Appendix A <u>CalEEMod Emissions Calculator Results for Construction-Period Emissions</u> Lamphier-Gregory

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BGCP
Construction Start Date	6/3/2025
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.60
Precipitation (days)	43.0
Location	37.6524520314033, -122.42792328267691
County	San Mateo
City	South San Francisco
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1211
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Day-Care Center	29.3	1000sqft	1.00	29,340	6,500	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	ROG	NOx	PM10E	PM2.5E
Daily, Summer (Max)	_	_	_	_
Unmit.	30.7	18.1	0.52	0.49
Daily, Winter (Max)	_	_	_	_
Unmit.	0.55	5.38	0.22	0.20
Average Daily (Max)	_	_	_	_
Unmit.	0.97	2.34	0.09	0.08
Annual (Max)	_	_	_	_
Unmit.	0.18	0.43	0.02	0.02

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM2.5E
Daily - Summer (Max)	_	_	_	_
2025	1.23	18.1	0.52	0.49
2026	30.7	5.01	0.19	0.18
Daily - Winter (Max)	_	_	_	_
2025	0.55	5.38	0.22	0.20
2026	0.53	5.03	0.19	0.18
Average Daily	_	_	_	_
2025	0.23	2.34	0.09	0.08
2026	0.97	1.19	0.05	0.04
Annual	_	_	_	_
2025	0.04	0.43	0.02	0.02
2026	0.18	0.22	0.01	0.01

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

	dany, tony, ron annual, and c	,,, ,, ,, ,, ,, ,	-: -::::::::::::::::::::::::::::::::::	
Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	0.47	4.33	0.16	0.14
Demolition	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Off-Road Equipment	0.03	0.24	0.01	0.01
Demolition	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	< 0.005	0.04	< 0.005	< 0.005
Demolition	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.02	0.02	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.01	0.83	0.01	0.01
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	< 0.005	< 0.005
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005

3.3. Site Preparation (2025) - Unmitigated

Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	0.47	4.16	0.21	0.20
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Off-Road Equipment	< 0.005	0.02	< 0.005	< 0.005
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Summer (Max)	_	_	_	_
Worker	0.01	0.01	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria i Oliutarits (ib/day ioi	dally, lon/yr lor ariridal) and G	or ios (ib/day ior daily, ivi i/yi i	or armuar)	
Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	1.09	10.1	0.46	0.43
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Off-Road Equipment	0.01	0.11	0.01	< 0.005
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	< 0.005	0.02	< 0.005	< 0.005
Dust From Material Movement	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.02	0.01	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.12	8.01	0.06	0.06
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	< 0.005	< 0.005
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005

3.7. Building Construction (2025) - Unmitigated

Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	0.52	5.14	0.22	0.20
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Off-Road Equipment	0.52	5.14	0.22	0.20
Onsite truck	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_
Off-Road Equipment	0.18	1.75	0.07	0.07
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	0.03	0.32	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.03	0.02	0.00	0.00
Vendor	< 0.005	0.20	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Worker	0.03	0.03	0.00	0.00
Vendor	< 0.005	0.21	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_
Worker	0.01	0.01	0.00	0.00
Vendor	< 0.005	0.07	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_		_
Daily, Summer (Max)			_	_
Off-Road Equipment	0.49	4.81	0.19	0.17
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)				
	- 0.40	-	0.40	0.47
Off-Road Equipment	0.49	4.81	0.19	0.17
Onsite truck	0.00	0.00	0.00	0.00
Average Daily	_	-	-	-
Off-Road Equipment	0.10	1.01	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	0.02	0.18	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.03	0.02	0.00	0.00
Vendor	< 0.005	0.19	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Worker	0.03	0.03	0.00	0.00
Vendor	< 0.005	0.20	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_
Worker	0.01	0.01	0.00	0.00
Vendor	< 0.005	0.04	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	0.49	4.24	0.18	0.16
Paving	0.00	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Off-Road Equipment	0.01	0.12	< 0.005	< 0.005
Paving	0.00	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	< 0.005	0.02	< 0.005	< 0.005
Paving	0.00	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.04	0.03	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Location	ROG	NOx	PM10E	PM2.5E
Onsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Off-Road Equipment	0.12	0.86	0.02	0.02
Architectural Coatings	30.6	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Off-Road Equipment	< 0.005	0.02	< 0.005	< 0.005
Architectural Coatings	0.84	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.15	_	_	_
Onsite truck	0.00	0.00	0.00	0.00
Offsite	_	_	_	_
Daily, Summer (Max)	_	_	_	_
Worker	0.01	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_
Average Daily	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00
Annual	_	_	_	_
Worker	< 0.005	< 0.005	0.00	0.00
Vendor	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/3/2025	7/1/2025	5.00	20.0	_
Site Preparation	Site Preparation	7/2/2025	7/4/2025	5.00	2.00	_
Grading	Grading	7/5/2025	7/10/2025	5.00	4.00	_
Building Construction	Building Construction	7/11/2025	4/17/2026	5.00	200	_
Paving	Paving	4/18/2026	5/2/2026	5.00	10.0	_
Architectural Coating	Architectural Coating	5/3/2026	5/17/2026	5.00	10.0	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	_	_	_	_
Demolition	Worker	10.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	_	8.40	HHDT,MHDT
Demolition	Hauling	6.85	20.0	HHDT
Demolition	Onsite truck	_	_	HHDT
Site Preparation	_	_	_	_
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	_	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	7.50	11.7	LDA,LDT1,LDT2
Grading	Vendor	_	8.40	HHDT,MHDT
Grading	Hauling	66.3	20.0	HHDT
Grading	Onsite truck	_	_	HHDT
Building Construction	_	_	_	_
Building Construction	Worker	12.3	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	4.81	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	_	_	HHDT
Paving	_	_	_	_
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	_	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	_	_	HHDT
Architectural Coating	_	_	_	_
Architectural Coating	Worker	2.46	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	_	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	_	_	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)		Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	44,010	14,670	_

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)		Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	11,900	_
Site Preparation	0.00	0.00	4.00	0.00	_
Grading	1,060	1,060	4.00	0.00	_
Paving	0.00	0.00	0.00	0.00	0.10

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Day-Care Center	0.10	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification		
Land Use	User defined educational = B&G Club of Peninsula (2 new buildings) - using day care ctr as proxy		
Construction: Dust From Material Movement	Site prep for new bldgs, landscape and sitework. For Grading, assume excavate and export 1,060 CY soil from BART ZOI, and import same 1,060 CY of InsulFoam under Buildings 1 (860 CY) and Building 2 (203 CY)		
Construction: Paving	limited amount of new paving at parking lots - re-striping only		

Appendix B

Geotechnical Investigation of the BGCP Site

Langan Engineers, March 21, 2025

GEOTECHNICAL INVESTIGATION **BOYS AND GIRLS CLUBS OF THE PENINSULA – ORANGE PARK CLUBHOUSE SOUTH SAN FRANCISCO, CALIFORNIA**

Prepared For:

Boys and Girls Club of the Peninsula **401 Pierce Road** Menlo Park, California 94025

Keller

Prepared By:

Langan CA, Inc. 135 Main Street, Suite 1500 San Francisco, California 94105

> Kelli McCurdy, PE **Project Engineer**

Scott A. Walker, PE, GE **Principal/Vice President**

> 21 March 2025 731788601



NO. GE2751 06/30/2026

TABLE OF CONTENTS

1.0	INTR	ODUCTION	1
2.0	SCO	PE OF SERVICES	2
3.0	FIELD 3.1 3.2 3.3 3.4	DINVESTIGATION AND LABORATORY TESTING Borings	3 5
4.0	SITE 4.1 4.2	AND SUBSURFACE CONDITIONSSite ConditionsSubsurface Conditions	6
5.0	REGI	ONAL SEISMICITY AND FAULTING	8
6.0	Seisr 6.1 6.2	nic Hazards Fault Rupture Liquefaction and Associated Hazards 6.2.1 Liquefaction and Free-Field Liquefaction-Induced Settlement 6.2.3 Seismic Densification 6.2.4 Overall Seismic Settlement 6.2.5 Lateral Spreading	10 10 10 11
	6.3 6.4 6.5	TsunamiFloodingSea Level Rise	13
7.0	7.1 7.2 7.3 7.4 7.5	USSION AND CONCLUSIONS BART Considerations Foundations and Settlement Groundwater Considerations Corrosion Potential Construction Considerations	13 15 16
8.0	REC(8.1	DMMENDATIONS Earthwork 8.1.1 Site Preparation 8.1.2 Subgrade Preparation 8.1.3 Fill Placement 8.1.4 Utility Trenches	18 18 19
	8.2 8.3 8.4 8.5 8.6	Foundations Floor Slabs Seismic Design Excavations Pavement and Concrete Flatwork Design 8.6.1 Flexible and Rigid Pavement	21 23 24
		8 6 2 Concrete Flatwork	25



TABLE OF CONTENTS (Continued)

	8.7	Construction Monitoring	26
	8.8	Site Drainage	
	8.9	Bioretention Systems	26
9.0		TIONAL SERVICES DURING DESIGN, CONSTRUCTION DOCUMENTS, AND TRUCTION QUALITY ASSURANCE	
10.0	LIMIT	ATIONS	28
REFER	RENCES		
FIGUR	ES		
APPE	NDICES		
DISTR	IBUTIO	N	

731788601.01_Geo Report_Boys and Girls Club SSF_2025-03-21



ATTACHMENTS

FIGURES

Figure 1 Site Location Map

Figure 2 Site Plan

Figure 3 Idealized Subsurface Profile A-A'

Figure 4 Map of Major Faults and Earthquake Epicenters in the

San Francisco Bay Area

Figure 5 Modified Mercalli Intensity Scale

Figure 6 Regional Seismic Hazard Zones Map

APPENDICES

Appendix A Logs of Borings

Appendix B Cone Penetration Test Results

Appendix C Laboratory Testing

Appendix D Corrosivity Analyses with Brief Evaluation

Appendix E BART Criteria Documents



GEOTECHNICAL INVESTIGATION BOYS AND GIRLS CLUB OF THE PENINSULA – ORANGE PARK CLUBHOUSE South San Francisco, California

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation for the proposed development at the Boys and Girls Clubs of The Peninsula – Orange Park Clubhouse located at 201 West Orange Avenue in South San Francisco, California.

The project site is north of the intersection of C Street and West Orange Avenue; the approximate location is shown on the Site Location Map, Figure 1. The site is bordered by Centennial Way Trail and Memorial Drive on the north and east, West Orange Avenue on the southeast, and residential buildings on the southwest, as shown on the Site Plan, Figure 2.

The site is currently occupied by a one-story building that consists of three connected sections with a surrounding parking lot and landscaping. The existing building is currently being operated as a Boys and Girls Club and consists of a high-bay warehouse section to the north, a gymnasium at the center, and an office building section to the south.

The San Francisco Bay Area Rapid Transit (BART) district maintains a subsurface easement in the northeast part of the site; the underground tunnels and ventilation structure are within this easement. The BART tunnel alignment is oriented along Memorial Drive in the project vicinity and runs roughly northwest-southeast. The approximate location of the BART tunnel alignment, interpreted from the BART as-built drawings¹, is shown on Figure 2. Furthermore, a 25-foot-wide Pacific Gas and Electric (PG&E) easement runs adjacent to the BART tunnels along the northeast edge of the existing building at the approximate location shown on Figure 2.

We understand the current development plans will consist of demolishing the north warehouse section and south office building section and constructing two new buildings connected to the existing gymnasium (Existing Building 2). The new building to the south (New Building 1) will be

San Francisco Bay Area Rapid Transit (BART) District (2004). "San Francisco Airport Extension Line, Trackwork, and Systems, Plan and Profile, W2 357+00 to W2 369+00," dated 5 March 2004.



two stories and the new building to the north (New Building 3) will be one story; both buildings will be constructed at grade. The finished floor will be near existing site grades at approximately Elevation 30½ feet².

The project architect is Devcon Construction, Inc. and the project structural engineer is IMEG Corp. (IMEG). Based on discussions with IMEG, static dead plus live column loads will range from 40 to 70 kips and bearing wall loads will range from 2.5 to 3.6 kips per foot beneath the new buildings.

2.0 SCOPE OF SERVICES

Our services were performed in general accordance with our proposal dated 27 August 2024. We collected subsurface data during a geotechnical exploration at the site to evaluate the subsurface conditions. In addition, we reviewed available geologic and seismic hazard maps from the site vicinity. We performed engineering studies to develop conclusions and recommendations regarding:

- soil and groundwater conditions at the site
- site seismicity and seismic hazards, including faulting, liquefaction, and associated hazards
- the most appropriate foundation type(s) for the proposed structures and associated settlements
- design criteria for the most appropriate foundation type(s), including values for vertical and lateral capacities
- recommendations for avoiding conflicts with the BART zone of influence, as applicable, and BART specific considerations
- floor slabs
- flexible and rigid pavements
- site preparation, grading, and excavation, including criteria for fill quality and compaction
- 2022 California Building Code (CBC) seismic design criteria, including site classification, mapped values S_S and S₁, modification factors F_a and F_v and S_{MS} and S_{M1}
- soil corrosivity with brief evaluation
- construction considerations.

All elevations referenced herein are based on "Topographic Survey of 201 West Orange Avenue for Hunter Properties Inc., South San Francisco, California," by Kier + Wright, dated March 2024 and reference North American Vertical Datum of 1988 (NAVD 88).



3.0 FIELD INVESTIGATION AND LABORATORY TESTING

To evaluate the subsurface conditions at the site, we drilled two borings and advanced two cone penetration tests (CPTs) at the site. The approximate locations of the borings and CPTs are presented on Figure 2.

Prior to performing the field investigation, we:

- obtained drilling permits from the San Mateo County Environmental Health Services (SMCEHS)
- notified Underground Service Alert (USA) and followed up with USA utility companies
- checked the boring and CPT locations for underground utilities using a private utility locator.

The boring and CPT locations were coordinated to avoid potential underground utilities as well as the existing BART and PG&E easements northwest of the site. Details of the field exploration activities and laboratory testing are described in the remainder of this section.

3.1 Borings

Two test borings, designated as B-1 and B-2, were drilled at the site at the approximate locations presented on Figure 2. The borings were drilled on 8 January 2025 by Exploration Geoservices, Inc. (EGI) of San Jose, California using a truck-mounted drill rig equipped with hollow-stem-auger drilling equipment. The borings were advanced to depths of about 51½ feet below the existing ground surface (bgs).

During drilling, our engineer logged the borings and obtained samples of the material encountered for visual classification and laboratory testing. Logs of the borings are presented in Appendix A as Figures A-1 and A-2. The soil encountered in the borings was classified in accordance with the Classification Chart presented on Figure A-3.

Soil samples were obtained using two different types driven split-barrel samplers. The sampler types are as follows:

- Sprague & Henwood (S&H) split-barrel sampler with a 3.0-inch outside diameter and 2.5-inch inside diameter, lined with steel or brass tubes with an inside diameter of 2.43 inches.
- Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and 1.5-inch inside diameter, without liners.



The sampler types were chosen on the basis of soil type being sampled and desired sample quality for laboratory testing. In general, the S&H sampler was used to obtain samples in medium stiff to very stiff cohesive soil and the SPT sampler was used to evaluate the penetration resistance of sandy soil.

The SPT and S&H samplers were driven with 140-pound, above-ground, automatic safety hammers falling 30 inches. The samplers were driven up to 18 inches and the hammer blows required to drive the samplers every six inches of penetration were recorded and are presented on the boring logs. A "blow count" is defined as the number of hammer blows per six inches of penetration. The blow counts required to drive the S&H and SPT samplers were converted to approximate SPT N-values using factors of 0.8 and 1.3, respectively, to account for sampler type and hammer energy, and are shown on the boring logs. The blow counts used for this conversion were the last two blow counts. The conversion factors are based on hammer efficiency data provided by EGI for the drill rig.

Upon completion, the boreholes were backfilled with cement grout in accordance with the requirements of the SMCEHS.

The soil cuttings from the borings were collected in 55-gallon drums, which were stored temporarily at the site, tested, and eventually transported off-site for proper disposal.

3.2 Cone Penetration Tests

Two CPTs, designated as CPT-1 and CPT-2, were performed on 8 January 2025 by Pitcher Services, LLC (Pitcher) of Palo Alto, California at the locations shown on Figure 2. The CPTs were advanced to approximately 54 to 56 feet bgs.

The CPTs were performed by hydraulically pushing a 1.7-inch-diameter, cone-tipped probe, with a projected area of 15 square centimeters, into the ground. The cone tip measures tip resistance, and the friction sleeve behind the cone tip measures frictional resistance. Electrical strain gauges or load cells within the cone continuously measure the cone tip resistance and frictional resistance during the entire depth of each probing. Accumulated data was processed by computer by Gregg Drilling, Inc. to provide engineering information, such as the types and approximate strength characteristics of the soil encountered. The CPT logs, showing tip resistance, side friction and friction ratio by depth, as well as interpreted soil classification, are presented in Appendix B. Soil types were estimated using the classification chart shown in Appendix B.



Pore pressure dissipation tests (PPDTs) were performed during the advancement of each CPT at various depths. PPDTs were conducted to measure hydrostatic water pressures and to determine the approximate depth to groundwater. The variation of pore pressure with time is measured behind the tip of the cone and recorded. One PPDT was performed in CPT-1 and two PPDTs were performed in CPT-2. For this investigation, the duration of the tests range from approximately 100 to 910 seconds. The results of the three PPDTs are presented in Appendix B and discussed in Section 4.2.

Seismic Cone Penetration Testing (SCPT) soundings were performed during the advancement of CPT-1 and CPT-2. SCPT was conducted at five feet intervals to measure shear wave velocities through the soil profile. The shear wave velocity results are included in Appendix B.

After completion, the CPT holes were backfilled with cement grout in accordance with SMCEHS requirements.

3.3 Laboratory Testing

The soil samples collected from the field exploration program were reexamined in the office for soil classifications and representative samples were selected for laboratory testing. The laboratory testing program was designed to evaluate engineering properties of the soil at the site. Samples were tested to measure moisture content, plasticity (Atterberg Limits), gradation, R-value, and corrosivity, where appropriate. Results of the laboratory tests are included on the boring logs and in Appendix C.

3.4 Soil Corrosivity Testing

To evaluate the corrosivity of the near-surface soil, we performed corrosivity tests on samples obtained from Borings B-1 and B-2 from the upper three feet of soil. The corrosivity of the soil samples were evaluated by CERCO Analytical using the following ASTM test methods:

- Redox ASTM D1498
- pH ASTM D4972
- Resistivity (100% Saturation) ASTM G57
- Chloride ASTM D4327
- Sulfate ASTM D4327.



The laboratory corrosion test results and a brief corrosivity evaluation by Cerco Analytical Inc. are presented in Appendix D.

4.0 SITE AND SUBSURFACE CONDITIONS

The existing site and subsurface conditions observed and encountered at the site, respectively, are discussed in this section.

4.1 Site Conditions

The site is currently occupied by a one-story, concrete building constructed at grade with a surrounding parking lot and landscaping. The one-story building is currently being operated as a Boys and Girls Clubs called the Orange Park Clubhouse. The grades in the vicinity of the building slope gently down from the north to the south from about Elevation 33 feet to Elevation 28 feet, respectively.

Foundation plans for the existing structure are currently not available. Based on our review of the topographic survey (Kier + Wright, 2024), the finished floor elevation of the interconnected building is at about Elevation 30½ feet. The approximate location of the existing structure is shown on Figure 2.

As previously discussed, the BART district maintains a subsurface easement in the northeast part of site. Within the easement is a below-grade vent structure and two tunnels oriented parallel to Memorial Drive that run roughly northwest-southeast. The approximate location of the BART easement, ventilation structure, and tunnel structures are shown on Figure 2; these locations were taken from the San Francisco Airport Extension Line as-built drawings provided by San Francisco BART District (2004) and the topographic survey plan by Kier + Wright (2024). According to our review of the topographic survey plan, the below-grade tunnels are located within the footprint of the property and the ventilation structure is located about 50 feet northeast of the property boundary. According to our review of the as-built drawings for the BART ventilation structure and tunnels within the easement, the bottom of the ventilation structure and tunnel structure adjacent to the site are about 35 feet beneath existing site grades.

PG&E maintains an easement located within the site and runs adjacent to the western edge of the BART tunnel alignment. The PG&E easement is oriented along the northeast edge of the existing building and runs from northwest to southeast, as shown on Figure 2.



4.2 Subsurface Conditions

Our understanding of the local geology and soil conditions at the site is based on the results of our geotechnical investigation and our review of available regional geologic maps. Our interpretation of the subsurface conditions at the project site are summarized on the idealized subsurface profile, designated as A-A', and presented on Figure 3. The results of our subsurface investigation and review of available geologic maps indicate the site is underlain by younger alluvium.

The project area is underlain by young Holocene fluvial deposits that consists of sand and gravel interbedded with clay and silt layers. The soil encountered in the upper 5 to 8 feet within the borings and CPTs generally consists of medium dense to dense clayey sand and medium stiff to very stiff clay and sandy clay. These materials are consistent with young fluvial deposits. Where tested, the plasticity index (PI) of the clay within the upper five feet is about 8, indicating it has a relatively low expansion potential³.

The upper 5 to 8 feet of soil are underlain by interbedded medium dense sand and gravel with various amounts of fines interbedded with stiff to hard clay with varying amounts of sand and gravel to a depth of about 17 to 19 feet beneath the ground surface.

Below a depth of 17 to 19 feet we encountered dense to dense sand, with variable silt and clay content to the maximum depth explored of 56 feet bgs. This material is strong relatively, has low compressibility, and is consistent with Colma Formation geologic unit, which is present in the site vicinity.

Groundwater levels were measured at depths of about 13.7 feet to 22.6 feet bgs in the borings, corresponding to approximately Elevations 16.8 feet and 7.4, during drilling of the borings at the site. These depths were recorded during and immediately after exploration and may not represent stabilized levels. PPDTs were also conducted in the CPTs, but were not conclusive.

According to our review of the CGS Seismic Hazard Zone Report for the San Francisco South Quadrangle (CGS, 2021), historic high groundwater level in the project vicinity is approximately 10 feet bgs, corresponding to approximately Elevation 21 feet. Seasonal fluctuations in rainfall influence groundwater levels and may cause several feet of variation.

Soil with low to moderate expansion potential undergoes small to moderate volume changes with changes in moisture content.



5.0 REGIONAL SEISMICITY AND FAULTING

The project site is in a seismically active region. Numerous earthquakes have been recorded in the region in the past, and moderate to large earthquakes should be anticipated during the service life of the proposed development. The San Andreas, Monte Vista-Shannon, and Hayward faults are the major faults closest to the site. These and other faults of the region are shown on Figure 4. For each of these faults, as well as other active faults within about 50 kilometers (km) of the site, the distance from the site and estimated mean Moment magnitude⁴ [2014 Working Group on California Earthquake Probabilities (WGCEP) (2015) and Uniform California Earthquake Rupture Forecast Version 3 (UCERF3) as detailed in the United States Geological Survey Open File Report 2013-1165] are summarized in Table 1. The mean Moment magnitude presented on Table 1 was computed assuming full rupture of the segment using Hanks and Bakun (2008) relationship.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approximate Distance from Fault (km)	Direction from Site	Mean Characteristic Moment Magnitude
San Andreas 1906 event	3.2	Southwest	8.1
Pilarcitos	9.2	Southwest	6.7
Total San Gregorio	12	West	7.6
Monte Vista - Shannon	22	Southeast	7.0
Total Hayward-Rodgers Creek Healdsburg	26	East	7.6
Mission (connected)	34	East	6.1
Contra Costa (Lafayette)	37	Northeast	6.1
Butano	39	South	6.7
Total Calaveras	40	East	7.5
Franklin	40	East	6.7
Contra Costa (Larkey)	40	Northeast	6.0
Contra Costa Shear Zone (connector)	40	Northeast	6.6
Mount Diablo Thrust	42	Northeast	6.6
Contra Costa (Dillon Point)	45	Northeast	6.1
Concord	47	Northeast	6.4

Note:

Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.



^{1.} The table above is a summary and does not include all the fault segmentation, alternate traces and low activity faults included in the UCERF3 model.

Figure 4 also shows the earthquake epicenters for events with magnitude greater than 5.0 from January 1800 through August 2014. Since 1800, four major earthquakes have been recorded on the San Andreas fault. In 1836 an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) scale (Figure 5) occurred east of Monterey Bay on the San Andreas fault (Toppozada and Borchardt 1998). The estimated Moment magnitude, $M_{\rm w}$, for this earthquake is about 6.25. In 1838, an earthquake occurred with an estimated intensity of about VIII-IX (MM), corresponding to an $M_{\rm w}$ of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas fault from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM), an $M_{\rm w}$ of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The Loma Prieta Earthquake occurred on 17 October 1989 in the Santa Cruz Mountains with an $M_{\rm w}$ of 6.9, the epicenter of which is approximately 84 km from the site.

In 1868 an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward fault. The estimated $M_{\rm w}$ for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably an $M_{\rm w}$ of about 6.5) was reported on the Calaveras fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake ($M_{\rm w}$ = 6.2).

The most recent earthquake to affect the Bay Area occurred on 24 August 2014 and was located on the West Napa fault, approximately 64 km northeast of the site, with an M_W of 6.0.

The 2016 U.S. Geologic Survey (USGS) predicted a 72 percent chance of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area in 30 years (Aagaard et al. 2016). More specific estimates of the probabilities for different faults in the Bay Area are presented in Table 2.

TABLE 2
Estimates of 30-Year Probability (2014 to 2043) of a
Magnitude 6.7 or Greater Earthquake

Fault	Probability (percent)
Hayward-Rodgers Creek	33
Calaveras	26
N. San Andreas	22
Concord/ Mt. Diablo	16
San Gregorio	6



6.0 SEISMIC HAZARDS

The site is in a seismically active area and will likely be subjected to strong to violent shaking during a major earthquake. Hazards resulting from strong ground shaking are discussed in the remainder of this section.

6.1 Fault Rupture

Historically, ground surface fault ruptures closely follow the traces of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act⁵, and no active or potentially active faults exist on the site. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure at the site is low.

6.2 Liquefaction and Associated Hazards

The site is in a seismically active area and will likely be subjected to strong shaking during a major earthquake. Strong shaking during an earthquake can result in ground failures such as those associated with soil liquefaction⁶, lateral spreading⁷, and seismic densification⁸. Each of these conditions has been evaluated based on our review of available information, field investigation, and results of our analysis, and is discussed in this section.

6.2.1 Liquefaction and Free-Field Liquefaction-Induced Settlement

The site is within a zone designated with the potential for liquefaction, as identified in a map prepared by the California Geologic Survey (formerly known as the California Department of Conservation, Division of Mines and Geology) titled Earthquake Zones of Required Investigation, Seismic Hazard Zones, San Francisco South Quadrangle, Official Map, dated 23 September 2021, as shown on Figure 6. Specifically, the map shows the site is in an area "where historic

Seismic densification (also referred to as cyclic densification or differential compaction) is a phenomenon in which non-saturated, cohesionless soil is densified by earthquake vibrations, causing ground surface settlement.



The Alquist-Priolo Act zones certain faults which are known to be active. The CGS defines active as having recorded movement within Holocene time, or within the last 11,700 years.

⁶ Liquefaction is a phenomenon in which saturated (submerged), cohesionless soil experiences a temporary loss of strength because of the buildup of excess pore water pressure, especially during cyclic loading such as those induced by earthquake. Soils most susceptible to liquefaction are loose, clean, saturated, uniformly graded, fine-grained sand.

Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693 (c) would be required."

We used the CPT data to evaluate the potential for free-field, volumetric liquefaction at the site. The SPT blow count data from the hollow-stem-auger borings was judged to be unreliable because of the potential for heave and flow into the augers disturbing granular soil below the groundwater level. We used the historic high groundwater level of 10 feet beneath the ground surface for our liquefaction analyses. Layers of medium dense saturated sand, clayey sand, and silty sand varying in thickness up to approximately two feet were encountered at depths up to 46 feet bgs.

Based on the results of our analyses, we conclude a few of these layers could potentially liquefy during a major earthquake and could experience liquefaction-induced settlement. We used the Boulanger and Idriss (2014) liquefaction triggering analysis method and a peak ground acceleration (PGA_M) of 1.02g based on code seismic design values per ASCE 7-16 to compute earthquake-induced cyclic stress ratios. We estimated liquefaction-induced free-field settlement using the Zhang et al. (2002) post-earthquake displacement analysis method for CPTs. We also used the CPT data to evaluate contractive and dilative behavior of the soil based on the findings by Robertson (2016).

The results of our analyses indicate several of these thin, isolated layers between the depths of 10 to 11½, between 14 to 15½ feet, and also between the depths of 24 to 27½ feet could have a significant buildup of excess pore water pressure and potentially liquefy during a major earthquake. However, the results of our contractive/dilative evaluation suggests that these layers are almost all dilative, meaning they are not subject to large strain behavior or significant settlement. Furthermore, the shear wave velocity in these layers also suggests they would resist liquefaction. We estimate that the total site and building settlement from the potential liquefaction of these layers is on the order of ½ inch. In addition, we conclude up to ½ inch of differential settlement over a horizontal distance of 30 feet could occur.

The settlements discussed in this section are based on free-field conditions and do not include the impact of the structure on estimated settlements; see Section 6.2.2. for further discussion.

6.2.3 Seismic Densification

Seismic densification can occur during strong ground shaking in loose, granular deposits above the water table, resulting in ground surface settlement. The degree of susceptibility to seismic



densification is directly related to the relative density of the existing granular soils. Seismic densification of non-saturated, cohesionless soil following a major earthquake was analyzed using Tokimatsu and Seed (1984) and Pradel (1998). We conclude the sand layers above the water table are sufficiently dense or have sufficient cohesion to resist seismic densification.

6.2.4 Overall Seismic Settlement

For the proposed new buildings, we expect up to ½ inch of volumetric liquefaction-induced settlement could occur at the site and cause future settlement of the new buildings; no seismic densification is anticipated. Therefore, we estimate up to ½ inch of total seismically induced settlement could occur within the building footprints. Because the layers with potential liquefaction settlement are discontinuous, we estimate that up to ½ inch of differential settlement over a horizontal distance of 30 feet may occur during an earthquake.

6.2.5 Lateral Spreading

Lateral spreading is a phenomenon in which a surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a channel, by earthquake and gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes. The site is relatively level; however, it is located about 700 feet away from the free face of Colma Creek (a concrete lined channel) that is northeast of the site.

According to Youd et al. (2002), for significant lateral spreading displacements to occur, the liquefied soil should consist of saturated cohesionless sandy sediments with corrected blow counts $(N_1)_{60}$ less than 15. The sandy layers encountered at the site that are potentially susceptible to liquefaction are not continuous and have a corrected blow count $(N_1)_{60}$ greater than 15 blows per foot or have sufficient plasticity to resist liquefaction. In addition, lateral spreading was not observed at the site during the 1906 or the 1989 Loma Prieta earthquakes. We therefore conclude the potential for lateral spreading at the site is low.

6.3 Tsunami

Recent maps published by the California Department of Conservation (2021) indicate the project site is <u>not</u> within the tsunami inundation zone; therefore, we conclude the potential risk by inundation from tsunami to be low within the project site.



6.4 Flooding

Published maps (Federal Emergency Management Agency 2019) indicate the site is within Zone X, an area of minimal floor hazard. The project civil engineer should evaluate the potential risk of inundation from flooding.

6.5 Sea Level Rise

Considering the site is at least three miles from the San Francisco Bay and higher in elevation, we conclude that sea level rise would not likely have a significant impact on the high groundwater level (Section 7.3) at the project site.

7.0 DISCUSSION AND CONCLUSIONS

From a geotechnical standpoint, we conclude the proposed project is feasible provided the geotechnical issues discussed below are properly addressed during the design and construction of the proposed improvements.

The primary geotechnical issues for this project include:

- the presence of the BART tunnels near the project site
- presence of relatively shallow groundwater
- construction of the new foundation elements.

The geotechnical issues and their potential impacts on the proposed project are discussed in the following sections.

7.1 BART Considerations

Design and construction of the project should address the BART Facilities Standards Design Criteria, Structural, Design and Construction Near Existing BART Structures and Geo-Structures R3.2 December 2020. All criteria should be considered in the design and construction processes (see Appendix E for the comprehensive list of criteria); however, select criteria are summarized below:

 New structures near existing structures shall be designed and constructed so as not to impose any temporary or permanent adverse effects on existing BART structures.
 Potential impacts to the existing BART structures by new design and construction shall be identified at the planning stage of design.



- Analyses of the existing BART structures are required when there are changes to the
 existing BART structures, or temporary or permanent changes to loading upon the
 existing BART structures due to the new design and construction.
- The minimum clearance between any parts of the adjacent BART structures to exterior face of substructures (including temporary elements) shall be 7 feet 6 inches (7.5 feet). In addition, the substructures shall be located such that the loads from the foundations of the new structures shall not impact the BART structures.
- The temporary BART Zone of Influence (ZOI) is defined as the area above or below a line from the critical point of the substructure at a slope of 1½ horizontal to 1 vertical.
- The geotechnical engineer for the proposed structure shall determine the permanent effects or influence on the existing BART's structure based upon the soil and groundwater conditions in the vicinity of the proposed structures and the existing BART's structures. Particular attention shall be paid to liquefiable soil, expansive soil, and lateral spreading. The slope of the permanent ZOI shall not be steeper than the slope of the temporary ZOI as defined above.
- Shoring is required for significant excavations in the temporary and permanent ZOI.
- Seismic and wind loads shall be accounted for in any shoring design for temporary and permanent shoring (see Geo-Structures 7.3 A for details).
- Shoring shall maintain at-rest soil conditions and be monitored for movement.
- Soil redistribution caused by temporary shoring or existing foundation system shall be analyzed.
- Shoring support shall extend at least 10 feet below the base of the excavation or into a
 competent soil or rock layer, whichever is deeper, unless the geotechnical engineer
 shows that vertical and horizontal support requirements can be developed at less than
 10 feet below the excavation depth. The minimum depth of shoring below the excavation
 depth shall be 2 feet.
- A vibration monitoring plan shall be prepared to document the potential for induced vibration and noise from construction equipment and procedures, with respect to their effect on adjacent structures, BART facilities and operations.
- Minimum soil cover of 8 feet on underground structures shall be maintained wherever possible.



Our interpretations of the BART tunnel locations and the location where the temporary ZOI would intersect the exterior ground surface elevations are shown on Figure 2. These interpretations are based on as-built drawings provided by San Francisco BART District (2004), the existing surface topography by Kier + Wright (2024), and proposed development plans provided by Devcon Construction (2024). Because portions of the proposed development are either within or very close to the ZOI, the BART guidelines will have to be considered during the design and construction of the foundation system for the proposed buildings. BART engineering will review the final geotechnical report and the structural plans and calculations.

7.2 Foundations and Settlement

The primary considerations related to the selection of appropriate foundation system for the proposed new buildings are the building loads and anticipated settlements and proximity to the BART structures.

As previously discussed, the proposed new buildings will be constructed at grade. Currently, we understand the finished floor of the new buildings will be roughly at the same elevation as the existing grades, about Elevation 30½ feet. We anticipate the soil to be exposed at the new buildings' subgrade will consist predominantly of medium dense to dense clayey sand and medium stiff to very stiff clay and sandy clay. Based on the preliminary column loads provided by IMEG, we conclude the building can be supported on continuous and isolated spread footings designed per our recommendations in Section 8.2.

As previously discussed, BART typically requires that new developments be designed to not impose any new vertical or horizontal stresses on their structures. Since their construction, the BART tunnels have been subjected to the dead plus live loading from the existing Boys and Girls Club building and operations. The new planned structures will be roughly the same footprint as the existing structures, with some exceptions (see Figure 2). However, the planned two-story structure for Building 1 will extend southeast slightly further than the existing building footprint and will also likely be slightly heavier than the existing one story building. In addition, the planned Building 2 will extend northwest beyond the footprint of the existing structure. Therefore, to mitigate any potential for additional for loading on the BART ZOI, we conclude the dead plus live (gravity) weight of the new building should be offset within the BART's ZOI, such that the weight in the ground resulting from the future structure is the same as the weight that is currently present. This balance can be achieved by overexcavating beneath the planned building footprint within the BART ZOI and placing lightweight material. The lightweight material can consist of lightweight cellular concrete (LCC) or geofoam (Insulfoam).



In addition, where shallow foundations are within the BART ZOI, they will need to be constructed with a permanent void or compressible material on any vertical faces of foundations within the ZOI so that there is no lateral load transfer from the new building to the soil within the ZOI. The void or compressible material can be constructed by placing compressible foam, such as Insulfoam EPS 12, along the vertical face of the footings within the BART ZOI.

