



Hazardous Materials Management Plan

for

**Fresno to Bakersfield
Locally Generated Alternative (LGA)**

HNTB

Prepared by Sapphos Environmental, Inc. under Contract to HNTB Corporation

June 2025

REVISIONS

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0	10/21/22	Draft Hazardous Materials Management Plan
1	12/2/22	Revised Hazardous Materials Management Plan
2	8/18/23	Revised Hazardous Materials Management Plan
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6	6/9/25	Revised 2025 Hazardous Materials Management Plan Update

Table of Contents

1.0	INTRODUCTION	1
1.1	Project Overview	3
1.2	Objectives	4
1.3	HMMP Users.....	5
1.4	Requirements from Project CEQA/NEPA Documents.....	5
1.5	Definitions	5
2.0	BACKGROUND.....	7
2.1	Federal	7
2.2	State	7
2.3	Local Jurisdiction Plans and Policies.....	7
2.4	Project Guidance	9
2.4.1	Site Specific Health and Safety Plan	9
2.5	Previous Investigations	9
2.5.1	Known Hazardous Materials Sites / Potential Environmental Concerns	9
2.5.2	Potential Environmental Concerns – Late Discovery Procedure	11
3.0	PERMITS AND NOTIFICATIONS	12
3.1	Permits	12
3.2	Contractor Notification Requirements.....	12
3.3	Documentation of Incidents	14
4.0	TRAINING	15
5.0	HAZARDOUS MATERIALS MANAGEMENT	16
5.1	Anticipated Hazardous Materials	16
5.2	Unanticipated Hazardous Materials.....	16
5.3	Universal Waste.....	17
5.4	Treated Wood Waste	17
5.5	Oily Waste.....	18
5.6	Hazardous Waste Removal Process	19
5.7	Storage of Hazardous Materials	19
5.8	Container Selection.....	19
5.8.1	Secondary Containment	20
5.9	Container Condition	20
5.10	Labeling and Marking	20
6.0	WASTE PROFILE AND MANIFEST	22
6.1	Waste Profiling.....	22
6.2	Hazardous Waste and Non-Hazardous Waste Manifest.....	23

6.3	Spill Prevention and Control Procedures	24
6.3.1	Vehicle and Equipment Fueling	25
6.3.2	Vehicle Maintenance and Repair	25
7.0	BUILDING DEFINITION	27
7.1	Asbestos and Lead-Based Paint Abatement	27
7.2	Universal Waste Removal	28
7.3	Building Demolition	28
8.0	TRANSPORTATION OF MATERIALS	29
8.1	Approved Landfills	29
9.0	REFERENCES	30

Tables

Table 2-1	Local Plans and Policies	8
Table 3-1	Emergency Release or Spill Contacts	13
Table 8-1	Approved Landfills	29

Figures

Figure 1-1	Project Vicinity Map	2
Figure 1-2	LGA Preferred Alignment	3
Figure 1-3	LGA Segment Map	4

Appendices

Appendix A	- Potential Environmental Concern Sites Previously Identified	A-1
Appendix B	- High- and Medium-Priority Sites of Potential Environmental Concern Sites Map Set	B-1
Appendix C	- Example Soil Characterization Work Plan	C-1
Appendix D	- Oil and Gas Well Locations	D-1
Appendix E	- Checklist for Hazardous Materials Notification	E-1
Appendix F	- Example Hazardous Waste Profiles	F-1
Appendix G	- Hazardous Waste Manifest or Non-Hazardous Waste Manifest Form	G-1
Appendix H	- Asbestos Application Forms	H-1

ACRONYMS AND ABBREVIATIONS

ACM	Asbestos-Containing Materials
ADL	Aerially Deposited Lead
AMS	Alternate Management Standards
APCD	Air Pollution Control District
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
BNSF	Burlington Northern Santa Fe Railway
CAC	Certified Asbestos Consultant
Cal/EPA	California Environmental Protection Agency
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
C.F.R.	Code of Federal Regulations
CUPA	Certified Unified Program Agencies
CWMP	Construction Waste Management Plan
DOT	United States Department of Transportation
DTSC	Department of Toxic Substances Control
ECM	Environmental Compliance Manager
EIR	Environmental Impact Report
EMMA	Environmental Mitigation and Management Application
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FRA	Federal Railroad Administration
HAZWOPER	Hazardous Waste Operations and Emergency Response
HMMP	Hazardous Materials Management Plan
HSC	Health and Safety Code
HSR	High-Speed Rail
ISA	Initial Site Assessment
Kg	Kilogram
LBP	Lead-based Paint
LGA	Locally Generated Alternative
MMEP	Mitigation Monitoring and Enforcement Program
MMRP	Mitigation Monitoring and Reporting Program
NEPA	National Environmental Policy Act

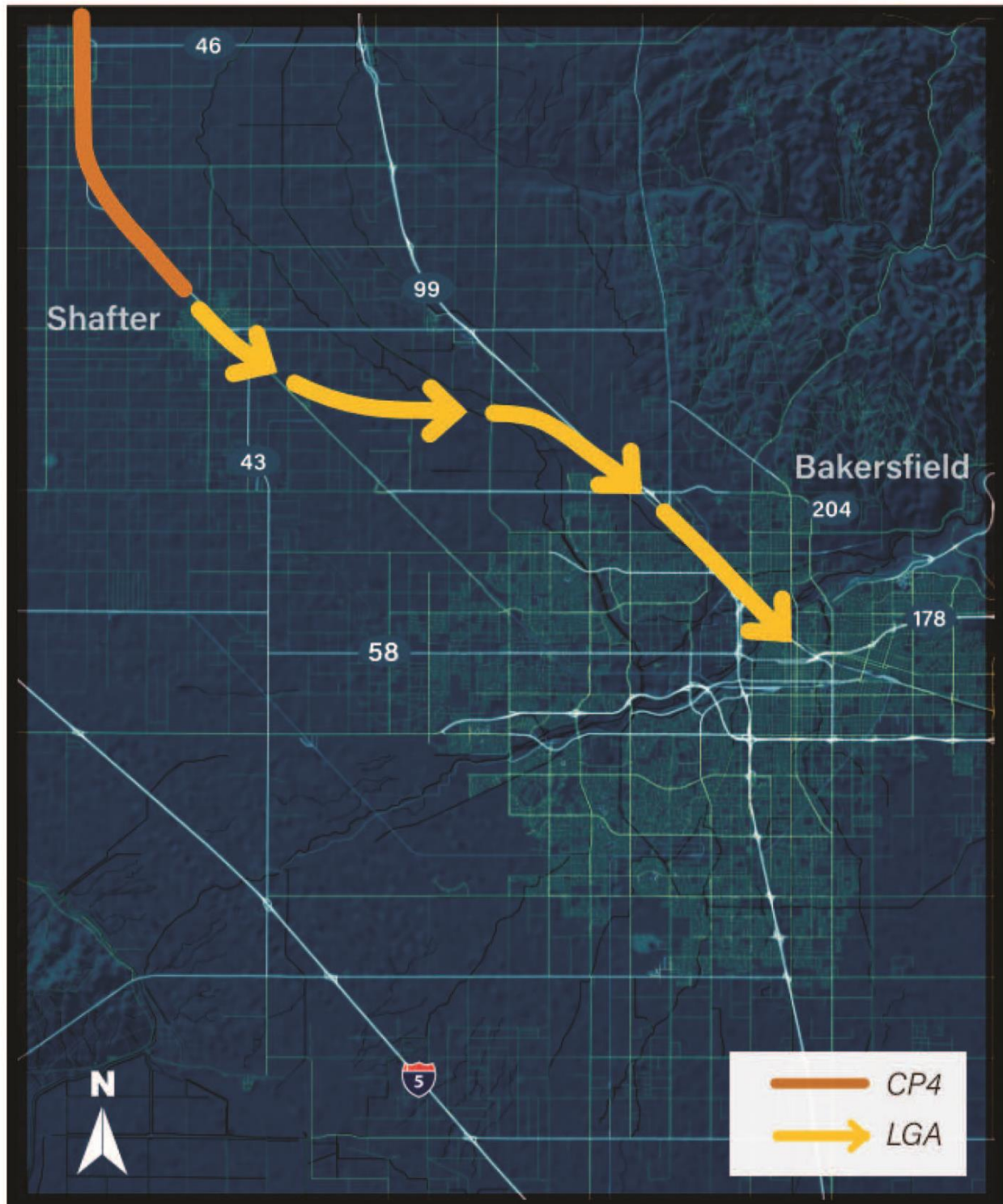
NESHAP	National Emission Standards for Hazardous Air Pollutants
NPDES	National Pollutant Discharge Elimination System permits
OSHA	Occupational Health and Safety Administration
PEC	Potential Environmental Concerns
PCBs	Polychlorinated Biphenyls
RAM	Reliability, Availability and Maintainability
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SDS	Safety Data Sheets
SJVAPCD	San Joaquin Valley Air Pollution Control District
SSHASP	Site Specific Health and Safety Plan
STLC	Soluble Threshold Limit Concentration
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SMP	Sustainability Management Plan
TCLP	Toxicity Characteristic Leaching Procedure
TSDF	Transportation, Storage, Disposal Facility
TWW	Treated Wood Waste
UST	Underground Storage Tank
UN	United Nations
UWR	Universal Waste Regulations
V&V	Validation and Verification
VERA	Voluntary Emission Reduction Agreements
VOCs	Volatile Organic Compounds
WEAP	Worker Environmental Awareness Program

1.0 INTRODUCTION

This Hazardous Materials Management Plan (HMMP) has been prepared for the Locally Generated Alternative (LGA) portion of the Fresno-Bakersfield (F-B) section of the California High-Speed Rail (HSR) Project, as an appendix to the Environmental Compliance Plan, required pursuant to HSR 22-01. This HMMP is to be used by the Contractor and its subcontractors, to guide all design, pre-construction, and construction activities related to the consideration and management of known and potentially hazardous waste and materials, and other nonhazardous waste. The HMMP will be implemented in conjunction with other environmental and waste management plans prepared by the Contractor including the Construction Waste Management Plan (CWMP) and Sustainability Management Plan (SMP). The goal of the HMMP is to contribute to the maintenance of a safe work area and to be protective of people and property, inclusive of the associated natural and cultural resources. The purpose of the HMMP is to define and describe the specific protocols to be followed during discovery, characterization, excavation, transportation, and disposal of known or potentially hazardous or nonhazardous materials. The specified protocols are specifically delineated for the 18.5-mile-long LGA portion of the F-B section of the HSR preferred alternative alignment in the Environmental Impact Report/Environmental Impact Statement (F-B EIR/EIS; California High-Speed Rail Authority [Authority] and Federal Railroad Administration [FRA] 2014), as amended in 2018 by the Supplemental EIR for the LGA Section (Authority 2018) and by the Combined Supplemental Record of Decision and Final Supplemental EIS for LGA (Authority 2019). Hereafter, the F-B EIR/EIS, as supplemented and amended by the Final Supplemental EIR and Final Supplemental EIS, will be referred to as the “LGA SEIR/SEIS” (Figure 1-1, *Project Vicinity Map*).

The protocols described herein are consistent with the requirements of the LGA SEIR/SEIS. In addition, the protocols comply with the Mitigation Monitoring and Reporting Program (MMRP) and Mitigation Monitoring and Enforcement Program (MMEP), as well as other applicable federal, state, and local laws, regulations, and guidelines relating to hazardous materials and wastes to ensure effective management of resources while providing the appropriate level of protection to human health and the environment.

Figure 1-1 Project Vicinity Map

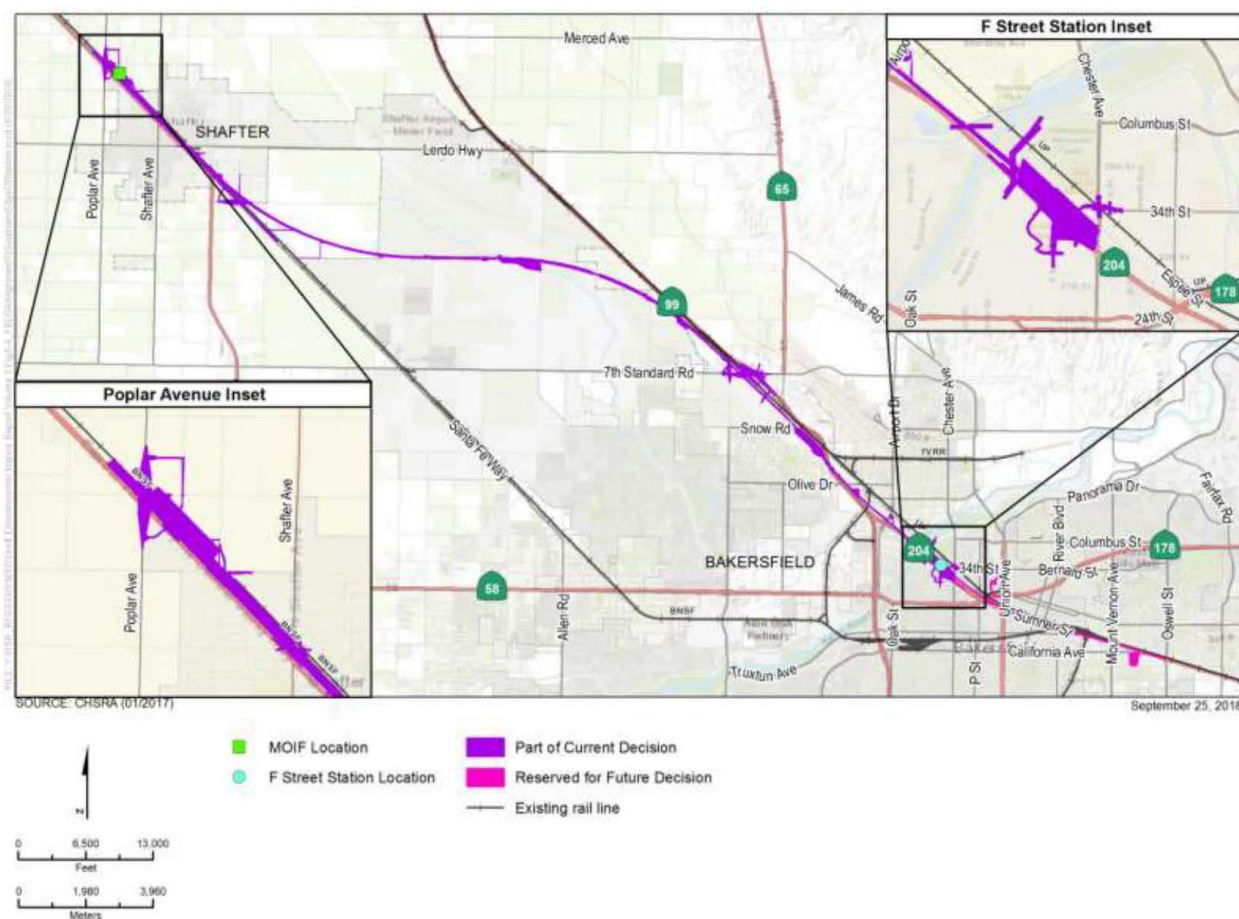


Source: HNTB Corporation (2022).

1.1 Project Overview

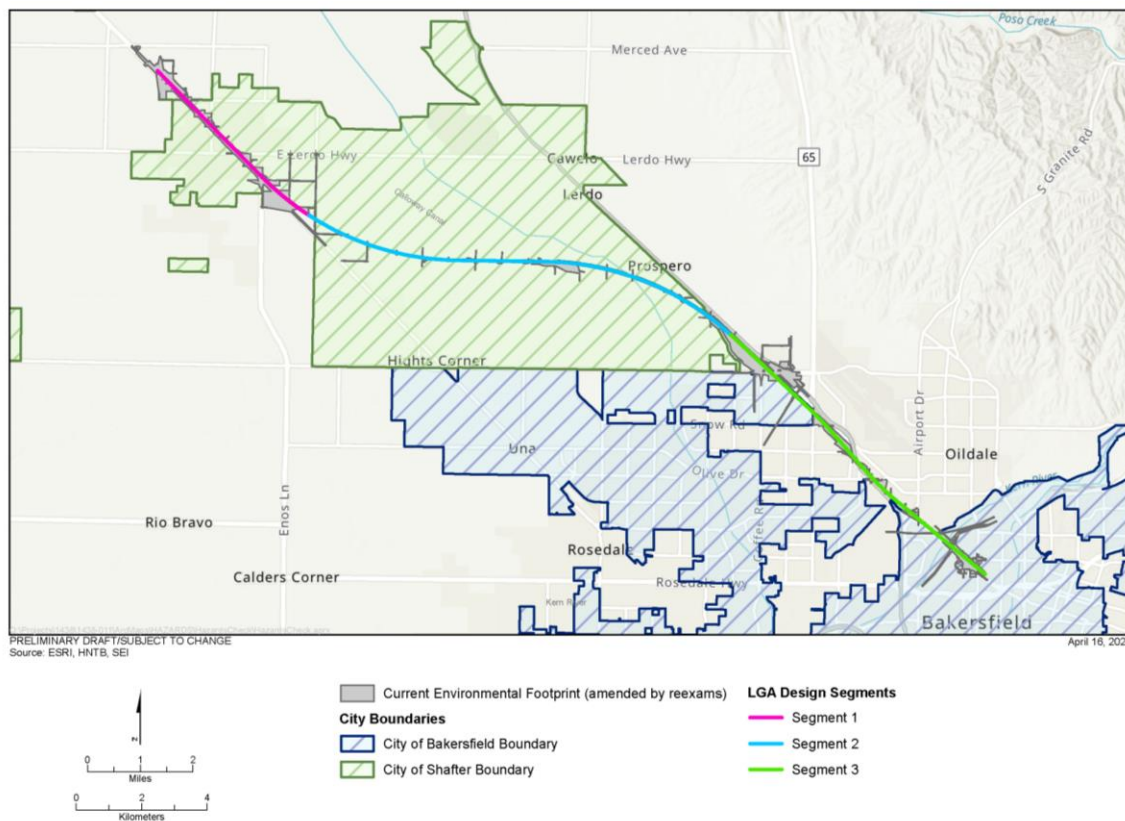
The LGA is located entirely in Kern County and includes the cities of Shafter and Bakersfield. The preferred alternative alignment in the 2018–2019 Environmental Documents (Authority 2018, 2019) is divided into three segments. The track alignment at Segment 1 begins at the southern limit of the HSR (Construction Package 4) at Poplar Avenue and follows the Burlington Northern and Santa Fe Railway (BNSF) alignment south through the City of Shafter. It turns east at Riverside Street in the City of Shafter. Segment 2 of the alignment then follows the future Northern Beltway corridor in Kern County and spans the Friant-Kern Canal, turning south as it approaches Union Pacific Railroad corridor near Coffee Road in the City of Bakersfield. Segment 3, the southernmost half of the LGA alignment, is primarily on viaduct structure for approximately 6.4 miles into the City of Bakersfield as it crosses the Kern River. It ends near the roundabout at Chester Avenue in Bakersfield (Figure 1-2, *LGA Preferred Alignment*; Figure 1-3, *LGA Segment Map*). The scope of work for this project includes the preparation of Configuration Footprint design for the LGA HSR alignment extension that aligns with the Authority's commitments to sustainable infrastructure. The project elements include track alignment, civil, structures, utilities, grading and drainage design services as well as support services including permitting, survey and mapping, right-of-way support, limited field investigations for utility potholing and geotechnical investigations, systems coordination, Validation and Verification (V&V), Reliability, Availability and Maintainability (RAM), cost estimating, lighting and electrical, landscape and irrigation, and public outreach support.

Figure 1-2 LGA Preferred Alignment



Source: Authority (2019, Attachment G: Map of Preferred Alignment).

Figure 1-3 LGA Segment Map



1.2 Objectives

Design-limited field activities such as potholing and trenching as part of utility, geotechnical and archeological investigations, and excavation and collapse of burrows require field staff and environmental monitors to come into close contact with soils and may result in the need to dispose of excess soils. Construction activities will generally result in large quantities of hazardous materials that cannot be reused within the project footprint and, therefore, will be either disposed, recycled, or reused at an off-site location. Excavated soils will be transported off the work site as soon as practical, due to limited storage capacity. The majority of hazardous materials will be managed based on site-specific data from previous environmental documents described in Section 2.5 or characterized and managed according to the analytical results discovered, documented, and reported. The overall goal is to reuse soil, whenever practical and applicable, and to save natural resources. There are eight main objectives of the HMMP:

1. Eliminate worker exposure to potentially hazardous materials, chemicals, and environmental conditions.
2. Establish protocol for handling and removing hazardous materials from construction areas.
3. Establish standardized protocols for field monitoring, waste management, equipment staging, disposal/recycling/reuse of excavated soil, and record keeping.
4. Describe the types of hazardous materials expected during construction.
5. Provide guidance for unforeseen conditions (e.g., stained soil, odors, buried objects, or abandoned drums/containers), in the event they are encountered.
6. Provide a single guidance document that contains the information necessary to responsibly, appropriately, and efficiently manage, characterize, excavate, transport, and dispose/recycle/reuse hazardous materials and/or wastes excavated within the construction footprint.

7. Remain in compliance with federal, state, and local hazardous materials/waste regulations.
8. Minimize construction delays.

1.3 HMMP Users

This HMMP is applicable to all personnel who may be required to handle hazardous materials, and those individuals who are designated to manage personnel involving the use, generation, collection, transportation, and disposal of hazardous materials. In addition to reviewing the HMMP, all personnel working on the LGA project shall have successfully completed the Worker Environmental Awareness Program (WEAP).

1.4 Requirements from Project CEQA/NEPA Documents

The Shafter to Bakersfield reach of the HSR Project was originally approved as part of the F-B Section of the HSR Project, and the alignment further refined through a process involving the Authority, Kern County, and the cities of Shafter and Bakersfield, and documented in three environmental documents:

- Fresno to Bakersfield Section California High-Speed Train Project Environmental Impact Report / Environmental Impact Statement (Authority and FRA 2014)
- [Final] Supplemental Environmental Impact Report: Fresno to Bakersfield Section (Authority 2018)
- Fresno to Bakersfield Section: Locally Generated Alternative. Supplemental Record of Decision and Final Supplemental Environmental Impact Statement for the Locally Generated Alternative (Authority 2019)

The Authority adopted an MMRP/MMEP to monitor the implementation of avoidance and minimization measures and compensatory mitigation measures required in conjunction with the project. The protocols specified in this HMMP are designed to achieve compliance with the mitigation measures required in conjunction with the Authority and FRA commitments made pursuant to NEPA and CEQA, as required pursuant to HSR 22-01.

1.5 Definitions

Aerially deposited lead: Elevated lead concentrations that exist in soil adjacent to roadways as a result of aerially deposited lead (ADL) from the historical use of leaded gasoline.

Asbestos-containing material: Asbestos-containing material (ACM) means any material containing more than 1% asbestos. Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

Hazardous Material: Any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or the environment, if released. Hazardous materials include any substance, product, waste or other material of any nature whatsoever which is or becomes listed, regulated, or addressed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. (U.S.C.) § 9601, et seq. (CERCLA); the Hazardous Materials Transportation Act, 49 U.S.C. § 1801, et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. (RCRA); the Toxic Substances Control Act, 15 U.S.C. § 2601 et seq.; the Clean Water Act, 33 U.S.C. § 1251 45 et seq.; the California Hazardous Waste Control Act, Health and Safety Code § 25100 et seq.; the California Hazardous Substance Account Act, Health and Safety Code § 25330 et seq.; the California Safe Drinking Water and Toxic Enforcement Act, Health and Safety Code § 25249.5 et seq.; Health and Safety Code § 25280 et seq. (Underground Storage of Hazardous Substances); the California Hazardous Waste Management Act, Health and Safety Code § 25170.1 et seq.; Health and Safety Code § 25501 et seq. (Hazardous Materials Response Plans and Inventory); or the California Porter-Cologne Water Quality Control Act, Water Code § 13000 et seq., all as amended (the above-cited California state statutes are hereinafter collectively referred to as the “State Toxic Substances Laws”), or any other federal, state or local statute, law, ordinance, resolution, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic or dangerous waste, substance or material, as now or at any time hereafter in effect:

- Any substance, product, waste, or other material of any nature whatsoever which may give rise to liability under any of the above statutes or under any statutory or common law theory based on negligence, trespass, intentional tort, nuisance, or strict liability or under any reported decisions of a state or federal court.
- Petroleum or crude oil excluding de minimis amounts and excluding petroleum and petroleum products contained within regularly operated motor vehicles.
- Asbestos or asbestos-containing materials in structures and/or other improvements on or in the Site (other than mineral asbestos naturally occurring in the ground).

Hazardous waste: A hazardous material that is no longer of use and will be disposed of. Hazardous waste is regulated by the U.S. Environmental Protection Agency (EPA) under the RCRA. California hazardous waste law is in some cases more stringent than federal law, and waste can often be defined as California hazardous waste (or non-RCRA hazardous waste).

Lead-based paint: Lead-based paint means paint or other surface coatings that contain lead equal to or exceeding 1.0 milligram per square centimeter or 0.5% by weight or 5,000 parts per million by weight.

Non-hazardous waste: The EPA defines non-hazardous industrial waste as waste generated from processes associated with the production of goods and products, such as electric power generation and manufacturing of materials such as pulp and paper, iron and steel, glass and concrete. In addition, a waste that does not meet the criteria of hazardous waste including ignitability, corrosivity, reactivity, or toxicity.

Treated wood waste (TWW): Treated wood means wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide and Rodenticide Act. TWW is wood commonly used in ground or water contact applications that have been removed from service.

Universal waste: Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. The seven categories of universal wastes include televisions, computers, and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others. Following are the definitions of these universal wastes:

- **Electronic devices:** Includes any electronic device that is a hazardous waste (with or without a cathode ray tube), including televisions, computer monitors, cell phones, VCRs, computer CPUs and portable DVD players.
- **Batteries:** Most household-type batteries, including rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, alkaline batteries and other batteries that exhibit a characteristic of hazardous waste.
- **Electric lamps:** Fluorescent tubes and bulbs, high intensity discharge lamps, sodium vapor lamps and electric lamps that contain added mercury, as well as any other lamp that exhibits a characteristic of hazardous waste (e.g., lead).
- **Mercury-containing equipment:** Thermostats, mercury switches, mercury thermometers, pressure or vacuum gauges, dilators and weighted tubing, mercury rubber flooring, mercury gas flow regulators, dental amalgams, counterweights, dampers, and mercury added novelties such as jewelry, ornaments and footwear.
- **Cathode ray tubes (CRTs):** The glass picture tubes removed from devices such as televisions and computer monitors.
- **CRT glass:** A cathode ray tube that has been accidentally broken or processed for recycling.
- **Non-empty aerosol cans**

Universal Wastes may not be disposed of in the trash!

2.0 BACKGROUND

This section summarizes the federal, state, and local laws, regulations, and orders that pertain to hazardous materials and wastes in the LGA project area. Additional details are provided in Section 3.10.2 of the F-B EIR/EIS.

2.1 Federal

- RCRA (42 U.S.C. § 6901 et seq.)
- CERCLA (42 U.S.C. § 9601 et seq.)
- Clean Air Act (42 U.S.C. § 7401 et seq.)
- Clean Water Act (Section 402(p)) (33 U.S.C. § 1342(p))
- Safe Drinking Water Act (42 U.S.C. § 300(f) et seq.)
- Toxic Substances Control Act (15 U.S.C. § 2601 et seq.)
- Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. § 136 et seq. and 40 Code of Federal Regulations [C.F.R.] 152.1–171)
- Hazardous Materials Transportation Act (49 U.S.C. § 5101 et seq. and 49 C.F.R. Parts 101, 106, 107, and 171–180)
- Hazardous Materials Transportation Uniform Safety Act of 1990 (Public Law No. 101-615)
- Emergency Planning and Community Right to Know Act (42 U.S.C. § 11001 et seq. and 40 C.F.R. 350.1 et seq.)
- Federal Compliance with Pollution Control (Executive Order 12088)

2.2 State

- California Code of Regulations (CCR), Title 14, § 1724.3, Well Safety Devices for Critical Wells
- CCR Title 27, Division 2, Chapter 3, Subchapter 4, Gas Monitoring and Control at Active and Closed Disposal Sites
- CCR, Title 27, Division 2, Chapter 3, Subchapter 5, Closure and Post Closure Maintenance of Landfills
- California Public Resources Code § 21151.4
- Porter-Cologne Water Quality Act (California Water Code § 13000 et seq.)
- Hazardous Materials Release Response Plans and Inventory Law (California Health and Safety Code § 25500 et seq.)
- Hazardous Waste Control Act (California Health and Safety Code § 25100 et seq.)
- California Health and Safety Code § 25249.5 et seq.
- California Government Code Section 65962.5

2.3 Local Jurisdiction Plans and Policies

Senate Bill 1082, passed in 1993, created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (California Environmental Protection Agency [Cal/EPA] 2009). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. The Cal/EPA and other state agencies set the standards for their programs, while local governments implement the standards. These local implementing agencies are called Certified Unified Program Agencies (CUPAs). For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans
- California accidental release prevention plans or federal risk management plans
- The operation of underground storage tanks (USTs) and aboveground storage tanks (ASTs)
- Universal waste and hazardous waste generators/handlers
- Onsite hazardous waste treatment
- Inspections, permitting, and enforcement
- Proposition 65 reporting
- Emergency response actions (spills and removals)

Beyond the statewide regulations, the CUPA administers policies and regulations found in a number of local and regional plans (including general plans and municipal codes) that address hazardous materials and wastes. Regulations, local plans, and policies are intended as guides for the appropriate identification, use, transport, and disposal of potentially hazardous materials, the cleanup of contaminated sites, and the preparation of emergency response plans (Table 2-1, *Local Plans and Policies*).

Table 2-1 Local Plans and Policies

Jurisdiction	Policy	Title Summary
Kern County	Kern County General Plan, Safety Element, Section 4.4, Policy 2, Implementation Measure A; Section .9, Policies 1 and 2, Implementation Measures A and B (Kern County Planning Department 2009)	The Kern County General Plan contains the following policies or implementation measures: facilities used for the manufacture, storage, and use of hazardous materials will comply with the Uniform Fire Code, with requirements for siting or design to prevent onsite hazards from affecting surrounding communities in the event of inundation; the proposed siting or expansion of hazardous waste facilities will be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan; and innovative technologies to manage hazardous waste streams generated in Kern County will be encouraged.
City of Shafter	City of Shafter, Draft City of Shafter General Plan, Environmental Hazards Program, Hazardous Materials (2005)	Minimize the negative impacts associated with the storage, use, generation, transport, and disposal of hazardous materials. The Kern County Fire Department's Hazardous Materials Team (located at Station 67 in Rosedale) would respond to any hazardous materials incident within the Planning Area. Additional fire department units would respond as necessary.
City of Bakersfield	Metropolitan Bakersfield General Plan, Safety Element, Public Safety, Hazardous Materials/Uses, Goal 4, Policies 7, 8, and 16 (City of Bakersfield and Kern County 2007)	All new discretionary development projects are subject to environmental and design review on a site-specific, project-by-project basis, including, but not limited to, an assessment to determine whether hazardous materials present potential health effects on human health.
	Bakersfield Municipal Code, Title 8, Chapter 8.60, Certified Unified Program Agency (City of Bakersfield 2018)	The CUPA for the City of Bakersfield is the Bakersfield Fire Department, which is responsible for implementing the unified program within the incorporated area of the city of Bakersfield. Site inspections for hazardous materials programs (aboveground storage tanks, underground storage tanks, hazardous waste treatment, hazardous waste generators, hazardous materials management and response plans, and the Uniform Fire Code) are consolidated and accomplished by a single inspection.

2.4 Project Guidance

Additional guidance documents for the LGA project include the waste management plans prepared by the Contractor, which includes the CWMP and SMP. The Contractor shall require staff and subcontractors engaged in the profile, characterization, removal, remediation, transport, and disposal of hazardous and non-hazardous waste shall review this HMMP, as well as the CWMP and SMP, to have a full understanding of procedures to be followed during design, pre-construction, and construction activities.

2.4.1 Site Specific Health and Safety Plan

All activities performed during implementation and execution of this HMMP shall at all times comply with the Contractor's Site-Specific Health and Safety Plan (SSHASP) and be in accordance with California Occupational Health and Safety Administration (Cal OSHA) and OSHA requirements relating to general construction and hazardous waste operations. The SSHASP covers anticipated site-specific environmental and chemical hazards and health and safety procedures as well as construction hazards and must be reviewed prior to beginning work at a site. Subcontractors employed to remediate will be required to submit SSHASPs that provide worker training requirements (i.e., OSHA Hazardous Waste Operations and Emergency Response) and protocol to safely handle the hazardous materials to be remediated such as ACM, lead-based paint (LBP) containing material, or contaminated soil. Subcontractors shall not proceed with remediation until the SSHASP is approved by the Authority and the Contractor.

2.5 Previous Investigations

Previous reports have identified areas where hazardous materials are anticipated. These reports include:

- Fresno to Bakersfield Section California High-Speed Train Project Environmental Impact Report / Environmental Impact Statement (Authority and FRA 2014)
- [Final] Supplemental Environmental Impact Report: Fresno to Bakersfield Section (Authority 2018)
- Fresno to Bakersfield Section: Locally Generated Alternative. Supplemental Record of Decision and Final Supplemental Environmental Impact Statement for the Locally Generated Alternative (Authority 2019)
- Section 3.10, Hazardous Materials and Wastes, of the LGA SEIR/SEIS
- Technical Reports, Supplemental Hazardous Materials and Wastes Technical Report (Appendix A1, A2-E1, F1, and F2) of the LGA SEIR/SEIS

The information contained in previous reports will be augmented on a case-by-case basis to ensure the appropriate due diligence for protecting people and property, inclusive of the natural and cultural environment from potential hazards related to hazardous or non-hazardous waste.

Additional analytical data may be obtained prior to and during soil excavation activities and property Right-of-Way acquisition, as needed, for waste characterization and protection of human health. Field monitoring methods, waste collection, containment, storage methods, waste sampling and analysis procedures, and waste classification, disposition, and possible end-uses of the wastes are included to guide the user of this HMMP.

2.5.1 Known Hazardous Materials Sites / Potential Environmental Concerns

The findings from previous investigations, summarized in the LGA SEIR/SEIS, identified 173 locations with potential environmental concerns (PECs), within or adjacent to the project area. Of these 173 sites, 27 were designated high priority, 124 were designated medium priority, and 22 designated low priority. For the preferred LGA alignment and this HMMP, consideration is given to 20 high-priority PEC sites, 71 medium-priority PEC sites, and 1 low-priority PEC site located within or adjacent to the HSR project. The reduction in the design team scope of work results in 81 of the PEC sites being outside the purview of the design team as they are located south of Chester Avenue, leaving 92 PEC sites within the area subject to this HMMP. Design reviews and reexaminations review the data for the 92 sites addressed in the LGA SEIR/SEIS that remain in

the HNTB scope of work area. Generally, the reported level of hazardous materials contamination and site conditions for the low-priority level PECs do not pose a risk in relation to design or preconstruction field investigations, as there are known means, methods, and costs associated with addressing such conditions.

The LGA design team has screened the available information for the 92 sites within the design team scope of work area and identified 47 PEC sites directly affected by the HSR alignment or appurtenant facilities, as documented in “Memorandum: Evaluation of the Potential for Known Hazardous Materials and Waste Sites to Affect Design” (Memorandum) developed to inform the 30%, 60%, and 90% design of the LGA (Sapphos Environmental, Inc. 2025). The high- and medium-priority sites will need to be taken into consideration for this HMMP and during the design, pre-construction, and construction of the LGA (see Appendix A, *Potential Environmental Concern Sites Previously Identified*; Appendix B, *High- and Medium-Priority Sites of Potential Environmental Concern Sites Map Set*). Each of the 47 PEC sites addressed in the Memorandum is assessed a Risk Level Ranking (A through F) based on its potential to affect design:

- Risk Level Ranking A. Explosive Risk
- Risk Level Ranking B. Location Risk
- Risk Level Ranking C. Abandoned Oil and Gas Lines
- Risk Level Ranking D. Soil and Water Contamination requiring Remediation with Agency Oversight
- Risk Level Ranking E. Aboveground and Underground Storage Tanks
- Risk Level Ranking F. Determination of Feasibility to Leave Contaminated Soils *In Situ*

Preliminary investigations will be required at 20 high-priority PEC sites, 71 medium-priority PEC sites, and 1 low-priority PEC site where preconstruction or construction activities are required within or immediately adjacent to the identified locations. One low-priority site, Map ID #44, Kinder Morgan, has been determined to be a risk to design and is taken into consideration for this HMMP.¹ The investigations may include Phase I Environmental Site Assessments (ESAs), and Phase II ESAs. A Phase II ESA will assist in defining soil and/or groundwater conditions and help characterize potential wastes generated during construction activities that may present hazards to human health or the environment.

A Soil Characterization Work Plan shall be required to address potential chemicals of concern found in soil spoils and other byproducts from construction. Additional analytical data may be obtained prior to and during soil excavation activities and property Right-of-Way acquisition, as needed, for waste characterization and protection of human health. Field monitoring methods, waste collection, containment, storage methods, waste sampling and analysis procedures, and waste classification, disposition, and possible end-uses of the wastes are included to guide the user of this HMMP.

An example Soil Characterization Work Plan is included in this document (Appendix C, *Example Soil Characterization Work Plan*). Findings from soil sampling will determine if hazardous material exist and if a hazardous waste remediation plan is required. A Soil Characterization Report should be completed to document the findings from the soil characterization field activities. The report should follow the same format as the work plan including reporting on laboratory analytical services,

¹ The previously reported diesel release for Map ID #44 is located on the Kinder Morgan facility. An internet search and review of Google Earth imagery reveals that the Kinder Morgan facility contains an extensive network of above- and underground piping for distribution of natural gas, crude oil and other products. There is also one aboveground storage tank present.

results and discussion of the results, and the future disposition of the soil spoils and other byproducts from construction activities.

2.5.1.1 Oil and Gas Wells

The LGA passes through California Division of Oil, Gas, and Geothermal Resources District 4, which contains a high number of actively producing oil and gas wells. There are 11 oil and gas wells within the HSR alignment that have been recommended to be precisely located in an effort to understand their potential to affect the 60% design. Kern County in District 4 historically has been California's top oil-producing county, with 83% of the State's 36,004 actively producing wells on file. This HMMP should be used by the Contractor and its subcontractors to guide all design, pre-construction, and construction activities. In addition, the California High-Speed Rail Authority Design Criteria Manual, Revision 6.2, Chapter 35, Section 35.2.14.1 (Oil and Gas Wells) (Authority 2025) should be used during these design, pre-construction and construction activities.

A total of 156 oil and gas wells (abandoned or active) fall within 5,000 feet of the LGA centerline, and 21 oil and gas wells fall within 500 feet of the LGA centerline (Appendix D, *Oil and Gas Well Locations*). All construction and grading work conducted within 100 feet of an oil well site should be coordinated with the California Department of Conservation. Active wells would need to be capped and abandoned or relocated. Appurtenant facilities such as pipelines would also potentially need to be relocated if they fall within the footprint.

Current and historical oil wells may have utilized mud sumps during the drilling process, and these may still be present near the oil and gas well. In addition, contamination from former sumps, pipelines, and storage tanks may be present near each former oil well and may be encountered during grading and construction. The LGA also coincides with multiple oil and natural gas transportation pipelines in, along, and traversing the LGA. These pipelines may need to be abandoned or relocated.

2.5.2 Potential Environmental Concerns – Late Discovery Procedure

The Contractor is required to identify, characterize, quantify, remove, and dispose of all hazardous materials and wastes. If deemed necessary, the Contractor will submit a hazardous materials remediation plan to the Authority in accordance with the requirements of the Contract (HSR 22-01).

The Contractor shall promptly conduct such further investigations, as the Authority reasonably deems appropriate. As soon as possible, but no later than five working days after its initial notice to the Authority, the Contractor shall advise the Authority of any action recommended to be taken regarding the situation in a written remediation or avoidance, minimization, and mitigation plan. If hazardous materials are involved, the remediation plan shall describe the type of remediation work, if any, that the Contractor proposes to undertake with respect thereto. The Authority will then either approve, or require modification of, the Contractor's proposed remediation plan.

This HMMP provides general guidance of alternatives for the management of hazardous materials that may be encountered during the work. This HMMP includes an inspection checklist for hazardous materials in the event hazardous materials are discovered (Appendix E, *Checklist for Hazardous Materials Notification*). The Contractor is responsible for its own health and safety compliance and performance to include that of its subcontractors, vendors, and visitors. If hazardous materials are encountered, they shall be addressed in the SSHASP. Emergency procedures, emergency response and emergency contacts shall also be addressed in the SSHASP and the ECP. Refer to these documents prior to proceeding with hazardous materials handling. Also note that public protection shall be addressed in the SSHASP, and site security addressed in the ECP.

3.0 PERMITS AND NOTIFICATIONS

3.1 Permits

Detailed follow-up shall be required during the pre-construction and construction phase to ensure the status of all required permits, and detailed daily coordination shall be required for those permits with multiple applications.

