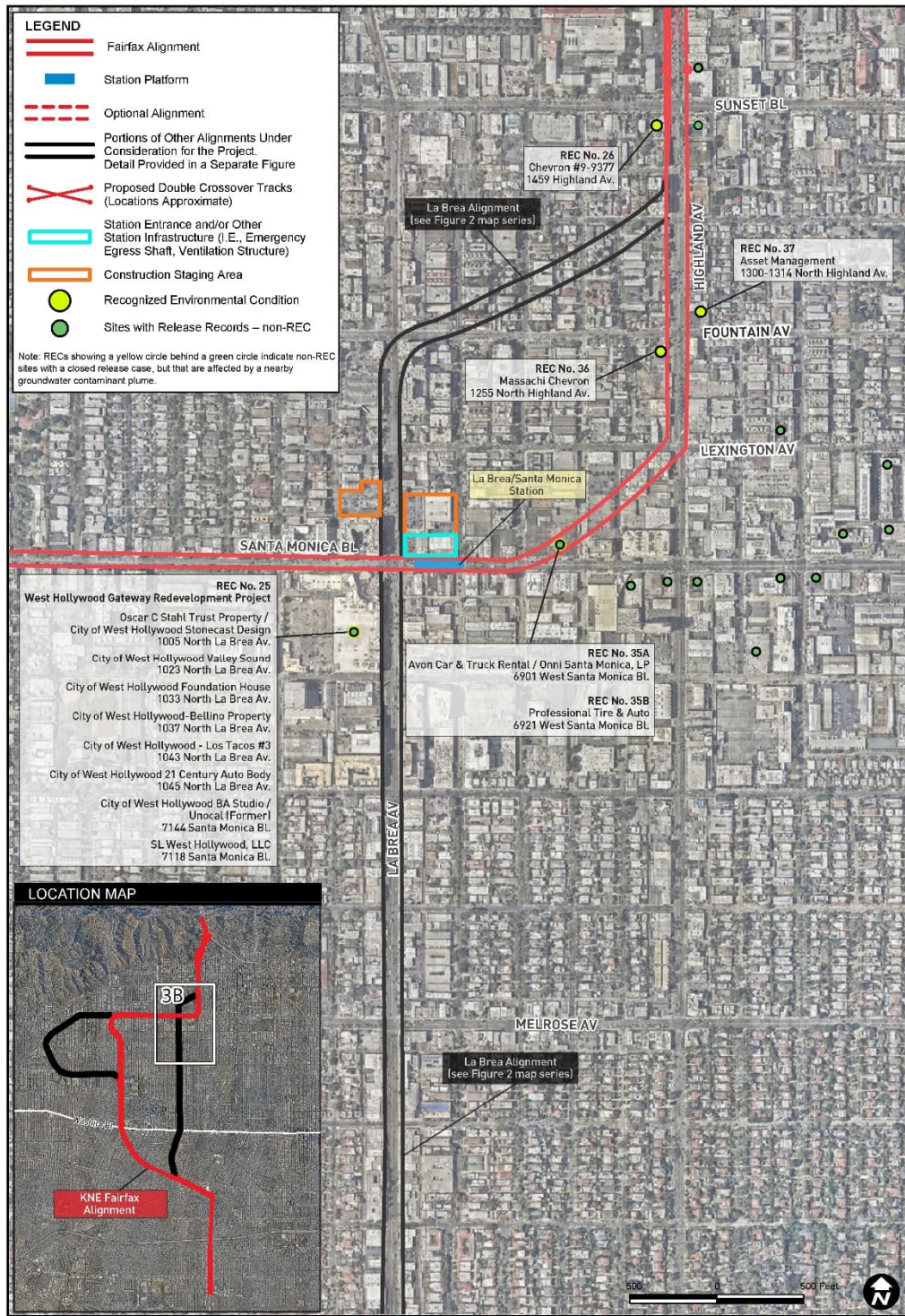
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-13. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 5 OF 7)



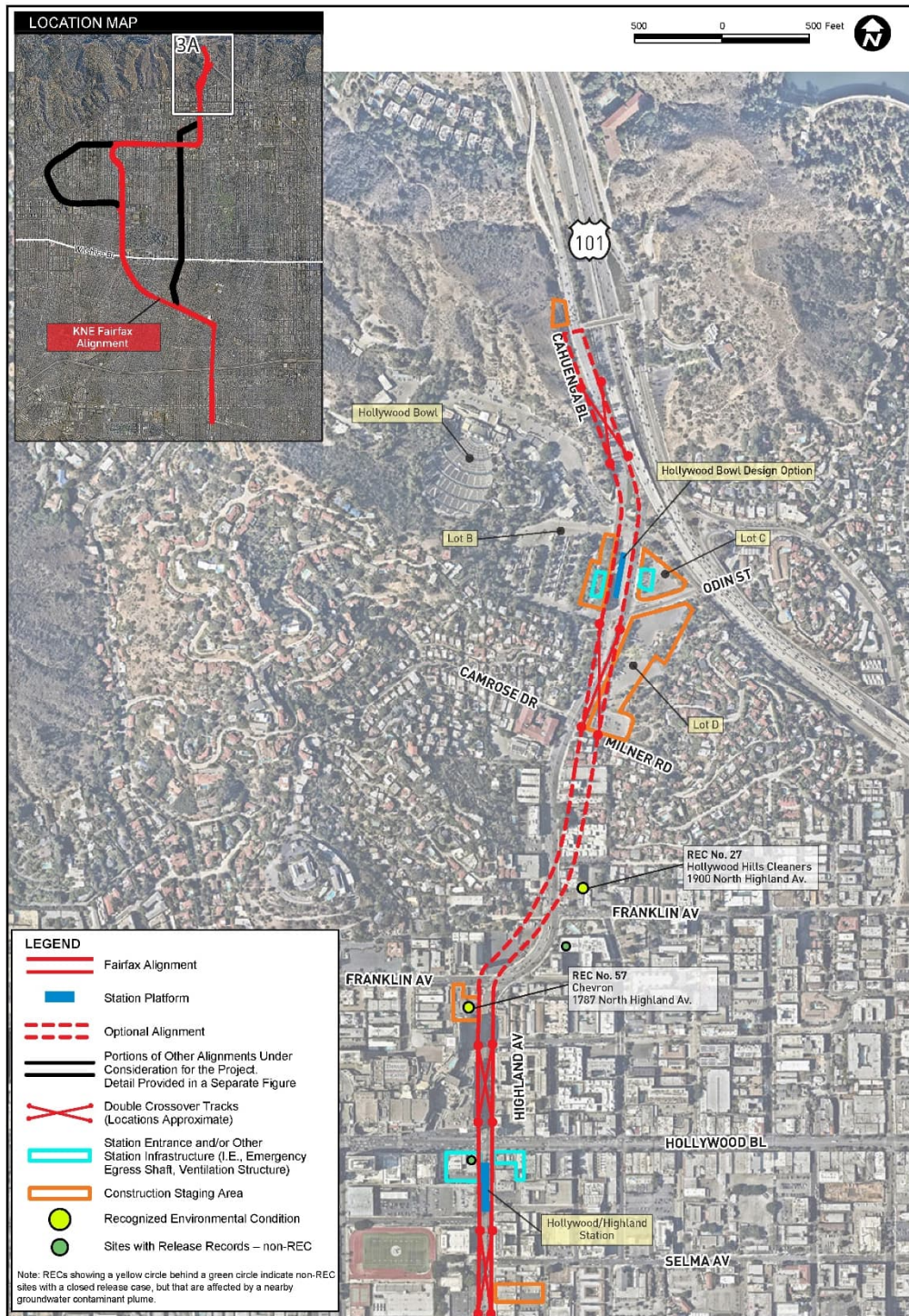
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-14. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 6 OF 7)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-15. REC SITES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA (PAGE 7 OF 7)



Source: Connect Los Angeles Partners 2023a

KNE LA BREA ALIGNMENT

There are 31 REC sites within the RSA for the KNE Le Brea Alignment; 17 of these sites are on the Cortese list (Connect Los Angeles Partners 2023a). These facilities are identified in Table 3.11-3 and the location of each is depicted on Figure 3.11-16 through Figure 3.11-21.

TABLE 3.11-3. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA

MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
1	APN 5033-001-035	Open	Cameo Cleaners, LLC/Siskin Investment/ Rocket Cleaners	3650 Crenshaw Blvd, Los Angeles
2*	APN 5046-022-016	Closed	Shell Service Station	3645 Crenshaw Blvd, Los Angeles
3	APN 5046-001-048	Open	Won Kap Yi/California Fine Cleaners/ System Cleaners	3631 Crenshaw Blvd, Los Angeles
4	APN 5044-004-009	Closed	Crenshaw Car Wash	3518 Crenshaw Blvd, Los Angeles
5*	APN 5044-004-025	Closed	ARCO #0027	3412 Crenshaw Blvd, Los Angeles
6*	APN 5050-001-030	Closed	Exxon #7-2560	4406 W Adams Blvd, Los Angeles
7*	APN 5051-007-001	Closed	ExxonMobil #18-LLF	4380 W Adams Blvd, Los Angeles
8*	APN 5059-003-020	Closed	Chevron #9-1400	2538 Crenshaw Blvd, Los Angeles
9*	APN 5059-003-020	Closed	Unocal #5029/Union 76	2545 Crenshaw Blvd, Los Angeles
55	APN 5070-013-003	No Case Exists	Midtown Cleaners	4764 Pico Blvd, Los Angeles
11	APN 5070-013-003	No Case Exists	Plains Exploration and Production Co./Union Oil Co. of CA	4848 W Pico Blvd, Los Angeles
12	APN 5084-015-036	Closed	Harry's Auto Body, Inc. dba Harry's Auto Collision Center/Subterranean Parking	1023-1027 S Redondo Blvd, Los Angeles
13*	APN 5089-023-022	Closed	Unocal #1074	5301 W Olympic Blvd, Los Angeles
14*	APN 5508-007-014	Closed	Tosco S.S. #1116/76 Station #251116	5436 W 6th St, Los Angeles
15*	N/A	Closed	Regional Chlorinated VOC Groundwater Contaminant Plume	S La Brea Ave, Los Angeles
16	APN 5513-019-039	Open	Former Continental Graphics Facility Building G	171-181 S La Brea Ave, Los Angeles
17	APN 5513-002-001 APN 5513-019-043	Open	Former Continental Graphics Facility Lot H, Buildings A and B	101 N and 101 S La Brea Ave, Los Angeles
18*	APN 5513-003-002	Open	Chevron #9-0726	7020 Beverly Blvd, Los Angeles
19*	APN 5525-032-028	Closed	Former Texaco Station	300 N La Brea Ave, Los Angeles
20*	APN 5525-033-033	Closed	Former Exxon #7-7221	307 N La Brea Ave, Los Angeles
56	APN 5525-033-001	No Case Exists	Hertz Rent-A-Car	361 N La Brea Ave, Los Angeles
21*	APN 5525-016-007	Closed	Chevron #9-0638	7100 W Melrose Ave, Los Angeles
22*	APN 5525-005-037	Closed	Former Liberty Car & Truck Rental	800 N La Brea Ave, Los Angeles



MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
23A	APN 5531-016-023	Closed	La Brea Gateway Apartments/KCOP Production Studio (Former)	915 N La Brea Ave, Los Angeles
23B	APN 5531-015-014	Open	Mole-Richardson Company	901-953 N Sycamore Ave, Los Angeles
25*	APN 5531-017-020	Open	West Hollywood Gateway Redevelopment Project	1005, 1023, 1033, 1037, 1043, and 104 La Brea Ave; 7144 and 7118 Santa Monica Blvd, West Hollywood
24*	APN 5531-013-001	Closed	Gerster/Rolph Brake & Wheel	1154 N La Brea Ave, West Hollywood
26*	APN 5548-015-036	Closed	Chevron #9-9377	1459 Highland Ave, Los Angeles
50	N/A	N/A	Part of Salt Lake Oil Field	Refer to Figure 3.11-25 for a map of the boundaries of the Salt Lake Oil Field
57	APN 5548-004-069	No Case Exists	Chevron	1787 N Highland Ave, Los Angeles
27	APN 5575-024-017	Closed	Hollywood Hills Cleaners	1900 N Highland Ave, Los Angeles

Source: Connect Los Angeles Partners 2023a

* Sites with an asterisk (*) and shown in bold are on the Cortese list.

Note: Map ID numbers refer to Figure 3.11-16 through Figure 3.11-21 and may not be consecutive or in numerical order.

N/A = not applicable

FIGURE 3.11-16. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 1 OF 6)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-17. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 2 OF 6)