After the building foundation is constructed and building loads are applied, the foundation pressure will increase, and the underlying sand and clay layers at depth will become reloaded. We conclude static settlement will consist of immediate recompression settlement. Based on the preliminary dead plus live column loads provided by IMEG for the new buildings, and for shallow foundations designed and constructed in accordance with our recommendations, we estimate total static settlement of spread footings will be less than ½ inch as the soil is reloaded. Differential settlement between adjacent footings spaced on the order of 30 feet should not exceed ½ inch. In addition, as discussed in Section 6.2.4, we anticipate up to ¾ inches of total seismically induced settlement could occur during a major earthquake on a nearby fault.

7.3 Groundwater Considerations

Groundwater was encountered in our borings at depths from about 13½ feet to 22½ feet bgs, corresponding to approximately Elevations 17feet to 7½ feet. The historic high groundwater level in the project vicinity is approximately 10 feet bgs, corresponding to approximately Elevation 21 feet. The groundwater level is likely influenced by wet and dry seasons. On the basis of our knowledge of groundwater conditions at the site and in the vicinity, we conclude a high groundwater elevation of Elevation 21 feet is appropriate for design of permanent structures.

7.4 Corrosion Potential

Because corrosive soil can adversely affect underground utilities and foundation elements, laboratory testing was performed to evaluate the corrosivity of the near surface soil. CERCO Analytical performed tests on one soil sample to evaluate corrosion potential to buried metals and concrete. The results of the tests are presented in Table 3 and Appendix D.



TABLE 3
Summary of Corrosivity Test Results

Boring	Sample Depth (feet)	рН	Sulfates (mg/kg)	Resistivity (ohms-cm)	Redox (mV)	Chlorides (mg/kg)
B-1	3	7.46	N.D.	7,200	240	N.D.
B-2	3	5.60	20	6,900	300	N.D.

N.D. = None Detected

Based upon resistivity measurements, the soil samples tested are classified as "moderately corrosive" to buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron. As a result, the chemical analysis indicates reinforced concrete and cement mortar coated steel may be affected by the corrosivity of the soil. To protect reinforcing steel from corrosion, adequate coverage should be provided as required by the building code. A corrosion expert should be consulted during the design phase for the most economical and effective corrosion protection, if necessary.

7.5 Construction Considerations

We anticipate soil to be excavated from the site can likely be removed with conventional earthmoving equipment such as excavators and backhoes. We understand the northern and southern ends of the existing building at the site will be demolished. Buried foundations from this structure and possibly previously existing structures may require the use of jackhammers to break apart and remove. Care should be taken to reduce vibrations when removing obstructions from the site and equipment capable of generating large vibrations (such as hoe-rams) should not be used within the BART 70L.

If site grading is performed during wet weather, the exposed soil subgrade may become wet and difficult to compact. Wet soil may need to be aerated during dry weather prior to compaction, or the wet soil can be excavated and replaced with drier soil or aggregate base. If needed, the soil can be lime treated to aid in compaction. Light grading equipment may be needed to avoid damaging the subgrade.

8.0 RECOMMENDATIONS

From a geotechnical standpoint, the site can be developed as planned, provided the recommendations presented in this section of the report are incorporated into the design and



contract documents. Recommendations for site preparation, foundation design, seismic design, utilities, and other geotechnical aspects of the project are presented in the following sections of this report.

8.1 Earthwork

The following subsections present recommendations for site preparation, subgrade preparation, and fill placement.

8.1.1 Site Preparation

Demolition in areas to be developed should include the removal of existing structures and foundations, pavements, and underground obstructions. Any vegetation and organic topsoil should be stripped in areas to receive new site improvements. Stripped organic soil can be stockpiled for later use in landscaped areas, if approved by the owner and architect; organic topsoil should not be used as compacted fill.

Demolished asphalt and concrete at the site can be crushed to provide recycled construction materials, including sand, free-draining crushed rock, or Class 2 aggregate base (AB), provided their re-use onsite is acceptable from an environmental standpoint. Where crushed concrete will be used in applications where free-draining materials are required, the material should have no greater than six percent by weight passing the 3/8-inch sieve. Where recycled Class 2 AB will be used beneath pavements and flatwork, it should meet requirements of the Caltrans Standard Specifications. Where crushed concrete or asphalt are mixed with soil to be used as fill, particles between 1½ and 3 inches in greatest dimension should comprise no more than 30 percent of the fill by weight.

Existing underground utilities beneath areas to receive new improvements should be removed or abandoned in-place by filling them with grout. The procedure for in-place abandonment of utilities should be evaluated on a case-by-case basis and will depend on location of utilities relative to new improvements. However, in general, existing utilities within four feet of final grades should be removed, and the resulting excavation should be properly backfilled based on the recommendations presented in this section.

Where utilities to be removed extend off site, they should be capped or plugged with grout at the property line. It may be feasible to abandon utilities in-place, outside the proposed building footprint, provided they will not interfere with future utilities or structures. If utilities are abandoned in-place, the pipes should be completely filled with flowable cement grout over their entire length within the site limits.



8.1.2 Subgrade Preparation

Prior to placement of fill or other improvements, the subgrade should be scarified to a depth of 8 inches, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction⁹. Within vehicle pavement areas, the upper six inches of the pavement soil subgrade should be compacted to at least 95 percent relative compaction.

If soft or loose soil is encountered at subgrade, it should be removed and be replaced with suitable fill that is properly compacted and moisture conditioned. The subgrade should be kept moist until it is covered with fill or other improvements. If the compacted subgrade is disturbed, it should be re-rolled to provide a smooth, firm surface. Clay exposed at the foundation level may be susceptible to disturbance under construction equipment traffic. Heavy construction equipment should not be allowed directly on the final subgrade. If stabilization or winterization is needed, it may be prudent to lime treat or to place a temporary layer of crushed rock to protect the final subgrade.

8.1.3 Fill Placement

We anticipate fill placement at the site will consist primarily of backfill for utility trenches and minor grading for the building pad, flatwork, and hardscapes.

We anticipate that soil excavated during construction will generally be acceptable for use as general fill and backfill. Soil excavated beneath buildings or flatwork will likely require significant drying before it can be used as fill and compacted to the specified relative compaction. Any onsite soil or imported fill used as fill and backfill should meet the following criteria:

- be free of organic matter or other deleterious material;
- contain no rocks or lumps larger than three inches in greatest dimension;
- have a low expansion potential (defined by a liquid limit of less than 40 and plasticity index lower than 12);
- have at least 15 percent fines (particles passing the No. 200 sieve);
- be non-hazardous and approved by the project corrosion consultant;
- be approved by Langan.

Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557 laboratory compaction procedure.



All fill placed beneath improvements should meet this criterial. Fill should be placed in horizontal lifts not exceeding eight inches in uncompacted thickness, moisture-conditioned to near optimum moisture content, and compacted to at least 90 percent relative compaction for fill thicknesses equal or less than five feet and 95 percent compaction for fill thicknesses greater than five feet. If imported clean sand or gravel (defined as soil with less than 10 percent fines) is used as backfill, it should be compacted to at least 95 percent relative compaction regardless of fill thickness. Any imported soil will need to be meet any analytical testing requirements established by owner and the project environmental consultant.

During construction, we should check that the on-site soil and/or any proposed import material is suitable for use as fill. Samples of all fill should be submitted to Langan for testing at least three business days prior to use at the site. A flowable cement grout, such as lean concrete or CDF, may also be used as backfill under most conditions, but we should be consulted prior to its use.

8.1.4 Utility Trenches

The corrosivity test results provided in Appendix D should be reviewed and corrosion protection measures used to protect below-grade utilities, if needed. A corrosion engineer should be retained if corrosion recommendations are needed.

Utility trenches should be excavated a minimum of four inches below the bottom of pipes or conduits and have clearances of at least four inches on both sides. Where necessary, trench excavations should be shored and braced, in accordance with all safety regulations, to prevent cave-ins.

Backfill for utility trenches should be compacted according to the recommendations presented for the general site fill. Jetting of trench backfill is not permitted. To provide uniform support, pipes or conduits should be bedded on a minimum of four inches of sand or fine gravel. After pipes and conduits are tested, inspected (if required), and approved, they should be covered to a depth of six inches with sand or fine gravel, which should then be mechanically tamped or compacted with a vibratory plate. Backfill should then be placed as recommended for engineered fill. If any utility trenches will extend below the design groundwater elevation, sand, or gravel with less than 10 percent fines used as pipe bedding, shading, or cover should be wrapped in a filter fabric such as Mirafi 140NC.

Special care should be taken in controlling utility backfilling in pavement areas. Poor compaction may cause excessive settlements, resulting in damage to exterior improvements.



8.2 Foundations

BART Considerations

As discussed in Section 7.2, the dead plus live (gravity) weight of the new building should be offset within the BART's ZOI, such that the weight in the ground resulting from the future structure is the same as the weight that is currently present. To achieve this balance, we recommend overexcavating beneath the planned slabs located within the BART ZOI and placing lightweight material consisting of LCC or geofoam. The strength of lightweight material should be checked against the slab loads.

In addition, where the footings are located within the BART ZOI, the passive and frictional resistance of any in-ground elements should be ignored (lateral resistance for the structure should be collected and designed to shed to the soil outside of the ZOI). As part of this design, where shallow foundations are within the BART ZOI, we recommend they be constructed with a permanent void or compressible material on any vertical faces of foundations within the ZOI so that there is no lateral load transfer from the new building to the soil within the ZOI. The void should be at least one inch wide. Conversely, if compressible material is used, it should consist of a weak compressible foam, such as Insulfoam EPS 12, and should be at least 6 inches wide. This void or compressible material should be placed along the vertical face of all footings within the BART ZOI.

Foundation Design

As discussed in Section 7.2, the proposed new buildings can be supported on continuous perimeter and isolated spread footings. The subsurface exploration indicates that low expansive soil is present at the site; therefore, the footings should be founded at least 18 inches below the lowest adjacent final soil subgrade and the perimeter footings should be continuous. Footings should be at least 18 inches wide for continuous footings and 24 inches for isolated spread footings. Footings adjacent to utility trenches (or other footings) should bear below an imaginary 1.5:1 (horizontal to vertical) plane projected upward from the bottom edge of the utility trench (or adjacent footings). If footings bear above an imaginary 1.5:1 plane projected upward from the bottom edge of adjacent footing, then the adjacent footing should be designed for surcharge pressures from the footings founded above it. If this condition exists, we can compute the additional pressure increment.

For the recommended minimum embedment, the footings bearing on firm native soil (or on properly designed lightweight material) may be designed for an allowable bearing capacity of 2,000 pounds per square foot (psf) for dead plus live loads, with a one-third increase for total



loads, including wind and/or seismic loads. Anticipated foundation settlements associated with this allowable bearing capacity are discussed in Section 7.2 and total seismically induced settlements are discussed in Section 6.2.4.

Foundation excavations should be free of standing water, debris, and disturbed materials prior to placing concrete. The bottoms and sides of the excavations should be moistened following excavation and maintained in a moist condition until the concrete is placed. We should check excavations prior to placement of reinforcing steel. If loose or disturbed material is observed in the excavation, it should be excavated to firm, competent material and replaced with lean concrete or engineered fill.

Lateral forces on any building elements within the BART ZOI should be ignored. Lateral forces on shallow foundations bearing on native soil outside/beyond the BART ZOI can be resisted by a combination of friction along the base of the foundation and passive resistance against the vertical faces of the foundation. Frictional resistance should be computed using a base friction coefficient of 0.30, assuming the foundation is in contact with soil. To calculate the passive resistance against the vertical faces of the foundations, we recommend using lateral pressures corresponding to an allowable equivalent fluid weight (triangular distribution) of 270 pounds per cubic foot (pcf) in native soil. The upper foot should be ignored unless confined by a concrete slab or pavement. The values for the friction coefficient and passive pressures include a factor of safety of 1.5 and may be used in combination without reduction.

8.3 Floor Slabs

The soil exposed at the bottom of foundation excavations and at floor slab subgrade is likely to consist of medium dense to dense clayey sand and medium stiff to very stiff clay and sandy clay. The floor slab may be designed to bear on grade, which is similar to the existing building's floor slab design.

Moisture is likely to condense on the underside of the floor slab, even though it will be above the design groundwater level. Consequently, a moisture barrier system should be considered if movement of water vapor through the slab would be detrimental to its intended use. A typical moisture barrier consists of a water vapor retarder and capillary moisture break. The moisture barrier should be placed directly beneath the slab.



The vapor retarder should meet the requirements for Class A vapor retarders stated in ASTM E1745, similar to 15mil Stego Wrap. The vapor retarder should be placed in accordance with the requirements of ASTM E1643. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder.

Beneath the vapor retarder, should be a capillary moisture break layer. Outside the BART ZOI, the moisture break should consist of at least four inches of clean, free-draining gravel or crushed rock. Where the slab is underlain by lighweight fill (within the BART ZOI), the typical gravel moisture break can be replaced with the lightweight fill consisting of either EPS geofoam or closed-cell LCC. The particle size of the gravel/crushed rock should meet the gradation requirements presented in Table 4.

TABLE 4
Gradation Requirements for Capillary Moisture Break

Sieve Size	Percentage Passing Sieve
Gravel or Crushed Rock	
1 inch	90 – 100
3/4 inch	30 – 100
1/2 inch	5 – 25
3/8 inch	0 – 6

Concrete mixes with high water/cement (w/c) ratios result in excess water in the concrete, which increases the cure time and results in excessive vapor transmission through the slab. Therefore, concrete for the floor slab should have a low w/c ratio - less than 0.45. The slab should be properly cured. Before the floor covering is placed, the contractor should check that the concrete surface and the moisture emission levels (if emission testing is required) meet the manufacturer's requirements.

8.4 Seismic Design

Based on the results of the field investigation, including borings and shear wave velocity testing, the site is classified as a stiff soil site, Site Class D. A site-specific ground motion analysis is required for structures on Site Class D sites with S_1 greater than or equal to 0.2, in accordance with the 2022 California Building Code (CBC) and by reference ASCE 7-16, unless the criteria listed in the exception in Section 11.4.8 of ASCE 7-16 as modified by Supplement 3 of



ASCE 7-16 are met. We understand from the project structural engineer that these criteria will be met for the project. Therefore, for seismic design in accordance with the provisions of 2022 CBC/ASCE 7-16 and Supplement 3, we recommend the following:

- Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion parameter spectral response acceleration (5% critical damping) for 0.2 seconds (S_s) and 1 second (S₁) of 2.16g and 0.90g, respectively
- Site Class D
- Site Coefficients F_a and F_v of 1.0 and 1.7, respectively
- MCE_R and DE spectral response acceleration parameters at short periods, S_{MS} and S_{DS} , of 2.16g and 1.44g, respectively
- MCE_R and DE spectral response acceleration parameters at one-second period, S_{M1} and S_{D1} , of 2.28g and 1.52g, respectively (these values have been increased by 50% in accordance with ASCE 7-16 Supplement 3).

8.5 Excavations

Where space permits, the sides of excavations can be sloped. Temporary excavation slopes should be no steeper than 1½:1 (horizontal to vertical) for soil above the groundwater table. Where space does not permit a sloped excavation and where excavations extend below five feet, excavations should be shored.

8.6 Pavement and Concrete Flatwork Design

Our recommendations for flexible and rigid pavement and concrete flatwork are presented in this section.

8.6.1 Flexible and Rigid Pavement

The State of California flexible pavement design method was used to develop the recommended asphalt concrete pavement sections. We expect the final soil subgrade in asphalt-paved areas will generally consist of on-site soil. On the basis of the laboratory test results, we selected an R-value of 10 for design. For our calculations, we assumed a Traffic Index (TI) of 4 for automobile parking areas with occasional trucks, and 5 and 6 for driveways and truck-use areas; these TIs should be confirmed by the project civil engineer. Table 5 presents our recommendations for asphalt pavement sections for these traffic indices.



TABLE 5
Flexible Pavement Sections
Subgrade R-Value = 10

TI	Asphaltic Concrete (inches)	Class 2 Aggregate Base R = 78 (inches)
4	2.5	7
5	3	9
6	3.5	11.5

Where rigid pavement is required, for loading and service areas, we recommend a minimum of six inches of concrete for medium traffic (TI of 5.5 or lower) and a minimum of eight inches of concrete for heavy traffic (TIs of 6 and higher). The concrete should be underlain by at least six inches of Class 2 aggregate base.

Pavement components should conform to the current Caltrans Standard Specifications. The subgrade should be prepared following the guidance in Section 8.1.2 to provide a smooth, non-yielding surface. The aggregate base should be moisture conditioned and compacted to a relative compaction of at least 95 percent. Recycled aggregate base is acceptable provided it meets the Caltrans criteria for Class 2 material.

The finished compacted aggregate base should be firm and unyielding and be proof rolled prior to placement of the pavement. If unstable areas are identified during proof rolling, or if the contractor is unable to achieve the recommended degree of compaction, the aggregate base in these areas should be removed in order to repair the underlying soil subgrade. In these areas the upper six inches of the soil subgrade should be moisture-conditioned to at or above optimum and compacted to at least 95 percent relative compaction.

8.6.2 Concrete Flatwork

Exterior concrete flatwork should be underlain by at least four inches of aggregate base compacted to at least 95 percent relative compaction. The subgrade should be prepared following the guidance in Section 8.1.2 to provide a smooth, non-yielding surface.



8.7 Construction Monitoring

BART could require monitoring of its structures for potential deformation caused by the proposed construction activities. BART monitoring requirements should be discussed with BART and incorporated into the construction monitoring program.

8.8 Site Drainage

Positive surface drainage should be provided around the new buildings to direct surface water away from the new and existing structures. To reduce the potential for water ponding adjacent to the building, we recommend the ground surface within a horizontal distance of ten feet measured perpendicular to the face of the wall be designed to slope down and away from the building with a surface gradient of at least five percent in unpaved areas and two percent in paved areas in accordance with California Building Code (CBC) Section 1804.4. In addition, roof downspouts should be discharged into controlled drainage facilities to keep the water away from the building.

Drainage control design should include provisions for positive surface gradients so that surface runoff is not permitted to pond, particularly adjacent to structures, or on roadways or pavements.

8.9 Bioretention Systems

Bioretention areas are landscaping features used to treat stormwater runoff within a development site. They are commonly located in parking lot islands and landscape areas. Surface runoff is directed into shallow, landscaped depressions, which usually include mulch and a prepared soil mix. Typically, the filtered runoff is collected in a perforated underdrain beneath the bioretention system and returned to the storm drain system. For larger storms, runoff will generally overflow the bioretention areas and is diverted to the storm drain system.

The soil within a bioretention system should typically have an infiltration rate sufficient to draw down any pooled water within 48 hours after a storm event. Bioretention soil should be installed in accordance with the San Mateo County's C.3 stormwater technical guidelines. Because the soil subgrade beneath bioretention areas will likely be clayey sand and clay, which has a relatively low infiltration rate, an underdrain system with a waterproof liner on the sides and bottom of the bioretention swale should be installed.

Underdrains are typically at the invert of the bioretention system to intercept water that does not infiltrate into the surrounding soils. Underdrains consist of a perforated PVC pipe surrounded by threat least two inches of Class 2 Permeable material (Caltrans Standard Specifications



Section 68-2.02F(3)). The perforated PVC pipe cross section area should be determined based on the desired hydraulic conductivity of the underdrain. Underdrains should be installed in accordance with the Santa Clara County's C.3 stormwater technical guidelines.

Overflow from bioretention areas should be directed to the storm drain system away from building foundations and slabs. If bioretention systems are closer than five feet to the face of buildings, passive resistance of foundation elements should be neglected.

9.0 ADDITIONAL SERVICES DURING DESIGN, CONSTRUCTION DOCUMENTS, AND CONSTRUCTION QUALITY ASSURANCE

During final design we should be retained to consult with the design team as geotechnical questions arise. Technical specifications and design drawings should incorporate Langan's recommendations. When authorized, Langan will assist the design team in preparing specification sections related to geotechnical issues, if needed. Langan should also, when authorized, review the project plans, as well as Contractor submittals relating to materials and construction procedures for geotechnical work, to check that the designs incorporate the intent of our recommendations.

Langan has investigated and interpreted the site subsurface conditions and developed the foundation design recommendations contained herein, and is therefore best suited to perform quality assurance observation and testing of geotechnical-related work during construction. The work requiring quality assurance confirmation and/or special inspections per the Building Code includes, but is not limited to, earthwork, backfill, and foundation installation. In fulfillment of these duties, during construction we should check foundation subgrade preparation and check compaction of utility trench backfill. We should also observe any fill placement and perform field density tests to check that adequate fill compaction has been achieved.

Recognizing that construction observation is the final stage of geotechnical design, quality assurance observation during construction by Langan is necessary to confirm the design assumptions and design elements, to maintain our continuity of responsibility on this project, and allow us to make changes to our recommendations, as necessary. The foundation system and general geotechnical construction methods recommended herein are predicated upon Langan reviewing the final design and providing construction observation services for the owner. Should Langan not be retained for these services, we cannot assume the role of geotechnical engineer of record, and the entity providing the final design and construction observation services must serve as the engineer of record.



10.0 LIMITATIONS

The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings and CPTs. Actual subsurface conditions may vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to Langan's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the Owner, architect, and structural engineer in the design process and is only applicable to the design of the specific project identified. Any proposed changes to the development concept should be brought to Langan's attention as soon as possible so that we can determine whether such changes affect our recommendations. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities on adjacent properties which are beyond the limits of that which is the specific subject of this report.



REFERENCES

2014 Working Group on California Earthquake Probabilities. (2015). "UCERF3: A new Earthquake Forecast for California's Complex Fault System", U.S. Geological Survey 2015–3009. http://dx.doi.org/10.3133/fs20153009.

Aagaard, B. T., Blair, J. L., Boatwright, J., Garcia, S. H., Harris, R. A., Michael, A. J., Schwartz, D. P., and DiLeo, J.S. (2016). "Earthquake Outlook for the San Francisco Bay Region 2014–2043 (ver. 1.1, August 2016), U.S. Geological Survey Fact Sheet 2016–3020, 6 p. http://dx.doi.org/10.3133/fs20163020

ASCE/SEI 7-16 (2016). Minimum Design Loads for Buildings and Other Structures.

Bay Area Rapid Transit (2020). "BART Facilities Standards Design Criteria, Structural – Design and Construction Near Existing BART Structures," issued December 2020.

Bay Area Rapid Transit (2020). "BART Facilities Standards Design Criteria, Structural – Geo-Structures," issued December 2020.

Boulanger, R. W. and Idriss, I. M. (2014). "CPT and SPT Based Liquefaction Triggering Procedures." Department of Civil & Environmental Engineering, College of Engineering, University of California at Davis, Center for Geotechnical Modeling, Report No. UCD/CGM-14/01. April.

Bray, J. D., and Sancio, R. B. (2006). "Assessment of the liquefaction susceptibility of fine-grained soils," J. Geotechnical and Geoenvironmental Eng., ASCE 123(9), 1167-1177.

California Building Standards Commission, 2022 California Building Code.

California Division of Mines and Geology (2008). "Guidelines for Evaluating and Mitigating Seismic Hazards in California." Special Publication 117A.

California Division of Mines and Geology (1996). "Probabilistic seismic hazard assessment for the State of California." DMG Open-File Report 96-08.

California Geologic Survey (2021). Earthquake Zones of Required Investigation, Seismic Hazard Zones, San Francisco South Quadrangle, Official Map. 23 September 2021.

California Geologic Survey (1982). Earthquake Zones of Required Investigation, Earthquake Fault Zones, San Francisco South Quadrangle, Official Map. 1 January 1982.

California Geologic Survey (2021). Seismic Hazard Zone Report for the San Francisco South 7.5-Minute Quadrangle, San Mateo County, California.

California Geologic Survey (2021). Seismic Hazard Zonation of the San Francisco South Quadrangle, San Mateo County, California.



REFERENCES (Continued)

Cao, T., Bryant, W. A., Rowshandel, B., Branum D. and Wills, C. J. (2003). "The Revised 2002 California Probabilistic Seismic Hazard Maps."

Devcon Construction (2024). "Site Circulation Plan, Orange Park Clubhouse, Boys and Girls Clubs of the Peninsula," dated 20 November 2024.

Federal Emergency Management Agency (2019). "Flood Insurance Rate Map, San Mateo County, California, Panel 43 of 510, Map Number 06081C0043F," Effective April 5, 2019.

Gutenberg, B. and Richter, C. F. (1954). "Seismicity of the Earth and Associated Phenomena."

Hanks, T. C., and W. H. Bakun (2008). "M-log A observations of recent large earthquakes." Bulletin of Seismological Society of America, Vol. 98, No. 1, pp 490-503.

Idriss, I.M. and R.W. Boulanger (2008). "Soil Liquefaction During Earthquakes," EERI, MNO-12.

IMEG Corp (2025). Email correspondence dated 28 February 2025.

Ishihara, K. and Yoshimine, M. (1992). "Evaluation of Settlements in Sand Deposits Following Liquefaction during Earthquakes," Soils and Foundations, Vol. 32, No. 1, pp. 173-188.

Kier + Wright (2024). "Topographic Survey of 201 West Orange Avenue for Hunter Properties Inc., South San Francisco, California," dated March 2024.

Lienkaemper, J. J. (1992). "Map of recently active traces of the Hayward Fault, Alameda and Contra Costa counties, California." Miscellaneous Field Studies Map MF-2196.

Pradel, D. (1998). "Procedure to Evaluate Earthquake -Induced Settlements in Dry Sandy Soils," ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 124, No. 4, 364-368.

San Francisco Bay Area Rapid Transit (BART) District (2004). "San Francisco Airport Extension Line, Trackwork, and Systems, Plan and Profile, W2 357+00 to W2 369+00" dated 5 March 2004.

Seed, H. B. and Idriss, I. M. (1971). "Simplified Procedure for Evaluating Soil Liquefaction during Earthquakes," Journal of Geotechnical Engineering Division, ASCE, 97 (9), 1249-1273.

Southern California Earthquake Center (SCEC) (1999). "Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California."

State of California (2021). *Tsunami Hazard Area Map,* San Mateo County, produced by the California Geological Survey and the California Governor's Office of Emergency Services.



REFERENCES (Continued)

Tokimatsu, K. and Seed, H.B. (1987). "Evaluation of Settlements in Sand due to Earthquake Shaking." Journal of Geotechnical Engineering, Vol. 113, No. 8, pp. 861-878.

Toppozada, T. R. and Borchardt G. (1998). "Re-Evaluation of the 1836 "Hayward Fault" and the 1838 San Andreas Fault earthquakes." Bulletin of Seismological Society of America, 88(1), 140-159.

Wells, D. L. and Coppersmith, K. J. (1994). "New Empirical Relationships among Magnitude, Rupture Length, Rupture Width, Rupture Area, and Surface Displacement." Bulletin of the Seismological Society of America, 84(4), 974-1002.

Wesnousky, S. G. (1986). "Earthquakes, Quaternary Faults, and Seismic Hazards in California." Journal of Geophysical Research, 91(1312).

Working Group on California Earthquake Probabilities (WGCEP) (2008). "The Uniform California Earthquake Rupture Forecast, Version 2." Open File Report 2007-1437.

Youd, T. L., and Garris, C. T. (1995). "Liquefaction-induced ground-surface disruption." Journal of Geotechnical Engineering, American Society of Civil Engineers, Vol. 121, 805-809.

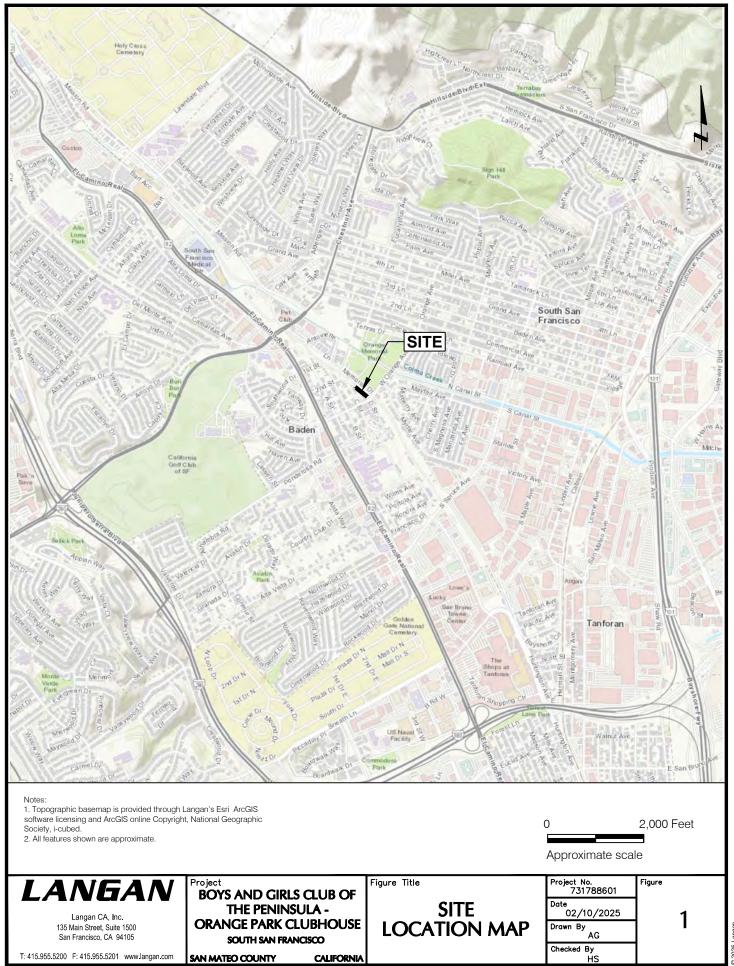
Youd, T. L., Hansen, C. M., and Bartlett, S. F., (2002). Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement, Journal of Geotechnical and Geoenvironmental Engineering, December.

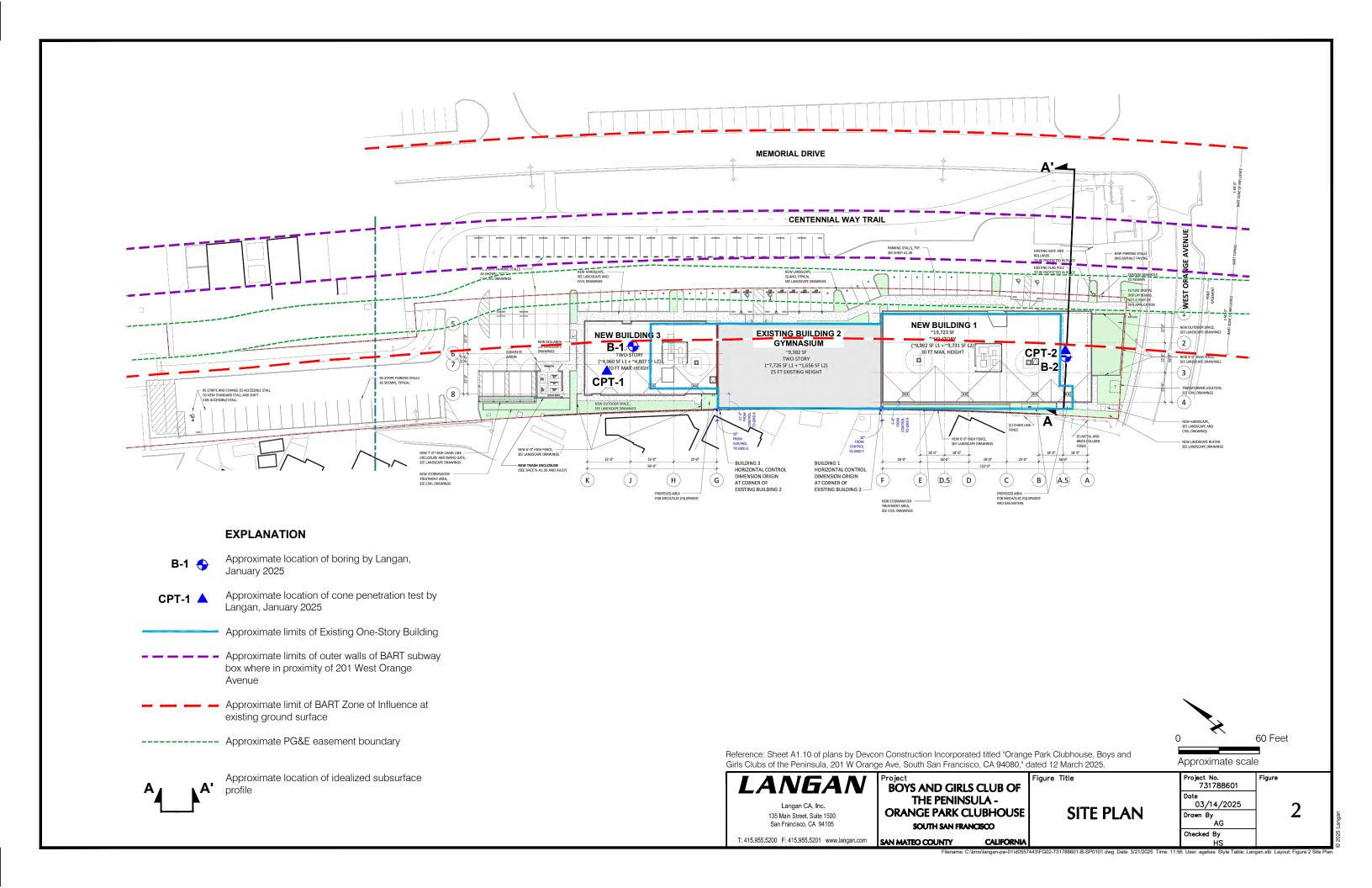
Youd, T. L., and Idriss, I. M. (2001). "Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils," Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 4.

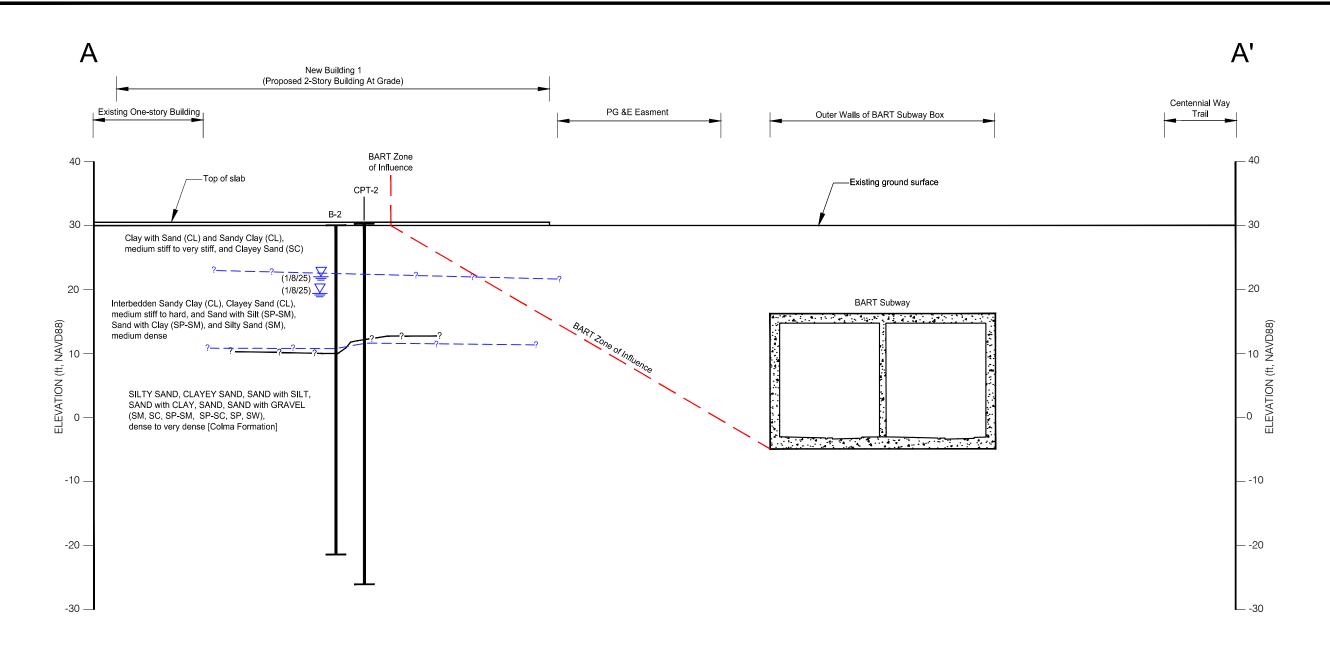
Youngs, R. R., and Coppersmith, K. J. (1985). "Implications of fault slip rates and earthquake recurrence models to probabilistic seismic hazard estimates." *Bulletin of the Seismological Society of America*, 75(), 939-964.