A description of federal, state, or local permits that have been or are being obtained for the Project are summarized below. The Contractor and subcontractors shall be required to obtain many of the permits. Primary responsibility for contact and coordination with a particular regulatory agency will be based on who the permit applicant was (Authority, Contractor, or its subcontractor). Detailed descriptions of the permits and notifications are included in the CWMP.

The Contractor will be responsible for obtaining permits in the following areas:

- Permits that govern ecological protections, such as the U.S. Army Corps of Engineers Clean Water permit or the California Department of Fish and Wildlife Lake and Streambed Alteration agreement, as required.
- General permits that pertain to the preservation of both surface and ground water quality, including Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System permits (NPDES) and Storm Water Pollution Prevention Plan (SWPPP).
- General permits that pertain to satisfying air-quality requirements, such as San Joaquin Valley Air Pollution Control District (SJVAPCD) air-quality permits and Voluntary Emission Reduction Agreements (VERA). Air-quality permits and plans that pertain to specific Project Elements will be obtained and/or prepared by the Contractor.
- The Contractor or its subcontractor will be responsible for obtaining all building and environmental permits that pertain to construction activities for each project element. Permit-acquisition responsibilities for the Contractor include the following:
 - BNSF “Right of Entry” Agreements and follow the BNSF Environmental Access Instructions Process with BNSF.
 - Encroachment permits must be obtained for project elements on the Caltrans Rights-of-Way, where applicable.
 - Permits required by Kern County Department of Public Works, the City of Shafter, and the City of Bakersfield including construction, excavation, storm-drain relocation and connection, flood control channel alteration, and similar construction permits to complete the project.
 - Permits required by local jurisdictions, including construction, demolition, excavation, and grading permits acquisition.
 - Plan review, approval, and coordination with utility owners (both public and private) regarding modification to or relocation of their utilities, including electricity, telephone, cable, natural gas, petroleum pipelines, and sanitary sewers.

3.2 Contractor Notification Requirements

In the event of the identification and/or discovery of a release of petroleum products and/or hazardous materials that warrants regulatory notification, the Contractor and subcontractor shall notify the appropriate state, county, or local authority in accordance with applicable regulations (Table 3-1, *Emergency Release or Spill Contacts*). Spill response to any release of petroleum products and/or hazardous materials caused by the Contractor or its subcontractors/vendors is the sole responsibility of the Contractor, along with regulatory compliance relative to that release and the use, storage and disposal of petroleum products and/or hazardous materials, hazardous waste and hazardous substances as defined by the federal, state, and local regulations.

In the event of an emergency involving a release or spill of materials and/or hazardous waste, the Contractor must IMMEDIATELY:

1. Notify site personnel and evacuate, if necessary, in accordance with the Emergency Action Plan (8 CCR § 3220);
2. Notify local emergency responders by calling 9-1-1;
3. Notify the local CUPA at the phone numbers below;
4. Notify the State of California Warning Center at (800) 852-7550; and
5. Document the release on the checklist for hazardous materials notification (Appendix E) and notify the Authority within 24 hours.

Table 3-1 Emergency Release or Spill Contacts

Local CUPA	Phone Number
Kern County Fire Station 32, Shafter, CA	661-746-3933
Kern County Fire Station 61, Bakersfield	661-587-7309
Bakersfield City Fire Department (general digital call center)	661-326-3979
Kern County Environmental Health Services Department	661-862-8740

Following notification and before construction is resumed in areas affected by the incident, the Emergency Coordinator shall notify the local CUPA's and fire department's hazardous materials program listed above, if necessary, that the area is in compliance with requirements to:

1. Provide for proper storage and disposal of recovered waste, contaminated soil or surface water, or any other material that results from an explosion, fire, or release at the facility; and
2. Ensure that no material that is incompatible with the released material is transferred, stored, or disposed of in areas of the facility affected by the incident until cleanup procedures are completed.

Contaminated material management protocols are identified in collaboration with the lead regulatory agency for the county where the material exists and in collaboration with the CalEPA, California Department of Toxic Substance Control (DTSC) <https://dtsc.ca.gov/> or the Central Valley RWQCB <http://www.waterboards.ca.gov/centralvalley/>.

After hazardous materials have been identified and notification has occurred, a competent, trained, and knowledgeable person should review the project site and its contents. Information concerning the history of the site should be reviewed, including Phase I and Phase II environmental assessment reports, for date of construction of the property, historical and current property uses, database findings, conclusions, and recommendations. For all properties where the presence of hazardous materials is suspected, the Contractor will perform a hazardous material assessment utilizing consultant(s) that are trained in environmental site assessment and are qualified sampling technicians to assess, investigate, sample, and test the subject property. Where impacted media includes soil or groundwater, consultants trained in the field of contaminant assessment and remediation and who are familiar with local, state, and federal laws governing such work should be utilized, with the scope of information provided in the sample Soil Characterization Work Plan provided in this HMMP (Appendix C). The Work Plan shall be signed by a Geologist or Engineer registered in the State of California.

A site-specific remediation plan should be prepared for Authority approval that describes the necessary work to mitigate, means and methods, labor, material, and equipment to be used, specific regulations that will be followed, submittal of documentation, certifications, site security and access, emergency planning, fire protection, hours of work, required signage, sampling, and disposal of objectionable material.

3.3 Documentation of Incidents

The Contractor shall provide notification to the Authority of any releases of petroleum products and/or hazardous materials associated with the Contractors or subcontractor's equipment, fuel, or supplies utilized for the project work. The subcontractor will be asked to provide the Contractor with documentation detailing the nature and quantities of the release. The Contractor will include the subcontractor's information in an incident report that includes the following elements:

- Summary of events that led to the release
- Description of the subcontractor/Contractor's efforts to contain the release
- If applicable, CUPA agencies notified
- Remedial actions completed to remove the waste
- Summary of corrective actions implemented to prevent future incidents
- Appendices with relevant documents including:
 - Checklist for Hazardous Materials Notification
 - Hazardous Waste Remedial Work Plan (if applicable)
 - Copies of fully executed hazardous waste profile and manifests (if applicable)

The incident will be considered closed after the Authority approves of the quality and contents of the incident report and the Contractor uploads the report and associated compliance documents (e.g., waste profiles and manifests, e-mail correspondence, phone records) to the Authority's Environmental Mitigation and Management Application (EMMA).

4.0 TRAINING

All personnel working on the LGA project will receive WEAP training addressing the issues of safety and environmental concerns associated with construction of the LGA. The Contractor and subcontractor personnel who handle hazardous wastes will also require training in accordance with Federal OSHA Hazardous Communication Standard, 29 C.F.R. 1910, and State of California CCR Title 8, Section 5194. Field personnel responsible for managing generated waste, conducting hazardous waste inspections, or involved in emergency response procedures shall be trained in accordance with OSHA Standard 29 C.F.R. 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) on hazardous materials and waste management procedures, emergency and spill response procedures, and waste minimization procedures.

5.0 HAZARDOUS MATERIALS MANAGEMENT

This section of the HMMP describes the waste handling procedures for anticipated hazardous materials (where hazardous materials were expected based on previous investigation results), unanticipated contaminated soils (where previous investigations did not indicate contaminated soils or where no investigations were conducted), universal wastes, and water recovered from saturated soils, dewatering, or decontamination.

Materials and waste may be considered hazardous if they are poisonous (toxic); are flammable, combustible, or ignitable; corrode other materials (corrosive); or react violently, explode, or generate vapors when mixed with water. As provided by Section 25501(o) of the California HSC, hazardous materials include any material that poses a potential hazard to human health and safety or the environment because of its quantity, concentration, or physical or chemical characteristics.

In addition to the guidance of this HMMP, references to hazardous materials and waste in the California High-Speed Rail Authority Design Criteria Manual, Revision 6.2, Chapter 35, Environmental should be followed (Authority 2025). Applicable sections include Section 35.2.8 Hazardous Materials and Waste which defines the usage of fill materials and hazardous materials and waste, and Section 35.3.1, HSR Earthworks Configurations, which directs the application of hazardous materials and waste as an environmental design criteria elements for HSR embankments, open cuts, retained embankments and retained cuts.

5.1 Anticipated Hazardous Materials

Construction within the project area may encounter agricultural chemical storage or manufacturing facilities with chemical product, waste residuals, oil and gas facilities, contaminants associated with railroads (e.g., petroleum hydrocarbons, polycyclic aromatic hydrocarbons and heavy metals (Pb, Cd, Cu, Zn, Hg, Fe, Co, Cr, Mo, pesticides and herbicides), electrical transformers and capacitors containing polychlorinated biphenyl (PCBs), TWW, crude oil pipelines, ADL, and potential heavy metals (e.g., lead and chromium) found yellow thermoplastic street striping. Buildings and other above-grade infrastructure to be demolished may contain ACM, LBP, and universal wastes; building demolition is described further in Section 7.0. Hazardous waste shall be stored onsite no longer than 90 days after the accumulation date.

Work will be conducted within or adjacent to 20 high-priority PEC sites, 71 medium-priority PEC sites and 1 low-priority PEC site referenced in Section 2.5.1, including 11 oil and gas wells referenced in Section 2.5.1.1. The Contractor or its designated subcontractor will provide a mitigation plan that includes testing of excavated materials that are known to be or have the potential to be impacted based on information from previous investigations or from field observations. The mitigation plans will include characterization for either on site reuse or off-site reuse/disposal/recycling as allowed by state, federal, and local regulations.

5.2 Unanticipated Hazardous Materials

If during construction, unanticipated hazardous materials are encountered (based on observations by field personnel), construction in the immediate area will cease until further assessment as to the type and extent of contamination is better understood. The Contractor's Project Manager will be notified immediately, and site control measures will be implemented to further minimize exposure. The Authority will also be notified as soon as site control measures are in place.

Unanticipated hazardous materials may include, but are not limited to, contaminated groundwater, UST and AST systems, Transite pipe (clay pipe or asbestos cement), unmarked drums and containers, mastic adhesives containing asbestos, and active or inactive pipelines. If discovered during construction, the Contractor shall produce a waste profile generated by a qualified hazardous materials management contractor for the unanticipated material and, if deemed to be hazardous, the waste will be managed as described in Section 6.1. If the analytical results indicate non-hazardous waste, the material shall be handled in accordance with the requirement in the contract documents. Non-hazardous wastes shall be stored onsite no longer than 180 days after the accumulation date, or 270 days or less if the waste will be transported 200 miles or more for treatment, storage, or disposal.

5.3 Universal Waste

As defined by the DTSC, universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes that may be encountered during the LGA construction include, but are not limited to, batteries, pesticides, CRTs (television or computer screens), fluorescent lamps or light bulbs, mercury thermostats, and non-empty aerosol cans.

The hazardous waste regulations (CCR, Title 22, Division 4.5, Chapter 11 §66261.9) identify seven categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported, and recycled following the simple requirements set forth in the universal waste regulations (UWR) (CCR, Title 22, Division 4.5, Chapter 23).

As universal waste handlers, multiple management requirements apply to the Contractor's personnel and its subcontractors:

1. Do not dispose of universal waste or treat universal waste except as provided for in the regulations.
2. Use proper containment – non-leaking, compatible containers.
3. Segregate universal waste in distinct areas.
4. Determine if materials generated when handling/recycling are hazardous wastes (proper management and profiling).
5. Comply with applicable requirements for hazardous waste.
6. If applicable, comply with zoning requirements when storing universal wastes.
7. Have spill kits readily available to deal with accidental spills (mercury-containing devices).
8. Use proper labeling and markings.
9. Accumulate universal waste no longer than one year.
10. Provide personnel training to employees who manage or supervise universal waste.
11. Document training and archive records.
12. Respond to releases of universal waste or its contents; determine if spill residuals are hazardous waste.
13. Track shipments by keeping records of what was received and shipped (name, address, quantities) for three years.

5.4 Treated Wood Waste

TWW is generated when treated wood is removed from service. This wood is typically treated with preserving chemicals that protect the wood from insect attack and fungal decay during its use. Examples include fence posts, sill plates, landscape timbers, pilings, guardrails, decking, railroad ties, and utility poles.

Alternate Management Standards (AMS) have been established by the DTSC for handling and disposal of TWW. The Contractor and its subcontractors will comply with AMS requirements by:

1. Obtaining prior confirmation that the solid waste facility or hazardous waste facility will accept TWW shipment (CCR, Title 22, § 67386.7(b)).
2. Storing TWW off the ground by placing it on blocks, on concrete surfaces, or in containers. Movement of large quantities of TWW can be facilitated by bailing and or palletizing TWW, which may also prevent ground contact (CCR, Title 22, § 67386.6(a)).
3. Removing TWW within the allowed limits (90 days – block and tarp, 180 days – containment pad, 1 year – container and storage building) (CCR, Title 22, § 67386.6(a)(2)).
4. Covering TWW during inclement weather to prevent rain from leaching chemicals out of the TWW (CCR, Title 22, § 67386.6 (a)(2)).

5. Accumulating TWW away from public access (CCR, Title 22, § 67386.6(a)(1)).
6. Do not burn TWW. It is illegal to burn TWW without a hazardous waste permit (CCR, Title 22, §67386.3(a)(1)).
7. Confirming reuse of removed TWW with the Authority and contacting DTSC if reuse is approved to ensure compliance with existing hazardous waste laws (CCR, Title 22, § 67386.3(c)).
8. Segregate TWW from other waste (CCR, Title 22, § 67386.3(a)(3)).
9. Label all TWW bundle/shipments with the following information (CCR, Title 22, § 67386.5(b)):

Treated Wood Waste - Do not burn or scavenge

TWW Handler Name, Address, and Accumulation Date

10. Keeping records for at least three years from date of shipment or receipt to demonstrate that TWW was properly managed. Records should include: (1) name and address of the TWW facility to which the TWW was sent; (2) estimated weight of TWW, or the weight of the TWW as measured by the receiving TWW facility; and (3) date of the shipment of TWW (CCR, Title 22, §§ 67386.8(a) and (e)(1)).
11. Notifying DTSC within 30 days if generating more than 10,000 pounds of TWW per calendar year. The following information must be submitted:
 - a. Name and mailing address;
 - b. Identification Number;
 - c. Name and telephone number of the TWW contact person;
 - d. Address or physical location of the TWW management activities;
 - e. Date exceeding the 10,000 pound limit; and
 - f. A statement indicating that the business is generating more than 10,000 pounds of TWW per calendar year. An Identification Number can be obtained by calling 1-800-618-6942 (CCR, Title 22, § 67386.9).
12. Arranging for shipment to a TWW facility. Disposal is allowed at a hazardous waste landfill or a qualified solid waste landfill. Contact the TWW facility to obtain costs as they may be adjusted based upon volume (CCR, Title 22, § 67386.11).
13. Training employees involved in TWW handling and keep the training records for three years. The training shall include applicable requirements of Cal/OSHA and regulations relating to hazardous waste, methods for identifying and segregating TWW, safe handling practices, requirements of AMS; and proper disposal methods (CCR, Title 22, § 67386.12(a)).

5.5 Oily Waste

Oily wastes mean wastes and/or used materials that contain oil and grease (generally at or in excess of 100 mg/L) from manufacturing or processing facilities or other commercial operations. Examples of these wastes are used oils, oil-water emulsions or mixtures, lubricants, coolants, contaminated groundwater clean-up from petroleum sources, used petroleum products, oil spill clean-up, bilge water, rinse/wash waters from petroleum sources, interceptor wastes, off- specification fuels, underground storage tank remediation waste, and tank clean out from petroleum or oily sources. Oil, fuel, or solvent soaked rags and sorbent pads generated during equipment fueling and maintenance shall be stored separately from other construction waste in OSHA compliant flame-resistant containers equipped with a closing lid or cover. Oil-soaked rags are a combustion hazard. If heat from stored rags is not dissipated, it can build up and ignite the rags. Special oily-waste cans shall be used to store oil- soaked rags. These containers allow air to flow around the rags, thus dissipating the heat. The contractor should contact a hazardous materials management company for proper disposal.

5.6 Hazardous Waste Removal Process

Hazardous materials will be removed in the following general manner:

1. The Contractor shall notify the Authority at least 10 working days in advance of the removal and prepare remediation plans.
2. The Contractor and its subcontractors shall obtain all necessary permits and clearance to complete work.
3. Following written approval by the Authority, notify relevant state and local agencies (e.g., SJVAPCD, California Water Resources Control Board, DTSC, Kern County Public Health and CUPA stakeholders of planned field activities.
4. Implement provisions of the SSHASP relating to hazardous waste operations.
5. Begin field monitoring and documentation when removing hazardous materials and implement control measures as necessary and appropriate.
6. Obtain waste profile and manifest for offsite transport and disposal of hazardous waste.
7. Load hazardous materials onto appropriate trucks and transport to the receiving facility.
8. Obtain fully executed hazardous waste manifest signed by the generator, transporter, and receiving facility.
9. Upload hazardous waste management records to EMMA.

5.7 Storage of Hazardous Materials

Storage of hazardous material shall be in accordance with State Resources Control Board Construction General Permit to prevent unauthorized non-stormwater discharges. Including federal regulations for storage of hazardous materials and State of California CCR, Title 8, §5164, which states:

- a. Substances which, when mixed, react violently, or evolve toxic vapors or gases, or which in combination become hazardous by reason of toxicity, oxidizing power, flammability, explosibility, or other properties, shall be evaluated for compatibility before storing. Incompatible substances shall be separated from each other in storage by distance, or by partitions, dikes, berms, secondary containment or otherwise, so as to preclude accidental contact between them.
- b. Hazardous substances shall be stored in containers, such as those approved by the United States Department of Transportation (DOT), which are chemically inert to and appropriate for the type and quantity of the hazardous substance.
- c. Containers of hazardous substances shall not be stored in such locations or manner as to result in physical damage to, or deterioration of, the container. Containers shall not be stored where they are exposed to heat sufficient to rupture the containers or to cause leakage.
- d. Containers used to package a substance which gives off toxic, poisonous, corrosive, asphyxiant, suffocating, or anesthetic fumes, gases, or vapors in hazardous amounts (e.g., volatile organic compounds, solvents, or other compressed or liquefied toxic gases) shall not be stored in locations where it could be reasonably anticipated that employees would be exposed. This requirement shall not apply to small quantities of such materials kept in closed containers, or to tank cars or trucks.

5.8 Container Selection

All containers used for accumulation must be suitable for the types of products being stored. Project managers must first determine the type of wastes to be accumulated prior to selection of appropriate storage containers. When appropriate, hazardous material must be accumulated in United Nations (UN) approved containers and must not be placed in containers exceeding 55 gal in volume. Hazardous soil or groundwater and other large volume materials may be contained in leakproof bins that are protected from the elements. Containers can be reused; however, they must be free of all previous residues and labeled appropriately prior to reuse.

5.8.1 Secondary Containment

Secondary containment systems will be implemented at hazardous materials storage areas and within 100 feet of drainages to reduce the risk of an inadvertent release of hazardous materials to the water resources. In accordance with CCR, Title 22, §66265.193(b), secondary containment systems shall be:

1. Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and
2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

5.9 Container Condition

All containers used for waste accumulation shall be free of defects or deterioration. All containers used to store/hold hazardous waste must meet certain requirements and comply with 40 C.F.R. 265.171–265.173(a). The containers holding hazardous waste must be:

1. In good condition. The container must not be leaking, rusted, corroded, dented, or have non-working caps/bungs or other sealing devices. It must not have any bulges, dents in seams/corrugations, or be deteriorated in any other way. If a container leaks or is not in good condition, the contents shall be transferred to another container that meets all standards. Drum overpacks may be used to contain leakages from damaged containers; however, absorbent material capable of soaking up liquid should be used within the overpack.
2. Made of compatible material. The container must be made of a material that will not react or deteriorate when in contact with the material or waste. For example, acids cannot be placed in a steel drum because the acid will corrode the drum, causing it to leak.
3. Securely closed. All containers used to store hazardous waste must have a lid or cap that closes and seals tightly to prevent spills or the release of fumes. Storing wastes in open containers or buckets is allowed only when it is actively being filled. Personnel shall confirm that containers are tightly closed after every use.
4. All containers used to store hazardous waste must meet DOT specified packaging requirements.

5.10 Labeling and Marking

The Contractor's field personnel and subcontractors are responsible for ensuring that waste containers are properly labeled in their designated areas. Each waste container must be properly labeled with the contents, generation location, date accumulated and contact information. The type of label to be used will depend on the waste profile:

1. **Pending Analysis** labels shall be used if the waste profile of the contents is unknown, and samples have been submitted to an analytical laboratory for chemical analyses. Pending analysis labels shall be replaced with non-hazardous or hazardous-waste labels as soon as laboratory results are received, and a waste profile is determined.
2. **Non-Hazardous Waste** labels may be used if it has been determined that the materials are non-hazardous under federal, state, and local regulations.
3. **Hazardous Waste** labels must be used if it has been determined that the materials are hazardous under federal, state, and local regulations.
4. **Universal Waste** labels shall be used for containers with universal wastes as described in Section 5.3.

5. **ACM.** In addition to the information required above. Containers with ACM must be labeled with the following information:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

6. **TWW.** In addition to the information required above. Containers with TWW must be labeled with the following information:

TREATED WOOD WASTE – Do not burn or scavenge.

In addition to meeting the requirements of this HMMP, temporary labelling of temporarily staged or stored non-hazardous and hazardous waste must conform to the labelling requirements of the SMP.

6.0 WASTE PROFILE AND MANIFEST

6.1 Waste Profiling

Waste profiles for hazardous and non-hazardous waste must be developed, approved, and initialed by the Hazardous Waste Manager; and reviewed and initialed by the LGA Hazardous Waste Subject Matter Expert; and signed by the LGA Environmental Compliance Manager (ECM), acting on behalf of the Authority for all manifested waste. Specific information required for waste profiles will vary and will be determined by the operator of the receiving facility. An example waste profile has been provided for guidance (Appendix F, *Example Hazardous Waste Profiles*). Components of the profile typically include:

- Generator Information
 - Name (California High-Speed Rail Authority)
 - Site address or location (designated field office)
 - California High-Speed Rail Authority EPA ID Number
 - Contact name and telephone number
- U.S. DOT shipping information
 - DOT waste name (e.g., non-friable asbestos, treated wood, RCRA-hazardous liquid, etc.)
 - Hazard class
 - Container type
 - Quantity
- Regulatory Information
 - Name of waste
- Waste Description
 - Waste type
 - Process generating waste
 - Physical properties
 - Physical state
 - Number of phases
 - Odor
 - Boiling point
 - Viscosity
 - Melting point
 - Color
 - Total organic carbon
 - Flash point
 - Specific gravity
- Composition
 - Chemical
- Waste Characteristics
 - Flammability

- Corrosivity
- Ignitability
- Toxicity information (i.e., lab testing results)

The Contractor is responsible for working with its waste hauling subcontractors to develop waste profiles. Draft profiles should be submitted to the LGA ECM for review on behalf of the Authority within 7 days after remedial activities cease and the accumulation date begins. Waste profiles and subsequent amendments are only considered to be complete when initialed by the Hazardous Waste Manager and signed by the LGA ECM on behalf of the Authority.

6.2 Hazardous Waste and Non-Hazardous Waste Manifest

A waste manifest must be completed for all hazardous waste and non-hazardous waste shipments prior to offsite transport and disposal. After the waste has been profiled, the type of the waste (i.e., hazardous waste and non-hazardous waste) is determined, and the proper manifest is completed.

Shipments of hazardous waste and non-hazardous waste are not permitted without being initialed by the Hazardous Waste Manager and signed and approved by the LGA ECM on behalf of the Authority. Information from the waste profile is used to complete the manifest which serves several purposes.

The manifest identifies who is responsible for the waste from the point of generation to the point of disposal and is used as a tracking device for shipments of hazardous waste. It identifies the generator of the waste, the transporter, and the permitted disposal facility, which ultimately treats and disposes of the waste.

The manifest provides important information during transportation emergencies. In case of an accident, information on the manifest may be used to identify hazardous wastes carried being transported and the necessary emergency procedures to control a fire, spill, or explosion.

The manifest is also used as a basis for record keeping and reporting, in accordance with the requirements of both EPA and DTSC. Consistent with the guidance provided by EPA, the receiving facility is responsible for submitting manifests to EPA:

- **Electronic manifest and electronic submission.** If the Transportation, Storage, Disposal Facility (TSDF) is a registered user in the e-Manifest System, the manifest will be electronically submitted through the system.
- **Paper manifest and electronic submission.** The TSDF may submit through the e-Manifest System an image file of page 1 of the manifest and any continuation sheet or both a data file and image file corresponding to page 1 of the manifest and any continuation sheet.

If the manifest is not fully electronic, DTSC requires that the generator shall, within 30 days of each shipment of hazardous waste, submit to DTSC a legible copy of each manifest used.

If a Generator has not received a signed copy of the manifest from the disposal facility after 35 days from the date the waste was received by the transporter, the Generator is required to contact the Transporter and disposal facility to determine the status of the waste shipment. If after contacting the disposal facility and Transporter, the Generator has not received a signed copy of the manifest, the Generator is required to file an Exception Report with DTSC. If the Generator receives a signed copy from the disposal facility, then an Exception Report is not necessary. A Generator files an Exception Report if they have not located the shipment:

- 45 days after the date of transporter receipt for Generators >1,000 kilograms (kg)/month
- 60 days after the date of transporter receipt for Generators <1,000 kg/month
- 90 days after the date of transporter receipt for Generators that shipped any amount of hazardous waste by water

The Exception Report needs to include a legible copy of the manifest, and a cover letter explaining what the Generator has done to locate the hazardous waste and the results of those efforts. Send Exception Reports to: DTSC Report Repository Generator Information Services Section, P.O. Box 806, Sacramento, CA 95812-0806.

Manifests shall be submitted for review by the LGA Hazardous Waste Subject Matter Expert and ECM on behalf of the Authority, as soon as possible after the accumulation date begins and shall not exceed 90 days for hazardous wastes and 180 days for non-hazardous wastes. Documentation shall be recorded using the appropriate Hazardous Waste Manifest or Non-Hazardous Waste Manifest form and instructions (see Appendix G, *Hazardous Waste Manifest or Non-Hazardous Waste Manifest Form*). The Contractor is responsible for working with waste transportation and disposal subcontractors to obtain manifests. The process to obtain a hazardous waste manifest is as follows:

1. The Contractor will provide the transportation subcontractor with information required to complete the waste manifest.
2. The transportation subcontractor shall send a scan of the hard copy of the manifest for review by the LGA Hazardous Waste Subject Matter Expert.
3. The Contractor will provide comments and revisions, if any, then forward the scan to the LGA ECM on behalf of the Authority for final review.
4. If approved, comments and revisions will be incorporated into the hard copy manifest by the Transporter.
5. The hard copy manifest will be brought to the LGA ECM office for signature on behalf of the Authority. The signatory must be approved by the Authority.
6. After receiving signature, the Contractor will take possession of the hard copy manifest and scan a partially executed copy of the manifest prior to returning it to the Transporter.
7. The transportation subcontractor shall provide a copy of the fully executed copy within 14 days after the hazardous waste was delivered to the receiving facility.
8. The LGA Hazardous Waste Manager will upload the fully executed manifest to EMMA.

6.3 Spill Prevention and Control Procedures

This HMMP includes secondary containment and spill prevention countermeasures that the Contractor and its subcontractors will implement during limited field investigations and construction activities undertaken for the LGA. These measures include, but are not limited to, the following:

- Adhering to the manufacturer's recommendations on use, storage, and disposal of chemical products used during construction activities;
- Manufacturer supplied Safety Data Sheets (SDS);
- Using absorbent pads or drip pans during refueling to contain and capture any spilled fuel;
- Properly containing and removing grease and oils during routine maintenance of construction equipment;
- Properly maintaining construction equipment so there are no oil leaks or spills. In the event of a leak proper drip pans and containment shall be used and maintained; and
- Disposing of discarded containers of fuels and other chemicals in trash cans or bins.

Clearly marked emergency spill supplies and equipment shall be maintained at staging areas of construction zones and may be adjacent to work areas as applicable. In addition, spill prevention measures will be implemented during construction as they relate to vehicle and equipment maintenance; refueling; and the storage and transportation of oil, hazardous materials, and other wastes resulting from construction.

The Authority Safety Officer shall be notified of hazardous materials spills over 1 gallon of liquids or 1 cubic foot of solid material in accordance with the procedures in Section 3.2. Spills of any quantity (even a

teaspoon) that enter stormwater drainage features such as curb inlets, swales, channels, drainage grates must be reported to the Authority and tracked as required by the project SWPPP and the SWRCB Construction General Permit.

6.3.1 Vehicle and Equipment Fueling

Vehicle fueling will be conducted in compliance with the following protocol:

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly.
- Do not top-off fuel tanks.
- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly in "Oily Waste" receptacle.
- Avoid mobile fueling of construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should be able to travel to a designated area with little lost time.
- When fueling must take place onsite, designate an area away from surface water drainage courses. Refer to dedicated fueling areas in the project SWPPP.
- Dedicated fueling areas should be protected from stormwater run-on and runoff and should be located at least 50 feet away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by SJVAPCD.
- Comply with applicable restrictions for location of refueling activities in proximity to regulated waterbodies and canals in permits and Agreements, including the Master Streambed Alteration Agreement, the Section 401 Notice of Eligibility for Waste Discharge Requirements, the Section 404 Individual Permit for Discharges into Waters of the United States, and Section 408 individual Permit for Discharges into U.S. Army Corps of Engineers facilities.

6.3.2 Vehicle Maintenance and Repair

Vehicle maintenance and repair will be conducted in compliance with the following protocol:

- Keep equipment clean and mitigate excessive build-up of oil and grease.
- Use drip pans or plastic sheeting and wattles for secondary containment, beneath the vehicle or equipment to capture all spills and drips if temporary work is being conducted outside. Collected drips and spills must be disposed, reused, or recycled properly in oily waste receptacles.
- Perform all vehicle fluid removal or changing under cover if possible to prevent the run-on of stormwater and the runoff of spills.
- Keep a drip pan under the vehicle while unclipping hoses, removing filters, or removing other parts which contain fluids. Use a drip pan under any vehicle that might leak while working on it to keep over-spills or drips off the ground.

- Promptly transfer used fluids to the proper oily waste or recycling drums. Do not leave drip pans or other open containers unattended.
- Drain oil and other fluids if the vehicles or equipment are to be stored long-term outdoors.

7.0 BUILDING DEFINITION

A building pre-demolition and hazardous materials inspection checklist has been established to assist with the identification of hazardous materials present in buildings that will be demolished as part of the LGA construction related work activities (Appendix E). The checklist was developed to help characterize materials and systems at a site that may require special handling/disposal such as ACM, LBP containing material, or universal wastes. It shall be used during pre-demolition assessment and can serve as a record of hazardous materials that will be mitigated prior to demolition and/or construction. Information from the checklist can be used to complete the SJVAPCD Asbestos removal application (Appendix H, *Asbestos Application Forms*) and shared with county or local authorities for pre-demolition permitting.

A majority of the buildings scheduled for demolition along the LGA alignment are commercial or industrial and are therefore regulated under SJVAPCD and local jurisdictions. Building demolitions shall be conducted following the protocol presented in Sections 7.1 through 7.3.

7.1 Asbestos and Lead-Based Paint Abatement

1. The Contractor or its subcontractor personnel shall conduct a pre-demolition assessment and fill out the Hazardous Materials Notification Checklist (Appendix E), which is to be shared with the Authority prior to commencing the demolition activities.
2. The Contractor or its subcontractor shall obtain a Certified Asbestos Consultant (CAC) and certified lead inspector to conduct an asbestos survey and lead based paint survey prior to demolition activities. CAC certifications shall be submitted to the Authority prior to the building survey/inspection.
3. The Contractor shall review the results from the ACM/LBP survey with the Authority prior to demolition activities. If necessary, and ACM/LBP removal plan shall be developed and submitted to the Authority for its approval.
4. The Contractor's CAC will be instructed to proceed with submitting a package to SJVAPCD consisting of the ACM Survey report, Asbestos Notification form and Demolition Permit Release with fees enclosed.
5. After the SJVAPCD Demolition Permit Release is received, the Contractor shall apply for a building demolition permit with the appropriate agency.
6. When a Demolition Permit has been obtained, the Contractor's CAC may proceed with ACM/LBP abatement in accordance with the permit requirements, Federal Toxic Substances Control Act, 40 C.F.R. 763, the National Emission Standards for Hazardous Air Pollutants (NESHAP) and CCR, Title 22, Division 4.5. Universal waste and LBP waste generated during ACM abatement shall be managed as separately and placed in their own respective container.
7. The Contractor or its subcontractor shall submit composite samples of LBP containing materials for Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) for lead testing to determine proper waste profiling and disposal.
8. The Contractor's CAC will provide a hazardous waste manifest for signature prior to disposal of ACM and LBP containing materials. The Authority shall be identified as the generator. Offsite transportation and disposal of ACM and LBP containing materials may only proceed after the original manifest signed by the generator is available to the transporter.
9. If deemed hazardous, ACM and LBP containing waste shall be removed from the site within 90 days after the accumulation date. Non-hazardous waste shall be removed within 180 days after the accumulation date.
10. The Contractor shall upload the fully executed manifest(s), SJVAPCD Asbestos Notification and Demolition Permit Release, Building Demolition Permit, and asbestos survey report to EMMA within 14 days after the final manifest is received.

7.2 Universal Waste Removal

After ACM/LBP abatement is complete and it has been deemed safe to enter the structure, universal and other miscellaneous hazardous wastes shall be removed by the Contractor or its subcontractor prior to demolition. Permits and manifests are not required to remove and dispose of small quantities (<100 kg per month) of universal wastes; however, a bill of lading or similar tracking form is required for each shipment to document the quantity of wastes removed. Information from the bill of lading will be uploaded to EMMA by the Contractor. Universal wastes that may be encountered during demolition include, but are not limited to, batteries, household pesticides, cathode ray tubes, fluorescent lamps, mercury thermostats, and non-empty aerosol cans. These items shall be recycled to the extent possible in accordance with the CWMP and SMP.

7.3 Building Demolition

Building demolition may commence after ACM/LBP abatement is complete and universal wastes have been recovered. Demolition activities shall be conducted in accordance with procedures outlined in contract documents, SRWCB Construction General Permit, CWMP, and SMP. Field personnel shall be trained to identify TWW which must be contained as a separate waste stream and managed in accordance with the requirements in Section 5.4. TWW must also be transported and disposed under a separate waste manifest.

8.0 TRANSPORTATION OF MATERIALS

Profiling and manifesting procedures shall be completed in accordance with Section 6.0 prior to offsite transportation of hazardous materials. Materials and wastes shall be handled, transported, and disposed of in accordance with applicable state and federal regulations, such as RCRA, CERCLA, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act.

8.1 Approved Landfills

Landfill approved for disposal of hazardous or regulated wastes generated during the LGA project are listed below (Table 8-1, *Approved Landfills*). Transporting materials to alternate facilities will be allowed to facilities with written authorization from the Authority. The Contractor shall allow the Authority a minimum of 7 days to approve alternate disposal facilities.

Table 8-1 Approved Landfills

Landfill Name	Landfill Class	Materials Accepted
US Ecology Highway 95, 11 Miles South of Beatty Beatty, NV 89003 (800) 239-3943	Class 1	Solid RCRA hazardous waste, PCB transformers and capacitors
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA 93206 (661) 762-6200	Class I	Class I solid waste, Class II liquids
Clean Harbors San Jose 1021 Berryessa Road San Jose, CA 95133 (408) 441-0962	Class II	Oily waste, waste oil, fuels, sludges
Waste Management McKittrick Landfill 56533 Highway 58 West McKittrick, CA 93251	Class II	ACM, LBP containing materials, TWW
Recology Hay Road 6426 Hay Road Vacaville, CA 95687 (707) 678-4718	Class II	ACM, TWW, non-hazardous soil
Fairmead Landfill 1739 Road 19 Chowchilla, CA 93610 (559) 665-3099	Class III	ACM (non-friable)
Emerald Transformer 5766 Alba Street Los Angeles, CA 90058 (323) 277-2500	TSCA Approved PCB Storage/Disposal Facility	Transformers and Capacitors

9.0 REFERENCES

- California Environmental Protection Agency, Department of Toxic Substance Control, website. <https://dtsc.ca.gov/faq/how-do-i-file-a-manifest-exception-report/>.
- California High-Speed Rail Authority. 2018. *[Final] Supplemental Environmental Impact Report: Fresno to Bakersfield Section*.
- . 2019. *Fresno to Bakersfield Section: Locally Generated Alternative. Supplemental Record of Decision and Final Supplemental Environmental Impact Statement for the Locally Generated Alternative*.
- . 2025. *Design Criteria Manual*, Revision 6.2. Prepared by California High-Speed Rail Authority Program Delivery Office, Rail and Operations Delivery Branch, Network Integration Section.
- California Environmental Protection 2009. Agency Senate Bill 1082. Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) https://www.waterboards.ca.gov/water_issues/programs/land_disposal/sb1082.html.
- California High-Speed Rail Authority and Federal Railroad Administration. 2014. *Fresno to Bakersfield Section California High-Speed Train Project Environmental Impact Report / Environmental Impact Statement*.
- City of Bakersfield and Kern County. 2007. Metropolitan Bakersfield General Plan, Safety Element, Public Safety, Hazardous Materials/Uses, Goal 4, Policies 7, 8, and 16.
- City of Bakersfield. 2018. Bakersfield Municipal Code, Title 8, Chapter 8.60, Certified Unified Program Agency.
- City of Shafter. 2005. City of Shafter General Plan, Environmental Hazards Program, Hazardous Materials.
- HNTB Corporation. November 2022. *Project Management Plan for Locally Generated Alternative (LGA)*. Prepared for California High-Speed Rail Authority.
- Kern County Planning Department. 2009. Kern County General Plan, Safety Element, Section 4.4, Policy 2, Implementation Measure A; Section .9, Policies 1 and 2, Implementation Measures A and B.
- Sapphos Environmental, Inc. 2025. Evaluation of the Potential for Known Hazardous Materials and Waste Sites to Affect Design. Prepared for California High-Speed Rail Authority. Prepared under contract to HNTB Corporation. Manuscript in preparation.