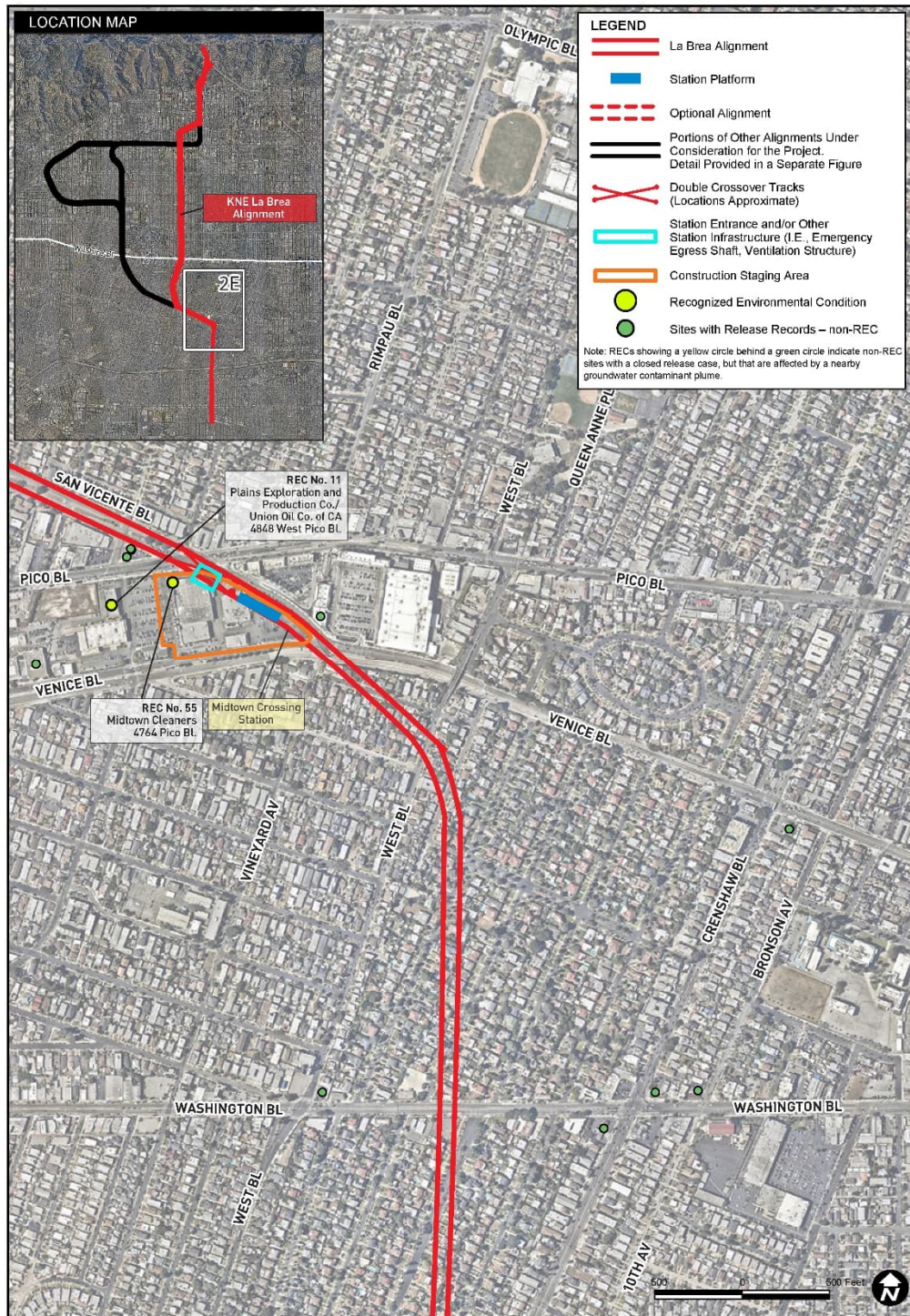
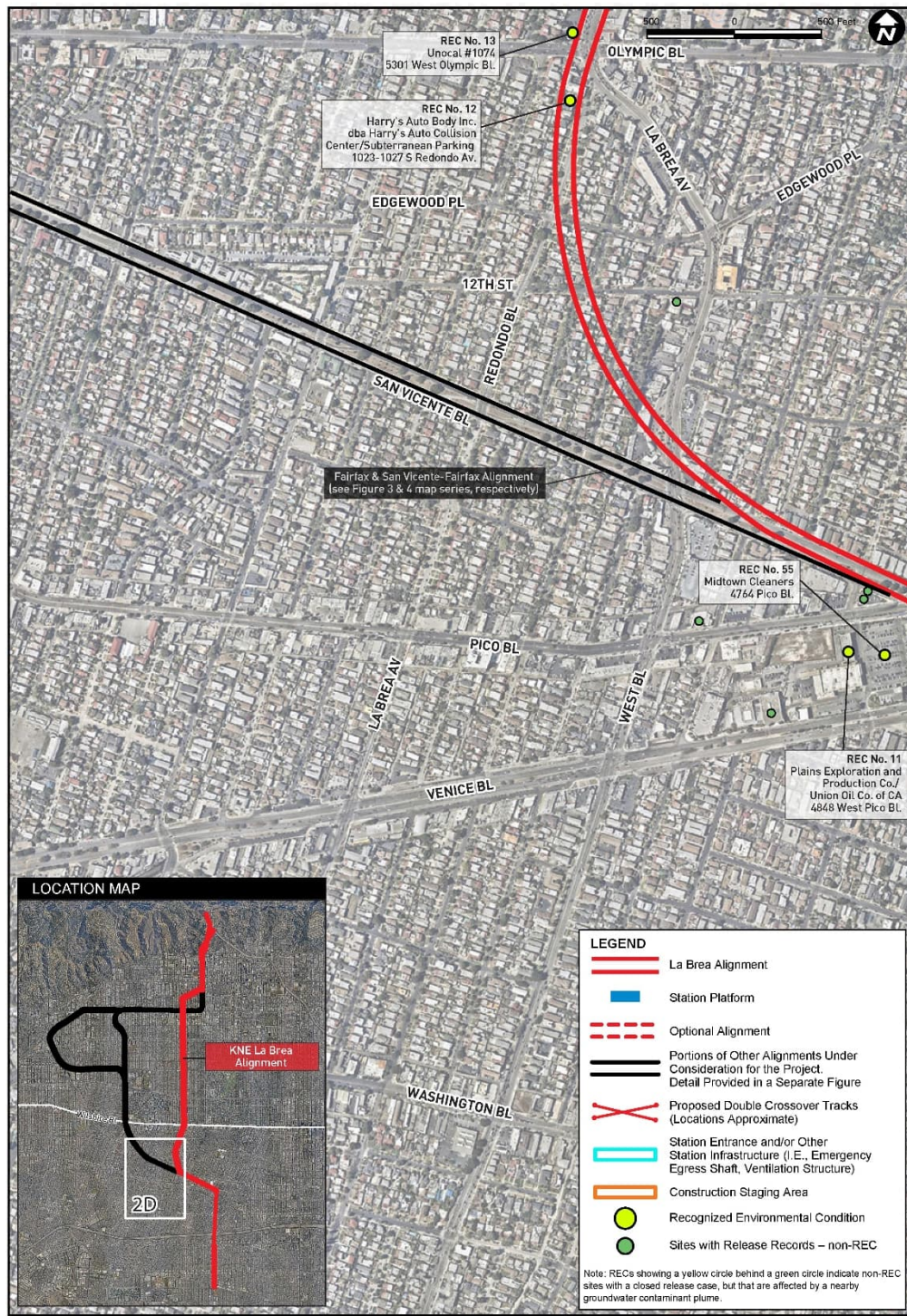
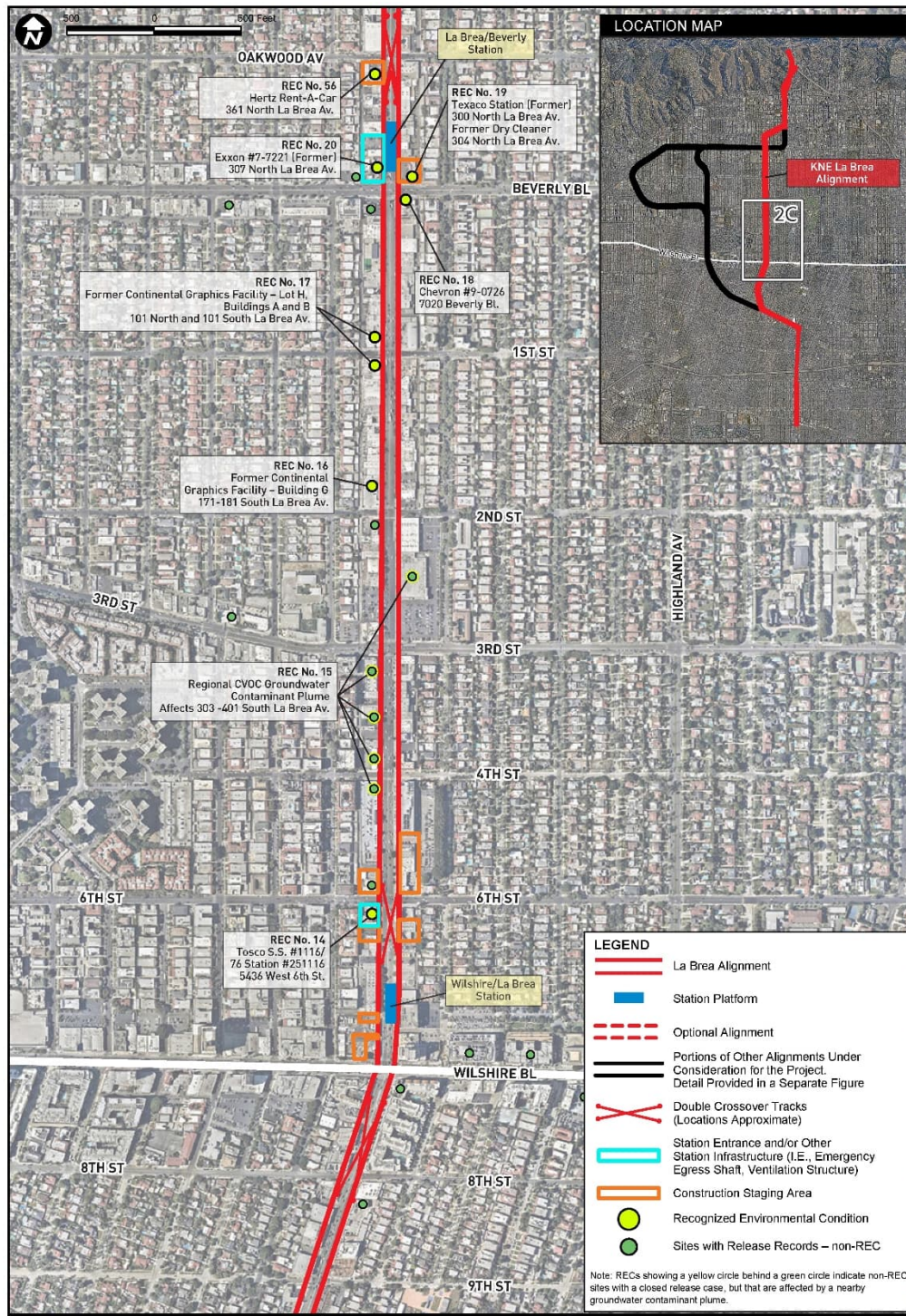


FIGURE 3.11-18. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 3 OF 6)



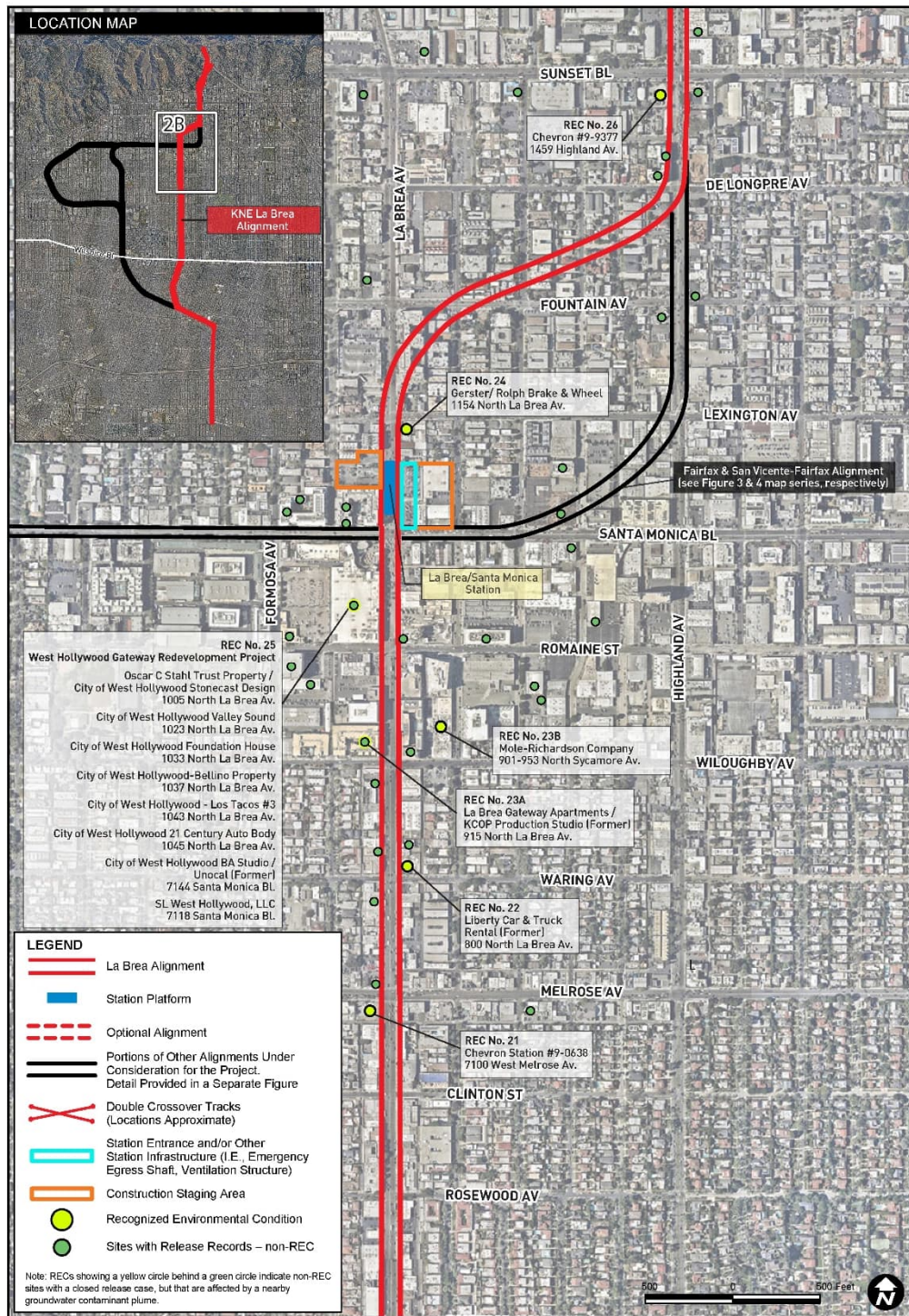
Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-19. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 4 OF 6)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-20. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 5 OF 6)



Source: Connect Los Angeles Partners 2023a

FIGURE 3.11-21. REC SITES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA (PAGE 6 OF 6)



Source: Connect Los Angeles Partners 2023a

3.11.5.1.1.2 HOLLYWOOD BOWL DESIGN OPTION

REC #27: Hollywood Hills Cleaners is the only REC site within the RSA of the Hollywood Bowl Design Option (Connect Los Angeles Partners 2023a). This site is not on the Cortese list. It is also in the RSAs of the primary alignments, as shown in Table 3.11-1 and depicted on Figure 3.11-8 for the KNE San Vicente–Fairfax Alignment.

3.11.5.1.1.3 MAINTENANCE AND STORAGE FACILITY

The majority of the MSF RSA is located in the City of Los Angeles, but a small part of the RSA northeast of the MSF is located in the City of Inglewood. Nine RECs are within the RSA of the MSF; two of these sites are on the Cortese list (Connect Los Angeles Partners 2023b). These facilities are identified in Table 3.11-4 and depicted on Figure 3.11-22.

TABLE 3.11-4. REC SITES WITHIN MSF RESOURCE STUDY AREA

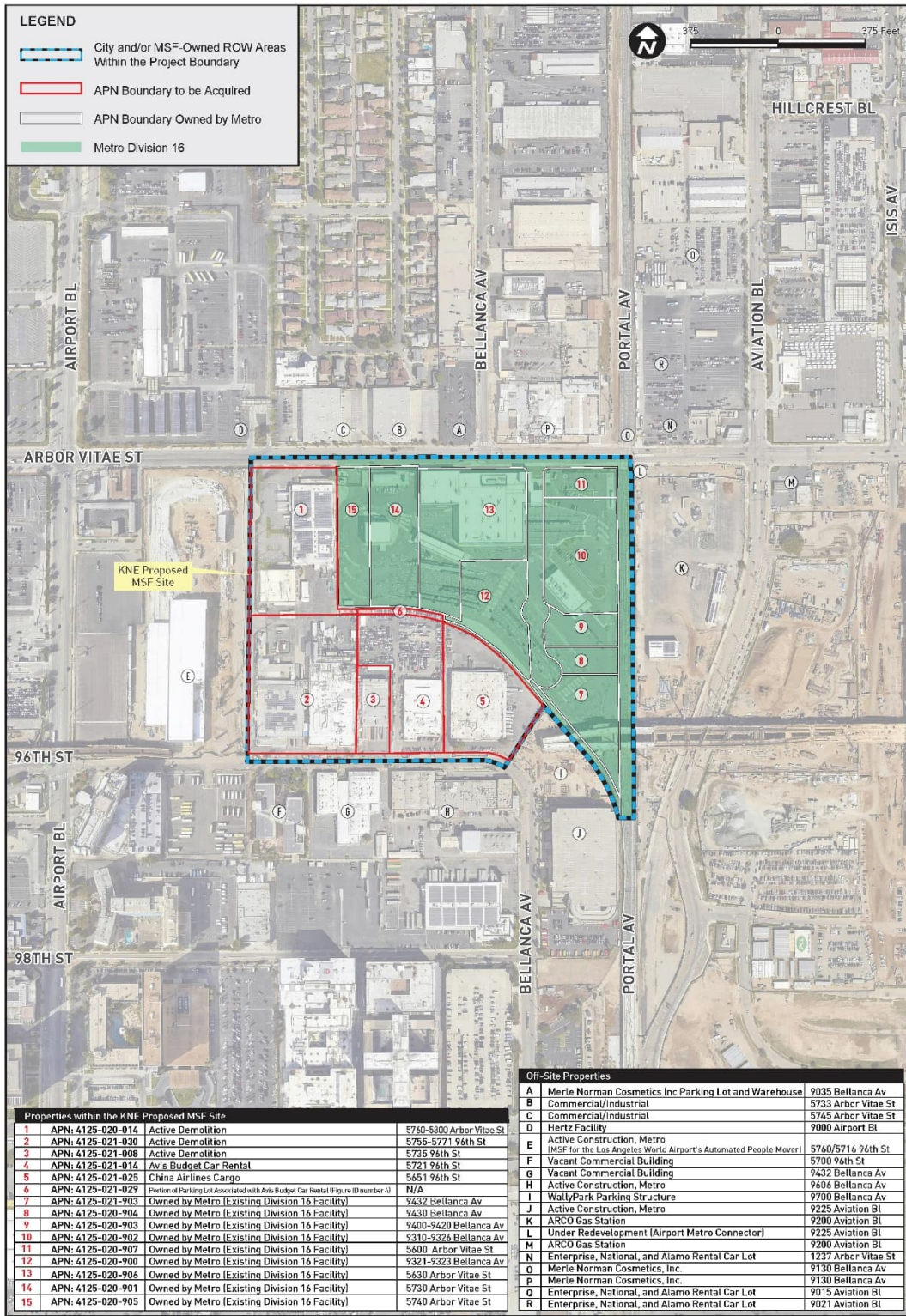
MAP ID	PARCEL #	CASE STATUS	NAME	ADDRESS
1*/2/3/K	APN 4125-020-014 APN 4125-021-030 APN 4125-021-008 APN 4125-021-011	No Case Exists	LA Airport Industrial Owner LP/ Neutrogena Research & Development/Neutrogena Manufacturing/Neutrogena/Johnson & Johnson Consumer-Los Angeles Facility; Neutrogena Corporation	5760-5800 Arbor Vitae St, Los Angeles, 5755-5771 W 96 th St, Los Angeles
4	APN 4125-021-014	No Case Exists	Avis Rent-A-Car System, LLC/Grand Rent-A-Car DBA Avis RAC/Dent Wizard International	5721 W 96 th St, Los Angeles
5	APN 4125-021-025	No Case Exists	Airborne Freight Corporation/Airborne Express	5651 W 96 th St, Los Angeles
6	APN 4125-021-007	No Case Exists	Gourmet Logistics; Flying Tiger Line Inc.; Metro	9432 Bellanca Ave, Los Angeles
10	APN 4125-020-902	No Case Exists	ASG Forwarding Inc./Jonas & Associates/Blanca Air Freight LTD Partner/Tokyo Air-Cargo America Inc./Allan Jones/Dollar Rent-A-Car Parking Lot	9310-9326 Bellanca Ave, Los Angeles
11*	APN 4125-020-005	No Case Exists	Former King Delivery, Inc.; Metro Division 16	5600 Arbor Vitae St, Westchester
12	APN 4125-020-900	No Case Exists	Western Federal Credit Union/Ace Janitorial Supply Company	9321-9323 Bellanca Ave, Los Angeles
13	APN 4125-020-003	No Case Exists	Dollar Rent-A-Car/Metro Division 16	5630 Arbor Vitae St, Los Angeles
P	APN 4128-001-007	Open	Hertz Rent-A-Car (1198-77)/Hertz Corporation; Condon Johnson/Garrett Airsearch-Arbor Vitae/Honeywell International Inc./Garret Thermal System	9225 Aviation Blvd, Los Angeles

Source: Connect Los Angeles Partners 2023b

* Sites with an asterisk (*) and shown in **bold** are on the Cortese list.

Note: Map ID numbers refer to Figure 3.11-22 and may not be consecutive or in numerical order.

FIGURE 3.11-22. REC SITES WITHIN MSF RESOURCE STUDY AREA



Source: Connect Los Angeles Partners 2023b

3.11.5.1.2 AERIALY DEPOSITED LEAD

Areas around freeways, highways, and major thoroughfares could be affected by aerially deposited lead (ADL) from vehicular emissions. Exposed soils around roadways in the urbanized areas of California have been found to be contaminated with lead, primarily as a result of historical emissions from automobile exhaust. Results of in-situ sampling and laboratory testing from other unrelated projects have shown that some of the soil contains concentrations of lead in excess of state regulatory thresholds; thus, any waste generated from the disturbance of soil in these locations may require regulation as a hazardous waste. Lead poses a health risk because of the known toxic effects of lead exposure to the central nervous system, kidneys, and blood stream. It is of particular concern to children due to increased risk on developing organs.