FIGURES







Notes:

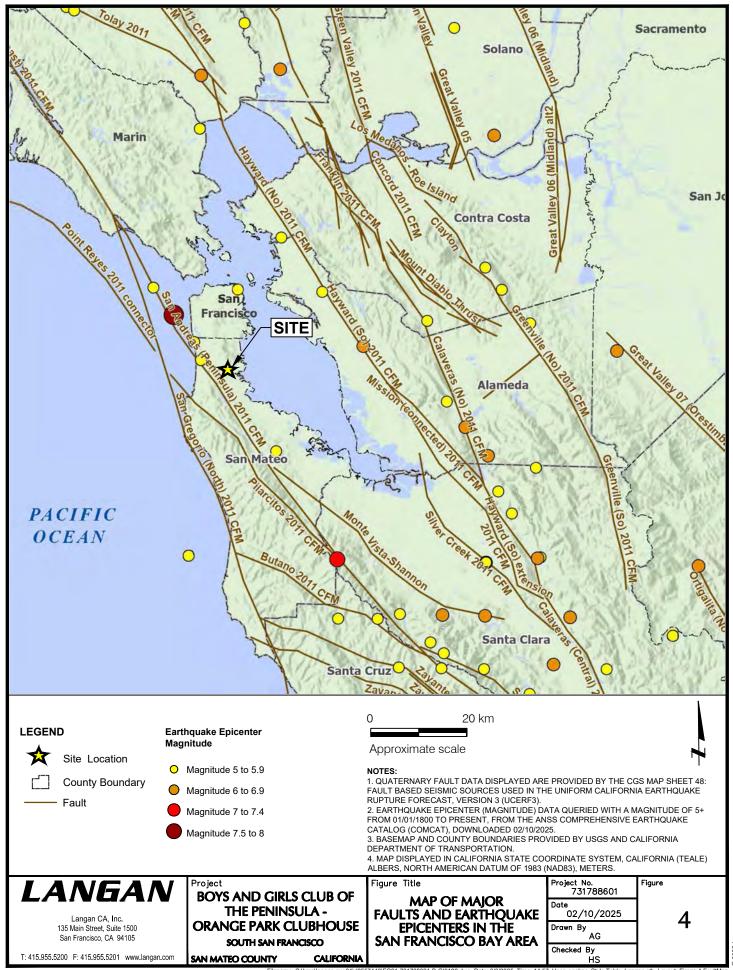
- The above profile represents a generalized subsurface cross section interpreted from widely spaced borings. Soil deposits may vary in type, strength, and other important properties between points of exploration.
- 2. Approximate location of proposed structure is based on site plan provided by Devcon titled "Site Circulation Plan", dated 20 November 2024.
- 3. Approximate location of BART subway box is based on the San Francisco Airport Extension Line as-built drawing titled "San Francisco Airport Extension Line, Trackwork, and Systems, Plan and Profile, W2 357+00 to W2 369+00", provided by San Francisco BART District (2004).
- All elevations referenced herein are based on "Topographic Survey of 201 West Orange Avenue for Hunter Properties Inc., South San Francisco, California", by Kier + Wright, dated March 2004 and reference North American Vertical Datum of 1988 (NAVD88).

Legend:



Approximate groundwater level measured during drilling





I Not felt by people, except under especially favorable circumstances. However, dizziness or nausea may be experienced.

Sometimes birds and animals are uneasy or disturbed. Trees, structures, liquids, bodies of water may sway gently, and doors may swing very slowly.

Il Felt indoors by a few people, especially on upper floors of multi-story buildings, and by sensitive or nervous persons.

As in Grade I, birds and animals are disturbed, and trees, structures, liquids and bodies of water may sway. Hanging objects swing, especially if they are delicately suspended

III Felt indoors by several people, usually as a rapid vibration that may not be recognized as an earthquake at first. Vibration is similar to that of a light, or lightly loaded trucks, or heavy trucks some distance away. Duration may be estimated in some cases.

Movements may be appreciable on upper levels of tall structures. Standing motor cars may rock slightly.

IV Felt indoors by many, outdoors by a few. Awakens a few individuals, particularly light sleepers, but frightens no one except those apprehensive from previous experience. Vibration like that due to passing of heavy, or heavily loaded trucks. Sensation like a heavy body striking building, or the falling of heavy objects inside.

Dishes, windows and doors rattle; glassware and crockery clink and clash. Walls and house frames creak, especially if intensity is in the upper range of this grade. Hanging objects often swing. Liquids in open vessels are disturbed slightly. Stationary automobiles rock noticeably.

V Felt indoors by practically everyone, outdoors by most people. Direction can often be estimated by those outdoors. Awakens many, or most sleepers. Frightens a few people, with slight excitement; some persons run outdoors.

Buildings tremble throughout. Dishes and glassware break to some extent. Windows crack in some cases, but not generally. Vases and small or unstable objects overturn in many instances, and a few fall. Hanging objects and doors swing generally or considerably. Pictures knock against walls, or swing out of place. Doors and shutters open or close abruptly. Pendulum clocks stop, or run fast or slow. Small objects move, and furnishings may shift to a slight extent. Small amounts of liquids spill from well-filled open containers. Trees and bushes shake slightly.

VI Felt by everyone, indoors and outdoors. Awakens all sleepers. Frightens many people; general excitement, and some persons run outdoors.

Persons move unsteadily. Trees and bushes shake slightly to moderately. Liquids are set in strong motion. Small bells in churches and schools ring. Poorly built buildings may be damaged. Plaster falls in small amounts. Other plaster cracks somewhat. Many dishes and glasses, and a few windows break. Knickknacks, books and pictures fall. Furniture overturns in many instances. Heavy furnishings

VII Frightens everyone. General alarm, and everyone runs outdoors.

People find it difficult to stand. Persons driving cars notice shaking. Trees and bushes shake moderately to strongly. Waves form on ponds, lakes and streams. Water is muddled. Gravel or sand stream banks cave in. Large church bells ring. Suspended objects guiver. Damage is negligible in buildings of good design and construction; slight to moderate in well-built ordinary buildings; considerable in poorly built or badly designed buildings, adobe houses, old walls (especially where laid up without mortar), spires, etc. Plaster and some stucco fall. Many windows and some furniture break. Loosened brickwork and tiles shake down. Weak chimneys break at the roofline. Cornices fall from towers and high buildings. Bricks and stones are dislodged. Heavy furniture overturns. Concrete irrigation ditches are considerably damaged.

VIII General fright, and alarm approaches panic.

Persons driving cars are disturbed. Trees shake strongly, and branches and trunks break off (especially palm trees). Sand and mud erupts in small amounts. Flow of springs and wells is temporarily and sometimes permanently changed. Dry wells renew flow. Temperatures of spring and well waters varies. Damage slight in brick structures built especially to withstand earthquakes; considerable in ordinary substantial buildings, with some partial collapse; heavy in some wooden houses, with some tumbling down. Panel walls break away in frame structures. Decayed pilings break off. Walls fall. Solid stone walls crack and break seriously. Wet grounds and steep slopes crack to some extent. Chimneys, columns, monuments and factory stacks and towers twist and fall. Very heavy furniture moves conspicuously or overturns.

IX Panic is general.

Ground cracks conspicuously. Damage is considerable in masonry structures built especially to withstand earthquakes; great in other masonry buildings - some collapse in large part. Some wood frame houses built especially to withstand earthquakes are thrown out of plumb, others are shifted wholly off foundations. Reservoirs are seriously damaged and underground pipes sometimes break.

X Panic is general.

Ground, especially when loose and wet, cracks up to widths of several inches; fissures up to a yard in width run parallel to canal and stream banks. Landsliding is considerable from river banks and steep coasts. Sand and mud shifts horizontally on beaches and flat land. Water level changes in wells. Water is thrown on banks of canals, lakes, rivers, etc. Dams, dikes, embankments are seriously damaged. Well-built wooden structures and bridges are severely damaged, and some collapse. Dangerous cracks develop in excellent brick walls. Most masonry and frame structures, and their foundations are destroyed. Railroad rails bend slightly. Pipe lines buried in earth tear apart or are crushed endwise. Open cracks and broad wavy folds open in cement pavements and asphalt road surfaces.

XI Panic is general.

Disturbances in ground are many and widespread, varying with the ground material. Broad fissures, earth slumps, and land slips develop in soft, wet ground. Water charged with sand and mud is ejected in large amounts. Sea waves of significant magnitude may develop. Damage is severe to wood frame structures, especially near shock centers, great to dams, dikes and embankments, even at long distances. Few if any masonry structures remain standing. Supporting piers or pillars of large, well-built bridges are wrecked. Wooden bridges that "give" are less affected. Railroad rails bend greatly and some thrust endwise. Pipe lines buried in earth are put completely out of service.

XII Panic is general.

Damage is total, and practically all works of construction are damaged greatly or destroyed. Disturbances in the ground are great and varied, and numerous shearing cracks develop. Landslides, rock falls, and slumps in river banks are numerous and extensive. Large rock masses are wrenched loose and torn off. Fault slips develop in firm rock, and horizontal and vertical offset displacements are notable. Water channels, both surface and underground, are disturbed and modified greatly. Lakes are dammed, new waterfalls are produced, rivers are deflected, etc. Surface waves are seen on ground surfaces. Lines of sight and level are distorted. Objects are thrown upward into the air.

Figure Title

LANGAN

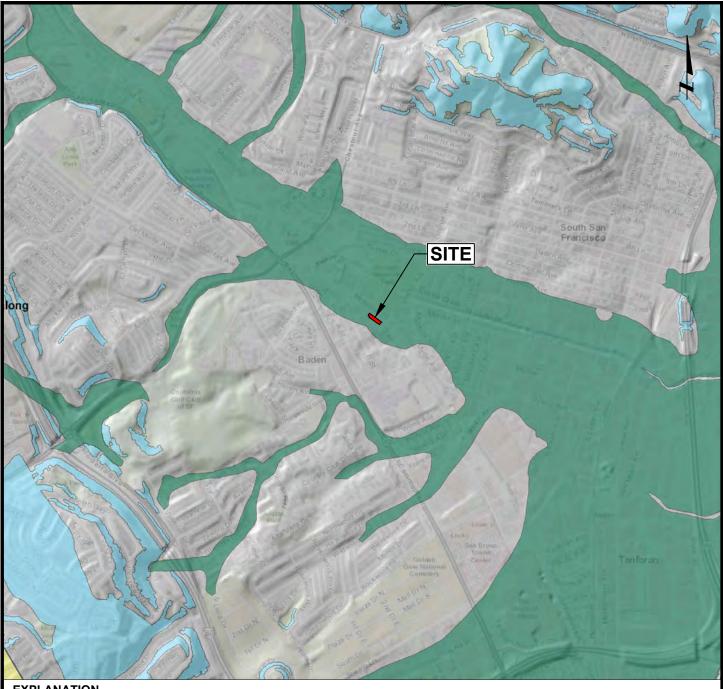
135 Main Street, Suite 1500 San Francisco, CA 94105

T: 415.955.5200 F: 415.955.5201 www.langan.com

BOYS AND GIRLS CLUB OF THE PENINSULA -ORANGE PARK CLUBHOUSE SOUTH SAN FRANCISCO

MODIFIED MERCALLI INTENSITY SCALE

Project No. 731788601 02/10/2025 Drawn By Checked By



EXPLANATION



Earthquake-Induced Landslides; Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.



Liquefaction; Areas where historic occurrence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Reference: San Francisco South Quadrangle, Earthquake Fault Zones, Official Map Released: January 1, 1982. Seismic Hazard Zones, Official Map Released: September 23, 2021.

2,000 Feet Approximate scale

Langan CA, Inc. 1 Almaden Boulevard, Suite 590 San Jose, CA 95113

Project **BOYS AND GIRLS CLUB OF**

SAN MATEO COUNTY

THE PENINSULA -**ORANGE PARK CLUBHOUSE** SOUTH SAN FRANCISCO

Figure Title

REGIONAL SEISMIC HAZARD ZONES MAP

Project No. 731788601 Figure Date 03/03/2025 Checked By

6

T: 408.283.3600 F: 408.283.3601 www.langan.com

APPENDIX E BART CRITERIA

CRITERIA STRUCTURAL

DESIGN AND CONSTRUCTION NEAR EXISTING BART STRUCTURES

CONTENTS

1. SCOPE

2. GENERAL REQUIREMENTS

- 2.1. Policy
- 2.2. Clearance
- 2.3. Zone of Influence (ZOI)
 - 2.3.1. Temporary Zone of Influence
 - 2.3.2. Permanent Zone of Influence
- 2.4. Shoring
- 2.5. Groundwater Control and Dewatering
- 2.6. Existing Utilities
- 2.7. Pile Foundation
- 2.8. Construction Vibration

3. DESIGN AND CONSTRUCTION NEAR EXISTING AT-GRADE AND AERIAL BART STRUCTURES

- 3.1. Falsework near BART Tracks
- 3.2. Construction Equipment
- 3.3. Soil Cover over Foundation

4. DESIGN AND CONSTRUCTION NEAR EXISTING UNDERGROUND BART STRUCTURES

- 4.1. Surcharge Load for Existing Underground Structures
- 4.2. Excavation close to Underground Structures
- 4.3. Minimum Soil Cover

5. DOCUMENTATION

- 5.1. Design Documentation
- 5.2. Construction Documentation

CRITERIA STRUCTURAL

DESIGN AND CONSTRUCTION NEAR EXISTING BART STRUCTURES

1. SCOPE

The purpose of the criteria herein is to establish minimum provisions for design and construction near existing BART structures.

2. GENERAL REQUIREMENTS

2.1. Policy

New structures near existing structures shall be designed and constructed so as not to impose temporary or permanent adverse effects on existing BART structures. Potential impacts to the existing BART structures by new design and construction shall be identified at the planning stage of design.

The Engineer Responsible for Design (ERD) shall coordinate the new design and construction with:

- BART design criteria
- Third-party design criteria
- District third-party interagency agreements, as applicable

Analyses of the existing structures are required when there are changes to the existing BART structures, or temporary or permanent changes to loading upon the existing BART structures due to the new design and construction.

2.2. Clearance

The minimum clearance between any parts of the adjacent BART structures to exterior face of substructures shall be 7 feet 6 inches. In addition, the substructures shall be located such that the loads from the foundations of the new structures shall not impact the BART structures.

2.3. Zone of Influence (ZOI)

2.3.1. Temporary Zone of Influence

For temporary effects on the existing BART's structures, the temporary ZOI is defined as the area above a positive line of influence which is a line from the critical point of substructure at a slope of 1-1/2 horizontal to positive 1 vertical (line sloping towards ground level) or the area below a negative line of influence which is a line

from the critical point of substructure at a slope of 1-1/2 horizontal to negative 1 vertical (line sloping away from ground level). Refer to Figure 1 for an underground rectangular structure.

The geotechnical engineer and ERD shall determine the critical points of the existing foundations and underground structures, subject to BART Engineering review and acceptance.

2.3.2. Permanent Zone of Influence

The geotechnical engineer for the proposed structure shall determine the permanent effects or influence on the existing BART's structures based upon the soil and groundwater conditions in the vicinity of the proposed structures and the existing BART's structures. Particular attention shall be paid to liquefiable soil, expansive soil, and lateral spreading. The slope of the permanent ZOI shall not be steeper than the slope of the temporary ZOI as defined above.

2.4. Shoring

Shoring is required for excavation in the ZOL. Refer to Design Criteria, Structural, Geo-Structures.

2.5. Groundwater Control and Dewatering

Where groundwater control is proposed, changes in groundwater elevation shall be evaluated together with the consequences to structures located in proximity to the dewatering. The groundwater drawdown zone shall be established based on a hydrogeologic study that includes, but is not limited to, soil types in proximity to the area of groundwater control, the duration of the work, the planned construction methods, and plans for recharge or other methods of groundwater control.

Dewatering shall be monitored for changes in groundwater level. Recharging back to its original elevation is required if existing groundwater level is expected to drop more than 2 feet.

2.6. Existing Utilities

Existing utilities shall be protected from damage. If relocation is necessary, it shall be accomplished in a manner that will not disrupt revenue service.

2.7. Pile Foundation

Piles shall be pre-drilled to a minimum of 10 feet below the line of influence. Piles shall be driven in a sequence away from BART structures.

BART structures shall be monitored for vibration during pile driving operations for all piles within 100 feet of the structures.

No pile shall be allowed between steel-lined tunnels. Steel-lined tunnels shall be monitored for movement and deformation.

2.8. Construction Vibration

Some construction methods may result in vibrations that lead to densification of loose, cohesionless soil, or architectural and structural damage. A vibration monitoring plan shall be prepared to document the potential for induced vibration and noise from construction equipment and procedures, with respect to their effect on adjacent structures, BART facilities and operations.

Procedures and control of vibration and settlement caused by the operations of construction equipment including, but not limited to, pile driving and soil compaction (vibro-compaction, etc.) shall be included in the plan. Plans shall include locations and details of monitoring instrumentation.

The peak particle velocity (PPV) in the vertical direction as measured from the closest BART structures to the construction equipment shall not exceed 1.0 in/sec (transient source) and 0.5 in/sec (continuous/frequent intermittent source). For vibration-sensitive structures, the vibration limits are subject to District for review and acceptance. For structures supporting BART tracks, BART track movement shall be limited to a maximum of 1/4 inch per 30 feet of length in both horizontal and vertical directions. For other structures, the settlement shall not exceed 0.3 inches. For historic or sensitive structures, the ERD shall provide a structure specific settlement analysis for BART Engineering's review and acceptance.

Where the PPV is predicted to exceed 0.5 in/sec, or where historic or vibration-sensitive structures are known to be located, as identified by District, a pre-condition survey shall be conducted before the start of construction. The purpose of the pre-condition survey shall be to provide comprehensive documentation of existing building conditions, such as the location and extent of structural damage, cosmetic cracks, signs of differential settlement, or other conditions that could be affected by construction vibrations.

Any existing structure located where the PPV is expected to exceed 0.5 in/sec shall be monitored for levels of vibration and the potential for vibration-induced settlement. Vibrations shall be monitored with a 3-component seismograph with geophones capable of recording 2 horizontal and 1 vertical ground motions. Settlement shall be monitored using survey targets and other remote settlement monitoring devices. The accuracy of the survey measurement shall be ± 0.01 inches or better. Results of the vibration and settlement monitoring shall be provided in daily reports.

Existing BART structures shall be monitored for vibration during pile driving operations for piles within 100 feet of said BART structures.

When construction requires monitoring, construction activity resulting in monitored measurements in excess of limits within submitted plans acceptance by District, shall be immediately halted, and reported to BART Engineering for further direction.

3. DESIGN AND CONSTRUCTION NEAR EXISTING AT-GRADE AND AERIAL BART STRUCTURES

3.1. Falsework near BART Tracks

Falsework near BART tracks shall be designed as follows:

- A. Falsework shall be designed to resist seismic loads. For construction durations of less than 5 years, the seismic loads may be reduced to values defined in Caltrans MTD 20-2. For construction durations over 5 years, falsework shall be designed for seismic loads in accordance with applicable codes for permanent structures.
- B. Falsework shall be designed to resist wind loads. For construction durations of less than 180 days, the wind loads may be reduced to values defined in ASCE 37. For construction durations over 180 days, falsework shall be designed for wind loads in accordance with applicable codes for permanent structures.
- C. Falsework crossing under BART tracks without pedestrian traffic shall be designed according to the Caltrans Falsework Manual.
- D. Falsework crossing under BART tracks with pedestrian traffic shall be designed per item C above, including compliance with pedestrian protection according to CBC Section 3306.

3.2. Construction Equipment

Construction equipment operating adjacent to BART's Operating Envelope shall be situated and restrained such that it will not damage BART facilities, nor violate BART's Operating Envelope. See Operating Envelop specified in Standard Specifications – Operating System Interface.

3.3. Soil Cover over Foundation

Existing soil cover over foundations shall be maintained.

4. DESIGN AND CONSTRUCTION NEAR EXISTING UNDERGROUND BART STRUCTURES

4.1. Surcharge Load for Existing Underground Structures

In general, cut-and-cover underground structures were designed with an area surcharge applied at the ground surface both over and adjacent to the structures. The area surcharge was considered static uniform load with the following value:

D (ft)	Average Vertical Surcharge Loading (psf)	
D>20	0	
5 <d<20< th=""><th>800-40D</th></d<20<>	800-40D	
D<5	600	

where D is the vertical distance from the top of the subway roof to the ground surface.

In general, steel-lined tunnels were designed to support the weight of 35 feet of earth above the roof of the tunnel. Whenever the actual depth of cover is less than this amount, construction may be added imposing an additional average vertical loading of 120 lbs per square foot for each foot of depth of reduced cover.

Where basements are excavated, the average vertical surcharge loading can be increased to the extent that it is balanced by the weight of the removed material. The effects of soil rebound in such cases shall be fully analyzed for each construction stage.

4.2. Excavation close to Underground Structures

Excavation shall be done with extreme care to prevent damage to the waterproofing membrane and the structure itself. Hand excavation shall be performed for the final 1 foot to the underground structures.

4.3. Minimum Soil Cover

Minimum soil cover of 8 feet on underground structures shall be maintained wherever possible.

5. DOCUMENTATION

5.1. Design Documentation

The following is a list of minimum documentation required for design of structures near existing BART structures, subject to District review and acceptance:

- Geotechnical Reports as required in Design Criteria, Structural, Geotechnical
- Foundation plan showing the location of new foundations relative to the existing BART structure and foundations, and ZOI

- Foundation design calculations showing magnitudes and directions of foundation loads, how they are resisted through soils, and any interaction with the existing BART structure
- Structural design calculations and drawings for foundation design loads
- Excavation plan showing the ZOI, sequence of work, excavation slope, temporary shoring system, and permanent earth retaining systems, as applicable
- Soil-structure interaction analysis report, if needed
- Basis of structural design
- Dewatering analysis and associated de-watering plans, if required
- As-built construction drawings, if applicable

5.2. Construction Documentation

The following is a partial list of the required construction documentation, subject to District review and acceptance:

- Pre-construction planning report
- Pre-conditions survey report
- Field construction reports
- Instrumentation plan
- Dewatering monitoring and recharging plans
- Dewatering monitoring report
- Vibration monitoring plan
- Vibration monitoring report
- Monitoring plan for confirming incremental loads from new construction
- Excavation plan for area within the ZOI showing the excavation slope or shoring system
- Procedures and control of soil compaction operations

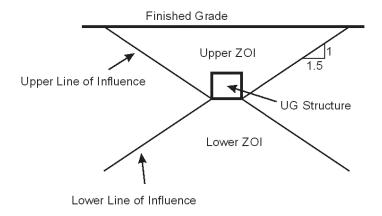


Figure 1 Temporary Zone of Influence – Underground Rectangular Structure

END

CRITERIA STRUCTURAL

GEO-STRUCTURES

CONTENTS

- 1. SCOPE
- 2. DESIGN CODES
- 3. FOUNDATIONS SUPPORTING STRUCTURES
- 4. FOUNDATIONS SUPPORTING TRANSPORT DESIGN CATEGORY STRUCTURES
 - 4.1. Shallow Foundations
 - 4.2. Deep Foundations
- 5. FOUNDATIONS SUPPORTING BUILDING DESIGN CATEGORY STRUCTURES
 - 5.1. Shallow Foundations
 - 5.2. Deep Foundations
- 6. EARTH RETAINING STRUCTURES (ERS)
 - 6.1. Wall Type Selection
 - 6.2. ERS Wall Design Requirements
- 7. SUPPORT AND UNDERPINNING OF EXISTING STRUCTURES
 - 7.1. Planning for Shoring and Underpinning
 - 7.2. Design Requirements
 - 7.3. Shoring

CRITERIA STRUCTURAL

GEO-STRUCTURES

1. SCOPE

Criteria set forth in this section cover the structural design of foundations for structures, excluding tunnels and miscellaneous structures, which are addressed separately. These Criteria include structural design of earth retaining structure (ERS) walls, and supporting and underpinning of existing structures. The foundations, ERS walls, and underpinning support are collectively referred to as geo-structures.

2. DESIGN CODES

Geo-structures shall be designed in accordance with Caltrans Bridge Design (CBD) as amended by these Criteria for structures belonging to Transport Design Category, and with California Building Code (CBC) as amended by these Criteria for structures belonging to Building Design Category.

Geo-structures belonging to the Hybrid Design Category shall be designed according to the applicable Transport Design Category or the Building Design Category requirements herein. Requirements in Design Criteria, Structural, Passenger Stations and Buildings shall be used for determination of the applicable design basis for Hybrid Design Category Structures. If certain Geo-structure components involve both the Transport Design Category and the Building Design Category, then both sets of requirements shall apply.

Where inconsistencies are noted amongst code and design requirements, the more conservative or stringent of the requirements shall be used.

3. FOUNDATIONS SUPPORTING STRUCTURES

Acceptable foundations for structures include shallow and deep foundations, depending on geotechnical and groundwater conditions, types of loading, and site construction constraints at the development site. The foundation type and geotechnical design parameters shall be as recommended by the geotechnical engineer in the Geotechnical Engineering Report (GER).

Foundation design shall take into account the presence of potentially corrosive substances in soils, if any, such as chlorides and sulphates. This may be accomplished by providing appropriate protection for concrete, reinforcement, and metal embedments.

4. FOUNDATIONS SUPPORTING TRANSPORT DESIGN CATEGORY STRUCTURES

The design of foundations supporting Transport Design Category structures shall be as directed by the provisions of CBD with the exceptions noted within this Article.

Design Criteria, Structural, Geotechnical identifies limitations on differential settlements of foundations.

4.1. SHALLOW FOUNDATIONS

The design of foundations supporting Transport Design Category structures shall be as directed by the provisions of CBD.

4.2. DEEP FOUNDATIONS

Acceptable deep foundations include driven piles and drilled shafts, including cast-in-drilled-hole (CIDH) piles, and cast-in-steel-shell (CISS) piles. Other types of deep foundations, such as helical piles and auger-cast piles (ACP) shall not be used for support of transport structures.

In addition to CBD, the following provisions shall apply to the design of deep foundations supporting Transport Structures:

- A. Uplift shall not be allowed in any deep foundation where the uplift resistance is due to side friction, except for an intermittent uplift load from load combinations that include wind or extreme load combinations.
- B. Effects of downdrag loads (i.e., negative skin friction) shall be evaluated relative to the structural capacity of the deep foundation. Where methods are recommended for reducing effects of downdrag loads by means of a slip coating, consideration shall be given to the long-term value of residual negative skin friction that may develop.
- C. Batter piles shall not be farther out of plumb than 1 horizontal unit in 3 vertical units. Batter piles shall not encroach on property outside the right-of-way lines or interfere with existing structures or pile foundations.
- D. Batter piles shall not be used to resist extreme load combinations where reasonable alternatives are available. When foundations include batter piles which are not subject to extreme load combinations, the batter piles and any reacting vertical piles and their connections, shall be designed to remain elastic under factored demand forces, and factored pile axial forces are within permissible axial resistances per the GER. When foundations include batter piles and are reacting vertical piles subject to extreme load combinations, the piles and connections shall be capacity-protected, such that they remain elastic under the overstrength seismic forces that can be delivered by the structural system to the batter piles.
- E. The design shall consider nonlinear soil pressure-displacement relationships, soil-structure interaction (SSI), group action, and static and dynamic load conditions.

F. Appropriate corrosion protection shall be provided for steel piles, if selected for use, such that the pile has full required design strength at the end of the specified design life.

5. FOUNDATIONS SUPPORTING BUILDING DESIGN CATEGORY STRUCTURES

The design of foundations supporting Building Design Category structures shall be as directed by the provisions of CBC with the exceptions noted within this Article.

5.1. SHALLOW FOUNDATIONS

Shallow foundations for building structures include spread footings for isolated columns, combined footings to support the load from more than one structural unit, strip footings for walls, and mats or rafts beneath an entire building area. Shallow foundations shall be sized and structurally designed in accordance with Section 1809 of CBC, to satisfy the allowable bearing pressures, settlement tolerances, and sliding resistances indicated in the GER.

Shallow foundations supporting at-grade buildings shall be interconnected with continuous footings or reinforced concrete grade beams with or without slab on-grade or reinforced beams. In addition to the other applicable loadings, the structural elements interconnecting the shallow foundations shall be capable of carrying, in tension or compression, a force equal to the lesser of: the product of the larger shallow foundation or column design gravity load times the seismic coefficient, SDS, divided by 10, and 25 percent of the smaller shallow foundation or column gravity load. Seismic ties between shallow foundations shall comply with Section 1809.13 of CBC for all soil conditions.

5.2. DEEP FOUNDATIONS

Deep foundations supporting Building Design Category structures shall be designed in accordance with Section 1810 of CBC.

Deep foundation design shall include following.

- A. Uplift shall not be allowed in any pile where the uplift resistance is provided by side friction, except for an intermittent uplift load from load combinations that include wind or seismic load.
- B. Effects of downdrag loads (i.e., negative skin friction) shall be evaluated relative to the structural capacity of the deep foundation. Where methods are recommended for reducing the effect of downdrag loads by means of a slip coating, then consideration shall be given to the long-term value of residual negative skin friction that may develop.
- C. Batter piles shall not be farther out of plumb than 1 horizontal unit in 3 vertical units. Consideration shall be given to the possibility of such batter piles encroaching on property outside the right-of-way lines or interfering with existing structures or pile foundations.

- D. Batter piles shall not be used where feasible alternatives are available. Where batter piles must be used, the batter pile and its connections, and any reacting vertical piles, shall meet requirements for batter piles in CBC Chapter 31F.
- E. The design shall account for nonlinear soil pressure-displacement relationships, SSI, group action, and static and dynamic load conditions.
- F. Appropriate corrosion protection shall be provided for steel piles, if selected for use, such that the pile has full required design strength at the end of the specified design life.

6. EARTH RETAINING STRUCTURES (ERS)

The criteria set forth in this Article govern the design of ERS including gravity and semi-gravity cantilever retaining walls, U-walls, mechanically stabilized earth (MSE) walls, abutments walls for bridges, wing walls for bridges, and basement walls for building structures.

Except as required in these Criteria, design shall be in accordance with CBD for ERS walls belonging to the Transport Design Category and with CBC for ERS walls belonging to the Building Design Category.

When designing ERS that directly support appurtenances such as equipment supports, sign supports, parapets, railings, fences, walls, or barriers, design shall account for all possible externally applied loading on the ERS from the appurtenance, including vehicular collision, and design shall be in accordance with specified codes. When designing ERS where adjacent structures are not physically supported by the ERS but may result in a surcharge or other force transmission acting on the ERS, design shall account for the force transmission to the ERS and design shall be in accordance with the specified codes and these Criteria.

When the ERS is potentially subjected to highway or BART or other train collision loading at the top of wall and a moment slab isolated from the ERS is proposed to provide the required crash protection, the moment slab shall be designed to appropriate standards. The ERS shall be designed for any incidental loading which may be transmitted either directly between the moment slab and the ERS or through the soil strata adjacent to the ERS. As a minimum, Article 11.10.10.2 in AASHTO/CA shall be used to determine vehicular collision loads. Refer to Illinois State Toll Highway Authority Design Bulletins for guidance on moment slab design.

ERS design shall take into account the presence of potentially corrosive substances in soils, if any, such as chlorides and sulphates. This may be accomplished by providing appropriate protection for concrete, reinforcement, and metal embedment.

6.1. WALL TYPE SELECTION

Wall type selection shall be based on siting, performance, and economic considerations as jointly recommended in the GER by the geotechnical engineer and agreed to by the Engineer Responsible for Design (ERD), with review and approval by BART Engineering.

- A. U-walls (retaining walls with integrated continuous base slab between walls) shall be used where the top of trackway subgrade is below the groundwater table or flood level or in other locations where the ERD identifies the U-wall as being appropriate. U-walls shall be designed to resist earth pressures, hydrostatic pressures, and surcharge loads such as highway or railway traffic. U-walls shall be designed to support BART train loads on the base slab.
- B. Independent gravity and semi-gravity retaining walls may be used for trackway subgrade above the ground-water level. Either shallow or deep foundations are permissible for supporting independent gravity and semi-gravity retaining walls. Independent retaining walls shall be designed to resist earth pressures, hydrostatic pressures, and surcharge loads such as highway, BART train, or railway traffic.
- C. MSE retaining structures are permissible at locations where acceptable ground conditions exist or where ground can be improved to provide bearing support during gravity and seismic loading. Transport structures bridge approaches shall not be supported by shallow foundations located on MSE abutment walls, except in the configuration MSEA Type 2, Caltrans Memo-to-Designers 5-1. Use of MSE retaining structures shall be reviewed and approved by BART Engineering.
- D. For ERS wall taller than 25 feet, the type and design of ERS walls shall be reviewed and approved by BART Engineering.

6.2. ERS WALL DESIGN REQUIREMENTS

ERS walls and foundations for transport structures shall be proportioned to withstand the applicable loads and resistance factors as defined in provisions found in Sections 3 and 11 of AASHTO/CA. ERS walls and foundations for building structures shall be proportioned to withstand the applicable loads and factors as defined in Section 1807 of CBC. The following additional requirements apply for wall designs:

- A. For structures adjacent to operating railroads, both the vertical and lateral surcharge shall be based on Cooper's E-80 railroad surcharge loadings. Refer to AREMA and other standards of the subject railway.
- B. When design includes level backfill, or when vehicular or BART train traffic can be located on the backfill near the face of the wall or abutment, a minimum live load surcharge in accordance with AASHTO/CA article 3.11.6.4 but not less than 2 feet of equivalent weight of earth shall be used. The potential need to design for higher live load surcharge shall be evaluated where heavy train loads or other temporary loads occur within the 1.5 of wall height distance.
- C. Lateral Earth Pressures:
 - 1. Wall pressures shall be determined from values provided in the GER.
 - 2. Deformation required to develop passive earth pressure shall be considered in design of walls that rely on passive earth pressure. The upper 2 feet of passive earth pressure shall be ignored in the computation of soil reaction.

D. Base Pressure and Stability

ERS walls supported on shallow foundations shall be evaluated to confirm that bearing values are acceptable and that stability requirements are met, following provisions found in Sections 10 and 11 of AASHTO/CA for transport structures and in Sections 1809 and 1810 of CBC for Building Structures.

- 1. Soil-bearing pressures provided in the Design Criteria, Structural, Geotechnical shall be used.
- 2. The exposed face of the retaining walls supported on shallow foundations shall be initially offset towards the soil face. Refer to Standard Drawings, SS70, Structural Retaining Wall Typical Elevation and Sections.

E. U-walls and Buoyancy Effects

- 1. The effects of hydrostatic uplift pressure shall be accounted for whenever ground water is present. Maximum design flood levels shall be assumed based on 500-year flood elevations and future sea level rise shall be assessed and accounted for in selecting the design flood elevations. For the permanent condition, buoyancy shall be calculated for all locations. Resistance to buoyancy calculations shall rely on the dead weight of structural components and soil backfill with no account to any equipment or other removable items. Shear strength or friction of overburden shall not be considered. Unless otherwise allowed by District, the use of tiedowns, tension piles or other elements specifically designed to resist uplift forces is not permitted.
- 2. A minimum factor of safety of 1.1 shall be maintained when applied to the structural dead weight. For the short term (temporary) construction conditions, buoyancy shall be calculated for all construction phases and a minimum factor of safety of 1.05 shall be maintained.

7. SUPPORT AND UNDERPINNING OF EXISTING STRUCTURES

The criteria set forth in this Article govern the design requirements for the support and underpinning of existing structures over or adjacent to existing or new BART facilities. Except as discussed herein, design shall be in accordance with CBD for support and underpinning of structures belonging to the Transport Design Category and with CBC for support and underpinning belonging to the Building Design Category.

7.1. PLANNING FOR SHORING AND UNDERPINNING

A. The ERD, in coordination with BART Engineering shall investigate existing structures, that are to remain over, or adjacent to, the construction sites of existing or new BART facilities. Existing structures shall be protected and permanently supported and underpinned. When so stipulated by BART Engineering in the ERD's scope of work, the ERD shall prepare contract document provisions and site-specific design criteria requiring the construction contractor to prepare the necessary designs.

B. Types of Support Systems

The types of buildings and structures, that require support and underpinning include the following:

- Buildings and structures extending over the BART structures to such an extent that they must be temporarily supported during construction and permanently underpinned.
- 2. Buildings and structures immediately adjacent to the BART structures that require temporary support during construction.
- 3. Building and structures that may be affected by groundwater lowering. In certain areas, uncontrolled lowering of the groundwater for BART construction may cause settlement of buildings either adjacent to or at some distance from BART excavations.
- 4. Other buildings, structures, and utilities, that BART Engineering deems appropriate, shall be included in the scope.

7.2. DESIGN REQUIREMENTS

- A. Underpinning walls or piers that support transport or buildings structures, and form a portion of the excavation support system shall extend to a minimum depth identified in the GER.
- B. Methods used to protect or underpin structure shall account for the site-specific soil and groundwater conditions and include the following:
 - 1. A bracing system shall be tight for the effectiveness of underpinning and for protection wall support. In addition to the general requirements for support of excavations, which are provided in the specifications, the ERD shall indicate requirements for the installation and removal of the temporary bracing systems that relate to the designs of underpinning and protection walls, such as the levels of bracing tiers, the maximum distances of excavation below an installed brace, and the amount of preloading. The ERD shall require through the contract documents that detailed design of the temporary bracing system be the responsibility of the construction contractor, based on overall criteria to be included in the contract documents.
 - 2. If soil and groundwater conditions, structure size, or proximity to an excavation dictate piers, piles, or caissons for underpinning of an existing structure, such piers, piles, or caissons shall extend at least 10 feet below the line of influence or into a competent soil or rock layer, whichever is deeper, as shown in Figure 1, unless the geotechnical engineer shows that vertical and horizontal support requirements can be developed at less than 10 feet below the line of influence. The minimum depth of underpinning below the line of influence shall be 2 feet.
 - 3. Other geotechnical considerations as outlined with Design Criteria, Structural, Geotechnical.