APPENDIX A

Potential Environmental Concern Sites Previously Identified

Map ID (App. B) ¹	Priority	Site Name	Address	Zone (TBD)	Contaminants of Potential Concern	Regulatory Database ²
1	Medium	Fannin-Superior Gypsum Co. /Payne Allied Trucking	30121 Madera Avenue, Shafter, CA		Metals, TPH, VOCs	UST; RCRA-SQG; FINDS
2	Medium	Farm Pump & Irrigation Company Inc.	535 North Shafter Avenue, Shafter, CA 93263		Metals, TPH, VOCs	HAZNET; UST; AST; SWEEPS UST
3	Medium	City of Shafter Corporate Yard	550 North Shafter Avenue (corner of Shafter and Tulare), Shafter, CA 93263		Metals, TPH, VOCs	HAZNET; HIST UST; UST; FINDS; AST; EMI; LUST (closed)
4	Medium	Property Development Association	Not Available		Metals, TPH, VOCs	UST
5	Medium	Former Potato Warehouse	101-140 Walker Street (formerly 121 Walker), Shafter, CA 93263		Metals, organi-chlorine pesticides, organo-phosphorus pesticides TPH, VOCs	1945 SM; US Hist Auto Stat; HAZNET
6	Medium	S & J Quick Stop/ Kaid Obaid/ Possible Former Gas Station	101 Central Valley Highway, Shafter, CA 93263		Metals, TPH, VOCs	1940 SM, 1945 SM; SWEEPS UST; EMI; UST; FINDS; HAZNET
7	Medium	Former Fruit Packing and Potato Warehouses	320 Central Valley Highway, Shafter, CA 93263		Metals, organi-chlorine pesticides, organo-phosphorus pesticides TPH, VOCs	RGA LUST; UST; HIST CORTESE; LUST (closed)
8	Medium	Former Fruit Packing and Potato Warehouses	229-445 Walker Street/ 320-434 Central Valley Highway, Shafter, CA 93263		Metals, organi-chlorine pesticides, organo-phosphorus pesticides TPH, VOCs	1926 SM; 1940 SM, 1945 SM
9	Medium	Shafter (Mobil) Bulk Plant/ Monitoring Station/ Former Fuel Station	500-524 Walker Street, Walker Street & Central Avenue, Shafter, CA 93263		Metals, organi-chlorine pesticides, organo-phosphorus pesticides TPH, VOCs	1940 SM, 1945 SM; FINDS; RGA LUST; HIST UST; HIST CORTESE; LUST (closed); UST
10	Medium	Former Gas & Oil/Farming Implements	350 Central Valley Highway (mis-mapped as 350 Central Avenue), Shafter, CA		Metals, TPH, VOCs	1926 SM
11	Medium	Biloff Manufacturing Company/ Former Lumberyard	661/ 501–699 Walker Street, Shafter, CA 93263		Metals, TPH, VOCs	1926 SM;1940 SM & 1945 SM; HAZNET
12	Medium	Former Ginning Company	700-798 Walker Street, Shafter, CA		Metals, organi-chlorine pesticides, organo-phosphorous pesticides, TPH, VOCs	1940 SM; 1945 SM
13	Medium	Former Gas Station	501-509 Jackson Avenue, Shafter, CA		Metals, TPH, VOCs	1940 SM, 1945 SM
14	High	Former Ginning Company	701-745 Walker Street, Shafter, CA		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, total petroleum hydrocarbon (TPH)	1940 SM, 1945 SM
15	Medium	Industrial Oil Recovery Corp./ Former Pipe Manufacturing	812 Walker Street/ 580 Jackson Avenue, Shafter, CA 93263		Metals, TPH, VOCs	1940 SM, 1945 SM; HAZNET
16	Medium	Moorehead Machine Works/ Former Machine Shop	550 East Lerdo Highway/ 514-562 East Lerdo Highway, Lerdo Highway (north side)		Metals, TPH, VOCs	1945 SM; HIST UST; UST
17	Medium	Former Gas & Oil/Dhillon Petroleum/Ashby Mobil	863 Central Valley Highway, Shafter, CA		Metals, TPH, VOCs	1940 SM; 1945 SM; UST; HIST UST; SWEEPS UST; FINDS; HAZNET; EMI
19	Medium	7 Eleven Food Stores/ARCO AM PM Shafter/Shafter Chevron/Fox Petroleum, Inc.	Not Available		Metals, TPH, VOCs	1940 SM & 1945 SM; HAZNET
20	Medium	Catellus Management Corp./ Former Potato Warehouse	611 East Lerdo Highway (589/ 515-661 East Lerdo Highway), Shafter, CA		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, total petroleum hydrocarbon (TPH)	UST
21	Medium	W C Handel & Son	Not Available		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, total petroleum hydrocarbon (TPH)	HAZNET; FINDS; HIST Cal-Sites; CA BOND EXP. PLAN; CORTESE; HIST CORTESE; SLIC (open); LIENS; RESPONSE; ENVIROSTOR; UST; WMUDS/SWAT; CERCLIS; Corrective Action Sites; RCRA-TSDF; RCRA-SQG; HIST UST; SWEEPS UST; 2020 COR ACTION; Potential Responsible Party;

Map ID (App. B) ¹	Priority	Site Name	Address	Zone (TBD)	Contaminants of Potential Concern	Regulatory Database ²
22	High	Brown and Bryant, Inc. – Shafter Facility	135 Commercial Drive, Shafter, CA 93263		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs)	HAZNET; SSTS; AST; FINDS; EMI; CHMIRS
23	High	Helena Chemical Company	751 East Ash Avenue, Shafter, CA 93263		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH, VOCs, PAHs	UST
24	Medium	Leland Bell Farms, Inc.	Not Available		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH, VOCs, PAHs	EMI; RMP; FINDS; AST; RCRA-SQG; HAZNET; EMI; SSTS; ENVIROSTOR
25	High	Wilbur-Ellis Company	925 Golds Avenue/ Lerdo Highway & Highway 99, Shafter, CA 93263		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH, VOCs, PAHs	UIC
26	Medium	Vintage Production California LLC	1690 East Riverside Street, Shafter, CA		Not Applicable	ERNS
27	Medium	Vintage Production California LLC	East Riverside Street (west of 1270 East Riverside Street), Shafter, CA		Not Applicable	CHMIRS
28	High	Shafter Concrete Pipe Co., Inc.	31136 Riverside Avenue, Shafter, CA 93263		Metals, TPH, VOCs, asbestos	CHMIRS
29	Medium	Bakersfield AG Company, Inc./ Bakersfield AG Chemical	34710 7th Standard Road/ 7th Standard Road & Golden State Highway, Bakersfield, CA 93312		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH and VOCs.	CHMIRS; ERNS
30	Medium	Gilliam and Sons, Inc.	19420 Endes Street, Bakersfield, CA 93308		Metals, TPH, VOCs	CHMIRS
31	High	Northridge Equipment Rental/ Sunbelt Rentals, Inc.	4000 Saco Road, Bakersfield, CA 93308		Metals, TPH, VOCs	RGA LF
32	High	Bidart Bros Potato Packing	34702 7th Standard Road, Bakersfield, CA 93312		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH	ERNS
33	High	Mathews Machinery Inc./ Saba Holding Co DBA Volvo Construction	9150 Golden State Highway, Bakersfield, CA 93308		Metals, organo-chlorine pesticides, organo-phosphorous pesticides, TPH	ERNS
34	High	Crimson Resource - Rail Car Storage	8631 Golden State Highway, Bakersfield, CA 93308		Metals, TPH, VOCs	ERNS
35	High	Halliburton Services-Bakersfield/ Bolt Trans Service	34722 7th Standard Road, Bakersfield, CA 93314		Metals and TPH	ERNS
37	Medium	Former Mobil Service Station	7th Standard Road & Highway 99, Bakersfield, CA 93308;		Metals, TPH, VOCs	1969 SM
39	Medium	BP West Coast Products LLC 5657/ Sat Kaival Management LLCRT/ ARCO Facility No 05657/ MHP Group Inc. DBA ARCO AM PM Mini Mart	35300 7th Standard Road, Bakersfield, CA 93308		Metals, TPH, VOCs	CHMIRS; HAZNET
40	High	Kern County – Roads Department/ Bidart Brothers, Inc./ Wheeler Farms Headquarters	34741 7th Standard Road, Bakersfield, CA 93314		Metals, TPH, organo-chlorine pesticides, organo-phosphorous pesticides	1949 SM; 1957 SM
41	Medium	Cornick Oil Co/ Sammon's Truck Stop	8618 Golden State Highway, Bakersfield, CA 93301		Metals, TPH, VOCs	CHMIRS
42	High	Bakersfield Truck Center	8730/ 8140 Golden State Avenue, Bakersfield, CA 93308		Metals, TPH, organo-chlorine pesticides, organo-phosphorous pesticides, VOCs	CHMIRS
43	Medium	Best Concrete/ Nextel of California, Inc. / TEC Repair Services Inc.	7812 Fruitvale Avenue, Bakersfield, CA 93308/ 93312		Metals, TPH, VOCs	RGA LF; UST; HIST UST; HAULERS; US Hist Auto Stat; FINDS; HAZNET
44	Low	Kinder Morgan	6000 Snow Road, Bakersfield CA,		Metals TPH, VOCs	CHMIRS, ERNS

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45	Medium	Dowell-Schlumberger/ Schlumberger Technology Corporation	6120 Snow Road, Bakersfield, CA 93308		Metals, TPH, VOCs	UST; HIST UST; CHMIRS
46	High	Dole Fresh Fruit Bakersfield Plant/ Bakersfield Cold & Dry Storage LLC/ Tenneco West	6001 Snow Road, Bakersfield, CA 93308		Metals, VOCs, TPH	ERNS; CHMIRS
48	Medium	Gordon Dole	35.41725/-119.0573; Kern County, CA		Metals, VOCs, TPH	GeoTracker database, RWQCB lead agency
52	High	Diamond BB Trucking	4300 State Road, Bakersfield, CA 93308		Metals, VOCs, TPH	RGA LUST; HAZNET; UST; FINDS; AST; HIST CORTESE; SWEEPS UST; EMI
53	High	Graylift, Inc./ Madland Toyota Lift, Inc.	4400 State Road, Bakersfield, CA 93308		Metals, VOCs, TPH	RMP, ENF
54	High	Western Oilfield Supply Co/ Rain for Rent/ Diamond BB Trucking/ Fmr Warehouse w Oil Tanks in Ground	3404-3414 State Road, Bakersfield, CA		Metals, VOCs, TPH	AST; HAZNET
55	Medium	Grossmans	Pierce Road, Bakersfield, CA 93305		Metals, VOCs, TPH	AST
58	High	Jaco Oil Company	3101 State Road, Bakersfield, CA 93308		Metals, VOCs, TPH	HAZNET; EMI; ERNS; RCRA-SQG; FINDS; CHMIRS; SWEEPS UST
59	High	Parallel N. Pipeline Project/SSC Const, Inc./ Henry C Garnett Water Purification Plant/Kern County Water Agency	811 Nadine Lane, Bakersfield, CA 93309		Metals, VOCs, TPH	HAZNET; EMI; AST; FINDS; RMP
60	Medium	KCWA ID4 Water Purification Plant/ Henry Garnett Kern County Water Agency Service Upgrade/ Kern County Water Agency	3200 Rio Mirada Drive, Bakersfield, CA 93302		Metals, VOCs, TPH	UST; HAZNET; RGA LUST; SWEEPS UST; HIST CORTESE; LUST (closed)
61	High	Golden Empire Transit District/ Golden Pike Transit/ G.E.T. Bus Yard	1830 Golden State Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	HAZNET; AST; UST
62	Medium	Valley Oaks Charter School/ Dick Harabedoff	3601 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	RGA LUST; EMI; HAZNET; UST; LUST (closed); FINDS; RCRA-SQG; HIST CORTESE
63	Medium	Positive Action Tool Company/ Former Foundry	3501/3503 K Street, Bakersfield, CA		Metals, VOCs, TPH	RGA LUST; HIST UST; UST; HAZNET; CERC-NFRAP; RCRA-LQG; FINDS; CHMIRS; AST; EMI; ERNS; HIST CORTESE; LUST (closed); ENVIROSTOR
64	Medium	Midway Fishing Tool Co./ Patco Rod Service/ Former Oil Well Tools and Welding	3505 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	HAZNET; EMI; UST; RMP; AST
65	Medium	Valley Oaks Charter School Parking Lot Addition Landscape/ Patco Rod Service/ Abatco Corp/ Former Oil Supply Company	3501 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	UIC
66	Medium	Positive Action Tool Inc./ Former Tool and Machine Shop	3506 Chester Avenue/ 3500-3510 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	CHMIRS; RCRA NonGen/NLR; FINDS
67	Medium	Scott Bros/ Allied Steam Equipment/ Former Gas Station and Auto Repair	3400 Chester Avenue/ 1430-1498 34th Street, Bakersfield, CA		Metals, VOCs, TPH	HAZNET; RCRA-SQG; TRIS; UST; HIST UST; FINDS
68	Medium	Eurasian Automotive/ Pit Stop Automotive & Smog/ Former Machine and Forge Shop	3411 K Street/ 3415 K Street/ 1402 34th Street/ 3411-3415 K Street, Bakersfield, CA		Metals, VOCs, TPH	HAZNET; LUST (closed); UST; EMI; RCRA-SQG; FINDS; AST; HIST CORTESE; ENVIROSTOR; CHMIRS; RCRA NonGen/NLR; LUST; RGA LUST (closed)
69	Medium	Allied Steam Equipment	1441 34th Street, Bakersfield, CA		Metals, VOCs, TPH	HIST CORTESE; LUST (closed); RGA LUST
70	Medium	Former Auto Sales and Repair/Welding	1431 34th Street/ 1430 33rd Street, Bakersfield, CA		Metals, VOCs, TPH	HIST UST; FID UST; SWEEPS UST; EMI; HAZNET; CHMIRS; AST; UST

Map ID (App. B) ¹	Priority	Site Name	Address	Zone (TBD)	Contaminants of Potential Concern	Regulatory Database ²
71	Medium	Highland Garage/ Mercy Plaza Respiratory/ Former Oil Well Supplies and Welding	1331 34th Street/ 1329 34th Street/ 1329-1331 34th Street, Bakersfield, CA		Metals, VOCs, TPH	NPDES; HAZNET; FINDS; RMP; EMI
72	Medium	Industrial Freight/ Former Oil Well Supplies	1407 34th St/ 1407-1415 34th Street, Bakersfield, CA		Metals, VOCs, TPH	RMP; NPDES; HAZNET; ERNS; EMI
73	Medium	Sizzler/ Former Ice Plant, Fuel Storage, Chemical Tank	3401 Chester Avenue/ 3301-3401 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	HAZNET; UST; NPDES; WDS; HIST CORTESE; LUST (closed); EMI; RCRA-SQG; FINDS; AST; RGA LUST (closed)
74	Medium	Former Machine Shop and Welding	1300-1306 33rd Street, Bakersfield, CA		Metals, VOCs, TPH	SCH; ENVIROSTOR; US Hist Auto Stat; FINDS
75	Medium	Technical Energy Systems Inc./ Bakersfield Auto Repair/ Hi-Tech Automotive Repair & Service Center	1414 33rd Street (1401 33rd Street), Bakersfield, CA 93301		Metals, VOCs, TPH	1951 SM, 1969 SM; SWEEPS UST; CA FID UST
77	Medium	Westchester Mobil/ 5-Star Union 76/ Time Mobil/ Jim's Mobil/ Folsom A C Union Service/ Sims Union Service	3200 F Street, Bakersfield, CA 93301		Metals, VOCs, TPH	1951 SM; 1969 SM; NPDES; HAZNET
78	High	Oak Lane Automotive/ Rowland's Associated Service/ Ogden Associated Oil Co/ Phillips Petroleum Co/ Maintenance and Operations/ District M & O Warehouse/ Bailey J L/ Former Oil Company including Gas Station, Oil Warehouse, and Chemical Storage	3000-3248 Chester Avenue, Bakersfield, CA 93301		Metals, VOCs, TPH	1951 SM; 1969 SM; UST; FID UST; SWEEPS UST
79	Medium	Cavin's Oil Well Tools	1519 32nd Street, Bakersfield, CA 93305		Metals, TPH, VOCs	UST; HAZNET; RGA LUST; HIST CORTESE; LUST (closed); HIST UST; CA FID UST; SWEEPS UST
81	Medium	Bakersfield Honda Repair/ Bill Wright Toyota, Inc./ Former Gas Station	3123 Chester Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1969 SM; HAZNET
82	Medium	Kmart Enterprises/ One Stop Smog/ Playa Galleria Shopping Center LLC/ K-Mart Auto Sales/ One Stop Smog #3	401 34th Street, Bakersfield, CA 93301		Metals, TPH, VOCs	HIST UST; CHMIRS; US Hist Auto Stat; HAZNET; UST; ERNS
83	Medium	Former Auto Repair and Sales	3115 Chester Avenue, Bakersfield, CA		Metals, TPH, VOCs	1969 SM
84	Medium	Maintenance and Operations/ District M&O Warehouse	3100 Chester Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	HIST UST; UST; RGA LUST
86	Medium	Standard Stations Inc./ Former Gas Station	1625 Golden State Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1951 SM & 1957 SM; US Hist Auto Stat
87	Medium	Circle Deli Mart/ RV Recycling/ Golden Empire Cleaners/ Former Oil Well Supplies, Fertilizers Storage, and Maintenance Shop	1326 30th Street & 1416 Golden State Avenue (formerly 3100-3128 30th Street), Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM; UST; SWRCY; CA FID UST; SWEEPS UST; EMI; HAZNET; US HIST CLEANERS
88	Medium	Howell Automotive/ Union Service Station/ Former Gas Station and Auto Repair	3029 Chester Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1951 SM; 1957 SM; 1969 SM; HAZNET; US Hist Auto Stat; FINDS
89	Medium	Butte C & R Service/ Wilson & Boyd/ Former Gas Station	1402-1410 Golden State Avenue/ 1420-1498 30th Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; US Hist Auto Stat
90	Medium	Former Electric Supply Company	1300 30th Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM
92	Medium	Former Auto Repair and Oil Well Supplies	1330-1408 30th Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM
93	Medium	Williamson A G/ Cline G C/ Former Gas Station	1515-1525 Golden State Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1951 SM; 1957 SM; US Hist Auto Stat
94	Medium	Shell Oil Co/ Williamson Bros Shell Service/ Former Gas Station	1507 Golden State Avenue, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; US Hist Auto Stat
95	Medium	Former Welding Facility	1315 30th Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM

Map ID (App. B) ¹	Priority	Site Name	Address	Zone (TBD)	Contaminants of Potential Concern	Regulatory Database ²
96	Medium	Automotive Diesel & Elect/ Former Auto Service	1331 30th Street/1330 Golden State Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1969 SM; RCRA-SQG; FINDS
97	Medium	D&D Auto Sales, Inc./ Dick's Flying A Service/ Former Gas Station	2902-2930 Chester Avenue, Bakersfield, CA 93302		Metals, TPH, VOCs	1951 SM; 1969 SM; UST; RGA LUST; US Hist Auto Stat; HIST CORTESE; LUST (closed)
98	Medium	Former Oil Well Supplies and Welding Supplies	2907 L Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM
99	Medium	US Steel Oil Well Div/ Former Oil Well Supplies	2900 L Street, Bakersfield, CA 93301		Metals, TPH, VOCs	1951 SM; 1969 SM; RCRA-SQG; FINDS
100	Medium	Former Bottling Works with Oil Tank in Ground	1110 29th Street (NE corner of 29th Street and M Street or terminus of James Street at 29th), Bakersfield, CA		Metals, TPH, VOCs	1912 SM
101	Medium	Wafer Saml/ George's Texaco Service/ Former Gas Station	11222 Golden State Avenue/ 1222 Golden State Avenue, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM; US Hist Auto Stat
102	Medium	Dunn-Edwards Corporation/ Standard Stations Inc./ Former Gas Station	2900 M St/ 1200-1202 Golden State Avenue/ 2801 M Street, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; 1969 SM; UST; US Hist Auto Stat
103	Medium	Charles Hallum/ Golden State Motors Inc./ Pete's Mobil/ Former Gas Station	1132-1196 Golden State Avenue, Bakersfield, CA 93301		Metals, TPH, VOCs	1957 SM; HIST UST; HAZNET; US Hist Auto Stat
104	Medium	Kern County Parks & Recreation/ Hart Park Burn Dump/ Former Gas Station and Maintenance	1110-1120 Golden State Avenue/ 2731-2735 O Street/ 2800 M Street, Bakersfield, CA		Metals, TPH, VOCs	1949 SM; 1957 SM; HAZNET; FINDS
173	Medium	Gas and Oil/Stephens Texaco Service/Hoagland LJ	1231 Golden State Avenue, Bakersfield, CA		Metals, TPH, VOCs	1951 SM; US Hist Auto

1. Site ID numbers correspond to designated site numbers depicted on maps included in Appendix B.

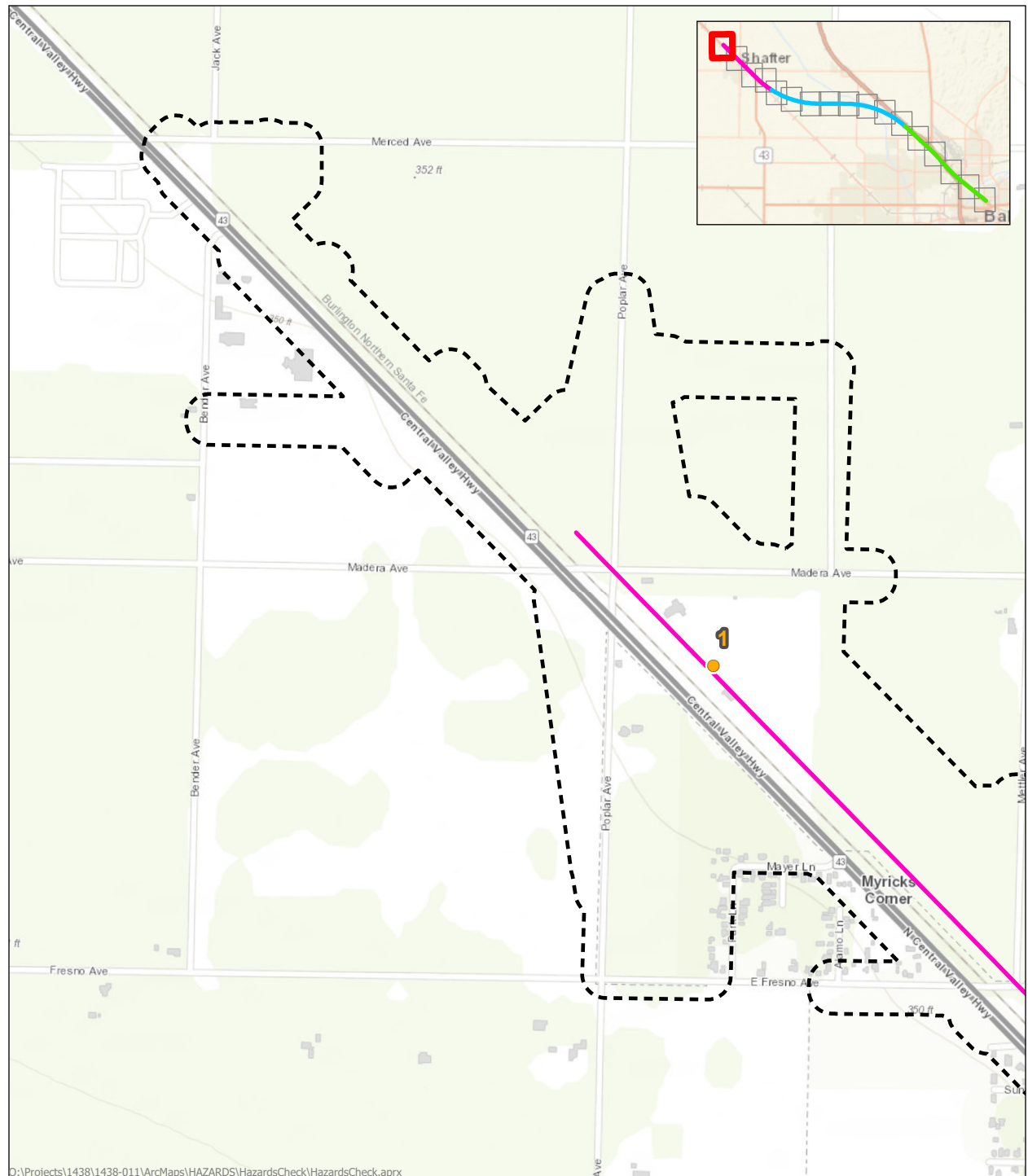
2. Definitions of regulatory databases are as follows:

Regulatory Database	Defined
SM	Sanborn Map
HAZNET	Facility and Manifest Data.
FINDS	Facility Index System/Facility Registry System.
CA BOND EXP. PLAN	Bond Expenditure Plan. Expenditure plan for hazardous waste cleanup fund.
CORTESE (inc. Closed)	Hazardous Waste and Substances Sites List. Designated by the SWRCB (leading underground storage tank [LUST]), Integrated Waste Board (SWF/LS) and California Department of Toxic Substances Control (DTSC) (Cal-Sites) and HIST Cal-Sites.
SLIC (open/closed)	CRWQCB/Geotracker. Cleanup Program Sites. Formerly known as Spills, Leaks, Investigations, Cleanups sites. Potential to impact groundwater.
LIENS	Environmental Liens Listing. Properties in CA where DTSC is a lien holder.
RESPONSE	State Response Sites. Confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. High-priority and high potential risk.
ENVIROSTOR	DTSC Site Mitigation/Brownfields Reuse Programs database identifies sites that have known contamination or there may be a reason to investigate.
UST	Active Underground Storage Tank facilities listing. List generated from local regulatory agencies.
AST	Aboveground Petroleum Storage Tank facilities listing. List generated from local regulatory agencies.
WMUDS/SWAT	Waste Management Unit Database. Used by the California State Water Resources Control Board (CSWRCB) / California Regional Water Quality Control Boards (CRWQCB) for tracking and inventory of waste management unit. SWAT = Solid Waste Assessment Test.
CERCLIS	Federal Facility Site Information Listing. A list of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites database.
Corrective Action Sites/2020 CCR Sites	Resource Conservation and Recovery Act (RCRA) cleanup baseline sites. Sites expected to need cleanup.

Regulatory Database	Defined
RCRA-TSDF	Federal Transportation, Storage Disposal Facilities.
RCRA-SQG	Small Quantity Generators. Sites which generate, transport, store, treat or dispose of hazardous waste. Quantity = 100 kg to 1,000 kg per month.
RCRA-LQG	Large Quantity Generators. Sites which generate, transport, store, treat or dispose of hazardous waste. Quantity > 1,000 kg per month.
HIST-UST	Hazardous Storage Container Database. Historical listing of underground storage tank (UST) sites.
SWEEPS UST	Statewide Environmental Evaluation and Planning System. An old UST database, no longer updated.
Potential Responsible Party	List of sites that name Potential Responsible Parties (PRPs).
SSTS	Section 7 Tracking Systems. Section 7 of the Federal Insecticide, Fungicides and Rodenticide Act, requires pesticide producing facilities to submit reports to U.S. Environmental Protection Agency (EPA). Reporting on what types and quantities of pesticides produced.
EMI	Emissions Inventory Data. Toxic and criteria pollutants data collected by the Air Resources Board and local pollution agencies.
CHMIRS	California Hazardous Material Incident Reporting System. Contains information on reported hazardous material incidents.
RMP	Risk Management Plans. Requires companies of all sizes that use flammable and toxic substances to develop a plan detailing the hazard assessment of potential releases.
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank. A list of LUST incidents from historical databases.
ENF	Enforcement Action Listing. A list of Water Board enforcement actions.
RCRA NONGEN/NLR	Non-Generators No Longer Regulated. This database includes selective information on treatment, storage, and disposal facilities (TSDF) sites as defined by RCRA. Non-generators do not presently generate hazardous waste.
TRIS	Toxic Chemical Release Information System. Identifies facilities which release chemicals to air, water, and land in reportable quantities.
FID UST	Facility Inventory Database. Historical listing of active and inactive sites.
NPDES	National Pollutant Discharge Elimination System (NPDES) Permit Listing.
WDS	Waste Discharge System. Sites that have been issued Waste Discharge Requirements.
LUST (closed)	Leaking Underground Storage Tanks CRWQCB/Geotracker.
US HIST AUTO STAT	Historical Auto Service Station Sites.

APPENDIX B

High- and Medium-Priority Sites of Potential Environmental Concern Sites Map Set

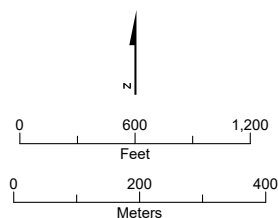


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

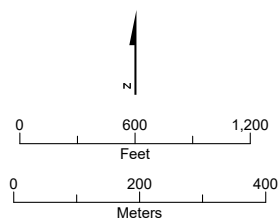
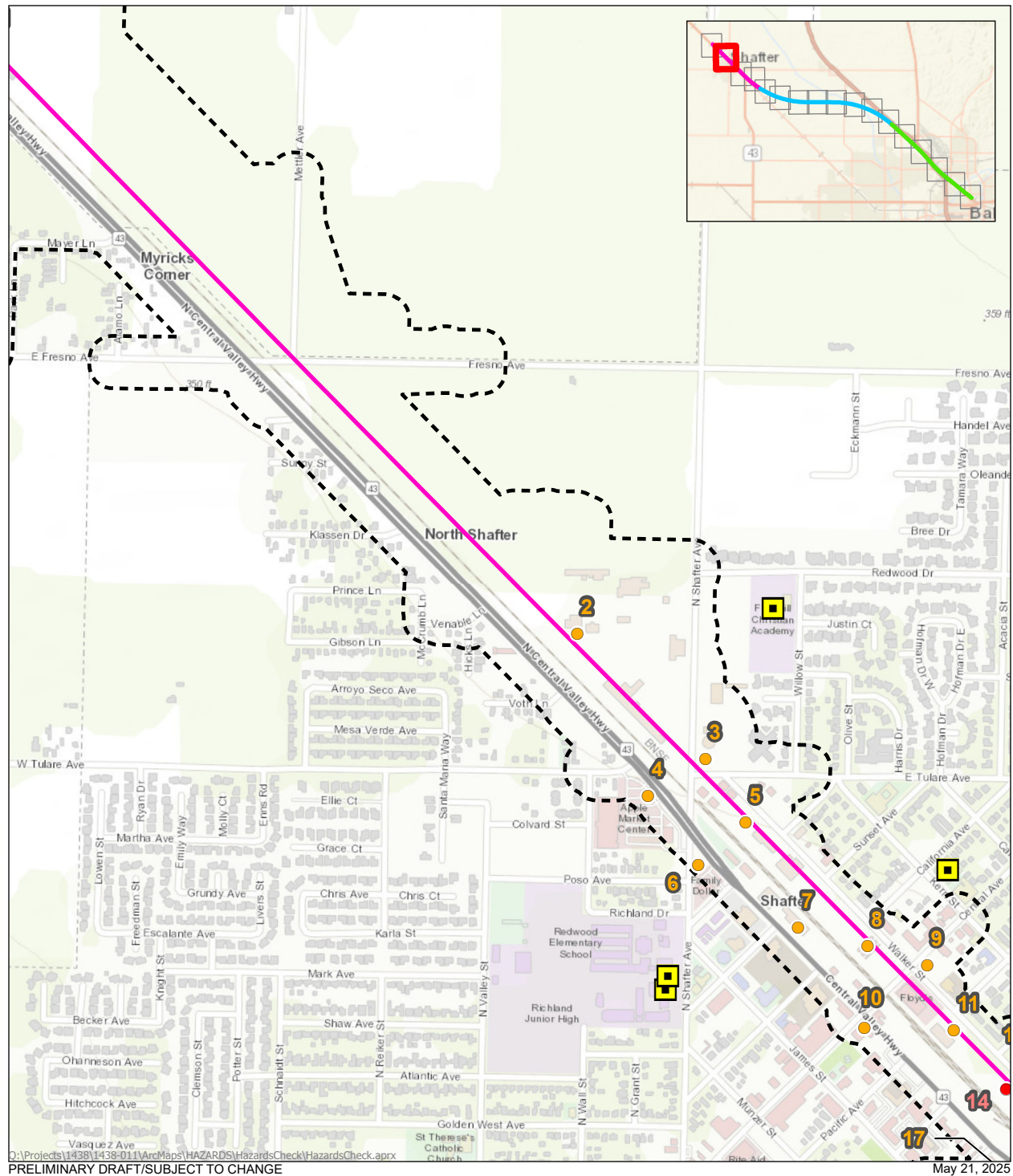
- Medium Priority

- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

- Segment 1

Appendix B-1
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



Hazardous Waste and Materials Site

- High Priority
- Medium Priority

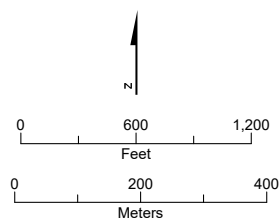
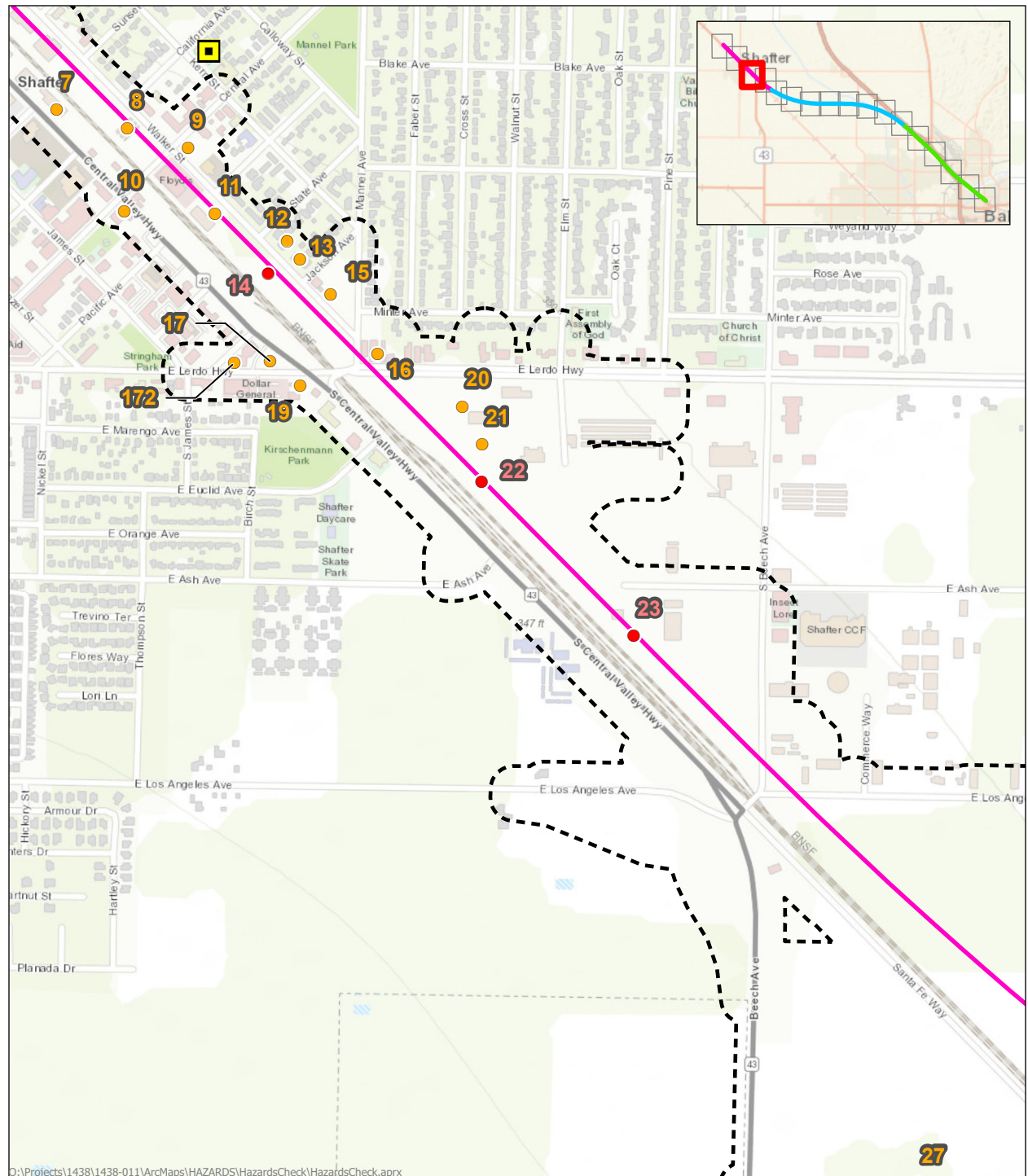
■ Educational Facilities

--- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

— Segment 1

Appendix B-2
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



Hazardous Waste and Materials Site

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- Medium Priority

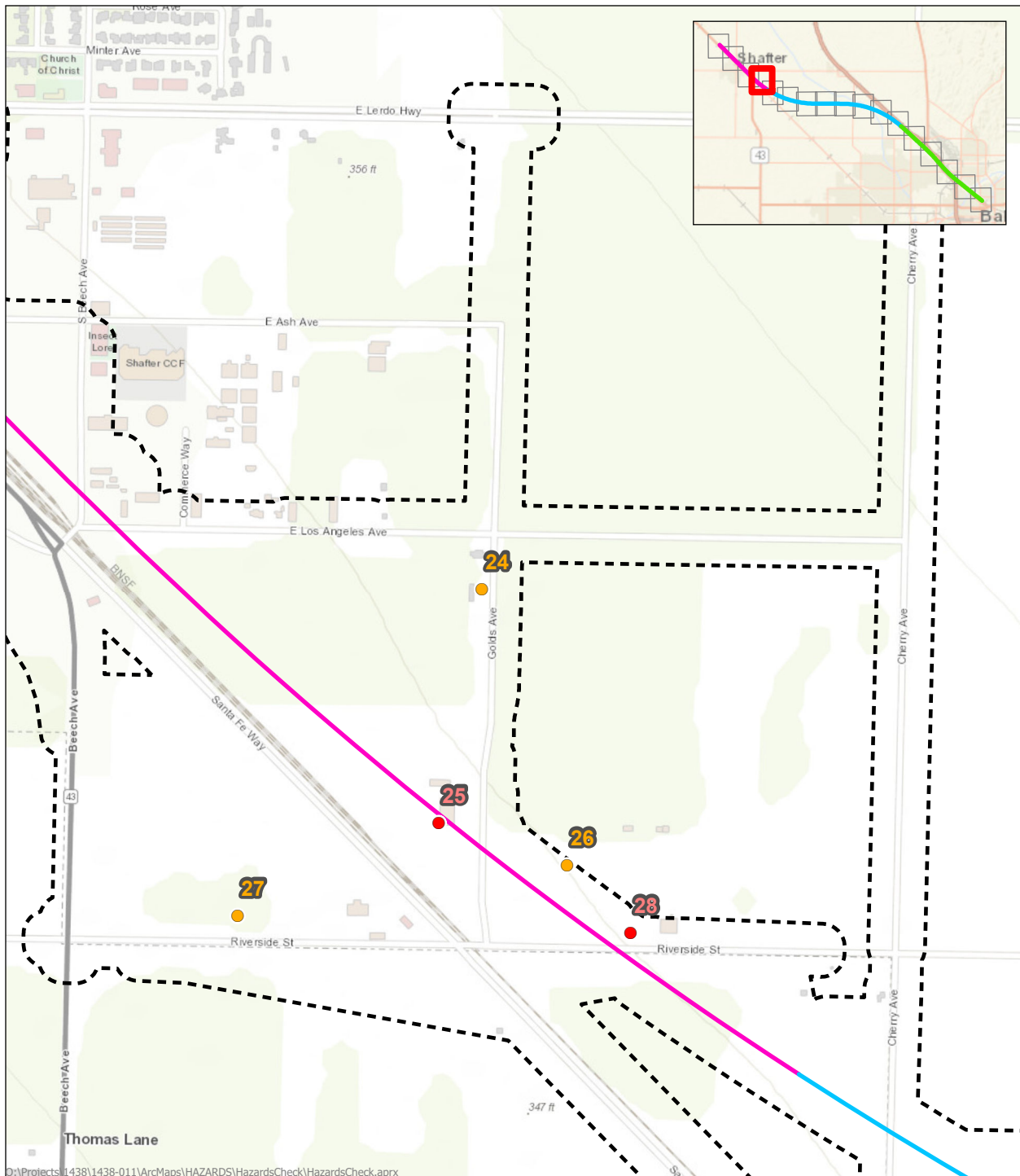
■ Educational Facilities

Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

— Segment 1

Appendix B-3
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

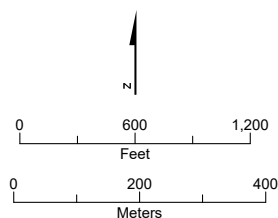


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

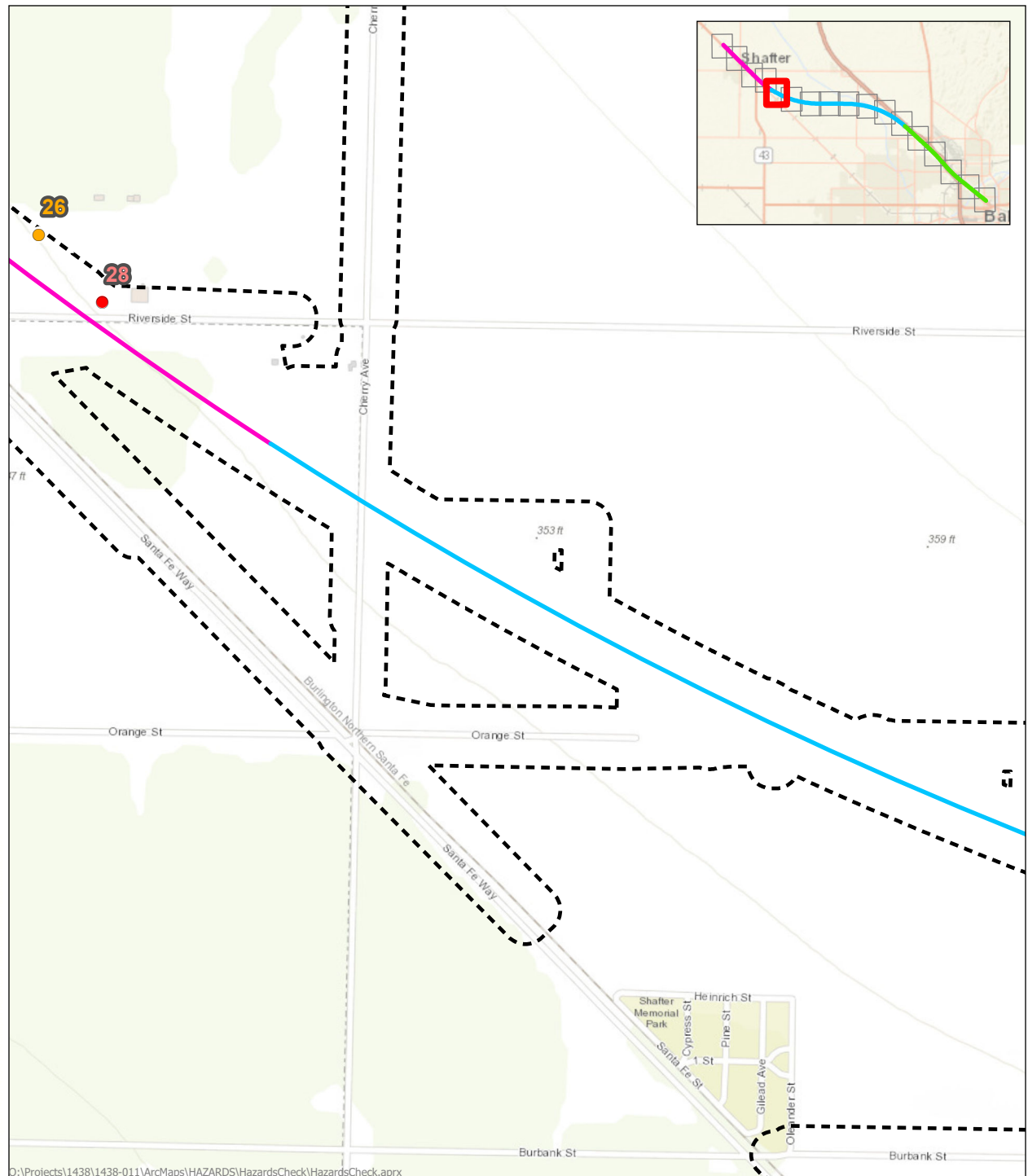
- High Priority
- Medium Priority

Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

- Segment 1
- Segment 2

Appendix B-4
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

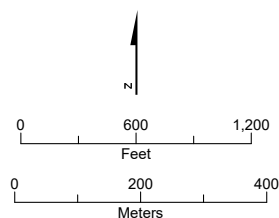


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

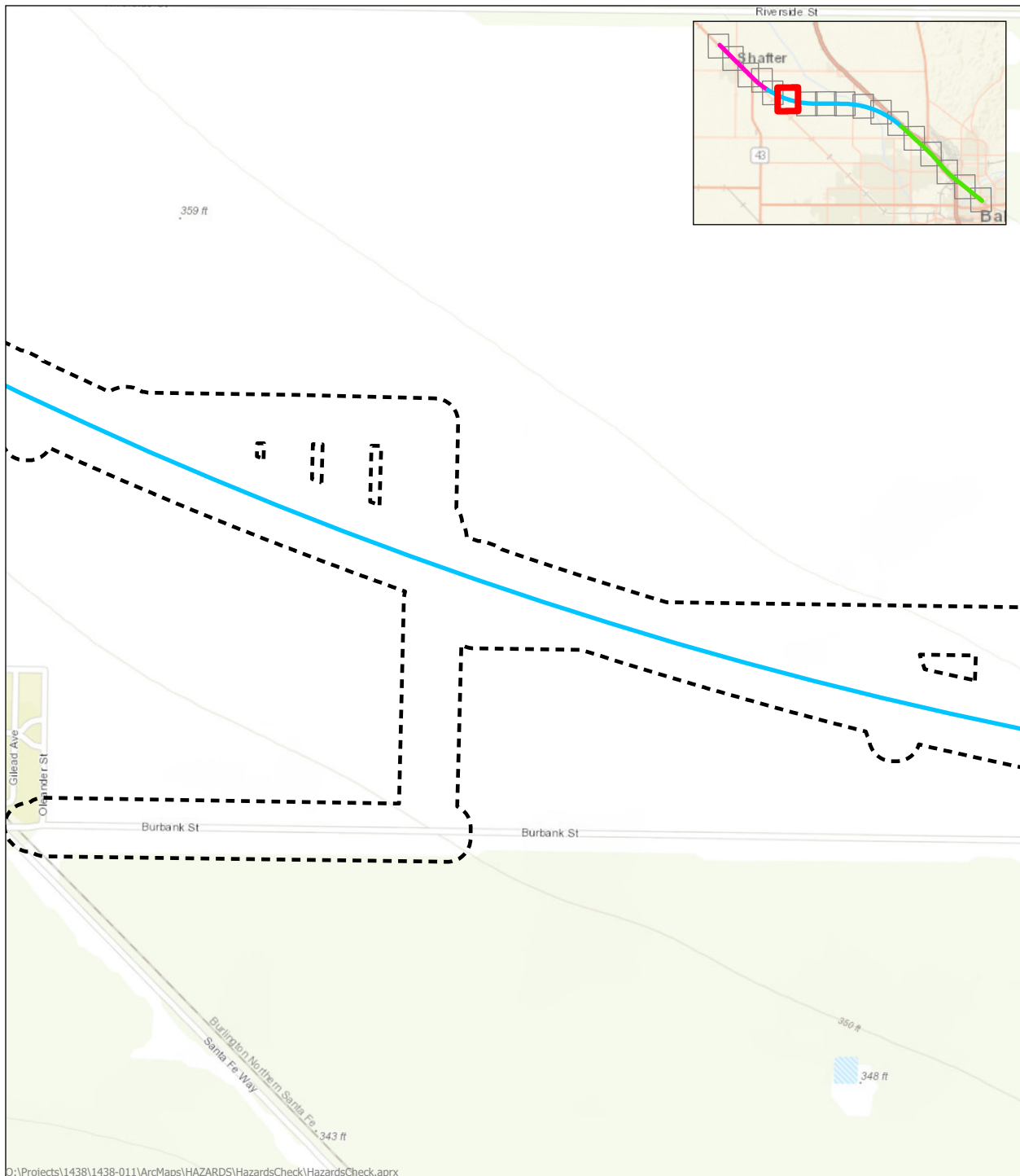
- High Priority
- Medium Priority

Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

- Segment 1
- Segment 2

Appendix B-5
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

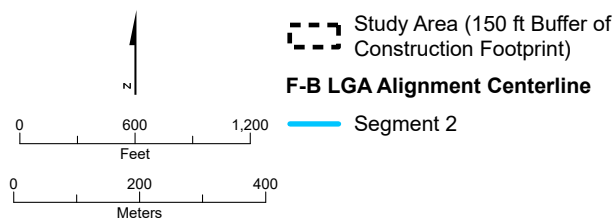


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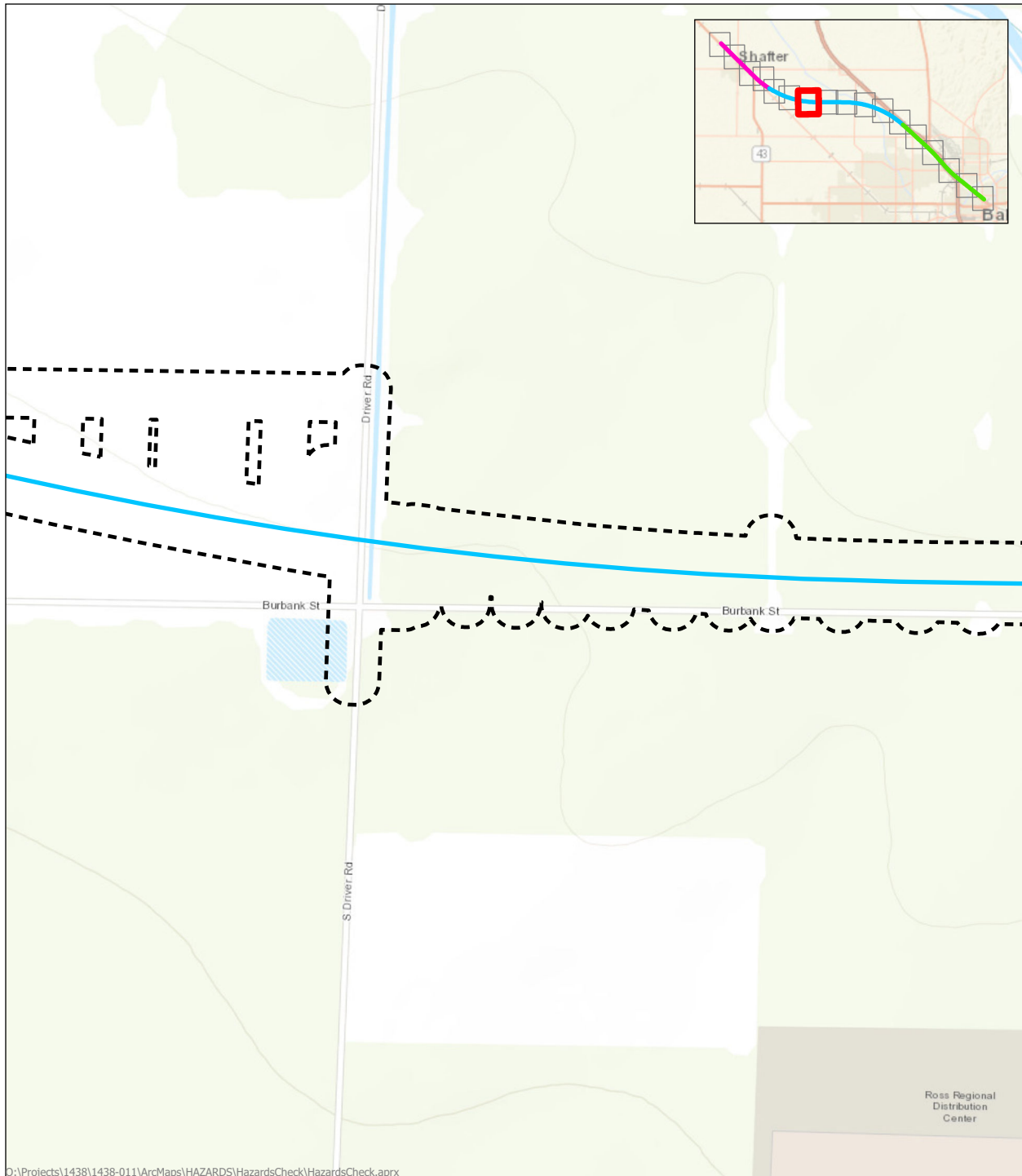
PRELIMINARY DRAFT/SUBJECT TO CHANGE

May 21, 2025

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017



Appendix B-6
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

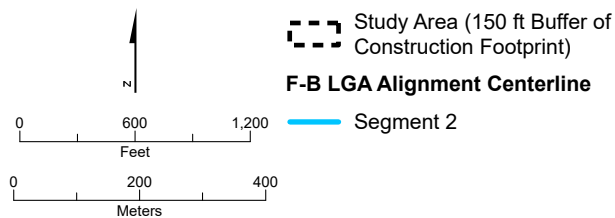


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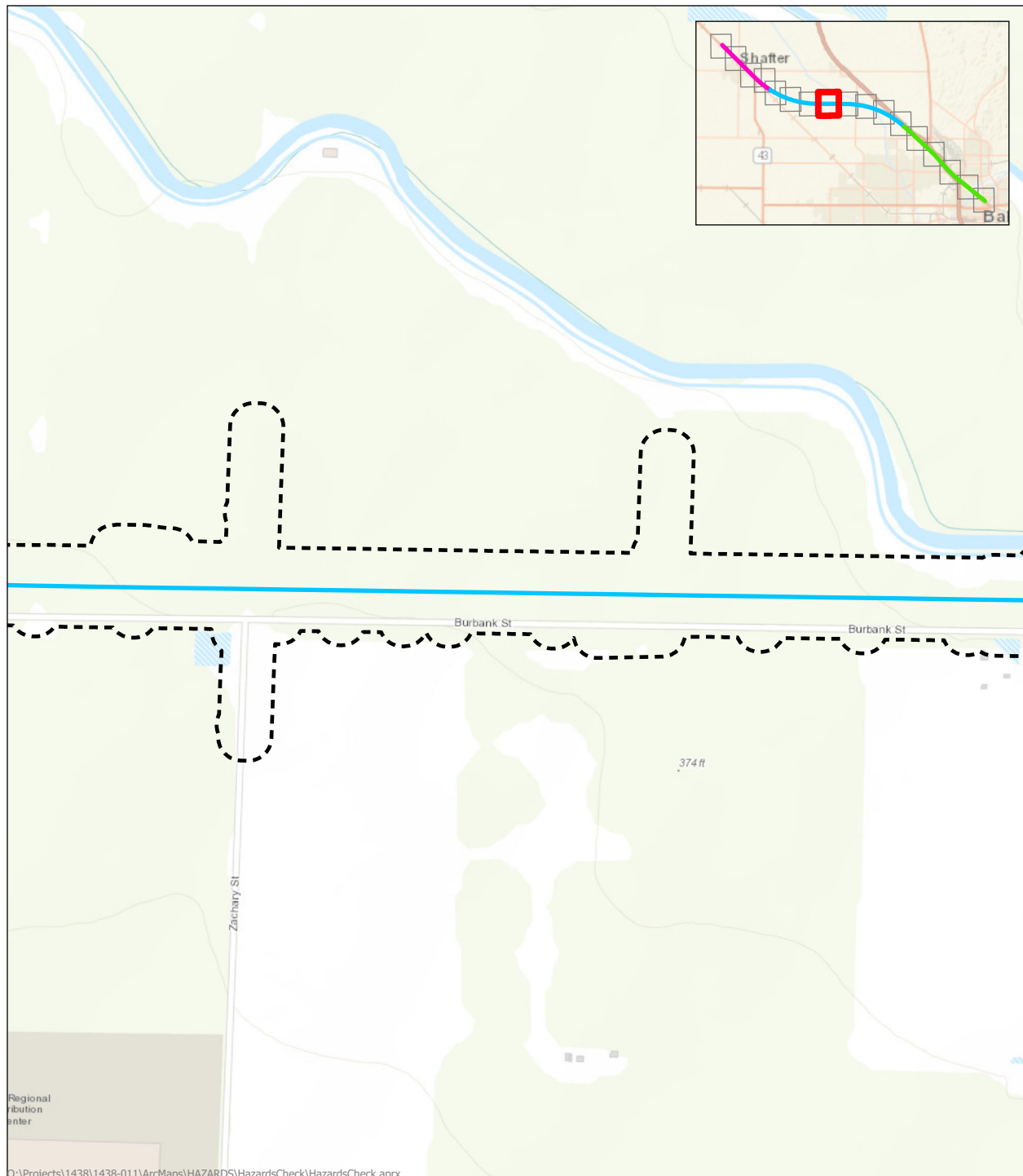
PRELIMINARY DRAFT/SUBJECT TO CHANGE

May 21, 2025

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017



Appendix B-7
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

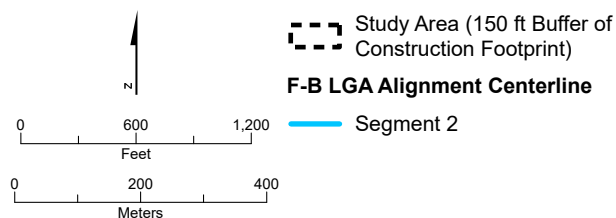


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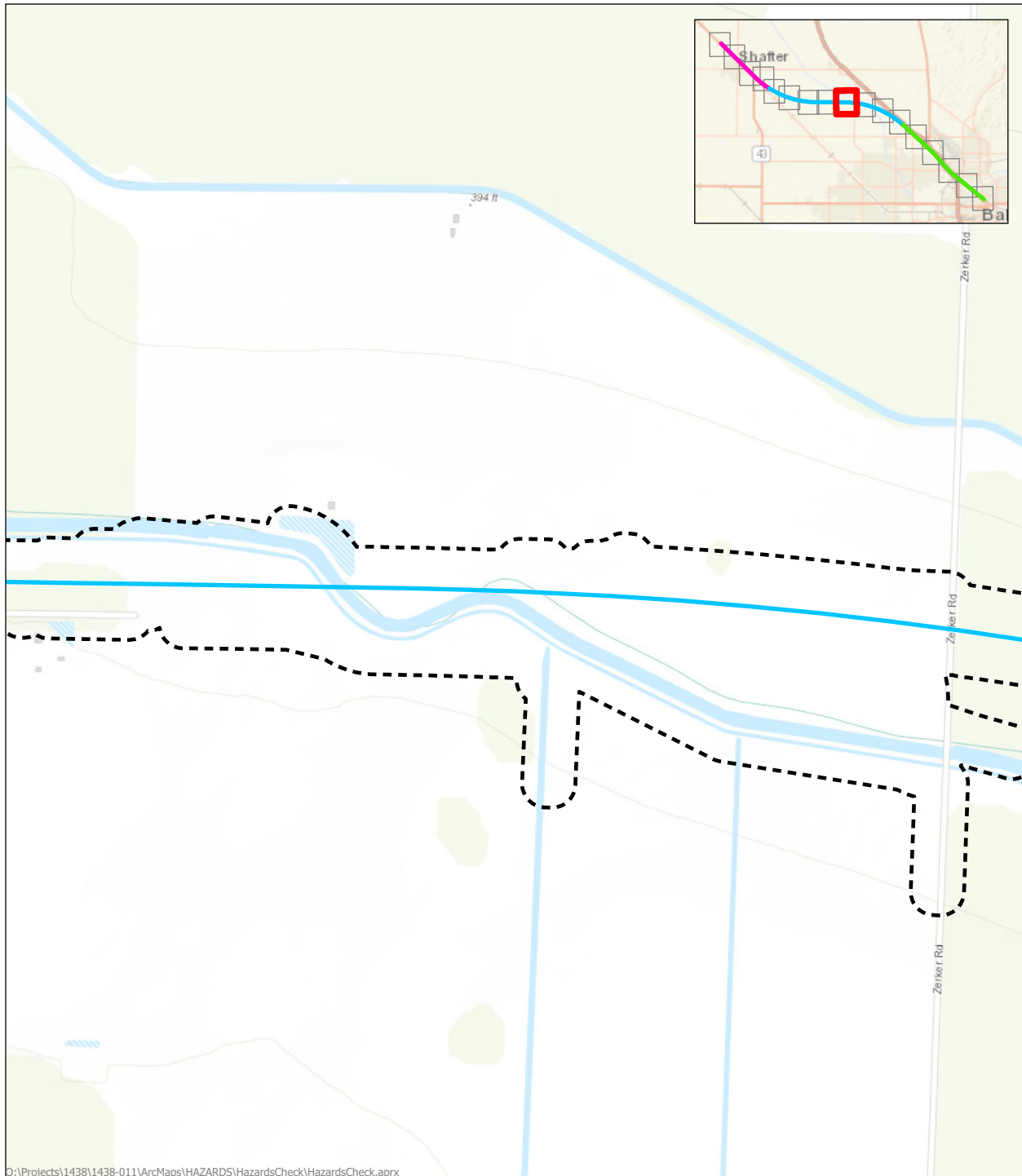
PRELIMINARY DRAFT/SUBJECT TO CHANGE

May 21, 2025

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017



Appendix B-8
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

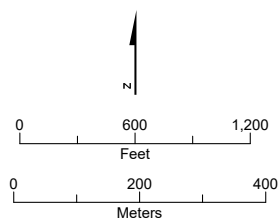


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

May 21, 2025

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

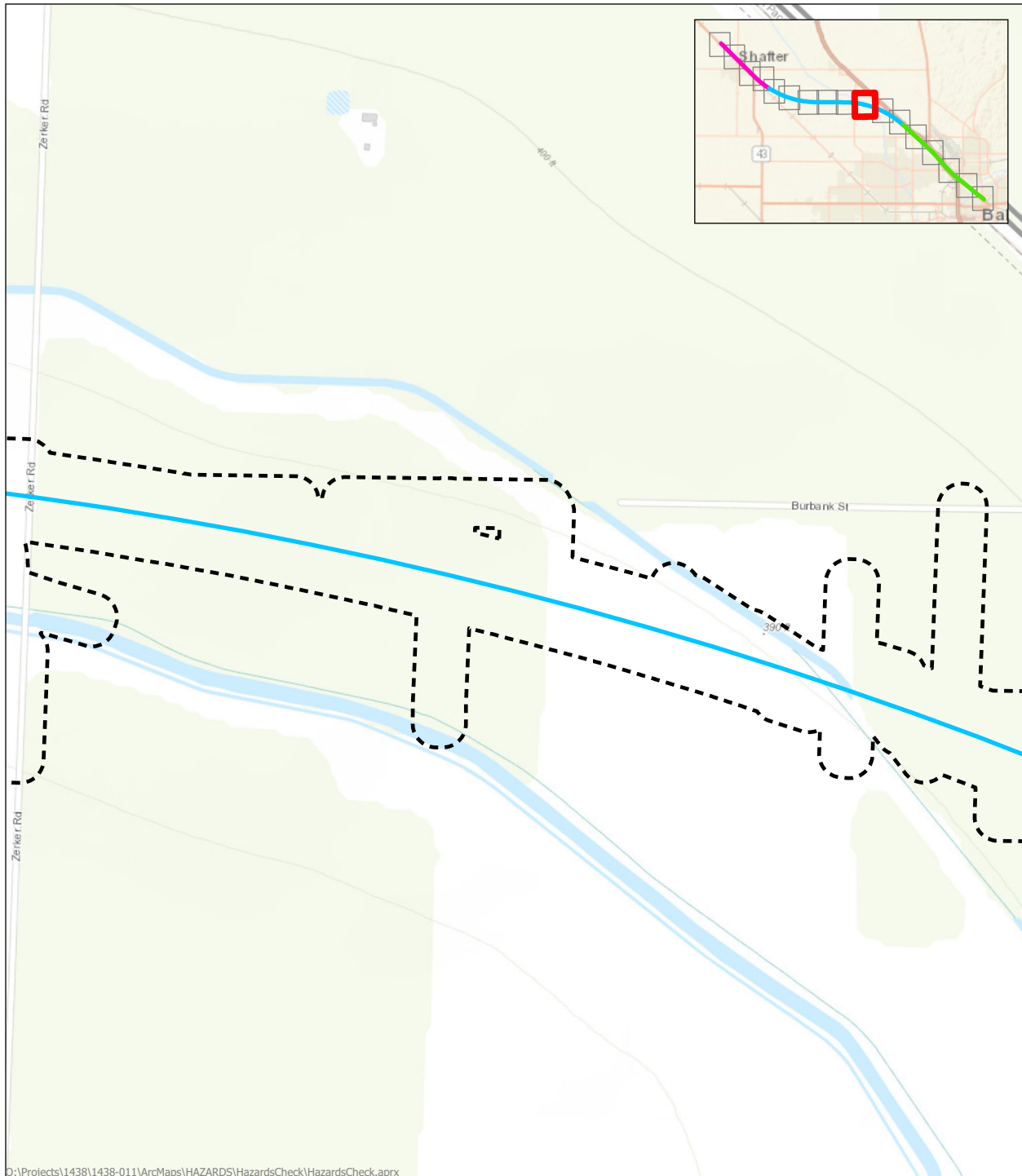


Study Area (150 ft Buffer of
Construction Footprint)

F-B LGA Alignment Centerline

Segment 2

Appendix B-9
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

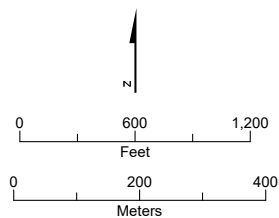


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

May 21, 2025

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

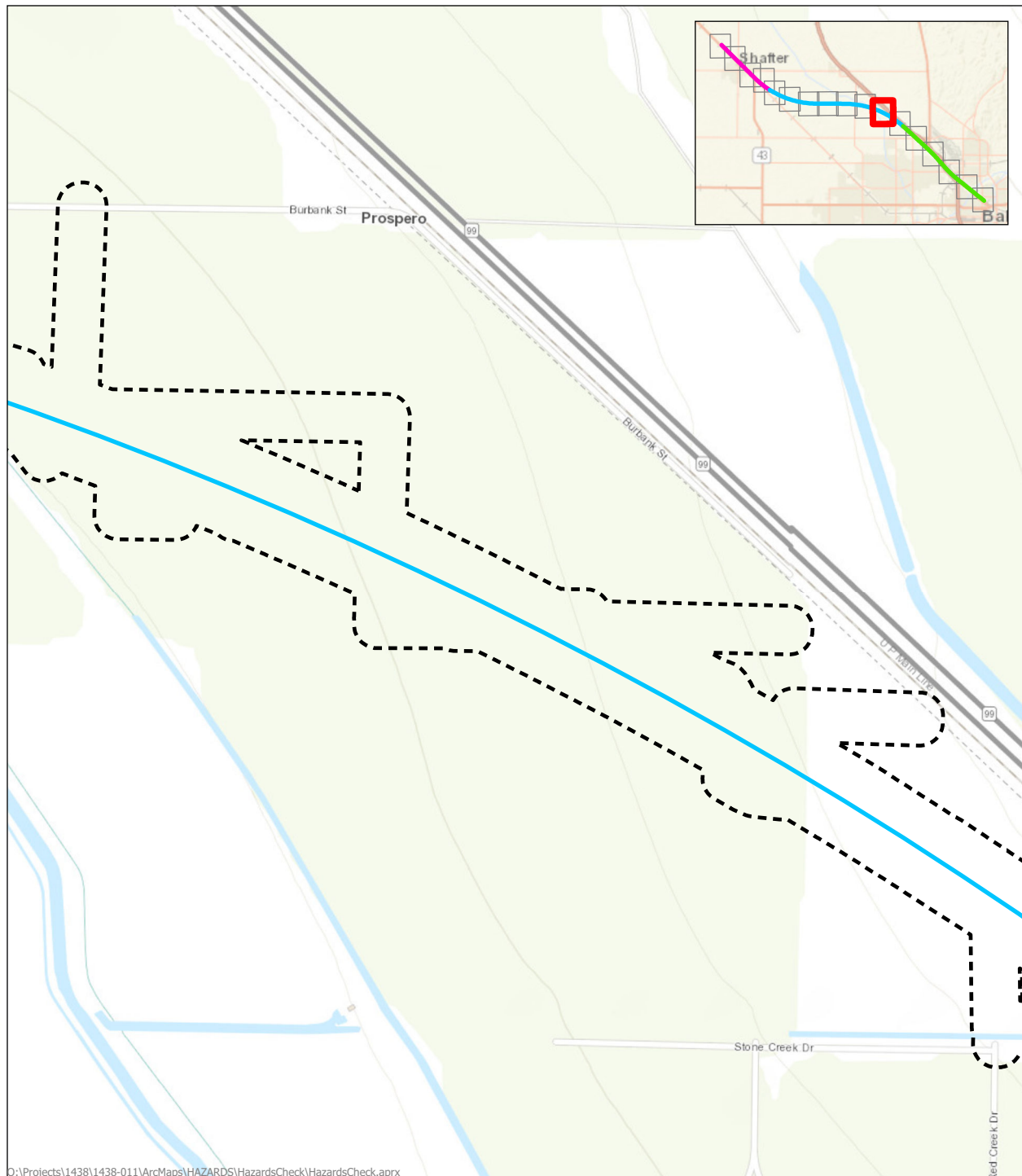


Study Area (150 ft Buffer of
Construction Footprint)

F-B LGA Alignment Centerline

Segment 2

Appendix B-10
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

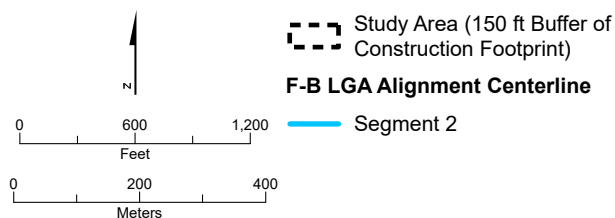


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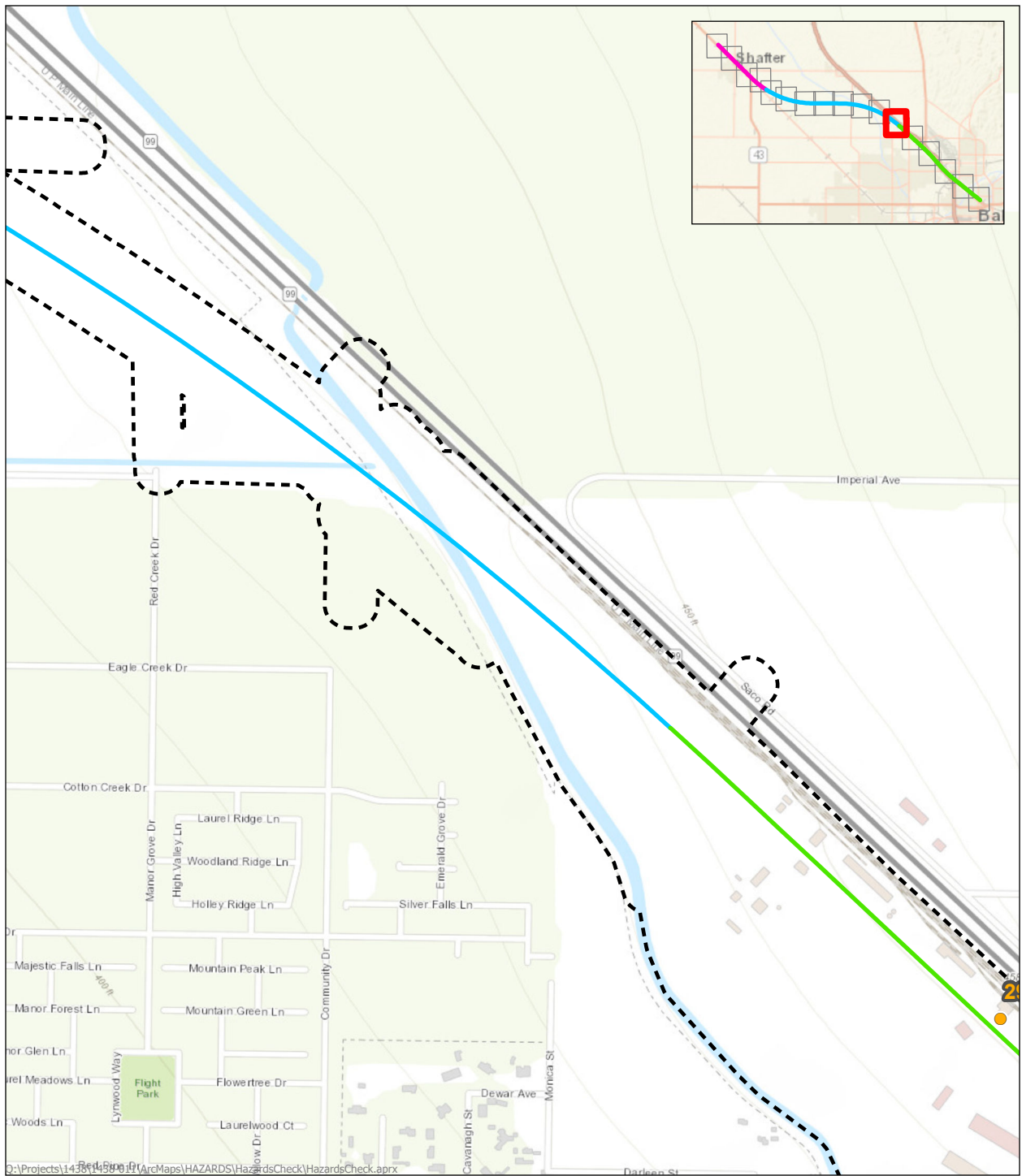
PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025

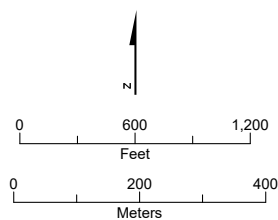


Appendix B-11
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



PRELIMINARY DRAFT/SUBJECT TO CHANGE
Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2015



Hazardous Waste and Materials Site

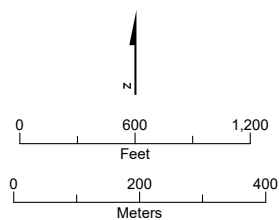
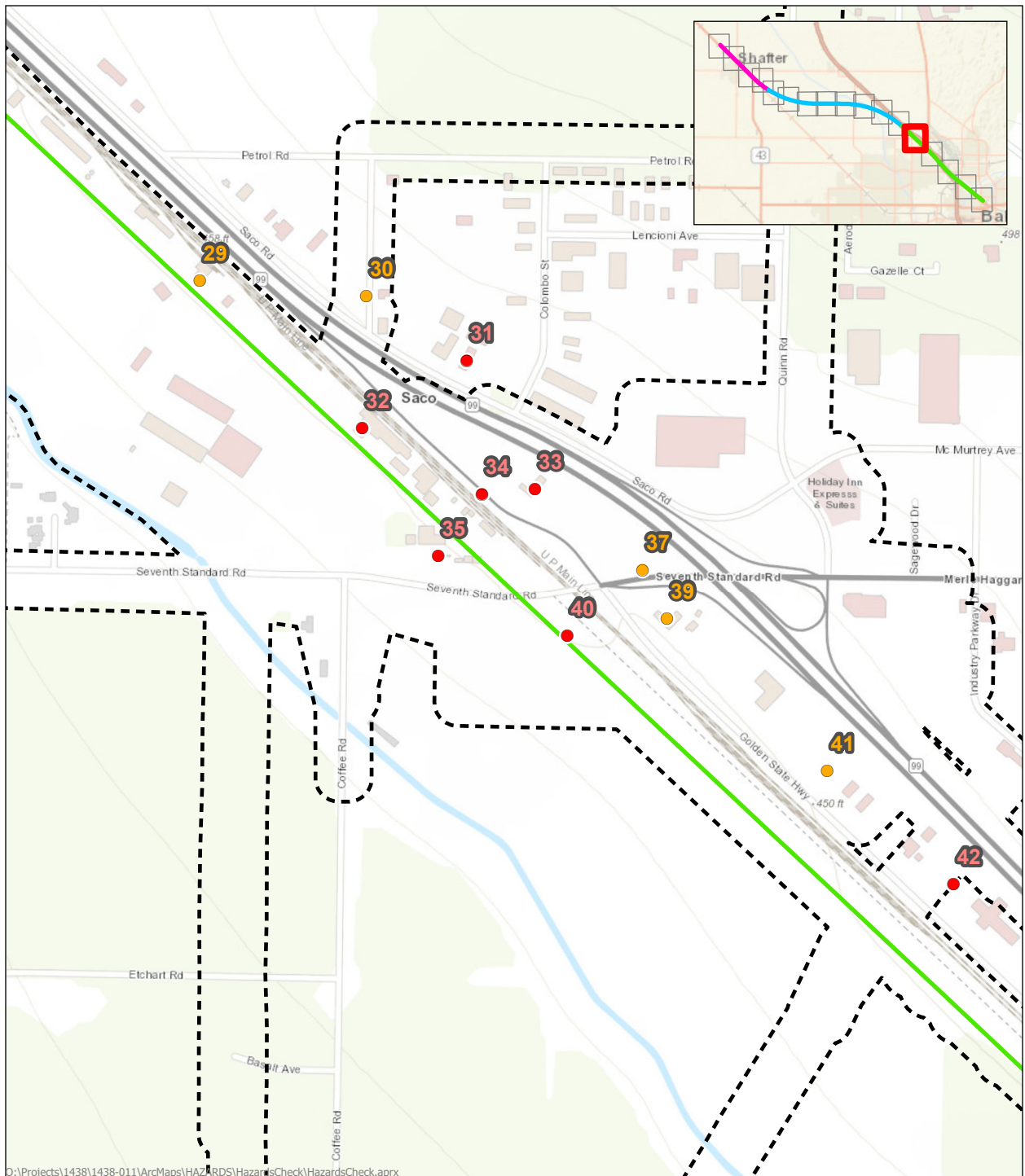
- Medium Priority

- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

- Segment 2
- Segment 3

Appendix B-12
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



Hazardous Waste and Materials Site

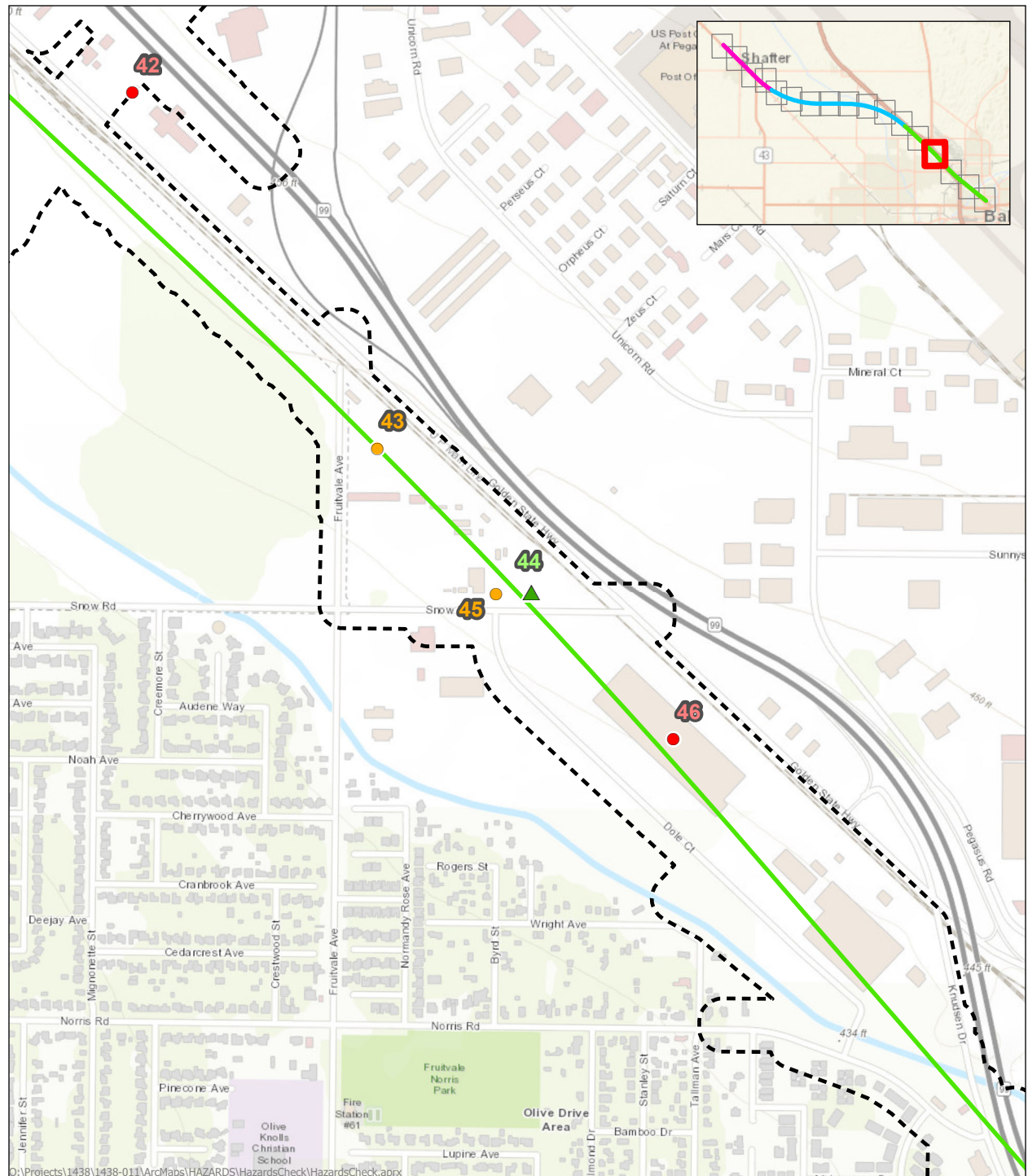
- High Priority
- Medium Priority

Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

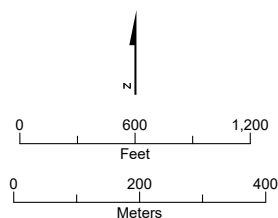
Segment 3

Appendix B-13
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



PRELIMINARY DRAFT/SUBJECT TO CHANGE
Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

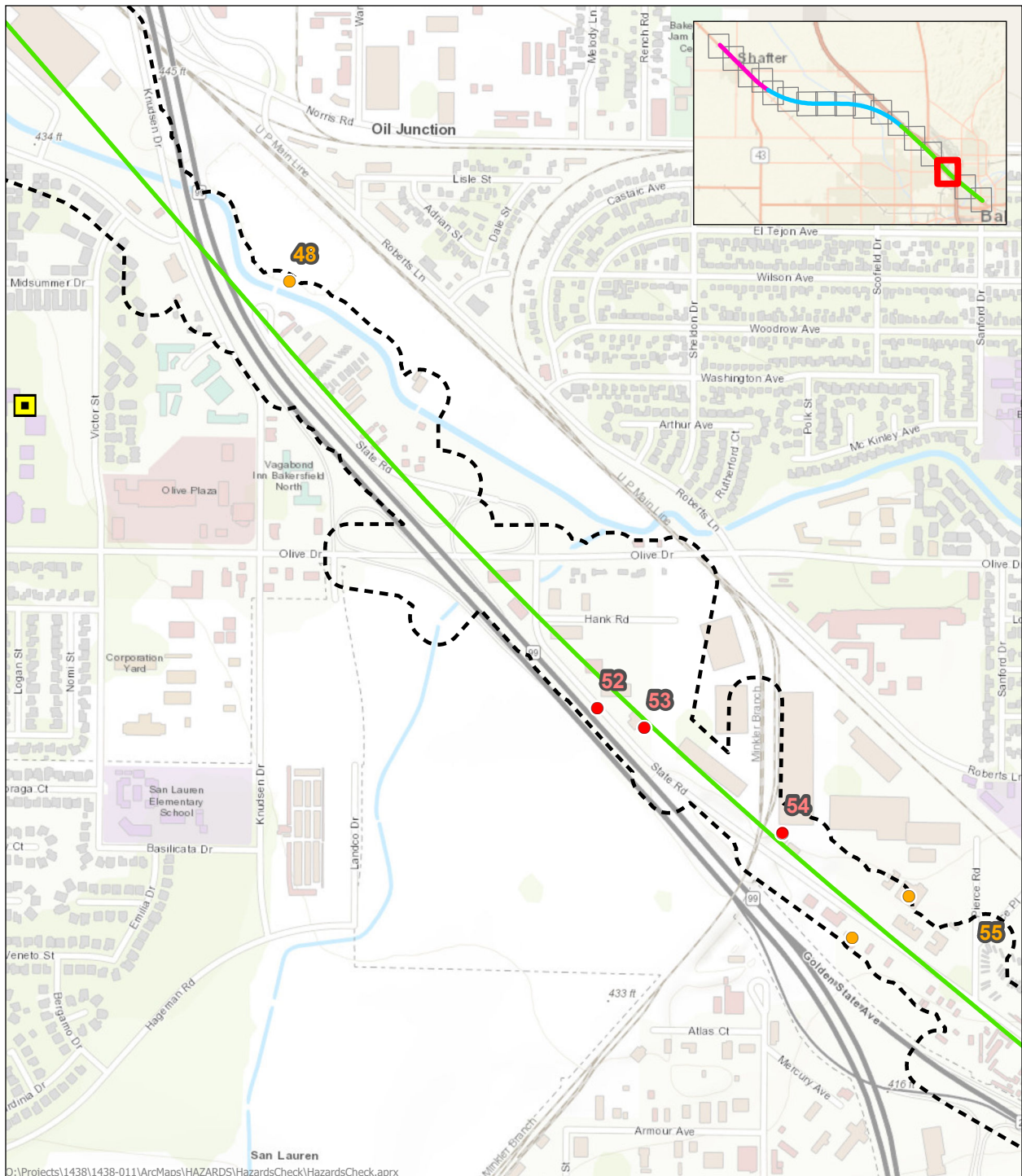
- High Priority
- Medium Priority
- ▲ Low Priority

Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

Segment 3

Appendix B-14
Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

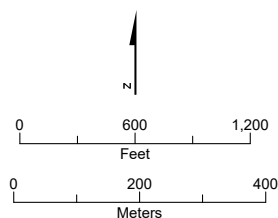


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

- High Priority
- Medium Priority

■ Educational Facilities

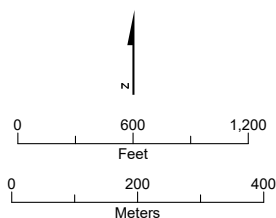
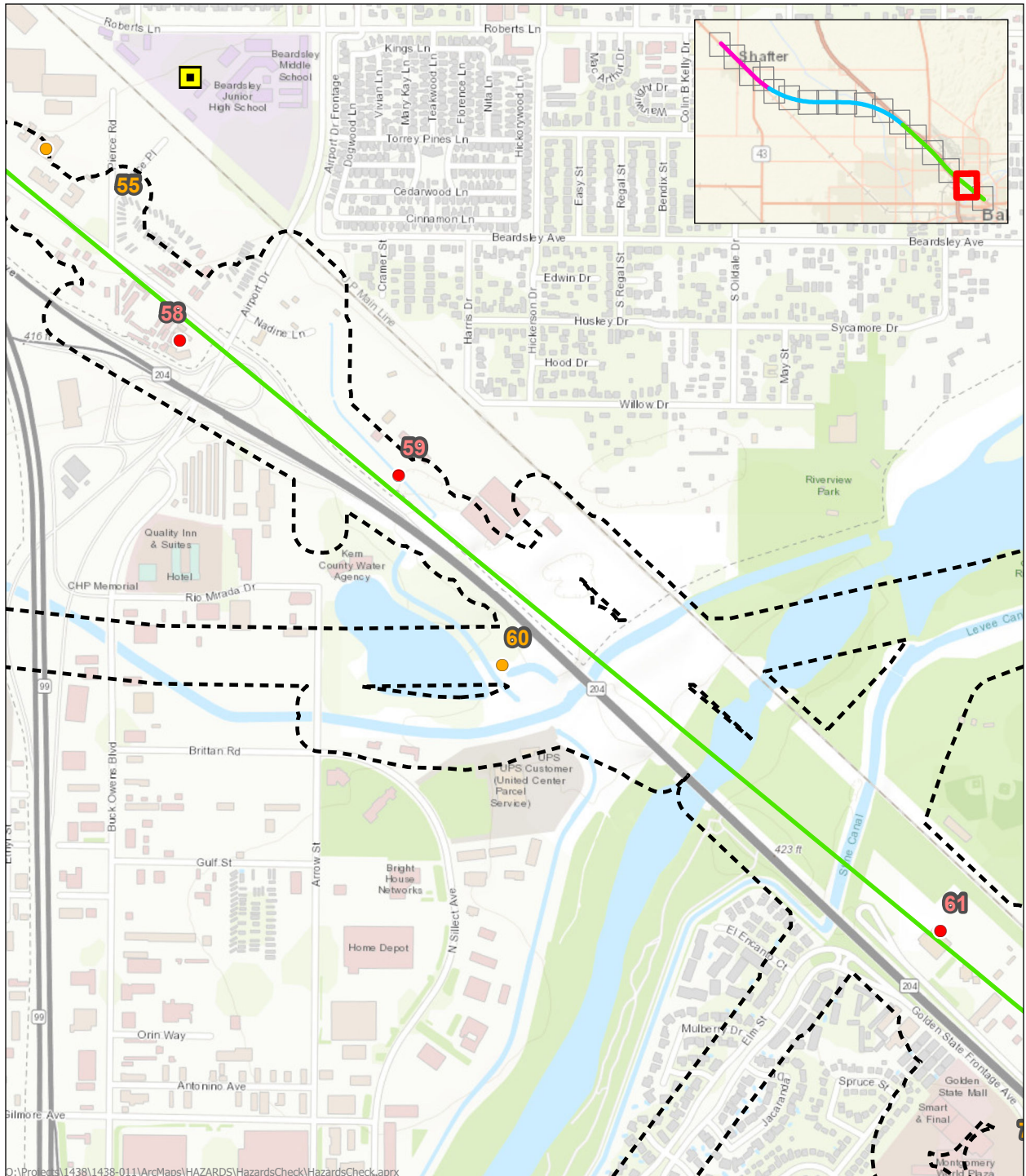
--- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

— Segment 3

Appendix B-15

Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



Hazardous Waste and Materials Site

- High Priority
- Medium Priority

- Educational Facilities

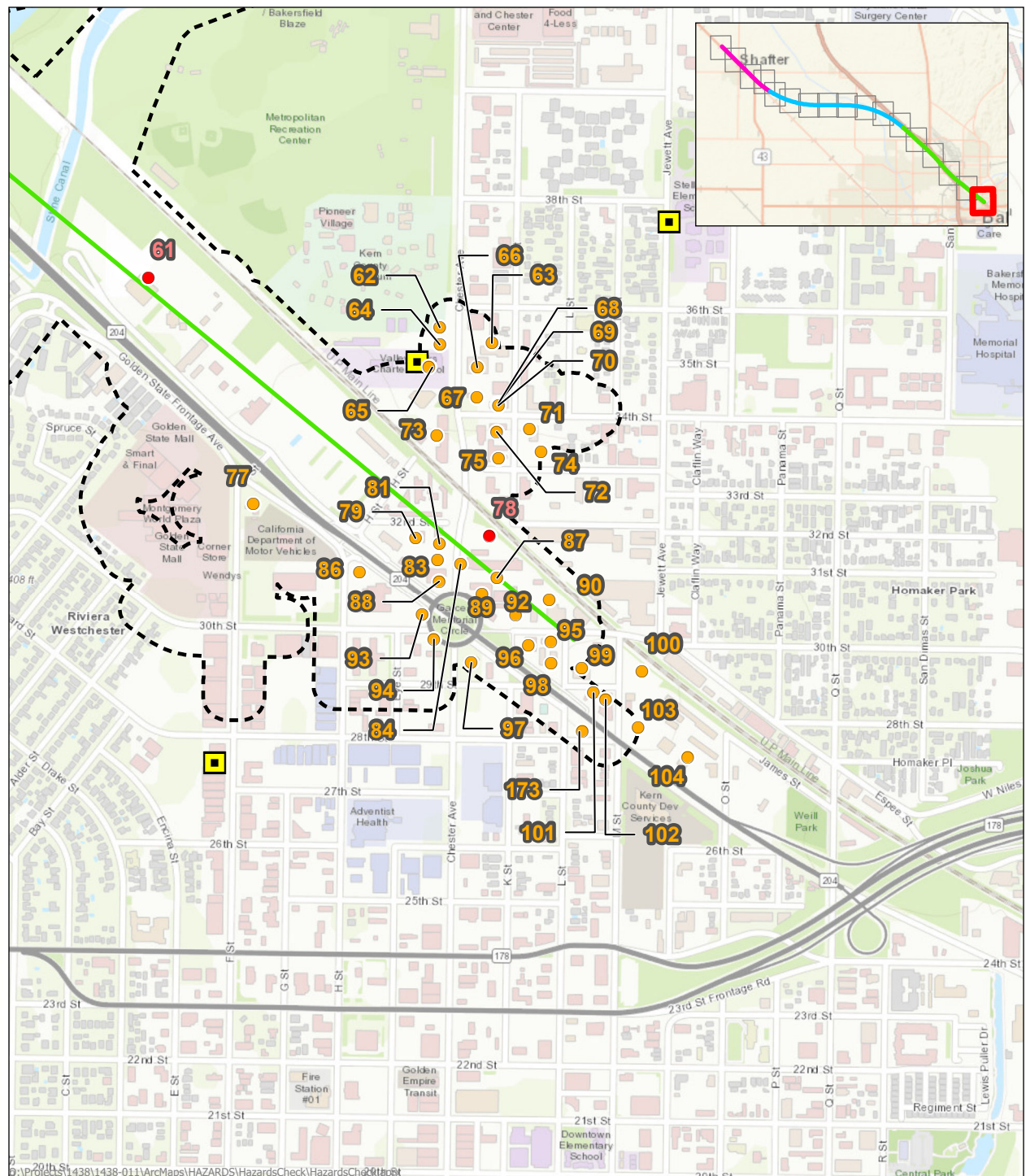
- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

- Segment 3

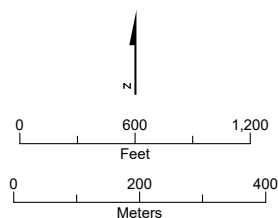
Appendix B-16

Known Hazardous Materials and
Waste Sites With Potential Environmental Concern



PRELIMINARY DRAFT/SUBJECT TO CHANGE
Source: Fresno-Bakersfield Locally Generated Alternative Supplemental Environmental Impact Report/
Environmental Impact Statement, Supplemental Hazardous Materials and Wastes Technical Report. May 2017

May 21, 2025



Hazardous Waste and Materials Site

- High Priority
- Medium Priority

■ Educational Facilities

--- Study Area (150 ft Buffer of Construction Footprint)

F-B LGA Alignment Centerline

— Segment 3

Appendix B-17

Known Hazardous Materials and
Waste Sites With Potential Environmental Concern

APPENDIX C

Example Soil Characterization Work Plan



CALIFORNIA RAIL BUILDERS

**Poso Underpass
Soil Characterization
California High Speed Rail
Construction Package 4
Agreement No. HSR 14-32
Wasco, CA**

April 2021

Prepared for:

California Rail Builders, LLC
400 North F Street
Wasco, CA 93280

Prepared by:

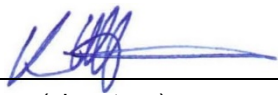
Stantec Consulting Services Inc.
300 North Lake Avenue, Suite 400
Pasadena, California 91101



Poso Underpass Soil Characterization Work Plan

This document entitled *Poso Underpass Soil Characterization Work Plan* was prepared by Stantec Consulting Services Inc. (Stantec) for the California Rail Builders, LLC (CRB) (the Client), in support of the Poso Avenue Underpass component of the Construction Package (CP) 4 portion of the Fresno to Bakersfield (F-B) Segment of the California High-speed Rail (HSR) project. The use of this document is limited to design, construction, and maintenance of the Poso Avenue Underpass component of the CP-4 portion of the F-B Segment of the HSR project. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

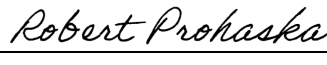
All information and proposed methodologies provided by Stantec in this document regarding the soil characterization work plan have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

Prepared by  _____
(signature)

Van Vathanasin, P.G., CRB CP-4 Hazardous Materials Subject Matter Expert

Quality Reviewer  _____
(signature)

Robert Ellis, P.G., Technical Reviewer

Approved by  _____
(signature)

Robert Prohaska, Project Manager

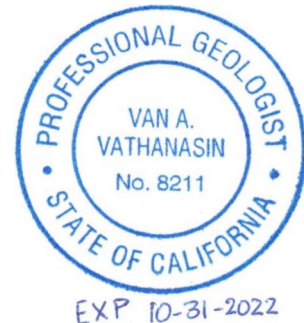


Table of Contents

ABBREVIATIONS AND ACRONYMS	III
1.0 INTRODUCTION AND BACKGROUND	1
1.1 PURPOSE AND OBJECTIVES	1
1.2 SITE DESCRIPTION	1
2.0 SOIL SAMPLING ACTIVITIES.....	2
2.1 RISK MANAGEMENT STRATEGY	2
2.2 FIELD ACTIVITIES.....	2
2.2.1 Permits and Utility Clearance	2
2.2.2 Soil Sampling	2
2.2.3 Laboratory Analyses	3
2.2.4 Soil Boring Abandonment.....	4
2.2.5 Decontamination Procedures	4
2.2.6 Investigation-Derived Waste Management.....	4
2.2.7 Field Documentation	4
2.2.8 Data Evaluation and Reporting.....	5
3.0 WASTE PROFILE CRITERIA	6
3.1 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) HAZARDOUS – OFFSITE DISPOSAL	6
3.2 NON-RCRA HAZARDOUS – OFFSITE DISPOSAL	6
3.3 NON-HAZARDOUS – TEMPORARY ONSITE STORAGE	6
4.0 REFERENCES.....	8

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Sample Location Map

LIST OF TABLES

Table 1	Sampling and Analysis Plan
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ATTACHMENTS

Appendix A - Risk Management Strategy 1 Form
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ABBREVIATIONS AND ACRONYMS

ASTM	ASTM International
Authority	California High-Speed Rail Authority
bgs	below ground surface
BMP	Best Management Practice
BNSF	BNSF Railway
BTEX	benzene, toluene, ethylbenzene, xylenes
CA WET	California Waste Extraction Test
CCR	California Code of Regulations
CFR	Code of Federal Regulations
COC	Constituents of Concern
COVID-19	Coronavirus disease 2019
CP	Construction Package
CRB	California Rail Builders, LLC
cy	cubic yard
DRO	Diesel Range Organics
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELAP	Environmental Laboratory Accreditation Program
ESL	Environmental Screening Level
F-B	Fresno to Bakersfield
FRA	Federal Railroad Administration
GRO	Gasoline Range Organics
HMMP	Hazardous Materials Management Plan
HSC	Health and Safety Code
HSR	California High-Speed Rail
IDW	Investigation-Derived Waste
OCP	Organochlorine Pesticides
OPP	Organophosphorus pesticides
ORO	Oil Range Organics
PCBs	Polychlorinated Biphenyls
PID	Photo-ionization detector
PG&E	Pacific Gas and Electric
PPE	Personal Protective Equipment
RCRA	Resource Conservation and Recovery Act
RMS	Risk Management Strategy

Poso Underpass Soil Characterization Work Plan



ROW	right of way
SFRWQCB	San Francisco Regional Water Quality Control Board
SWP	Safe Work Practice
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
UPRR	Union Pacific Railroad
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds



1.0 INTRODUCTION AND BACKGROUND

This **Poso Underpass Soil Characterization Work Plan** (Work Plan) was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of California Rail Builders, LLC (CRB) for a subsurface soil sampling investigation at the Poso Underpass (Site) (Figure 1) in Wasco, California, in accordance with the protocol set forth for known hazardous materials in the CRB Hazardous Material Management Plan (HMMP), California High-Speed Rail, Construction Package (CP) 4, Agreement No. HSR 14-32 (CRB, 2020). The Poso Underpass is a railroad grade separation along Poso Avenue between G Street and Wasco Avenue that is a component of CP4 portion of the Fresno to Bakersfield (F-B) Segment of the California High-speed Rail (HSR) project. The California High-Speed Rail Authority (Authority) and Federal Rail Administration (FRA) identify common railroad corridor contaminants in The California High-Speed Train Project Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS): Fresno to Bakersfield Section Volume I, Chapter 3.10 Hazardous Materials and Wastes (Authority/FRA, 2014). The Final EIR/EIS did not identify the Site as a Potential Environmental Concern.

1.1 PURPOSE AND OBJECTIVES

The purpose of this Work Plan is to document the procedures to collect soil samples and identify potential constituents of concern (COCs) in subsurface soil that present hazards to worker health and the environment during soil excavation at the Site. The objective is to develop a waste profile that can be used to determine the final disposition of the excavated soil. A scope of work was developed in general accordance with ASTM International (ASTM) Standard Practice E1903 for Phase II Environmental Site Assessments (ASTM, 2019) to meet the objectives of this project.

1.2 SITE DESCRIPTION

The Site lies within a permanent construction easement that was granted to the Authority to construct a railroad underpass within BNSF Railway (BNSF) right-of-way (ROW). Current operations at the Site include the BNSF railroad which has been operating since the 1890s and a public roadway, Poso Avenue, which is currently closed to the public. Between 1,200 and 1,500 cubic yards (cy) of soil will be removed from an area approximately 115 feet x 30 feet in the BNSF ROW to the west of main track 1 (Figure 2).



2.0 SOIL SAMPLING ACTIVITIES

2.1 RISK MANAGEMENT STRATEGY

Stantec's Risk Management Strategy 1 (RMS1) form (Appendix A) will be completed to supplement the existing CRB Health and Safety Plan to address the health and safety of Stantec's employees and provide contingency plans for emergencies that could arise during the field activities. The RMS1 document includes job safety analyses for the site, including the California Injury and Illness Prevention Program, coronavirus disease 2019 (COVID-19) specific safety information, and provides Safe Work Practice (SWP) guidelines for personal protection equipment (PPE) and safety procedures to be used by Stantec's staff during field activities.

2.2 FIELD ACTIVITIES

The field investigation shall be completed in one mobilization under the direct supervision of a California Professional Geologist and the CRB CP4 Hazardous Material Subject Matter Expert .

2.2.1 Permits and Utility Clearance

The Kern County Public Health Department does not require a well permit for borings less than 50 feet below ground surface (bgs) and if groundwater is not encountered. Excavation is proposed to a maximum depth of 9.75 feet bgs (Figure 2). Stantec will coordinate with the CRB project manager to identify physical constraints, site access, health/safety concerns, and sampling locations.

Underground Service Alert North 811 (also known as USA North 811) will be notified prior to initiating subsurface activities to mark potential subsurface utilities at the Site.

2.2.2 Soil Sampling

Excavation at the Poso Underpass will range between 6.25 feet in the central region and up to 9.75 feet at the northern and southern sections of the of the Site (Figure 2). Discrete samples will be collected from the borings down to a final depth that matches the maximum extent of excavation (Table 1). Stantec will advance a total of 5 soil borings using a direct push drill rig and hand auger. The number of samples for the soil characterization was adopted from Union Pacific Railroad (UPRR) Import Soil Specifications for California (UPRR, 2016) which requires 4 samples for the first 1,000 cy of soil, and 1 additional soil for every 500 cy thereafter.

The first five feet will be advanced with a hand auger to avoid damage to buried utilities.. Gravel and railroad ballast will be removed prior to sampling. After the soil description is recorded on boring logs, samples will be collected in Macrocore™ PVC liners sleeves from the direct push drill rig. An aliquot of soil taken from liner sleeve will be tested for volatile compounds in the headspace by disaggregating a portion of soil in a resealable plastic bag, allowing the headspace to equilibrate within the bag for 5 to 10 minutes, then measuring the organic vapor concentration within the headspace using a photo-ionization detector (PID).



EnCore samplers for analyses of volatile organic compounds (VOCs) and gasoline will be filled by driving the sampler directly into the soil contained within the Macrocore™ liner sleeve. After EnCore sample collection is completed, plastic end caps will be placed on both ends of the stainless steel sleeve with a sheet of Teflon sandwiched in between the cap and the sleeve. A total of 19 discrete soil samples will be submitted to the laboratory. The analytical plan will include laboratory homogenization and sample compositing as shown on Table 1 and described in Section 2.2.3.

Soil lithology will be described on boring logs in accordance with the Universal Soil Classification System as presented in American Society for Testing and Materials (ASTM) Standard D 2488 (ASTM, 2017), and color determined using a Munsell Color Chart. The soil samples will be labeled, entered into the chain-of-custody record, placed into an ice-chilled cooler, and delivered to Eurofins Calscience in Garden Grove, California on a **48-hour rush turnaround time** basis.

2.2.3 Laboratory Analyses

Constituents of concern associated with the Site are as follows:

Analyte	Rationale for Sampling
VOCs	Gasoline spills, use of chlorinated solvents
TPH	Railroad maintenance
Metals	Historic use of metals based wood preservatives wood incidental oil spills from recycling operations, soluble metals from recycling stockpiles
PAHs	Creosote wood preservative
PCBs	Incidental hydraulic oil spills
Pesticides	Historical agricultural land use
Asbestos	Former concrete pipe manufacturing

PAHs - polycyclic aromatic hydrocarbons

PCBs – polychlorinated biphenyls

TPH – total petroleum hydrocarbons

VOCs – volatile organic compounds

The proposed sampling and analysis plan is included on Table 1. To preserve volatile compounds that might be released during homogenization of the soil samples, discrete analyses of VOCs and gasoline are proposed. All of the remaining analyses will be analyzed as a vertical composite sample. Because of the commencement of excavation is pending on the results of this soil characterization, California Waste Extraction Testing extraction and Toxicity Characteristic Leaching Procedure extraction will be requested for all composite samples. This will provide a head start if additional leachate testing is required to develop a waste profile. All sample analyses and homogenization will be completed by Eurofins Calscience, a State Water Resources Control Board Environmental Laboratory Accreditation Program (ELAP) certified laboratory in Garden Grove, California.



2.2.4 Soil Boring Abandonment

All borings will be abandoned by backfilling the annulus with hydrated bentonite and finished with materials that match the existing surface.

2.2.5 Decontamination Procedures

To prevent cross contamination, soil sampling equipment used down-the-hole will be cleaned with a non-phosphate detergent, rinsed with tap water, rinsed a second time with distilled or deionized water, and air dried.

2.2.6 Investigation-Derived Waste Management

Investigation-derived waste generated during the soil characterization will include soil cuttings and water from equipment decontamination. Soil cuttings will be placed in a DOT approved container and labeled as "Pending Analysis." The results from soil sampling will be used to develop a waste profile for soil IDW.

Decontamination water generated during field activities will be stored at the Site in a Department of Transportation approved 5-gallon plastic container. The container will be labeled as "Pending Analysis" until laboratory results arrive and a waste profile is determined. One aqueous investigation-derived waste (IDW) sample will be collected and submitted for the following chemical analyses:

- VOCs in accordance with United States Environmental Protection Agency (USEPA) Method 8260B;
- Gasoline range organics (GRO) in accordance with USEPA Method 8015B/5035;
- Diesel range organics (DRO) and oil range organics (ORO) in accordance with USEPA Method 8015B;
- Organochlorine Pesticides (OCPs) in accordance with USEPA Method 8081A
- PCBs in accordance with USEPA Method 8082A
- Title 22 Metals in accordance with USEPA Method 6010B/7470
- pH in accordance with Standard Method 4500 or USEPA Method 9045.

IDW containers will be sealed and temporarily stored on the Authority's ROW in a location where they will not impede construction traffic.

2.2.7 Field Documentation

Field notes and relevant sampling details will be documented on field forms using permanent ink. If an error is made, corrections should be made by crossing a line through the error and entering the correct information. The changes should be initialed and no entries shall be obliterated or rendered unreadable. Entries into the daily field forms should include, but are not limited to, the following information:

- Date
- Start time
- Meteorological conditions



Poso Underpass Soil Characterization Work Plan

- Field staff present
- Site visitors
- Level of personal protection
- Site name
- Field observations
- Work completed (milestones achieved)
- Signature of staff making entry

Representative photos will be taken of each sample location, as well as general overview photos of the site conditions before work begins, of daily activities, and at the close of work. A photographic log will be included in the final summary report documenting activities and sample locations.

2.2.8 Data Evaluation and Reporting

A summary report will be prepared after final laboratory data are received and the results are determined to be suitable for site assessment. The summary report will fulfill the requirement for a mitigation plan in the HMMP (CRB, 2020) when anticipated hazardous materials are encountered. The summary report will include a summary of findings, narrative chronology of completed project activities, figures and data tables presenting a summary of laboratory analytical results compared to California Title 22 Code of Regulations and Resource Conservation and Recovery Act regulations for hazardous waste, and USEPA, California Department of Toxic Substances Control, and Regional Water Quality Control Board industrial/commercial screening levels. Complete laboratory analytical reports, data validation reports, a photographic log, waste manifests, and soil boring logs will be included in the appendices of the report.



3.0 WASTE PROFILE CRITERIA

Laboratory results from the soil sampling will be used to develop toxic characteristics for excavation spoils at the Site. At the time this work plan was prepared, it was understood that soil from BNSF ROW may not be reused on HSR ROW. The criteria presented below assume spoils will be excavated directly into bins or dump trucks and stockpiling will not occur within BNSF or HSR ROW.

3.1 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) HAZARDOUS – OFFSITE DISPOSAL

RCRA hazardous soil meets the definition of hazardous waste under Code of Federal Regulations (CFR) Title 40 CFR Part 261 and may not be stored on HSR ROW. This material must be handled and managed in accordance 40 CFR Part 262 and the HMMP (CRB, 2020). Transporters of RCRA Hazardous Waste shall proceed in accordance with the manifest system and recordkeeping in the 40 CFR Part 263 and the HMMP (CRB, 2020). The selected landfill for disposal must be approved by the Authority prior to shipment.

3.2 NON-RCRA HAZARDOUS – OFFSITE DISPOSAL

Non-RCRA hazardous (commonly referred to as “California hazardous”) soil meets the definition of hazardous waste under California Code of Regulations (CCR) Title 22, Division 4.5, Chapter 11 and may not be stored on HSR ROW. This material must be handled and managed in accordance 22 CCR Division 4.5, Chapter 12 and the HMMP (CRB, 2020). Transporters of Non-RCRA Hazardous Waste shall proceed in accordance with the manifest system and recordkeeping in the 22 CCR Division 4.5, Chapter 12 and 13, and statutory requirements in Health and Safety Code (HSC) Division 20, Chapter 6.5, Article 6 and 6.5, and the HMMP (CRB, 2020). The selected landfill for disposal must be approved by the Authority prior to shipment.

3.3 NON-HAZARDOUS – TEMPORARY ONSITE STORAGE

Non-hazardous soil may be temporarily stored on HSR ROW to permit construction of the Poso Underpass if the following conditions are met:

- Unless an agreement with the Authority to stockpile soil within HSR ROW is approved, excavation spoils must be containerized.
- The material does not meet the definition of hazardous waste under CCR Title 22, Division 4.5 and/or 40 CFR Part 261.
- Concentrations of the following analytes are detected below Department of Toxic Substances California Control (DTSC), San Francisco Regional Water Quality Control Board (SFRWQCB), or United States Environmental Protection Agency (USEPA) Industrial/Commercial screening levels (whichever is most conservative):
 - VOCs (EPA Method 8260B)



Poso Underpass Soil Characterization Work Plan

- PAHs (EPA Method 8270SIM)
 - GRO/ORO/MRO (EPA Method 8015)
 - California Assessment Manual (CAM) 17 Metals (EPA Method 6010/7474)
 - PCBs (EPA Method 8082A)
 - OCPs (EPA Method 8081A)
 - OPPs (EPA Method 8141)
- Arsenic concentrations are equal to or below regional background concentrations.
- The soil may not be placed at an area where groundwater exists within 15 feet of the ground surface.
- The soil may not be placed within 50 feet of water bodies (i.e., streams, creeks, rivers).
- The location of the stockpile is in compliance with the project Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) are implemented to control sedimentation.

Non-hazardous soil that does not meet the criteria shall remain on BNSF ROW or transported offsite as non-hazardous waste.



4.0 REFERENCES

ASTM International, 2017, Standard Practice for Classification of Soils for Engineering Purposes (USCS), Designation: D 2487-17.

ASTM International, 2019. Standard Practice for Phase II Environmental Site Assessments, Designation: E1903-19.

California High-Speed Rail Authority/Federal Railroad Administration, 2014. The California High-Speed Train Project Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS): Fresno to Bakersfield Section Volume I, Chapter 3.10 Hazardous Materials and Wastes. April.

California Rail Builders, LLC, 2020. Hazardous Material Management Plan, California High-Speed Rail, Construction Package 4, Agreement No. HSR 14-32. July.

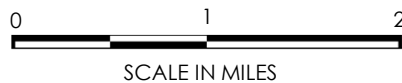
Union Pacific Railroad, 2016. Soil Import Specifications - California, Adopted by the Union Pacific Engineering Department. March 1.

FIGURES





LEGEND



Project Location
POSO AVENUE/BNSF RAILROAD
WASCO, CA 93280

Client/Project
CRB CHSR CP4/POSO UNDERPASS
SOIL CHARACTERIZATION

Figure No.

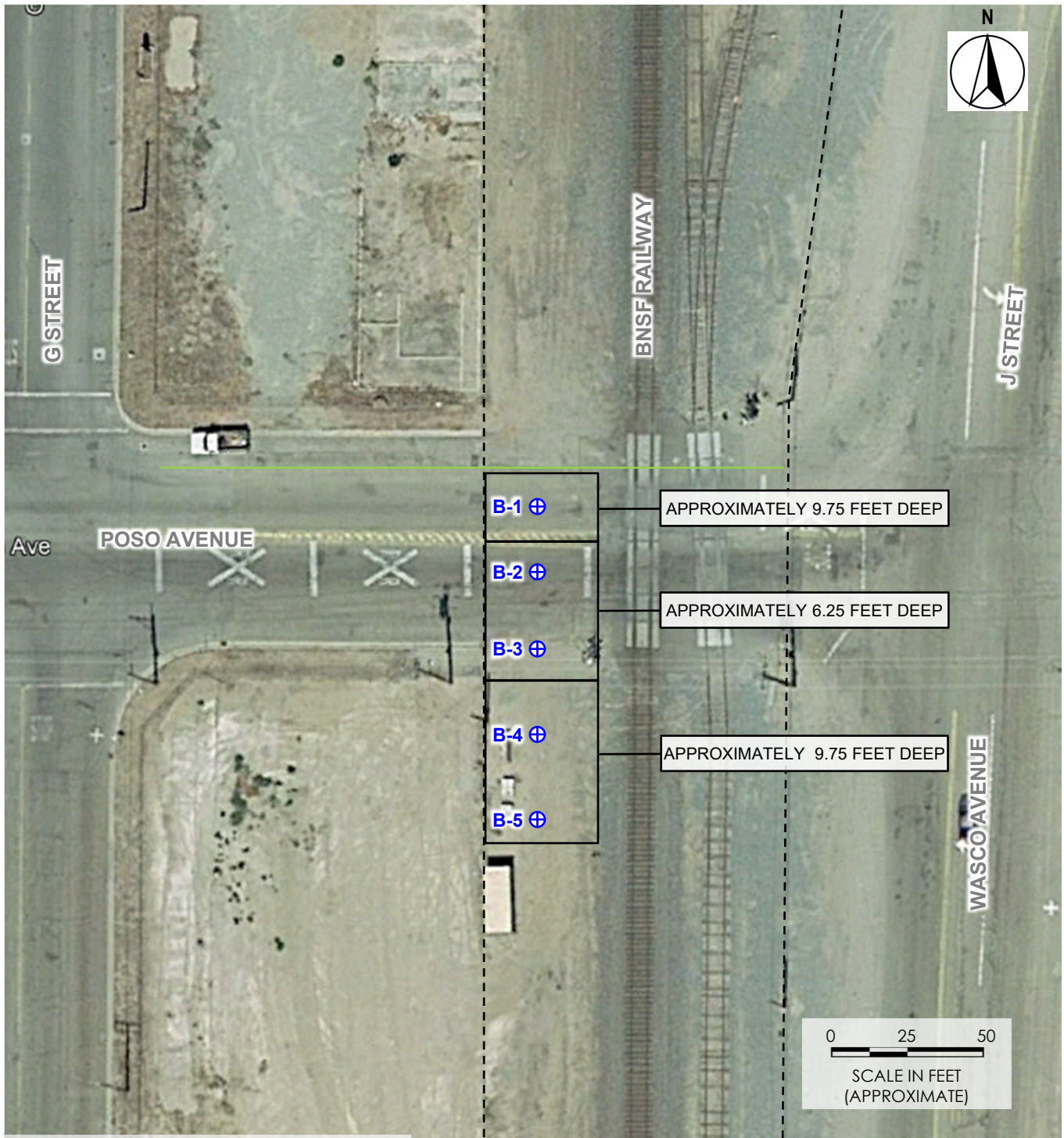
1

Title

Site Location Map



Prepared by Stantec Consulting Services Inc.



Service Layer Credits: Sources: Google Earth, 2020

LEGEND

- ⊕ PROPOSED SOIL BORING LOCATION
- PROPOSED UNDERPASS EXCAVATION
- - - - BNSF RAILWAY RIGHT-OF-WAY BOUNDARY (APPROXIMATE)
- SEMPRA GAS LINE (APPROXIMATE)



Prepared by Stantec Consulting Services Inc.

Project Location
 POSO AVENUE/BNSF RAILROAD
 WASCO, CA 93280

Client/Project
 CRB CHSR CP4/POSO UNDERPASS
 SOIL CHARACTERIZATION

Figure No.

2

Title

Sample Location Map

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

TABLES



TABLE 1 - SAMPLING AND ANALYTICAL PLAN
California High Speed Rail Construction Package 4
Poso Underpass
Wasco, California



Proposed Sample	Matrix	Field Sample Identification	Depth (feet)	Sample Type	VOCs (EPA 8260)	GRO (EPA 8015B)	PAHs (EPA 8310)	OCPs (EPA 8081A)	OPPs (EPA 8141B)	DRO /ORO (EPA 8015B)	PCBs (EPA 8082)	Title 22 Metals (EPA 6010B/747XA)	Asbestos (CARB 435)	pH (SM4500 or 9045)	CA WET Extraction	TCLP Extraction	Sample Containers
B-1	Soil	B-1-1	0.5-1	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-1	Soil	B-1-3	2.5-3.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-1	Soil	B-1-6	5.5-6.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-1	Soil	B-1-9.5	9.0-9.5	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-1	Soil	B-1-Comp	-	Composite	-	-	X	X	X	X	X	X	X	X	X	X	Lab Composite
B-2	Soil	B-2-1	0.5-1	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-2	Soil	B-2-3	2.5-3.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-2	Soil	B-2-6	5.5-6.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-2	Soil	B-2-Comp	-	Composite	-	-	X	X	X	X	X	X	X	X	X	X	Lab Composite
B-3	Soil	B-3-1	0.5-1	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-3	Soil	B-3-3	2.5-3.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-3	Soil	B-3-6	5.5-6.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-3	Soil	B-3-Comp	-	Composite	-	-	X	X	X	X	X	X	X	X	X	X	Lab Composite
B-4	Soil	B-4-1	0.5-1	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-4	Soil	B-4-3	2.5-3.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-4	Soil	B-4-6	5.5-6.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-4	Soil	B-4-9.5	9.0-9.5	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-4	Soil	B-4-Comp	-	Composite	-	-	X	X	X	X	X	X	X	X	X	X	Lab Composite
B-5	Soil	B-5-1	0.5-1	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-5	Soil	B-5-3	2.5-3.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-5	Soil	B-5-6	5.5-6.0	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-5	Soil	B-5-9.5	9.0-9.5	Primary	X	X	H	H	H	H	H	H	H	H	H	H	5 x 5-gram EnCore 6 inch sleeve
B-5	Soil	B-5-Comp	-	Composite	-	-	X	X	X	X	X	X	X	X	X	X	Lab Composite
Poso-WW1	Water	Poso-WW1	--	Waste Characterization	X	X	-	X	-	X	-	X	-	X	-	-	6 x 40mL Vial w/ HCl 8 x 1L Amber, unpres 1 x 250mL Poly w/ HNO3 1 x 250mL Poly, unpres

Notes:

With the exception of sample Poso-WW1, all analyses will be analyzed on a 48-hr rush turnaround time basis
Sample Poso-WW1 will be analyzed on a standard turnaround time basis

Abbreviations:

CARB - California Air Resources Board
CA WET - California Waste Extraction Test
DRO - diesel range organic hydrocarbons
EPA - United States Environmental Protection Agency
GRO - gasoline range organic hydrocarbons
H - hold for analysis
HCl - hydrochloric acid

HNO3 - nitric acid
IDW - investigation derived waste
mL - milliliter
L - liter
OCP - organochlorine pesticides
OPP - organophosphorus pesticides
PCBs - polychlorinated biphenyls

ORO - oil range organic hydrocarbons
PAHs - polycyclic aromatic hydrocarbons
oz - ounce
TCLP - Toxicity Characteristic Leaching Procedure
VOCs - volatile organic compounds
X - proceed with analysis

APPENDIX A

RISK MANAGEMENT STRATEGY 1 FORM



Risk Management Strategy (RMS1)

- If the project requires fieldwork a HASP or RMS1 must be completed.
- If the scope of work for a project that originally did not involve field work changes to include field work, an RMS1 form must be completed and reviewed with employees before field work begins.
- Although the RMS1 is intended to be part of the desktop planning process for a project, please be aware that the RMS1 must be carried as a field resource as well, to complement use of the Field Level Risk Assessment (RMS2).