3.11.5.1.2.1 ALIGNMENTS AND STATIONS

Each of the stations associated with the KNE alignments would be located along main roads and/or near highways/freeways. ADL may be present in the shallow soils at each station location, at the location of the double crossover tracks, and on the properties slated for acquisition for station entrances or for construction staging. The remainder of the alignments would be situated at greater depths, and soils at those depths will not have been exposed to ADL.

3.11.5.1.2.2 HOLLYWOOD BOWL DESIGN OPTION

The station associated with the Hollywood Bowl Design Option is located along Highland Avenue in proximity to the US-101 freeway. ADL may be present in the shallow soils at the construction staging areas. The remainder of the design option would be situated at greater depths, and soils at those depths will not have been exposed to ADL.

3.11.5.1.2.3 MAINTENANCE AND STORAGE FACILITY

The MSF site is bounded by 96th Street on the south and West Arbor Vitae Street on the north. ADL may be present in the shallow soils on the properties slated for acquisition for the MSF.

3.11.5.1.3 LEAD-BASED PAINT

Lead-based paint (LBP) is defined by the U.S. Department of Housing and Urban Development as paint containing more than 0.5 percent lead by weight. LBP was generally applied to structures before 1977, and particularly those older than 1950. Structures that are planned to be acquired as part of the project may contain LBP. LBP poses a health risk because of the known toxic effects of lead exposure to the central nervous system, kidneys, and blood stream. It is of particular concern to children due to increased risk on developing organs.

3.11.5.1.3.1 ALIGNMENTS AND STATIONS

Each of the stations associated with the KNE alignments has at least one property planned for acquisition to accommodate the station entrance(s) and/or the construction staging areas that have structures currently on the property. The potential exists for these structures to contain LBP.

3.11.5.1.3.2 HOLLYWOOD BOWL DESIGN OPTION

No structures exist on the properties planned for acquisition to accommodate the station entrance(s) and/or the construction staging areas; therefore, LBP is not a concern for the design option.

3.11.5.1.3.3 MAINTENANCE AND STORAGE FACILITY

Several structures exist on the properties planned for acquisition on the MSF site, and the potential exists for these structures to contain LBP.

3.11.5.1.4 ASBESTOS-CONTAINING MATERIALS

Asbestos is a class of naturally occurring mineral that was widely used in building materials due to its insulating and non-flammable properties. Some asbestos-containing material (ACM) may deteriorate, allowing fibers of asbestos to become airborne, where they may be inhaled and trapped in the lungs. Long-term inhalation exposure to ACM has been linked to asbestosis and mesothelioma.

3.11.5.1.4.1 ALIGNMENTS AND STATIONS

Each of the stations associated with the KNE alignments has at least one property planned for acquisition to accommodate the station entrance(s) and/or the construction staging areas that have structures currently on the property. The potential exists for these structures to contain ACM.

3.11.5.1.4.2 HOLLYWOOD BOWL DESIGN OPTION

No structures exist on the properties planned for acquisition to accommodate the station entrance(s) and/or the construction staging areas; therefore, ACM is not a concern for the design option.

3.11.5.1.4.3 MAINTENANCE AND STORAGE FACILITY

Several structures exist on the properties planned for acquisition on the MSF site, and the potential exists for these structures to contain ACM.

3.11.5.1.5 POLYCHLORINATED BIPHENYLS

Electrical transformers, hydraulic equipment, capacitors, and similar equipment may contain polychlorinated biphenyls (PCBs) in hydraulic or dielectric insulating fluids within the units. The federal Toxic Substances Control Act has generally prohibited the domestic manufacture of PCBs since 1976; therefore, equipment manufactured after 1976 has a lower potential to contain PCBs. PCBs are man-made chlorinated hydrocarbons and are carcinogens, posing a risk to many different organs. If electrical or hydraulic equipment containing PCBs is damaged, PCB-containing fluids may leak and affect human health and/or the environment.

3.11.5.1.5.1 ALIGNMENTS AND STATIONS

Electrical transformers, hydraulic equipment, capacitors, and similar equipment located along the KNE alignments may contain PCBs in hydraulic or dielectric insulating fluids within the units.

3.11.5.1.5.2 HOLLYWOOD BOWL DESIGN OPTION

No electrical transformers or hydraulic equipment exists on the properties planned for acquisition to accommodate the station entrance(s) and/or the construction staging areas; therefore, PCBs are not a concern for the design option.

3.11.5.1.5.3 MAINTENANCE AND STORAGE FACILITY

Several commercial or industrial structures exist on the properties planned for acquisition of the MSF site, and the potential exists for these structures to have equipment that contains PCBs.

3.11.5.1.6 PESTICIDES

Agricultural activities commonly include the storage, handling, and application of pesticides (and herbicides) on row crops or orchards. The routine application of such compounds may not accumulate to soil concentrations requiring regulatory oversight. The main areas of concern are handling and storage areas. Pesticides, which also include herbicides, prevent, destroy, repel, or mitigate a pest, or are a plant regulator, defoliant, desiccant, or nitrogen stabilizer. Pesticides typically are of two main types: organochlorine pesticides and arsenical herbicides. In general, pesticides and herbicides are not very mobile in soils and are commonly found within approximately three feet of the ground surface. Portions of the RSA were historically undeveloped or may have been used for agricultural purposes; therefore, the presence of pesticides in the shallow soils is possible.

Pesticides pose differing levels of risk to humans depending on the variety of pesticide and the concentration. Cancer, reproductive harm, and neurological toxicity are a few of the risks posed by this class of chemical.

3.11.5.1.6.1 ALIGNMENTS AND STATIONS

No agricultural activities are known to have occurred along the KNE alignments; therefore, pesticides are not a concern.

3.11.5.1.6.2 HOLLYWOOD BOWL DESIGN OPTION

No agricultural activities are known to have occurred along the Hollywood Bowl Design Option; therefore, pesticides are not a concern.

3.11.5.1.6.3 MAINTENANCE AND STORAGE FACILITY

The MSF site appears to have been used for agricultural purposes until about 1950. It is likely that pesticides were regularly applied to the property for many years, making it likely that residual pesticides could be present in the soils on the MSF.

3.11.5.1.7 OIL AND GAS FIELDS

Oil and gas fields are areas with current and/or historical production of oil and gas from multiple wells. Locations of oil wells (active, idle, and abandoned) were plotted from the California Geologic Energy Management Division (CalGEM) online Well Finder (WellSTAR) database. Contaminants from naturally occurring petroleum substances are also often present around the wells. In addition, the well fields are a source of naturally occurring subsurface methane and hydrogen sulfide gases. Existing old wells, if not properly cased and sealed, could allow upward migration of petroleum and gases into the near subsurface, affecting an area beyond the well casing. The presence of the gases is an existing condition. Current and historical oil wells typically used a mud pit during the drilling process, the remains of which may still be present in the vicinity of the oil well. In addition, contamination from these former mud pits and the associated pipelines and storage tanks supporting drilling of the oil well may be present near each former oil well and may be encountered during grading and construction.

The primary hazards associated with oil and gas fields stem from contaminated soil and groundwater, and the presence of subsurface gases—primarily methane and hydrogen sulfide. Methane and hydrogen sulfide are considered hazardous because of their explosive properties. Also, hydrogen sulfide, which can be smelled at low, non-toxic levels, is highly toxic if inhaled at higher concentrations. These gases can seep from the surrounding soil and through fractures or faults in the ground into buildings and into open excavations, such as tunnels. In certain concentrations, the presence of methane requires mitigation measures. Methane may accumulate in subsurface or enclosed spaces; if ignited, it can result in substantial property damage and destruction and/or injury/death. Hydrogen sulfide is a toxic gas that can result in poisoning and, at a range of higher concentrations, death.

In parallel with these City of Los Angeles policies for management of the hazard of methane, Metro is developing criteria for safe design, construction, and operation of underground rail transit stations and tunnels with the pervasive and unavoidable hazards associated with oil and gas fields. The presence of gases was characterized in substantial detail as part of subsurface investigations for the Metro Purple Line (D Line) Extension projects that constructed tunnels and underground stations along Wilshire Boulevard. All KNE alignments would intersect the D Line Extension on Wilshire Boulevard.

3.11.5.1.7.1 ALIGNMENTS AND STATIONS

The design and construction of subsurface components of the project (tunnels, accessways, stations, etc.) within the boundaries of the oil and gas fields will require protection from volatile organic compounds (VOCs), methane, and/or hydrogen sulfide gases. As shown on shown on Figure 3.11-23, Figure 3.11-24, and Figure 3.11-25, the alignment RSAs include the following oil and gas fields:

- The KNE San Vicente–Fairfax Alignment (Figure 3.11-23) passes through four separate oil and gas fields: the La Cienegas, the Salt Lake South, the Salt Lake, and the Sherman. Two additional oil and gas fields (the Beverly Hills and the San Vicente) are within the RSA, but the alignment does not pass through the boundaries of these fields. The following five proposed stations are within the boundaries of an oil and gas field: Midtown Crossing, Wilshire/Fairfax, Fairfax/3rd, La Cienega/Beverly, and San Vicente/Santa Monica Stations.
- The KNE Fairfax Alignment (Figure 3.11-24) passes through three separate oil and gas fields: the Las Cienegas, the Salt Lake South, and the Salt Lake. One additional oil and gas field (the Beverly Hills) is within the RSA, but the alignment does not pass through the boundaries of this field. The following three proposed stations are within the boundaries of an oil and gas field: Midtown Crossing, Wilshire/Fairfax, and Fairfax/3rd.
- The KNE La Brea Alignment (Figure 3.11-25) passes through two separate oil and gas fields: the Las Cienegas and the Salt Lake. One additional oil and gas field (the Salt Lake South) is within the RSA, but the alignment does not pass through the boundaries of this field. The following two proposed stations are within an oil and gas field: Midtown Crossing and La Brea/Beverly; the Wilshire/La Brea Station would be located along the edge of an oil and gas field.

In addition, numerous plugged and idle oil and gas wells are located within the alignment and station RSAs; some of these wells may be within an alignment and station footprint.

3.11.5.1.7.2 HOLLYWOOD BOWL DESIGN OPTION

The Hollywood Bowl Design Option does not pass through an oil and gas field.

3.11.5.1.7.3 MAINTENANCE AND STORAGE FACILITY

The MSF site is not located within an oil and gas field.

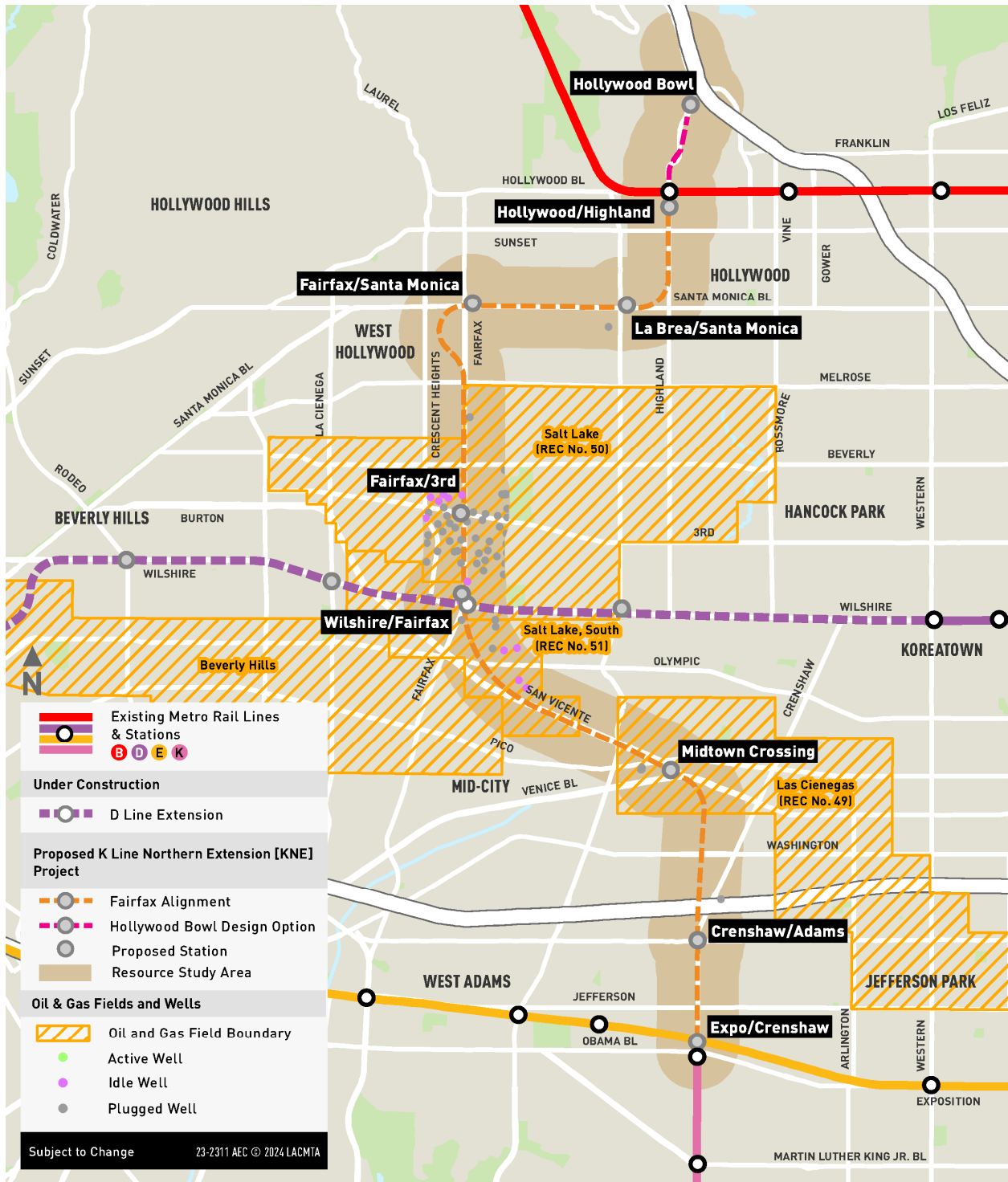


FIGURE 3.11-23. OIL AND GAS FIELDS IN VICINITY OF KNE SAN VICENTE–FAIRFAX ALIGNMENT



Source: Connect Los Angeles Partners 2023

FIGURE 3.11-24. OIL AND GAS FIELDS IN VICINITY OF KNE FAIRFAX ALIGNMENT



Source: Connect Los Angeles Partners 2023

FIGURE 3.11-25. OIL AND GAS FIELDS IN VICINITY OF KNE LA BREA ALIGNMENT



Source: Connect Los Angeles Partners 2023

3.11.5.1.8 PETROLEUM PIPELINES

Petroleum pipelines can carry such products as crude and refined oil, kerosene, gasoline, or natural gas at different times. The pipelines can degrade over time and begin leaking, contaminating the surrounding soil and/or groundwater before the leak is noticed.

3.11.5.1.8.1 ALIGNMENTS AND STATIONS

As shown on Figure 3.11-26, Figure 3.11-27, and Figure 3.11-28, the following pipelines cross the alignments or are in the RSAs:

- The KNE San Vicente–Fairfax Alignment (Figure 3.11-26) crosses one hazardous liquid pipeline at West 29th Street, one block south of the Crenshaw/Adams Station. Three additional hazardous liquid pipelines are within the RSA; however, the alignment does not cross them. These pipelines are present southwest of the Midtown Crossing Station, south of the Wilshire/Fairfax Station, and south of the La Cienega/Beverly Station.
- The KNE Fairfax Alignment (Figure 3.11-27) crosses one hazardous liquid pipeline at West 29th Street, one block south of the Crenshaw/Adams Station. Two additional hazardous liquid pipelines are within the RSA; however, the alignment does not cross them. These pipelines are present southwest of the Midtown Crossing Station, and south of the Wilshire/Fairfax Station.
- The KNE La Brea Alignment (Figure 3.11-28) crosses one hazardous liquid pipeline at West 29th Street one block south of the Crenshaw/Adams Station. One additional hazardous liquid pipeline is within the RSA; however, the alignment does not cross it. This pipeline is present southwest of the Midtown Crossing Station.

No accidents or incidents were reported along the pipeline in the vicinity of the KNE alignments as of February 23, 2023.

3.11.5.1.8.2 HOLLYWOOD BOWL DESIGN OPTION

The Hollywood Bowl Design Option does not intersect with any petroleum pipelines.

3.11.5.1.8.3 MAINTENANCE AND STORAGE FACILITY

The MSF site is bounded along the north and east sides by two natural gas transmission pipelines, as shown on Figure 3.11-29. No accidents or incidents were reported along these pipelines near the MSF as of February 23, 2023.

FIGURE 3.11-26. PETROLEUM PIPELINES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA



Source: Connect Los Angeles Partners 2023

FIGURE 3.11-27. PETROLEUM PIPELINES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA



Source: Connect Los Angeles Partners 2023

FIGURE 3.11-28. PETROLEUM PIPELINES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA


Source: Connect Los Angeles Partners 2023

FIGURE 3.11-29. PETROLEUM PIPELINES WITHIN MSF RESOURCE STUDY AREA



Source: Connect Los Angeles Partners 2023

3.11.5.1.9 RAILROADS

Railroad properties (including current and former rail lines and spur lines) are often contaminated due to a variety of factors. The corridors are sprayed for vegetation suppression and are used to transport a variety of freight. Spills or leaks of solid and liquid substances accumulate over time along the tracks, and contaminants leach into the subsurface soils. Ballast rock, which is used to create a solid base for railroad tracks to rest on, sometimes include slag and clinkers from industrial processes; ultramafic rock fragments that contain naturally occurring asbestos; or other contaminants. Contaminants found along railroad lines may include a variety of petroleum products, solvents, heavy metals, pesticides, asbestos, and treated wood waste (railroad ties), each of which are toxic in different ways.