RELEASE – R3.2 ISSUED: DECEMBER 2020 STRUCTURAL – GEO-STRUCTURES PAGE 8 OF 9 BART FACILITIES STANDARDS
DESIGN CRITERIA

7.3. SHORING

Shoring is required for excavations in the temporary and permanent zone of influence, as defined in Design Criteria, Structural, Design and Construction Near Existing BART Structures.

- A. Seismic and wind loads shall be accounted for in the shoring design for temporary and permanent shoring. The seismic and wind loading shall be defined as follows:
 - 1. Seismic earth pressures shall be determined by the geotechnical engineer based on the site-specific seismicity for permanent shoring systems.
 - 2. For temporary structures with an expected duration of less than 5 years, the site seismicity shall be based on a probabilistic ground motion with 10 percent probability of exceedance in 10 years. The seismic earth pressure coefficient (kh) shall not be less than 0.1g.
 - 3. For temporary structures with an expected duration of over 5 years, the seismic loading for permanent retaining structures shall be used.
 - 4. For structures to be shored for 5 years or less, wind loading and design shall be in accordance with Section 6.2 of ASCE/SEI 37.
 - 5. For structures to be shored for over 5 years, wind loading and design shall be in accordance with applicable codes for permanent structures.
- B. Shoring shall maintain at-rest soil conditions and monitored for movement.
- C. Soil re-distribution caused by temporary shoring or existing foundation system shall be analyzed.
- D. Shoring support shall extend at least 10 feet below the base of the excavation or into a competent soil or rock layer, whichever is deeper, unless the geotechnical engineer shows that vertical and horizontal support requirements can be developed at less than 10 feet below the excavation depth. The minimum depth of shoring below the excavation depth shall be 2 feet.

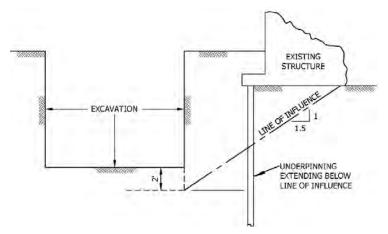


Figure 1: Underpinning Support Requirements

DISTRIBUTION

Electronic Copy: Mr. James K. Harris

Vice President of Operations

Boys and Gils Clubs of the Peninsula

401 Pierce Road, Menlo Park, California 94025

Appendix C

Phase I	ESA	for	the	Boy	s &	Girls	Clubs	of the	Peninsula	

AST Inc. Geotechnical, February 2025



PHASE I | ESA PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT BOYES AND GIRLS CLUB OF THE PENINSULA APNs: 093-331-110 & 093-331-150 201 W.ORANGE AVENUE



SUBMITTED TO: JENNY OBIAYA C/O BOYS & GIRLS CLUBS OF THE PENINSULA **401 PIERCE ROAD** MENLO PARK, CALIFORNIA 94025

SOUTH SAN FRANCISCO, CALIFORNIA





AST FILE NO.: 25273-ESA DATED: FEBRUARY 2025



ADVANCE SOIL TECHNOLOGY, INC.

Engineers | Geologists | Environmental Consultants & Construction Services 343 So. Baywood Avenue | San Jose, California 95128 Office: (408)-261-1155 | Fax: (408)-261-1588

File No. 25273-ESA February 28, 2025

Jenny Obiaya C/O Boys & Girls Clubs of the Peninsula 401 Pierce Road Menlo Park, California 94025

Subject: PHASE I ESA

An Existing Boys & Girls Club of the Peninsula

Designated Assessor Parcel Nos. 093-331-110 & 093-331-150

201 W. Orange Avenue

South San Francisco, California

Dear Jenny -

Advance Soil Technology, Inc. ("AST") is pleased to present herein the results of the *Phase I Environmental Site Assessment* (Phase I) report for the subject property consisting of two parcels of land (093-331-110) & (093-331-150) located at the physical address of 201 W. Orange Avenue in South San Francisco, California.

The subject property is presently occupied with three one to two-story concrete and block-wall structures with associated paved driveway, parking lots, and landscaped areas.

The property encompasses approximately (±3.0)-acres of land with the following designated Assessor Parcel Nos. 093-331-110 & 093-331-150, surrounded by park, school, residential developments and church.

This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the terms of the Contract Proposal Titled Phase I Environmental Site Assessment.

This assessment included a site reconnaissance of the subject property and vicinity, as well as research and interviews with representatives of the public, property ownership, site manager and regulatory agencies.

Based on the above available and provided information, an assessment was made, conclusions were stated and recommendations were outlined.

We appreciate the opportunity to be of service to you as receiver/user of this report. After the review, if you have any questions concerning this report, or/ require any additional information, please do not hesitate to contact us at your convenience.

Very truly yours, ADVANCE SOIL TECHNOLOGY, INC.

Al Mirza

Al Mirza Project Engineer Am/aak Cc: file



Alex Kassai

Alex A. Kassai PE/REA Principal PE #34882



PHASE I | ESA

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT AN EXISITNG BOYS & GIRLS CLUB OF THE PENINSULA

APNs: 093-331-110 & 093-331-150

201 W. ORANGE AVENUE

SOUTH SAN FRANCISCO, CALIFORNIA

SUBMITTED TO: **JENNY OBIAYA** C/O BOYS & GIRLS CLUB OF THE PENINSULA **401 PIERCE ROAD** MENLO PARK, CALIFORNIA 94025

AST FILE NO.: 25273-ESA DATED: FEBRUARY 2025

AST declares that, to the best of our professional knowledge and belief, the undersigned meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312 and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. AST has developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Al Mirza

Al Mirza Project Engineer Am/aak Cc: File

Alex Kassai

Alex A. Kassai PE Principal Engineer (PE #34882)

AST conducted a Phase I ESA in general conformance with the scope and limitations of ASTM Standard Practice E1527-21, AAI, and the Contract Proposal for *Phase I Environmental Site Assessment* (Phase I ESA) report for the subject property located at 201 W. Orange Avenue in South San Francisco, California. The above-mentioned property is located at the northwest corner of Memorial Drive and W. Orange Avenue in South San Francisco, California with APNs 093-331-110 & 093-331-150 and will be referred to as the "Subject Property" from here on in the following sections of this report. Any exceptions to, or deletions from, this scope of work are described in the report.

This Phase I Environmental Site Assessment is designed to provide Boys & Girls Club of the Peninsula as the receiver of this report, with an assessment concerning environmental conditions at the site (limited to those issues identified in the report) as they exist at the subject property.

SITE DESCRIPTION

AST reviewed the United States Geological Survey (USGS) topographic maps provided by EDR for the Target Property information also known as the "Subject Property". The subject property was identified in San Francisco South Quadrangle 7.5-minute series topographic maps with approximate co-ordinates of Latitude 37.652052° N and Longitude -122.427926° W respectively. According to the contour lines on the topographic map, ground surface elevations at the subject property is approximately (±33.32)-feet above mean sea level (msl). The subject property is located on flat terrain, and so are the surrounding areas and the general vicinity.

Ground-water elevations in the vicinity of the subject property appear to fluctuate on the order of (±15) to (±23)-feet below the existing ground surface on an annual basis, due to natural recharge and discharge of the aquifers that occurs with changing seasons and the amount of rainfall. Groundwater flow direction may also be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

Based on the review of the topographic maps and the GEOCHECK Report provided by EDR, the general groundwater elevation in the area, depth to the high-water table is anticipated at the approximate depth of (±15.7)-feet below existing ground surface (bgs) with general topographic gradient being in the east-northeast direction. The closest/nearest surface water body in vicinity of the subject property is Colma Creek, which is located approximately (±750)-feet to the east of the subject property. As mentioned above, the subject property being considered for this Phase I ESA is located at the northwest corner of Memorial Drive and W. Orange Avenue in South San Francisco, California. The subject property is located in a commercial/residential part of City of South San Francisco, surrounded by residential, school, and park developments. It consists of a two parcels of land with assessor parcel numbers (APNs: 093-331-110 & 093-331-150) with an approximate gross area of (3.0)-Acres. The subject property is occupied by three one to two-story concrete structures with asphalt paved driveway and parking lots. It has been utilized as student campus in the past and at the present time, it is presently occupied by Boys & Girls Club of the Peninsula.

For additional information pertaining to the parcels, please refer to Plate 1: Site Location Map, Plate 2: Topographic Map, Plate 3: Vicinity Site Usage, Plate 4: Parcel Map, Plate 5: One-mile Radius Map, and Plate 6: FEMA Map. Please refer to Appendix "A" and "E" of this report for site information and photographs.



The subject property is located in a commercial/residential part of City of South San Francisco, surrounded mostly with commercial and residential developments and their respective paved parking areas. The subject property is a combination of two an irregular shaped parcels of land with a designated APNs 093-331-110 and 093-331-150 and approximately (±3.0 acre), currently used as Boys & Girls Club of the Peninsula. The subject property is bond to the north by C Street, to the east by the existing Orange Memorial Park, on the southwest by the existing Good News Chapel, and to the south by W. Orange Avenue. Subject property and a chronological summary of historical usage of the property has been presented in the Table below:

TABLE I - SITE INFORMATION

Property Owner:	City of South San Francisco
Assessor Parcel Numbers (APNs):	093-331-110 & 093-331-150
No. Parcels:	2
Property Addresses:	201 W. Orange Avenue Menlo Park, California
Property Location:	North Side of Orange Avenue
Total Land Acreage (acres):	3.0-Acres(approx.)
Past Usage of the Property:	Commercial
Date of Construction:	1960's
Type of Construction:	Concrete Buildings
Number of Structures:	3
Number of Units:	Not Applicable
Number of Stories:	One to Two-Story
Basement or/ Subgrade Areas:	No Basement
Other Improvements:	Paved Parking
Current Operation On-Site/Use:	Boys & Girls Club of the Peninsula
Current Use of Hazardous Substances:	None Identified
Regulatory Database Listing:	HAZNET, HWTS



TABLE II – CITY DIRECTORY (HISTORICAL USE INFORMATION)

Year	Target Property - Vicinity	Source
2020	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club-N San Mateo Vicinity – Residential / Park	EDR Digital Archive
2017	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club of America /Club of SSF Vicinity – Residential / Park	Cole Information Services
2014	201 W. Orange Avenue-South San Francisco Boys & Girls Club of SSF Vicinity-Residential / Park	Cole Information Services
2010	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo Vicinity – Residential / Park	Cole Information Services
2005	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo County Vicinity- Residential / Park	Cole Information Services
2000	201 W. Orange Avenue-South San Francisco TP-Hoch, Shirlee J Vicinity – Residential / Park	Cole Information Services
1995	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo Vicinity – Residential / Park	Cole Information Services
1992	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club Vicinity – Residential / Park	Cole Information Services
1986	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory
1981	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory



1976	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory
1970	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory

FINDINGS & CONCLUSIONS

According to ASTM Standard of Practice E1527-21, recognized environmental conditions (REC) fall under three specific categories when evaluating a site or properties within the site vicinity. These categories are defined below.

Recognized Environmental Condition (REC)- (1) the presence of hazardous substances or petroleum products in, on or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on or at the subject property under conditions that pose a material threat of a future release to the environment.

> AST did not identify any RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) A controlled recognized environmental condition, or CREC, is a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of controls.

AST did not identify an existing CREC during the course of this assessment.

Historical Recognized Environmental Condition (HREC) A historical recognized environmental condition, or HREC, is a a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities, without subjecting the property to any controls (for example activity and use limitations, or other property use limitations).

AST did not identify an existing HREC during the course of this assessment.

Other Environmental Considerations (OEC) warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-21. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

Regardless of construction date of the building, the EPA's NESHAP requires that an asbestos survey adhering to AHERA sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local agency enforcing the federal EPA regulations. The NESHAP regulation specifies that all suspect ACMs be sampled to determine the



presence or/ absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants. Based on the potential presence of ACMs, AST recommends the property owner develop and implement an Operation and Maintenance Plan for the subject property which stipulates the identification, assessment, repair and maintenance of building materials to protect the health and safety of the building occupants, visitors to the site, and the environment.

Due to the age of the building at the subject property, there is a potential that LBP may be present on the subject property. AST recommends that the property owner consult with a certified Lead Risk Assessor to determine options for control of possible LBP hazards. Stringent local and State regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.



TABLE OF CONTENT

<u>SECTION</u>	<u>PAGE</u>
Front Page	1
Cover Letter	2-3
Cover Page	-
Executive Summary	4-8
Table of Contents	9-11
1.0 INTRODUCTION	12
1.1 Purpose	12-13
1.2 Involved Parties	13
1.3 Scope of Work	13
1.4 Assumptions	13
1.5 Limitations	14
1.6 User Reliance	14
1.7 Limiting Conditions	15
1.8 Data Failures	15
	4-
2.0 SITE DESCRIPTION	15
2.1 Site Location and Legal Description	16
2.2 Current Property Use	17 17
2.3 Current Use of Adjoining Properties	17
3.0 Physical Setting Sources	17
3.1 Topography	17
3.2 Hydrology	18
3.3 Regional Geology/Soils	18-20
3.4 Wetlands & Flood Zone Information	19
4.0 SITE RECONNAISSANCE	19-20
4.1 On-Site Storage Tanks	20
4.2 Identified Hazardous Materials	20 20
4.3 Asbestos Containing Materials 4.4 Lead Based Paints	20
4.5 Poly Chlorinated Biphenyls	20
4.6 Radioactive Man-Made Materials	21
4.7 Pits, Ponds & Lagoons	21
4.8 Septic Tanks & Cesspools	21
4.9 Wells, Cisterns & Sumps	21
4.10 Wastewater Interceptors/Grease Interceptors	29
4.11 Drinking Water	21-22
4.12 Radon	22
4.13 Pesticides & Herbicides	22



TABLE OF CONTENT

SECTION_	<u>PAGE</u>
5.0 HISTORICAL INFORMATION	22-23
5.1 Aerial Photograph Review	23-24
5.2 Sanborn Fire Insurance (Sanborn) Maps 5.3 City Directories 5.4 Historical Topographic Maps 5.5 Building Permit Report 5.6 Historical Oil & Gas Maps 5.7 Environmental Liens 5.8 Vapor Encroachment Concerns 5.9 Client Supplied Reports 5.10 Interviews 5.10.1 Interviews with Past Owners, Operators & Occupants	24 25-26 26-27 27 27 27 27-28 28-29 30 30
6.0 REGULATORY RECORDS REVIEW 6.1 Assessor's Office 6.2 Building / Planning / Public Works Department 6.3 Fire Department 6.4 Department of Toxic Substance Control 6.5 Regional Water Quality Control Board 6.6 Oil & Gas Exploration 6.7 Mapped Database Records Search 6.7.1 Target Property 6.9.2 GEOTRACKER & ENVIROSTOR Database	31 31 31 32 32 32 32 32-34 35 35-36
7.0 FINDINGS AND CONCLUSIONS	36-37
8.0 RECOMMENDATIONS	37-38
9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS	39
10.0 REFERENCES	39
Appendix A Plate 1 Site Location Map Plate 2 Topographic Map Plate 3 Parcel Map Plate 4 Vicinity Site Usage Plate 5 One-Mile Radius Map Plate 6 FEMA Map	



TABLE OF CONTENT

<u>SECTION</u> <u>PAGE</u>

Appendix B

Reports Provided By EDR

Appendix C

Owner Questionnaire Preliminary Title Report

Appendix D

EDR Building Permits Documents from Research

Appendix E

Photographs of Subject Property

Appendix F

Qualifications



PHASE I ESA PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT AN EXISTING BOYS AND GIRLS CLUB OF THE PENINSULA

Designated Assessor Parcel Nos. 093-331-110 & 093-331-150 201 W. Orange Avenue I South San Francisco, California

1.0 INTRODUCTION

AST conducted a Phase I ESA in general conformance with the scope and limitations of ASTM Standard Practice E1527-21, AAI, and the Contract Proposal for *Phase I Environmental Site Assessment* (Phase I ESA) report for the above-mentioned property APNs 093-331-110 and 093-331-150 located at the physical address of 201 W. Orange Avenue in South San Francisco, California and will be referred to as the "Subject Property". Any exceptions to or/ deletions from this scope of work are described in the report.

The subject property is comprised of two parcels of land with a designated Assessor's Parcel Nos. 093-331-110 & 093-331-150. The subject property is encompassing an area of approximately (3.0)-acres of land and is occupied by three one to two story structures and paved driveway and parking areas.

1.1 PURPOSE

The purpose of this ESA was to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-21) affecting the subject property that:

- 1) Constitute or/ result in a material violation or a potential material violation of any applicable environmental law;
- 2) Impose any material constraints on the operation of the subject property or/ require a material change in the use thereof;
- 3) Require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law;
- 4) May affect the value of the subject property; and
- 5) May require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to:
 - 1) The associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and or/
 - 2) Determine whether specific actions are required to be performed prior to the purchase of the property, sale, loan origination, or/ the seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or/ bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "landowner liability protections," or/ "LLPs"). ASTM Standard E-1527-



21 constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35) (B).

1.2 INVOLVED PARTIES

The involved party in this Phase I ESA of the subject property to the best of our knowledge, is Boys & Girls Club of the Peninsula (User and Receiver of the report). AST recognizes that this report is to be used exclusively by Boys & Girls Club of the Peninsula and their successors, lenders, assigns and financial institutions and can be relied upon by them for such purpose.

1.3 SCOPE OF WORK

The scope of work for this ESA is in general accordance with the requirements of American Society of Testing and Materials (ASTM) Standard of Practice E1527-21, AAI, and the Contract Proposal Phase I ESA and the standards of care and due diligence normally practiced by recognized consulting firms in performing services of a similar nature. This assessment included the following:

- PReconnaissance of the subject property to verify current site conditions, and look for visible evidence of previously disposed and/or currently present hazardous waste, surface contamination, underground and above ground storage tanks (USTs/ASTs), suspect polychlorinated biphenyls (PCBs), and other potential environmental hazards
- Conducted a visual survey of the adjacent properties and the immediate vicinity to determine if any nearby sites pose a significant environmental impact to the subject property
- ➤ Reviewed currently and readily available public documents, including maps, aerial photographs, governmental databases of known hazardous waste sites and underground tanks, other consultant reports (if any), fire insurance maps, and other accessible
- Prepared a Phase I report, inclusive of our findings and recommendations, with applicable illustrations and documentation
- Consulted with appropriate governmental agencies having jurisdiction relative to history of the subject property, complaints or incidents in the immediate area, and permits that may have been issued in the past
- Conducted the Phase I in compliance with the All Appropriate Inquires (AAI) Final Rule published in 40 CFR Part 312.

The scope of services outlined above is generally considered sufficient to properly assess the Subject Property based on the data search, reasonably ascertainable documents, and site reconnaissance.

1.4 ASSUMPTIONS

AST made the following assumptions for the preparation of this Phase I ESA Report. AST assumed that all the information, documents and environmental reports prepared by others are accurate and complete. Furthermore, we assume that the information provided in the questionnaire and by the parties interviewed is accurate and true to the best of their knowledge. AST did not verify the accuracy of the information and the received documents.



1.5 LIMITATIONS

The findings and conclusions by AST contained herein were accomplished in accordance with the methodologies utilized and set-forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting a Phase I of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. The Client understands that no Phase I can wholly eliminate uncertainty regarding the potential for Recognized Environmental Conditions (RECs) to be present at the subject property. This Phase I ESA is intended to reduce, but not eliminate, the uncertainty regarding potential for Recognized Environmental Conditions.

AST believes that the information obtained from the record review and the interviews concerning the subject property is considered to be substantially reliable. AST acquired environmental database of selected publicly available information for the general area of the subject property and cannot verify the accuracy and completeness of the database or/ obligated to identify mistakes or/ insufficiencies in the information provided (ASTM E1527-21, Section 8.1.3).

Due inadequate address information the environmental database may have mapped several sites inaccurately or/ could not map the facilities. Releases from these facilities if nearby, could impact the site. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations and are valid for 180-days.

The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or/ expressed.

Some of the information provided in this report is based upon the review of the owner questionnaire(s), personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records; and the personal recollections of those persons contacted. This practice does not address requirements of any state or/ local laws or/ of any federal laws other than the "All Appropriate Inquiry" provisions of the LLPs.

Furthermore, this report does not intend to address all of the safety concerns, if any, associated with the subject property. Environmental concerns, which are beyond the scope of a Phase I as defined by ASTM, include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in the following sections.

1.6 USER RELIANCE

All reports, both verbal and written, are for the sole use and benefit of Boys & Girls Club of the Peninsula as the user of this report. This report has no other purpose and may not be relied upon by any other person or entity.



1.7 LIMITING CONDITIONS

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-21. Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not possible and thus constitutes a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- AST was unable to determine the property use at five-year intervals, which constitutes a data gap. Information concerning historical use of the subject property was unavailable from 1897-2024 in five-year intervals and thus constitutes a data gap. This data gap is not expected to alter the findings of this assessment.
- AST was not provided the chain-of-title information by the Client during the course of this Phase I ESA. However, a search for environmental liens by Environmental Data Resources (EDR) revealed no such environmental liens associated with the subject property.

Based on the above, with respect to these data gaps, AST believes that the most significant potential sources for on-site contamination have been identified during the current assessment. A data gap is a lack of or inability to obtain information required by ASTM E1527-21 despite the good faith efforts by the environmental professional to gather such information. A data gap by itself is not inherently significant; it becomes significant only if it raises reasonable concerns.

1.8 DATA FAILURES

As described by ASTM E1527-21, a data failure occurs when all the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Data failures are not uncommon when attempting to identify the use of a site at five-year intervals back to the first use or to 1897 (whichever is earlier). ASTM Standard Designation E1527-21 requires the environmental assessor/professional to comment on the significance of data failures and whether the data failure affects the ability to identify Recognized Environmental Conditions. A data failure by itself is not inherently significant; it becomes significant only, if it raises reasonable concerns. AST did not encounter any data failures during the course of this Phase I ESA.

2.0 SITE DESCRIPTION

The subject property being considered for this Phase I ESA is located at 201 W. Orange Avenue in South San Francisco, California. As mentioned above in Section 1.0, the subject property consists of two parcels of land with an assessor parcel numbers (APNs 093-331-110 and 093-331-150) with an approximate gross area of (3-Acres). At the present time, the Subject Property is being utilized as student campus by Boys & Girls Club of the Peninsula.

The description and information reflected above is based on the review of the Assessor's Parcel Map, Grant Deed, site reconnaissance and other miscellaneous documents that were provided to our office.



2.1 SITE LOCATION & LEGAL DESCRIPTION OF THE PARCEL

Subject Property: The subject property is located in a commercial/residential part of City of South San Francisco, surrounded mostly with commercial and residential developments and their respective paved parking areas. The subject property is a combination of two an irregular shaped parcels of land with a designated APNs 093-331-110 and 093-331-150 and approximately (±3.0 acre), currently used as Boys & Girls Club of the Peninsula. The subject property is bond to the north by C Street, to the east by the existing Orange Memorial Park, on the southwest by the existing Good News Chapel, and to the south by W. Orange Avenue.

TABLE I - SITE INFORMATION

Property Owner:	City of South San Francisco
Assessor Parcel Numbers (APNs):	093-331-110 & 093-331-150
No. Parcels:	2
Property Addresses:	201 W. Orange Avenue Menlo Park, California
Property Location:	North Side of Orange Avenue
Total Land Acreage (acres):	3.0-Acres(approx.)
Past Usage of the Property:	Commercial
Date of Construction:	1960's
Type of Construction:	Concrete Buildings
Number of Structures:	3
Number of Units:	Not Applicable
Number of Stories:	One to Two-Story
Basement or/ Subgrade Areas:	No Basement
Other Improvements:	Paved Parking
Current Operation On-Site/Use:	Boys & Girls Club of the Peninsula
Current Use of Hazardous Substances:	None Identified
Regulatory Database Listing:	HAZNET, HWTS

For additional information pertaining to the parcels, please refer to Plate 1: Site Location Map, Plate 2: Topographic Map, Plate 3: Vicinity Site Usage, Plate 4: Parcel Map, Plate 5: One-mile Radius Map, and Plate 6: FEMA Map. Please refer to Appendix "A" and "E" of this report for site information and photographs.



2.2 CURRENT PROPERTY USE

At the time of this Phase I site assessment, the subject property was used as a student campus for the Boys and Girls Club of the Peninsula. Access to the site is from a driveway on the east side of the subject property. Based on the review and research of the documents at the City of South San Francisco, information from the Owner Questionnaire and the reports and research documents provided by Environmental Data Resources (EDR), it is our understanding that the subject property has been used for Boys & Girls Club of the Peninsula dating back to 1960. However, based on the review of the Regulatory Database Reports provided by Environmental Data Resources (EDR), it is our understanding that the subject property has been identified and listed in the HAZNET (The data is extracted from the copies of hazardous waste manifests received each year by the DTSC) and HWTS (DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility). Forty five tons of asbestos containing building material was hauled off from the site and deposited in the landfill facility. However, no violations were reported or/associated with the subject property at the time of this Phase I Site Assessment. Please refer to the following section of this report for a detail discussion.

2.3 ADJACENT PROPERTIES

As previously mentioned, the subject property is located within the residential / commercial part of City of South San Francisco. The subject property is bond to the north by C Street, to the east by the existing Orange Memorial Park, on the southwest by the existing Good News Chapel, and to the south by W. Orange Avenue.

3.0 PHYSICAL SETTING

The physical settings for the site are based on the review of the USGS/CGS geological maps San Francisco South, 7.5 Quadrangle and reports and the discussion is as follows:

3.1 TOPOGRAPHY

The United States Geological Survey (USGS), San Francisco South 7.5-minute series topographic map was reviewed for this Phase I investigation. The subject property is located at the approximate coordinates of Latitude 37.652052° N and Longitude -122.427926° W respectively. According to the contour lines on the topographic map, ground surface elevations at the subject property is approximately (±33.32)-feet above mean sea level (msl). The area in general is slightly sloping toward east-northeast so is the properties in the area. The subject property is located on southwest corner of Memorial Drive and West Orange Avenue. The physical address assigned to the subject property is 201 W. Orange Avenue, South San Francisco, California.

Based on our review of the existing FEMA electronic floodplain data (Federal Emergency Management Agency), the subject property is located in an area of minimum flood hazard zone (06081C0043F dated 4/5/2019). No flood hazard analysis has been conducted by us for the subject property. Flood insurance rates are commensurate with the uncertainty of the flood risk. Review of the contour map provided by EDR indicates that the subject property is relatively flat. Please refer to Figure 2: Topographic Map.



3.2 HYDROLOGY

Historically, natural hydrologic processes and human activities can cause ground-water levels to fluctuate through time. Therefore, it is impossible to predict depths to saturated soils during future earthquakes. One method of addressing time-variable depth to saturated soils is to establish an anticipated high ground-water level based on historical ground-water data. In areas where ground water is either currently near-surface or could return to near-surface levels within a land-use planning interval of 50 years, California Geological Survey (CGS) constructs regional contour maps that depict these levels.

In some areas with low precipitation, such as Antelope Valley, records may indicate that near surface ground water existed during historical time, but withdrawal and low recharge rates preclude a return to those conditions within 50 years. For these areas, the historically highest ground-water level is not used to establish the anticipated depth to saturated soil for hazard evaluation. For these and all other areas, CGS delineates present or/ anticipated near-surface saturated soils caused by locally perched water and seepage from surface-water bodies.

It shall be noted that the future initiation of large-scale, artificial recharge programs could result in a significant rise in ground-water levels over 50 years. When alerted of such programs, CGS will evaluate their impact relative to liquefaction potential and revise official seismic hazard zone maps, if necessary.

California State Water Resources Control Board. The depths to first-encountered unconfined ground water were plotted onto a map of the project area and contoured to constrain the estimate of historically shallowest ground water. Water depths from boreholes known to penetrate confined aquifers were not used.

Based on seismic hazard report SHZ 133, for the San Francisco South 7.5-Minute Quadrangle, the historical groundwater elevation ranges from (10)-to (20)-feet below the ground surface. Recent geotechnical investigation (Draft findings dated 1/24/2025 by Langan Engineering), depth to first-encountered water) ranged from (14) to (23)-feet below the ground surface during and after drilling. Based on the information provided by EDR, ground water flow direction is to the north-northeast.

The closest bodies of water to the subject property appears to be the Colma Creek located to the southeast of the subject property at a distance of approximately (±750)-feet.

3.3 REGIONAL GEOLOGY

Geologically, the site under evaluation is located within the physiographic region known as the San Francisco Bay Area, which itself lies within the Coast Range geomorphic province of California, which consists of a series of northwest trending mountains and valleys along the western edge of the North American Continent. The San Francisco Bay Area itself lies within the Coast Range Geomorphic Province, a more or less discontinuous series of northwest trending mountain ranges, ridges, and intervening valleys characterized by complex folding and faulting.

Geologic and Geomorphic structures within the San Francisco Bay Area are dominated by tectonic deformation and along the San Andreas Fault system. This right-lateral strike-slip fault extends on land from the Gulf of California in Mexico, to Cape Mendocino, on the Coast of Humboldt County in northern California. It forms a portion of the boundary between two independent tectonic plates on the surface of the earth. To the west of the San Andreas Fault, the Pacific plate moves north relative to the North American plate, located east of the fault.



In the San Francisco Bay Area, movement across this plate boundary is distributed across the San Andreas Fault and a number of other faults including the Hayward, Calaveras, and San Gregorio. Together, these faults are referred to as the San Andreas Fault system. The general trend of the faults within this system is responsible for the strong northwest-southeast structural grain of geologic and geomorphic features in the San Francisco Bay Area. For most of the length of the San Andreas Fault, basement rock on the east generally consists of a chaotic mixture of highly deformed marine sedimentary, submarine volcanic and metamorphic rocks of the Franciscan Complex.

The Franciscan rocks are generally considered Jurassic and Cretaceous age (about 65 to 205 million years old). Overlying the basement rocks are Cretaceous marine, as well as Tertiary (about 65 to 1.6 million years old) marine and non-marine sedimentary rocks with some continental volcanic rock. These Cretaceous and Tertiary rocks typically have been extensively folded and faulted largely as a result of movement along the San Andreas Fault System over about the last 25 million years.

3.4 SITE & LOCAL GEOLOGY

Based on the Geologic Map of the San Francisco South 7.5 Quadrangle, the local geological conditions at the subject property and immediate surroundings consists of Franciscan rock alluvium lake, playa and terrace, consisting of sand, silty sand, sandy clay and clayey sand. Unconsolidated and semi-consolidated.

3.5 WETLANDS AND FLOOD ZONE INFORMATION

AST reviewed information for the presence of wetlands and flood zone areas at and within ½-mile radius from the subject property. Information from the National Wetlands Inventory (NWI) database provided by the United States Fish and Wildlife Service, and Flood Insurance Rate Map (FIRM), published by the Federal Emergency Management Agency (FEMA) reviewed online and provided by EDR.

According to the one-mile radius map provided by EDR, there are no designated wetlands on-site. In addition to the above, based on the EDR report and the review of the Flood Insurance Rate Map (FM06081C0043F), published by the Federal Emergency Management Agency (FEMA), the subject property is located in an area of minimum flood hazard.

4.0 SITE RECONNAISSANCE

AST representatives Mr. Alex Kassai and Mr. Al Mirza conducted the Phase I ESA site Reconnaissance of the subject property on February 21, 2025. The weather at the time of the site visit was clear and sunny. The site reconnaissance included inspection of the subject property and a perimeter survey of the surrounding/adjoining properties located within the immediate vicinity of the subject property. Miss Genesis Escudero of Boys & Girls Clubs of the Peninsula accompanied Mr. Alex Kassai and Al Mirza during the site visit. Findings from the site reconnaissance, review/research and perimeter survey are presented in the following sections of this report.

At the time of the site reconnaissance, the subject property was occupied by three one to two story buildings and associated hardscape and landscaped area. Access to the subject property was through



the driveway on the east of the site. Based on the reconnaissance of the subject property, accessible area(s) and subsurface features that were visible to the naked eye, we observed the following:

- 1. Observed asphalt paved driveway and parking lot with site lighting and landscaping areas.
- 2. No vents, hatches, or unusual pipes visible to the naked eye protruding from the ground were observed on the subject property with the exception of domestic water valves, fire hydrants, and electric / gas protruding from the ground).
- 3. No pad mounted or/ pole mounted transformers were observed on the subject property.
- 4. No septic systems, drywells, pits or/ sumps, groundwater wells were observed on the subject property at the time of this reconnaissance.
- 5. No signs of any major stains or any unusual or/ potentially hazardous chemicals, drums, or/ containers that spilled, leaked or/ were left in the open were observed on the subject property at the time of this site reconnaissance.
- 6. No signs of any unusual spills or/ soil discoloration or odors or/ vegetation distress were observed on the subject property at the time of this site reconnaissance.
- 7. No sign of storage of hazardous material was observed inside the buildings with the exception of some household cleaning supply.

4.1 ON-SITE STORAGE TANKS

No visual indicators of current on-site aboveground or/ underground storage tanks were identified or/ observed during our reconnaissance of the subject property. Based on the review of the existing reports and information, it is our understanding that there are no reported active or/ abandoned underground or/ aboveground storage tanks at the subject property at the present time.

4.2 IDENTIFIED HAZARDOUS MATERIALS

AST inspected the subject property for current chemical and hazardous waste storage and handling practices. At the time of this assessment, AST did not identify any hazardous materials or/observe any visual evidence of use or/spills or/discoloration during the site reconnaissance of the subject property.

4.3 ASBESTOS CONTAINING MATERIALS (ACM)

Due to the age of the structures at the subject property, there is a chance of Asbestos Containing Building material.

4.4 LEAD BASED PAINTS (LBP)

Due to the age of the structures at the subject property, there is a chance of lead-based paint being used during the construction of the existing buildings.



4.5 POLYCHLORINATED BIPHENYLS (PCBs)

Typical sources of polychlorinated biphenyls (PCBs) include electrical transformer cooling oils, fluorescent light fixture ballasts and hydraulic oil. In 1976, the USEPA banned the manufacture and sale of PCB-containing transformers. Prior to this date, transformers were frequently filled with a dielectric fluid containing PCB-laden oil. By 1985, the US EPA required that commercial property owners with transformers containing more than 500 parts per million (ppm) PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within 16 feet (40 Code of Federal Regulations 761.30: "Fire Rule").

No pole mounted or/ pad mounted transformer units were observed on the Subject Property. Transformers usually have Pacific Gas & Electric (PG&E) ownership insignia and maintenance of these transformers in the event of a leak is the sole responsibility of PG&E. According to PG&E most of the transformers (99.9%) have been replaced with mineral oil as per the abatement programs that were initiated in the 1980's. However, there is always a possibility of having PCB in transformers.

4.6 RADIOACTIVE MAN-MADE MATERIALS

No radioactive man-made materials were observed on the Subject Property at the time of our site reconnaissance.

4.7 PITS, PONDS AND LAGOONS

No pits, ponds, or lagoons were visually observed during the site reconnaissance of the Subject Property at the present time.

4.8 SEPTIC TANKS AND CESSPOOLS

Septic systems are not currently subject to environmental regulations in the State of California, and these systems should be removed as part of general development activities. Septic systems can be a source of nitrates to the subsurface; however, it is unlikely that these systems, contribute to a significant quantity of nitrates to the subsurface given that there are no longer in use. No septic tanks or/ cesspools were visually observed during the site reconnaissance of the Subject Property.

4.9 WELLS, CISTERNS AND SUMPS

No monitoring wells or/ irrigation wells or/ cisterns or/ sumps were visible to the naked eye or/ visually observed during the site reconnaissance of the Subject property. Based on the review of the documents from the City of South San Francisco, Geotracker, and Envirostor websites, it is our understanding that there were no monitoring or/ irrigation wells on the Subject Property.

4.10 WASTEWATER INTERCEPTORS/GREASE INTERCEPTORS

No wastewater interceptor / grease interceptor was observed by us during our site reconnaissance.

4.11 DRINKING WATER

The Subject property is supplied with municipal drinking water by Cal Water since 1931. Based on the information provided by their web site, the supplied water meets or/ exceeds all drinking water



standards, including those for lead. Please note that testing of lead in drinking water was not within the scope of this assessment.

4.12 RADON

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones; Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the US EPA Action Limit of 4.0 pico Curies per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 3, where average predicted radon levels are less than 2.0 pCi/L. Based upon the radon zone classification; radon is not considered to be a significant environmental concern. Site-specific radon values were not available and were not a part of this ASTM Phase I ESA.

4.13 PESTICIDES AND HERBICIDES

The subject property was not used for agricultural purposes in the past. Therefore the possibility of having residual pesticides and herbicides in the subsurface is non-existent. During our site reconnaissance of the subject property, AST did not observe any evidence or/ current usage of pesticides/herbicides as a concern at the time of our site reconnaissance.