Date: April 3, 2021		This form expires 1 year from the date of creation	
Project / proposal number: 185803708		Project name: Poso Underpass Soil Characterization	
Location: Poso Underpass/BNSF Railway, Wasco, California			
Project description (Companies involved, what, where, when) Soil sampling and investigation-derived waste management. Direct push drilling and sampling will be completed by ABC Liovin with oversight by Stantec field Geologists. Boring locations are located within BNSF Railway right of way at Poso Avenue in the City of Wasco, California. Flagpersons will be provided by BNSF and all workers required BNSF Contractor Safety Orientation and CRB WEAP Training. Workers may not "foul" the track at any time for this project.			
Does this project involve fieldwork?		Yes - continue with this form	
Is this project remote work?		No	
What method of communication will be used?		☒ Cell Phone ☐ Satellite Phone ☐ Spot Messenger ☐ Other:	
Is there a call in – call out system?		No	
Are there any unique security concerns?		No	
Will workers on this project be crossing into different states/provinces or countries?		No	
Is Stantec the Constructor/Prime Contractor?		No	
Is Stantec hiring subcontractors?		Yes	
Will Stantec staff or subcontractors be working alone?		No	
Client/Constructor HSSE training required?		Yes - provide staff with a copy to review and file a copy in the project files CRB Contractor Orientation CRB WEAP training	
Is there a Client/Constructor HSSE program that the project is required to follow?		Yes - provide staff with a copy to review and file a copy in the project files See CRB Site Health and Safety Plan located in Appendix B of Stantec HASP	
Is this work taking place outside of North America?		No	
List the major tasks associated with this project.			
1. Direct push drilling			
2. Soil sampling			
3. Investigation-derived waste waste management			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Identify critical risk(s) that staff may encounter on this project. For each critical risk identified, review the flatsheet using the In Case of Crisis app or a printed copy.					
 Driving	 Working at Heights	 Traffic Control	 Wildlife, Insects, and Vegetation	 Mobile and Heavy Equipment	 Environments with Water or Ice
Yes	No	Yes	No	Yes	No
 Ground Disturbance	 Ergonomic Hazards and Manual Handling	 Hazardous Materials and Environments	 Control of Hazardous Energy	 Hot Work	 Confined Spaces
Yes	Yes	No	No	No	No
When assessing energy sources please consider task and site hazards including activities, time of day, time of year and project stages. If an SWP for a task below is not available, please perform a Quantified Hazard Assessment (RMS7) for the task and include below. Please identify SWPs below that apply to your project: ☒ SWP 107 – First Aid ☒ SWP 111 – Medical Surveillance ☒ SWP 105 – PPE ☐ SWP 103 – WHMIS (CA) ☒ SWP 104 – HAZCOM (US) ☐ SWP 118 – Working Alone In the Field					
Hazards		Applicable SWPs, forms, SOPS, RMS7s	Specialized training beyond the SWPs	Specific Site Controls	
Thermal					
	☐ Cold stress	☐ SWP 514 - Working on or Near Ice ☐ SWP 114 - Working in Cold Environments ☒ SWP 113 - Heat Stress ☐ SWP 414, 414a – Hot Work	HSE 1290 Heat Illness Prevention	Stay hydrated and seek shelter in vehicle with A/C running if high temperatures are encountered	
	☐ Cold surfaces				
	☒ Heat stress				
	☐ Hot surfaces				
	☐ Hot work				
	☒ Weather conditions				
	☐ Other:				
Chemical					
	☐ Oxygen deficient atmosphere	☒ SWP 409 - Respiratory Protection ☐ SWP 411, 411a, 411b, 411c – Confined Space Entry ☐ SWP 304 - Asbestos Safety ☐ SWP 309 - Silica Awareness ☐ SWP 312 - Fueling Gasoline Engines ☐ SWP 305 - Benzene Safety ☐ SWP 314 – Working Around Hazardous Waste and Wastewater ☐ SWP 315 - Arsenic Safety ☐ SWP 319 - Hydrogen Fluoride / Hydrofluoric Acid Safety	NA	Avoid skin contact with soil; practice good hygiene and wash hands frequently Potential railroad contaminants may include lead, arsenic, creosote, diesel, and heavy lubricant oils. Maintain high level of personal hygiene and use PPE to avoid dermal contact with soil.	
	☐ H ₂ S (Hydrogen sulfide)				
	☐ Asbestos				
	☐ Silica				
	☐ Acids				
	☐ Caustics				
	☒ Petroleum hydrocarbons				
	☐ Solvents/Flammables				
	☐ Volatile organic compounds				
	☒ Heavy metals				
	☐ Benzene				
	☐ Lead				
	☐ Arsenic				
	☒ Polycyclic Aromatic Hydrocarbons (PAH)				

	☐ PCBs ☒ Pesticides ☒ Herbicides ☐ Hydrogen fluoride / Hydrofluoric acid ☐ Other:	☐ SWP 519 - Post-Disaster Building Entry		
Biological				
	☐ Wildlife ☐ Domestic animals (dogs, cattle) ☒ Bees / wasps / hornets ☐ Ticks ☐ Black flies ☐ Other stinging or biting insects ☒ Pedestrians / onlookers ☐ Protesters ☐ Poison ivy ☐ Poison oak ☐ Giant hogweed ☐ Wild parsnip ☐ Sewage ☐ Wastewater ☐ Domestic waste ☐ Medical waste ☐ Bloodborne pathogens ☐ Bacterial cultures ☒ Other: Valley Fever ☒ Other: Stantec Covid-19 Field Guidance and Best Practices ☐ Other: ☐ Other:	☒ SWP 409 - Respiratory Protection ☐ SWP 314 - Working Around Hazardous Waste and Waste Water ☐ SWP 108 - Bloodborne Pathogens ☐ SWP 508 - Wildlife Encounters ☐ SWP 102 - Workplace Violence ☐ SWP 510 - Working in Abandoned Buildings ☐ SWP 511 - Ticks and Tickborne Diseases ☐ SWP 519 - Post-Disaster Building Entry	Respirator medical evaluation for N95 respirators - Review HSE 1292 Valley Fever Awareness on LMS - Review attached COVID-19 Field Guide and Best Practices - Review attached Stantec Risk Assessment for COVID-19 - Review attached Field Trailer Safety Guidance for COVID-19 - Complete attached Stantec Employee Screening Fit for Duty Questionnaire (to be completed daily at beginning of each shift before mobilizing to field)	Refer to Section 7.2.6 of Stantec HASP for specific Valley Fever controls
Radiation				
	☒ Solar (UVA/UVB) ☐ Welding ☐ Nuclear densometers ☐ NORMs ☐ Microwave ☐ Other:	☐ SWP 502, 502a-q (CA) - Radiation Safety Program Field Manual for Portable Gauges (Canada) ☐ SWP 516, 516a-e (US) - Radiation Safety (US)	NA	Protect bare skin with sunblock with an SPF rating of 30 or higher
Noise				
	☐ Mobile equipment ☐ Stationary equipment ☐ Manual equipment ☒ Impact ☐ Vibration ☐ Impact on communications			Wear earplugs within 20 feet of the direct push drill rig while drilling. Pay attention to the BNSF flagger and listen for the air horn warning. Stop work and move to the edge of

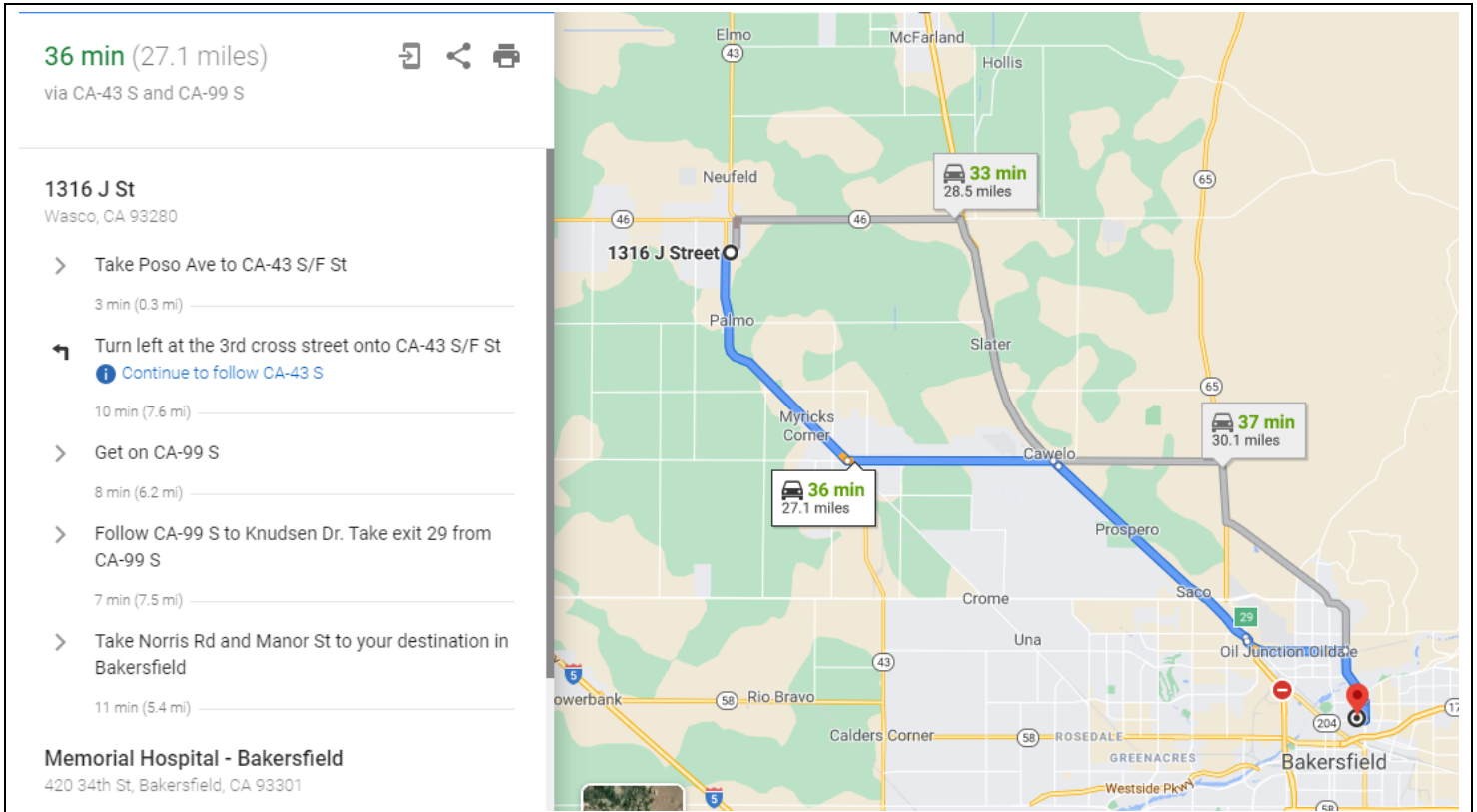
	☐ Other:			the railroad right-of-way as directed..
Gravity				
	☒ Slip / Trip / Fall	☐ SWP 201 - Fall Protection / Working at Heights	NA	Maintain situational awareness and good housekeeping practice.
	☐ Work from heights	☐ SWP 202 - Ladder Safety		
	☐ Falling objects	☐ SWP 203 - Aerial Work Platform		
	☐ Other:	☐ SWP 205 - Scaffold Safety ☐ SWP 208 - Hoisting and Lifting ☐ SWP 510 - Working in Abandoned Buildings Enter additional SWPs, SOPs		
Motion				
	☒ Working near traffic	☐ SWP 507 - Aircraft Safety	Green Driver/Defensive Driver training	Practice extreme situational awareness around traffic and heavy equipment. Smartphone use should be limited to areas sheltered from traffic and never while driving.
	☒ Automobile/truck/trailer	☒ SWP 124, 124a, 124b – Safe Driving		
	☐ Construction equipment	☒ SWP 216 - Working Near Mobile Equipment		
	☐ Elevated work platform	☐ SWP 217, 217a – Forklift Operation		
	☐ Pedestrians	☐ SWP 407, 407a, 407b, 407c – Traffic Control and Protection Planning		
	☐ Cyclists	☐ SWP 505, 505a, 505b, 505c, 505d - Off Road Vehicles		
	☒ Rail	☐ SWP 506 - Rail Safety		
	☐ ATV	☒ SWP 115 - Material Handling and Safe Lifting		
	☐ ARGO	☐ SWP 125 - Workstation Ergonomics		
	☐ Watercraft / water	☐ SWP 513 - Boat and Water Safety		
	☐ Snowmobile	Enter additional SWPs, SOPs		
	☐ Aircraft (fixed wing or rotary)			
	☐ UAVs/Drones			
	☒ Walking/Hiking			
	☒ Lifting			
	☒ Pushing/Pulling			
	☒ Bending			
	☒ Posture/position			
	☐ Climbing			
	☒ Twisting			
☐ Other:				
Mechanical				
	☒ Cutting edges	☐ SWP 416 - Supervision of Contracted Drilling Activities	NA	Wear leather work gloves while operating hand auger
	☐ Blades	☐ SWP 518, 518a – Using a Chainsaw		
	☐ Rotating parts (e.g., drill/auger)	☒ SWP 206 - Hand and Portable Power Tools		
	☐ Wrap points	☐ SWP 517 - Safe Machete Use		
	☐ Shear points			
	☒ Pinch points			
	☐ Freewheeling point			
	☐ Chains			

Risk Management Strategy (RMS1)

	☐ Cables ☐ Other:	☐ SWP 408, 408a, 408b, 408c – Lock, Tag & Try ☐ SWP 216 - Working Near Mobile Equipment ☐ SWP 510 - Working in Abandoned Buildings Enter additional SWPs, SOPs														
Electrical																
	☒ Power and communication lines	☐ SWP 213, 213a, 213b, 213c – Utility Clearance	NA	Look for markings by USA 811 parties prior to drilling; contact PM if utilities are marked within 3 feet of boring location												
	☐ Static charge and lightning	☐ SWP 406, 406a, 406b – Electrical Safety Program														
	☐ Wiring	☐ SWP 408, 408a, 408b, 408c – Lock, Tag & Try														
	☐ Batteries	☐ SWP 504 - Backpack and Boat Mounted Electro-Fishing														
	☐ Lighting levels	☐ SWP 519 - Post-Disaster Building Entry														
	☐ Wet environment	Enter additional SWPs, SOPs														
	☐ GFCI cords/plugs															
	☐ Double insulated tools															
	☐ Exposed circuits															
	☐ Other:															
Pressure																
	☐ Excavations and spoil piles	☐ SWP 215 - Supervision of Hydro-Excavation Activities	NA	Stay away from direct push drill rig.												
	☒ Hydraulic systems	☐ SWP 310 - Compressed Gas Cylinders														
	☒ Pneumatic systems	☐ SWP 214 - Entering Excavations and Trenches														
	☐ Steam	Enter additional SWPs, SOPs														
	☐ Vacuum															
	☐ Cylinders															
	☐ Other:															
<table border="1"> <thead> <tr> <th>PPE</th> <th>REQ'd</th> <th>If you need assistance to answer these questions, please contact an HSSE advisor or HSSE manager</th> </tr> </thead> <tbody> <tr> <td>Head (CSA/ANSI)</td> <td>☒</td> <td> Choose a Type and Class: ☒ Type 1 (no side impact) ☐ Class E (rated for 20000 volts) ☐ Type 2 (side impact) ☒ Class G (rated for 2200 volts) ☐ Other ☐ Class C (no electrical rating) </td> </tr> <tr> <td>Eye/face (CSA/ANSI)</td> <td>☒</td> <td> ☒ safety glasses with rigid side shields ☐ safety glasses and face shield ☐ polarized safety glasses with rigid side shields ☐ goggles and face shield ☐ goggles ☐ UV glasses, UV shield ☐ spoggles </td> </tr> <tr> <td>Hand</td> <td>☒</td> <td> Hazard Protection ☒ Abrasion ☐ Cut ☐ Vibration ☐ Puncture ☐ FR (flame resistant) ☐ Arc Flash ☒ Chemical ☐ Impact ☐ Cold ☐ Heat ☐ Other: </td> </tr> </tbody> </table>					PPE	REQ'd	If you need assistance to answer these questions, please contact an HSSE advisor or HSSE manager	Head (CSA/ANSI)	☒	Choose a Type and Class: ☒ Type 1 (no side impact) ☐ Class E (rated for 20000 volts) ☐ Type 2 (side impact) ☒ Class G (rated for 2200 volts) ☐ Other ☐ Class C (no electrical rating)	Eye/face (CSA/ANSI)	☒	☒ safety glasses with rigid side shields ☐ safety glasses and face shield ☐ polarized safety glasses with rigid side shields ☐ goggles and face shield ☐ goggles ☐ UV glasses, UV shield ☐ spoggles	Hand	☒	Hazard Protection ☒ Abrasion ☐ Cut ☐ Vibration ☐ Puncture ☐ FR (flame resistant) ☐ Arc Flash ☒ Chemical ☐ Impact ☐ Cold ☐ Heat ☐ Other:
PPE	REQ'd	If you need assistance to answer these questions, please contact an HSSE advisor or HSSE manager														
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Hand	☒	Hazard Protection ☒ Abrasion ☐ Cut ☐ Vibration ☐ Puncture ☐ FR (flame resistant) ☐ Arc Flash ☒ Chemical ☐ Impact ☐ Cold ☐ Heat ☐ Other:														

		Glove Type ☒ Nitrile ☒ Leather ☐ Cotton ☐ High Performance Polyethylene ☐ Polyurethane ☐ Kevlar ☐ Latex ☐ PVC ☐ Neoprene ☐ Viton ☐ Other:	
Foot (6" minimum ankle support)	☒	☒ CSA Green triangle and orange omega boots (CA) / ASTM / ANSI boots (US) ☐ CSA Green triangle and orange omega rubber boots (CA) / ASTM / ANSI rubber boots (US)	☐ CSA Green triangle and orange omega waders (CA) / ASTM / ANSI waders boots (US) ☐ Traction Aids
High visibility clothing	☒	Class 1 - not used ☐ Class 2 (under 80km/h / 50 mph and daylight)	☒ Class 3 (over 80km/h / 50 mph and/or twilight/dark)
Hearing	☒	☒ Ear plugs ☐ Ear muffs	☐ Ear plugs and muffs
Coveralls	☐	☐ Standard ☐ FR (Flame Resistant) – Type: ☐ Tyvek (disposable) ☐ Chemical resistant	
Respiratory	☒	☒ N95 (dust mask) ☐ 1/2 mask - Cartridge type: - Filter type: ☐ Full face - Cartridge type: - Filter type: ☐ PAPR - Cartridge type: - Filter type:	
Fall arrest/limit	☐	Fall arrest harness (verify capacity) ☐ Class A (fall arrest) ☐ Class D (controlled descent) ☐ Class E (evacuation) ☐ Class L (ladder) ☐ Class P (positioning) Lanyard ☐ 6' with shock absorber (verify capacity) ☐ 4' with shock absorber (verify capacity) ☐ 6' Y with shock absorber (verify capacity) ☐ 6' with NO shock absorber (verify capacity) for use on aerial lifts ☐ 4' with NO shock absorber (verify capacity) for use on aerial lifts ☐ Other:	Additional equipment ☐ Rope Grab ☐ Rope ☐ Self-retracting lifeline – ☐ SRL ☐ SRL-R (integral rescue capability) ☐ SRL-LE (leading edge capability) ☐ Tripod ☐ Retrieval winch ☐ Anchorage connector ☐ Beam anchor ☐ Vertical or horizontal lifeline ☐ Carabiner ☐ Suspension trauma straps
Flotation device	☐	☐ Lifejacket ☐ Floater Jacket ☐ PFD - Type:	☐ PFD inflatable ☐ Survival Suit
Other	☐		

EMERGENCY RESOURCES (NOTE: This plan is not adequate for <u>working at heights</u> or <u>confined space</u> activities. A separate plan is required, please contact your Regional HSSE Manager or Advisor) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> Site emergency number: 911 Ambulance: (661) 391-7000 Police: (661) 758-7266 </td> <td style="width: 50%; vertical-align: top;"> Fire Department: (661) 391-7000 Spill Response: (661) 391-7000 Regional HR: US West - Cheri Stolz - (949) 923-6018 </td> </tr> </table> Workers' Compensation Claim Coordinator: US - Melissa Helton - cell 513-720-3706 OSEC: Gabby Alvarado (661) 396-3770 Public Relations: US West – Ryan Lamont – (213) 955-9775 HSSE Manager: US West – Tony Wong (805) 234-6227 First aid facilities are located: In Stantec work vehicle First aiders on site: All Stantec personnel trained in first aid/CPR Fire extinguisher are located: In Stantec work vehicle; confirm for rental vehicles SDS are located: Not applicable Eyewash station is located: In Stantec work vehicle; confirm for rental vehicle or keep in personnel PPE bag Spill response equipment is located: In Stantec work vehicle Muster point is located Location specific; determined by field staff at beginning of shift Incident reporting protocol based on work location (Select USA and / or Canada and / or International) Incident Reporting Protocol US IMMEDIATE ACTIONS 1. Keeping safety in mind, care for injured people (if applicable) and stabilize the scene. 2. For life threatening injuries, immediately contact 911. Accompany the injured employee to the medical facility whenever possible. 3. Call WorkCare (24-hour service): 1-888-449-7787 for work-related symptoms or injuries and speak to a medical professional for guidance and treatment options. 4. Make voice contact with your supervisor within 1 hour or less of the incident occurring. Leaving a voicemail does not count. If you cannot contact your supervisor, contact the HSSE Manager or HSSE Advisor for your region. 5. Supervisors must immediately contact their HSSE Manager or HSSE Advisor by phone to discuss incident severity and determine if further notifications (internal or external) are required. 6. When an employee is guided by WorkCare to obtain medical assistance, or the employee requests medical attention for a non-life-threatening injury, and after alerting the supervisor; the employee must immediately call Melissa Helton, Stantec's US WC Claims Coordinator at 513-720-3706 for assistance. 7. In most cases WorkCare will provide guidance about which clinic is available and provide directions. Here is a link accessing additional clinic locations: Clinic Search link. 8. Additional notifications may be required based on the client requirements Maps are provided to the nearest medical clinic or hospital			Site emergency number: 911 Ambulance: (661) 391-7000 Police: (661) 758-7266	Fire Department: (661) 391-7000 Spill Response: (661) 391-7000 Regional HR: US West - Cheri Stolz - (949) 923-6018
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PROJECT CONTACT INFORMATION

Title	Name	Company	Phone Number
Stantec Office	Colton Parrish	Stantec	(661) 440-5058
Project Manager	Robert Prohaska	Stantec	(858) 337-8662
Project Site Safety	Van Vathanasin	Stantec	(626) 241-7195
Client or Owner	Jean Settle	CRB	(661) 438-3440
Stantec After-Hours Number	Robert Prohaska	Stantec	(858) 387-5161
Other: Deputy PM	Logan Elms	Stantec	(661) 754-0385
Other: Deputy ECM	Jordon Wolf	CRB	661-384-2251

Approvals

By signing this approval, the Project Manager is acknowledging that (s)he has communicated the hazards, controls, required PPE and applicable SWPs to the employees working on this project. It also indicates that the Project Manager has communicated to employees that they must have the equipment required to work safely, they must verify the equipment is in working order, and that they have the knowledge required to operate/use the equipment.

Prepared by:	Van Vathanasin	Signature	4/2/2021
	Print Name		Date
Reviewed by: (not author)	Van Vathanasin	Signature	4/2/2021
	Print Name		Date
Approved by PM:	Robert Prohaska	Signature	4/5/2021
	Print Name		Date

Employee Review

All employees conducting field work on this project will review the Risk Management Strategy (RMS1) and sign below acknowledging that they have been advised of the hazards, controls, PPE, and other safety equipment required, and have reviewed the applicable SWPs. Employees in the field who identify additional hazards not listed above will notify the project manager of the hazard, and prior to proceeding, will confirm the controls that will be used. Document any on-site changes and communications using the RMS2 as appropriate; see section 4.4 of the HSSE Program Manual on Management of Change.

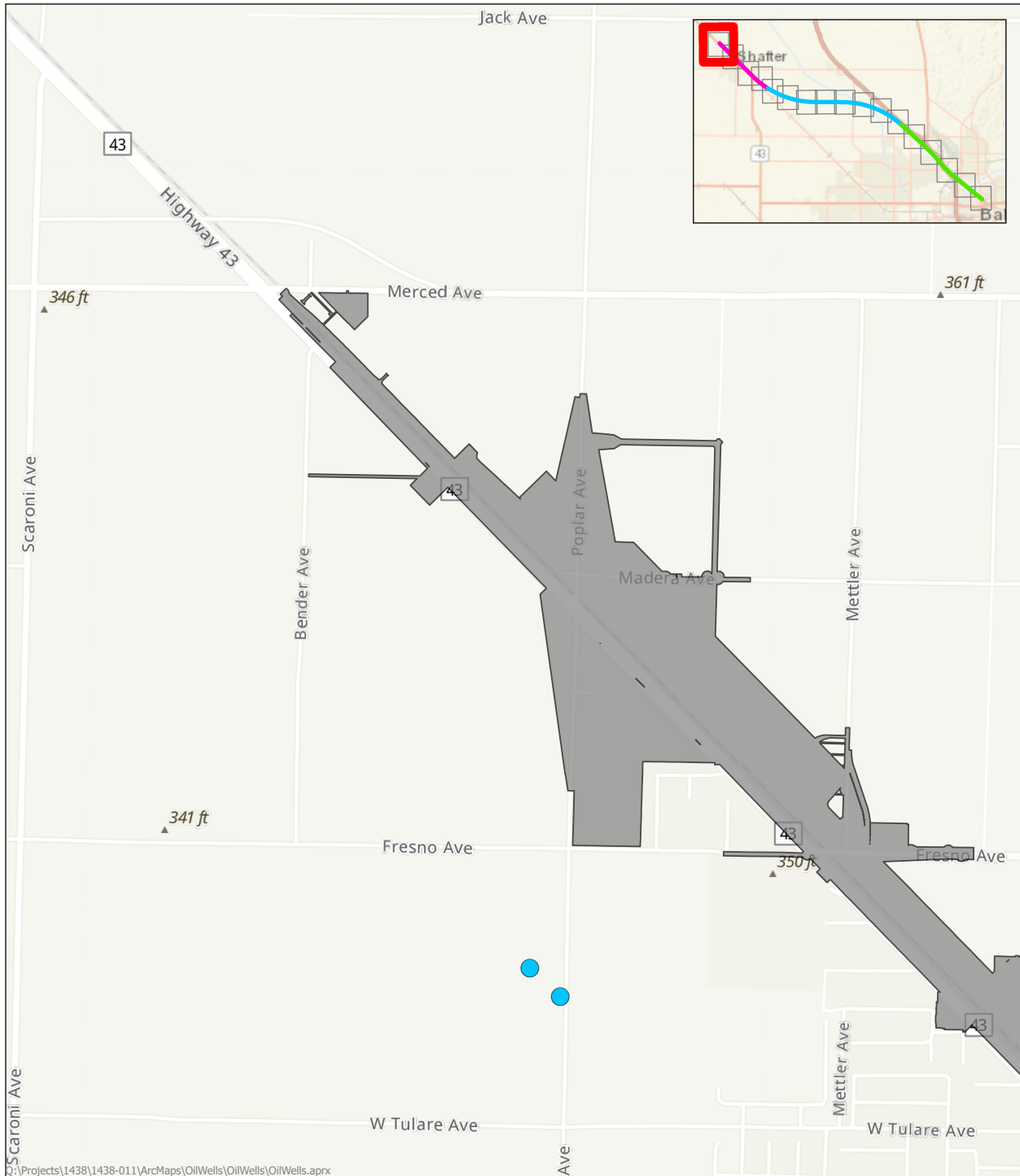
Please designate Team Lead for field activities below.

Reviewed by:

_____ Print Name (Team Lead Field)	_____ Signature	_____ Date
_____ Print Name	_____ Signature	_____ Date
_____ Print Name	_____ Signature	_____ Date
_____ Print Name	_____ Signature	_____ Date
_____ Print Name	_____ Signature	_____ Date

APPENDIX D

Oil and Gas Well Locations

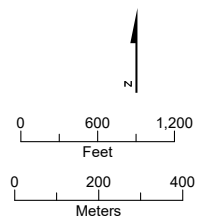


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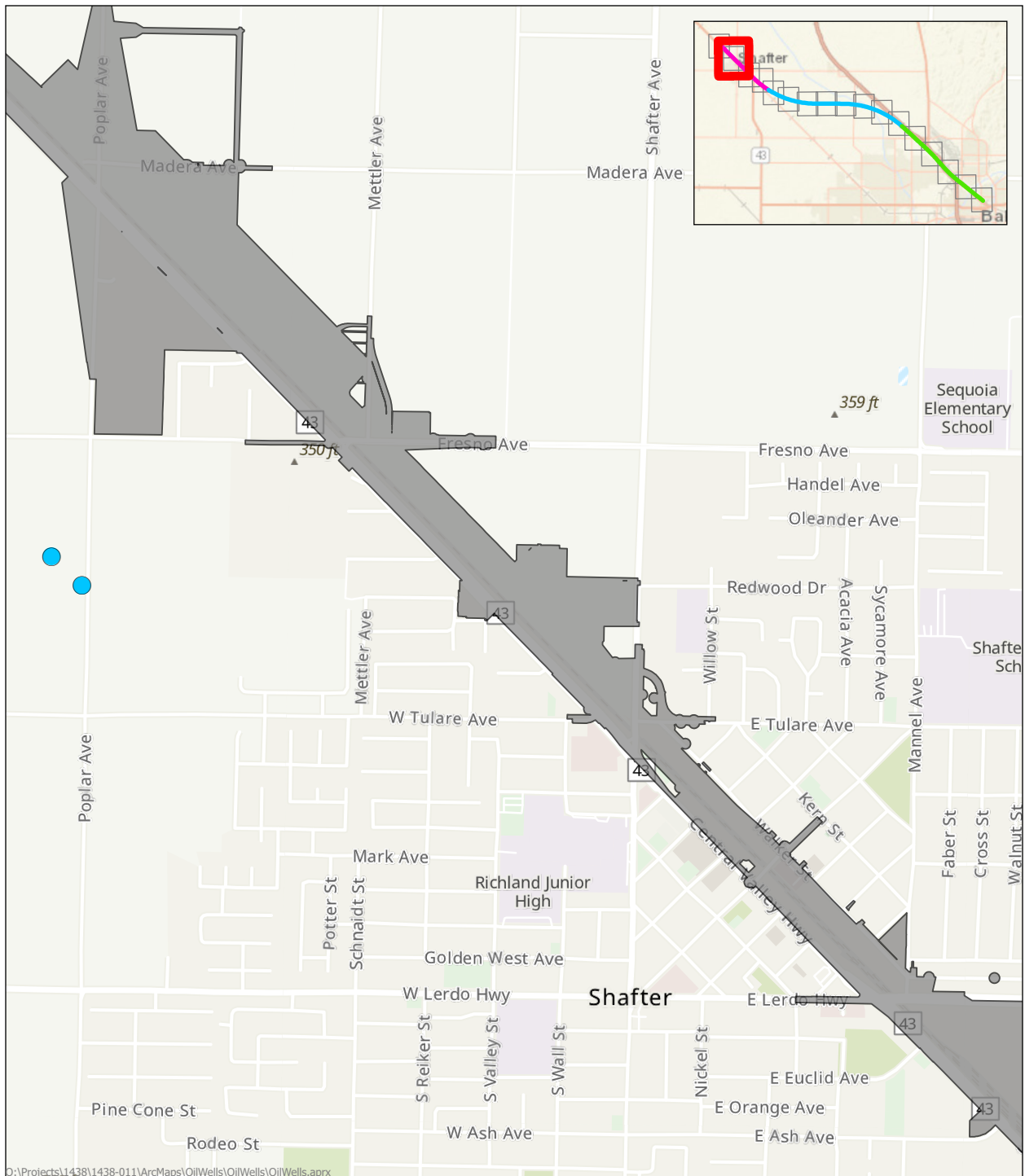
PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Oil and Gas Wells Data, Earth Mechanics, Inc., Hayward, CA, September 1, 2023.

April 16, 2025



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- Oil and Gas Wells within 5000ft Buffer
- Current EIR/EIS Footprint

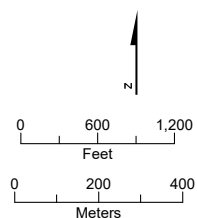


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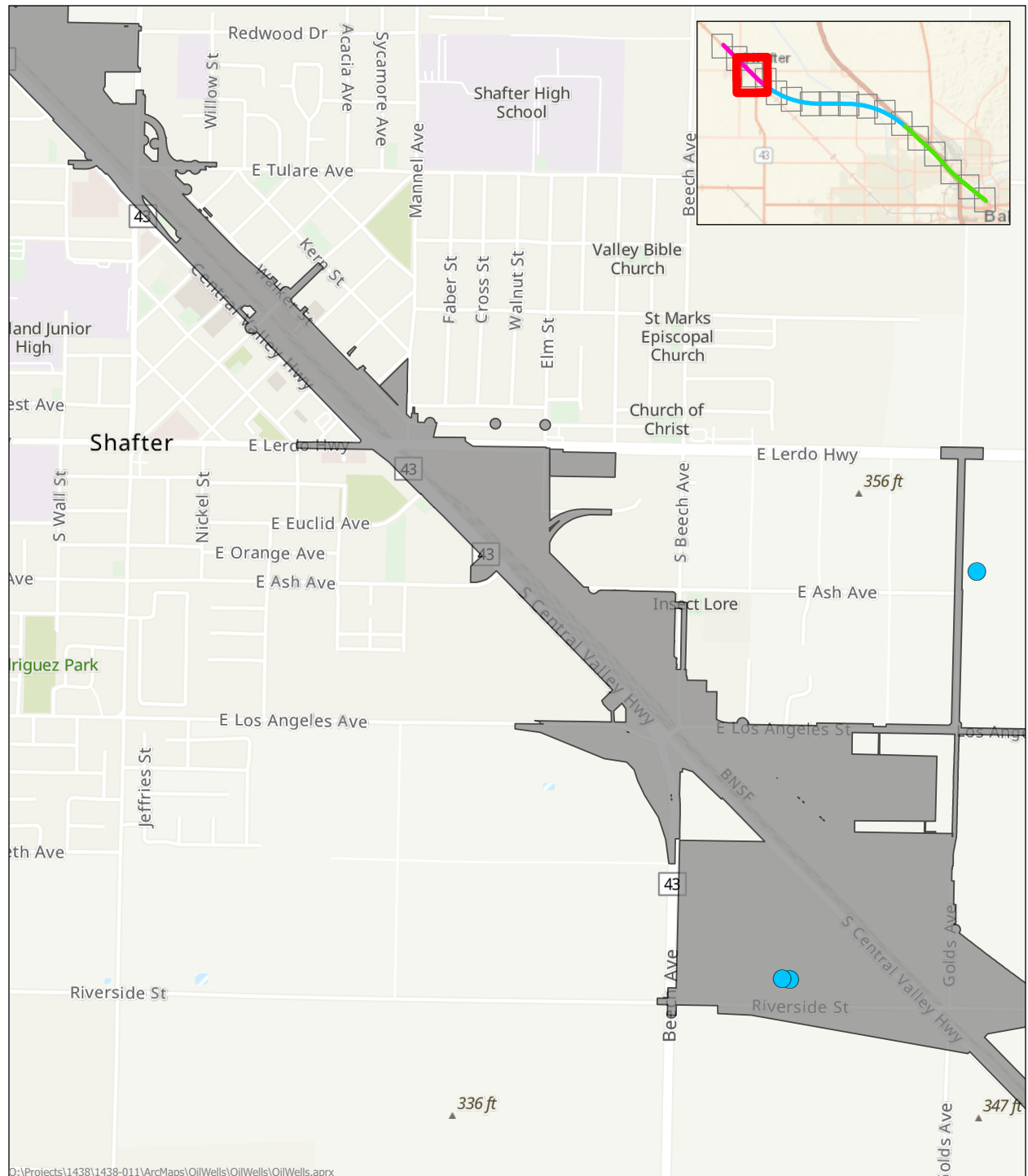
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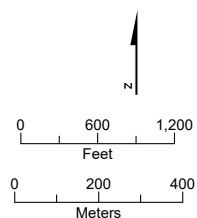


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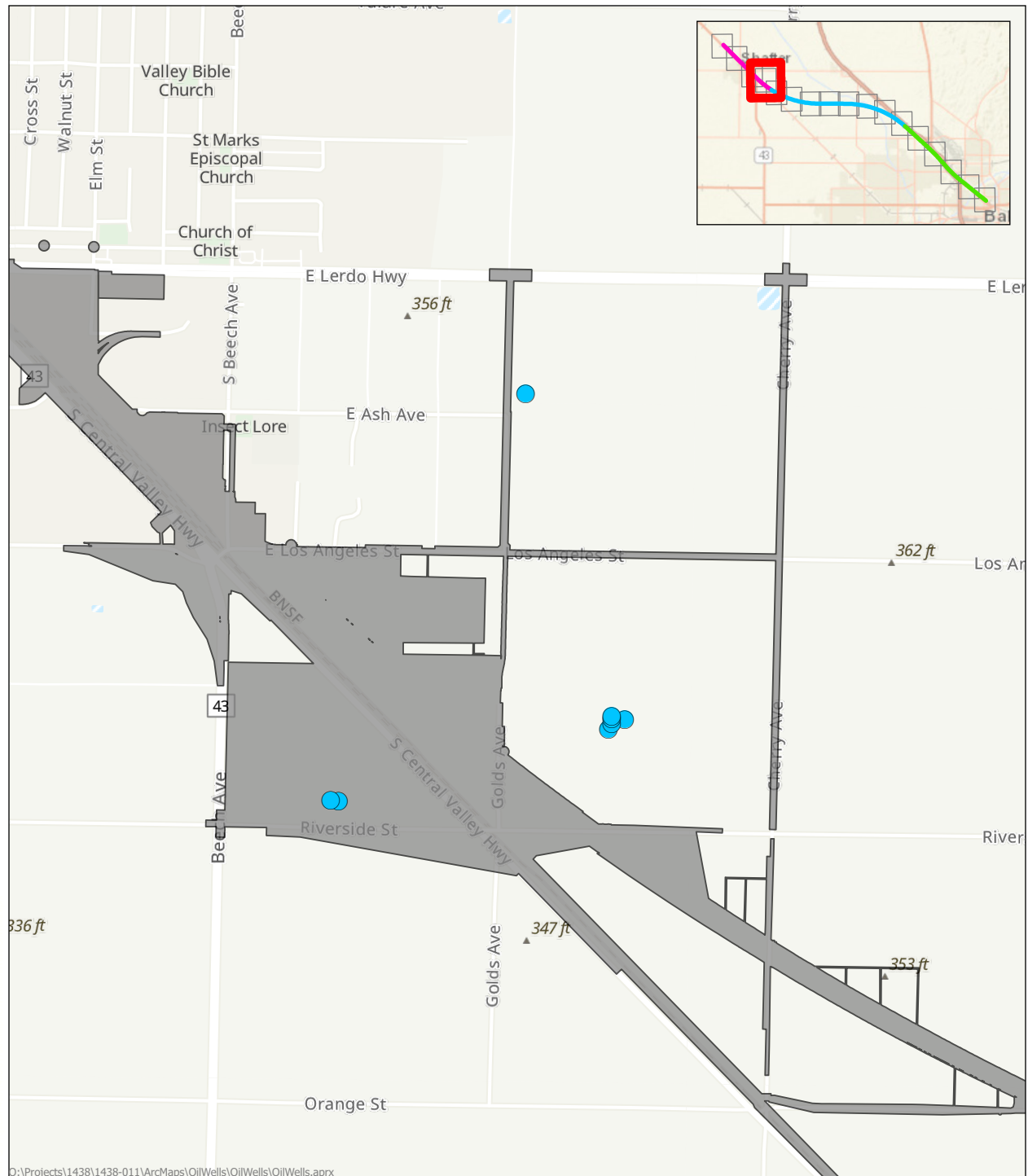
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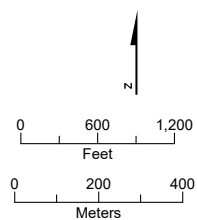


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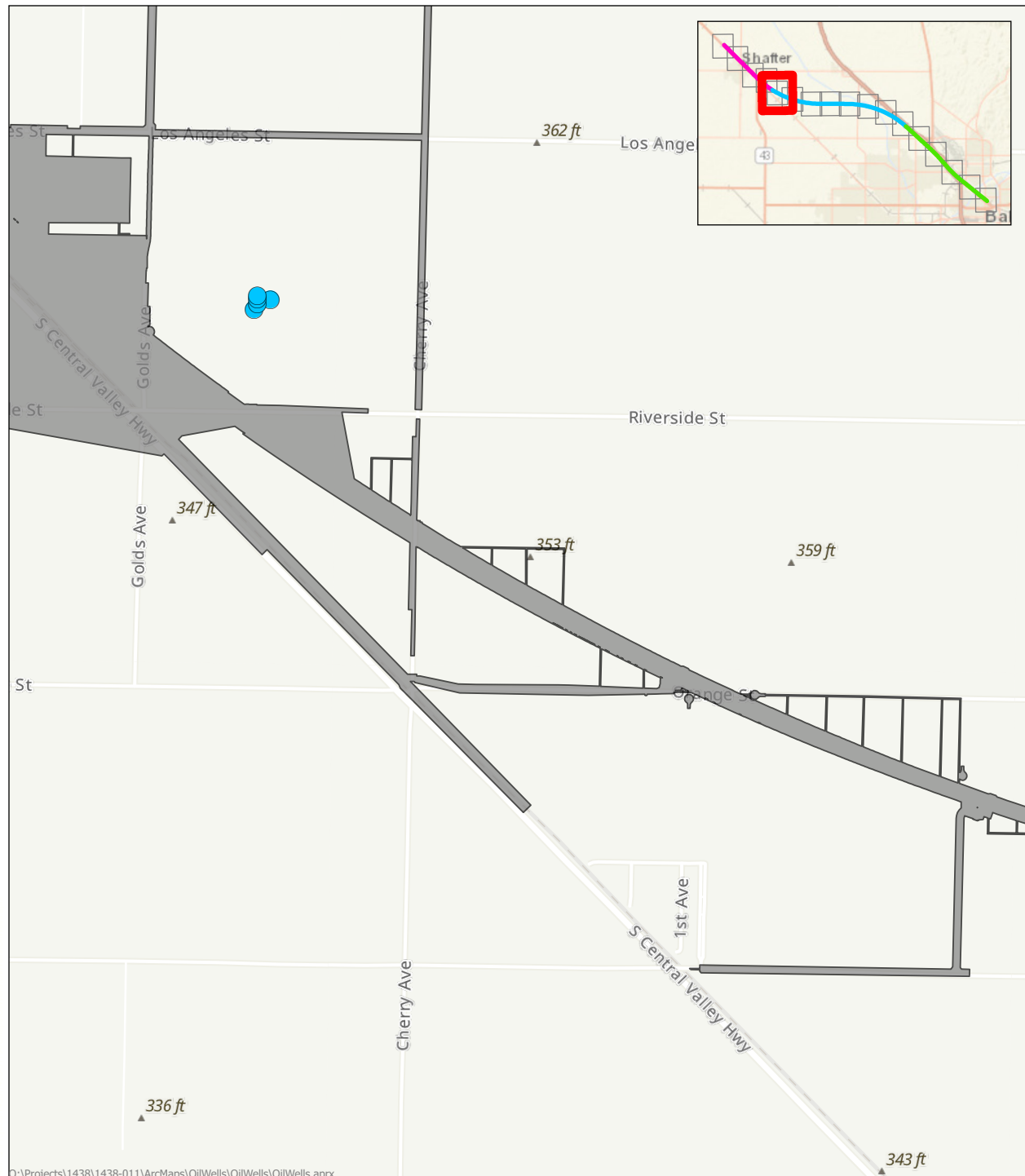
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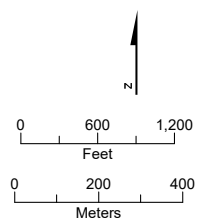


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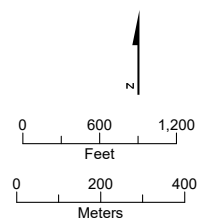