3.11.5.1.9.1 ALIGNMENTS AND STATIONS

The westernmost portion of the KNE San Vicente–Fairfax Alignment crosses or is in proximity to the site of a railroad line that ran along San Vicente Boulevard and Santa Monica Boulevard from at least the early 1890s through the 1950s. Another railroad line, the existing at-grade Metro E Line, is present near the southern end of the alignment along West Exposition Boulevard.

The KNE Fairfax Alignment crosses a railroad line—the existing at-grade Metro E Line—at the southern end of the alignment along West Exposition Boulevard.

The KNE La Brea Alignment crosses a railroad line—the existing at-grade Metro E Line—at the southern end of the alignment along West Exposition Boulevard.

3.11.5.1.9.2 HOLLYWOOD BOWL DESIGN OPTION

The Hollywood Bowl Design Option does not intersect with any railroad lines.

3.11.5.1.9.3 MAINTENANCE AND STORAGE FACILITY

The MSF site is bounded along the east side by a railroad line, and multiple spur lines are situated within the Division 16 property.

3.11.5.1.10 EDUCATIONAL FACILITIES

Educational facilities are defined as colleges, high schools, elementary schools, preschools, or nursery schools, either public or private. Children are particularly susceptible to impacts from hazardous materials and/or wastes.

3.11.5.1.10.1 ALIGNMENTS AND STATIONS

KNE SAN VICENTE–FAIRFAX ALIGNMENT

The KNE San Vicente–Fairfax Alignment has 26 educational facilities within its RSA, as shown in Table 3.11-5 and depicted on Figure 3.11-30. In cases where the map ID numbers in the table are not consecutive, it is because those facilities are identified on another alignment.



TABLE 3.11-5. EDUCATIONAL FACILITIES WITHIN KNE SAN VICENTE–FAIRFAX ALIGNMENT RESOURCE STUDY AREA

MAP ID	NAME	ADDRESS
1	Virginia Road Elementary School	2925 Virginia Road, Los Angeles
2	ISANA Nascent Academy	3417 W Jefferson Blvd, Los Angeles
3	Montessori Academy of West Adams	4449 W Adams Blvd, Los Angeles
4	Alta Loma Elementary School	1745 Vineyard Ave, Los Angeles
5	Pico Preschool	4436 W Pico Blvd, Los Angeles
6	ReJOYce in Jesus Christian School	1304 S Cochran Ave, Los Angeles
7	Machon LA	5870 W Olympic Blvd, Los Angeles
8	Shalhevet High School	910 S Fairfax Ave, Los Angeles
9	Hancock Park Elementary School	408 S Fairfax Ave, Los Angeles
11	Gindi Maimonides Academy	8511 Beverly Place, Los Angeles
12	West Hollywood Elementary School	970 N Hammond St, West Hollywood
13	Saint Victor Preschool	8634 Holloway Dr, West Hollywood
14	TREE Academy	8628 Holloway Dr, West Hollywood
15	West Hollywood College Preparatory School	1317 N Crescent Heights Blvd, West Hollywood
16	Larchmont Charter School	1265 N Fairfax Ave, West Hollywood
17	Fountain Day School	1128 N Orange Grove Ave, West Hollywood
18	Laurel Early Education Center	8023 Willoughby Ave, Los Angeles
19	Laurel Cinematic Arts & Creative Technologies Magnet	925 N Hayworth Ave, Los Angeles
20	ABC Little School	927 N Fairfax Ave, West Hollywood
21	West Hollywood Preschool	7377 Santa Monica Blvd, West Hollywood
31	Hollywood Schoolhouse	1233 N McCadden Place, Los Angeles
32	Hollywood High School	1521 N Highland Ave, Los Angeles
33	Little Paws Montessori	1341 N Mansfield Ave, Los Angeles
34	Sunset Montessori Preschool	1432 N Sycamore Ave, Los Angeles
35	Selma Avenue Elementary School	6611 Selma Ave, Los Angeles
36	The Oaks School	6817 Franklin Ave, Los Angeles

Source: California Department of Education n.d.; Google Maps 2023

Note: Map ID numbers refer to Figure 3.11-30 and may not be consecutive or in numerical order.

FIGURE 3.11-30. EDUCATIONAL FACILITIES WITHIN KNE SAN VICENTE-FAIRFAX ALIGNMENT RESOURCE STUDY AREA



Source: California Department of Education n.d.

KNE FAIRFAX ALIGNMENT

The KNE Fairfax Alignment has 22 educational facilities within its RSA, as shown in Table 3.11-6 and depicted on Figure 3.11-31. In cases where the map ID numbers in the table are not consecutive, it is because those facilities are identified on another alignment.

TABLE 3.11-6. EDUCATIONAL FACILITIES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA

MAP ID	NAME	ADDRESS
1	Virginia Road Elementary School	2925 Virginia Road, Los Angeles
2	ISANA Nascent Academy	3417 W Jefferson Blvd, Los Angeles
3	Montessori Academy of West Adams	4449 W Adams Blvd, Los Angeles
4	Alta Loma Elementary School	1745 Vineyard Ave, Los Angeles
5	Pico Preschool	4436 W Pico Blvd, Los Angeles
6	ReJOYce in Jesus Christian School	1304 S Cochran Ave, Los Angeles
7	Machon LA	5870 W Olympic Blvd, Los Angeles
8	Shalhevet High School	910 S Fairfax Ave, Los Angeles
9	Hancock Park Elementary School	408 S Fairfax Ave, Los Angeles
10	Fairfax High School	7850 Melrose Ave, Los Angeles
16	Larchmont Charter School	1265 N Fairfax Ave, West Hollywood
17	Fountain Day School	1128 N Orange Grove Ave, West Hollywood
18	Laurel Early Education Center	8023 Willoughby Ave, Los Angeles
19	Laurel Cinematic Arts & Creative Technologies Magnet	925 N Hayworth Ave, Los Angeles
20	ABC Little School	927 N Fairfax Ave, West Hollywood
21	West Hollywood Preschool	7377 Santa Monica Blvd, West Hollywood
31	Hollywood Schoolhouse	1233 N McCadden Place, Los Angeles
32	Hollywood High School	1521 N Highland Ave, Los Angeles
33	Little Paws Montessori	1341 N Mansfield Ave, Los Angeles
34	Sunset Montessori Preschool	1432 N Sycamore Ave, Los Angeles
35	Selma Avenue Elementary School	6611 Selma Ave, Los Angeles
36	The Oaks School	6817 Franklin Ave, Los Angeles

Source: California Department of Education n.d.; Google Maps 2023
 Note: Map ID numbers refer to Figure 3.11-31 and may not be consecutive.

FIGURE 3.11-31. EDUCATIONAL FACILITIES WITHIN KNE FAIRFAX ALIGNMENT RESOURCE STUDY AREA



Source: California Department of Education n.d.

KNE LA BREA ALIGNMENT

The KNE La Brea Alignment has 20 educational facilities within its RSA, as shown in Table 3.11-7 and depicted on Figure 3.11-32. In cases where the map ID numbers in the table are not consecutive, it is because those facilities are identified on another alignment.

TABLE 3.11-7. EDUCATIONAL FACILITIES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA

MAP ID	NAME	ADDRESS
1	Virginia Road Elementary School	2925 Virginia Road, Los Angeles
2	ISANA Nascent Academy	3417 W Jefferson Blvd, Los Angeles
3	Montessori Academy of West Adams	4449 W Adams Blvd, Los Angeles
4	Alta Loma Elementary School	1745 Vineyard Ave, Los Angeles
5	Pico Preschool	4436 W Pico Blvd, Los Angeles
22	Yeshiva Gedolah of Los Angeles	5444 W Olympic Blvd, Los Angeles
23	Awaken Dreams Creative Learning Center	5555 W Olympic Blvd, Los Angeles
24	Wilshire Crest Elementary School	5241 W Olympic Blvd, Los Angeles
25	Cathedral Chapel School	755 S Cochran Ave, Los Angeles
26	Ohr Eliyahu Academy (Yeshiva Aharon Yaakov Ohr Eliyahu)	241 S Detroit St, Los Angeles
27	Yeshiva Rav Isacsohn/Toras Emes Academy	540 N La Brea Ave, Los Angeles
28	Melrose Avenue Math/Science/Technology Magnet	731 N Detroit St, Los Angeles
29	Yeshiva Ohr Elchonon Chabad	7215 Waring Ave, Los Angeles
30	Cheder of Los Angeles	801 N La Brea Ave, Los Angeles
31	Hollywood Schoolhouse	1233 N McCadden Place, Los Angeles
32	Hollywood High School	1521 N Highland Ave, Los Angeles
33	Little Paws Montessori	1341 N Mansfield Ave, Los Angeles
34	Sunset Montessori Preschool	1432 N Sycamore Ave, Los Angeles
35	Selma Avenue Elementary School	6611 Selma Ave, Los Angeles
36	The Oaks School	6817 Franklin Ave, Los Angeles

Source: California Department of Education n.d.; Google Maps, 2023

Note: Map ID numbers refer to Figure 3.11-32 and may not be consecutive or in numerical order.

FIGURE 3.11-32. EDUCATIONAL FACILITIES WITHIN KNE LA BREA ALIGNMENT RESOURCE STUDY AREA



Source: California Department of Education n.d.

3.11.5.1.10.2 HOLLYWOOD BOWL DESIGN OPTION

The Hollywood Bowl Design Option has one educational facility within its RSA. This facility is the Oaks School at 6817 Franklin Avenue, Los Angeles; the location is listed in Table 3.11-5 and depicted on Figure 3.11-30. This facility is also included in the alignment RSAs.

3.11.5.1.10.3 MAINTENANCE AND STORAGE FACILITY

The MSF site has no educational facilities within its RSA.

3.11.5.1.11 AIRPORTS

3.11.5.1.11.1 ALIGNMENTS AND STATIONS

The KNE alignments are not situated within two miles of an airport (public or private).

3.11.5.1.11.2 HOLLYWOOD BOWL DESIGN OPTION

The Hollywood Bowl Design Option is not situated within two miles of an airport (public or private).

3.11.5.1.11.3 MAINTENANCE AND STORAGE FACILITY

The MSF site is approximately 0.5 mile northeast of LAX.

3.11.5.1.12 WILDLAND FIRES

Wildland fire zones have been identified in the Santa Monica Mountains and the Baldwin Hills in Los Angeles County. Wildland fires pose a risk to people and infrastructure within these zones.

3.11.5.1.12.1 ALIGNMENTS AND STATIONS

The KNE alignments would be situated within a wildland fire zone.

3.11.5.1.12.2 HOLLYWOOD BOWL DESIGN OPTION

The RSA of the Hollywood Bowl Design Option is within a wildland fire zone (Los Angeles Fire Department [LAFD] 2023). The entire design option north of Franklin Street would be within the fire zone, which has a very high fire severity; however, with the exception of the proposed station entrance(s), this portion of the design option would be underground.

3.11.5.1.12.3 MAINTENANCE AND STORAGE FACILITY

The MSF site would not be within a wildland fire zone.

3.11.6 PROJECT MEASURES

Project measures are design features, best management practices (BMPs), or other commitments that Metro would implement as part of all proposed alignments, the design option, and the MSF to reduce or avoid environmental effects associated with project construction and operation. Project measures are not the same as mitigation measures, which are used to reduce an environmental impact's significance level. Where applicable, project measures are also discussed in Section 3.11.7 as part of the evaluation of environmental impacts.

3.11.6.1 PM HAZ-1: RISK REDUCTION FOR SUBSURFACE GAS

The following construction approaches are implemented on Metro projects and reduce risk associated with hazardous materials, in particular related to the risks associated with subsurface gas:

- **Hazardous Gases:** Methane in air is explosive in the range of concentration from five percent to 15 percent by volume. Very high concentrations of methane are not explosive; however, when diluted by air, the mixture can readily become explosive. The level of five percent methane in air is termed the lower explosive limit (LEL), and below five percent methane in air does not ignite. Safety protocols typically require dilution of methane to less than 10 percent of the LEL.
- **Monitoring and Recording of Air Quality at Worksites:** Monitoring and recording of air quality within the underground worksites shall be conducted. In areas of gassy soil conditions, air shall be continuously monitored and recorded. Construction shall be altered as required to maintain a safe working atmosphere. The working environment shall be kept in compliance with federal, state, and local regulations, including South Coast Air Quality Management District and Cal/OSHA standards.
- **Techniques to Lower the Risk of Exposure to Methane and Hydrogen Sulfide:** The primary method for reducing exposure to subsurface gases during tunneling is dilution through the ventilation system. In areas where high levels of hazardous gas are encountered, several additional techniques could be used to lower the risk of exposure. These include isolation of gas from the tunnel environment through use of enclosed tunneling systems such as pressurized-face tunnel boring machines (TBMs), which is mandatory for use on all Metro soft-ground tunnel projects. Where earth pressure balance TBMs are used, a measure to manage hazardous off-gassing from tunnel muck on conveyors is to fully enclose the conveyor from the TBM back to the work shaft. This approach would safely discharge any hazardous gases to the atmosphere outside the tunnel. Increased ventilation capacity and possibly slower rates of tunneling could assist with dilution of gas concentrations to safe levels as defined by Cal/OSHA.

Secondary measures for reduction in hydrogen sulfide levels could include pre-treatment of groundwater containing hydrogen sulfide by displacing and oxidation of the hydrogen sulfide by injecting water (possibly containing diluted hydrogen peroxide) into the ground and groundwater in advance of the tunnel excavation. This "in-situ oxidation" method reduces hydrogen sulfide levels even before the ground is excavated. Air injection and gas extraction techniques have also been used to oxidize hydrogen sulfide in advance of tunneling. These methods may also be implemented at tunnel-to-station connections or at cross-passage excavation areas. If slurry-face

TBMs are used, the excavated soil with the hazardous gases is transported to the ground surface in a slurry pipeline. When needed to reduce hydrogen sulfide to safe levels for slurry treatment, additives could be mixed with the bentonite (clay) slurry during the tunneling and/or prior to discharge into the slurry separation plant. Following petroleum industry practices with hydrogen sulfide gas in drilling mud, the hydrogen sulfide would be oxidized by injection of hydrogen peroxide. In all cases, air quality standards would comply with Cal/OSHA requirements for a safe working environment.

- **Oil Well Locations and Abandonment:** In areas where historic oil wells have been documented, pre-construction geophysical (magnetic) surveys shall be conducted to more precisely detect the locations of oil wells. It is anticipated that the geophysical surveys shall be performed along the proposed tunnel alignment prior to construction in the areas of known oil production and mapped wells. Detection of oil wells shall include use of magnetic devices (magnetometers) to sense oil well casings within the tunnel alignment. This survey could also use techniques such as ground-penetrating radar and electromagnetic testing procedures to screen for oil well casings and other suspected subsurface obstructions along the tunnel. These methods could be initiated from the ground surface, in horizontal holes drilled using horizontal directional drilling techniques, or a combination of methods. Shallow excavations may be made to expose and observe anomalies that are detected. Where the tunnel alignment cannot be adjusted to avoid a well casing, CalGEM shall be contacted to determine the appropriate method to re-abandon the well. Oil well abandonment must proceed in accordance with California Laws for Conservation of Petroleum and Gas (1997), Division 3. Oil and gas, Chapter 1. Oil and Gas Conservation, Article 4, Sections 3228, 3229, 3230, and 3232. The requirements include written notification to CalGEM, protection of adjacent property, and before commencing any work to abandon any well, obtaining approval by CalGEM. Abandonment work, including sealing off oil/gas bearing units, pressure grouting, etc., must be performed by a state-licensed contractor under the regulatory oversight and approval of CalGEM. During construction, if an unknown well is encountered, the contractor shall notify Metro, Cal/OSHA, and the Division of Oil, Gas, and Geothermal Resources for well abandonment, and proceed in accordance with state requirements.
- **Worker Safety for Gassy Tunnels:** Cal/OSHA requires the use of W65 self-rescuers, a breathing apparatus required for safety during evacuation of fires.
- **Gas Monitoring – Assessment:** Gas monitoring wells shall be installed along the alignment during the preliminary geotechnical investigations. Additional multistage (varying depths) soil gas wells (or probes) shall be installed along the alignment in areas where elevated gas has been detected. The probes shall be monitored for methane, hydrogen sulfide, oxygen, and carbon dioxide before, during, and after tunneling. Ambient air monitoring shall also be performed at the ground surface to screen for indications of soil gas emissions. Any instance where methane is detected at or above a concentration of 5,500 parts per million (ppm) (10 percent LEL) or hydrogen sulfide is detected at or above a concentration of 10 ppm (OSHA permissible exposure limit) in a soil probe (five feet below the ground surface) shall be investigated. Where these levels are exceeded, combustible gas monitoring shall be performed in the interior of the closest building. In the unlikely event that elevated gas levels are found—and persist—the affected building(s) shall be ventilated to reduce the gas levels.

