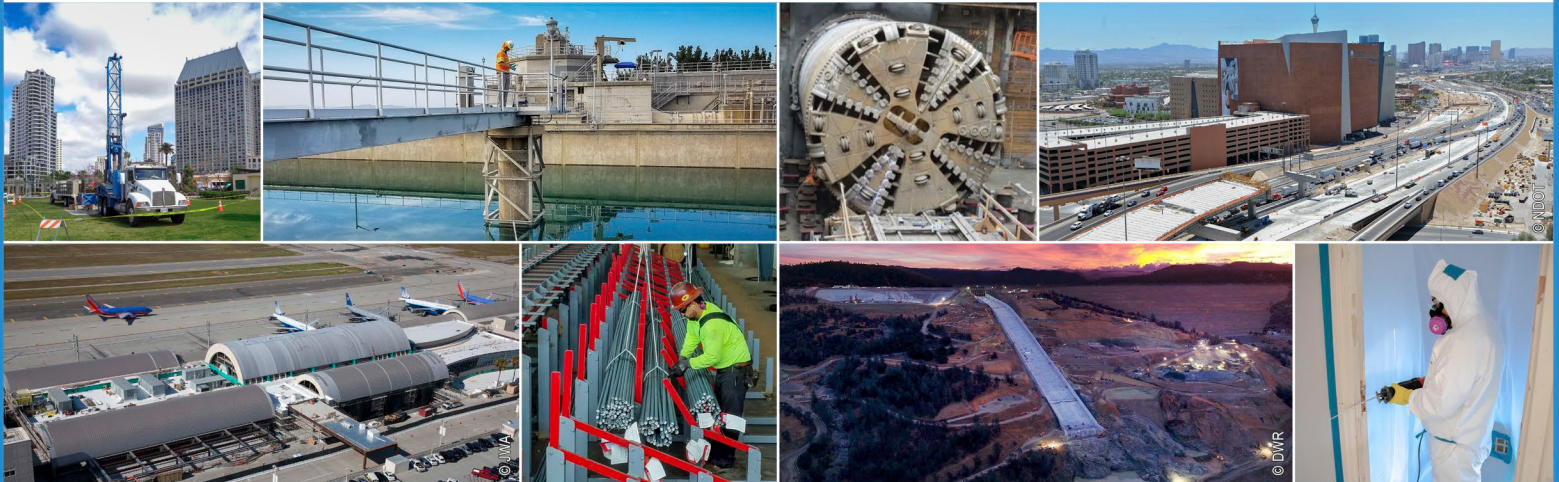


Environmental Summary Report 616 and 700 Linden Avenue South San Francisco, California

City of South San Francisco
33 Arroyo Drive | South San Francisco, California 94080

August 30, 2024 | Project No. 403151010



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

August 30, 2024
Project No. 403151010

Mr. Philip Vitale
City of South San Francisco
33 Arroyo Drive
South San Francisco, California 94080

Subject: Environmental Summary Report
616 and 700 Linden Avenue
South San Francisco, California

Dear Mr. Vitale:

Ninyo & Moore prepared this Environmental Summary Report (Report) for the above referenced City of South San Francisco (City) properties located at 616 and 700 Linden Avenue in South San Francisco, California (site). This Report summarizes the historical investigations completed at both properties, and evaluates the investigation findings in the context of the site's planned use as a City park.

We appreciate the opportunity to be of service to the City on this project. If you have any questions or comments regarding this Report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Scott Bittinger

Scott Bittinger, PG 7477
Senior Geologist

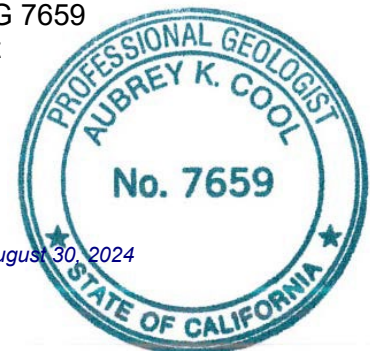


August 30, 2024

SGB/AKC/gvr

Aubrey K. Cool

Aubrey K. Cool, PG 7659
Principal Geologist



August 30, 2024

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1 EXECUTIVE SUMMARY

The City of South San Francisco (City) intends to redevelop two adjoining properties of land, located at 616 and 700 Linden Avenue and totaling 0.66 acre, into a park.

Extensive environmental investigation work has been performed at 616 Linden Avenue, where motor vehicle fuels had been historically stored and dispensed. Some of the work was performed to meet regulatory requirements, and some of the work was performed out of an abundance of caution. During removal of fuel underground storage tanks (USTs) at 616 Linden Avenue, petroleum hydrocarbons were detected in soil. With oversight from representatives of San Mateo County Groundwater Protection Program (GPP), in the late 1990s and early 2000s, 440 cubic yards of soil were excavated and hauled off site to a landfill, removing most of the petroleum hydrocarbon contamination from the property. The area was then backfilled with imported fill material, and after follow up testing, the County GPP closed the environmental case in 2001.