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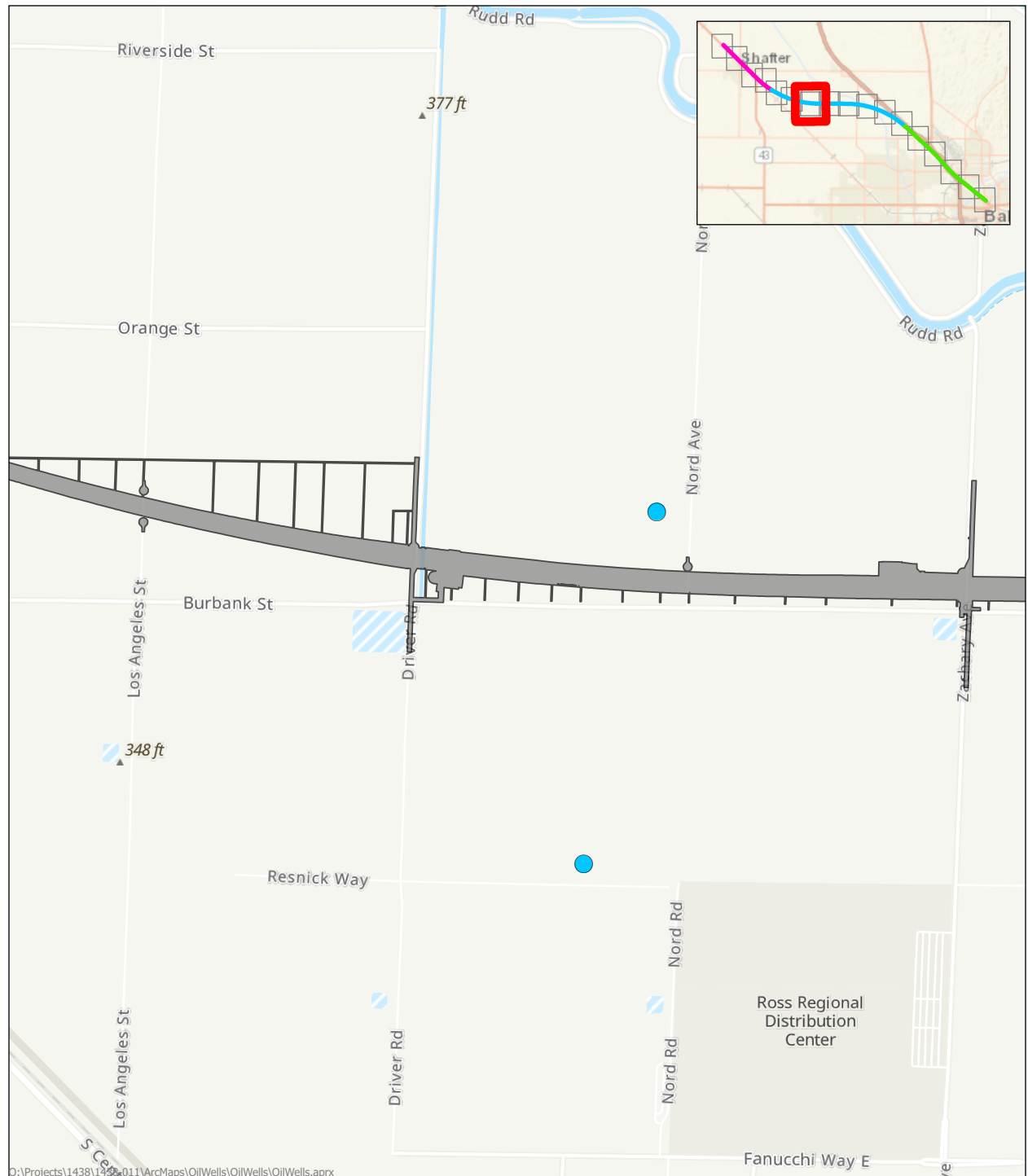
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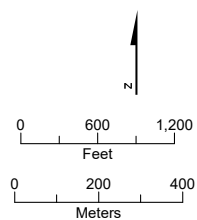
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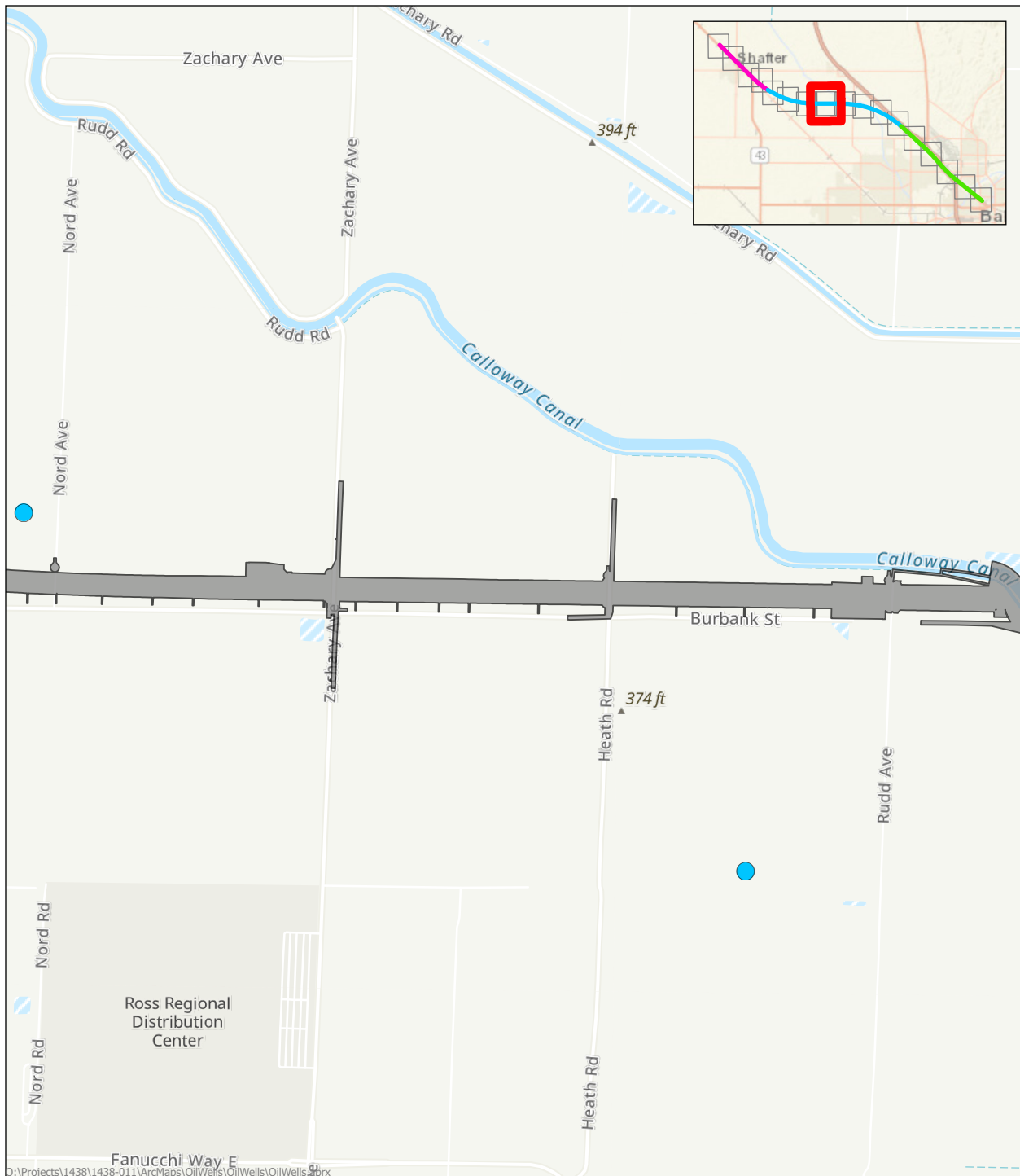
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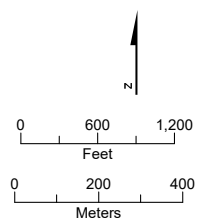


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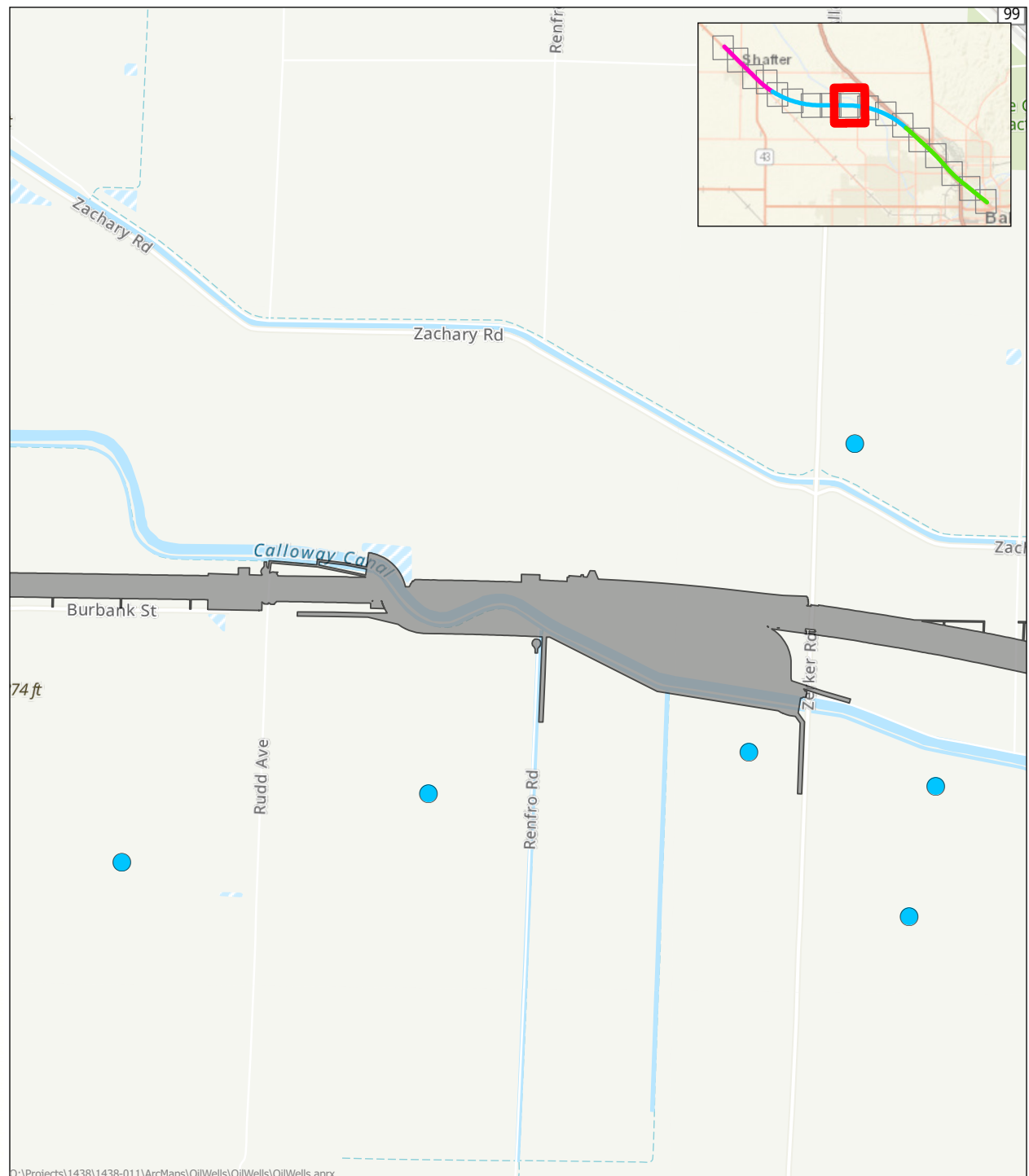
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Appendix D-8 Oil and Gas Well Locations

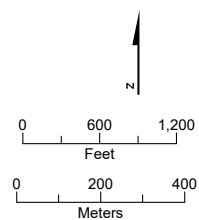


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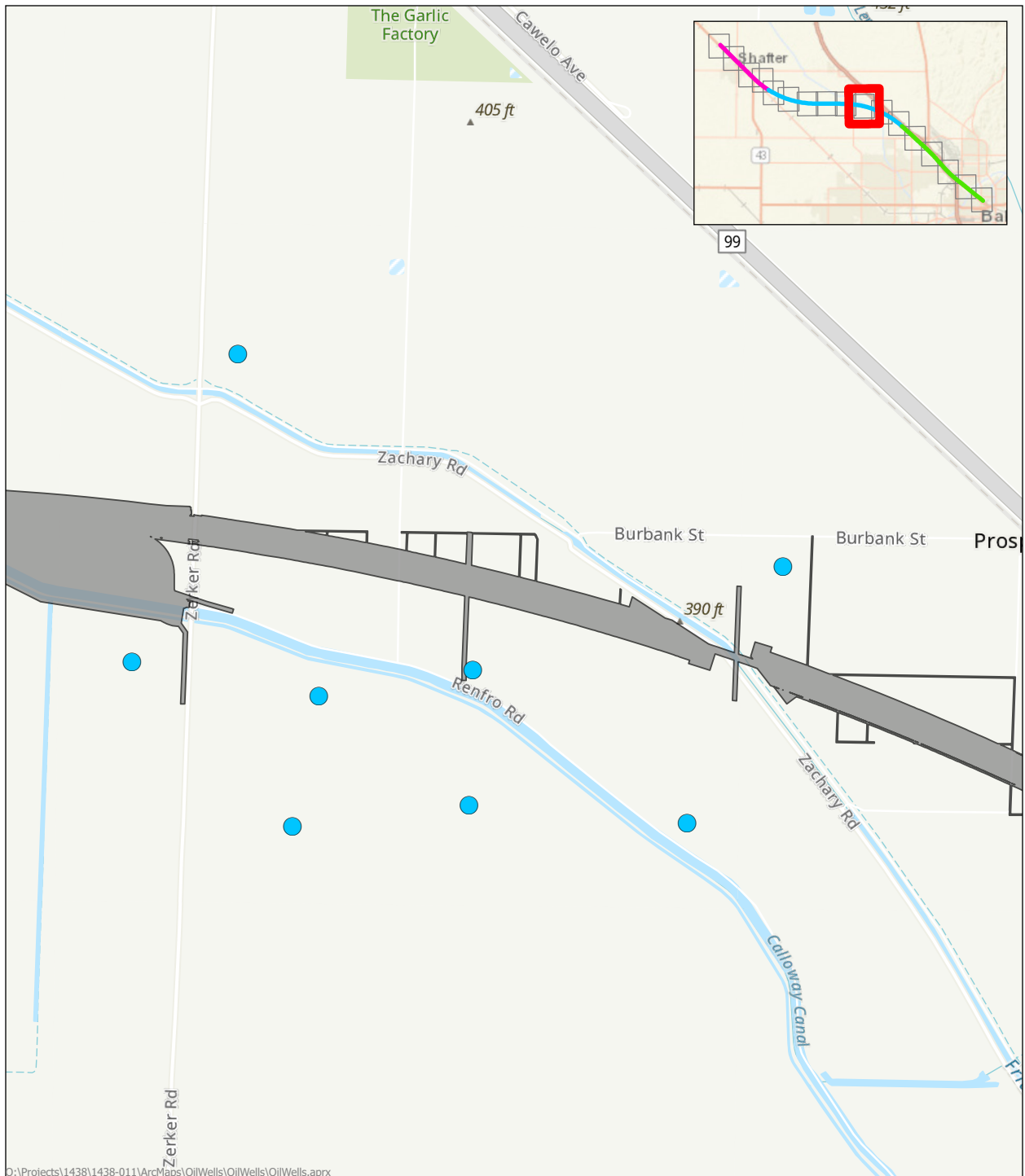
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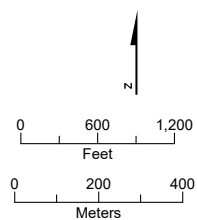


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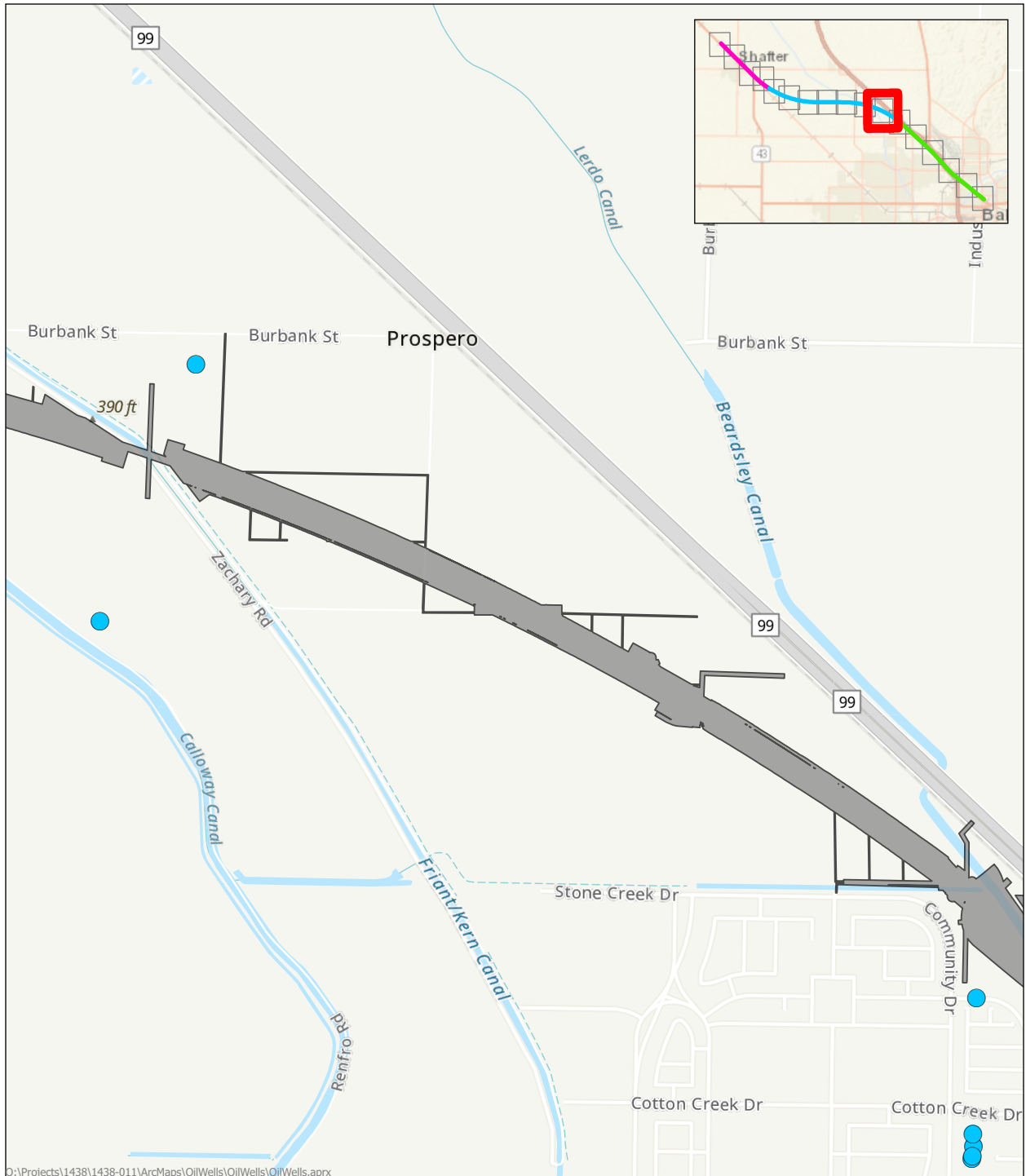
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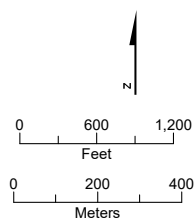


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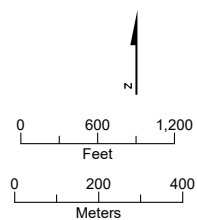


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PRELIMINARY DRAFT/SUBJECT TO CHANGE

Source: Oil and Gas Wells Data, Earth Mechanics, Inc., Hayward, CA, September 1, 2023.

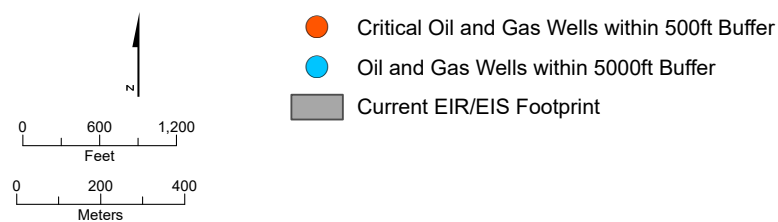
April 16, 2025

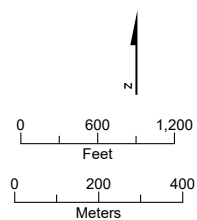
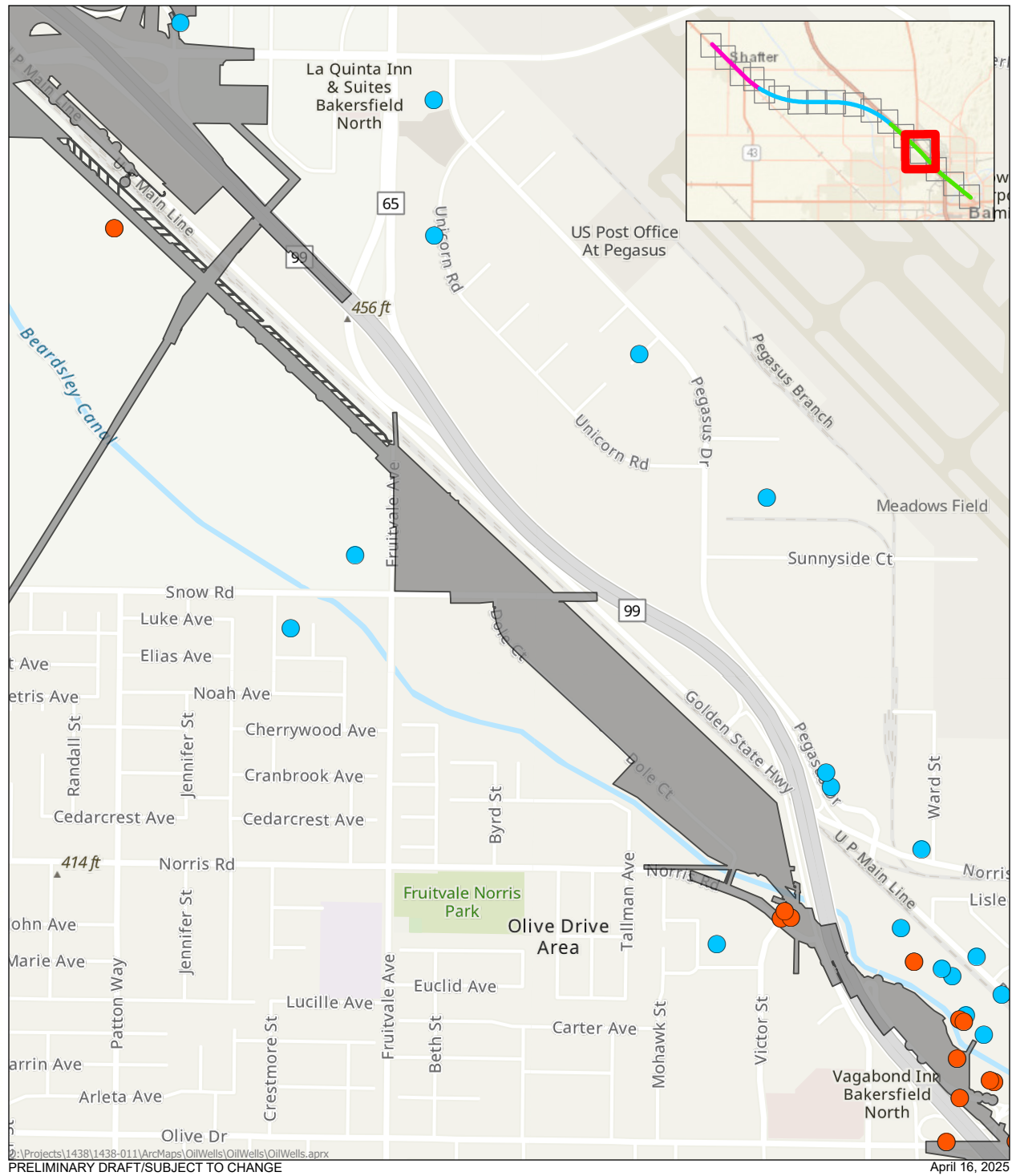


- Critical Oil and Gas Wells within 500ft Buffer
- Oil and Gas Wells within 5000ft Buffer
- Current EIR/EIS Footprint

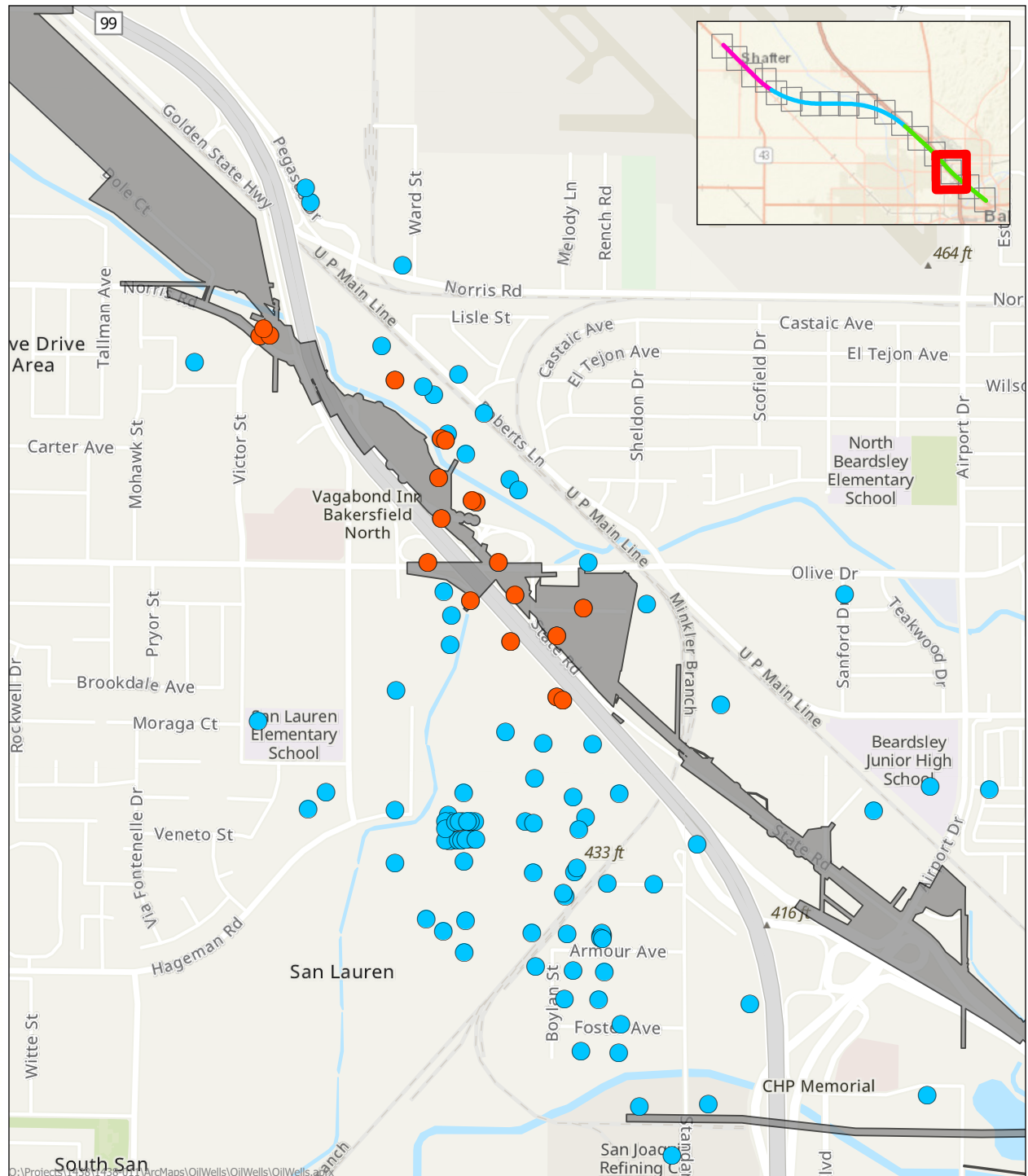


April 16, 2025



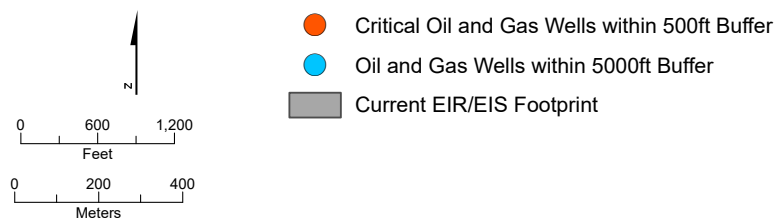


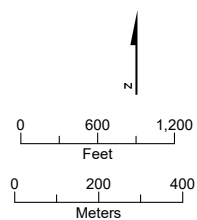
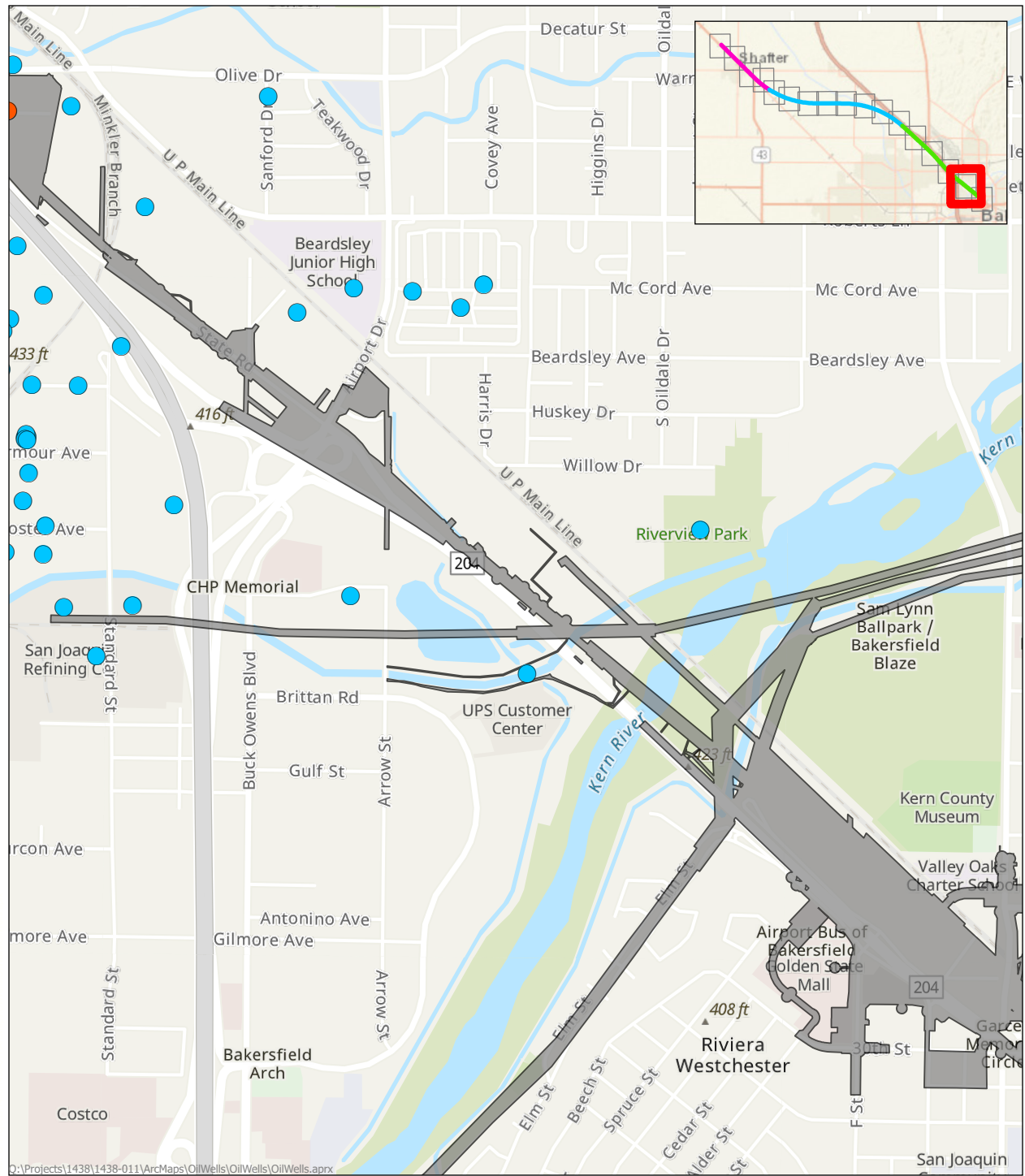
- Critical Oil and Gas Wells within 500ft Buffer
- Oil and Gas Wells within 5000ft Buffer
- Current EIR/EIS Footprint



PRELIMINARY DRAFT/SUBJECT TO CHANGE
Source: Oil and Gas Wells Data, Earth Mechanics, Inc., Hayward, CA, September 1, 2023.

April 16, 2025



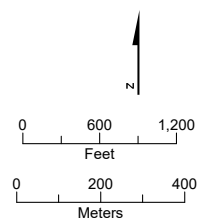


- Critical Oil and Gas Wells within 500ft Buffer
- Oil and Gas Wells within 5000ft Buffer
- Current EIR/EIS Footprint



PRELIMINARY DRAFT/SUBJECT TO CHANGE
Source: Oil and Gas Wells Data, Earth Mechanics, Inc., Hayward, CA, September 1, 2023.

April 16, 2025



- Critical Oil and Gas Wells within 500ft Buffer
- Oil and Gas Wells within 5000ft Buffer
- Current EIR/EIS Footprint

APPENDIX E

Checklist for Hazardous Materials Notification

BUILDING PRE-DEMOLITION & HAZARDOUS MATERIALS INSPECTION CHECKLIST

GENERAL SITE INFORMATION

Address _____ Completed by _____ Date _____

Building Type _____ Residential _____ Commercial _____ Industrial _____

Occupied _____ Abandoned _____ Approximate footprint dimensions of building _____

No. of levels _____ Basement _____

****Review Industrial Hygiene survey prior to entering abandoned buildings**** _____

Recycling/household products, industrial and household or janitorial chemicals and paints requiring special handling (list) _____

Answer Yes or No to the following questions and provide details as needed, and locate features on sketch:

On-Site septic system? _____ Grease trap? _____ Private well? _____ Other (list) _____

Sumps _____ Floor drains _____

Certified Inspector has Inspected building for asbestos-containing material (ACM)? _____ Lead-based paint (LBP)? _____

ACM Present? _____ Types and estimated quantity _____

Chipping / flaking LBP requiring abatement? _____ Estimated quantity _____

Completed San Joaquin Valley Air Pollution Control District (APCD) Asbestos Notification application? _____ (Provide copy with evidence it has been returned to Southern Region Office).

Environmental Survey needed _____ (must be conducted by qualified environmental professional or hazmat specialist)

Tank and piping systems present (#)? _____ AST _____ UST _____ Other (list) contents if known (show location on sketch) _____

Dispenser pumps present? _____ (show location on sketch) Vent pipes present? _____ (show location on sketch)

Chemicals present? _____ List chemical name and quantity _____

Unknown chemicals present? _____ List quantity _____

Sumps / floor trenches / drains present (show location on sketch) _____ List _____

Parts washer present? (show location on sketch) _____

Hydraulic lifts present (show location on sketch) _____ How many are in-ground? _____

Compressed gasses? _____ Describe _____

Utilities:

Overhead lines? _____ (show location on sketch)

Manholes/catch basins? _____ (show location on sketch)

Outfalls? _____ (show location on sketch)

Transformers? _____ Pad-mounted _____ Crib-mounted _____ Pole-mounted _____

Utilities need relocating? _____ List _____

No. of Drums _____ (show location on sketch) List markings and chemical name from label _____

Approximate volume of contents (gals) _____

Debris piles _____ estimated volume _____ (show location on sketch)

Estimate the approximate area of paving (square footage) _____

Oil or gas-filled equipment left behind? _____ Describe _____

Note site-specific limitations to heavy equipment _____

NOTES / COMMENTS

DEMOLITION PERMITTING

Complete appropriate building demolition permit and submit with APCD Demolition Permit Release as follows:

In Kern County (see below if in City of Shafter): Permit Application Building Project Identification Sheet and a Site Plan. Fee is \$36.50 per

Application/Building. \$11 for each additional building on the lot.

In Shafter: Permit Application form. Need to show that utilities are relocated, and accessories such as septic systems, grease traps, etc. are addressed. Building Department to verify. Fees are Demo Permit review \$34, Planning Review \$50, Utilities review \$200. Possible engineering review fee if sumps are to be capped.

In Bakersfield: administered by Kern County, depending on address will fall into City of Bakersfield Building Department or Kern County Building Inspection Department. Use links below to make this determination.

****Review Construction Waste Management and Sustainability Management Plans for recycle / reuse / disposal options**** _____

San Joaquin Valley Unified Air
Pollution Control District
Southern Region Office
34946 Flyover Court
Bakersfield, CA 93308-9725
Phone (661) 392-5553

www.valleyair.org

Contact: Rodriguez Ubaldo
Ubaldo.rodriguez@valleyair.org

City of Bakersfield
Building Department
1715 Chester Ave,
Bakersfield, CA 93301
Phone: (661)-326-3720

<https://bakeweb.ci.bakersfield.ca.us/Click2GovBP/index.htm#Click2GovBP/index.html>

c2gsupport@hteinc.com

Kern County Building
Inspection Department
Public Services Building
2700 "M" Street, Suite 150
Bakersfield, CA 93301-2370
Phone: (661) 862-8650

<http://esps.kerndsa.com/building-inspection>

Contact: Greg Fenton
bid@co.kern.ca.us

City of Fresno Planning and
Development
2600 Fresno St. Room 3065
Fresno, CA 93721
Phone: (559)-621-8084

<https://www.fresno.gov/darm/building-safety/>

Contact: Charles Clark
Charles.Clark@fresno.gov

City of Shafter Building
Department
City Hall
336 Pacific Avenue
Shafter, CA 93263
Phone: (661) 746-5002

www.shafter.com/54/Building-Permits

Contact: Dennis Fidler
dfidler@shafter.com

CALIFORNIA HIGH SPEED RAIL F-B LGA - BUILDING DEMO RECYCLING CHECKLIST

ADDRESS:	
PARCEL #:	
CONTRACTOR:	
DATE:	

RECYCLING MATERIALS

		GENERAL DEBRIS / TRASH	CONCRETE	ASPHALT	METAL	UNPAINTED WOOD	GLASS	CARDBOARD	PLASTIC
Loads	EA								
Volume	CY								
Weight	Ton								

UNIVERSAL WASTE

	Quantity (EA)
Fluorescent Light Tubes/Lamps	
Electronic devices	
Batteries	
Electric lamps	
Mercury-containing equipment	
CRTs (Tvs, Computers...)	
Non-empty aerosol cans	

Quantity (EA)

Household Pesticides	

COMMENTS / NOTES

--

APPENDIX F

Example Hazardous Waste Profiles



WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH2203158

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # **PENDING** GENERATOR NAME: **Sapphos Environmental, Inc.**
GENERATOR CODE (Assigned by Clean Harbors) **SA43849** CITY **Pasadena** STATE/PROVINCE **CA** ZIP/POSTAL CODE **91107**
ADDRESS **430 N Halstead St** PHONE: **(626) 683-3547**
CUSTOMER CODE (Assigned by Clean Harbors) **SA43849** CUSTOMER NAME: **Sapphos Environmental, Inc.**
ADDRESS **430 N Halstead St** CITY **Pasadena** STATE/PROVINCE **CA** ZIP/POSTAL CODE **91107**

B. WASTE DESCRIPTION

WASTE DESCRIPTION: **Empty Containers, last contained flammable liquids**

PROCESS GENERATING WASTE: **Containers emptied of flammable liquids**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE ☒ SOLID WITHOUT FREE LIQUID POWDER MONOLITHIC SOLID LIQUID WITH NO SOLIDS LIQUID/SOLID MIXTURE % FREE LIQUID % SETTLED SOLID % TOTAL SUSPENDED SOLID SLUDGE GAS/AEROSOL	NUMBER OF PHASES/LAYERS 1 2 3 TOP 0.00 % BY VOLUME (Approx.) MIDDLE 0.00 BOTTOM 0.00 ODOR ☒ NONE MILD STRONG Describe: BOILING POINT °F (°C) <= 95 (<=35) 95 - 100 (35-38) 101 - 129 (38-54) >= 130 (>54)	VISCOSITY (If liquid present) 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses) > 10,000 MELTING POINT °F (°C) < 140 (<60) 140-200 (60-93) ☒ > 200 (>93)	COLOR VARIOUS TOTAL ORGANIC CARBON <= 1% ☒ 1-9% ≥ 10%	
FLASH POINT °F (°C) < 73 (<23) 73 - 100 (23-38) 101 -140 (38-60) 141 -200 (60-93) > 200 (>93)	pH <= 2 2.1 - 6.9 ☒ 7 (Neutral) 7.1 - 12.4 ≥ 12.5	SPECIFIC GRAVITY < 0.8 (e.g. Gasoline) 0.8-1.0 (e.g. Ethanol) 1.0 (e.g. Water) ☒ 1.0-1.2 (e.g. Antifreeze) > 1.2 (e.g. Methylene Chloride)	ASH < 0.1 ☒ > 20 0.1 - 1.0 Unknown 1.1 - 5.0 5.1 - 20.0	BTU/LB (MJ/kg) < 2,000 (<4.6) ☒ 2,000-5,000 (4.6-11.6) 5,000-10,000 (11.6-23.2) > 10,000 (>23.2) Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
RCRA EMPTY DRUMS	100.0000000	--	100.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES ☒ NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES ☒ NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES ☒ NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. **G09** SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. **W307**

E. CONSTITUENTS

Are these values based on testing or knowledge? ☒ Knowledge ☐ Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

The contents of the empty containers are labeled

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☒
D005	BARIUM	100.0				☒
D006	CADMIUM	1.0				☒
D007	CHROMIUM	5.0				☒
D008	LEAD	5.0				☒
D009	MERCURY	0.2				☒
D010	SELENIUM	1.0				☒
D011	SILVER	5.0				☒
VOLATILE COMPOUNDS						
D018	BENZENE	0.5				☒
D019	CARBON TETRACHLORIDE	0.5				☒
D021	CHLOROBENZENE	100.0				☒
D022	CHLOROFORM	6.0				☒
D028	1,2-DICHLOROETHANE	0.5				☒
D029	1,1-DICHLOROETHYLENE	0.7				☒
D035	METHYL ETHYL KETONE	200.0				☒
D039	TETRACHLOROETHYLENE	0.7				☒
D040	TRICHLOROETHYLENE	0.5				☒
D043	VINYL CHLORIDE	0.2				☒
SEMI-VOLATILE COMPOUNDS						
D023	o-CRESOL	200.0				☒
D024	m-CRESOL	200.0				☒
D025	p-CRESOL	200.0				☒
D026	CRESOL (TOTAL)	200.0				☒
D027	1,4-DICHLOROBENZENE	7.5				☒
D030	2,4-DINITROTOLUENE	0.13				☒
D032	HEXACHLOROBENZENE	0.13				☒
D033	HEXACHLOROBUTADIENE	0.5				☒
D034	HEXACHLOROETHANE	3.0				☒
D036	NITROBENZENE	2.0				☒
D037	PENTACHLOROPHENOL	100.0				☒
D038	PYRIDINE	5.0				☒
D041	2,4,5-TRICHLOROPHENOL	400.0				☒
D042	2,4,6-TRICHLOROPHENOL	2.0				☒
PESTICIDES AND HERBICIDES						
D012	ENDRIN	0.02				☒
D013	LINDANE	0.4				☒
D014	METHOXYCHLOR	10.0				☒
D015	TOXAPHENE	0.5				☒
D016	2,4-D	10.0				☒
D017	2,4,5-TP (SILVEX)	1.0				☒
D020	CHLORDANE	0.03				☒
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				☒

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☒
CHLORINE			☒
FLUORINE			☒
IODINE			☒
SULFUR			☒
POTASSIUM			☒
SODIUM			☒
AMMONIA			☒
CYANIDE AMENABLE			☒
CYANIDE REACTIVE			☒
CYANIDE TOTAL			☒
SULFIDE REACTIVE			☒

HOCs	PCBs
☒ NONE	☒ NONE
< 1000 PPM	< 50 PPM
>= 1000 PPM	>= 50 PPM
IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?	
YES ☒ NO ☐	

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☒ NO ☐ (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES EXPLOSIVE FUMING OSHA REGULATED CARCINOGENS
 POLYMERIZABLE RADIOACTIVE REACTIVE MATERIAL ☒ NONE OF THE ABOVE



F. REGULATORY STATUS

YES ☒ NO USEPA HAZARDOUS WASTE?