During design, construction, and operations, Metro shall implement the following measures to further reduce risks associated with subsurface gas:

- Metro Rail Design Criteria (MRDC) has comprehensive and proven requirements for mitigating, to the point of practically eliminating, the hazard of subsurface gases. Elements of the MRDC are elaborated below.
- Hazardous Subsurface Gas Operations: As with the existing B (Red) and D (Purple) Lines, K (Crenshaw/LAX) Line, and Regional Connector, as well as the planned Metro E (Gold) Line Eastside Extension, Metro shall install gas monitoring and detection systems with alarms, as well as ventilation equipment to dissipate gas to safe levels according to Metro’s current design criteria and Cal/OSHA standards for a safe work or operating environment. Measures shall include, but are not limited to, the following for both tunnel and station operation:
 - ▶ High volume ventilation systems with back-up power sources
 - ▶ Gas detection systems with alarms
 - ▶ Emergency ventilation triggered by the gas detection systems
 - ▶ Automatic equipment shut-off
 - ▶ Maintenance and operations personnel training
 - ▶ Emergency Ventilation Operating Procedures established during design to operate emergency ventilation that is customized to the specifics of each underground transit line
 - ▶ Gas detection instrumentation is set to send alarms to activate ventilation systems and evacuate the structures as follows: methane gas—minor alarm at 10 percent of the LEL (activate ventilation) and major alarm at 20 percent of the LEL (evacuation of area)
 - ▶ Hydrogen sulfide—Minor alarm at 8 ppm and major alarm at 10 ppm
- Hazardous Subsurface Gas Structural Design: Tunnels and stations shall be designed to provide a redundant protection system against gas intrusion hazard. The primary protection from hazardous gases during operations is provided by the physical barriers (tunnel and station liner membranes) that keep gas out of tunnels and stations. High density polyethylene (HDPE) is impermeable to and non-soluble in methane and hydrogen sulfide. As with the existing B and D Lines and Regional Connector, as well as the planned Metro E Line Eastside Extension, tunnels and stations shall be designed to exclude gas to below alarm levels and include gas monitoring and detection systems with alarms, as well as ventilation equipment to dissipate gas. At stations in elevated gassy ground (e.g., Wilshire/Fairfax), construction could be accomplished using slurry walls—or similar methods such as continuous drilled piles—to provide a reduction of gas inflow both during and after construction than would occur with conventional soldier piles and lagging excavation support. Other station design concepts to reduce gas and water leakage are the use of additional barriers, compartmentalized barriers to facilitate leak sealing, and flexible sealants such as poly-rubber gels, along with HDPE-type materials used on Metro’s underground stations. Consideration of secondary station walls to provide additional barriers or an active system (low- or high-pressure barrier) shall also be studied further to determine if they would be incorporated into the project.

- Tunnel Advisory Panel Design Review: The Metro Tunnel Advisory Panel shall review designs with respect to geologic hazards in areas of identified higher risk. The panel shall be supplemented, as necessary, by qualified experts in seismic design, gas intrusion, and ground contaminant effects on underground structures.

3.11.6.2 PM TRA-2: TRANSPORTATION BEST MANAGEMENT PRACTICES

Transportation BMPs during construction of the alignments and stations, the design option, and the MSF shall include the following:

- Cooperation with the corridor cities and the California Department of Transportation (Caltrans) shall occur throughout the construction process. Restrictions on haul routes may be incorporated into the construction specifications according to local permitting requirements.
- Pedestrian access to adjacent properties along the alignments, the design option, and the MSF shall be maintained during construction.
- Construction activities shall comply with OSHA, California OSHA, and Metro safety and security programs.
- Safety for pedestrians, bicyclists, and motorists shall be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites.
- Metro shall prepare a Traffic Management Plan (TMP) in coordination with Caltrans, cities, and local fire and police departments prior to initiating construction activities that includes the following:
 - ▶ Standard practices shall be followed that include scheduling of lane and/or road closures to minimize disruptions.
 - ▶ Detour plans shall be prepared for any streets requiring a full closure to provide safe alternate routes to vehicular traffic, pedestrians, and bicyclists during these closures.
 - ▶ Traffic control plans shall be prepared to route vehicles, bicyclists, and pedestrians around any partial closures of streets, bicycle facilities, and sidewalks.
 - ▶ Information on bus stop relocation and modification to bus routes shall be provided, as applicable. Signs shall be posted to inform transit users in advance of street closures.
 - ▶ Construction timings and street closure information shall be available to the public through media alerts, the project's website, and changeable message signs.
 - ▶ The nearest local first responders shall be notified, as appropriate, of traffic control measures in the TMP during construction to coordinate emergency response routing.
 - ▶ The delivery and pick up of construction material during non-peak travel periods shall be scheduled to the extent possible to reduce the potential of conflicts between construction trucks and commuter traffic.
 - ▶ Coordination shall occur with other construction projects in the vicinity.

- The project shall be designed and constructed per applicable state, Metro, and city design criteria and standards, including adherence to design codes and standards such as the OSHA, Cal/OSHA, California Public Utilities Commission, California Manual on Uniform Traffic Control Devices, and Metro safety and security programs and standards (i.e., MRDC and Metro Systemwide Station Design Standards Policy). The construction TMP will be prepared in compliance with these standards.
- Financial assistance may be provided to small businesses along the proposed alignments, the design option, and the MSF that are directly affected by construction activities through grants to cover certain fixed operating expenses such as utilities, rent or mortgage, and insurance.
- Metro shall coordinate with the Hollywood Bowl to maintain circulation and access to the Hollywood Bowl during construction of the optional Hollywood Bowl station.

3.11.7 IMPACT EVALUATION AND MITIGATION MEASURES

This analysis presents the construction and operational impacts for hazards and hazardous materials, as well as any applicable mitigation measures associated with KNE. A summary of the impact conclusions and applicable mitigation measures is found in Table 3.11-8 in Section 3.11.7.9.

3.11.7.1 IMPACT HAZ-1: HAZARDS FROM ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS

Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

3.11.7.1.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.1.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE San Vicente–Fairfax Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals. Some of these materials would be temporarily stored on site, but storage would be consistent with the guidelines established by manufacturers’ recommendations and with the requirements of state and federal law. In addition, hazardous waste generated during construction could include welding materials, fuel and lubricant containers, paint and solvent containers, and cement products.

Demolition of structures containing asbestos and lead-based materials requires specialized procedures and equipment and appropriately certified personnel. Structures intended for demolition would be surveyed for ACMs and lead during the property acquisition phase. A site-specific Phase I ESA would be conducted for each property to be acquired, and if the property has a structure that needs to be demolished, a hazardous materials building survey (including ACM and LBP evaluations) would be undertaken. For structures with ACM or LBP identified, a demolition plan would be prepared specifying how to appropriately contain, remove, and dispose of the asbestos- and lead-containing material while meeting regulatory requirements and BMPs to protect human health and the environment.

Construction procedures would be established through preparation of a material management plan to limit the potential release of subsurface contaminants, reduce risks associated with disturbing undocumented contaminated soil, and reduce the risk of hazardous material spills during transport. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. Contaminated soil and/or groundwater or other wastes would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with the federal, state, and local regulatory requirements.

Construction of the alignment and stations would be required to comply with existing federal, state, and local regulations pertaining to routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public or the environment. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.11.7.1.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would also employ potentially hazardous materials such as paints, fuels, and lubricants. Any hazardous materials or wastes generated during operations would be managed and disposed of in accordance with local, state, and federal regulations. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler and, as a result, the alignment would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.11.7.1.2 KNE FAIRFAX ALIGNMENT

3.11.7.1.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE Fairfax Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals. Some of these materials would be temporarily stored on site, but storage would be consistent with the guidelines established by manufacturers' recommendations and with the requirements of state and federal law. In addition, hazardous waste generated during construction could include welding materials, fuel and lubricant containers, paint and solvent containers, and cement products.

Demolition of structures containing asbestos and lead-based materials requires specialized procedures and equipment and appropriately certified personnel. Structures intended for demolition would be surveyed for ACMs and lead during the property acquisition phase. A site-specific Phase I ESA would be conducted for each property to be acquired, and if the property has a structure that needs to be

demolished, a hazardous materials building survey (including ACM and LBP evaluations) would be undertaken. For structures with ACM or LBP identified, a demolition plan would be prepared specifying how to appropriately contain, remove, and dispose of the asbestos- and lead-containing material while meeting regulatory requirements and BMPs to protect human health and the environment.

Construction procedures would be established through preparation of a material management plan to limit the potential release of subsurface contaminants, reduce risks associated with disturbing undocumented contaminated soil, and reduce the risk of hazardous material spills during transport. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. Contaminated soil and/or groundwater or other wastes would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with the federal, state, and local regulatory requirements.

Construction of the alignment and stations would be required to comply with existing federal, state, and local regulations pertaining to routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public or the environment. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.11.7.1.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE Fairfax Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would also employ potentially hazardous materials such as paints, fuels, and lubricants. Any hazardous materials or wastes generated during operations would be managed and disposed of in accordance with local, state, and federal regulations. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler and, as a result, the alignment would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.11.7.1.3 KNE LA BREA ALIGNMENT

3.11.7.1.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE La Brea Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals. Some of these materials would be temporarily stored on site, but storage would be consistent with the guidelines established by manufacturers' recommendations and with the requirements of state and federal law. In addition, hazardous waste generated during construction could include welding materials, fuel and lubricant containers, paint and solvent containers, and cement products.

Demolition of structures containing asbestos and lead-based materials requires specialized procedures and equipment and appropriately certified personnel. Structures intended for demolition would be surveyed for ACMs and lead during the property acquisition phase. A site-specific Phase I ESA would be conducted for each property to be acquired, and if the property has a structure that needs to be demolished, a hazardous materials building survey (including ACM and LBP evaluations) would be undertaken. For structures with ACM or LBP identified, a demolition plan would be prepared specifying how to appropriately contain, remove, and dispose of the asbestos- and lead-containing material while meeting regulatory requirements and BMPs to protect human health and the environment.

Construction procedures would be established through preparation of a material management plan to limit the potential release of subsurface contaminants, reduce risks associated with disturbing undocumented contaminated soil, and reduce the risk of hazardous material spills during transport. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. Contaminated soil and/or groundwater or other wastes would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with the federal, state, and local regulatory requirements.

Construction of the alignment and stations would be required to comply with existing federal, state, and local regulations pertaining to routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public or the environment. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.11.7.1.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE La Brea Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would also employ potentially hazardous materials such as paints, fuels, and lubricants. Any hazardous materials or wastes generated during operations would be managed and disposed of in accordance with local, state, and federal regulations. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler and as a result the alignment would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.11.7.1.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.1.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the Hollywood Bowl Design Option would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic

chemicals. Some of these materials would be temporarily stored on site, but storage would be consistent with the guidelines established by manufacturers' recommendations and with the requirements of state and federal law. In addition, hazardous waste generated during construction could include welding materials, fuel and lubricant containers, paint and solvent containers, and cement products.

Demolition of structures containing asbestos and lead-based materials requires specialized procedures and equipment and appropriately certified personnel. Structures intended for demolition would be surveyed for ACMs and lead during the property acquisition phase. A site-specific Phase I ESA would be conducted for each property to be acquired, and if the property has a structure that needs to be demolished, a hazardous materials building survey (including ACM and LBP evaluations) would be undertaken. For structures with ACM or LBP identified, a demolition plan would be prepared specifying how to appropriately contain, remove, and dispose of the asbestos- and lead-containing material while meeting regulatory requirements and BMPs to protect human health and the environment.

Construction procedures would be established through preparation of a material management plan to limit the potential release of subsurface contaminants, reduce risks associated with disturbing undocumented contaminated soil, and reduce the risk of hazardous material spills during transport. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. Contaminated soil and/or groundwater or other wastes would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with the federal, state, and local regulatory requirements.

Construction of the design option and station would be required to comply with existing federal, state, and local regulations pertaining to routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public or the environment. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.11.7.1.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the Hollywood Bowl Design Option would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of station and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would also employ potentially hazardous materials such as paints, fuels, and lubricants. Any hazardous materials or wastes generated during operations would be managed and disposed of in accordance with local, state, and federal regulations. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler and, as a result, the design option would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.11.7.1.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.1.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the MSF would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals. Some of these materials would be temporarily stored on site, but storage would be consistent with the guidelines established by manufacturers' recommendations and with the requirements of state and federal law. In addition, hazardous waste generated during construction could include welding materials, fuel and lubricant containers, paint and solvent containers, and cement products.

Demolition of structures containing asbestos and lead-based materials requires specialized procedures and equipment and appropriately certified personnel. Structures intended for demolition would be surveyed for ACMs and lead during the property acquisition phase. A site-specific Phase I ESA would be conducted for each property to be acquired, and if the property has a structure that needs to be demolished, a hazardous materials building survey (including ACM and LBP evaluations) would be undertaken. For structures with ACM or LBP identified, a demolition plan would be prepared specifying how to appropriately contain, remove, and dispose of the asbestos- and lead-containing material while meeting regulatory requirements and BMPs to protect human health and the environment.

Construction procedures would be established through preparation of a material management plan to limit the potential release of subsurface contaminants, reduce risks associated with disturbing undocumented contaminated soil, and reduce the risk of hazardous material spills during transport. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. Contaminated soil and/or groundwater or other wastes would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with the federal, state, and local regulatory requirements.

Construction of the MSF would be required to comply with existing federal, state, and local regulations pertaining to routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public or the environment. Therefore, the MSF would have a less than significant impact during construction.

3.11.7.1.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the MSF would involve the transport, use, and disposal of larger quantities of hazardous materials than for the alignments and design option. Maintenance, servicing, and daily cleaning of the light rail vehicles would occur at the MSF. The maintenance and repair activities may require a wide variety of substances, including cleaning chemicals, degreasers, fuels, lubricants, paints, and caulk. Materials may also be generated from these activities in greater quantities compared to the alignments and design option, and would include spent containers for the aforementioned substances, used filters, and cleaning cloths contaminated with chemical residues. Any

hazardous materials or wastes generated during operations would be managed and disposed in accordance with local, state, and federal regulations. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler and, as a result, the MSF would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the MSF would have a less than significant impact during operation.

3.11.7.2 IMPACT HAZ-2: HAZARDS DUE TO UPSET AND ACCIDENT CONDITIONS THAT INVOLVE THE RELEASE OF HAZARDOUS MATERIALS

Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

3.11.7.2.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.2.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE San Vicente–Fairfax Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products, such as gasoline and diesel fuel, compressed gases, lubricants, paints, solvents, and cement products containing strong basic or acidic chemicals, as well as hazardous waste generated during construction. In addition, structures that require demolition may contain ACM and LBP that would require transport and disposal. Hazardous materials could be released into the environment if there is an accident or if existing contamination is exposed during construction.

Some of the hazardous materials identified above would be temporarily stored on site, but storage would be limited to specific areas. The storage of these materials would comply with the project guidelines established by Metro’s specifications as part of project design and with state and federal regulatory requirements.

Off-site accidents could occur during transport of the hazardous materials listed above, and other material, or during transport of contaminated soil or groundwater from the cleanup of existing contaminated sites. Transport of these materials would expose individuals and the environment to off-site risks. These materials would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Construction of the KNE San Vicente–Fairfax Alignment would be required to comply with existing federal, state, and local regulations pertaining to hazardous materials, as well as Metro’s guidelines. The alignment would not create a significant hazard to the public or the environment through reasonably

foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.11.7.2.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would involve the occasional transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints, solvents, and caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ small quantities of potentially hazardous materials such as paints, fuels, and lubricants. The light rail vehicles would be electric and would therefore carry no fuel, but minimal other hazardous products such as hydraulic fluids or coolants may be on board. Any hazardous materials or wastes generated during operations would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Because of the infrequent nature of transport of these materials during the operations phase of the project and the small quantities involved, the potential for a major hazardous materials incident or accident would be negligible. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities. The alignment would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.11.7.2.2 KNE FAIRFAX ALIGNMENT

3.11.7.2.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE Fairfax Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products, such as gasoline and diesel fuel, compressed gases, lubricants, paints, solvents, and cement products containing strong basic or acidic chemicals, as well as hazardous waste generated during construction. In addition, structures that require demolition may contain ACM and LBP that would require transport and disposal. Hazardous materials could be released into the environment if there is an accident or if existing contamination is exposed during construction.

Some of the hazardous materials identified above would be temporarily stored on site, but storage would be limited to specific areas. The storage of these materials would comply with the project guidelines established by Metro’s specifications as part of project design and with state and federal regulatory requirements.

Off-site accidents could occur during transport of the hazardous materials listed above, and other material, or during transport of contaminated soil or groundwater from the cleanup of existing

contaminated sites. Transport of these materials would expose individuals and the environment to off-site risks. These materials would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Construction of the KNE Fairfax Alignment would be required to comply with existing federal, state, and local regulations pertaining to hazardous materials, as well as Metro's guidelines. The alignment would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.11.7.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE Fairfax Alignment would involve the occasional transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints, solvents, and caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ small quantities of potentially hazardous materials such as paints, fuels, and lubricants. The light rail vehicles would be electric and would therefore carry no fuel, but minimal other hazardous products such as hydraulic fluids or coolants may be on board. Any hazardous materials or wastes generated during operations would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Because of the infrequent nature of transport of these materials during the operations phase of the project and the small quantities involved, the potential for a major hazardous materials incident or accident would be negligible. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities. The alignment would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.11.7.2.3 KNE LA BREA ALIGNMENT

3.11.7.2.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the KNE La Brea Alignment would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products, such as gasoline and diesel fuel, compressed gases, lubricants, paints, solvents, and cement products containing strong

basic or acidic chemicals, as well as hazardous waste generated during construction. In addition, structures that require demolition may contain ACM and LBP that would require transport and disposal. Hazardous materials could be released into the environment if there is an accident or if existing contamination is exposed during construction.

Some of the hazardous materials identified above would be temporarily stored on site, but storage would be limited to specific areas. The storage of these materials would comply with the project guidelines established by Metro's specifications as part of project design and with state and federal regulatory requirements.