Prior to redevelopment, historical property uses were evaluated using the Phase I and II Environmental Site Assessment process on both properties in 2021, which is common when changes in property use or ownership occurs or as an initial investigation step.

With the new property use as a park considered, supplemental site investigations were completed at 616 Linden Avenue in June 2023 and February 2024. Shallow soil samples were collected and analyzed for petroleum hydrocarbons and lead. The State of California has established risk-based screening levels specifically for former UST cases. Lead is commonly detected in soil, and State regulatory agencies have established toxicologically-based screening levels to assess safe lead concentrations for different property uses. The supplemental testing and evaluation of the soil data confirms that 616 Linden Avenue is acceptable for use as a park.

At 700 Linden Avenue, shallow soil samples were collected in 2021, composited, and tested for the presence of lead as review of historical site use identified lead as the only likely potential contaminant on that property. Based on the lead data, the property is safe for use as a park.

2 INTRODUCTION

Ninyo & Moore prepared this Environmental Summary Report (Report) on behalf of the City of South San Francisco (City) for the properties located at 616 and 700 Linden Avenue in South San Francisco, California (site).

The 616 Linden Avenue property is a 0.32-acre lot, located on the southeastern corner of Linden Avenue and Pine Avenue, South San Francisco (Figure 1). It is currently used as a parking lot. The 700 Linden Avenue property is a 0.34-acre vacant, vegetated lot, located on the northeastern corner of Linden Avenue and Pine Avenue, South San Francisco (Figure 1). The surrounding area is mixed residential and commercial land use.

Redevelopment into a City park is planned for the subject site, and park design is underway. This Report was prepared to summarize the historical environmental data collected at both properties and assess whether residual contamination affects the planned use as a City park.

3 HISTORICAL ENVIRONMENTAL INVESTIGATIONS

3.1 Closed Underground Storage Tank Case – 616 Linden Avenue

Volonte Automotive, a repair shop, operated at the 616 Linden Avenue property from the 1940s through the early 2000s. The layout of the property is depicted on Figure 2. A leaking underground storage tank cleanup case was opened under San Mateo County Groundwater Protection Program (GPP) oversight following removal of one gasoline UST and one waste oil UST in 1993, and the detection of petroleum hydrocarbons in soil below the USTs. According to the case closure summary (GPP, 2001), approximately 440 tons of soil were excavated and disposed of off site following the UST removals, to remove the petroleum hydrocarbon impacted soil from the property. Groundwater monitoring and sampling was then conducted through January 2001 to assess the shallow groundwater for the presence of petroleum hydrocarbons. GPP confirmed that the investigation and remedial action were satisfactorily completed and closed the case in September 2001.

3.2 Targeted Brownfields Assessment – 616 and 700 Linden Avenue

Working under a United States Environmental Protection Agency (EPA) Targeted Brownfields Assessment (TBA) grant, consultants retained by the EPA conducted Phase I and Phase II Environmental Site Assessments (ESAs) for several sites in South San Francisco in 2021, including the subject sites.

The Phase I ESA, which is a record search, identified the following recognized environmental conditions (RECs) at the site:

- Vapor intrusion potential from residual petroleum hydrocarbons (616 Linden Avenue);
- Possible presence of additional USTs (616 Linden Avenue);
- Possible contamination from a former dry cleaner at 612 Linden Avenue (616 Linden Avenue); and
- Potential historical aerially deposited lead (700 Linden Avenue).

According to the Final Phase I/Phase II ESA TBA Report, the Phase II ESA did not identify any additional USTs at 616 Linden Avenue, but it did identify a buried concrete structure containing metal and elevated lead concentrations in soil.

During the Phase II ESA, which consisted of soil and soil vapor sample collection, the EPA consultant collected three soil samples and five soil gas samples at 616 Linden Avenue. The soil sample analyzed for petroleum hydrocarbons contained up to 930 milligrams per kilogram (mg/kg) total petroleum hydrocarbons (TPH) as motor oil, 560 mg/kg TPH as diesel (TPHd) and 43 mg/kg TPH as gasoline (TPHg). Lead was detected in soil at concentrations ranging from 43.8 to 239 mg/kg. Low concentrations of polyaromatic hydrocarbons (PAHs; benzo(a)anthracene, phenanthrene, and pyrene) were also detected in soil. Of these, only the TPHd detections and one lead detection (from the buried concrete structure) exceeded San Francisco Bay Regional Water Quality Control Board (Regional Water Board) environmental screening levels (ESLs) for direct contact with soil under residential land use. In soil vapor, the following volatile organic compounds (VOCs) were detected: 1.2 to 68,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) benzene, 1.3 to 46,000 $\mu\text{g}/\text{m}^3$ ethylbenzene, 10 to 83,000 $\mu\text{g}/\text{m}^3$ toluene, 5.2 to 230,000 $\mu\text{g}/\text{m}^3$ total xylenes, 1,400 to 3,000 $\mu\text{g}/\text{m}^3$ 1,2-dichloroethane (1,2-DCA), and 1.8 $\mu\text{g}/\text{m}^3$ tetrachloroethene. Some of the benzene, ethylbenzene, toluene, total xylenes (BTEX) and 1,2-DCA concentrations exceeded Regional Water Board ESLs for vapor intrusion to residential indoor air.