☒ YES NO DO ANY STATE WASTE CODES APPLY?
512 513 MA99
Texas Waste Code

YES ☒ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☒ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?
LDR CATEGORY: Not subject to LDR
VARIANCE INFO:

YES ☒ NO IS THIS A UNIVERSAL WASTE?

YES ☒ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS A VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☒ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☒ NO IS THIS WASTE STREAM "USED OIL" WHICH IS TO BE MANAGED UNDER 40 CFR PART 279 - STANDARDS FOR THE MANAGEMENT OF USED OIL?

YES ☒ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☒ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 76.6 KPA (11.1 PSIA)?

YES ☒ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☒ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?
Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?
YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?
YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?
What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)
The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing
Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON DOT REGULATED MATERIAL

NON-RCRA HAZARDOUS WASTE, SOLIDS, (EMPTY DRUMS)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☒ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER Other☒ CONTAINERIZED

4-8 CONTAINERS/SHIPMENT

STORAGE CAPACITY:

CONTAINER TYPE:

PORTABLE TOTE TANK

BOX|CARTON|CASE

CUBIC YARD BOX

☒ DRUM

OTHER:

DRUM SIZE: 55

BULK LIQUID

GALLONS/SHIPMENT: 0 Min -0 Max

GAL.

BULK SOLID

SHIPMENT UOM:

TON

YARD

TONS/YARDS/SHIPMENT: 0 Min - 0 Max

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE

NAME (PRINT)

TITLE

DATE

MARIE L. CAMPBELL

ENV. COMPLIANCE MGR

7/8/2021

EVV 6/8/21

Addendum

D. COMPOSITION

F. REGULATORY STATUS

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

RESIDUE LAST CONTAINED UN1263, PAINT RELATED MATERIAL, 3, PG II

RESIDUE LAST CONTAINED: UN1263, PAINT, 3, PG II

RESIDUE: LAST CONTAINED UN1268, PETROLEUM DISTILLATES, N.O.S., (.), 3, PG III

RESIDUE LAST CONTAINED UN1479, OXIDIZING SOLID, N.O.S., (.), 5.1, PG II

RESIDUE LAST CONTAINED: UN1760, CORROSIVE LIQUIDS, N.O.S., (.), 8, PG III

RESIDUE LAST CONTAINED: UN1993, FLAMMABLE LIQUIDS, N.O.S., (.), 3, PG II

RESIDUE LAST CONTAINED UN2810, TOXIC LIQUIDS, ORGANIC, N.O.S., (.), 6.1, PG III

RESIDUE LAST CONTAINED: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (.), 8, PG III

RESIDUE LAST CONTAINED: UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (.), 8, PG III

APPENDIX G

Hazardous Waste Manifest or Non-Hazardous Waste Manifest Form

Please print or type.

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number		2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number				
						JJK				
5. Generator's Name and Mailing Address				Generator's Site Address (if different than mailing address)						
Generator's Phone:										
6. Transporter 1 Company Name				U.S. EPA ID Number						
7. Transporter 2 Company Name				U.S. EPA ID Number						
8. Designated Facility Name and Site Address				U.S. EPA ID Number						
Facility's Phone:										
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
					No.	Type				
	1.									
	2.									
	3.									
	4.									
14. Special Handling Instructions and Additional Information										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offeror's Printed/Typed Name					Signature			Month	Day	Year
TRANSPORTER	16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
	17. Transporter Acknowledgment of Receipt of Materials									
	Transporter 1 Printed/Typed Name					Signature			Month	Day
Transporter 2 Printed/Typed Name					Signature			Month	Day	Year
DESIGNATED FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection									
	Manifest Reference Number:									
	18b. Alternate Facility (or Generator)					U.S. EPA ID Number				
	Facility's Phone:									
18c. Signature of Alternate Facility (or Generator)								Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1.			2.			3.			4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name					Signature			Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number		
5. Generator's Name and Mailing Address		Generator's Site Address (if different than mailing address)					
Generator's Phone:							
6. Transporter 1 Company Name		U.S. EPA ID Number					
7. Transporter 2 Company Name		U.S. EPA ID Number					
8. Designated Facility Name and Site Address		U.S. EPA ID Number					
Facility's Phone:							
GENERATOR	9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit		
		No.	Type		Wt./Vol.		
	1.						
	2.						
	3.						
	4.						
13. Special Handling Instructions and Additional Information							
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.							
Generator's/Offeror's Printed/Typed Name		Signature			Month	Day Year	
TRANSPORTER	15. International Shipments ☐ Import to U.S. ☐ Export from U.S.		Port of entry/exit: _____				
	Transporter Signature (for exports only):		Date leaving U.S.: _____				
	16. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name	Signature			Month	Day Year	
	Transporter 2 Printed/Typed Name	Signature			Month	Day Year	
DESIGNATED FACILITY	17. Discrepancy						
	17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection						
	Manifest Reference Number: _____						
	17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
	Facility's Phone:						
	17c. Signature of Alternate Facility (or Generator)		Month			Day Year	
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a							
Printed/Typed Name		Signature			Month	Day Year	

STRAIGHT BILL OF LADING – ORIGINAL – NOT NEGOTIABLE

Shipper's No. _____

Carrier _____ SCAC _____ Carrier's No. _____

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations;

at _____, date _____ from _____

the Property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

TO:
Consignee
Street
Destination

Zip

FROM:
Shipper
Street
Origin

Zip

Route

Delivering Carrier

Vehicle
NumberU.S. DOT Hazmat
Reg. NumberNumber and Type
of Packages**HM**

Description of Articles

Total Quantity
(mass, volume,
or activity)Weight
(subject to
correction)Class or
Rate

Remit COD to:

Address:

City: _____ State: _____ Zip: _____

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ _____ Per _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

COD AMT:

\$ _____

TOTAL CHARGES:

\$ _____

COD FEE:Prepaid ☐Collect ☐ \$ _____**FREIGHT CHARGES:**☐ Prepaid☐ Collect

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per _____

SHIPPER: _____

CARRIER: _____

PER: _____ DATE: _____

PER: _____ DATE: _____

**EMERGENCY RESPONSE
TELEPHONE NUMBER:****NAME OR CONTRACT NUMBER
OR OTHER UNIQUE IDENTIFIER:**

Hazardous Waste Manifest Instructions

What are the instructions for completing the manifest form (EPA Form 8700-22)?

Read all instructions before completing the form.

1. Federal regulations require generators and transporters of hazardous waste and owners or operators of receiving facilities designated on the manifest to complete this form (EPA Form 8700–22) and, if necessary, the continuation sheet (EPA Form 8700–22A) for both inter- and intrastate transportation of hazardous waste.
2. This manifest reflects formatting changes made by U.S. EPA in December 2017. Beginning on June 30, 2018, this manifest (Revision 12-17) must be used and all previous editions are prohibited. Go to www.epa.gov/e-manifest for additional information.
3. This form must be purchased from a registered printer (<https://www.epa.gov/hwgenerators/approved-registered-printers-epas-manifest-registry#how>) and has been designed to be filled out using standard computer printers; a firm point pen may also be used—press down hard. After June 30, 2018, this form can also be completed electronically in EPA’s e-Manifest system.

I. Instructions for Generators

Item 1. Generator’s U.S. EPA Identification Number

Enter the generator’s U.S. EPA twelve-digit identification number, or the state generator identification number if the generator site does not have an EPA identification number.

Item 2. Page 1 of ____

Enter the total number of pages used to complete the manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of continuation sheets (EPA Form 8700-22A), if any).

Item 3. Emergency Response Phone Number

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and

3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.

Note: Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (e.g., consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

Item 4. Manifest Tracking Number

This unique tracking number must be pre-printed on the manifest by the forms printer.

Item 5. Generator's Mailing Address, Phone Number and Site Address

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

Item 6. Transporter 1 Company Name, and U.S. EPA ID Number

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

Item 7. Transporter 2 Company Name and U.S. EPA ID Number

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a continuation sheet(s) (EPA Form 8700 -

22A). Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number

Enter the company name and site address of the facility designated to receive the waste listed on the manifest. Also enter the facility's phone number and the U.S. EPA twelve-digit identification number of the facility.

Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)

Item 9a. If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an “X” in this Item next to the corresponding hazardous material identified in Item 9b.

Item 9b. Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division, Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

Note: If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the continuation sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

Item 10. Containers (Number and Type)

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

Table I. Types of Containers

BA = Burlap, cloth, paper, or plastic bags.	DT = Dump truck.
CF = Fiber or plastic boxes, cartons, cases.	DW = Wooden drums, barrels, kegs.
CM = Metal boxes, cartons, cases (including roll-offs).	HG = Hopper or gondola cars.
CW = Wooden boxes, cartons, cases.	TC = Tank cars
CY = Cylinders.	TP = Portable tanks.
DF = Fiberboard or plastic drums, barrels, kegs.	TT = Cargo tanks (tank trucks).
DM = Metal drums, barrels, kegs.	

Item 11. Total Quantity

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and do not enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

Item 12. Units of Measure (Weight/Volume)

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

Table II. Units of Measure

G = Gallons (liquids only)	N = Cubic Meters
K = Kilograms	P = Pounds
L = Liters (liquids only)	T = Tons (2000 Pounds)
M = Metric Tons (1000 Kilograms)	Y = Cubic Yards

Note: Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

Item 13. Waste Codes

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

Item 14. Special Handling Instructions and Additional Information

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

Item 15. Generator's/Offeror's Certifications

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

Note: All of the above information except the handwritten signature required in Item 15 may be pre-printed.

II. Instructions for International Shipment Block

Item 16. International Shipments

For export shipments, the primary exporter must check the export box, and enter the point of exit (city and state) from the United States. For import shipments, the importer must check the import box and enter the point of entry (city and state) into the United States. For exports, the transporter must sign and date the manifest to indicate the day the shipment left the United States. Transporters of hazardous waste shipments must deliver a copy of the manifest to the U.S. Customs when exporting the waste across U.S. borders.

III. Instructions for Transporters

Item 17. Transporters' Acknowledgments of Receipt

Enter the name of the person accepting the waste on behalf of the first transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt. Only one signature per transportation company is required. Signatures are not required to track the movement of wastes in and out of transfer facilities, unless there is a change of custody between transporters.

If applicable, enter the name of the person accepting the waste on behalf of the second transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

Note: Transporters carrying imports, who are acting as importers, may have responsibilities to enter information in the International Shipments Block. Transporters carrying exports may also have responsibilities to enter information in the International Shipments Block. See above instructions for Item 16.

This manifest reflects formatting changes made by U.S. EPA in December 2017. Beginning on June 30, 2018, this manifest (Revision 12-17) must be used and all previous editions are prohibited. Go to www.epa.gov/e-manifest for additional information.

IV. Instructions for Owners and Operators of Receiving Facilities Designated On the Manifest

Item 18. Discrepancy

Item 18a. Discrepancy Indication Space

1. The authorized representative of the designated (or alternate) facility's owner or operator must note in this space any discrepancies between the waste described on the manifest and the waste actually received at the facility. Manifest discrepancies are: significant differences (as defined by §§ 264.72(b) and 265.72(b)) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives, rejected wastes, which may be a full or partial shipment of hazardous waste that the facility cannot accept, or container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 40 CFR 261.7(b).

2. For rejected loads and residues (40 CFR 264.72(d), (e), and (f), or 40 CFR 265.72(d), (e), or (f)), check the appropriate box if the shipment is a rejected load (*i.e.*, rejected by the designated and/or alternate facility and is sent to an alternate facility or returned to the generator) or a regulated residue that cannot be removed from a container. Enter the reason for the rejection or the inability to remove the residue and a description of the waste. Also, reference the manifest tracking number for any additional manifests being used to track the rejected waste or residue shipment on the original manifest. Indicate the original manifest tracking number in Item 14, the Special Handling Block and Additional Information Block of the additional manifests.
3. Owners or operators of facilities located in unauthorized states (*i.e.*, states in which the U.S. EPA administers the hazardous waste management program) who cannot resolve significant differences in quantity or type within 15 days of receiving the waste must submit to their Regional Administrator a letter with a copy of the manifest at issue describing the discrepancy and attempts to reconcile it (40 CFR 264.72(c) and 265.72(c)).
4. Owners or operators of facilities located in authorized states (*i.e.*, those states that have received authorization from the U.S. EPA to administer the hazardous waste management program) should contact their state agency for information on where to report discrepancies involving “significant differences” to state officials.

Item 18b. Alternate Facility (or Generator) for Receipt of Full Load Rejections

Enter the name, address, phone number, and EPA Identification Number of the Alternate Facility which the rejecting facility has designated, after consulting with the generator, to receive a fully rejected waste shipment. In the event that a fully rejected shipment is being returned to the generator, the rejecting facility may enter the generator’s site information in this space. This field is not to be used to forward partially rejected loads or residue waste shipments.

Item 18c. Alternate Facility (or Generator) Signature

The authorized representative of the alternate facility (or the generator in the event of a returned shipment) must sign and date this field of the form to acknowledge receipt of the fully rejected wastes or residues identified by the initial facility.

Item 19. Hazardous Waste Report Management Method Codes

Enter the most appropriate Hazardous Waste Report Management Method code for each waste listed in Item 9. The Hazardous Waste Report Management Method code is to be entered by the first facility that receives the waste and is the code that best describes the way in which the waste is to be managed when received by the facility.

Item 20. Designated Facility Owner or Operator Certification of Receipt (Except As Noted in Item 18a)

Enter the name of the person receiving the waste on behalf of the owner or operator of the facility. That person must acknowledge receipt or rejection of the waste described on the

manifest by signing and entering the date of receipt or rejection where indicated. Since the Facility Certification acknowledges receipt of the waste except as noted in the Discrepancy Space in Item 18a, the certification should be signed for both waste receipt and waste rejection, with the rejection being noted and described in the space provided in Item 18a. Fully rejected wastes may be forwarded or returned using Item 18b after consultation with the generator. Enter the name of the person accepting the waste on behalf of the owner or operator of the alternate facility or the original generator. That person must acknowledge receipt or rejection of the waste described on the manifest by signing and entering the date they received or rejected the waste in Item 18c. Partially rejected wastes and residues must be re-shipped under a new manifest, to be initiated and signed by the rejecting facility as offeror of the shipment.

Note: The e-Manifest Act mandates several changes to the federal manifest program. Beginning on June 30, 2018:

- This manifest (Revision 12-17) must be used and all previous editions are prohibited.
- Any facility (e.g., a RCRA-permitted facility, Subtitle D facility) that receives a manifest accompanying a state-only regulated waste must comply with 40 CFR 264.71 or 265.71 (use of the manifest) and 40 CFR 264.72 or 265.72 (manifest discrepancies).
- Any facility that receives a paper manifest accompanying a federally regulated waste or state-only regulated waste must submit the top copy (Page 1) of the manifest and any continuation sheets to the U.S. EPA's e-Manifest system within 30 days. The copies must be submitted in an acceptable format. Submissions must be made at the mailing address or electronic mail/submission address specified at the e-Manifest program website's directory of services (see www.epa.gov/e-manifest)
- The facility will be assessed a fee for each manifest copy submitted.
- Go to www.epa.gov/e-manifest for the directory of services and additional information.

What are the instructions for completing the continuation sheet (EPA Form 8700 - 22A)? Read all instructions before completing the form.

Federal regulations require generators and transporters of hazardous waste and owners or operators of receiving facilities designated on the manifest to use the uniform hazardous waste manifest (EPA Form 8700-22) and, if necessary, this continuation sheet (EPA Form 8700 -22A) for both interstate and intrastate transportation. This form must be used as a continuation sheet to U.S. EPA Form 8700-22 if:

- More than two transporters are to be used to transport the waste; or
- More space is required for the U.S. DOT descriptions and related information in Item 9 of U.S. EPA Form 8700-22.

This continuation sheet reflects formatting changes made by U.S. EPA in December 2017. Beginning on June 30, 2018, this continuation sheet (Revision 12-17) must be used and all previous editions are prohibited. Go to www.epa.gov/e-manifest for additional information.

This form must be purchased from a registered printer (<https://www.epa.gov/hwgenerators/approved-registered-printers-epas-manifest-registry#how>) and has been designed to be filled out using standard computer printers; a firm point pen may also be used—press down hard. After June 30, 2018, this form can also be completed electronically in EPA’s e-Manifest system.

I. Generators

Item 21. Generator’s ID Number

Enter the generator’s U.S. EPA twelve-digit identification number or, the state generator identification number if the generator site does not have an EPA identification number.

Item 22. Page ____

Enter the page number of the continuation sheet.

Item 23. Manifest Tracking Number

Enter the Manifest Tracking Number from Item 4 of the manifest form to which the continuation sheet is attached.

Item 24. Generator’s Name—

Enter the generator’s name as it appears in Item 5 on the first page of the manifest.

Item 25. Transporter—Company Name

If additional transporters are used to transport the waste described on the manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word “Transporter” the order of the transporter. For example, Transporter 3 Company Name. Also enter the U.S. EPA twelve-digit identification number of the transporter described in Item 25.

Item 26. Transporter—Company Name

If additional transporters are used to transport the waste described on the manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the word “Transporter” the order of the transporter. For example, Transporter 4 Company Name. Each continuation sheet can record the names of two additional transporters. Also enter the U.S. EPA twelve-digit identification number of the transporter named in Item 26.

Item 27. U.S. D.O.T. Description Including Proper Shipping Name, Hazardous Class, and ID Number (UN/NA)

For each row enter a sequential number under Item 27b that corresponds to the order of waste codes from one continuation sheet to the next, to reflect the total number of wastes being shipped. Refer to instructions for Item 9 of the manifest for the information to be entered.

Item 28. Containers (No. And Type)

Refer to the instructions for Item 10 of the manifest for information to be entered.

Item 29. Total Quantity

Refer to the instructions for Item 11 of the manifest form.

Item 30. Units of Measure (Weight/Volume)

Refer to the instructions for Item 12 of the manifest form.

Item 31. Waste Codes

Refer to the instructions for Item 13 of the manifest form.

Item 32. Special Handling Instructions and Additional Information

Refer to the instructions for Item 14 of the manifest form.

II. Transporters

Item 33. Transporter—Acknowledgment of Receipt of Materials

Enter the same number of the Transporter as identified in Item 25. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 25. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

Item 34. Transporter—Acknowledgment of Receipt of Materials

Enter the same number of the Transporter as identified in Item 26. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 26. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

III. Owner and Operators of Treatment, Storage, or Disposal

Facilities *Item 35. Discrepancy Indication Space*

Refer to Item 18. This space may be used to more fully describe information on discrepancies identified in Item 18a of the manifest form.

Item 36. Hazardous Waste Report Management Method Codes

For each field in Item 36, enter the sequential number that corresponds to the waste materials described under Item 27, and enter the appropriate process code that describes how the materials will be processed when received. If additional continuation sheets are attached, continue numbering the waste materials and process code fields sequentially, and enter on each sheet the process codes corresponding to the waste materials identified on that sheet.

California High-Speed Rail Construction Package 4			
 CALIFORNIA RAIL BUILDERS	Hazardous Materials Management Plan	Revision:	06
	Doc. No.: CP4-18.6.4-0001	Date:	01/25/2021

Appendix F
Asbestos Applications Forms

San Joaquin Valley Unified Air Pollution Control District

Asbestos Notification

Operator Project #	Postmark Date	Received Date	Fee Received \$	District Notification #
Completed by: _____ Company: _____ Phone: _____				
1. TYPE OF NOTIFICATION:	Original	Revised (Dates)	Revised (Others) (Highlight Changes)	Canceled Courtesy
2. TYPE OF OPERATION:	Demo	Ordered Demo	Renovation	Emergency Renovation
3. FACILITY DESCRIPTION: (Include building name, number, and floor or room number)				
Building Name:			Lease Name:	
Address:			City:	County:
Site Location on property:				
Is demolition in preparation for construction? Yes No		Building Size:	Sq Ft	Number of Floors: Age:
Present Use:		Prior Use:		Future Use:
4. IS ASBESTOS PRESENT: Yes No SURVEY COMPLETED: Yes No TO BE CONDUCTED				
5. A COPY OF THE INSPECTION REPORT WITH PROCEDURE, INCLUDING ANALYTICAL METHOD USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL MUST BE INCLUDED WITH THIS NOTIFICATION.				
6. Approximate amount of asbestos, including: 1. Regulated ACM to be removed. 2. Category I/II ACM not removed. 3. Non-friable ACM to be removed.		(1) RACM to be removed	Friable ACM (<1%)	(2) Non-friable ACM not to be removed Category I Category II
				(3) Non-friable ACM to be removed (Courtesy) Category I Category II
Pipes (Linear Feet)				
Surface Area (Square Feet)				
Volume (Cubic Feet-If Lnft Or Sqft Could Not Be Measured)				
ASBESTOS REMOVED FROM	Surfaces: Yes No		Pipes: Yes No	Components: Yes No
AMOUNT OF EACH TYPE OF ASBESTOS (in square feet)	Acoustic ceiling	Sheet Vinyl	Insulation	Fire Proofing Ducting Stucco Mastic
Floor Tile (VAT)	Dry Wall	Plaster	Transite	Roofing Others (Describe)
7. REMOVAL DATES: (MM/DD/YY)		Start:		Complete:
8. DEMO/RENOVATION DATES (MM/DD/YY)		Start:		Complete:
9. FACILITY OWNER INFORMATION:				
Address:		City:		State: Zip:
Contact:		Telephone:		Site Supervisor:
10. REMOVAL CONTRACTOR:				
Address:			City:	State: Zip:
Contact:			Telephone:	Site Supervisor:
11. OTHER CONTRACTOR:				
Address:			City:	State: Zip:
Contact:			Telephone:	Site Supervisor:

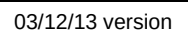
12. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S) TO BE USED:			
13. DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT ASBESTOS EMISSIONS AT THE SITE:			
14. ACWM WASTE TRANSPORTER:			
Address:	City:	State:	Zip:
Contact:	Telephone:		
15. ACWM WASTE DISPOSAL SITE:			
Address:	City:	State:	Zip:
Contact:	Telephone:		
16. RECYCLING OF WASTE MATERIAL (NO ACM MAY BE RECYCLED):			
Name:			
Location:	City:	State:	Zip:
Contact:	Telephone:		
17. DEMOLITION ORDERED BY A GOVERNMENT AGENCY; identify the agency, attach copy of the order)			
Name:		Title:	
Authority:			
Date of order (MM/DD/YY):		Date order to begin: (MM/DD/YY):	
18. FOR EMERGENCY RENOVATIONS:			
GIVE THE NAME AND PHONE NUMBER OF THE PERSON DECLARING/AUTHORIZING THE EMERGENCY, DATE AND HOUR OF EMERGENCY AND DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT:			
EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS OR WOULD CAUSE EQUIPMENT DAMAGE OR AN UNREASONABLE FINANCIAL BURDEN:			
19. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS MATERIAL BECOMES CRUMBLING, PULVERIZED OR REDUCED TO POWDER.			
20. IF RACM IS PRESENT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR., PART 61, SUBPART M) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION.			
21. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE.			
PRINT NAME OF OWNER/OPERATOR		SIGNATURE OF OWNER/OPERATOR	DATE

Category I non-friable asbestos-containing material (ACM) means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos.

Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos.

Regulated asbestos-containing material (RACM) means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

(removal of a load supporting beam or more)



SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

☐ **Northern Region Office**
4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400 ♦ FAX (209) 557-6475
(San Joaquin, Stanislaus and Merced Counties)
asbestos.north@valleyair.org

☐ **Central Region Office**
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 ♦ FAX (559) 230-6062
(Fresno, Madera and Kings Counties)
asbestos.central@valleyair.org

☐ **Southern Region Office**
34946 Flyover Court
Bakersfield, CA 93308-9725
(661) 392-5500 ♦ FAX (661) 392-5585
(Tulare and Kern Counties)
asbestos.south@valleyair.org

DEMOLITION PERMIT RELEASE

The purpose of this form is to verify compliance with or exemption from the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos **notification** requirements. It is the Applicant's responsibility to obtain the required signature from the District and return this form to the appropriate city or county building department **prior to obtaining a demolition permit**.

Project Description

Job Site Address:	City:	Zip Code:
Owner's name:	Telephone:	Fax:
Owner's Address:	City:	Zip Code:
Contractor's Name:	Telephone:	Fax:
Contractor's Address:	City:	Zip Code:
Contact's Email:		
1. Structure(s) being demolished:	Yes	No
One structure (non-commercial), with four or fewer units.	☐	☐
Other (describe):		
Is demolition by intentional burning?	☐	☐
2. Proposed project:	Yes	No
Single Family Dwelling		
Subdivision, Retail or Commercial Project		
Public Project (School, Highway, etc..)		
Other (describe):		
Comments:		

Signature of applicant

Title

Date

FOR SJVUAPCD USE ONLY

This certifies that the demolition applicant has satisfied the APCD's notification requirements. The APCD allows the demolition to proceed on or after

This certifies that the Demolition application is exempt from the APCD's requirements.

District approval on this form only indicates compliance with or exemption from the NESHAP notification requirements. Enforcement action will be taken if asbestos NESHAP violations are found at the project.

Further, there are other agencies that regulate the handling and disposal of ACM, such as OSHA, Cal-OSHA, and DTSC regardless of NESHAP applicability to your property.

Comments:

Printed Name:

Title:

Approval Signature:

Date:



Building Department
336 Pacific Avenue, Shafter CA 93263
Tel: 661-746-5002 ■ Fax: 661-746-

PROJECT IDENTIFICATION WORKSHEET

TODAY'S DATE: _____

PROJECT ADDRESS _____

APN _____

PROJECT VALUATION _____

*THIS IS NOT A BUILDING PERMIT.
THE INFORMATION PROVIDED IS FOR THE PURPOSE OF COLLECTING DATA FOR THE PROJECT.*

☐ RESIDENTIAL

☐ COMMERCIAL

☐ AGRICULTURE

APPLICANT INFORMATION

Applicant/Company Name		Description of Work
Mailing Address		
City		For Re-Roofs: Provide Square Feet of Residence
State	Zip	Email
Telephone		Fax

OWNER INFORMATION

Name	
Mailing Address	City/Zip
Telephone	Email

ARCHITECT INFORMATION

Company Name	Contact Name
Address	City/Zip
Telephone	Email

CONTRACTOR INFORMATION

Company Name	Contact Name
Mailing Address	City/Zip
Telephone	Email
State License No	Class

FOR OFFICE USE ONLY

Received By _____ Date _____ Plans Submitted ☐ Yes ☐ No If yes, No. of Sets _____

APPENDIX H

Asbestos Application Forms

San Joaquin Valley Unified Air Pollution Control District

CLEAR FORM

Asbestos Notification

Operator Project #	Postmark Date	Received Date	Fee Received \$	District Notification #
Completed by: _____ Company: _____ Phone: _____				
1. TYPE OF NOTIFICATION:	Original ☐	Revised (Dates) ☐	Revised (Others) ☐ (Highlight Changes)	Canceled ☐ Courtesy ☐
2. TYPE OF OPERATION:	Demo ☐	Ordered Demo ☐	Renovation ☐	Emergency Renovation ☐
3. FACILITY DESCRIPTION: (Include building name, number, and floor or room number)				
Building Name:			Lease Name:	
Address:			City:	County:
Site Location on property:				
Is demolition in preparation for construction? ☐ Yes ☐ No		Building Size: _____ Sq Ft	Number of Floors: _____	Age: _____
Present Use: _____		Prior Use: _____		Future Use: _____
4. IS ASBESTOS PRESENT: ☐ Yes ☐ No SURVEY COMPLETED: ☐ Yes ☐ No ☐ TO BE CONDUCTED				
5. A COPY OF THE INSPECTION REPORT WITH PROCEDURE, INCLUDING ANALYTICAL METHOD USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL MUST BE INCLUDED WITH THIS NOTIFICATION.				
6. Approximate amount of asbestos, including: 1. Regulated ACM to be removed. 2. Category I/II ACM not removed. 3. Non-friable ACM to be removed.		(1) RACM to be removed	Friable ACM (<1%)	(2) Non-friable ACM not to be removed Category I Category II
				(3) Non-friable ACM to be removed (Courtesy) Category I Category II
Pipes (Linear Feet)				
Surface Area (Square Feet)				
Volume (Cubic Feet-If Lnft Or Sqft Could Not Be Measured)				
ASBESTOS REMOVED FROM	Surfaces: ☐ Yes ☐ No		Pipes: ☐ Yes ☐ No	Components: ☐ Yes ☐ No
AMOUNT OF EACH TYPE OF ASBESTOS (in square feet)	Acoustic ceiling	Sheet Vinyl	Insulation	Fire Proofing
				Ducting
				Stucco
				Mastic
Floor Tile (VAT)	Dry Wall	Plaster	Transite	Roofing
				Others (Describe)
7. REMOVAL DATES: (MM/DD/YY)		Start: _____		Complete: _____
8. DEMO/RENOVATION DATES (MM/DD/YY)		Start: _____		Complete: _____
9. FACILITY OWNER INFORMATION:				
Address: _____		City: _____		State: _____ Zip: _____
Contact: _____		Telephone: _____		Site Supervisor: _____
10. REMOVAL CONTRACTOR: CAL-OSHA REGISTRATION #:				
Address: _____		City: _____		State: _____ Zip: _____
Contact: _____		Telephone: _____		Site Supervisor: _____
11. OTHER CONTRACTOR: CSLB LICENSE #:				
Address: _____		City: _____		State: _____ Zip: _____
Contact: _____		Telephone: _____		Site Supervisor: _____

12. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S) TO BE USED:			
13. DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT ASBESTOS EMISSIONS AT THE SITE:			
14. ACWM WASTE TRANSPORTER:			
Address:	City:	State:	Zip:
Contact:	Telephone:		
15. ACWM WASTE DISPOSAL SITE:			
Address:	City:	State:	Zip:
Contact:	Telephone:		
16. RECYCLING OF WASTE MATERIAL (<u>NO ACM MAY BE RECYCLED</u>):			
Name:			
Location:	City:	State:	Zip:
Contact:	Telephone:		
17. DEMOLITION ORDERED BY A GOVERNMENT AGENCY; identify the agency, attach copy of the order)			
Name:		Title:	
Authority:			
Date of order (MM/DD/YY):		Date order to begin: (MM/DD/YY):	
18. FOR EMERGENCY RENOVATIONS:			
GIVE THE NAME AND PHONE NUMBER OF THE PERSON DECLARING/AUTHORIZING THE EMERGENCY, DATE AND HOUR OF EMERGENCY AND DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT:			
EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS OR WOULD CAUSE EQUIPMENT DAMAGE OR AN UNREASONABLE FINANCIAL BURDEN:			
19. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED TO POWDER:			
20. IF RACM IS PRESENT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR., PART 61, SUBPART M) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION.			
21. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE.			
Ink Signature Required			
PRINT NAME OF OWNER/OPERATOR	SIGNATURE OF OWNER/OPERATOR	DATE	

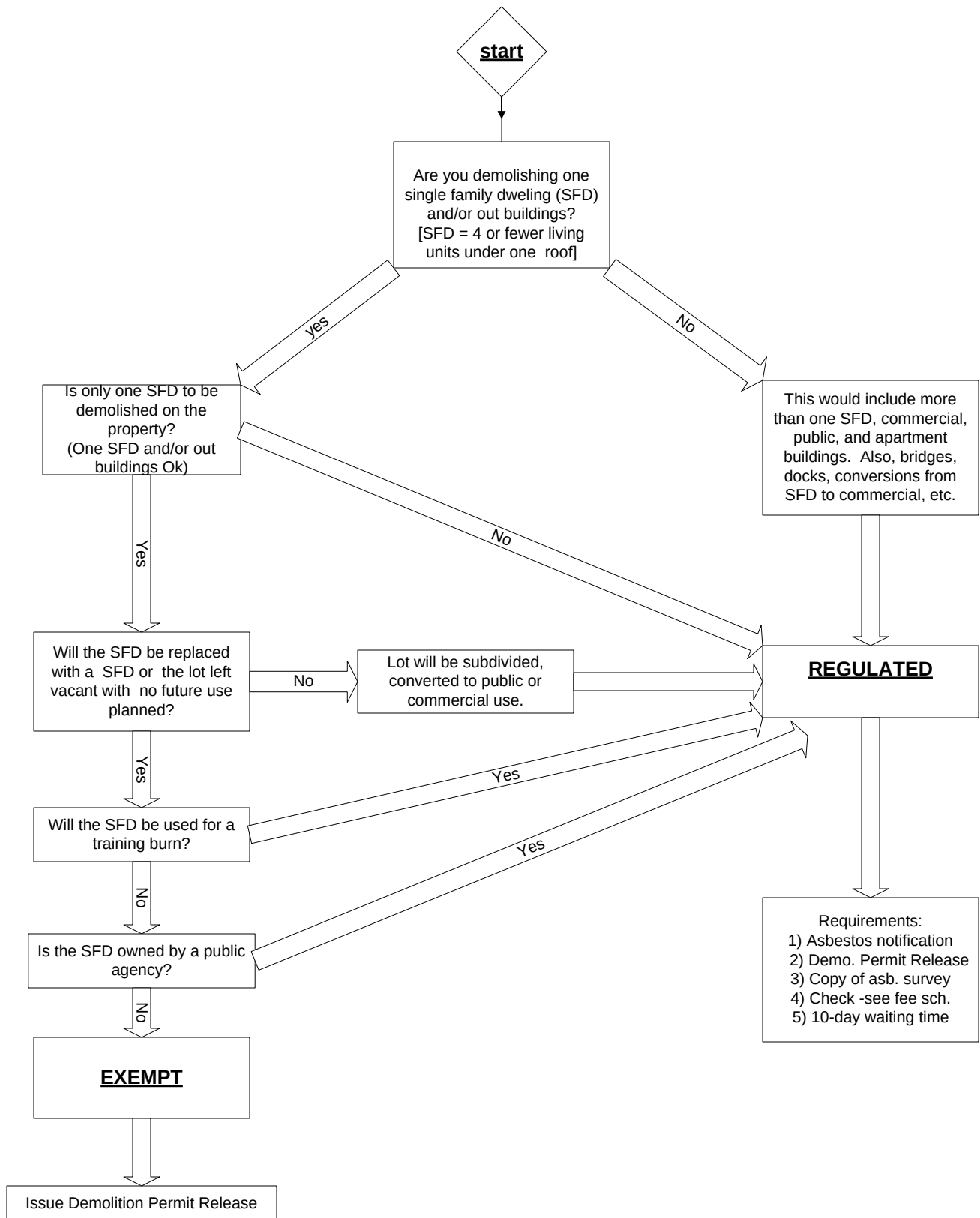
Category I non-friable asbestos-containing material (ACM) means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos.

Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos.

Regulated asbestos-containing material (RACM) means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

PRINT FORM

Demolition
(removal of a load supporting beam or more)



SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

☐ **Northern Region Office**
4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400 ♦ FAX (209) 557-6475
(San Joaquin, Stanislaus and Merced Counties)
asbestos.north@valleyair.org

☐ **Central Region Office**
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 ♦ FAX (559) 230-6062
(Fresno, Madera and Kings Counties)
asbestos.central@valleyair.org

☐ **Southern Region Office**
34946 Flyover Court
Bakersfield, CA 93308-9725
(661) 392-5500 ♦ FAX (661) 392-5585
(Tulare and Kern Counties)
asbestos.south@valleyair.org

DEMOLITION PERMIT RELEASE

The purpose of this form is to verify compliance with or exemption from the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos **notification** requirements. It is the Applicant's responsibility to obtain the required signature from the District and return this form to the appropriate city or county building department **prior to obtaining a demolition permit**.

Project Description

Job Site Address:	_____	City:	_____	Zip Code:	_____
Owner's name:	_____	Telephone:	_____	Fax:	_____
Owner's Address:	_____	City:	_____	Zip Code:	_____
Contractor's Name:	_____	Telephone:	_____	Fax:	_____
Contractor's Address:	_____	City:	_____	Zip Code:	_____
Contact's Email:	_____				

1. Structure(s) being demolished:	Yes	No	2. Proposed project:	Yes	No
One structure (non-commercial), with four or fewer units.	☐	☐	Single Family Dwelling	☐	☐
Other (describe):			Subdivision, Retail or Commercial Project	☐	☐
Is demolition by intentional burning?	☐	☐	Public Project (School, Highway, etc..)	☐	☐
Other (describe):					

Comments: _____

Signature of applicant

Title

Date

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Comments:

Printed Name: _____

Title: _____

Approval Signature: _____

Date: _____



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336 Pacific Avenue, Shafter CA 93263
Tel: 661-746-5002 ■ Fax: 661-746-9125

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PROJECT VALUATION _____

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☐ COMMERCIAL

☐ AGRICULTURE

APPLICANT INFORMATION

Applicant/Company Name		Description of Work
Mailing Address		
City		
State		For Re-Roofs: Provide Square Feet of Residence
Zip	Email	
Telephone		Fax

OWNER INFORMATION

Name	
Mailing Address	City/Zip
Telephone	Email

ARCHITECT INFORMATION

Company Name	Contact Name
Address	City/Zip
Telephone	Email

CONTRACTOR INFORMATION

Company Name	Contact Name
Mailing Address	City/Zip
Telephone	Email
State License No	Class

FOR OFFICE USE ONLY

Received By _____ Date _____ Plans Submitted ☐ Yes ☐ No If yes, No. of Sets _____