5.0 HISTORICAL INFORMATION

The subject property is a double parcel of land located at 201 W. Orange Avenue in South San Francisco, California with an assessor parcel numbers of 093-331-110 and 093-331-150. AST obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

TABLE II - HISTORICAL USE INFORMATION

Year	Historical Source	Usage
1939-2024	EDR Aerial Photographs	Identified
1922-2020	EDR City Directory	Identified
1897-2021	EDR Topographic Maps	Identified
1904-1978	EDR Certified Sanborn Maps	Identified



1984-2024	EDR Building Permit Report	Not Identified
	EDR Environmental Lien & AUL Search	Not Identified
	EDR Property Tax Map report	Not Identified

Based on the review of the above EDR provided historical information reports, it is our understanding that the subject property was a rural parcels of land (1897-1960) and commercial development (Boys & Girls Club of Peninsula (1960 to present)

5.1 AERIAL PHOTOGRAPH REVIEW

AST obtained and reviewed the existing available historic aerial photographs of the subject property and surrounding area from Environmental Data Resources, Inc. (EDR) dated February 03, 2025 to determine the historical usage of the property. These aerial photographs were reviewed for indications of historical documented features and for determining the previous usage of the subject property, as discussed below:

Date: 2020 Source: USDA/NAIP Scale: 1" =500'

The subject property and the general vicinity appear to be mostly the same as it exist at the present.

Date: 2016 Source: USDA/NAIP Scale: 1" =500'

The subject property and the general vicinity appear to be mostly the same as they did in the aerial photograph taken in 2020.

Date: 2012 Source: USDA/NAIP Scale: 1" =500'

The subject property and the general vicinity appear to be mostly the same as they did in the aerial photograph taken in 2016.

Date: 2009 Source: USDA/NAIP Scale: 1" =500'

The subject property and the general vicinity appear to be mostly the same as it did in the aerial photograph taken in 2012.

Date: 2006 Source: USDA/NAIP Scale: 1" =500'

The subject property and the general vicinity appear to be mostly the same as it did in the aerial photograph taken in 2009.

Date: 1998 Source: USDA Scale: 1" =500'

Review of this aerial photo revealed that the subject property and the general vicinity appears to be mostly the same as it did in the photograph taken in 2006.

Date: 1993 Source: USGS/DQQQ Scale: 1" =500'

Review of this photograph revealed that the subject property and the general vicinity/surroundings appear to be mostly similar to that of the photograph taken in 1998.



Date: 1982 **Source:** USGS **Scale:** 1" =500'

The subject property and the general vicinity/surroundings appear to be mostly similar to that of the photograph taken in 1993.

Date: 1970 **Source:** USGS **Scale:** 1" = 500'

The subject property and the general vicinity appear to be mostly similar to the Photograph taken in 1982.

Date: 1968 **Source:** USGS **Scale:** 1" = 500'

Review of this photograph revealed that the subject property and the general vicinity appear to be mostly similar to the Photograph taken in 1970.

Date: 1963 **Source:** EDR **Scale:** 1" = 5500'

Review of this photograph revealed that the subject property has been developed and a small building is located on the southern portion of the site.

Date: 1956 Source: USGS Scale: 1" =500'

Review of this photograph revealed that the subject property and the site has not been developed and no building is occupying the subject property.

Date: 1946 Source: USGS Scale: 1" = 500'

Review of this photograph revealed that the subject property and the general vicinity/surroundings appear to be substantially the same as they did in 1956 aerial photo. The property has not been developed. The church building on the west of the subject property does not exist.

Date: 1943 **Source:** USDA **Scale:** 1" = 500'

Review of this photograph revealed that the subject property is undeveloped and there is less development in the surrounding area.

5.2 SANBORN FIRE INSURANCE MAPS

Sanborn Maps were originally created in the late 1800s and early 1900s for assessing fire insurance liability in urbanized areas of the United States. These maps usually include a detailed town and building information. Based on the coverage provided by EDR dated February 03, 2025; the subject property was identified as follow:

- Sanborn Maps dated 1970 The subject property is occupied with Boys & Girls Club of the Peninsula. The map also shows the Market Street right of way (Abandoned).
- Sanborn Maps dated 1956 No building is occupying the subject property.
- Sanborn Map dated 1950 Thee same as the Sanborn Map in 1970. No buildings / structures on the subject property.



5.3 CITY DIRECTORIES

City directories have been produced for most urban and some rural areas since the late 1800s. The directories are generally not comprehensive and may contain gaps in time periods. AST reviewed and utilized historical city directories/information provided by EDR for past names and businesses that were listed for the subject property and adjacent properties dating back to 1970 in the process of this site assessment. Based on the information received from EDR City Directory Abstract Dated February 12, 2025, the subject property with APNs #093-331-110 & 093-331-150 was identified in the research sources and correspond to following address: 201 W. Orange Avenue in South San Francisco, California. The following information was provided by (EDR) for the subject property and adjacent properties that are located to the north, south, east, and west of the subject property and they are as follows:

TABLE III – CITY DIRECTORY (HISTORICAL USE INFORMATION)

Year	Target Property - Vicinity	Source
2020	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club-N San Mateo Vicinity – Residential / Park	EDR Digital Archive
2017	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club of America /Club of SSF Vicinity – Residential / Park	Cole Information Services
2014	201 W. Orange Avenue-South San Francisco Boys & Girls Club of SSF Vicinity-Residential / Park	Cole Information Services
2010	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo Vicinity – Residential / Park	Cole Information Services
2005	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo County Vicinity- Residential / Park	Cole Information Services
2000	201 W. Orange Avenue-South San Francisco TP-Hoch, Shirlee J Vicinity – Residential / Park	Cole Information Services
1995	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club N. San Mateo Vicinity – Residential / Park	Cole Information Services



1992	201 W. Orange Avenue-South San Francisco TP-Boys & Girls Club Vicinity – Residential / Park	Cole Information Services
1986	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory
1981	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory
1976	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory
1970	201 W. Orange Avenue-South San Francisco TP-Tri Cities Alternatives Vicinity – Residential / Park	Haines Criss-Cross Directory

For additional information, please refer to the enclosures in Appendix "C & D" of this report for documentation pertaining to the Environmental Lien Search Report provided by EDR, Sanborn Fire Insurance Maps, EDR-City Directory Abstract, Aerial Photographs and documents from various environmental agencies.

5.4 HISTORICAL TOPOGRAPHIC MAPS

Historical Topographic Maps were originally created in the early 1900s for assessing and evaluating potential liability in urbanized areas of the United States for evaluating the potential liability on a property resulting from usage and past activities. These maps include a search and collection of public and private color historical topographic maps. AST attempted to review Historical Topographic Maps provided by EDR dated February 03, 2025; dating back to 1897 with the most recent topographic map being 2021. The following topographic maps were reviewed by us during this assessment:

TABLE IV - TOPOGRAPHIC MAPS (HISTORICAL USE INFORMATION)

Year	Topographic Map	Series	Scale
2012-2021	San Francisco South	7.5-Minute	1" =24000'
1995-1996	San Francisco South	7.5-Minute	1" =24000'
1980	San Francisco South	7.5-Minute	1" =24000'
1973	San Francisco South	7.5-Minute	1" =24000'
1968	San Francisco South	7.5-Minute	1" =24000'
1956	San Francisco South	7.5-Minute	1" =24000'



1950	San Francisco South	7.5-Minute	1" =24000'	
1947	San Francisco South	15-Minute	1" =24000'	
1939	San Mateo	15-Minute	1" =62500'	
1915	San Mateo	15-Minute	1" =62500'	
1899	San Mateo	15-Minute	1" =62500'	
1896	San Mateo	15-Minute	1" =62500'	

Based on the review of the topographic maps provided by EDR, AST did not observe any major topographical changes at the subject property.

5.5 BUILDING PERMIT REPORT

Building Permits report provided by EDR was reviewed as part of the historical sources of information to determine issuance of any permits to the subject property (APNs: 093-331-110 & 093-331-150) with Address: 201 W. Orange Avenue, South San Francisco for its usage in the past. Based on the information provided by EDR, dated February 3, 2025 it is our understanding that the building permit documents were reviewed from year 2024 and going back year 1901 revealed fire department inspections, handicap access, roof repair, wall removal, bathroom renovations and other repair works. However, there was no record of any significant violations that were associated or/ issued to the Subject Property. Please refer to the copy of these documents enclosed in Appendix "D" of this report.

5.6 HISTORICAL OIL AND GAS MAPS

AST reviewed information available on-line through the California Department of Conservation's website. The Division of Oil, Gas & Geothermal Resources (DOGGR) Online Mapping System (DOMS) shows no oil wells in the immediate vicinity of the Subject Property.

5.7 ENVIRONMENTAL LIENS

No Chain of Title was provided by the client for this Phase I ESA. However, based on the preliminary title report and research and information provided by Environmental Data Resources (EDR) dated February 7, 2025, it is our understanding that there are no Environmental Liens or/ Reports or/ Activity and Use Limitation Reports that were associated with the Subject property.

5.8 VAPOR ENCROACHMENT CONCERNS

Per the American Society for Testing and Materials (ASTM) Standard E1527 (updated November 2021), Section X1.1.1.2, "Exclusions from Definitions of 'Release'," item 4, "the presence within a building of hazardous substances such as vapors that have migrated into a building from a "release into the environment" (i.e., from a release outside of the building) can result in CERCLA liability." Further, per Section X5.8, "EPA does not regulate indoor air quality except to the extent that indoor air impacts are caused by releases of hazardous substances into subsurface soil or groundwater (vapor intrusion)." In accordance with the ASTM standard E2600, Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions,



AST reviewed the "EDR Vapor Encroachment Screen" for the subject property. For this report, EDR completed a search of available environmental records for the site. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E2600-10). Review of the reports provided by (EDR) revealed cases that are adjacent to the subject property which may have a significant adverse impact on the subject property. The adjacent properties sites that are located within a 1/8-mile radius of the subject property at equal or/ higher elevations and had prior incidents of soil and groundwater contamination have been closed with no further action deemed necessary. According to EDR, the status of the cases is "Under Remediation" or/ "Completed-Case Closed." Due to the remediation/case closed status, the incidents are not likely to have adversely affected or/ impact the subject property.

The ASTM definition of a Vapor Encroachment Condition (VEC) is "the presence or likely presence of chemical of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property." A VEC is a broad concern involving contamination or potential contamination from subsurface vapor migration, while a Vapor Intrusion Condition (VIC) is focused on the migration or potential migration of contaminant vapors into building spaces. A VIC, if present, can potentially pose a health risk to the occupants of the building. A VIC is commonly associated with the presence of volatile organic compound (VOC) contamination, such as petroleum hydrocarbon or chlorinated solvent releases. A VIC can be caused by contamination from onsite or offsite sources, or a combination of both. AST has performed a Tier 1 Vapor Encroachment Screening (VES) in general accordance with the scope of work and limitations of ASTM Standard Practice E 2600-22 for the subject property. The purpose of this Tier 1 VES is to identify an existing or potential VEC affecting the subject property, as defined by ASTM Standard E 2600-22. Based on the findings of the Tier 1 VES conducted by AST, a VEC is not considered an issue of concern in connection with the subject property at this time.

5.9 CLIENT SUPPLIED REPORTS

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (The Brownfields Amendments), the User/Owner must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that all appropriate inquiry is not complete. The current property owner/user was asked to provide information or/ knowledge of the following:

- Any previous Phase I ESA or/ Phase II Investigation Reports that were conducted or/ prepared for the Subject Property
- Activity and land use limitations that are in place on the Subject Property or/ that have been filed or recorded in a registry
- Environmental cleanup liens that were associated or/ filed or/ recorded against the Subject Property
- Specialized knowledge or experience of the person seeking to qualify for the LLPs
- > Commonly known or/ reasonably ascertainable information about the Subject Property



- > The reason for preparation of this Phase I ESA
- The degree of obviousness of the presence or/ likely presence of contamination at the Subject Property, and the ability to detect the contamination by an appropriate method of investigation

Fulfillment of these user responsibilities is the key to qualification for the identified defenses to CERCLA liability. AST requested the Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance. Pursuant to ASTM E1527-21, AST requested the following site information from User of this report, property owner(s) and their agents. AST was provided with the following report(s) by the current owner(s) and their representative(s) are as follows:

TABLE V - OWNER PROVIDED INFORMATION

ltem	Provided by User Owner	Not Provided by User/Owner	Discussed Below	Does Not Apply
Environmental Pre-Survey Questionnaire	Х		Х	
Chain of Title Records		х		
Grant Deed / Change of Ownership Record	Х			
Environmental Liens and or Activity Use Limitations			Х	
Specialized Knowledge		х		
Valuation Reductions for Environmental Issues		Х		
Identification of Key Site Managers		х		
Reason for Performing Phase I ESA	Section 1.1			
Prior Environmental Report(s)		Х		
Other				Х



5.10 INTERVIEWS

Parcels with APN#s 093-331-110 and 093-331-150: No interviews were made with the exception of walkthrough with Ms. Genesis Escudero, Site Operations Manager, Orange Park Clubhouse. Mr. James Harris was interviewed via forwarding the owner questionnaire. Mr. Harris responded to the owner questionnaire on behalf of the ownership with No to questions. Based on that, we conclude the following:

- 1) No hazardous materials were stored on the Subject Property with the exception of Cleaning Supplies/products
- 2) No knowledge of having stained soil on the Subject Property in the past
- 3) No knowledge or/ Presence of Underground or/ Aboveground storage tanks on the Subject Property in the past

Please refer to the enclosed copy of the response to the Owner(s) Questionnaire filled out by the Representative of the Current Owner(s) and Operator(s)/Tenant(s) and Sellers of the Subject Property, which is included below and in Appendix "C" of this report.

TABLE VI - OWNER(s) QUESTIONNAIRE RESPONSE

Question		Response		
Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	No	x
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property		Yes	No	х
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	No	х
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	No	х

5.10.1 INTERVIEWS (PAST OWNERS, OPERATORS & OCCUPANTS)

Interviews with past owners, operators and occupants of the Subject property were not reasonably ascertainable and thus constitute a data gap.



6.0 REGULATORY RECORDS REVIEW

AST reviewed the documents online and try to contacted local agencies, such as GEOTRACKER, ENVIROSTOR, Fire, Building/Planning and Public Works Departments in order to determine any current and/or historic hazardous materials usage, storage and/or releases of hazardous substances on the subject property.

Additionally, AST researched and reviewed the information provided by EDR on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-21, AULs are the legal or physical restrictions or/limitations on the use of, or/access to a site or/facility:

- 1) To reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or/
- 2) To prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or/ populations that may be exposed to hazardous substances and petroleum products in the soil on the property or/ in the groundwater on the property.

6.1 ASSESSOR'S OFFICE

AST reviewed the documents online and try to contact the South San Francisco Assessor's office and viewed the available information on online pertaining to the subject property. Based on the review of the available information, it is our understanding that the ownership of the parcels belongs to City of South San Francisco.

6.2 BUILDING/PLANNING/PUBLIC WORKS DEPARTMENT

AST reviewed the digital files/documents pertaining to the Subject Property at the City of South San Francisco/Planning/Engineering and Public Works Department for information for any violations pertaining to the Subject Property. Based on the information received (forwarded via email) and review of the digital/electronic files, it is our understanding that the Subject Property was utilized for mostly for commercial purposes by Boys and Girls Club of the Peninsula and some of the permits that were issued were as follows: Conditional Use Permit and other improvement permits such as Plumbing, Electrical, Signage, Roof and for Outside/Patio Dinning etc. However, there were no permits or/ citations pertaining to violations on the Subject Property. Please refer to the copy available documents reviewed are enclosed in Appendix "D" of this report.

6.3 FIRE DEPARTMENT

AST performed an online review of the records from the City of South San Francisco Fire Department for information pertaining to the possibility of any violations/ citation that have been issued to the subject property over the years. These records may contain evidence indicating current and/or historical hazardous materials usage, storage or releases, as well as the presence of USTs. Based on the information received from EDR building inspections, no violation has been issued by Fire Department to the subject property. Please refer to the copy information, enclosed in Appendix "D" of this report.



6.4 DEPARTMENT OF TOXIC SUBSTANCE CONTROL (DTSC)

AST performed an online review of the Department of Toxic Substance Control (DTSC) ENVIROSTOR database for information pertaining to the subject property regarding any hazardous materials, spills, or/ releases at the subject property. Based on the review of records, there are no records in the database for the subject property. AST reviewed the ENVIROSTOR Database with the designated property addresses listed above. The review of this database did not reveal any documents and records or/ any environmental concerns at the Subject Property. No documents available on-line for the subject property.

6.5 REGIONAL WATER QUALITY CONTROL BOARD (RWQCB-SF)

AST reviewed the files online on the GEOTRACKER, a database maintained by Regional Water Quality Control Board (RWQCB-SF Region) for information pertaining to any hazardous materials, spills, or/releases at the Subject Property. However, AST's review of the digital GEOTRACKER Database (geotracker.waterboards.ca.gov/) maintained by RWQCB with the designated property addresses listed above revealed no such documentation or/records pertaining to any environmental concerns or/activities or/violations at the Subject Property.

6.6 OIL & GAS EXPLORATION

The State of California does not maintain records of oil and gas exploration. AST did not identify any oil or gas wells on or/ in the immediate vicinity or/ adjacent to the subject property during the course of this assessment.

6.7 MAPPED DATABASE RECORDS SEARCH/REVIEW

As part of the Phase I ESA, AST utilized EDR of Shelton, Connecticut, as an information source for regulatory agency database records. The following summary of the database information is divided into two columns. The first column lists sites as identified and located by EDR within the specified distance of the Site. The second column lists orphan sites, which could not be located by EDR due to incomplete and/or inaccurate address information included in the USEPA/state databases, which AST identified as potentially lying within the search distance. Although locations of the orphan sites are frequently unknown, AST attempted to evaluate the potential adverse environmental impact that these facilities may have on the subject property. This evaluation consists of reviewing street names in an effort to learn whether the street on which the site is located lies within the search distance of the subject property, a drive-by view of surrounding properties during the reconnaissance/ visit to the Subject Property, and evaluating the site type and information provided by government agencies. The orphan sites (if any) included in the following table are those AST identified as potentially located within the identified search distance as reflected in the table below.

TABLE VII - EDR DATABASE SITE LISTING

Database	Radius	No. of Plottable	Orphan
National Priorities List	1 mile	0	0
RCRA Corrective Action Treatment/Storage/Disposal (TSD) Facilities (CORRACTS)	1 mile	1	0



Delisted National Priorities List	1 mile	0	0
State/Tribal Brownfield NPL Sites RESPONSE	1 mile	4	0
State/Tribal Brownfield Sites/CERCLIS Equivalent (ENVIROSTOR)	1 mile	15	0
CERCLA Sites	½-mile	0	0
CERCLA No Further Remedial Action Planned (NFRAP) Sites	½-mile	0	0
Federal Institutional Controls / Engineering Controls Registries	½-mile	0	0
RCRA Non-Corrective Action TSD Facilities	½-mile	0	0
State/Tribal Voluntary Cleanup Sites	½-mile	1	0
State/Tribal Leaking Storage Tank Sites	½-mile	32	0
State/Tribal Leaking Registered Storage Tank Sites	½-mile	1	0
Historic CORTESE List	½-mile	24	0
State/Tribal Solid Waste Landfill Sites/Facilities	½-mile	0	0
State/Tribal Brownfields Site	½-mile	0	0
SLIC	½-mile	9	0
HIST LUST	¼-mile	7	0
RCRA Large Quantity Generators	¼-mile	1	0
RCRA Small Quantity Generators	¼-mile	7	0
RCRA Very Small Quantity Generators	¼-mile	0	0
State/Tribal Registered Storage Tank Sites	¼-mile	6	0
HIST UST	¼-mile	15	0
CA FID UST	¼-mile	4	0
SWEEPS UST	¼-mile	5	0
	1		



FINDS (Facility Index System)	0.001	1	0
HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC.	TP	0	0
HWTS: Hazardous Waste Tracking System DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.	TP		
NPL LIENS	TP	NR	0
FEDERAL ERNS LIST	TP	NR	0
HAULERS	0.001	NR	0
US HIST CDL US CDL	0.001	NR	0
LOCAL LAND RECORDS (DEED LIENS LIENS 2)	0.001	NR	0
HMIRS CHMIRS LDS MCS SPILLS 90	0	0	0
EPA WATCHLIST	0.001	NR	0
TSCA TRIS SSTS	0.001	NR	0
US AIRS	0.001	NR	0
US FINANCIAL ASSURANCE	0.001	NR	0
RGA LF/RGA LUST	0.001	NR	0
EDR HIGH RISK HISTORICAL RECORDS	0.125-mile	2	0
CERS	0.001	1	0
HAZNET / HWTS	TP	2	0

Other ascertainable records and databases of various other agencies were also searched for possible listing of the Subject Property within their databases. Review of the information provided by EDR; the Subject Property was identified only in CERS and in none of their remaining databases.

A listing of facilities and adjoining properties that located in the vicinity of the subject property and have prior history of soil and groundwater contamination and are located at a higher elevation with respect to the groundwater flow direction have been included in the following sections of this report. A brief discussion of select facilities and their database listings are included in the table below. The full report provided by EDR and reviewed by AST can be found in Appendix "B" of this report.



6.7.1 TARGET/SUBJECT PROPERTY

The subject property was identified in the regulatory databases under HAZNET (The data is extracted from the copies of hazardous waste manifests received each year by the DTSC and HWTS (DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility). Forty five tons of asbestos containing building material was hauled off from the site and deposited in the landfill facility. However, no violations were reported or/associated with the subject property at the time of this Phase I Site Assessment.

6.7.2 GEOTRACKER & ENVIROSTOR DATABASE

AST performed an online review of the ENVIROSTAR and the GEOTRACKER databases for information pertaining to the current status of the above-mentioned properties within a one-mile radius for possible impact from an off-site source.

ENVIROSTOR - The Database is the Department of Toxic Substance Control (DTSC) Internet-accessible database system used by the DTSC that allows people to quickly access vital information about environmental cleanups and permitted facilities in their communities.

GEOTRACKER - The Database is the California State Water Resources Control Board's (SWRCB) Internet-accessible database system used by the SWRCB, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or/unauthorized releases of hazardous substances from leaking underground storage tanks. According to information from GEOTRACKER nearby cases include the following:

TABLE VI - EDR SITE LISITING OF ADJOINING PROPERTIES

Facility Name	Facility Address	Distance from the Site	Database Reference	Status
Boys & Girls Club of the Peninsula	Subject Property 201 W. Orange Avenue	TP	EDR HIST HAZNET / HWTS	Closed
Bart (Ventilation Structure)	197 W. Orange Avenue	<1/8-MILE;	CERTS	Storage Facility Compliance - Returned to compliance on 01/31/2020.
Los Cerritos Elementary School	210 W. Orange Avenue	<1/8-MILE; SSW	RCRA EDR-Historical Auto	No Violation
Camoee Les Shell Station	289 C 3 rd Street	<1/8-MILE; SSW	Historical Auto	No Violations



Curtis Automotive Repair	301 B BARNEVELD AVE	<1/8-MILE; SSW	RCRA Listing	No Violations
SOUTH SAN FRANCISCO HOUSING AUTHORITY	350 C Street	<1/8-MILE; SSW	RCRA Listing	No Violations
Proteolix	225 A GATEWAY BLVD	<1/8-MILE; WSW	RCRA	No Violations

Please note that the distance from the site and direction assigned by EDR. Actual distance from the site boundary may vary.

AST's reviewed the databases with the designated property addresses listed above for information pertaining to their current status and the possibility of impact to the subject property from an offsite source. Based on the review of the available information, it is our understanding that none of the cases in the close proximity of the site will have any adverse impact to on the subject property.

Henceforth, it is our opinion that due to the distance and the direction of the groundwater flow with respect to the Subject Property, the reported incidents above are not likely to have an adverse impact on or/ affect the Subject Property at the time. Copies of the referenced Case Summaries and Closures are presented in Appendix "B" of this report.

7.0 FINDINGS & CONCLUSIONS

According to ASTM Standard of Practice E1527-21, recognized environmental conditions (REC) fall under three specific categories when evaluating a site or properties within the site vicinity. These categories are defined below.

Recognized Environmental Condition (REC)- (1) the presence of hazardous substances or petroleum products in, on or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on or at the subject property under conditions that pose a material threat of a future release to the environment.

> AST did not identify any RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) A controlled recognized environmental condition, or CREC, is a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of controls.

AST did not identify an existing CREC during the course of this assessment.

Historical Recognized Environmental Condition (HREC) A historical recognized environmental condition, or HREC, is a a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and



meeting unrestricted use criteria established by the applicable regulatory authority or authorities, without subjecting the property to any controls (for example activity and use limitations, or other property use limitations).

> AST did not identify an existing HREC during the course of this assessment.

Other Environmental Considerations (OEC) warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-21. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property.

Regardless of construction date of the building, the EPA's NESHAP requires that an asbestos survey adhering to AHERA sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local agency enforcing the federal EPA regulations. The NESHAP regulation specifies that all suspect ACMs be sampled to determine the presence or/ absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants. Based on the potential presence of ACMs, AST recommends the property owner develop and implement an Operation and Maintenance Plan for the subject property which stipulates the identification, assessment, repair and maintenance of building materials to protect the health and safety of the building occupants, visitors to the site, and the environment.

Due to the age of the building at the subject property, there is a potential that LBP may be present on the subject property. AST recommends that the property owner consult with a certified Lead Risk Assessor to determine options for control of possible LBP hazards. Stringent local and State regulations may apply to LBP in association with building demolition/renovations and worker/occupant protection. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

8.0 RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-21 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the subject property located at 201 W. Orange Avenue, in South San Francisco, California. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report. Based on the information collected from the review of the existing above-mentioned reports and documents, AST concludes that this Phase I Site Assessment has revealed no prior or/ present Recognized Environmental Concerns associated with the subject property in question. However, AST recommends the following:

Due to the age of the building at the subject property, there is a potential that ACM and LBP may be present on the subject property. AST recommends that the property owner consult with a certified Risk Assessor to determine options for control of possible ACM and LBP hazards. Stringent local and State regulations may apply to ACM and LBP in association with building demolition/renovations and worker/occupant protection. Therefore, it recommended that ACM and LBP testing and assessment be undertaken, prior to commencement of any demolition or/improvements or/ any construction activities that disturb materials or/ paints at the subject property.



9.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

AST conducted the Phase I Environmental Site Assessment of the Subject Property with Assessor Parcel Nos.: 093-331-110 & 093-331-150 located at northwest corner of West Orange Avenue and Memorial Drive assigned street address of 201 W. Orange Avenue in South San Francisco, California in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

AST declares that, to the best of our professional knowledge and belief, the undersigned meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312 and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. AST has developed and performed "All Appropriate" inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Al Mirza

Al Mirza Engineer Am/AAK/CJ Cc: file Alex Kassai

Alex A. Kassai, PE/REA Project Principal



10.0 REFERENCES

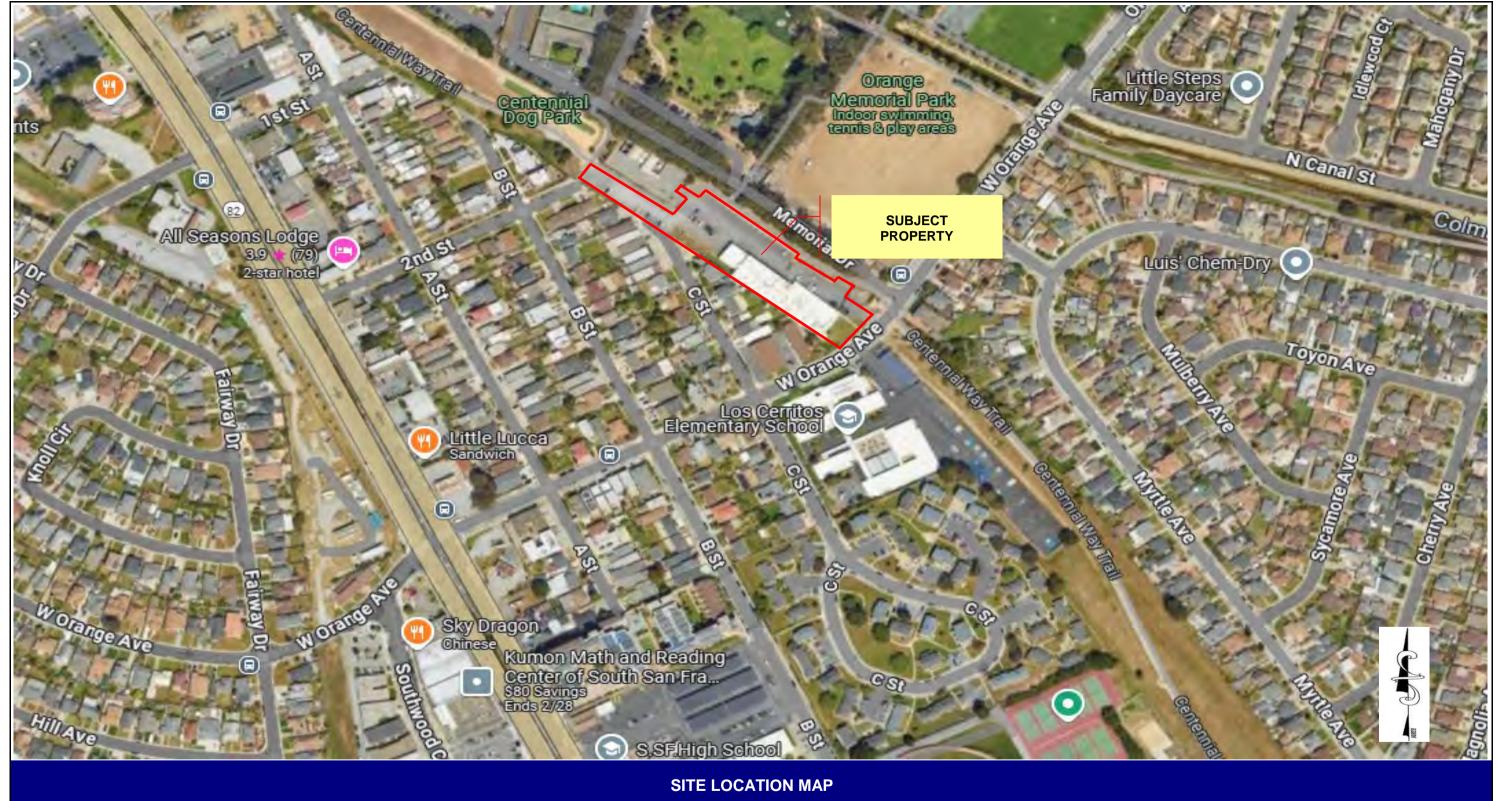
Contact List

- > City of South San Francisco, Building, Planning, and Public Work Department
- City of South San Francisco Utilities
- City of South San Francisco Fire Department
- Department of Toxic Substance Control (DTSC)
- Regional Water Quality Control Board, San Francisco (SFRWQCB)
- United States Environmental Protection Agency Region 9, California
- United States Geological Survey, accessed via the Internet

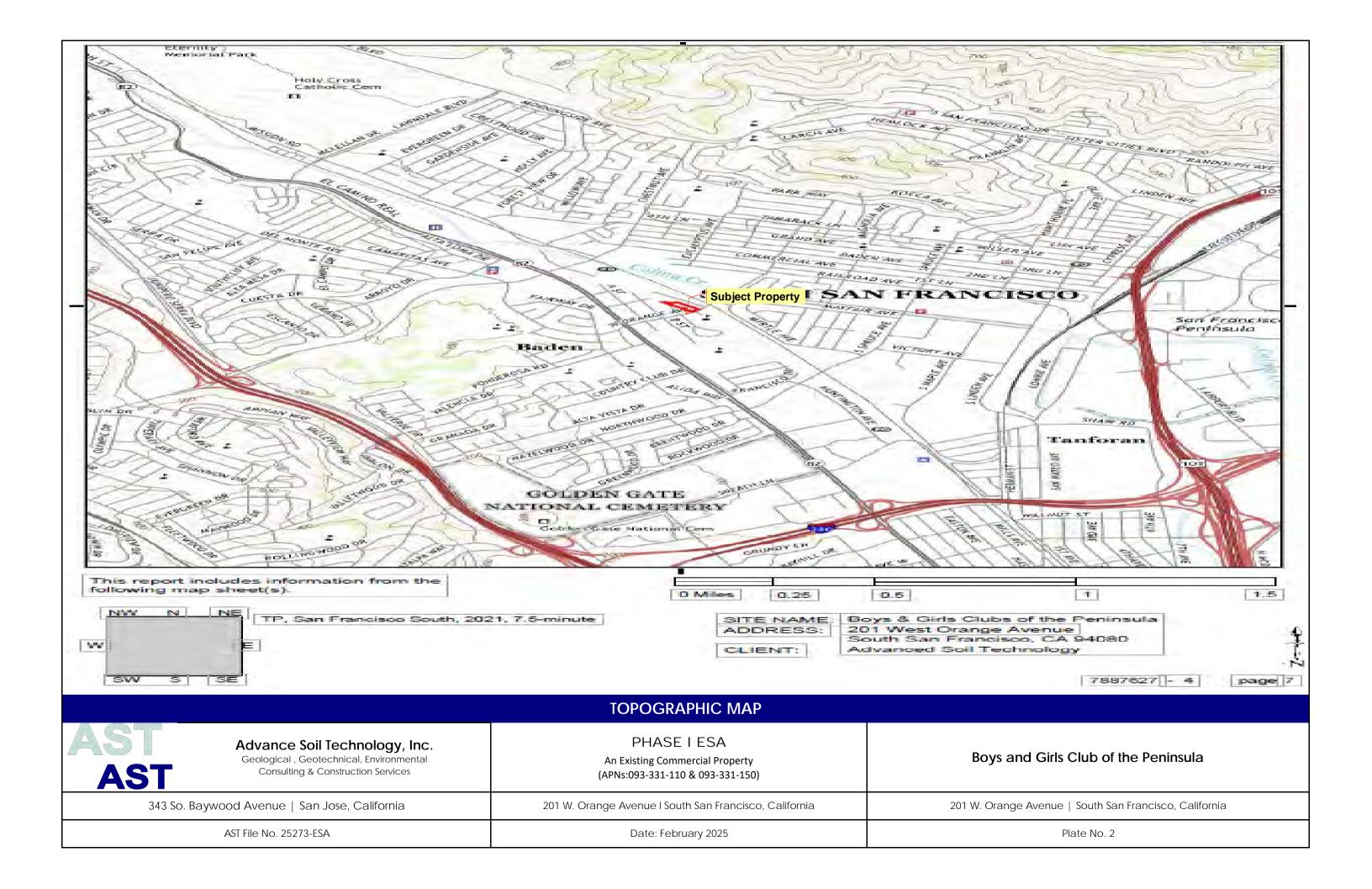
Reference Documents

- American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13
- California Department of Conservation, Division of Oil, Gas and Geothermal Resources, Online Mapping System (http://maps.conservation.ca.gov/doms/index.html)
- California State Water Resources Control Board, GeoTracker (http://geotracker.waterboards.ca.gov/)
- California Department of Toxic Substance Control, ENVIROSTOR http://www.envirostor.dtsc.ca.gov/public/
- ➤ Environmental Data Resources, 440 Wheelers Farms Road, Milford, CT 06461, provided the following reports:
 - EDR One-Mile Radius Map
 - > EDR Historical Aerial Photographs
 - > EDR Historical Topographic Maps
 - EDR Sanborn Maps
 - EDR City Directory Image Report
 - > EDR Environmental Lien and AUL Search
 - EDR Building Permit Report
- Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Maps
- Regional Water Quality Control Board (RWQCB) December 2013 Tier I ESLs; Screening for Environmental Concerns at sites with contaminated Soil and Groundwater
- ➤ United States Geological Survey Topographic, 7.5-minute series, San Francisco South Quadrangles