Off-site accidents could occur during transport of the hazardous materials listed above, and other material, or during transport of contaminated soil or groundwater from the cleanup of existing contaminated sites. Transport of these materials would expose individuals and the environment to off-site risks. These materials would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Construction of the KNE La Brea Alignment would be required to comply with existing federal, state, and local regulations pertaining to hazardous materials, as well as Metro's guidelines. The alignment would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.11.7.2.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE La Brea Alignment would involve the occasional transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints, solvents, and caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ small quantities of potentially hazardous materials such as paints, fuels, and lubricants. The light rail vehicles would be electric and would therefore carry no fuel, but minimal other hazardous products such as hydraulic fluids or coolants may be on board. Any hazardous materials or wastes generated during operations would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Because of the infrequent nature of transport of these materials during the operations phase of the project and the small quantities involved, the potential for a major hazardous materials incident or accident would be negligible. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the

plans would be prepared prior to initiation of construction activities. The alignment would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.11.7.2.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.2.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the Hollywood Bowl Design Option would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products, such as gasoline and diesel fuel, compressed gases, lubricants, paints, solvents, and cement products containing strong basic or acidic chemicals, as well as hazardous waste generated during construction. In addition, structures that require demolition may contain ACM and LBP that would require transport and disposal. Hazardous materials could be released into the environment if there is an accident or if existing contamination is exposed during construction.

Some of the hazardous materials identified above would be temporarily stored on site, but storage would be limited to specific areas. The storage of these materials would comply with the project guidelines established by Metro's specifications as part of project design and with state and federal regulatory requirements.

Off-site accidents could occur during transport of the hazardous materials listed above, and other material, or during transport of contaminated soil or groundwater from the cleanup of existing contaminated sites. Transport of these materials would expose individuals and the environment to off-site risks. These materials would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Construction of the Hollywood Bowl Design Option would be required to comply with existing federal, state, and local regulations pertaining to hazardous materials, as well as Metro's guidelines. The design option would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.11.7.2.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the Hollywood Bowl Design Option would involve the occasional transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints, solvents, and caulk associated with the routine maintenance of stations and other facilities.

Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ small quantities of potentially hazardous materials such as paints, fuels, and lubricants. The light rail vehicles would be electric and would therefore carry no fuel, but minimal other hazardous products such as hydraulic fluids or coolants may be on board. Any hazardous materials or wastes generated during operations would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Because of the infrequent nature of transport of these materials during the operations phase of the project and the small quantities involved, the potential for a major hazardous materials incident or accident would be negligible. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities. The design option would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.11.7.2.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.2.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the MSF would temporarily increase the regional transport, use, and disposal of hazardous materials and petroleum products, such as gasoline and diesel fuel, compressed gases, lubricants, paints, solvents, and cement products containing strong basic or acidic chemicals, as well as hazardous waste generated during construction. In addition, structures that require demolition may contain ACM and LBP that would require transport and disposal. Hazardous materials could be released into the environment if there is an accident or if existing contamination is exposed during construction.

Some of the hazardous materials identified above would be temporarily stored on site, but storage would be limited to specific areas. The storage of these materials would comply with the project guidelines established by Metro's specifications as part of project design and with state and federal regulatory requirements.

Off-site accidents could occur during transport of the hazardous materials listed above, and other material, or during transport of contaminated soil or groundwater from the cleanup of existing contaminated sites. Transport of these materials would expose individuals and the environment to off-site risks. These materials would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste or contaminated material would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Construction of the MSF would be required to comply with existing federal, state, and local regulations pertaining to hazardous materials, as well as Metro’s guidelines. The MSF would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the MSF would have a less than significant impact during construction.

3.11.7.2.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the MSF would involve storage, transport, use, and disposal of hazardous materials such as lubricants, fuel, paints, solvents, and caulk associated with the maintenance of rail vehicles, stations, and other facilities. In addition, the light rail vehicles stored and maintained at the site would be electric and would therefore carry no fuel, but minimal other hazardous products such as hydraulic fluids or coolants may be on board.

Hazardous materials at the MSF would be stored and used consistent with the guidelines established by manufacturers’ recommendations and with the requirements of state and federal law. Hazardous materials and wastes generated during operation of the MSF would be appropriately containerized for safe transport to a licensed disposal facility. Each load of waste would be manifested for tracking purposes and transported to the appropriate disposal facility by a licensed waste hauler in accordance with federal, state, and local regulatory requirements. Because of the infrequent nature of transport of these materials during the operations phase of the project and the small quantities involved, the potential for a major hazardous materials incident or accident would be negligible. Any accidents or spills that involve hazardous materials or wastes would be promptly cleaned up in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

As described above, operation of the MSF would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, the MSF would have a less than significant impact during operation.

3.11.7.3 IMPACT HAZ-3: HAZARDOUS EMISSIONS, MATERIALS, OR WASTE WITHIN 0.25 MILE OF A SCHOOL

Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

3.11.7.3.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.3.1.1 CONSTRUCTION IMPACTS

Significant Impact. There are 26 educational facilities within 0.25 mile of the KNE San Vicente–Fairfax Alignment. There would be a temporary increase in the regional transport, use, and disposal of hazardous materials and petroleum products commonly used during construction in the RSA, in some cases within 0.25 mile of one or more schools. Such products include oils, fuels, and additives; lubricants; compressed

gases; paints, varnishes, solvents, adhesives, and glues; and cement products containing strong basic or acidic chemicals as part of the construction of the tunnels, stations, and other project components. Additionally, demolition of structures could release asbestos, lead, and other contaminants into the environment. Schools near areas that require building demolition, substantial excavation, and soil disturbance would have the highest risks of exposure to hazardous materials.

During construction, hazardous materials would be stored and transported in accordance with federal, state, and local regulations regarding the transport, use, and storage of hazardous materials. Compliance with these regulations would minimize the potential for a release of hazardous materials that could impact schools.

Prior to construction that involves demolition, the contractor would prepare building-specific demolition plans for the safe dismantling and removal of building components and debris. The demolition plans would include procedures for lead and asbestos abatement. In addition, prior to construction, the contractor would provide Metro with a hazardous materials and waste plan describing responsible parties and procedures for hazardous materials transport, containment, and storage, including BMPs, that would be implemented during construction. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Proper implementation of project-specific materials storage procedures would limit the extent of any spilled material within a storage area to that storage facility. Furthermore, the contractor would develop an environmental management plan to identify, track, and document the locations of hazardous materials and to communicate practices required for proper handling, storage, and transport of hazardous materials.

CARB requires air monitoring for construction projects, contaminated soil and groundwater remediation projects, and demolition projects. On-site monitoring regulations are summarized at the CARB website⁴ for the following airborne contaminants, which are expected to be produced as part of this project:

- Visible emissions
- Fugitive dust
- Particulate matter
- Vehicle and equipment emissions
- Odor
- Organic solvents
- Storage of organic liquids
- Transfer of gasoline and diesel fuel to vehicles
- Transfer of gasoline and diesel fuel to fuel storage tanks

⁴ <https://ww2.arb.ca.gov/>

Examples of engineering controls and BMPs that would be incorporated in design to contain any emissions that might affect a school within 0.25 mile of construction activities include emission control for diesel off-road equipment and diesel generators; dust control through wetting or covering; short- and long-term ambient air quality monitoring in neighborhoods near and downwind from the construction or maintenance sites; and field olfactometry measuring and quantifying odor strength in the ambient air. All heavy-duty off-road construction diesel equipment used during construction would meet the USEPA Tier IV emissions requirements (40 CFR 1039.101) of the Clean Air Act. In addition, toxic air contaminants from products typically used during construction (e.g., compressed gases, oils and lubricants, fuels and additives, paints and varnishes, adhesives, and glues) are expected to be minimal.

As described above, hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Hazardous materials would be used in a manner consistent with typical construction site procedures. Metro standards and other regulations also require management plans to transport and prevent spills of hazardous materials associated with construction. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (I) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have a significant impact during construction, and mitigation would be required.

3.11.7.3.1.2 OPERATIONAL IMPACTS

Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ potentially hazardous materials such as paints, fuels, and lubricants. There are 26 educational facilities in the RSA of the KNE San Vicente–Fairfax Alignment, and operation of the alignment could result in hazardous emissions or require hazardous or acutely hazardous materials, substances, or waste to be handled in proximity to one or more of these schools.

Hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (I) of Section

25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have a significant impact during operation, and mitigation would be required.

3.11.7.3.2 KNE FAIRFAX ALIGNMENT

3.11.7.3.2.1 CONSTRUCTION IMPACTS

Significant Impact. There are 22 educational facilities within 0.25 mile of the KNE Fairfax Alignment. There would be a temporary increase in the regional transport, use, and disposal of hazardous materials and petroleum products commonly used during construction in the RSA, in some cases within 0.25 mile of one or more schools. Such products include oils, fuels, and additives; lubricants; compressed gases; paints, varnishes, solvents, adhesives, and glues; and cement products containing strong basic or acidic chemicals as part of the construction of the tunnels, stations, and other project components. Additionally, demolition of structures could release asbestos, lead, and other contaminants into the environment. Schools near areas that require building demolition, substantial excavation, and soil disturbance would have the highest risks of exposure to hazardous materials.

During construction, hazardous materials would be stored and transported in accordance with federal, state, and local regulations regarding the transport, use, and storage of hazardous materials. Compliance with these regulations would minimize the potential for a release of hazardous materials that could impact schools.

Prior to construction that involves demolition, the contractor would prepare building-specific demolition plans for the safe dismantling and removal of building components and debris. The demolition plans would include procedures for lead and asbestos abatement. In addition, prior to construction, the contractor would provide Metro with a hazardous materials and waste plan describing responsible parties and procedures for hazardous materials transport, containment, and storage, including BMPs, that would be implemented during construction. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Proper implementation of project-specific materials storage procedures would limit the extent of any spilled material within a storage area to that storage facility. Furthermore, the contractor would develop an environmental management plan to identify, track, and document the locations of hazardous materials and to communicate practices required for proper handling, storage, and transport of hazardous materials.

CARB requires air monitoring for construction projects, contaminated soil and groundwater remediation projects, and demolition projects. On-site monitoring regulations are summarized at the CARB website⁵ for the following airborne contaminants, which are expected to be produced as part of this project:

- Visible emissions
- Fugitive dust
- Particulate matter

⁵ <https://ww2.arb.ca.gov/>

- Vehicle and equipment emissions
- Odor
- Organic solvents
- Storage of organic liquids
- Transfer of gasoline and diesel fuel to vehicles
- Transfer of gasoline and diesel fuel to fuel storage tanks

Examples of engineering controls and BMPs that would be incorporated in design to contain any emissions that might affect a school within 0.25 mile of construction activities include emission control for diesel off-road equipment and diesel generators; dust control through wetting or covering; short- and long-term ambient air quality monitoring in neighborhoods near and downwind from the construction or maintenance sites; and field olfactometry measuring and quantifying odor strength in the ambient air. All heavy-duty off-road construction diesel equipment used during construction would meet the USEPA Tier IV emissions requirements (40 CFR 1039.101) of the Clean Air Act. In addition, toxic air contaminants from products typically used during construction (e.g., compressed gases, oils and lubricants, fuels and additives, paints and varnishes, adhesives, and glues) are expected to be minimal.

As described above, hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Hazardous materials would be used in a manner consistent with typical construction site procedures. Metro standards and other regulations also require management plans to transport and prevent spills of hazardous materials associated with construction. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (I) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE Fairfax Alignment would have a significant impact during construction, and mitigation would be required.

3.11.7.3.2.2 OPERATIONAL IMPACTS

Significant Impact. Operation of the KNE Fairfax Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ potentially hazardous materials such as paints, fuels, and lubricants. There are 22 educational facilities in the RSA of the KNE Fairfax Alignment, and operation of the alignment could result in hazardous emissions or require hazardous or acutely hazardous materials, substances, or waste to be handled in proximity to one or more of these schools.

Hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (l) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE Fairfax Alignment would have a significant impact during operation, and mitigation would be required.

3.11.7.3.3 KNE LA BREA ALIGNMENT

3.11.7.3.3.1 CONSTRUCTION IMPACTS

Significant Impact. There are 20 educational facilities within 0.25 mile of the KNE La Brea Alignment. There would be a temporary increase in the regional transport, use, and disposal of hazardous materials and petroleum products commonly used during construction in the RSA, in some cases within 0.25 mile of one or more schools. Such products include oils, fuels, and additives; lubricants; compressed gases; paints, varnishes, solvents, adhesives, and glues; and cement products containing strong basic or acidic chemicals as part of the construction of the tunnels, stations, and other project components. Additionally, demolition of structures could release asbestos, lead, and other contaminants into the environment. Schools near areas that require building demolition, substantial excavation, and soil disturbance would have the highest risks of exposure to hazardous materials.

During construction, hazardous materials would be stored and transported in accordance with federal, state, and local regulations regarding the transport, use, and storage of hazardous materials. Compliance with these regulations would minimize the potential for a release of hazardous materials that could impact schools.

Prior to construction that involves demolition, the contractor would prepare building-specific demolition plans for the safe dismantling and removal of building components and debris. The demolition plans would include procedures for lead and asbestos abatement. In addition, prior to construction, the contractor would provide Metro with a hazardous materials and waste plan describing responsible parties and procedures for hazardous materials transport, containment, and storage, including BMPs, that would be implemented during construction. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

Proper implementation of project-specific materials storage procedures would limit the extent of any spilled material within a storage area to that storage facility. Furthermore, the contractor would develop an environmental management plan to identify, track, and document the locations of hazardous materials and to communicate practices required for proper handling, storage, and transport of hazardous materials.

CARB requires air monitoring for construction projects, contaminated soil and groundwater remediation projects, and demolition projects. On-site monitoring regulations are summarized at the CARB website⁶ for the following airborne contaminants, which are expected to be produced as part of this project:

- Visible emissions
- Fugitive dust
- Particulate matter
- Vehicle and equipment emissions
- Odor
- Organic solvents
- Storage of organic liquids
- Transfer of gasoline and diesel fuel to vehicles
- Transfer of gasoline and diesel fuel to fuel storage tanks

Examples of engineering controls and BMPs that would be incorporated in design to contain any emissions that might affect a school within 0.25 mile of construction activities include emission control for diesel off-road equipment and diesel generators; dust control through wetting or covering; short- and long-term ambient air quality monitoring in neighborhoods near and downwind from the construction or maintenance sites; and field olfactometry measuring and quantifying odor strength in the ambient air. All heavy-duty off-road construction diesel equipment used during construction would meet the USEPA Tier IV emissions requirements (40 CFR 1039.101) of the Clean Air Act. In addition, toxic air contaminants from products typically used during construction (e.g., compressed gases, oils and lubricants, fuels and additives, paints and varnishes, adhesives, and glues) are expected to be minimal.

As described above, hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Hazardous materials would be used in a manner consistent with typical construction site procedures. Metro standards and other regulations also require management plans to transport and prevent spills of hazardous materials associated with construction. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (I) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE La Brea Alignment would have a significant impact during construction, and mitigation would be required.

⁶ <https://ww2.arb.ca.gov/>

3.11.7.3.3.2 OPERATIONAL IMPACTS

Significant Impact. Operation of the KNE La Brea Alignment would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints and solvents, or caulk associated with the routine maintenance of stations and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ potentially hazardous materials such as paints, fuels, and lubricants. There are 20 educational facilities in the RSA of the KNE La Brea Alignment, and operation of the alignment could result in hazardous emissions or require hazardous or acutely hazardous materials, substances, or waste to be handled in proximity to one or more of these schools.

Hazardous materials and wastes could be released in proximity to schools in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (I) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the KNE La Brea Alignment would have a significant impact during operation, and mitigation would be required.

3.11.7.3.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.3.4.1 CONSTRUCTION IMPACTS

Significant Impact. There is one educational facility within 0.25 mile of the Hollywood Bowl Design Option. There would be a temporary increase in the regional transport, use, and disposal of hazardous materials and petroleum products commonly used during construction in the RSA, in some cases within 0.25 mile of a school. Such products include oils, fuels, and additives; lubricants; compressed gases; paints, varnishes, solvents, adhesives, and glues; and cement products containing strong basic or acidic chemicals as part of the construction of the tunnels, station, and other project components. The design option would not require demolition of structures, and building-specific demolition plans for the safe dismantling and removal of building components and debris, including procedures for lead and asbestos abatement, would not be required.

During construction, hazardous materials would be stored and transported in accordance with federal, state, and local regulations regarding the transport, use, and storage of hazardous materials. Compliance with these regulations would minimize the potential for a release of hazardous materials that could impact a school.

Proper implementation of project-specific materials storage procedures would limit the extent of any spilled material within a storage area to that storage facility. Furthermore, the contractor would develop an environmental management plan to identify, track, and document the locations of hazardous

materials and to communicate practices required for proper handling, storage, and transport of hazardous materials.

CARB requires air monitoring for construction projects, contaminated soil and groundwater remediation projects, and demolition projects. On-site monitoring regulations are summarized at the CARB website⁷ for the following airborne contaminants, which are expected to be produced as part of this project:

- Visible emissions
- Fugitive dust
- Particulate matter
- Vehicle and equipment emissions
- Odor
- Organic solvents
- Storage of organic liquids
- Transfer of gasoline and diesel fuel to vehicles
- Transfer of gasoline and diesel fuel to fuel storage tanks

Examples of engineering controls and BMPs that would be incorporated in design to contain any emissions that might affect a school within 0.25 mile of construction activities include emission control for diesel off-road equipment and diesel generators; dust control through wetting or covering; short- and long-term ambient air quality monitoring in neighborhoods near and downwind from the construction or maintenance sites; and field olfactometry measuring and quantifying odor strength in the ambient air. All heavy-duty off-road construction diesel equipment used during construction would meet the USEPA Tier IV emissions requirements (40 CFR 1039.101) of the Clean Air Act. In addition, toxic air contaminants from products typically used during construction (e.g., compressed gases, oils and lubricants, fuels and additives, paints and varnishes, adhesives, and glues) are expected to be minimal.