Four composite soil samples were collected at 700 Linden Avenue and analyzed for lead, which was detected at concentrations ranging from 24 to 52 mg/kg. These concentrations are below Regional Water Board ESLs for direct contact with soil under residential land use, thus confirming suitability for use as a park.

Analytical results and regulatory screening levels are presented on Tables 1 and 2, and sample locations are shown on Figure 2.

3.3 Supplemental Site Investigations – 616 Linden Avenue

With the objective of evaluating risk to future receptors under the scenario of redeveloping the subject site into a park, Ninyo & Moore consulted with the GPP and conducted a Supplemental Site Investigation (SSI) at the 616 Linden Avenue property in June 2023 to collect additional soil data. Ninyo & Moore advanced seven borings (B1 through B7) to assess whether current site soil conditions meet State Water Resources Control Board's (State Water Board's) Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy) direct contact and outdoor air exposure criteria (which requires testing for benzene, ethylbenzene, naphthalene, and PAHs in the upper 10 feet of the subsurface). Additionally, soil samples were analyzed for lead and results were compared to residential Regional Water Board ESLs. Benzene, ethylbenzene, naphthalene, and PAHs were not detected in any samples. Lead was detected in all samples analyzed for lead, at concentrations ranging from 10.9 mg/kg in sample B3-3 to 71.0 mg/kg in B1-1. None of these detections exceeded the residential ESL of 80 mg/kg for direct soil contact.

To determine if TPH remained in soil at levels that warranted excavation and removal from the property, and to characterize soil for potential disposal, Ninyo & Moore conducted another SSI and advanced eight soil borings (B8 through B15) in February 2024. TPHd was detected in all samples at concentrations ranging from 3.23 mg/kg in sample B8-3 to 29.2 mg/kg in B9-4; these detections are below the residential ESL of 260 mg/kg for direct soil contact. TPHg was not detected in any of the samples. Lead was detected in all samples, at concentrations ranging from 12.6 mg/kg in sample B13-5 to 80.0 mg/kg in B9-2. The detection in B9-2, equaled the residential ESL of 80 mg/kg, but no detections exceeded it.

The analytical data and regulatory screening levels are shown on Table 1, and sample locations are shown on Figure 2.

4 FINDINGS

4.1 616 Linden Avenue

4.1.1 Soil Conditions

Total petroleum hydrocarbons (TPHs) were detected in soil samples collected during the EPA and Ninyo & Moore investigations. Total petroleum hydrocarbons as diesel (TPHd) detections in one sample location only (616-SB-4) collected in 2021 exceeded the Regional Water Board environmental screening level (ESL) for direct soil contact with residential land use. Subsequent samples collected across the 616 Linden Avenue property showed significantly lower concentrations. Additionally, the TPH analytical results show that existing soil

conditions satisfy Low-Threat Closure Policy criteria for a bioattenuation zone, which would support biodegradation of petroleum hydrocarbon vapors.

Volatile organic compounds (VOCs) were not detected in any samples collected during the EPA or Ninyo & Moore investigations.

PAHs were detected at low concentrations in one sample location during the EPA investigation in 2021. They were not detected in samples collected across the 616 Linden Avenue property during Ninyo & Moore's investigation in 2023, and no detections exceeded regulatory screening levels.

Lead was detected in soil samples collected at the 616 Linden Avenue property at concentrations ranging from 10.9 to 239 mg/kg. The only concentration that exceeded the Regional Water Board ESL for direct soil contact with residential land use of 80 mg/kg was from soil within the buried concrete structure.

4.1.2 Soil Vapor Conditions

As discussed above, volatile organic compounds (VOCs); specifically benzene, ethylbenzene, toluene, total xylenes and 1,2-dichloroethane; were detected in soil vapor samples at concentrations that exceeded Regional Water Board ESLs for vapor intrusion to residential indoor air. The benzene and ethylbenzene detections also exceeded State Water Board Low-Threat Closure Policy criteria for residential soil gas concentrations with no bioattenuation zone. Note that these regulatory screening levels only apply to scenarios with residential indoor air.

4.2 700 Linden Avenue

The Phase I Environmental Site Assessment records search, which reviewed historical site use, identified lead as the only contaminant of potential concern as this property, because there were no USTs or other known sources of contamination. Lead was detected in soil samples collected at 700 Linden Avenue at concentrations ranging from 24 to 52 mg/kg. These concentrations are below Regional Water Board ESLs for direct contact with soil under residential land use.

5 CONCLUSIONS

Multiple investigations have been conducted on the site properties, soil and soil vapor samples have been collected, and the analytical results have been compared to applicable regulatory screening levels.