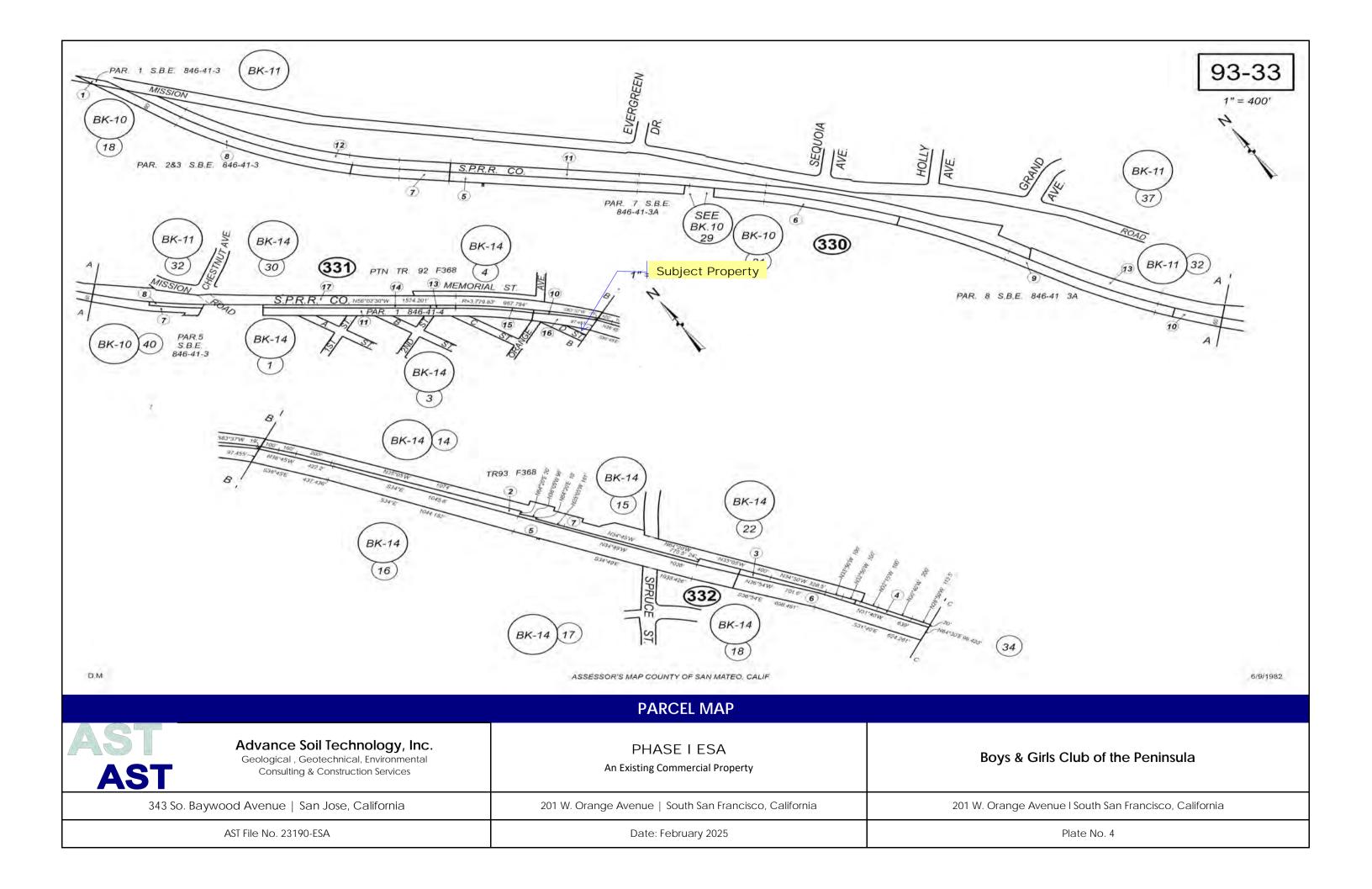


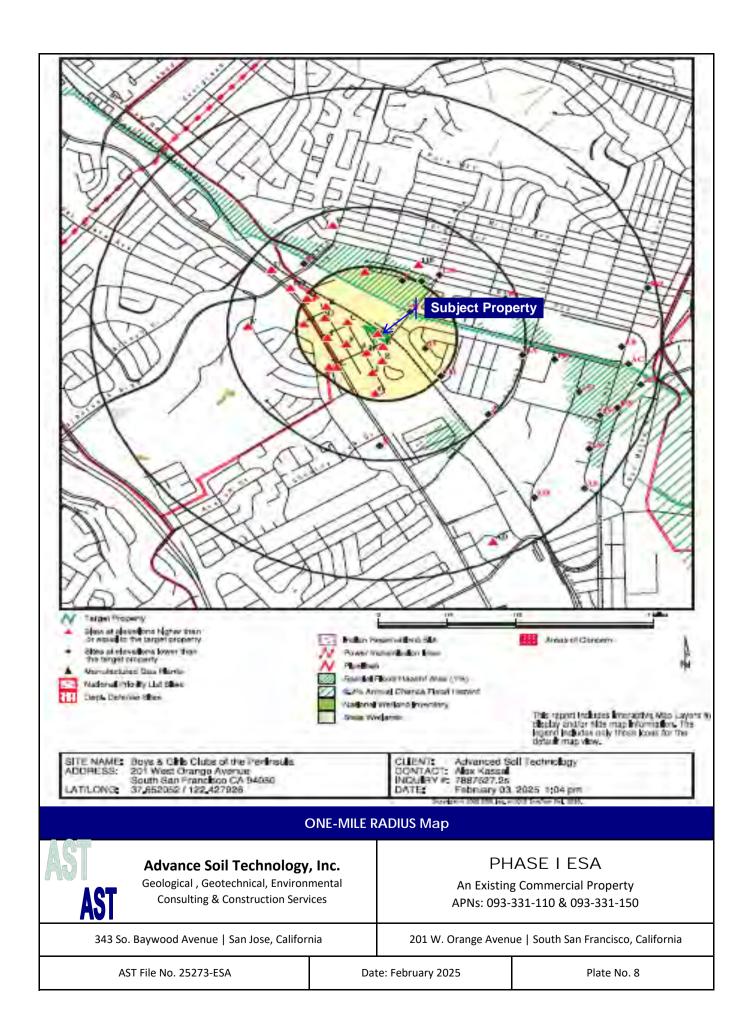
AST Advance Soil Technology, Inc. Geological , Geotechnical, Environmental Consulting & Construction Services 343 So. Baywood Avenue | San Jose, California AST File No. 25273-ESA PHASE I - SITE ASSESSMENT REPORT Commercial Property Boys and Girls Club of the Peninsula 201 W. Orange Avenue | South San Francisco, California 201 W. Orange Avenue | South San Francisco, California Plate No. 1

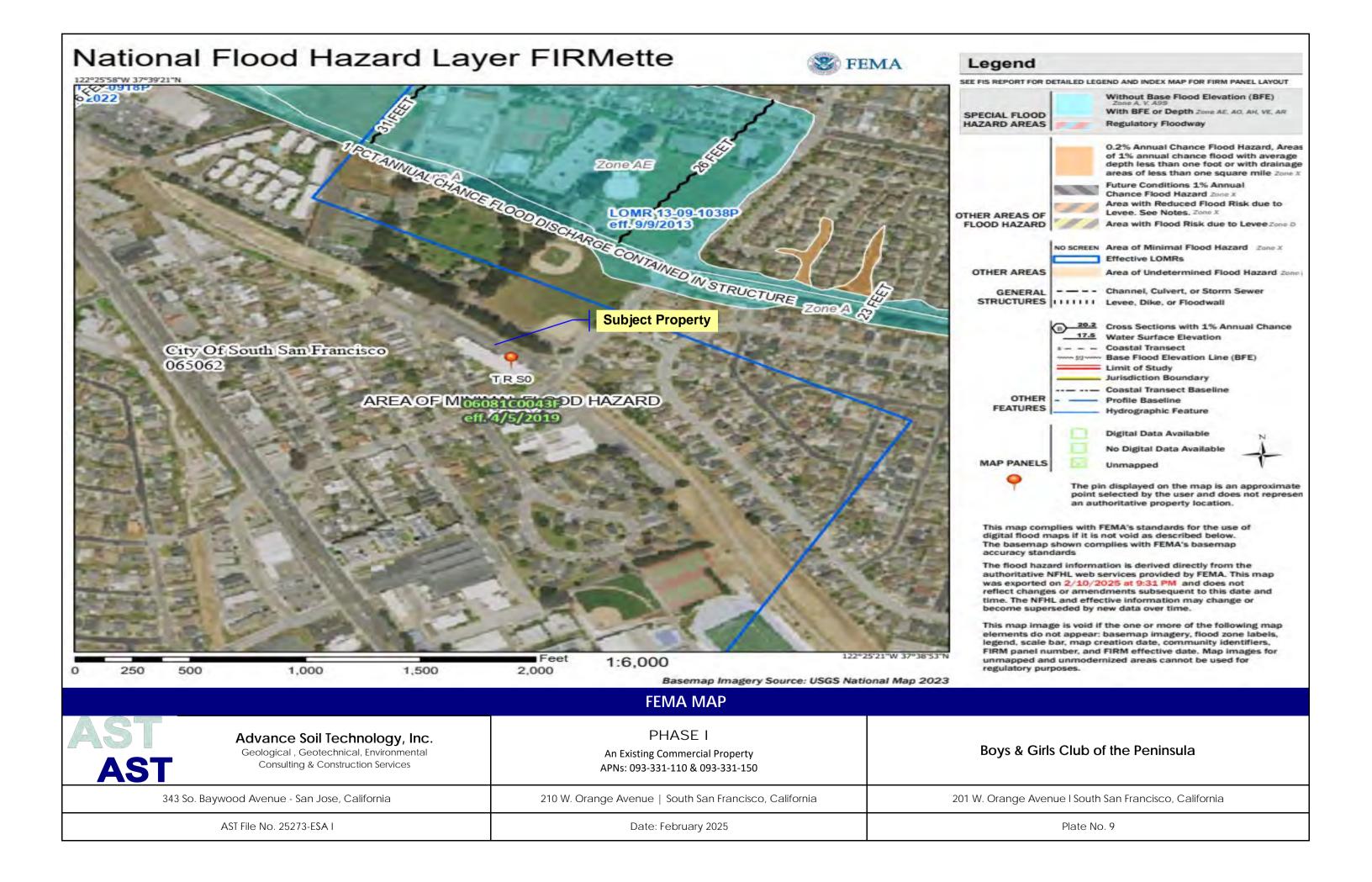




		110 5 25.1.62	
AST AST	Advance Soil Technology, Inc. Geological, Geotechnical, Environmental Consulting & Construction Services	PHASE I ESA An Existing Commercial Property APNs: 093-331-110 & 093-331-150	Boys & Girls Club of the Peninsula
343 So	o. Baywood Avenue - San Jose, California	201 W. Orange Avenue South San Francisco, California	201 W. Orange Avenue I South San Francisc, California
AST File No. 25273-ESA I		Date: February 2025	Plate No. 3







APPENDIX "B"

REPORTS PROVIDED BY EDR

- > EDR ONE MILE RADIUS MAP REPORT
- EDR CITY DIRECTORY IMAGE REPORT
- > EDR HISTORIC SANBORN MAPS
- ► EDR PROPERTY TAX MAP REPORT
- > EDR HISTORIC TOPOGRAPHIC MAPS
- > EDR HISTORIC AERIAL PHOTOGRAPHS
- > EDR LIEN SEARCH & AULS REPORT



Boys & Girls Clubs of the Peninsula

201 West Orange Avenue South San Francisco, CA 94080

Inquiry Number: 7887627.2s

February 03, 2025

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map.	2
Detail Map.	3
Map Findings Summary	4
Map Findings.	9
Orphan Summary	
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum.	A-1
Physical Setting Source Summary	
Physical Setting SSURGO Soil Map.	A-7
Physical Setting Source Map.	A-15
Physical Setting Source Map Findings.	A-17
Physical Setting Source Records Searched	PSGR-

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA) INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2025 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

COORDINATES

Latitude (North): 37.6520520 - 37° 39' 7.38" Longitude (West): 122.4279260 - 122° 25' 40.53"

Universal Tranverse Mercator: Zone 10 UTM X (Meters): 550464.4 UTM Y (Meters): 4167159.8

Elevation: 34 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 50005405 SAN FRANCISCO SOUTH, CA

Version Date: 2021

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20200524 Source: USDA

Target Property Address: 201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	1X MARTIN, NORM	201 W ORANGE AVE	HWTS, HAZNET		TP
A2	BOYS&GIRLS CLUB NORT	201 W ORANGE AVE	HWTS, HAZNET		TP
A3	BART ORANGE AVENUE V	197 W ORANGE AVE	CERS	Lower	1 ft.
A4	BART ORANGE AVENUE V	197 W ORANGE AVE	FINDS	Lower	1 ft.
B5	SSFUSD - LOS CERRITO	210 W ORANGE AVE	RCRA NonGen / NLR, E MANIFEST	Higher	118, 0.022, SSE
B6	CAMOEE LES SHELL SER	289 C 3RD ST	EDR Hist Auto	Higher	233, 0.044, South
C7	TATCHA	161 B STARLITE ST	RCRA NonGen / NLR	Higher	350, 0.066, WNW
D8	CURTIS AUTOMOTIVE RE	301 B BARNEVELD AVE	RCRA NonGen / NLR	Higher	414, 0.078, SSW
E9	SOUTH SAN FRANCISCO	350 C STREET	RCRA NonGen / NLR, E MANIFEST	Higher	432, 0.082, South
F10	PROTEOLIX	225 A GATEWAY BLVD	RCRA-SQG	Higher	502, 0.095, WSW
C11	KENNELLY CONSTRUCTIO	197-A SAN PEDRO RD	HIST UST	Higher	548, 0.104, West
F12	BARBARA BLINICK	239 A CRESCENT AVENU	RCRA NonGen / NLR, E MANIFEST	Higher	574, 0.109, SW
E13	A RAINBOW CLEANERS &	490 CO HAYES ST	EDR Hist Cleaner	Higher	587, 0.111, South
D14	JOSEPH ANONUEVO	317 A STREET	RCRA NonGen / NLR, E MANIFEST	Higher	672, 0.127, SSW
D15	317 SAN FRANCISCO	317 A ST.	RCRA NonGen / NLR	Higher	672, 0.127, SSW
G16	AUTO PRECISION REPAI	140 A SOUTH LINDEN A	RCRA NonGen / NLR	Higher	681, 0.129, WNW
G17	DAYTONA AUTO BODY SH	136 A S LINDEN AVE	RCRA-SQG	Higher	689, 0.130, WNW
H18	SHELL OIL SFO SATELL	SFO, SOUTH FRONTAGE	CPS-SLIC	Lower	703, 0.133, NE
H19	US STEEL FACILITY (F	CROSS OYSTER POINT @	CPS-SLIC	Lower	703, 0.133, NE
H20	BACON PROPERTY	499 RAIL AVE	CPS-SLIC, CERS	Lower	703, 0.133, NE
H21	HILLSIDE BOULEVARD E	UNKNOWN HILLSIDE BLV	CPS-SLIC, CERS	Lower	703, 0.133, NE
122	SHANTILAL V PATEL	770 EL CAMINO REAL	HIST UST	Higher	730, 0.138, WSW
J23	S SAN FRAN UNIFIED S	398 B ST	RCRA-LQG, FINDS, E MANIFEST	Higher	737, 0.140, South
J24	SSFUSD DISTRICT OFFI	398 B ST	UST FINDER	Higher	737, 0.140, South
J25	SSFUSD DISTRICT OFFI	398 B ST	CERS HAZ WASTE, CERS TANKS, CERS	Higher	737, 0.140, South
J26	SSF UNIFIED SCH DIST	398 B ST	SWEEPS UST	Higher	737, 0.140, South
J27	SSFUSD DISTRICT OFFI	398 B ST	UST	Higher	737, 0.140, South
J28	GARAGE	398 B ST	HIST UST	Higher	737, 0.140, South
J29	SSF UNIFIED SCH DIST	398 B ST	CA FID UST	Higher	737, 0.140, South
J30	GARAGE	398 B STREET	HIST UST	Higher	737, 0.140, South
J31	SSFUSD DISTRICT OFFI	398 B	San Mateo Co. BI	Higher	737, 0.140, South
J32	SOUTH SAN FRANCISCO	398 B STREET	RCRA NonGen / NLR, E MANIFEST	Higher	737, 0.140, South
J33	VERIZON WIRELESS EL	398 B. ST	San Mateo Co. BI	Higher	737, 0.140, South
F34	PO LING LI	744 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	741, 0.140, WSW
35	ADA CHAN	115 MULBERRY AVE	RCRA NonGen / NLR, E MANIFEST	Lower	748, 0.142, ESE
l36	ESD AUTO REPAIR INC	786 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	753, 0.143, West
137	SHELL OIL CO	710 EL CAMINO	RCRA-SQG, FINDS, ECHO, HIST CORTESE	Higher	797, 0.151, WSW
138	SHELL	710 EL CAMINO REAL	LUST, San Mateo Co. BI, HWTS, HAZNET	Higher	797, 0.151, WSW
139	ORANGE AVE SHELL	710 EL CAMINO REAL	UST	Higher	797, 0.151, WSW

Target Property Address: 201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

MAP ID	SITE NAME	ADDRESS		RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
140	ORANGE AVE SHELL	710 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	797, 0.151, WSW
I41	SOUTH CITY SHELL AUT	710 EL CAMINO REAL	San Mateo Co. BI, HWTS, HAZNET	Higher	797, 0.151, WSW
I42	SHELL	710 EL CAMINO REAL	LUST, HIST UST, Cortese, CERS	Higher	797, 0.151, WSW
143	SOUTH CITY AUTO SERV	710 EL CAMINO REAL	UST FINDER	Higher	797, 0.151, WSW
144	SOUTH CITY SHELL AUT	710 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	797, 0.151, WSW
145	AU ENERGY, LLC #8006	710 EL CAMINO REAL	San Mateo Co. BI	Higher	797, 0.151, WSW
I46	SHELL	710 EL CAMINO REAL	UST FINDER RELEASE	Higher	797, 0.151, WSW
147	BARBARIA'S SHELL	710 EL CAMINO REAL	SWEEPS UST, CA FID UST	Higher	797, 0.151, WSW
148	AU ENERGY LLC, #8006	710 EL CAMINO REAL	UST	Higher	797, 0.151, WSW
G49	GEORGE LEON	112 A STREET	RCRA NonGen / NLR, E MANIFEST	Higher	797, 0.151, WNW
K50	GREG LEONARDS GARAGE	107 1ST	San Mateo Co. BI	Higher	852, 0.161, WNW
K51	STAN THE ROOF MAN	103 1ST	UST FINDER RELEASE	Higher	854, 0.162, WNW
K52	STAN THE ROOF MAN	103 1ST	LUST, SWEEPS UST, San Mateo Co. BI	Higher	854, 0.162, WNW
K53	STAN THE ROOF MAN	103 1ST	LUST, HIST UST, Cortese, HIST CORTESE, CERS	Higher	854, 0.162, WNW
K54	A 1 CONVERTER	101 1ST	San Mateo Co. BI	Higher	872, 0.165, WNW
G55	ESD AUTO REPAIRS INC	872 EL CAMINO REAL	San Mateo Co. BI	Higher	885, 0.168, WNW
G56	PREMIER CAR SERVICES	872 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	885, 0.168, WNW
G57	TH AUTO SERVICES	872 EL CAMINO REAL	RCRA NonGen / NLR	Higher	885, 0.168, WNW
G58	PREMIER CAR SERVICES	872 EL CAMINO REAL	RCRA-SQG	Higher	885, 0.168, WNW
G59	WEST COAST AUTO SERV	872 EL CAMINO REAL	San Mateo Co. BI	Higher	885, 0.168, WNW
G 60	JIM GRIFFIN & SON BR	872 EL CAMINO REAL	San Mateo Co. BI	Higher	885, 0.168, WNW
K61	MOTT & ALLEN	49-A MOSS ST	RCRA NonGen / NLR	Higher	909, 0.172, WNW
L62	CAMINO PETROLEUM	698 EL CAMINO REAL	UST	Higher	931, 0.176, SW
L63	CHEVRON 9-5669	698 EL CAMINO REAL	LUST, SWEEPS UST, San Mateo Co. BI, EMI	Higher	931, 0.176, SW
L64	CHEVRON 9-5669	698 EL CAMINO REAL	UST FINDER RELEASE	Higher	931, 0.176, SW
L65	CAMINO PETROLEUM	698 EL CAMINO REAL	CERS TANKS	Higher	931, 0.176, SW
L66	CHEVRON STATION #566	698 EL CAMINO REAL	CA FID UST	Higher	931, 0.176, SW
L67	95669	698 EL CAMINO REAL	LUST, HIST UST, Cortese, CERS	Higher	931, 0.176, SW
L68	CHEVRON STATION NO 9	698 EL CAMINO REAL	RCRA NonGen / NLR	Higher	931, 0.176, SW
L69	CHEVRON	698 EL CAMINO REAL	HIST CORTESE	Higher	931, 0.176, SW
L70	CAMINO PETROLEUM	698 EL CAMINO REAL	RCRA NonGen / NLR, E MANIFEST	Higher	931, 0.176, SW
L71	CAMINO PETROLEUM	698 EL CAMINO REAL	UST FINDER	Higher	931, 0.176, SW
L72	CAMINO PETROLEUM	698 EL CAMINO REAL	CERS HAZ WASTE, CERS	Higher	931, 0.176, SW
K73	DALAND BODY SHOP INC	15 FIRST ST # 17	RCRA NonGen / NLR	Higher	937, 0.177, WNW
K74	DALAND BODY SHOP INC	15-17 FIRST	San Mateo Co. BI	Higher	937, 0.177, WNW
K75	DALAND BODY SHOP INC	890 EL CAMINO REAL	RCRA-SQG, FINDS, ECHO, E MANIFEST, San Mateo Co.	Higher	943, 0.179, WNW
K76	DALAND BODY SHOP	890 EL CAMINO REAL	CERS HAZ WASTE, CERS	Higher	943, 0.179, WNW
K77	LUCAS AND COMPANY	54 A BEAUMONT AVE	RCRA NonGen / NLR	Higher	973, 0.184, WNW
K78	ALL TRANSMISSION	66 A ST	RCRA NonGen / NLR	Higher	980, 0.186, WNW

Target Property Address: 201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
K79	ALL TRANSMISSIONS	66 A	San Mateo Co. Bl	Higher	980, 0.186, WNW
L80	CHEVRON PRODUCTS COM	689 EL CAMINO REAL	UST	Higher	1015, 0.192, SW
L81	CHEVRON 9-0248	687 EL CAMINO REAL	UST FINDER RELEASE	Higher	1019, 0.193, SW
L82	CHEVRON 9-0248	687 EL CAMINO REAL	LUST, Cortese, HIST CORTESE, CERS	Higher	1019, 0.193, SW
L83	CHEVRON 9-0248	687 EL CAMINO REAL	LUST	Higher	1019, 0.193, SW
M84	GARDEN CHAPEL FUNERA	885 EL CAMINO REAL	San Mateo Co. BI	Higher	1031, 0.195, West
L85	HOLIDAY CLEANERS	675 EL CAMINO REAL	CERS HAZ WASTE, San Mateo Co. BI, DRYCLEANERS,	Higher	1050, 0.199, SW
L86	HOLIDAY CLEANERS	675 EL CAMINO REAL	RCRA NonGen / NLR	Higher	1050, 0.199, SW
87	GLOBAL BLOOD THERAPE		PFAS RCRA MANIFEST	Lower	1074, 0.203, ENE
L88	CAMINO DENTAL CARE	663 EL CAMINO REAL	San Mateo Co. BI, HWTS, HAZNET	Higher	1084, 0.205, SW
N89	BADEN PUMP STATION	609 W ORANGE AVE	AST	Higher	1105, 0.209, SW
N90	BADEN PUMP STATION	609 ORANGE	San Mateo Co. BI	Higher	1105, 0.209, SW
N91	SFPUC BADEN PUMP STA	609 W ORANGE AVE	CERS TANKS, CERS	Higher	1105, 0.209, SW
N92	BADEN PUMP STATION	609 W ORANGE AVE	RCRA NonGen / NLR	Higher	1105, 0.209, SW
L93	7-ELEVEN INC. STORE	635 EL CAMINO REAL	San Mateo Co. BI	Higher	1160, 0.220, SSW
O94	SOUTH SAN FRANCISCO	400 B ST	RCRA-SQG, LUST, Cortese, HIST CORTESE, CERS	Higher	1161, 0.220, South
O95	S.S.F. HIGH SCHOOL	400 B	UST FINDER RELEASE	Higher	1161, 0.220, South
O96	SOUTH SAN FRANCISCO	400 B ST	CERS HAZ WASTE, CERS	Higher	1161, 0.220, South
O97	SAN FRANCISCO HIGH	400 B STREET	RCRA NonGen / NLR, ICIS, FINDS, E MANIFEST	Higher	1161, 0.220, South
O98	S.S.F. HIGH SCHOOL	400 B	LUST, San Mateo Co. BI, NPDES, CIWQS	Higher	1161, 0.220, South
M99	SFPUC SOUTHWOOD DRIV	608 SOUTHWOOD DRIVE	RCRA-SQG, E MANIFEST	Higher	1171, 0.222, West
M100	SFPUC SOUTHWOOD DR W	608 SOUTHWOOD	San Mateo Co. BI	Higher	1171, 0.222, West
P101	SSF PARK CORP YARD	781 TENNIS	San Mateo Co. BI	Lower	1175, 0.223, NNE
P102	PARCELS NORTHWEST OF	781 TENNIS DRIVE	LUST, CPS-SLIC, CERS	Lower	1175, 0.223, NNE
Q103	HANKS RENTALS	932 EL CAMINO REAL	San Mateo Co. BI, HWTS, HAZNET	Higher	1194, 0.226, WNW
R104	MAZZANTI CARNATIONS	820 TENNIS DR	CA FID UST	Higher	1208, 0.229, North
R105	MAZZANTI CARNATIONS	820 TENNIS DR	SWEEPS UST	Higher	1208, 0.229, North
R106	MAZZANTI CARNATIONS	820 TENNIS	San Mateo Co. BI	Higher	1208, 0.229, North
Q107	CHEVRON, FORMER STAN	972 EL CAMINO REAL	UST FINDER RELEASE	Higher	1283, 0.243, WNW
Q108	CHEVRON, FORMER STAN	972 EL CAMINO REAL	LUST, Cortese, CERS	Higher	1283, 0.243, WNW
Q109	BURGER KING	972 EL CAMINO REAL	San Mateo Co. BI, CERS	Higher	1283, 0.243, WNW
Q110	WESTBOROUGH DIALYSIS	925 EL CAMINO REAL	San Mateo Co. BI	Higher	1292, 0.245, WNW
111	RIGOBERTO GARCIA	620 MYRTLE AVENUE	RCRA NonGen / NLR, E MANIFEST	Lower	1317, 0.249, SE
S112	CITY OF SSF CORP YAR	736 TENNIS DR	UST FINDER RELEASE	Lower	1379, 0.261, NE
S113	CITY OF SSF CORP YAR	736 TENNIS DR	LUST, Cortese, HIST CORTESE, CERS	Lower	1379, 0.261, NE
S114	CITY GARAGE	736 TENNIS DR	LUST, SWEEPS UST	Lower	1379, 0.261, NE
S115	GUY F. ATKINSON COMP	10 W ORANGE AVE	LUST, HIST UST	Lower	1465, 0.277, NE
S116	GUY F. ATKINSON CO.	10 ORANGE	LUST, San Mateo Co. BI, Cortese, CERS	Lower	1465, 0.277, NE
S117	GUY F. ATKINSON CO.	10 WEST ORANGE AVENU	UST FINDER RELEASE	Lower	1465, 0.277, NE

Target Property Address: 201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

MAP	OITE NAME	4DDD500		ELATIVE	DIST (ft. & mi.)
<u>ID</u> 118	735 COMMERCIAL AVE	ADDRESS 735 COMMERCIAL AVE	DATABASE ACRONYMS E ENVIROSTOR, CPS-SLIC, VCP, CERS	LEVATION Higher	DIRECTION 1638, 0.310, NNE
119	ROTOMETALS INC	980-82 HARRISON	ENVIROSTOR	Higher	1677, 0.318, WNW
120	GUY F ATKINSON COMPA	10 ORANGE	HIST CORTESE	Lower	1695, 0.321, NE
T121	ACUTEC AUTOS	45 CHESTNUT AVENUE	LUST, Cortese, HIST CORTESE, CERS	Lower	1821, 0.345, NW
T122	ACUTEC AUTOS	45 CHESTNUT AVENUE	UST FINDER RELEASE	Lower	1821, 0.345, NW
T123	CITY OF SOUTH SAN FR	1 CHESTNUT AVE	CPS-SLIC, SWEEPS UST, HIST UST, RCRA NonGen / NLR	Higher	1837, 0.348, NW
T124	RON PRICE MOTORS	1 CHESTNUT	LUST, CA FID UST, San Mateo Co. BI, Cortese, HIST	Higher	1837, 0.348, NW
T125	RON PRICE MOTORS	1 CHESTNUT	UST FINDER RELEASE	Higher	1837, 0.348, NW
U126	1010 EL CAMINO REAL	1010 EL CAMINO REAL	CPS-SLIC	Higher	2200, 0.417, NW
V127	WEST ORANGE LIBRARY	840 WEST ORANGE AVEN	LUST, Cortese, CERS	Higher	2248, 0.426, West
V128	WEST ORANGE LIBRARY	840 WEST ORANGE AVEN	UST FINDER RELEASE	Higher	2248, 0.426, West
V129	WEST ORANGE LIBRARY	840 ORANGE	LUST, San Mateo Co. BI	Higher	2248, 0.426, West
V130	WEST ORANGE LIBRARY	840 W ORANGE AVE	LUST, HWTS, HAZNET	Higher	2248, 0.426, West
W131	KLIX CORP.	551 RAILROAD	LUST, HIST UST, San Mateo Co. BI, Cortese, HIST	Lower	2287, 0.433, ENE
X132	SOUTH CITY DODGE	393 EL CAMINO REAL	LUST, SWEEPS UST, San Mateo Co. BI, Cortese, EMI,	Lower	2312, 0.438, South
X133	SOUTH CITY DODGE	393 EL CAMINO REAL	UST FINDER RELEASE	Lower	2312, 0.438, South
X134	VILLAGE LINCOLN MERC	393 EL CAMINO REAL	LUST, HIST CORTESE, CERS	Lower	2312, 0.438, South
U135	MY CLEANERS	1053F EL CAMINO	LUST, CPS-SLIC, FINDS, San Mateo Co. BI, EMI	Higher	2318, 0.439, WNW
Y136	FINLEY CONSTRUCTION	125 CHESTNUT	UST FINDER RELEASE	Higher	2325, 0.440, NNW
Y137	FINLEY CONSTRUCTION	125 CHESTNUT	LUST, Cortese, HIST CORTESE, CERS	Higher	2325, 0.440, NNW
W138	KLIX CORP.	551 RAILROAD	UST FINDER RELEASE	Lower	2405, 0.455, ENE
Z139	OROWHEAT BAKERIES	264 S SPRUCE AVE	RCRA-SQG, LUST, CA FID UST, San Mateo Co. Bl,	Lower	2540, 0.481, SE
Z 140	OROWEAT	264 SOUTH SPRUCE AVE	UST FINDER RELEASE	Lower	2540, 0.481, SE
Z141	OROWEAT FOODS COMPAN	264 S SPRUCE AVE	SWEEPS UST, HIST CORTESE	Lower	2540, 0.481, SE
Z142	BIMBO BAKERIES USA I	264 S SPRUCE AVE	LUST, NPDES, WDS, CIWQS, CERS	Lower	2540, 0.481, SE
Z143	SPRUCE CAR WASH	246 SOUTH SPRUCE AVE	UST FINDER RELEASE	Lower	2561, 0.485, SE
Z144	SPRUCE CAR WASH	246 SOUTH SPRUCE AVE	LUST, San Mateo Co. BI, Cortese, CERS	Lower	2561, 0.485, SE
Z145	S&D CARWASH MANAGEME	246 S SPRUCE AVE	LUST, HIST UST, HWTS, HAZNET	Lower	2561, 0.485, SE
AA146	KPR PROPERTIES	118 SOUTH SPRUCE AVE	LUST, San Mateo Co. BI, Cortese, CERS	Lower	2605, 0.493, East
AA147	DON AND JERRYS AUTOM	118 SO SPRUCE AVE	LUST, CERS HAZ WASTE, HIST UST, HWTS, HAZNET, CE	RS Lower	2605, 0.493, East
AA148	KPR PROPERTIES	118 SOUTH SPRUCE AVE	UST FINDER RELEASE	Lower	2605, 0.493, East
149	MORENA TRUST	111 STARLITE STREET	ENVIROSTOR, VCP	Lower	3232, 0.612, East
150	MERRY X RAY CHEMICAL	131 S MAPLE AVE UNIT	RCRA NonGen / NLR, HWP, HWTS, HAZNET	Lower	3854, 0.730, ESE
151	KEN MANUFACTURING CO	78 SOUTH LINDEN AVEN	ENVIROSTOR	Lower	4417, 0.837, ESE
AB152	SUN CHEMICAL CORPORA	20 SOUTH LINDEN AVEN	HIST Cal-Sites	Lower	4492, 0.851, East
AB153	SUN CHEMICAL CORPORA	20 SOUTH LINDEN AVEN	RESPONSE, ENVIROSTOR, DEED	Lower	4492, 0.851, East
AB154	SUN CHEMICAL CORPORA	20 SOUTH LINDEN AVEN	CA BOND EXP. PLAN	Lower	4492, 0.851, East
155	POETSCH AND PETERSON	325 SOUTH MAPLE AVEN	ENVIROSTOR	Lower	4495, 0.851, SE
156	REICHOLD CHEMICALS,	120 SOUTH LINDEN	RESPONSE, ENVIROSTOR, HIST Cal-Sites	Lower	4575, 0.866, ESE

Target Property Address: 201 WEST ORANGE AVENUE SOUTH SAN FRANCISCO, CA 94080

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AC157	BASAPCO, INC.	27-S. LINDEN	ENVIROSTOR, VCP, DEED	Lower	4654, 0.881, East
AC158	UNION PACIFIC RAILRO	27 S LINDEN AVE	RESPONSE, ENVIROSTOR, Cortese, HWTS, HAZNET	Lower	4654, 0.881, East
159	UNION PACIFIC - SITE	EAST OF 69 S. LINDEN	ENVIROSTOR, VCP	Lower	4669, 0.884, ESE
AD160	CAMP TANFORAN		FUDS	Higher	4888, 0.926, SSE
AD161	CAMP TANFORAN		ENVIROSTOR	Higher	4899, 0.928, SSE
AC162	UPRR LINDEN (AKA UNI	EAST OF 27 SOUTH LIN	ENVIROSTOR, VCP, DEED	Lower	4916, 0.931, East
163	GELCO TRUCK LEASING	1395 LOWRIE AVENUE	Notify 65	Lower	4959, 0.939, ESE
AE164	DUPONT	160 LINDEN	RESPONSE, ENVIROSTOR, LUST, San Mateo Co. Bl,	Lower	5027, 0.952, SE
AE165	WEST COAST AUTOMOTIV	160 S LINDEN AVE	LUST, HWP, HWTS, HAZNET	Lower	5027, 0.952, SE
AE166	E.I. DUPONT DE NEMOU	160 SOUTH LINDEN AVE	HIST Cal-Sites	Lower	5027, 0.952, SE
AE167	DUPONT/ KANSAI AUTOM	160 S LINDEN AVE	SEMS-ARCHIVE, CORRACTS, RCRA NonGen / NLR	Lower	5027, 0.952, SE
AE168	WEST COAST AUTOMOTIV	160 S LINDEN AVE	ENVIROSTOR	Lower	5027, 0.952, SE
169	INTERNATIONAL PAINT	220 SOUTH LINDEN AVE	ENVIROSTOR, San Mateo Co. BI, HIST CORTESE	Lower	5105, 0.967, ENE

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
1X MARTIN, NORM 201 W ORANGE AVE SO SAN FRANCISCO, CA 94080	HWTS HAZNET GEPAID: CAC000537088	N/A
BOYS&GIRLS CLUB NORT 201 W ORANGE AVE S SAN FRAN, CA 94080	HWTS HAZNET GEPAID: CAC002661982	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites	
NPL	ational Priority List Sites
Lists of Federal Delisted NPL sites	
Delisted NPL National Price	ority List Deletions
Lists of Federal sites subject to CERCLA	A removals and CERCLA orders
FEDERAL FACILITY Federal Fac SEMS Superfund E	,
Lists of Federal CERCLA sites with NFR	AP
SEMS-ARCHIVE Superfund E	Enterprise Management System Archive
Lists of Federal RCRA TSD facilities	
RCRA-TSDFRCRA - Tre	atment, Storage and Disposal
Lists of Federal RCRA generators	
RCRA-VSQG	y Small Quantity Generators (Formerly Conditionally Exempt Small Quantity

Federal institutional controls /	engineering	controls	registries
----------------------------------	-------------	----------	------------

LUCIS_____Land Use Control Information System US ENG CONTROLS_____Engineering Controls Sites List US INST CONTROLS...... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing

INDIAN UST...... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT_____ Waste Management Unit Database

SWRCY...... Recycler Database

HAULERS...... Registered Waste Tire Haulers Listing

INDIAN ODI_____ Report on the Status of Open Dumps on Indian Lands

..... Open Dump Inventory

DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations IHS OPEN DUMPS...... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

SCH..... School Property Evaluation Program

CDL Clandestine Drug Labs
Toxic Pits Toxic Pits Cleanup Act Sites

US CDL...... National Clandestine Laboratory Register

Local Land Records

LIENS...... Environmental Liens Listing
LIENS 2...... CERCLA Lien Information
DEED....... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System CHMIRS..... California Hazardous Material Incident Report System

LDS....... Land Disposal Sites Listing
MCS...... Military Cleanup Sites Listing
SPILLS 90...... SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOD..... Department of Defense Sites

SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

TSCA...... Toxic Substances Control Act

TRIS...... Toxic Chemical Release Inventory System

RMP..... Risk Management Plans

ICIS...... Integrated Compliance Information System

FTTS......FIFŘA/ TSCA Tracking System - FIFŘA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER...... PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS...... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV..... Indian Reservations

FUSRAP..... Formerly Utilized Sites Remedial Action Program

UMTRA..... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US AIRS...... Aerometric Information Retrieval System Facility Subsystem

US MINES...... Mines Master Index File ABANDONED MINES..... Abandoned Mines

MINES MRDS...... Mineral Resources Data System UXO...... Unexploded Ordnance Sites

ECHO Enforcement & Compliance History Information
DOCKET HWC Hazardous Waste Compliance Docket Listing

FUELS PROGRAM_____ EPA Fuels Program Registered Listing

PFAS NPL..... Superfund Sites with PFAS Detections Information

PFAS ECHO...... Facilities in Industries that May Be Handling PFAS Listing PFAS ECHO FIRE TRAIN.... Facilities in Industries that May Be Handling PFAS Listing PFAS PT 139 AIRPORT..... All Certified Part 139 Airports PFAS Information Listing

AQUEOUS FOAM...... Former Fire Training Facility Assessments Listing

CHROME PLATING..... Chrome Plating Facilities Listing

HWT...... Registered Hazardous Waste Transporter Database

MINES..... Mines Site Location Listing

MWMP..... Medical Waste Management Program Listing

NPDES...... NPDES Permits Listing

UIC......UIC Listing

UIC GEO (GEOTRACKER)
WASTEWATER PITS..... Oil Wastewater Pits Listing
WDS..... Waste Discharge System

WIP..... Well Investigation Program Case List MILITARY PRIV SITES...... MILITARY PRIV SITES (GEOTRACKER)

PROJECT.....PROJECT (GEOTRACKER)

WELL STIM PROJ........... Well Stimulation Project (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF...... Recovered Government Archive Solid Waste Facilities List

RGA LUST...... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 09/16/2024 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
DUPONT/ KANSAI AUTOM	160 S LINDEN AVE	SE 1/2 - 1 (0.952 mi.)	AE167	744
EPA ID:: CAD009206855				

Lists of Federal RCRA generators

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 09/16/2024 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
S SAN FRAN UNIFIED S EPA ID:: CAD081556888	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J23	57

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/16/2024 has revealed that there are 7 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PROTEOLIX EPA ID:: CAR000151027	225 A GATEWAY BLVD	WSW 0 - 1/8 (0.095 mi.)	F10	34
DAYTONA AUTO BODY SH EPA ID:: CAD982414237	136 A S LINDEN AVE	WNW 1/8 - 1/4 (0.130 mi.)	G17	50
SHELL OIL CO EPA ID:: CAD981401680	710 EL CAMINO	WSW 1/8 - 1/4 (0.151 mi.)	137	123
PREMIER CAR SERVICES EPA ID:: CAR000368415	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G58	186
DALAND BODY SHOP INC EPA ID:: CAD981378797	890 EL CAMINO REAL	WNW 1/8 - 1/4 (0.179 mi.)	K75	270
SOUTH SAN FRANCISCO EPA ID:: CAD981629694	400 B ST	S 1/8 - 1/4 (0.220 mi.)	O94	379
SFPUC SOUTHWOOD DRIV EPA ID:: CAR000337667	608 SOUTHWOOD DRIVE	W 1/8 - 1/4 (0.222 mi.)	M99	414

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there are 4 RESPONSE sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUN CHEMICAL CORPORA Database: RESPONSE, Date of Gov Status: Certified O&M - Land Use Re Facility Id: 41280103		E 1/2 - 1 (0.851 mi.)	AB153	648
REICHOLD CHEMICALS, Database: RESPONSE, Date of Gov Status: Certified Facility Id: 41280096	120 SOUTH LINDEN vernment Version: 10/21/2024	ESE 1/2 - 1 (0.866 mi.)	156	659
UNION PACIFIC RAILRO Database: RESPONSE, Date of Gov Status: Active Facility Id: 60003650	27 S LINDEN AVE vernment Version: 10/21/2024	E 1/2 - 1 (0.881 mi.)	AC158	681
DUPONT Database: RESPONSE, Date of Gov	160 LINDEN vernment Version: 10/21/2024	SE 1/2 - 1 (0.952 mi.)	AE164	722

Status: Certified

Facility Id: 41280049

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/21/2024 has revealed that there are 15 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
735 COMMERCIAL AVE Facility Id: 70000073 Status: Certified	735 COMMERCIAL AVE	NNE 1/4 - 1/2 (0.310 mi.)	118	458
ROTOMETALS INC Facility Id: 38330089 Status: No Further Action	980-82 HARRISON	WNW 1/4 - 1/2 (0.318 mi.)	119	467
CAMP TANFORAN Facility Id: 80000381 Status: No Further Action		SSE 1/2 - 1 (0.928 mi.)	AD161	706
Lower Elevation	Address	Direction / Distance	Map ID	Page
MORENA TRUST Facility Id: 60002386 Status: Active	111 STARLITE STREET	E 1/2 - 1 (0.612 mi.)	149	591
KEN MANUFACTURING CO Facility Id: 41280135 Status: Refer: Other Agency	78 SOUTH LINDEN AVEN	ESE 1/2 - 1 (0.837 mi.)	151	643
SUN CHEMICAL CORPORA Facility Id: 41280103 Status: Certified O&M - Land Use Restrict	20 SOUTH LINDEN AVEN	E 1/2 - 1 (0.851 mi.)	AB153	648
POETSCH AND PETERSON Facility Id: 41310004 Status: Refer: RWQCB	325 SOUTH MAPLE AVEN	SE 1/2 - 1 (0.851 mi.)	155	658
REICHOLD CHEMICALS, Facility Id: 41280096 Status: Certified	120 SOUTH LINDEN	ESE 1/2 - 1 (0.866 mi.)	156	659
BASAPCO, INC. Facility Id: 41360069 Status: Certified / Operation & Maintenan	27-S. LINDEN	E 1/2 - 1 (0.881 mi.)	AC157	664
UNION PACIFIC RAILRO	27 S LINDEN AVE	E 1/2 - 1 (0.881 mi.)	AC158	681

Facility Id: 60003650 Status: Active				
UNION PACIFIC - SITE Facility Id: 60001636 Status: Active	EAST OF 69 S. LINDEN	ESE 1/2 - 1 (0.884 mi.)	159	690
UPRR LINDEN (AKA UNI Facility Id: 60001136 Status: Certified O&M - Land Use Restrict	EAST OF 27 SOUTH LIN	E 1/2 - 1 (0.931 mi.)	AC162	707
DUPONT Facility Id: 41280049 Status: Certified	160 LINDEN	SE 1/2 - 1 (0.952 mi.)	AE164	722
WEST COAST AUTOMOTIV Facility Id: 80001622 Status: Inactive - Needs Evaluation	160 S LINDEN AVE	SE 1/2 - 1 (0.952 mi.)	AE168	751
INTERNATIONAL PAINT Facility Id: 38280291 Status: Refer: RCRA	220 SOUTH LINDEN AVE	ENE 1/2 - 1 (0.967 mi.)	169	752

Lists of state and tribal leaking storage tanks

Facility Status: 9- Case Closed

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 32 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL Database: LUST REG 2, Date of Govern Facility Status: Pollution Characterization		WSW 1/8 - 1/4 (0.151 mi.)	<i>1</i> 38	126
SHELL Database: SAN MATEO CO. LUST, Dat Database: LUST, Date of Government \ Status: Completed - Case Closed Facility Id: 550018 Facility Status: 9- Case Closed Global Id: T0608100490 Global ID: T0608100490		WSW 1/8 - 1/4 (0.151 mi.) 119	142	150
STAN THE ROOF MAN Database: LUST REG 2, Date of Govern Facility Status: Case Closed date9: 8/10/2000	103 1ST nment Version: 09/30/2004	WNW 1/8 - 1/4 (0.162 mi.)	K52	174
STAN THE ROOF MAN Database: SAN MATEO CO. LUST, Dat Database: LUST, Date of Government \ Status: Completed - Case Closed Facility Id: 550118		WNW 1/8 - 1/4 (0.162 mi.) 119	K53	175

Global Id: T0608100696 Global ID: T0608100696 **CHEVRON 9-5669** 698 EL CAMINO REAL SW 1/8 - 1/4 (0.176 mi.) L63 196 Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Pollution Characterization 95669 698 EL CAMINO REAL SW 1/8 - 1/4 (0.176 mi.) L67 226 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550010 Facility Status: 9- Case Closed Global Id: T0608100145 Global ID: T0608100145 **CHEVRON 9-0248** 687 EL CAMINO REAL SW 1/8 - 1/4 (0.193 mi.) L82 318 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550088 Facility Status: 9- Case Closed Global Id: T0608100144 Global ID: T0608100144 **CHEVRON 9-0248** 687 EL CAMINO REAL SW 1/8 - 1/4 (0.193 mi.) L83 322 Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Case Closed date9: 12/19/2001 SOUTH SAN FRANCISCO 400 B ST S 1/8 - 1/4 (0.220 mi.) 094 379 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST. Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550085 Facility Status: 9- Case Closed Global Id: T0608100508 Global ID: T0608100508 S.S.F. HIGH SCHOOL 400 B **O98** S 1/8 - 1/4 (0.220 mi.) 411 Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Case Closed date9: 8/4/1993 CHEVRON, FORMER STAN 972 EL CAMINO REAL WNW 1/8 - 1/4 (0.243 mi.) Q108 426 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550196 Facility Status: 9- Case Closed Global Id: SL0608123509 Global ID: SL0608123509 **RON PRICE MOTORS** 1 CHESTNUT NW 1/4 - 1/2 (0.348 mi.) T124 480 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Status: Case Closed

Facility Id: 550087

Facility Status: 9- Case Closed Global Id: T0608100429 Global ID: T0608100429

date9: 1/8/1996

WEST ORANGE LIBRARY 840 WEST ORANGE AVEN W 1/4 - 1/2 (0.426 mi.) V127 486

Database: LUST, Date of Government Version: 08/28/2024

Status: Completed - Case Closed

Global Id: T0608191183

WEST ORANGE LIBRARY 840 ORANGE W 1/4 - 1/2 (0.426 mi.) V129 490

Database: LUST REG 2, Date of Government Version: 09/30/2004

Facility Status: Case Closed

date9: 8/9/2001

WEST ORANGE LIBRARY 840 W ORANGE AVE W 1/4 - 1/2 (0.426 mi.) V130 491

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Facility Id: 550164

Facility Status: 9- Case Closed Global ID: T0608191183

MY CLEANERS 1053F EL CAMINO WNW 1/4 - 1/2 (0.439 mi.) U135 505

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Facility Id: 559210

Facility Status: 3B- Preliminary Assessment Underway

Global ID: TI0000003589

FINLEY CONSTRUCTION 125 CHESTNUT NNW 1/4 - 1/2 (0.440 mi.) Y137 513

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 08/28/2024

Status: Completed - Case Closed Facility Status: Case Closed

Facility Id: 550046

Facility Status: 9- Case Closed Global Id: T0608100215 Global ID: T0608100215

date9: 7/9/1992

Lower ElevationAddressDirection / DistanceMap IDPagePARCELS NORTHWEST OF781 TENNIS DRIVENNE 1/8 - 1/4 (0.223 mi.)P102420

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Facility Id: 559204

Facility Status: 9- Case Closed Global ID: Tl0000002366

CITY OF SSF CORP YAR 736 TENNIS DR NE 1/4 - 1/2 (0.261 mi.) S113 445

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Database: LUST, Date of Government Version: 08/28/2024

Status: Completed - Case Closed

Facility Id: 550110

Facility Status: 9- Case Closed Global Id: T0608100598 Global ID: T0608100598

CITY GARAGE 736 TENNIS DR NE 1/4 - 1/2 (0.261 mi.) S114 451

Database: LUST REG 2, Date of Government Version: 09/30/2004

Facility Status: Case Closed

date9: 8/21/2003 **GUY F. ATKINSON COMP** 10 W ORANGE AVE NE 1/4 - 1/2 (0.277 mi.) S115 452 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Facility Id: 550120 Facility Status: 9- Case Closed Global ID: T0608100701 GUY F. ATKINSON CO. 10 ORANGE NE 1/4 - 1/2 (0.277 mi.) 453 S116 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Status: Case Closed Global Id: T0608100701 date9: 5/27/1997 **ACUTEC AUTOS 45 CHESTNUT AVENUE** NW 1/4 - 1/2 (0.345 mi.) T121 468 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550089 Facility Status: 9- Case Closed Global Id: T0608151808 Global ID: T0608151808 KLIX CORP. 551 RAILROAD ENE 1/4 - 1/2 (0.433 mi.) 493 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 550127 Facility Status: 9- Case Closed Global Id: T0608100748 Global ID: T0608100748 date9: 6/12/2003 SOUTH CITY DODGE 393 EL CAMINO REAL S 1/4 - 1/2 (0.438 mi.) X132 498 Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Case Closed date9: 10/27/1992 **VILLAGE LINCOLN MERC** 393 EL CAMINO REAL S 1/4 - 1/2 (0.438 mi.) X134 502 Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Id: 550080 Facility Status: 9- Case Closed Global Id: T0608100504 Global ID: T0608100504 OROWHEAT BAKERIES 264 S SPRUCE AVE SE 1/4 - 1/2 (0.481 mi.) Z139 518 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST. Date of Government Version: 08/28/2024 Status: Completed - Case Closed Facility Status: Post remedial action monitoring

264 S SPRUCE AVE

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Global Id: T0608100911

BIMBO BAKERIES USA I

Z142

538

SE 1/4 - 1/2 (0.481 mi.)

Facility Id: 550150

Facility Status: 9- Case Closed Global ID: T0608100911

SPRUCE CAR WASH 246 SOUTH SPRUCE AVE SE 1/4 - 1/2 (0.485 mi.) Z144 547

Database: LUST, Date of Government Version: 08/28/2024

Status: Completed - Case Closed

Global Id: T0608100512

S&D CARWASH MANAGEME 246 S SPRUCE AVE SE 1/4 - 1/2 (0.485 mi.) Z145 564

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Facility Id: 550034

Facility Status: 9- Case Closed Global ID: T0608100512

KPR PROPERTIES 118 SOUTH SPRUCE AVE E 1/4 - 1/2 (0.493 mi.) AA146 571

Database: LUST, Date of Government Version: 08/28/2024

Status: Completed - Case Closed

Global Id: T0608100296

DON AND JERRYS AUTOM 118 SO SPRUCE AVE E 1/4 - 1/2 (0.493 mi.) AA147 575

Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019

Facility Id: 550007

Facility Status: 9- Case Closed Global ID: T0608100296

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 9 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
735 COMMERCIAL AVE Database: CPS-SLIC, Date of Govern Database: SLIC REG 2, Date of Gove Global Id: SL0608169862 Facility Status: Open - Site Assessme Facility Id: 41S0057	rnment Version: 09/30/2004	NNE 1/4 - 1/2 (0.310 mi.)	118	458
CITY OF SOUTH SAN FR Database: CPS-SLIC, Date of Govern Global Id: T10000013692 Facility Status: Completed - Case Clos		NW 1/4 - 1/2 (0.348 mi.)	T123	473
1010 EL CAMINO REAL Database: CPS-SLIC, Date of Govern Global Id: T10000014438 Facility Status: Open - Long Term Mai		NW 1/4 - 1/2 (0.417 mi.)	U126	485
MY CLEANERS Database: CPS-SLIC, Date of Govern Global Id: T10000003589 Facility Status: Open - Site Assessme		WNW 1/4 - 1/2 (0.439 mi.)	U135	505
Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL SFO SATELL Database: SLIC REG 2, Date of Gove	SFO, SOUTH FRONTAGE rnment Version: 09/30/2004	NE 1/8 - 1/4 (0.133 mi.)	H18	52

Lower Elevation	Address	Direction / Distance	Map ID	Page
US STEEL FACILITY (F Database: SLIC REG 2, Date of Governm Facility Id: SL20261879	CROSS OYSTER POINT @ ent Version: 09/30/2004	NE 1/8 - 1/4 (0.133 mi.)	H19	53
BACON PROPERTY Database: CPS-SLIC, Date of Government Database: SLIC REG 2, Date of Government Global Id: SLT2O327217 Facility Status: Completed - Case Closed Facility Id: 41S0064		NE 1/8 - 1/4 (0.133 mi.)	H20	53
HILLSIDE BOULEVARD E Database: CPS-SLIC, Date of Government Database: SLIC REG 2, Date of Government Global Id: SLT2O321212 Facility Status: Completed - Case Closed Facility Id: 41S0057		NE 1/8 - 1/4 (0.133 mi.)	H21	55
PARCELS NORTHWEST OF Database: CPS-SLIC, Date of Government Global Id: T10000002366 Facility Status: Completed - Case Closed	781 TENNIS DRIVE nt Version: 08/28/2024	NNE 1/8 - 1/4 (0.223 mi.)	P102	420

Lists of state and tribal registered storage tanks

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD DISTRICT OFFI Database: UST, Date of Governmen	398 B ST nt Version: 08/28/2024	S 1/8 - 1/4 (0.140 mi.)	J27	100
ORANGE AVE SHELL Database: UST, Date of Governmer Facility Id: 41022609	710 EL CAMINO REAL nt Version: 08/28/2024	WSW 1/8 - 1/4 (0.151 mi.)	I39	129
AU ENERGY LLC, #8006 Database: UST, Date of Governmer Facility Id: FA0050279	710 EL CAMINO REAL nt Version: 08/28/2024	WSW 1/8 - 1/4 (0.151 mi.)	148	166
CAMINO PETROLEUM Database: UST, Date of Governmer Facility Id: 220125_017714	698 EL CAMINO REAL nt Version: 08/28/2024	SW 1/8 - 1/4 (0.176 mi.)	L62	192
CHEVRON PRODUCTS COM Database: UST, Date of Governmer Facility Id: 41017714	689 EL CAMINO REAL nt Version: 08/28/2024	SW 1/8 - 1/4 (0.192 mi.)	L80	316

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BADEN PUMP STATION	609 W ORANGE AVE	SW 1/8 - 1/4 (0.209 mi.)	N89	364
Database: AST Date of Government	Version: 07/06/2016			

Lists of state and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 10/21/2024 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
735 COMMERCIAL AVE Status: Certified Facility Id: 70000073	735 COMMERCIAL AVE	NNE 1/4 - 1/2 (0.310 mi.)	118	458

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 3 HIST Cal-Sites sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page	
SUN CHEMICAL CORPORA	20 SOUTH LINDEN AVEN	E 1/2 - 1 (0.851 mi.)	AB152	644	
REICHOLD CHEMICALS,	120 SOUTH LINDEN	ESE 1/2 - 1 (0.866 mi.)	156	659	
E.I. DUPONT DE NEMOU	160 SOUTH LINDEN AVE	SE 1/2 - 1 (0.952 mi.)	AE166	742	

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/15/2024 has revealed that there are 5 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD DISTRICT OFFI	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J25	71

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAMINO PETROLEUM	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L72	243
DALAND BODY SHOP	890 EL CAMINO REAL	WNW 1/8 - 1/4 (0.179 mi.)	K76	292
HOLIDAY CLEANERS	675 EL CAMINO REAL	SW 1/8 - 1/4 (0.199 mi.)	L85	322
SOUTH SAN FRANCISCO	400 B ST	S 1/8 - 1/4 (0.220 mi.)	O96	386

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 5 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSF UNIFIED SCH DIST Status: A Tank Status: A Comp Number: 550197	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J26	99
BARBARIA'S SHELL Status: A Tank Status: A Comp Number: 550060	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	147	164
STAN THE ROOF MAN Comp Number: 550119	103 1ST	WNW 1/8 - 1/4 (0.162 mi.)	K52	174
CHEVRON 9-5669 Comp Number: 550051	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L63	196
MAZZANTI CARNATIONS Comp Number: 550132	820 TENNIS DR	N 1/8 - 1/4 (0.229 mi.)	R105	424

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KENNELLY CONSTRUCTIO Facility Id: 00000042042	197-A SAN PEDRO RD	W 0 - 1/8 (0.104 mi.)	C11	37
SHANTILAL V PATEL Facility ld: 00000059893	770 EL CAMINO REAL	WSW 1/8 - 1/4 (0.138 mi.)	l22	56
GARAGE Facility Id: 00000031110	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J28	104
GARAGE	398 B STREET	S 1/8 - 1/4 (0.140 mi.)	J30	106
SHELL Facility Id: 00000028583	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	142	150
STAN THE ROOF MAN	103 1ST	WNW 1/8 - 1/4 (0.162 mi.)	K53	175

Facility Id: 00000010425

95669 698 EL CAMINO REAL SW 1/8 - 1/4 (0.176 mi.) L67 226

Facility Id: 00000062797

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 4 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSF UNIFIED SCH DIST Facility Id: 41000988 Status: A	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J29	105
BARBARIA'S SHELL Facility Id: 41000472 Status: A	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	147	164
CHEVRON STATION #566 Facility Id: 41000158 Status: A	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L66	225
MAZZANTI CARNATIONS Facility Id: 41004924 Status: A	820 TENNIS DR	N 1/8 - 1/4 (0.229 mi.)	R104	424

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 10/15/2024 has revealed that there are 3 CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD DISTRICT OFFI	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J25	71
CAMINO PETROLEUM	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L65	202
SFPUC BADEN PUMP STA	609 W ORANGE AVE	SW 1/8 - 1/4 (0.209 mi.)	N91	365

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/16/2024 has revealed that there are 27 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD - LOS CERRITO	210 W ORANGE AVE	SSE 0 - 1/8 (0.022 mi.)	B5	20

EPA ID:: CAL000375439				
TATCHA EPA ID:: CAC002976423	161 B STARLITE ST	WNW 0 - 1/8 (0.066 mi.)	C7	26
CURTIS AUTOMOTIVE RE EPA ID:: CAL000477158	301 B BARNEVELD AVE	SSW 0 - 1/8 (0.078 mi.)	D8	28
SOUTH SAN FRANCISCO EPA ID:: CAC003146574	350 C STREET	S 0 - 1/8 (0.082 mi.)	E 9	30
BARBARA BLINICK EPA ID:: CAC003141991	239 A CRESCENT AVENU	SW 0 - 1/8 (0.109 mi.)	F12	37
JOSEPH ANONUEVO EPA ID:: CAC003203347	317 A STREET	SSW 1/8 - 1/4 (0.127 mi.)	D14	42
317 SAN FRANCISCO EPA ID:: CAR000347773	317 A ST.	SSW 1/8 - 1/4 (0.127 mi.)	D15	46
AUTO PRECISION REPAI EPA ID:: CAC003147366	140 A SOUTH LINDEN A	WNW 1/8 - 1/4 (0.129 mi.)	G16	47
SOUTH SAN FRANCISCO EPA ID:: CAC003240331	398 B STREET	S 1/8 - 1/4 (0.140 mi.)	J32	107
PO LING LI EPA ID:: CAC003180545	744 EL CAMINO REAL	WSW 1/8 - 1/4 (0.140 mi.)	F34	111
ESD AUTO REPAIR INC EPA ID:: CAL000435826	786 EL CAMINO REAL	W 1/8 - 1/4 (0.143 mi.)	<i>1</i> 36	119
ORANGE AVE SHELL EPA ID:: CAL000358143	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	140	130
SOUTH CITY SHELL AUT EPA ID:: CAL000176456	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	144	157
GEORGE LEON EPA ID:: CAC003067806	112 A STREET	WNW 1/8 - 1/4 (0.151 mi.)	G49	169
PREMIER CAR SERVICES EPA ID:: CAC003259952 EPA ID:: CAC003203278	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G56	180
TH AUTO SERVICES EPA ID:: CAL000348815	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G57	184
MOTT & ALLEN EPA ID:: CAD981452071	49-A MOSS ST	WNW 1/8 - 1/4 (0.172 mi.)	K61	190
CHEVRON STATION NO 9 EPA ID:: CAR000121251	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L68	234
CAMINO PETROLEUM EPA ID:: CAL000196225	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L70	237
DALAND BODY SHOP INC EPA ID:: CAL000388358	15 FIRST ST # 17	WNW 1/8 - 1/4 (0.177 mi.)	K73	267
LUCAS AND COMPANY EPA ID:: CAC003180892	54 A BEAUMONT AVE	WNW 1/8 - 1/4 (0.184 mi.)	K77	311
ALL TRANSMISSION EPA ID:: CAL000343374	66 A ST	WNW 1/8 - 1/4 (0.186 mi.)	K78	313
HOLIDAY CLEANERS EPA ID:: CAL000377366	675 EL CAMINO REAL	SW 1/8 - 1/4 (0.199 mi.)	L86	346
BADEN PUMP STATION	609 W ORANGE AVE	SW 1/8 - 1/4 (0.209 mi.)	N92	377

EPA ID:: CAL000308577				
SAN FRANCISCO HIGH EPA ID:: CAD981989981	400 B STREET	S 1/8 - 1/4 (0.220 mi.)	O97	396
Lower Elevation	Address	Direction / Distance	Map ID	Page
ADA CHAN EPA ID:: CAC003104591	115 MULBERRY AVE	ESE 1/8 - 1/4 (0.142 mi.)	35	115
RIGOBERTO GARCIA EPA ID:: CAC003127891	620 MYRTLE AVENUE	SE 1/8 - 1/4 (0.249 mi.)	111	440

FUDS: The Listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, and dated 10/01/2024 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAMP TANFORAN		SSE 1/2 - 1 (0.926 mi.)	AD160	704

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 08/13/2024 has revealed that there is 1 FINDS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BART ORANGE AVENUE V Registry ID:: 110064891951	197 W ORANGE AVE	0 - 1/8 (0.000 mi.)	A4	20

PFAS RCRA MANIFEST: To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

A review of the PFAS RCRA MANIFEST list, as provided by EDR, and dated 12/30/2024 has revealed that there is 1 PFAS RCRA MANIFEST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GLOBAL BLOOD THERAPE		ENE 1/8 - 1/4 (0.203 mi.)	87	348

UST FINDER RELEASE: US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

A review of the UST FINDER RELEASE list, as provided by EDR, and dated 06/08/2023 has revealed that there are 17 UST FINDER RELEASE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	146	163
STAN THE ROOF MAN	103 1ST	WNW 1/8 - 1/4 (0.162 mi.)	K51	173
CHEVRON 9-5669	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L64	201
CHEVRON 9-0248	687 EL CAMINO REAL	SW 1/8 - 1/4 (0.193 mi.)	L81	317
S.S.F. HIGH SCHOOL	400 B	S 1/8 - 1/4 (0.220 mi.)	O95	385
CHEVRON, FORMER STAN	972 EL CAMINO REAL	WNW 1/8 - 1/4 (0.243 mi.)	Q107	425
RON PRICE MOTORS	1 CHESTNUT	NW 1/4 - 1/2 (0.348 mi.)	T125	485
WEST ORANGE LIBRARY	840 WEST ORANGE AVEN	W 1/4 - 1/2 (0.426 mi.)	V128	489
FINLEY CONSTRUCTION	125 CHESTNUT	NNW 1/4 - 1/2 (0.440 mi.)	Y136	512
Lower Elevation	Address	Direction / Distance	Map ID	Page
CITY OF SSF CORP YAR	736 TENNIS DR	NE 1/4 - 1/2 (0.261 mi.)	S112	444
GUY F. ATKINSON CO.	10 WEST ORANGE AVENU	NE 1/4 - 1/2 (0.277 mi.)	S117	457
ACUTEC AUTOS	45 CHESTNUT AVENUE	NW 1/4 - 1/2 (0.345 mi.)	T122	472
SOUTH CITY DODGE	393 EL CAMINO REAL	S 1/4 - 1/2 (0.438 mi.)	X133	501
KLIX CORP.	551 RAILROAD	ENE 1/4 - 1/2 (0.455 mi.)	W138	517
OROWEAT	264 SOUTH SPRUCE AVE	SE 1/4 - 1/2 (0.481 mi.)	Z140	536
SPRUCE CAR WASH	246 SOUTH SPRUCE AVE	SE 1/4 - 1/2 (0.485 mi.)	Z143	547
KPR PROPERTIES	118 SOUTH SPRUCE AVE	E 1/4 - 1/2 (0.493 mi.)	AA148	590

UST FINDER: EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories. UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

A review of the UST FINDER list, as provided by EDR, and dated 06/08/2023 has revealed that there are 3 UST FINDER sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD DISTRICT OFFI	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J24	70
SOUTH CITY AUTO SERV	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	143	156
CAMINO PETROLEUM	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L71	242

E MANIFEST: EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

A review of the E MANIFEST list, as provided by EDR, and dated 09/16/2024 has revealed that there are 18 E MANIFEST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD - LOS CERRITO	210 W ORANGE AVE	SSE 0 - 1/8 (0.022 mi.)	B5	20
SOUTH SAN FRANCISCO	350 C STREET	S 0 - 1/8 (0.082 mi.)	E9	30
BARBARA BLINICK	239 A CRESCENT AVENU	SW 0 - 1/8 (0.109 mi.)	F12	37
JOSEPH ANONUEVO	317 A STREET	SSW 1/8 - 1/4 (0.127 mi.)	D14	42
S SAN FRAN UNIFIED S	398 B ST	S 1/8 - 1/4 (0.140 mi.)	J23	57
SOUTH SAN FRANCISCO	398 B STREET	S 1/8 - 1/4 (0.140 mi.)	J32	107
PO LING LI	744 EL CAMINO REAL	WSW 1/8 - 1/4 (0.140 mi.)	F34	111
ESD AUTO REPAIR INC	786 EL CAMINO REAL	W 1/8 - 1/4 (0.143 mi.)	<i>1</i> 36	119
ORANGE AVE SHELL	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	140	130
SOUTH CITY SHELL AUT	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	144	157
GEORGE LEON	112 A STREET	WNW 1/8 - 1/4 (0.151 mi.)	G49	169
PREMIER CAR SERVICES	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G56	180
CAMINO PETROLEUM	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L70	237
DALAND BODY SHOP INC	890 EL CAMINO REAL	WNW 1/8 - 1/4 (0.179 mi.)	K75	270
SAN FRANCISCO HIGH	400 B STREET	S 1/8 - 1/4 (0.220 mi.)	O97	396
SFPUC SOUTHWOOD DRIV	608 SOUTHWOOD DRIVE	W 1/8 - 1/4 (0.222 mi.)	M99	414
Lower Elevation	Address	Direction / Distance	Map ID	Page
ADA CHAN	115 MULBERRY AVE	ESE 1/8 - 1/4 (0.142 mi.)	35	115
RIGOBERTO GARCIA	620 MYRTLE AVENUE	SE 1/8 - 1/4 (0.249 mi.)	111	440

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUN CHEMICAL CORPORA	20 SOUTH LINDEN AVEN	E 1/2 - 1 (0.851 mi.)	AB154	657

Hazardous Materials Business Plan, Hazardous Waste Generator, Underground Storage tanks

A review of the San Mateo Co. BI list, as provided by EDR, and dated 02/20/2020 has revealed that there are 27 San Mateo Co. BI sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SSFUSD DISTRICT OFFI Facility Id: FA0013350	398 B	S 1/8 - 1/4 (0.140 mi.)	J31	106
VERIZON WIRELESS EL Facility Id: FA0027619	398 B. ST	S 1/8 - 1/4 (0.140 mi.)	J33	111
SHELL Facility Id: FA0024009 Facility Id: FA0017721	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	138	126
SOUTH CITY SHELL AUT Facility Id: FA0050279	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	I41	137
AU ENERGY, LLC #8006 Facility Id: FA0010865	710 EL CAMINO REAL	WSW 1/8 - 1/4 (0.151 mi.)	145	163
GREG LEONARDS GARAGE	107 1ST	WNW 1/8 - 1/4 (0.161 mi.)	K50	173

Facility Id: FA0027996 STAN THE ROOF MAN	103 1ST	WNW 1/8 - 1/4 (0.162 mi.)	K52	174
Facility Id: FA0017773	103 131	WWW 1/0 - 1/4 (0.102 IIII.)	N32	1/4
A 1 CONVERTER Facility Id: FA0016561	101 1ST	WNW 1/8 - 1/4 (0.165 mi.)	K54	179
ESD AUTO REPAIRS INC Facility Id: FA0062970	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G55	179
WEST COAST AUTO SERV Facility Id: FA0064050	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G59	189
JIM GRIFFIN & SON BR Facility Id: FA0017840 Facility Id: FA0045324	872 EL CAMINO REAL	WNW 1/8 - 1/4 (0.168 mi.)	G60	189
CHEVRON 9-5669 Facility Id: FA0017714	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L63	196
DALAND BODY SHOP INC Facility Id: FA0053957	15-17 FIRST	WNW 1/8 - 1/4 (0.177 mi.)	K74	269
DALAND BODY SHOP INC Facility Id: FA0017814	890 EL CAMINO REAL	WNW 1/8 - 1/4 (0.179 mi.)	K75	270
ALL TRANSMISSIONS Facility Id: FA0002692 Facility Id: FA0040490	66 A	WNW 1/8 - 1/4 (0.186 mi.)	K79	315
GARDEN CHAPEL FUNERA Facility Id: FA0044990	885 EL CAMINO REAL	W 1/8 - 1/4 (0.195 mi.)	M84	322
HOLIDAY CLEANERS Facility Id: FA0024558 Facility Id: FA0046457	675 EL CAMINO REAL	SW 1/8 - 1/4 (0.199 mi.)	L85	322
CAMINO DENTAL CARE Facility Id: FA0046049	663 EL CAMINO REAL	SW 1/8 - 1/4 (0.205 mi.)	L88	349
BADEN PUMP STATION Facility Id: FA0025366	609 ORANGE	SW 1/8 - 1/4 (0.209 mi.)	N90	364
7-ELEVEN INC. STORE Facility Id: FA0055314	635 EL CAMINO REAL	SSW 1/8 - 1/4 (0.220 mi.)	L93	379
S.S.F. HIGH SCHOOL Facility Id: FA0022944	400 B	S 1/8 - 1/4 (0.220 mi.)	O98	411
SFPUC SOUTHWOOD DR W Facility Id: FA0064505	608 SOUTHWOOD	W 1/8 - 1/4 (0.222 mi.)	M100	419
HANKS RENTALS Facility Id: FA0037239	932 EL CAMINO REAL	WNW 1/8 - 1/4 (0.226 mi.)	Q103	422
MAZZANTI CARNATIONS Facility Id: FA0017785 Facility Id: FA0027162	820 TENNIS	N 1/8 - 1/4 (0.229 mi.)	R106	425
BURGER KING Facility Id: FA0065658	972 EL CAMINO REAL	WNW 1/8 - 1/4 (0.243 mi.)	Q109	434
WESTBOROUGH DIALYSIS	925 EL CAMINO REAL	WNW 1/8 - 1/4 (0.245 mi.)	Q110	440
Facility Id: FA0045183				
Facility Id: FA0045183 Lower Elevation	Address	Direction / Distance	Map ID	Page

Facility Id: FA0011702

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 09/16/2024 has revealed that there are 17 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL Cleanup Status: COMPLETED - CASE C	710 EL CAMINO REAL LOSED	WSW 1/8 - 1/4 (0.151 mi.)	<i>1</i> 42	150
STAN THE ROOF MAN Cleanup Status: COMPLETED - CASE C	103 1ST LOSED	WNW 1/8 - 1/4 (0.162 mi.)	K53	175
95669 Cleanup Status: COMPLETED - CASE C	698 EL CAMINO REAL LOSED	SW 1/8 - 1/4 (0.176 mi.)	L67	226
CHEVRON 9-0248 Cleanup Status: COMPLETED - CASE C	687 EL CAMINO REAL LOSED	SW 1/8 - 1/4 (0.193 mi.)	L82	318
SOUTH SAN FRANCISCO Cleanup Status: COMPLETED - CASE C	400 B ST LOSED	S 1/8 - 1/4 (0.220 mi.)	O94	379
CHEVRON, FORMER STAN Cleanup Status: COMPLETED - CASE C	972 EL CAMINO REAL LOSED	WNW 1/8 - 1/4 (0.243 mi.)	Q108	426
RON PRICE MOTORS Cleanup Status: COMPLETED - CASE C	<i>1 CHESTNUT</i> LOSED	NW 1/4 - 1/2 (0.348 mi.)	T124	480
WEST ORANGE LIBRARY Cleanup Status: COMPLETED - CASE C	840 WEST ORANGE AVEN LOSED	W 1/4 - 1/2 (0.426 mi.)	V127	486
FINLEY CONSTRUCTION Cleanup Status: COMPLETED - CASE C	125 CHESTNUT LOSED	NNW 1/4 - 1/2 (0.440 mi.)	Y137	513
Lower Elevation	Address	Direction / Distance	Map ID	Page
CITY OF SSF CORP YAR Cleanup Status: COMPLETED - CASE C	736 TENNIS DR LOSED	NE 1/4 - 1/2 (0.261 mi.)	S113	445
GUY F. ATKINSON CO. Cleanup Status: COMPLETED - CASE C	10 ORANGE LOSED	NE 1/4 - 1/2 (0.277 mi.)	S116	453
ACUTEC AUTOS Cleanup Status: COMPLETED - CASE C	45 CHESTNUT AVENUE LOSED	NW 1/4 - 1/2 (0.345 mi.)	T121	468
KLIX CORP. Cleanup Status: COMPLETED - CASE C	551 RAILROAD LOSED	ENE 1/4 - 1/2 (0.433 mi.)	W131	493
SOUTH CITY DODGE Cleanup Status: COMPLETED - CASE C	393 EL CAMINO REAL LOSED	S 1/4 - 1/2 (0.438 mi.)	X132	498
OROWHEAT BAKERIES Cleanup Status: COMPLETED - CASE C	264 S SPRUCE AVE LOSED	SE 1/4 - 1/2 (0.481 mi.)	Z139	518
SPRUCE CAR WASH Cleanup Status: COMPLETED - CASE C	246 SOUTH SPRUCE AVE LOSED	SE 1/4 - 1/2 (0.485 mi.)	Z144	547
KPR PROPERTIES Cleanup Status: COMPLETED - CASE C	118 SOUTH SPRUCE AVE LOSED	E 1/4 - 1/2 (0.493 mi.)	AA146	571