As described above, hazardous materials and wastes could be released in proximity to a school in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Hazardous materials would be used in a manner consistent with typical construction site procedures. Metro standards and other regulations also require management plans to transport and prevent spills of hazardous materials associated with construction. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (l) of Section 25532 of the Health and Safety Code near a school within the RSA. Therefore, the Hollywood Bowl Design Option would have a significant impact during construction, and mitigation would be required.

⁷ <https://ww2.arb.ca.gov/>

3.11.7.3.4.2 OPERATIONAL IMPACTS

Significant Impact. Operation of the Hollywood Bowl Design Option would involve the transport, use, and disposal of small quantities of hazardous materials such as lubricants, fuel, paints, and solvents, or caulk associated with the routine maintenance of the station and other facilities. Maintenance vehicles used for regular inspections and equipment used for occasional repairs or reinforcements would employ potentially hazardous materials such as paints, fuels, and lubricants. There is one educational facility in the RSA, and operation of the design option could result in hazardous emissions or require hazardous or acutely hazardous materials, substances, or waste to be handled in proximity to this school.

Hazardous materials and wastes could be released in proximity to a school in quantities greater than the state threshold, potentially exposing students and faculty to hazardous materials or wastes through skin contact, ingestion, or inhalation, and there could be environmental impacts on school grounds through contact with released hazardous materials or wastes. Although Metro standards would require materials to be selected to minimize impacts to the public and the environment, and environmental management plans would be used to track and document the location and types of hazardous materials used so they are properly stored and transported, these requirements would not eliminate the possibility of a release of hazardous materials in quantities greater than the state thresholds identified in subdivision (l) of Section 25532 of the Health and Safety Code near schools within the RSA. Therefore, the Hollywood Bowl Design Option would have a significant impact during operation, and mitigation would be required.

3.11.7.3.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.3.5.1 CONSTRUCTION IMPACTS

No Impact. There are no schools within 0.25 mile of the MSF. Therefore, there would be no impact during construction.

3.11.7.3.5.2 OPERATIONAL IMPACTS

No Impact. There are no schools within 0.25 mile of the MSF. Therefore, there would be no impact during operation.

3.11.7.4 IMPACT HAZ-4: HAZARDS DUE TO LOCATION ON A HAZARDOUS MATERIALS SITE

Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

3.11.7.4.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.4.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. There are 39 REC sites within the KNE San Vicente–Fairfax Alignment RSA, 17 of which are on the Cortese list. The alignment would also pass through four oil and gas fields, and two other oil and gas fields are within the RSA.

Construction of the alignment and stations would include demolition, earthmoving, and excavation in areas of known or potential soil and/or groundwater contamination. Site-specific Phase I ESAs and hazardous materials building surveys would be conducted during the property acquisition phase to help ensure that potential contamination is identified and addressed, and that wastes are properly transported and disposed prior to construction. Contractors would comply with State Water Resources Control Board (SWRCB) requirements to help ensure the proper transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction. A hazardous materials plan would be created and implemented to help ensure proper handling of hazardous materials. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities.

Soil to be excavated from potentially contaminated properties, including Cortese list sites, or within oil and gas fields, may need to be tested in advance of or during construction to identify whether the soils are contaminated, and if so, how they may be handled and/or remediated. If dewatering is necessary, the extracted groundwater may also need to be tested prior to discharge or disposal.

Construction activities within the six oil and gas fields in the RSA could disturb naturally occurring subsurface petroleum, which could result in spill conditions related to the naturally occurring petroleum. There would be a risk of explosions or spills related to active or idle oil and gas wells and related infrastructure encountered during construction. Any spills would be addressed in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

In addition, the potential exists for elevated levels of methane and/or hydrogen sulfide gases to be present in subsurface soils, which would pose an explosion or inhalation risk and have an impact on workers, public health, and the environment. Engineered barriers or other design features may be necessary to prevent vapor intrusion of certain contaminants (e.g., VOCs, methane, hydrogen sulfide) into subsurface structures; monitoring of the subsurface air during construction activities may be necessary to help prevent exposure to airborne contaminants emanating from the surrounding soil to construction workers (see project measure PM HAZ-1).

There are plugged, idle, and active oil and gas wells within the RSA; some of these wells may be within the alignment footprint. Care should be exercised while tunneling near the well locations to avoid disturbing the well casing, which could create a pathway for migration of gases or residual petroleum. Encountering contaminated soil near the well casing is also possible. All construction and grading work conducted within 100 feet of an oil or gas well site should be coordinated with the California Department of Conservation. Active wells would need to be capped and abandoned or relocated. Associated facilities such as pipelines could also need to be relocated if they fall within the construction footprint.

The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.11.7.4.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. There are 39 REC sites within KNE San Vicente–Fairfax Alignment RSA, 17 of which are on the Cortese list. The alignment would also pass through four oil and gas fields, and two other oil and gas fields are within the RSA. However, impacts related to contamination from REC sites (including Cortese list sites) or historic releases from oil and gas fields would have been remediated during construction. Any engineered barriers installed to prevent exposure of the public or the environment to airborne contaminants related to vapor intrusion may need to be monitored during operation of the alignment to ensure they are functioning as designed (see project measure PM HAZ-1). Hazardous materials plans, as required by state laws and regulations, would be prepared and implemented to help ensure that hazardous materials are handled correctly if residual contamination is detected. The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.11.7.4.2 KNE FAIRFAX ALIGNMENT

3.11.7.4.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. There are 28 REC sites within the KNE Fairfax Alignment RSA, 15 of which are on the Cortese list. The alignment would also pass through three oil and gas fields, and one other oil and gas field is within the RSA.

Construction of the alignment and stations would include demolition, earthmoving, and excavation in areas of known or potential soil and/or groundwater contamination. Site-specific Phase I ESAs and hazardous materials building surveys would be conducted during the property acquisition phase to help ensure that potential contamination is identified and addressed, and that wastes are properly transported and disposed prior to construction. Contractors would comply with SWRCB requirements to help ensure the proper transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction. A hazardous materials plan would be created and implemented to help ensure proper handling of hazardous materials. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities.

Soil to be excavated from potentially contaminated properties, including Cortese list sites, or within oil and gas fields, may need to be tested in advance of or during construction to identify whether the soils are contaminated, and if so, how they may be handled and/or remediated. If dewatering is necessary, the extracted groundwater may also need to be tested prior to discharge or disposal.

Construction activities within the four oil and gas fields in the RSA could disturb naturally occurring subsurface petroleum, which could result in spill conditions related to the naturally occurring petroleum. There would be a risk of explosions or spills related to active or idle oil and gas wells and related infrastructure encountered during construction. Any spills would be addressed in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

In addition, the potential exists for elevated levels of methane and/or hydrogen sulfide gases to be present in subsurface soils, which would pose an explosion or inhalation risk and have an impact on workers, public health, and the environment. Engineered barriers or other design features may be necessary to prevent vapor intrusion of certain contaminants (e.g., VOCs, methane, hydrogen sulfide) into subsurface structures; monitoring of the subsurface air during construction activities may be necessary to help prevent exposure to airborne contaminants emanating from the surrounding soil to construction workers (see project measure PM HAZ-1).

There are plugged, idle, and active oil and gas wells within the RSA; some of these wells may be within the alignment footprint. Care should be exercised while tunneling near the well locations to avoid disturbing the well casing, which could create a pathway for migration of gases or residual petroleum. Encountering contaminated soil near the well casing is also possible. All construction and grading work conducted within 100 feet of an oil or gas well site should be coordinated with the California Department of Conservation. Active wells would need to be capped and abandoned or relocated. Associated facilities such as pipelines could also need to be relocated if they fall within the construction footprint.

The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.11.7.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. There are 28 REC sites within the KNE Fairfax Alignment RSA, 15 of which are on the Cortese list. The alignment would also pass through three oil and gas fields, and one other oil and gas field is within the RSA. However, impacts related to contamination from REC sites (including Cortese list sites) or historic releases from oil and gas fields would have been remediated during construction. Any engineered barriers installed to prevent exposure of the public or the environment to airborne contaminants related to vapor intrusion may need to be monitored during operation of the alignment to ensure they are functioning as designed (see project measure PM HAZ-1). Hazardous materials plans, as required by state laws and regulations, would be prepared and implemented to help ensure that hazardous materials are handled correctly if residual contamination is detected. The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.11.7.4.3 KNE LA BREA ALIGNMENT

3.11.7.4.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. There are 31 REC sites within the KNE La Brea Alignment RSA, 17 of which are on the Cortese list. The alignment would also pass through two oil and gas fields, and one other oil and gas field is within the RSA.

Construction of the alignment and stations would include demolition, earthmoving, and excavation in areas of known or potential soil and/or groundwater contamination. Site-specific Phase I ESAs and hazardous materials building surveys would be conducted during the property acquisition phase to help ensure that potential contamination is identified and addressed, and that wastes are properly transported and disposed prior to construction. Contractors would comply SWRCB requirements to help ensure the proper transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction. A hazardous materials plan would be created and implemented to help ensure proper handling of hazardous materials. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities.

Soil to be excavated from potentially contaminated properties, including Cortese list sites, or within oil and gas fields, may need to be tested in advance of or during construction to identify whether the soils are contaminated, and if so, how they may be handled and/or remediated. If dewatering is necessary, the extracted groundwater may also need to be tested prior to discharge or disposal.

Construction activities within the three oil and gas fields in the RSA could disturb naturally occurring subsurface petroleum, which could result in spill conditions related to the naturally occurring petroleum. There would be a risk of explosions or spills related to active or idle oil and gas wells and related infrastructure encountered during construction. Any spills would be addressed in accordance with project-specific spill response and material management plans. Details and content of the plans would be specified in the contract documents; the plans would be prepared prior to initiation of construction activities.

In addition, the potential exists for elevated levels of methane and/or hydrogen sulfide gases to be present in subsurface soils, which would pose an explosion or inhalation risk and have an impact on workers, public health, and the environment. Engineered barriers or other design features may be necessary to prevent vapor intrusion of certain contaminants (e.g., VOCs, methane, hydrogen sulfide) into subsurface structures; monitoring of the subsurface air during construction activities may be necessary to help prevent exposure to airborne contaminants emanating from the surrounding soil to construction workers (see project measure PM HAZ-1).

There are plugged, idle, and active oil and gas wells within the RSA; some of these wells may be within the alignment footprint. Care should be exercised while tunneling near the well locations to avoid disturbing the well casing, which could create a pathway for migration of gases or residual petroleum. Encountering contaminated soil near the well casing is also possible. All construction and grading work conducted within 100 feet of an oil or gas well site should be coordinated with the California Department of Conservation. Active wells would need to be capped and abandoned or relocated. Associated facilities such as pipelines could also need to be relocated if they fall within the construction footprint.

The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.11.7.4.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. There are 31 REC sites within KNE La Brea Alignment RSA, 17 of which are on the Cortese list. The alignment would also pass through two oil and gas fields, and one other oil and gas field is within the RSA. However, impacts related to contamination from REC sites (including Cortese list sites) or historic releases from oil and gas fields would have been remediated during construction. Any engineered barriers installed to prevent exposure of the public or the environment to airborne contaminants related to vapor intrusion may need to be monitored during operation of the alignment to ensure they are functioning as designed (see project measure PM HAZ-1). Hazardous materials plans, as required by state laws and regulations, would be prepared and implemented to help ensure that hazardous materials are handled correctly if residual contamination is detected. The alignment and stations would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.11.7.4.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.4.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. There is one REC site within the Hollywood Bowl Design Option RSA, but the REC site is not on the Cortese list. There are no oil and gas fields in the RSA.

Construction of the design option would include earthmoving and excavation in areas of known or potential soil and/or groundwater contamination. Contractors would comply with SWRCB requirements to help ensure the proper transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction. A hazardous materials plan, as required by state laws and regulations, would be created and implemented to help ensure proper handling of hazardous materials. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities.

Soil to be excavated from potentially contaminated properties may need to be tested in advance of or during construction to identify whether the soils are contaminated, and if so, how they may be handled and/or remediated. If dewatering is necessary, the extracted groundwater may also need to be tested prior to discharge or disposal.

The design option would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.11.7.4.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. There is one REC site within the Hollywood Bowl Design Option RSA, but the REC site is not on the Cortese list. There are no oil and gas fields in the RSA. Impacts related to contamination from the currently identified REC site or any sites identified during construction (including Cortese list sites) would have been remediated during construction. Hazardous materials plans, as

required by state laws and regulations, would be prepared and implemented to help ensure that hazardous materials are handled correctly if residual contamination is detected. The design option would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.11.7.4.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.4.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. There are nine REC sites within the MSF RSA, two of which are on the Cortese list. No oil and gas fields or oil and gas wells are located in the RSA.

Construction of the MSF would include demolition, earthmoving, and excavation in areas of known or potential soil and/or groundwater contamination. Site-specific Phase I ESAs and hazardous materials building surveys would be conducted during the property acquisition phase to help ensure that potential contamination is identified and addressed, and that wastes are properly transported and disposed of prior to construction. Contractors would comply with SWRCB requirements to help ensure the proper transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction. A hazardous materials plan, as required by state laws and regulations, would be created and implemented to help ensure proper handling of hazardous materials. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities.

Soil to be excavated from potentially contaminated properties, including Cortese list sites, may need to be tested in advance of or during construction to identify whether the soils are contaminated, and if so, how they may be handled and/or remediated. If dewatering is necessary, the extracted groundwater may also need to be tested prior to discharge or disposal.

The MSF would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the MSF would have a less than significant impact during construction.

3.11.7.4.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. There nine REC sites within MSF RSA, two of which are on the Cortese list, and there are no oil and gas fields or oil and gas wells in the RSA. However, impacts related to contamination from REC sites (including Cortese list sites) would have been remediated during construction. Hazardous materials plans, as required by state laws and regulations, would be prepared and implemented to help ensure that hazardous materials are handled correctly if residual contamination is detected. Details and content of the plan would be specified in the contract documents; the plan would be prepared prior to initiation of construction activities. The MSF would not create a significant hazard to the public or the environment related to location on a hazardous materials site. Therefore, the MSF would have a less than significant impact during operation.

3.11.7.5 IMPACT HAZ-5: SAFETY HAZARDS OR EXCESSIVE NOISE FOR A PROJECT LOCATED NEAR AN AIRPORT

Impact HAZ-5: 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 or excessive noise for people residing or working in the project area?

3.11.7.5.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.5.1.1 CONSTRUCTION IMPACTS

No Impact. The closest airport to the KNE San Vicente–Fairfax Alignment is the Santa Monica Airport, located 5.4 miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have no impact during construction.

3.11.7.5.1.2 OPERATIONAL IMPACTS

No Impact. The closest airport to the KNE San Vicente–Fairfax Alignment is the Santa Monica Airport, located 5.4 miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have no impact during operation.

3.11.7.5.2 KNE FAIRFAX ALIGNMENT

3.11.7.5.2.1 CONSTRUCTION IMPACTS

No Impact. The closest airport to the KNE Fairfax Alignment is the Santa Monica Airport, located 5.5 miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE Fairfax Alignment would have no impact during construction.

3.11.7.5.2.2 OPERATIONAL IMPACTS

No Impact. The closest airport to the KNE Fairfax Alignment is the Santa Monica Airport, located 5.5 miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE Fairfax Alignment would have no impact during operation.

3.11.7.5.3 KNE LA BREA ALIGNMENT

3.11.7.5.3.1 CONSTRUCTION IMPACTS

No Impact. The closest airport to the KNE La Brea Alignment is the Santa Monica Airport, located six miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE La Brea Alignment would have no impact during construction.

3.11.7.5.3.2 OPERATIONAL IMPACTS

No Impact. The closest airport to the KNE La Brea Alignment is the Santa Monica Airport, located six miles southwest of the alignment. LAX is just over six miles from the south end of the alignment. The alignment is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the KNE La Brea Alignment would have no impact during operation.

3.11.7.5.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.5.4.1 CONSTRUCTION IMPACTS

No Impact. The closest airport to the Hollywood Bowl Design Option is the Santa Monica Airport. In addition, the Hollywood Burbank Airport is located 5.8 miles northeast of the design option, and LAX is approximately 12 miles from the south end of the design option. The design option is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the Hollywood Bowl Design Option would have no impact during construction.

3.11.7.5.4.2 OPERATIONAL IMPACTS

No Impact. The closest airport to the Hollywood Bowl Design Option is the Santa Monica Airport. In addition, the Hollywood Burbank Airport is located 5.8 miles northeast of the design option, and LAX is approximately 12 miles from the south end of the design option. The design option is not within two miles of an airport and would not result in a safety hazard or excessive noise for people residing or working in the RSA. Therefore, the Hollywood Bowl Design Option would have no impact during operation.

3.11.7.5.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.5.5.1 CONSTRUCTION IMPACTS

No Impact. While the MSF would be within two miles of LAX, it would be outside of the safety zone for the LAX runways and there would be no safety hazard or excessive noise for people residing or working in the RSA. Therefore, the MSF would have no impact during construction.

3.11.7.5.2 OPERATIONAL IMPACTS

No Impact. While the MSF would be within two miles of LAX, it would be outside of the safety zone for the LAX runways and there would be no safety hazard or excessive noise for people residing or working in the RSA. Therefore, the MSF would have no impact during operation.