The analytical results for 616 Linden Avenue show that existing soil conditions satisfy the State Water Board Low-Threat Closure Policy criteria for residential direct contact and outdoor air, and lead concentrations in shallow soil are equal to or below residential ESLs. Therefore, there is not significant risk posed by site soils, and additional excavation and off-hauling of soil is not necessary to allow for property redevelopment as a park to proceed.

Prior to park construction, a Site Management Plan (SMP) will be prepared and submitted to San Mateo County Groundwater Protection Program (GPP) for review. This Plan will describe recommended steps necessary to ensure safety of workers, residents and park users during construction. It will also describe procedures that will be followed if petroleum hydrocarbon impacted soils are encountered during construction, although this is not expected. Further, any soils planned for off-haul to a landfill will be tested and disposed of accordingly.

The City plans to remove the lead-impacted soil located within the buried concrete structure at 616 Linden Avenue that was identified during the Phase II Environmental Site Assessment. This work will be proposed in the SMP described above and submitted to the San Mateo County Groundwater Protection Program for review.

The soil vapor contamination identified at 616 Linden Avenue does not affect redevelopment into a park, because the screening levels apply to residential indoor air. If any buildings are planned, they can be placed on the 700 Linden Avenue property without restrictions. If buildings are proposed at the 616 Linden Avenue property, additional investigation can be conducted or mitigation measures, such as a vapor intrusion mitigation system (VIMS) can be implemented.

There are no known environmental issues or restrictions for redevelopment at the 700 Linden Avenue property.

6 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this assessment did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Ninyo & Moore's conclusions, recommendations and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions and/or recommendations of this report by parties other than those noted is undertaken at said parties' sole risk.

7 REFERENCES

- Ninyo and Moore, 2023. Supplemental Site Investigation Report; 616 Linden Avenue, South San Francisco, California. September 21.
- Ninyo and Moore, 2024. Supplemental Site Investigation No. 2 Report; 616 Linden Avenue, South San Francisco, California. March 27.
- San Francisco Bay Regional Water Quality Control Board, 2019. Environmental Screening Levels. Rev. 2.
- San Mateo County Groundwater Protection Agency (GPP), 2001. Case Closure of One 1,000 Gallon Gasoline UST and One 250 Gallon Waste Oil UST Formerly Located at Volonte Automotive, 616 Linden Avenue, South San Francisco, California, SMC Co Site #550097. September 27.
- State Water Resources Control Board, 2012. Low-Threat UST Case Closure Policy. August 17.
- Toeroek Associates, Inc. and Tetra Tech, Inc., 2021. Final Phase I/Phase II Environmental Site Assessment Targeted Brownfields Assessment Report, South San Francisco, CA. July 2.



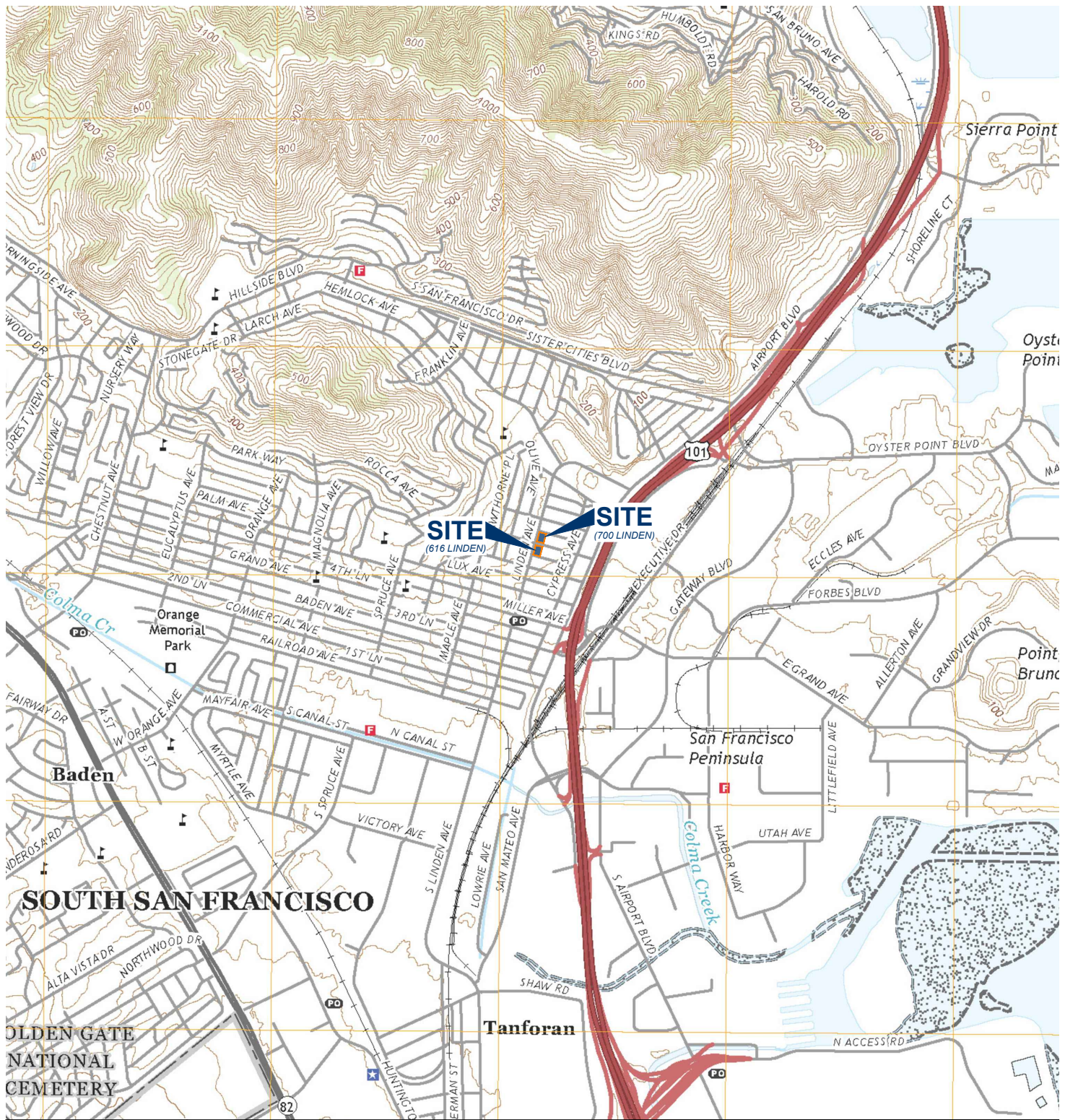
TABLES

Table 1 – Soil Analytical Results														
Sample ID	Date Collected	Depth	TPHs			VOCs			Metals					PAHs
			TPHmo	TPHd	TPHg	Benzene	Ethylbenzene	Naphthalene	Cadmium	Chromium	Lead	Nickel	Zinc	
		(ft bgs)							(mg/kg)					
616 Linden Avenue														
616-SB-4-03022021	3/2/2021	4-5	930	560	43 J	--	--	ND<0.0086	0.582	95.1	47.4	88.7	308	a
616-SB-4-03022021-D	3/2/2021	4-5	510	300	14	--	--	ND<0.0059	0.520 J	93.8	43.8	87.9	266	b
616-EC-03012021	3/1/2021	temp stockpile	--	--	--	--	--	--	0.991 J	80.0	239	52.6	397 J	--
616-SB-7-03012021	3/1/2021	3-3.4	--	--	--	--	--	--	ND<0.110	87.4	67.6	67.6	330	--
B1-1	6/30/2023	1	--	--	--	ND<0.0081	ND<0.0081	ND<0.0081	--	--	71.0	--	--	ND
B1-6	6/30/2023	6	--	--	--	ND<0.0079	ND<0.0079	ND<0.0079	--	--	--	--	--	ND
B2-2	6/30/2023	2	--	--	--	ND<0.0093	ND<0.0093	ND<0.0093	--	--	40.9	--	--	ND
B2-6	6/30/2023	6	--	--	--	ND<0.0090	ND<0.0090	ND<0.0090	--	--	--	--	--	ND
B3-3	6/30/2023	3	--	--	--	ND<0.0087	ND<0.0087	ND<0.0087	--	--	10.9	--	--	ND
B3-5	6/30/2023	5	--	--	--	ND<0.0081	ND<0.0081	ND<0.0081	--	--	--	--	--	ND
B4-4	6/30/2023	4	--	--	--	ND<0.0088	ND<0.0088	ND<0.0088	--	--	17.2	--	--	ND
B4-8	6/30/2023	8	--	--	--	ND<0.0092	ND<0.0092	ND<0.0092	--	--	--	--	--	ND
B5-1	6/30/2023	1	--	--	--	ND<0.0083	ND<0.0083	ND<0.0083	--	--	52.5	--	--	ND
B5-9	6/30/2023	9	--	--	--	ND<0.0081	ND<0.0081	ND<0.0081	--	--	--	--	--	ND
B6-2	6/30/2023	2	--	--	--	ND<0.0085	ND<0.0085	ND<0.0085	--	--	34.0	--	--	ND
B6-6	6/30/2023	6	--	--	--	ND<0.0088	ND<0.0088	ND<0.0088	--	--	--	--	--	ND
B7-3	6/30/2023	3	--	--	--	ND<0.0080	ND<0.0080	ND<0.0080	--	--	42.8	--	--	ND
B7-7	6/30/2023	7	--	--	--	ND<0.0083	ND<0.0083	ND<0.0083	--	--	--	--	--	ND
B8-1	2/22/2024	1	--	10.8 x	ND<0.098	ND<0.0098	ND<0.0098	ND<0.0098	--	--	58.5	--	--	--
B8-3	2/22/2024	3	--	3.23 x	ND<0.10	ND<0.010	ND<0.010	ND<0.010	--	--	46.4	--	--	--
B9-2	2/22/2024	2	--	15.2 x	ND<0.083	ND<0.0097	ND<0.0097	ND<0.0097	--	--	80.0	--	--	--
B9-4	2/22/2024	4	--	29.2 x	ND<0.095	ND<0.0095	ND<0.0095	ND<0.0095	--	--	53.0	--	--	--
B10-2	2/22/2024	2	--	4.56 x	ND<0.090	ND<0.0090	ND<0.0090	ND<0.0090	--	--	60.5	--	--	--
B10-5	2/22/2024	5	--	3.51 x	ND<0.074	ND<0.0074	ND<0.0074	ND<0.0074	--	--	35.2	--	--	--
B11-0.5	2/22/2024	0.5	--	17.6 x	ND<0.088	ND<0.0088	ND<0.0088	ND<0.0088	--	--	46.9	--	--	--
B11-4	2/22/2024	4	--	5.90 x	ND<0.096	ND<0.0096	ND<0.0096	ND<0.0096	--	--	26.6	--	--	--
B12-1	2/22/2004	1	--	8.32 x	ND<0.10	ND<0.010	ND<0.010	ND<0.010	--	--	23.6	--	--	--
B12-3	2/22/2024	3	--	4.32 x	ND<0.10	ND<0.010	ND<0.010	ND<0.010	--	--	29.6	--	--	--
B13-2	2/22/2024	2	--	3.58 x	ND<0.065	ND<0.0065	ND<0.0065	ND<0.0065	--	--	35.6	--	--	--
B13-5	2/22/2024	5	--	9.65 x	ND<0.095	ND<0.0095	ND<0.0095	ND<0.0095	--	--	12.6	--	--	--