3.11.7.6 IMPACT HAZ-6: IMPACTS TO EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN

Impact HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

3.11.7.6.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.6.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction activities associated with the KNE San Vicente–Fairfax Alignment could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way, primarily by temporary construction barricades or other obstructions that could impede emergency access. However, the RSA is crossed by numerous streets that provide multiple alternate routes for emergency response and evacuation. In addition, the goals, objectives, and policies of the Los Angeles County Operational Area emergency response plan provide guidance during situations requiring an unusual or extraordinary emergency response. Implementation of project measure PM TRA-2, Transportation Best Management Practices, would ensure Metro creates an emergency response plan that would incorporate and coordinate all the facilities and personnel of county government, along with the jurisdictional resources of the cities and special districts in the county, into an efficient operational area organization capable of responding to any emergency using a standard emergency management system, mutual aid, and other appropriate response procedures.

The City of Los Angeles Department of Transportation (LADOT) and LAFD are responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan within the RSA. As part of Metro’s standard development procedures, construction and traffic management plans would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during construction, in compliance with existing regulations. In addition, construction of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and construction activities would not impair implementation of, or physically interfere with, the emergency response plan.

As described above, with development and implementation of construction and traffic management plans, construction activities associated with the alignment and stations would not impair or physically interfere with adopted emergency response or evacuation plans. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.11.7.6.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. Because operation of the KNE San Vicente–Fairfax Alignment would be underground except for the station entrances (which would be situated on parcels or property not within the public right-of-way), it would not interfere with existing emergency response or evacuation plans. As part of Metro’s standard development procedures and part of project measure PM TRA-2, a traffic management plan would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during operation, in compliance with existing regulations. In addition, operation of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and operational activities would not impair implementation of or physically interfere with the emergency response plan. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.11.7.6.2 KNE FAIRFAX ALIGNMENT

3.11.7.6.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction activities associated with the KNE Fairfax Alignment could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way, primarily by temporary construction barricades or other obstructions that could impede emergency access. However, the RSA is crossed by numerous streets that provide multiple alternate routes for emergency response and evacuation. In addition, the goals, objectives, and policies of the Los Angeles County Operational Area emergency response plan provide guidance during situations requiring an unusual or extraordinary emergency response. Implementation of project measure PM TRA-2, Transportation Best Management Practices, would ensure Metro creates an emergency response plan that would incorporate and coordinate all the facilities and personnel of county government, along with the jurisdictional resources of the cities and special districts in the county, into an efficient operational area organization capable of responding to any emergency using a standard emergency management system, mutual aid, and other appropriate response procedures.

The LADOT and LAFD are responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan within the RSA. As part of Metro’s standard development procedures, construction and traffic management plans would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during construction, in compliance with existing regulations. In addition, construction of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and construction activities would not impair implementation of, or physically interfere with, the emergency response plan.

As described above, with development and implementation of construction and traffic management plans, construction activities associated with the alignment and stations would not impair or physically interfere with adopted emergency response or evacuation plans. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.11.7.6.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. Because operation of the KNE Fairfax Alignment would be underground except for the station entrances (which would be situated on parcels or property not within the public right-of-way), it would not interfere with existing emergency response or evacuation plans. As part of Metro's standard development procedures and part of project measure PM TRA-2, a traffic management plan would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during operation, in compliance with existing regulations. In addition, operation of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and operational activities would not impair implementation of or physically interfere with the emergency response plan. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.11.7.6.3 KNE LA BREA ALIGNMENT

3.11.7.6.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction activities associated with the KNE La Brea Alignment could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way, primarily by temporary construction barricades or other obstructions that could impede emergency access. However, the RSA is crossed by numerous streets that provide multiple alternate routes for emergency response and evacuation. In addition, the goals, objectives, and policies of the Los Angeles County Operational Area emergency response plan provide guidance during situations requiring an unusual or extraordinary emergency response. Implementation of project measure PM TRA-2, Transportation Best Management Practices, would ensure Metro creates an emergency response plan that would incorporate and coordinate all the facilities and personnel of county government, along with the jurisdictional resources of the cities and special districts in the county, into an efficient operational area organization capable of responding to any emergency using a standard emergency management system, mutual aid, and other appropriate response procedures.

The City of LADOT and LAFD are responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan within the RSA. As part of Metro's standard development procedures, construction and traffic management plans would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during construction, in compliance with existing regulations. In addition, construction of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and construction activities would not impair implementation of, or physically interfere with, the emergency response plan.

As described above, with development and implementation of construction and traffic management plans, construction activities associated with the alignment and stations would not impair or physically interfere with adopted emergency response or evacuation plans. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.11.7.6.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. Because operation of the KNE La Brea Alignment would be underground except for the station entrances (which would be situated on parcels or property not within the public right-of-way), it would not interfere with existing emergency response or evacuation plans. As part of Metro's standard development procedures and part of project measure PM TRA-2, a traffic management plan would be submitted to the LADOT and LAFD for review and approval to ensure the alignment has adequate emergency access and escape routes (clearly marked and delineated) during operation, in compliance with existing regulations. In addition, operation of the alignment and stations would not introduce any features that would preclude implementation of or alter these policies or procedures, and operational activities would not impair implementation of or physically interfere with the emergency response plan. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.11.7.6.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.6.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction activities associated with the Hollywood Bowl Design Option could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way, primarily by temporary construction barricades or other obstructions that could impede emergency access. However, the RSA is crossed by numerous streets that provide multiple alternate routes for emergency response and evacuation. In addition, the goals, objectives, and policies of the Los Angeles County Operational Area emergency response plan provide guidance during situations requiring an unusual or extraordinary emergency response. Implementation of project measure PM TRA-2, Transportation Best Management Practices, would ensure Metro creates an emergency response plan that would incorporate and coordinate all the facilities and personnel of county government, along with the jurisdictional resources of the cities and special districts in the county, into an efficient operational area organization capable of responding to any emergency using a standard emergency management system, mutual aid, and other appropriate response procedures.

The LADOT and LAFD are responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan within the RSA. As part of Metro's standard development procedures, construction and traffic management plans would be submitted to the LADOT and LAFD for review and approval to ensure the design option has adequate emergency access and escape routes (clearly marked and delineated) during construction, in compliance with existing regulations. In addition, construction of the design option and station would not introduce any features that would preclude implementation of or alter these policies or procedures, and construction activities would not impair implementation of, or physically interfere with, the emergency response plan.

As described above, with development and implementation of construction and traffic management plans, construction activities associated with the design option and station would not impair or physically interfere with adopted emergency response or evacuation plans. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.11.7.6.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. Because operation of the Hollywood Bowl Design Option would be underground except for the station entrances (which would be situated on parcels or property not within the public right-of-way), it would not interfere with existing emergency response or evacuation plans. As part of Metro’s standard development procedures and part of project measure PM TRA-2, a traffic management plan would be submitted to the LADOT and LAFD for review and approval to ensure the design option has adequate emergency access and escape routes (clearly marked and delineated) during operation, in compliance with existing regulations. In addition, operation of the design option and station would not introduce any features that would preclude implementation of or alter these policies or procedures, and operational activities would not impair implementation of or physically interfere with the emergency response plan. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.11.7.6.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.6.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction activities associated with the MSF could interfere with adopted emergency response or evacuation plans as a result of temporary construction activities within rights-of-way, primarily by temporary construction barricades or other obstructions that could impede emergency access. However, the MSF site is bounded by several streets that provide routes for emergency response and evacuation. In addition, the goals, objectives, and policies of the Los Angeles County Operational Area emergency response plan provide guidance during situations requiring an unusual or extraordinary emergency response. Implementation of project measure PM TRA-2, Transportation Best Management Practices, would ensure Metro creates an emergency response plan that would incorporate and coordinate all the facilities and personnel of county government, along with the jurisdictional resources of the cities and special districts in the county, into an efficient operational area organization capable of responding to any emergency using a standard emergency management system, mutual aid, and other appropriate response procedures.

The LADOT, LAFD, and City of Inglewood are responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan within the RSA. As part of Metro’s standard development procedures, construction and traffic management plans would be submitted to the LADOT, LAFD, and/or City of Inglewood for review and approval to ensure the MSF has adequate emergency access and escape routes (clearly marked and delineated) during construction, in compliance with existing regulations. In addition, construction of the MSF would not introduce any features that would preclude implementation of or alter these policies or procedures, and construction activities would not impair implementation of, or physically interfere with, the emergency response plan.

As described above, with development and implementation of construction and traffic management plans, construction activities associated with the MSF would not impair or physically interfere with adopted emergency response or evacuation plans. Therefore, the MSF would have a less than significant impact during construction.

3.11.7.6.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. Because operation of the MSF would occur on parcels of property and not within the public right-of-way, it is not anticipated to interfere with existing emergency response or evacuation plans. As part of Metro’s standard development procedures, a traffic management plan would be submitted to the LADOT, LAFD, and/or City of Inglewood, as applicable, for review and approval to ensure that the MSF has adequate emergency access and escape routes (clearly marked and delineated) during operation, in compliance with existing regulations. In addition, operation of the MSF would not introduce any features that would preclude implementation of or alter these policies or procedures, and operational activities would not impair implementation of or physically interfere with the emergency response plan. Therefore, the MSF would have a less than significant impact during operation.

3.11.7.7 IMPACT HAZ-7: RISK OF LOSS, INJURY, OR DEATH INVOLVING WILDLAND FIRES

Impact HAZ-7: Would the project expose people or structures, either directly or indirectly, 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?

3.11.7.7.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.11.7.7.1.1 CONSTRUCTION IMPACTS

No Impact. The KNE San Vicente–Fairfax Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. Construction of the alignment and stations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE San Vicente–Fairfax Alignment would have no impact during construction.

3.11.7.7.1.2 OPERATIONAL IMPACTS

No Impact. The KNE San Vicente–Fairfax Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. The alignment and stations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE San Vicente–Fairfax Alignment would have no impact during operation.

3.11.7.7.2 KNE FAIRFAX ALIGNMENT

3.11.7.7.2.1 CONSTRUCTION IMPACTS

No Impact. The KNE Fairfax Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. Construction of the alignment and stations would not expose people

or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE Fairfax Alignment would have no impact during construction.

3.11.7.7.2 OPERATIONAL IMPACTS

No Impact. The KNE Fairfax Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. The alignment and stations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE Fairfax Alignment would have no impact during operation.

3.11.7.7.3 KNE LA BREA ALIGNMENT

3.11.7.7.3.1 CONSTRUCTION IMPACTS

No Impact. The KNE La Brea Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. Construction of the alignment and stations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE La Brea Alignment would have no impact during construction.

3.11.7.7.3.2 OPERATIONAL IMPACTS

No Impact. The KNE La Brea Alignment ends at the edge of a wildland fire zone (demarcated by Franklin Street); however, the northernmost 1,000 feet of the alignment (from the Hollywood/Highland Station to the north) would be underground. The alignment and stations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, the KNE La Brea Alignment would have no impact during operation.

3.11.7.7.4 HOLLYWOOD BOWL DESIGN OPTION

3.11.7.7.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The Hollywood Bowl Design Option RSA (from Franklin Street to the northern terminus of the design option) is within a wildland fire zone with a very high fire hazard severity. While the entirety of the design option is within an area with vegetation that can be prone to fire, the vegetated areas are not contiguous due to the presence of roads and parking areas for the Hollywood Bowl. The proposed station for the design option would be situated within an existing parking area and would be constructed of non-flammable materials. The remainder of the design option would be entirely underground where it would be unaffected by fire. Therefore, although the surrounding areas could experience a fire, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.11.7.7.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. The Hollywood Bowl Design Option RSA (from Franklin Street to the northern terminus of the design option) is within a wildland fire zone with a very high fire hazard severity. While the entirety of the design option is within an area with vegetation that can be prone to fire, the vegetated areas are not contiguous due to the presence of roads and parking areas for the Hollywood Bowl. The proposed station for the design option would be situated within an existing parking area and would be constructed of non-flammable materials. The remainder of the design option would be entirely underground where it would be unaffected by fire. Therefore, although the surrounding areas could experience a fire, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.11.7.7.5 MAINTENANCE AND STORAGE FACILITY

3.11.7.7.5.1 CONSTRUCTION IMPACTS

No Impact. The MSF site is over 1.75 miles southeast of the nearest wildland fire zone. Therefore, the MSF would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, and it would have no impact during construction.

3.11.7.7.5.2 OPERATIONAL IMPACTS

No Impact. The MSF site is over 1.75 miles southeast of the nearest wildland fire zone. Therefore, the MSF would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, and it would have no impact during operation.

3.11.7.8 MITIGATION MEASURES

The mitigation measure described below is provided to reduce significant impacts related to hazards and hazardous materials. Section 3.11.7.8.2 discusses impacts significance after mitigation.

3.11.7.8.1 MM HAZ-1: AVOID AND MINIMIZE EMISSIONS OF HAZARDOUS MATERIALS, SUBSTANCES, AND MIXTURES WITHIN 0.25 MILE OF SCHOOLS

Construction Mitigation. As part of construction activities, hazardous materials may be used for a variety of processes. Wherever possible, the hazardous materials would be replaced with nonhazardous materials. Prior to construction, the contractor shall prepare a memorandum regarding hazardous materials BMPs related to construction activity for approval by Metro. The memorandum shall confirm that the contractor will not handle or store an extremely hazardous substance (as defined in California Public Resources Code Section 21151.4) or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code within 0.25 mile of a school, unless within a designated staging area with appropriate procedures and protocols in place. The memorandum shall acknowledge that prior to construction activities, signage shall be installed to delimit all work areas within 0.25 mile of a school, informing the contractor not to bring extremely hazardous substances into the area. The contractor shall be required to

monitor all use of extremely hazardous substances. This mitigation measure for hazardous materials and wastes is consistent with California Public Resources Code Section 21151.4.

Operational Mitigation. During operations, small quantities of hazardous materials may be used for maintenance activities. Wherever possible, these hazardous materials shall be replaced with nonhazardous materials. No extremely hazardous substances (or mixtures containing extremely hazardous substances) shall be used within 0.25 mile of any school in accordance with California Public Resources Code Section 21151.4 in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code. This mitigation measure for hazardous materials and wastes is consistent with California Public Resources Code Section 21151.4.

3.11.7.8.2 IMPACT SIGNIFICANCE AFTER MITIGATION

As described in Section 3.11.7.3, there would be significant impacts related to hazardous emissions, materials, or waste within 0.25 mile of a school (Impact HAZ-3). The following subsections describe the impact significance after implementation of mitigation.

IMPACT HAZ-3: HAZARDOUS EMISSIONS, MATERIALS, OR WASTE WITHIN 0.25 MILE OF A SCHOOL

Construction Impacts

Implementation of mitigation measure MM HAZ-1 (Avoid and Minimize Emissions of Hazardous Materials, Substances, and Mixtures within 0.25 mile of Schools) during construction of the alignments and design option would reduce impacts related to use of and release of hazardous materials and substances near schools to a less than significant level.

Operational Impacts

Implementation of mitigation measure MM HAZ-1 (Avoid and Minimize Emissions of Hazardous Materials, Substances, and Mixtures within 0.25 mile of Schools) during operation of the alignments and design option would reduce impacts related to use of and release of hazardous materials and substances near schools to a less than significant level.

3.11.7.9 SUMMARY OF IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES

Table 3.11-8 summarizes the hazards and hazardous materials impact significance conclusions and applicable mitigation measures.

TABLE 3.11-8. KNE SUMMARY OF IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES

IMPACT		IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES				
		KNE SAN VICENTE–FAIRFAX ALIGNMENT	KNE FAIRFAX ALIGNMENT	KNE LA BREA ALIGNMENT	HOLLYWOOD BOWL DESIGN OPTION	MAINTENANCE AND STORAGE FACILITY
Impact HAZ-1: Hazards from Routine Transport, Use, or Disposal of Hazardous Materials	Impact before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HAZ-2: Hazards Due to Upset and Accident Conditions that Involve the Release of Hazardous Materials	Impact before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HAZ-3: Hazardous Emissions, Materials, or Waste Within 0.25 Mile of a School	Impact before Mitigation	Construction: Significant Operation: Significant	Construction: Significant Operation: Significant	Construction: Significant Operation: Significant	Construction: Significant Operation: Significant	Construction: No Impact Operation: No Impact
	Mitigation Measures	Construction: MM HAZ-1 Operation: MM HAZ-1	Construction: MM HAZ-1 Operation: MM HAZ-1	Construction: MM HAZ-1 Operation: MM HAZ-1	Construction: MM HAZ-1 Operation: MM HAZ-1	None Required
	Impact after Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: No Impact Operation: No Impact

IMPACT	IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES					
		KNE SAN VICENTE–FAIRFAX ALIGNMENT	KNE FAIRFAX ALIGNMENT	KNE LA BREA ALIGNMENT	HOLLYWOOD BOWL DESIGN OPTION	MAINTENANCE AND STORAGE FACILITY
Impact HAZ-4: Hazards Due to Location on a Hazardous Materials Site	Impact before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HAZ-5: Safety Hazards or Excessive Noise for a Project Located Near an Airport	Impact before Mitigation	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: No Impact Operation: No Impact	Construction: No Impact. Operation: No Impact	Construction: No Impact. Operation: No Impact	Construction: No Impact. Operation: No Impact	Construction: No Impact Operation: No Impact
Impact HAZ-6: Impacts to Emergency Response Plan or Emergency Evacuation Plan	Impact before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HAZ-7: Risk of Loss, Injury, or Death Involving Wildland Fires	Impact before Mitigation	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact	Construction: LTS Operation: LTS	Construction: No Impact Operation: No Impact
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact after Mitigation	Construction: No Impact Operation: No Impact	Construction: No Impact. Operation: No Impact	Construction: No Impact. Operation: No Impact	Construction: LTS. Operation: LTS	Construction: No Impact Operation: No Impact

Source: Connect Los Angeles Partners 2024
 LTS = less than significant impact