B14-1	2/22/2024	1	--	8.90 x	ND<0.062	ND<0.0062	ND<0.0062	ND<0.0062	--	--	39.8	--	--	--
B14-3	2/22/2024	3	--	3.45 x	ND<0.092	ND<0.0092	ND<0.0092	ND<0.0092	--	--	31.6	--	--	--
B15-2	2/22/2024	2	--	6.94 x	ND<0.079	ND<0.0079	ND<0.0079	ND<0.0079	--	--	61.5	--	--	--
B15-5	2/22/2024	5	--	3.24 x	ND<0.075	ND<0.0075	ND<0.0075	ND<0.0075	--	--	44.1	--	--	--
700 Linden Avenue														
700-SS-1-03042021	3/4/2021	0-0.5	--	--	--	--	--	--	--	--	38	--	--	--
700-SS-2-03042021	3/4/2021	0-0.5	--	--	--	--	--	--	--	--	52	--	--	--
700-SS-3-03042021	3/4/2021	0-0.5	--	--	--	--	--	--	--	--	33	--	--	--
700-SS-4-03042021	3/4/2021	0-0.5	--	--	--	--	--	--	--	--	24	--	--	--
Screening Levels														
LTCP Residential (0 to 5 ft bgs) ¹			NE	NE	NE	1.9	21	9.7	NE	NE	NE	NE	NE	0.063
LTCP Volatilization to outdoor air (5 to 10 ft bgs) ¹			NE	NE	NE	2.8	32	9.7	NE	NE	NE	NE	NE	NE
Residential ESLs ²			12,000	260	430	NA	NA	NA	78	NE	80	320	23,000	NA
Notes:														
ID - identification														
TPHs - total petroleum hydrocarbons														
VOCs - volatile organic compounds, analyzed using United States Environmental Protection Agency (US EPA) Method 8260B														
Metals analyzed using US EPA Method 6010B														
PAHs - polycyclic aromatic hydrocarbons, analyzed using US EPA Method 8270C														
TPHmo - TPH as motor oil analyzed using US EPA Method 8015B														
TPHd - TPH as diesel analyzed using US EPA Method 8015B														
TPHg - TPH as gasoline analyzed using US EPA Method 8260B														
ft bgs – feet below ground surface														
mg/kg – milligrams per kilogram														
-- not analyzed														
ND<X – analyte not detected at or above the laboratory reporting limit X														
ND - not detected; see laboratory report for specific chemicals and reporting limits														
a - 0.012 mg/kg benzo(a)anthracene, 0.013 mg/kg phenanthrene, and 0.01 mg/kg pyrene (estimated values)														
b - 0.007 mg/kg benzo(a)anthracene, 0.0075 mg/kg phenanthrene, and 0.007 mg/kg pyrene (estimated values)														
J - estimated value														
x - diesel value the result of overlap of oil range into diesel range														
1 - Low-Threat Underground Storage Tank Case Closure Policy, Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health (Table 1)														
2 - San Francisco Bay Regional Water Quality Control Board environmental screening levels (ESLs), Direct Exposure Human Health Risk Levels (Table S-1), Residential: Shallow Soil Exposure, 2019 (Rev. 2)														
NE - screening level not established														
NA - screening level not applicable														
Bold indicates concentration exceeds screening level														

Table 2 – Soil Vapor Analytical Results											
Sample ID	Date Collected	Depth	Fixed Gases		VOCs						
			Helium	Oxygen	1,2-Dichloroethane	Benzene	Ethylbenzene	Total Xylenes	Naphthalene	Tetrachloroethene	Toluene
		(ft bgs)	%		µg/m ³						
616 Linden Avenue											
616-SG-1-03122021	3/12/2021	5	<0.0037	1.4	1,400	9,500	19,000	64,000	ND<790	--	660
616-SG-2-03042021	3/4/2021	5	<0.0047	2.6	3,000	68,000	46,000	230,000	ND<1,000	--	83,000
616-SG-3-03122021	3/12/2021	5	<0.0040	15	ND<0.042	1.2	1.3	5.2	ND<0.26	--	10
616-SG-4-03042021	3/4/2021	5	<0.0051	1.2	ND<540	4,400	ND<580	ND<580	ND<2,200	--	ND<500
616-SG-6-03042021	3/4/2021	5	<0.0050	7.8	ND<0.17	16	23	140	ND<1.1	1.8	98
Screening Levels											
LTCP Residential ¹			NE	NE	NE	85	1,100	NE	93	NE	NE
Residential ESLs ²			NE	NE	3.6	3.2	37	3,500	2.8	15	10,000
Notes:											
ID - identification											
Fixed Gases analyzed using ASTM D-1946											
VOCs - volatile organic compounds, analyzed using United States Environmental Protection Agency (US EPA) Method TO-15											
ft bgs – feet below ground surface											
% - percent											
µg/m ³ – microrams per cubic meter											
-- not anaylized											
ND<X – analyte not detected at or above the laboratory reporting limit X											
1 - Low-Threat Underground Storage Tank Case Closure Policy, Soil Gas Sampling - No Bioattenuation Zone (Appendix 4, Scenario 4 - Direct Measure of Soil Gas Concentrations [1 of 2])											
2 - San Francisco Bay Regional Water Quality Control Board environmental screening levels (ESLs), Subslab/Soil Gas, Vapor Intrusion: Human Health Risk Levels (Table SG-1), Residential, 2019 (Rev. 2)											
NE - screening level not established											
NA - screening level not applicable											
Bold indicates concentration exceeds screening level											
Detected VOCs tabulated											



FIGURES



403151010.dwg 07/23/2024 AEK

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: USGS, 2018

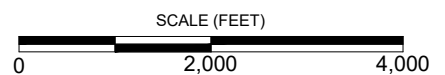
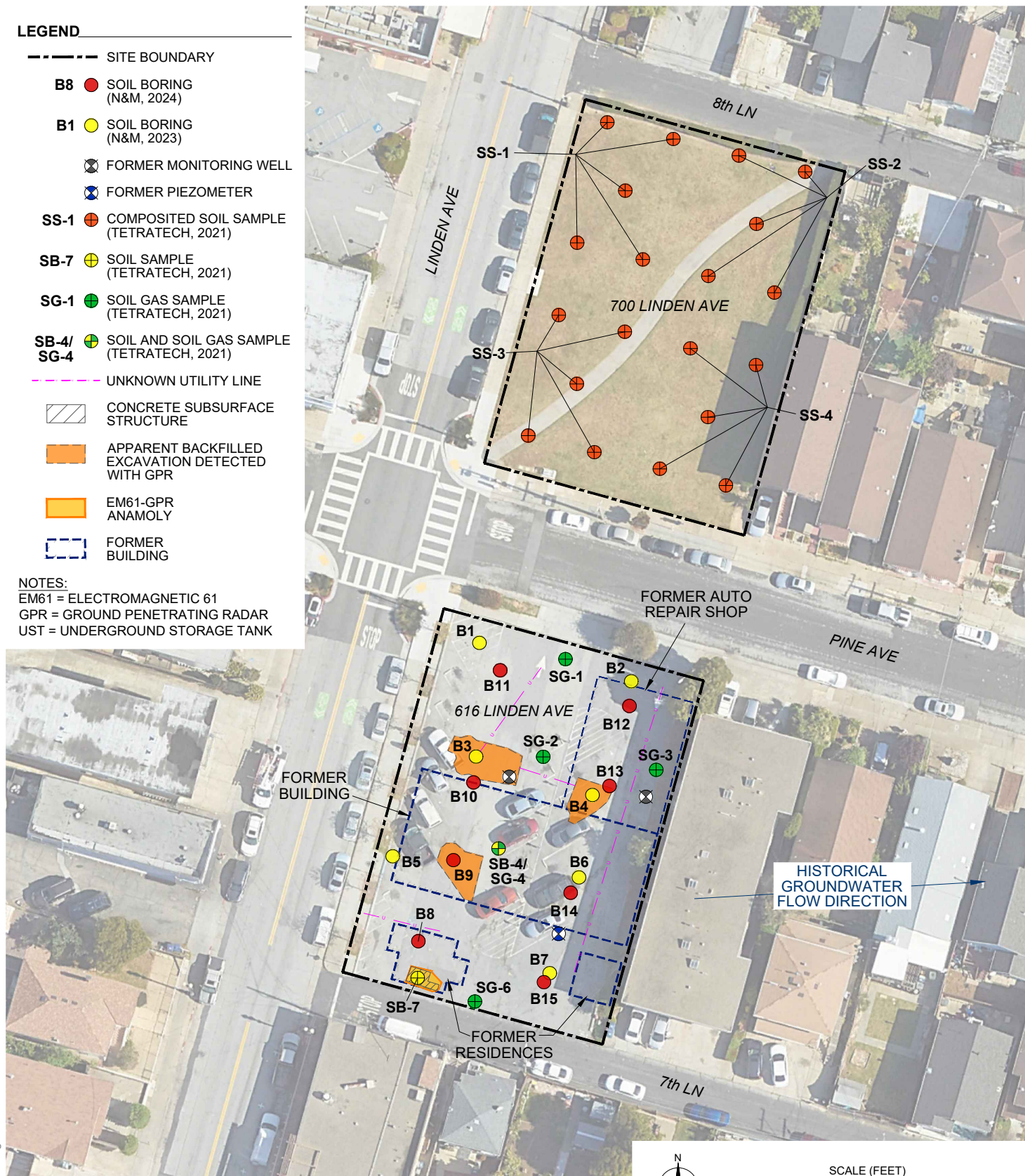


FIGURE 1

LEGEND

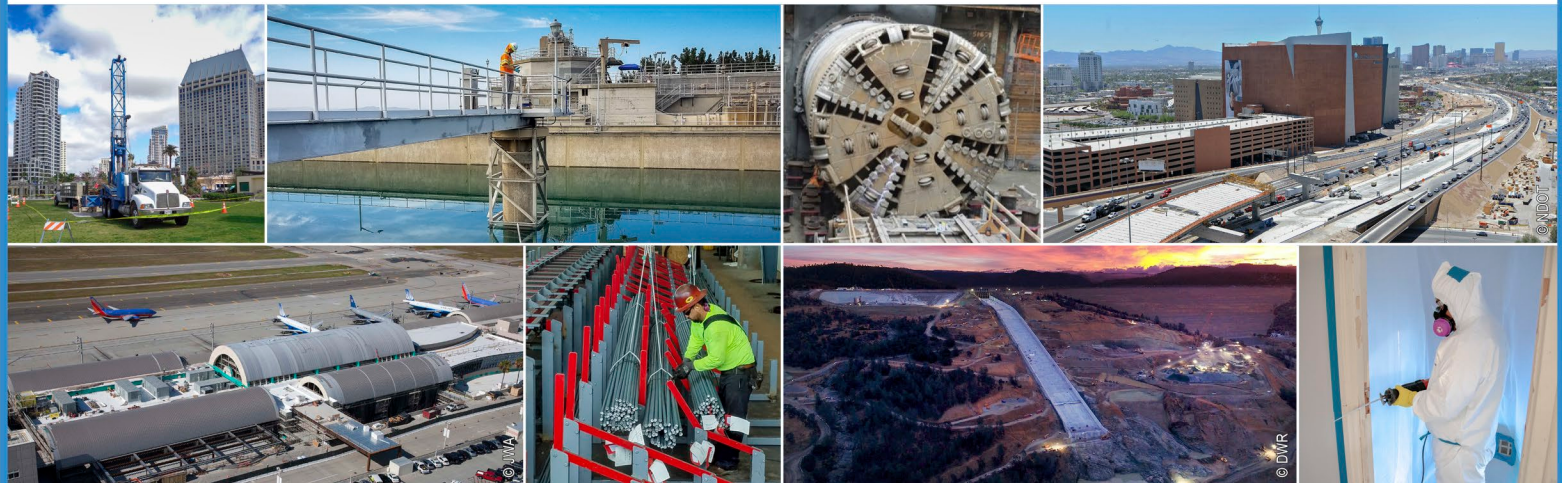
- SITE BOUNDARY
- B8** ● SOIL BORING (N&M, 2024)
- B1** ● SOIL BORING (N&M, 2023)
- ⊗ FORMER MONITORING WELL
- ⊗ FORMER PIEZOMETER
- SS-1** ● COMPOSITED SOIL SAMPLE (TETRATECH, 2021)
- SB-7** ● SOIL SAMPLE (TETRATECH, 2021)
- SG-1** ● SOIL GAS SAMPLE (TETRATECH, 2021)
- SB-4/SG-4** ● SOIL AND SOIL GAS SAMPLE (TETRATECH, 2021)
- UNKNOWN UTILITY LINE
- ▨ CONCRETE SUBSURFACE STRUCTURE
- APPARENT BACKFILLED EXCAVATION DETECTED WITH GPR
- EM61-GPR ANAMOLY
- FORMER BUILDING

NOTES:
 EM61 = ELECTROMAGNETIC 61
 GPR = GROUND PENETRATING RADAR
 UST = UNDERGROUND STORAGE TANK



NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
 REFERENCES: GOOGLE EARTH, 2023; TETRA TECH 2021

FIGURE 2



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