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HOLIDAY CLEANERS	675 EL CAMINO REAL	SW 1/8 - 1/4 (0.199 mi.)	L85	322

Database: DRYCLEAN BAY AREA, Date of Government Version: 02/20/2019 Database: DRYCLEANERS, Date of Government Version: 08/28/2024

EPA Id: CAL000377366

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 14 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL CO Reg ld: 41-0514	710 EL CAMINO	WSW 1/8 - 1/4 (0.151 mi.)	137	123
STAN THE ROOF MAN Reg ld: 41-0736	103 1ST	WNW 1/8 - 1/4 (0.162 mi.)	K53	175
CHEVRON Reg Id: 41-0153	698 EL CAMINO REAL	SW 1/8 - 1/4 (0.176 mi.)	L69	237
CHEVRON 9-0248 Reg ld: 41-0152	687 EL CAMINO REAL	SW 1/8 - 1/4 (0.193 mi.)	L82	318
SOUTH SAN FRANCISCO Reg ld: 41-0532	400 B ST	S 1/8 - 1/4 (0.220 mi.)	O94	379
RON PRICE MOTORS Reg ld: 41-0453	1 CHESTNUT	NW 1/4 - 1/2 (0.348 mi.)	T124	480
FINLEY CONSTRUCTION Reg ld: 41-0226	125 CHESTNUT	NNW 1/4 - 1/2 (0.440 mi.)	Y137	513
Lower Elevation	Address	Direction / Distance	Map ID	Page
CITY OF SSF CORP YAR Reg ld: 41-0626	736 TENNIS DR	NE 1/4 - 1/2 (0.261 mi.)	S113	445
GUY F ATKINSON COMPA Reg ld: 41-0741	10 ORANGE	NE 1/4 - 1/2 (0.321 mi.)	120	468
ACUTEC AUTOS Reg Id: 41-0007	45 CHESTNUT AVENUE	NW 1/4 - 1/2 (0.345 mi.)	T121	468
KLIX CORP. Reg ld: 41-0792	551 RAILROAD	ENE 1/4 - 1/2 (0.433 mi.)	W131	493
SOUTH CITY DODGE Reg ld: 41-0528	393 EL CAMINO REAL	S 1/4 - 1/2 (0.438 mi.)	X132	498
VILLAGE LINCOLN MERC	393 EL CAMINO REAL	S 1/4 - 1/2 (0.438 mi.)	X134	502

Reg Id: 41-0722

OROWEAT FOODS COMPAN 264 S SPRUCE AVE SE 1/4 - 1/2 (0.481 mi.) Z141 537

Reg Id: 41-0997 Reg Id: 2483

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 08/12/2024 has revealed that there are 2 HWP sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MERRY X RAY CHEMICAL EPA ID: CAL000051065 Cleanup Status: CLOSED	131 S MAPLE AVE UNIT	ESE 1/2 - 1 (0.730 mi.)	150	608
WEST COAST AUTOMOTIV EPA ID: CAD009206855 Cleanup Status: CLOSED	160 S LINDEN AVE	SE 1/2 - 1 (0.952 mi.)	AE165	739

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 09/05/2024 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GELCO TRUCK LEASING	1395 LOWRIE AVENUE	ESE 1/2 - 1 (0.939 mi.)	163	722

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 10/15/2024 has revealed that there is 1 CERS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BART ORANGE AVENUE V	197 W ORANGE AVE	0 - 1/8 (0.000 mi.)	A3	11

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAMOEE LES SHELL SER	289 C 3RD ST	S 0 - 1/8 (0.044 mi.)	B6	25

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A RAINBOW CLEANERS &	490 CO HAYES ST	S 0 - 1/8 (0.111 mi.)	E13	41

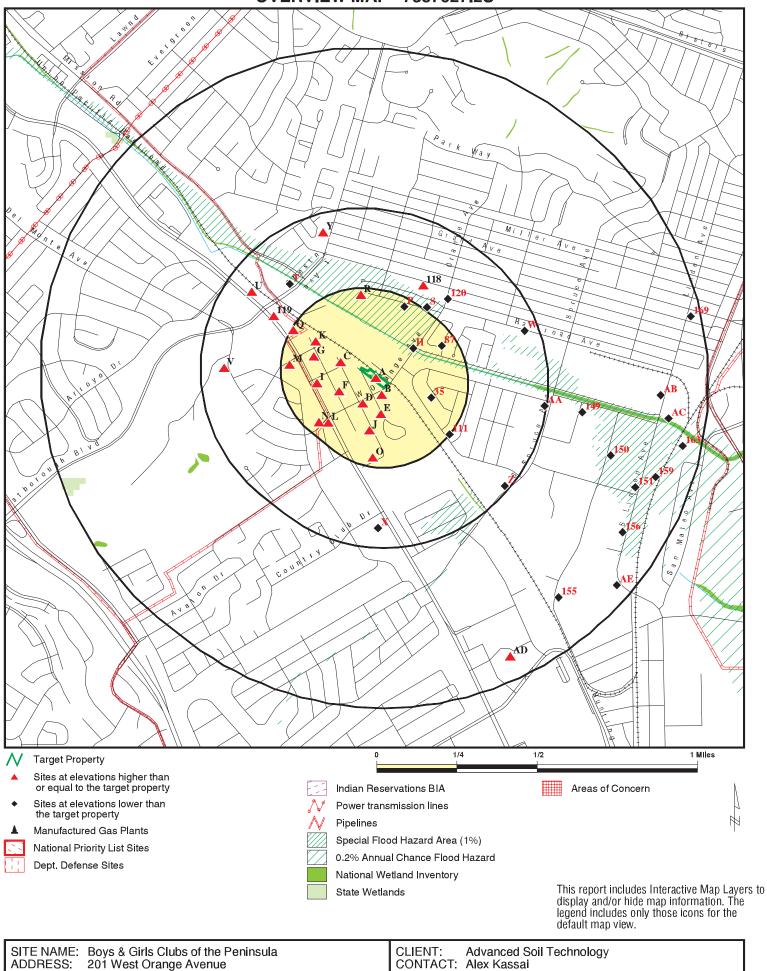
Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

Site Name Database(s)

FAA
ROD MC LELLAN CO.
O'BRIAN CORP SITE
SOUTH SAN FRANCISCO RECYCLING CENT

LUST, HIST CORTESE SWF/LF SWF/LF ENVIROSTOR

OVERVIEW MAP - 7887627.2S



ADDRESS: 201 West Orange Avenue

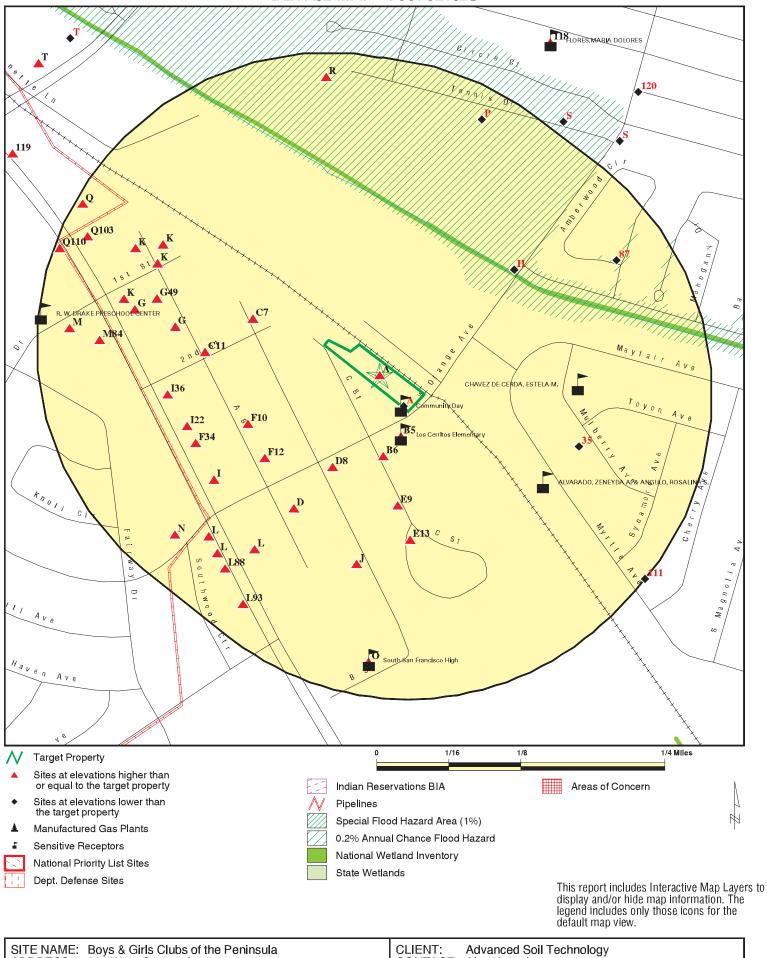
LAT/LONG:

South San Francisco CA 94080 37.652052 / 122.427926

INQUIRY#: 7887627.2s

DATE: February 03, 2025 1:04 pm

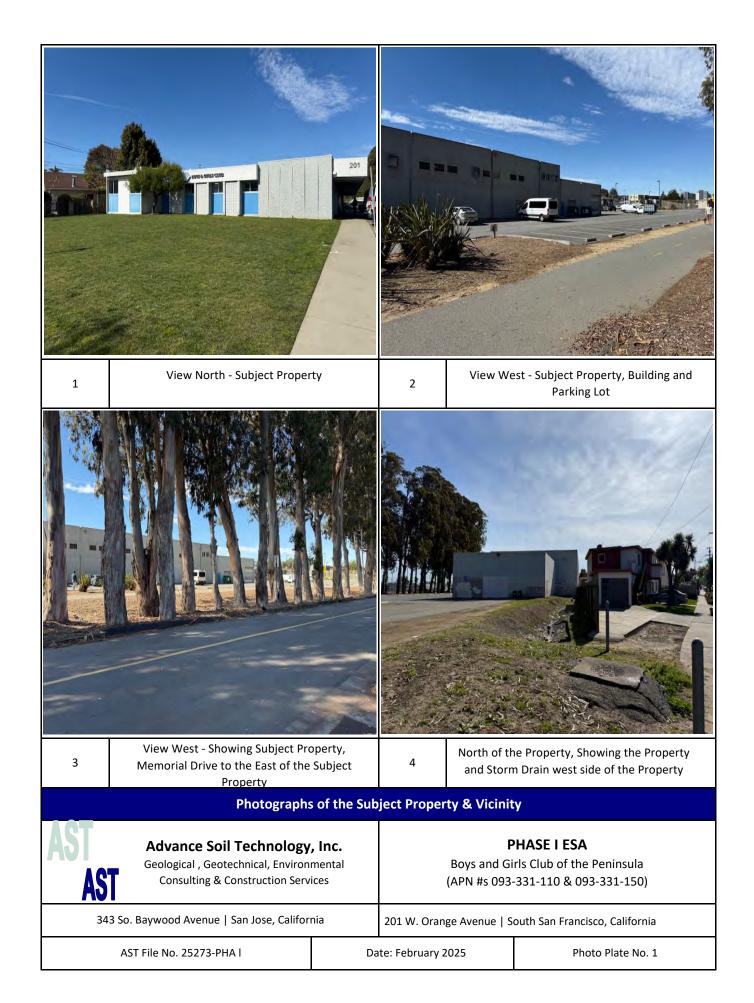
DETAIL MAP - 7887627.2S

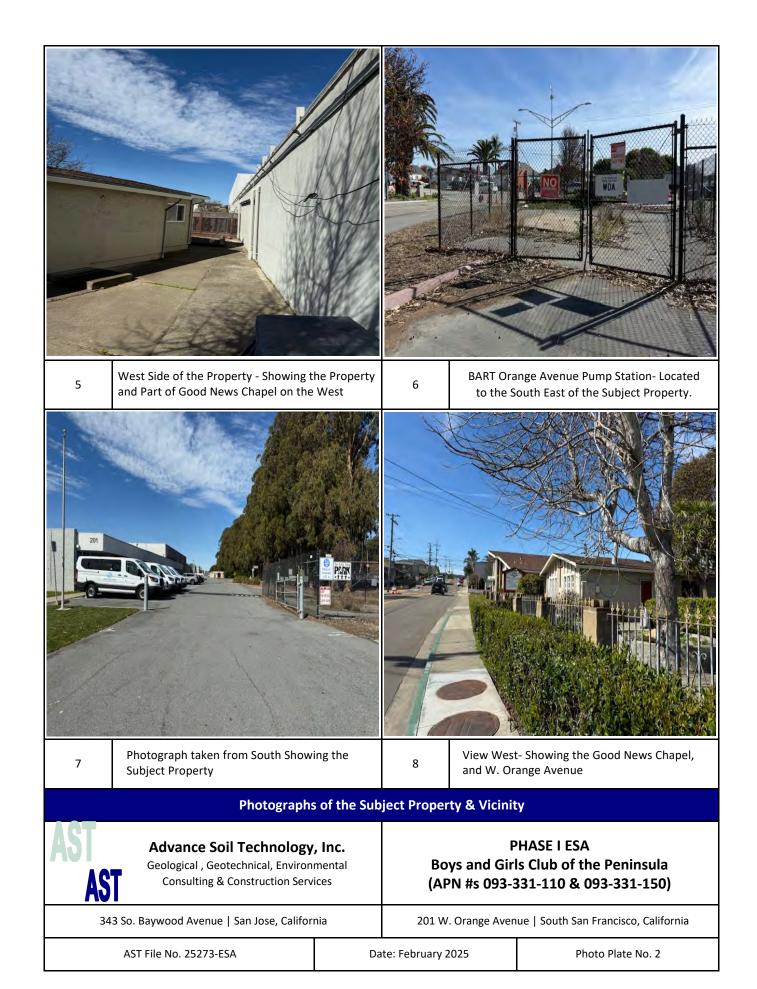


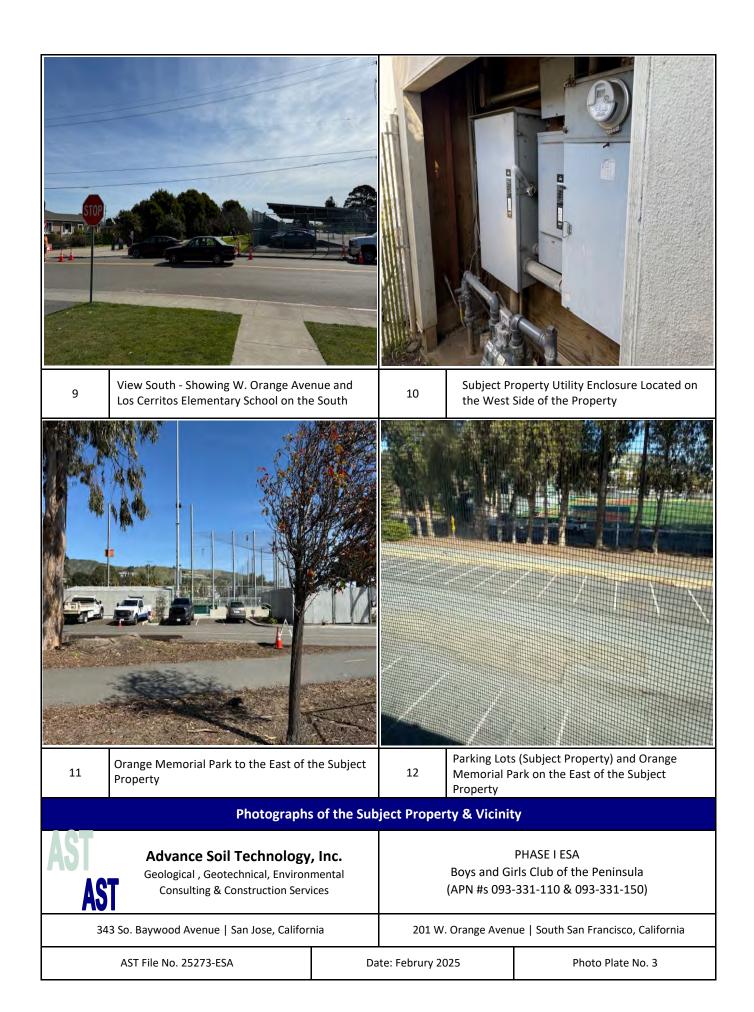
ADDRESS: 201 West Orange Avenue South San Francisco CA 94080 LAT/LONG: 37.652052 / 122.427926

CONTACT: Alex Kassai INQUIRY#: 7887627.2s

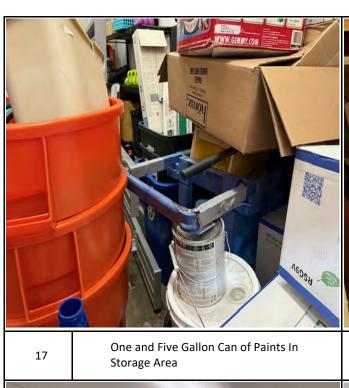
DATE: February 03, 2025 1:05 pm













18

Materials Stored in the Garage





19

Bathroom -Floor Covering (Tiles)

20

Corridor to Class Rooms and Gym

Photographs of the Subject Property & Vicinity



Advance Soil Technology, Inc.

Geological , Geotechnical, Environmental Consulting & Construction Services

PHASE I ESA

Boys and Girls Club of the Peninsula (APN #s 093-331-110 & 093-331-150)

343 So. Baywood Avenue | San Jose, California

201 W. Orange Avenue | South San Francisco, California

AST File No. 25273-PHA I

Date: February 2025

Photo Plate No. 5

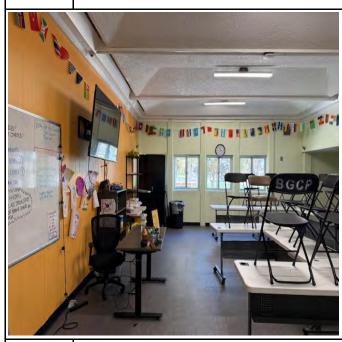




21 Entrance Area

22

Electrical Line (230 KV) Running Along East of the Existing Building





Typical Classrooms

Storage Area

Photographs of the Subject Property & Vicinity

24



Advance Soil Technology, Inc.

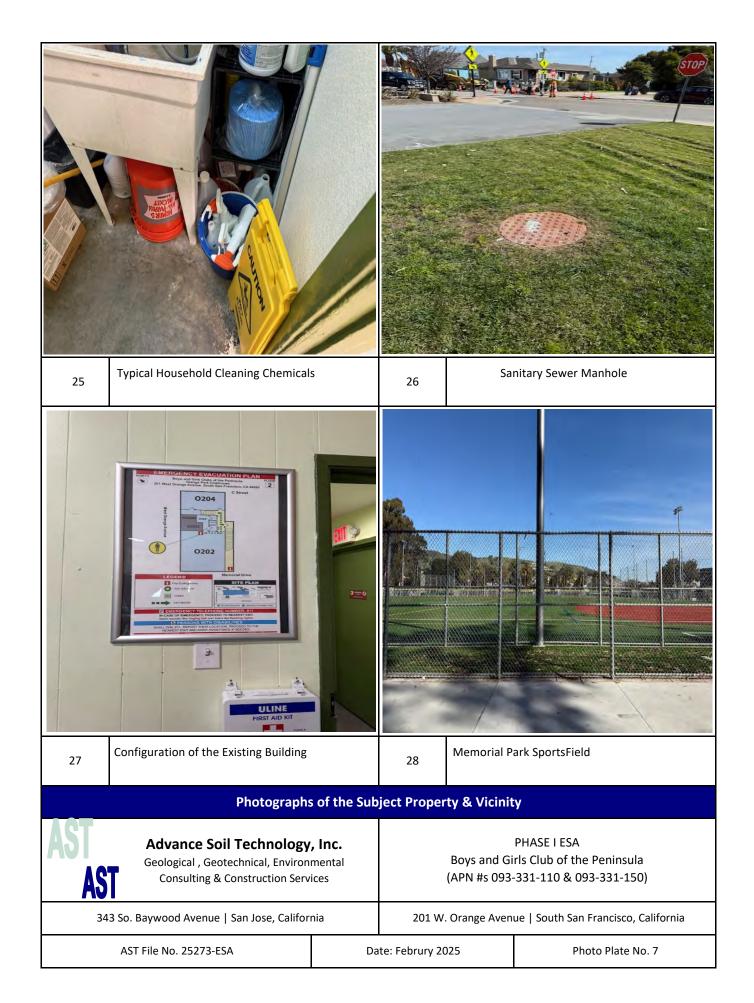
Geological , Geotechnical, Environmental Consulting & Construction Services

PHASE I ESA
Boys and Girls Club of the Peninsula
(APN #s 093-331-110 & 093-331-150)

343 So. Baywood Avenue | San Jose, California

201 W. Orange Avenue | South San Francisco, California

AST File No. 25273-ESA Date: February 2025 Photo Plate No. 6



APPENDIX "F"

> RESUMES OF KEY PERSONNEL



Alex A. Kassai Vice President | Principal Manager Testing Services Technical Director | Director of Operations

Position in the Firm: Principal Total Years of Experience: 43 years

Education:

B.S. Civil Engineering | Oregon State University
M.S. Civil Engineering | San Jose State University
APNGA - Certificate of Achievement (Radiation Safety Officer)

Professional Affiliations:

- American Society of Civil Engineers
- Geotechnical Engineers of Northern California
- Structural Engineers Association of Northern California

Professional Registrations:

- Professional Engineer, State of California
- Registered Environmental Assessor, State of California
- California Contractors License A&B | General Engineering & Building
- California Contractors License Hazardous Substances Removal & Remediation

Areas of Expertise | Professional Qualifications:

- Geological | Geotechnical Investigations
- Deep Foundations Analysis in weak soils
- Earthquake | Seismic Risk Evaluation
- Site Specific Response Spectra
- Forensic Investigation
- Liquefaction Study
- Slope Stability

Mr. Kassai is a founder of AST (Advance Soil Technology) Inc. For the past 42 years he has provided services in the field of Geotechnical | Environmental for commercial, Industrial, Schools, and Residential Developments in the Bay Area. Mr. Kassai has received extensive formal trainings and education and with his seasoned background and professional certifications and years of industry experience providing diversified geotechnical and environmental service/solutions for a wide variety of projects since 1974. His ability to effectively communicate with clients, regulatory agencies, and contractors during all phases of projects has resulted in many long-standing client relationships within the private and public sectors.

Experience:

1988 - Present	Geotechnical Engineer Advance Soil Technology, Inc.
2005 - 2006	Visiting Professor Soil Mechanics San Jose State University, California
1979 - 1988	Vice President United Soil Engineering Inc.
1974 - 1975	Concrete Laboratory Portland State University

Al Mirza Project Engineer | Technical Manager

Position in the Firm: Project Engineer | Project Manager

Total Years of Experience: 26 years

Education:

M.S. in Toxicology & Environmental Engineering | University of California Santa Cruz M.S. in Structural & Geotechnical Engineering | San Jose State University B.S. in Civil | Structural Engineering | Osmania University | San Jose state University APNGA – Certificate of Completion (Annual Refresher)

Professional Affiliations:

- American Society of Civil Engineers
- Geotechnical Engineers of Northern California
- > Structural Engineers Association of Northern California

Key Qualifications:

Mr. Mirza is experienced in providing consulting on civil, geotechnical and environmental engineering projects. Projects mostly include geological & geotechnical field investigations, foundation analyses, recommendations, reports, pavement designs, plan reviews and coordination with the civil, structural and other disciplines in ensuring that the geotechnical requirements are incorporated into the design process and are reflected on the plans and specifications, prior to final approval. He also ensures that the established geotechnical and geological recommendations are incorporated during the construction phase and provides construction observation and testing to assure compliance to quality control and quality assurance. He also provides clients/owners/developers assistance in successful completion of the projects. Environmental projects included Phase I and Phase II investigations with soil and groundwater cleanups, assessment of the plumes, assisting in environmental audits, coordination with the regulatory agencies and project management.

Experience Highlights:

- Project Design Engineer | Coleman Highline, Verizon Telecommunications Buildings, CA
- Project Design Engineer | Coleman Highline, Roku Buildings, CA
- Project Design Engineer | Carlysle | 22-story Mixed-use Residential Development, CA
- > Project Design Engineer | Coleman Highline, Commercial & Retail Development, CA
- Project Design Engineer | Skyline College Theater Building B1, San Bruno, CA
- Project Design Engineer | Santa Clara University Law School Building, CA
- Project Design Engineer | Skyline College Building B1N, B12N & Kinesiology, CA
- Project Design Engineer | Canada College Building B1N (Kinesiology), CA
- Project Design Engineer | Outlets in Gilroy, Gilroy, CA
- Project Design Engineer | Old Town Los Gatos, Los Gatos, CA
- Project Design Engineer | McCarthy Ranch & Milpitas Square, Milpitas, Ca
- Project Design Engineer | Relocation Ford Creek, Milpitas, CA
- Project Design Engineer | Community Housing Developers Residential Towers, CA
- Project Design Engineer | Livingston Towers (22)-Story Residential Tower, CA
- Project Design Engineer | industrial infrastructure Berkeley Farms including (120)-feet high tank farm for the storage of the products, CA
- Project Design Engineer | Redwood City Technology Station with (3)-story below grade parking garage structure, CA

Appendix D

Preservation Architecture, February 18, 202	24)		



February 18, 2025

Boys' and Girls' Club (BGC) 201 W. Orange Ave., South San Francisco Historic Resource Evaluation

The purpose of the current effort is to evaluate the built resource at 201 W. Orange Ave. and to specifically determine whether there is or is not historic resource potential for project planning purposes under the California Environmental Quality Act (CEQA). As per CEQA, such a determination is based on the historical criteria of the California Register of Historical Resources. This effort has been prepared on the bases of site visits, City of South San Francisco permit research, San Mateo County records, along with applicable historical and historic architectural research, including historical newspapers, maps and directories.

The 201 W. Orange Ave. site, with W. Orange Ave. (originally Third St.) to the east, C St. to the south and the rail right of way to the north, is owned by the City of South San Francisco (with the BGC as lessee) and is zoned for civic and recreational uses, thus the directly adjoining Orange Memorial Park and Centennial Way Trail, which recreational uses share the surrounding surface parking with the BGC (figs.1-2). The subject building site occupies a portion of elongated lot 11 and all of lot 15, the latter a block long sliver of land between lot 11 and the BART right-of-way (fig.3), the combined lots totaling some 90 feet in width (south-north).

Summary History

The subject building was developed in 1961-1962 for the Boys' Club of South San Francisco, which organization then relocated from their previous location on Grand Avenue. Originally a boys' club under the national Boys' Clubs of America, since 1990, the non-profit organization has served boys and girls under the integrated Boys' and Girls' Clubs of America (https://www.bgca.org/about-us/our-mission-story). The SSF Boys' Club has since been the Orange Park Clubhouse of the Boys' and Girls' Clubs of the Peninsula.

The subject triangular block was first surveyed and subdivided in 1891 as lot 9 of the Town of Baden, an unincorporated community then wedged into the western side of future SSF (figs.4-5). Following SSF's incorporation in 1908, the Town of Baden was made a subdivision and retains that label.

When first constructed, the SSF Boys' Club stood alongside the tracks and right-of-way of the Southern Pacific Railway, its east side a narrow landscaped strip (fig.6). In the late-1990s, that surface trackway was replaced by the undergrounded Bay Area Rapid Transit extension to the SF International Airport, which opened in 2003. The extant east side parking was added when the rails were undergrounded in the 1990s, prior to which parking was at the rear of the BGC.

Summary Descriptions (figs.7-14)

Stretching along its end of the elongated site, the existing BGC building is in 3 parts. Its 2 original parts include a front (eastward) building with a mix of office, communal and recreational uses and a central part that is a high-bay gymnasium. That conjoined building, some 270 feet in length by 77 and 67 feet wide (front and rear, respectively) and with a floor area of some 16,200 square feet, was permitted in 1961 with gym revisions extending into 1962, its architect Paul D. Markling and Associates of SSF. A third and relatively small (2,400 sq.ft.) structure for storage use was appended

to the rear of the gym in 1968. Those 2 sets of permit drawings were reviewed by the current author at the CSSF permit center, other than which there are no other permit records for this property.

Set on the west side of the curve of W. Orange Ave., the BGC site consists of a small front (east) lawn with a concrete entry path crossing its northern edge from the sidewalk to the building and continuing along the building's east side, from where the building is accessed via several doorways, the main entry at the center of the front building's north side. Asphalt paved parking lots fill the northern side of the site and wrap around to the rear. The buildings' blank south side walls stand directly to the rear of a strip of adjoining properties, though the splayed south side property line leaves a shallow side setback at the front of the building.

Volumetrically, all 3 building parts are flat-roofed, the front building a squat single-story (approx. 12 ft. in height) with a deep overhang and a deep fascia covering the exterior entry path along its north side; the gym building a tall 2-story box (25 ft. in height); the rear volume a 1-1/2 story box (approx. 18 ft. high). The north sides of the 2 rearward building parts have a number of openings, including several plain doors and upper windows in the gym and a couple of receiving doors in the rear structure. Otherwise, the exterior building walls are flat and plain, the gym painted stucco with, at its upper west side wall, vertical panels, the storage building concrete block. Based on the original drawings, the north side of the gym building has been much altered, including the removal of continuous clerestory windows, a canopied area with doors and windows at the west end and corrugated metal lower wall cladding.

The front building alone has architectural treatments at its front and north side. The front is a mix of low volumes, one at the south end that projects forward into the yard, which volume is balanced at the north end of the front by a solid wall with an applied course-aggregate finish (stone or shell) in 6 vertical panels with wood battens. Between those forms are 4 slightly recessed window bays under a tall fascia with applied signage ("Boys and Girls Club") separated by 3 equally wide piers of exposed concrete block. The window units are full height, aluminum framed, with fixed opaque panels in the lower two-thirds and a pair of windows above.

Beneath the overhang, on the east face of which are applied building numbers ("201"), the north side of the front building has a long-panelized wall of aluminum framed wall panels that are predominately solid with a few glazed units, under a deep overhang, the pair of aluminum and glass entry doors at its center. Flanking each side of the central entry doors are stacked square-faced concrete blocks, a narrower section to the left (east) where there is an incised granite dedication plaque at its center ("Dedicated by Herbert Hoover July 26, 1961"), a broader wall to the right, the concrete blocks painted with a mural that is dated 2011.

Understanding it was once more transparent and open, that is no longer the case as the building is today predominately opaque, all windows having been changed. The front originally with tall windows over small aprons, the projecting bay with 3 large units, the middle one since replaced with a solid wall, each of the other windows replaced with small units over large fixed panels. The sideward window walls were also originally continuously glazed above with small, fixed aprons below, the upper glazing since largely replaced with solid panels. So the once more open character of the design has been much altered, the architecture closed up as well as aged and dated, though it is not of course an old building. Evidently, what happens inside this building is what matters while the outside and outside spaces are unimportant.

Historic Context

The BGC's historic context is youth recreational facilities and, more specifically, the development of clubs organized by the Boys' Clubs of America and, since 1990, the Boys' and Girls' Clubs of America, under which context there are 29 locations in San Mateo County, more than 100 Boys' and Girls' Clubs in California and nearly 1,000 nationwide (https://bgclubsca.com), each serving their local community.

Evaluation

The BGC has not previously been evaluated for historic resource eligibility. To do so for the discretionary project planning purposes, the following evaluates the subject building using the California Register (CR) evaluation criteria, listing each criterion followed by an evaluation statement based on the details reported herein.

To be eligible for listing on the CR, a resource must be historically significant at the local, state, or national level, under one or more of the following four criteria:

- 1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
 - In its development context, one directly associated event of historic interest is identifiable, the laying of the cornerstone for the new SSF Boys' Club in July of 1961 by former U.S. President Herbert Hoover, which event was documented in news stories and which cornerstone remains on the building (figs.15-16 though it is not in the location depicted in 1961, yet that publicity photograph may have been ceremonial or the cornerstone has since been relocated). Based on this singular historic event, the BGC meets *CR criterion 1*.
- 2. It is associated with the lives of persons important to local, California, or national history;
 - Likewise, a person of historic importance, U.S. President Herbert Hoover, is associated with the BGC's origins. Again, based on this singular association, the BGC meets *CR criterion 2*.
- 3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values;
 - Under *CR criterion 3*, while the frontward building has a modicum of Modern architectural design, the BGC building's Modern design and construction lack distinction, its front building modestly rather than distinctively architectural, its original character additionally altered; the original rearward gym building literally a box from which its few modest original elements have been removed; and its later rear addition, while historically age eligible (greater than 50 years old) an even more basic concrete block box. Thus, altogether, the BGC is not potentially distinctive for design or for any potentially important or unique means of construction. The building also has no artistic value (though painted murals were added to the concrete walls flanking the entry, those date to 2011 so cannot be evaluated as potentially historic yet which is not to dismiss their present relevance or interest).

As the BGC building is typical rather than distinctive of its mid-century design and construction period while its architects – Paul D. Markling and Associates, for whom a small number of basic

projects are identifiable¹ – were at most modestly rather than exceptionally successful, and as there is no evidence of historic artistic value (again noting the murals yet which haven't historical potential), this individual building is of no potential historic architectural importance so does not meet *CR Criterion 3*.

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation;

The BGC property and structure have not yielded and, beyond the content of this historical evaluation, do not appear to have the potential to yield additional prehistoric or historic information. Therefore, the subject property does not meet *CR Criterion 4*.

In sum, relative to this modest resource, an historic event *(CR criterion 1)* and historically important individual *(CR criterion 2)* coincided with former President Herbert Hoover having presided over the BGC's dedication ceremony in the summer of 1961. That event and person are today in evidence in the cornerstone mounted in the block wall to the left of the north side entrance, which cornerstone was pictured at the groundbreaking ceremony with President Hoover, who was a champion of the Boys' Clubs of America (https://hoover.blogs.archives.gov/2021/08/18/herbert-hoover-and-boys-clubs-of-america).

Under the CR, to achieve historic significance, the subject resource must meet criteria and also retain its historical "integrity" by which to convey its identified basis of historic importance in the present. Again, those bases are an associated historic event and an associated historic person, both dating to the BGC's dedication on July 16, 1961. For this purpose, the California (and National) Register identifies "integrity" under seven "aspects;" *location, setting, association, feeling, design, workmanship* and *materials*. For a resource to retain integrity, the majority of these seven aspects must be substantially intact (from *National Register Bulletin #15: How to Apply the National Register Criteria for Significance*, National Park Service, 1990, pp.44-48).

Relative to its cornerstone, which records the identified historic associations, historic *location* is intact as is historic *association*. Conversely, historical *setting* and *feeling* are not intact relative to the identified, focused associations as the development of the facility followed as did subsequent and substantial changes to the site, its building and surroundings. While the design and construction criterion has not been met, the BGC's *design*, *workmanship* and *materials* are partly intact yet substantially changed. Altogether, again given the focused associations identified as potentially historic, only *location* and *association* are intact whereas the other 5 aspects of integrity are not.

While an historic event and person are identifiably associated with the BGC, the originally modest and since substantially altered site and building do not convey those bases of significance. Rather, a singular element – a cornerstone – does so and does so literally (though, again, the cornerstone may have been relocated from its original location). Therefore, in conclusion, the BGC does not have identifiable historic importance based on the CR evaluation criteria.

-

¹ Under Paul D. Markling, AIA (1926-2010), in the 1962 AIA Directory, several of his firm's projects were listed: Acme Steel Products, SSF, 1960; Beau Monde Beauty Salon, 1960; office buildings, Daley City and Santa Maria, 1960; apartments, Berkeley, 1961; and the SSF Boys' Club, 1961.

Signed:

Mark Hulbert Preservation Architect & Historic Resources Consultant

attached: figs.1-16 (pp.5-12)



Fig.1 – 201 W. Orange Ave. (circled) – Location aerial (2024, Google Earth, north is up)

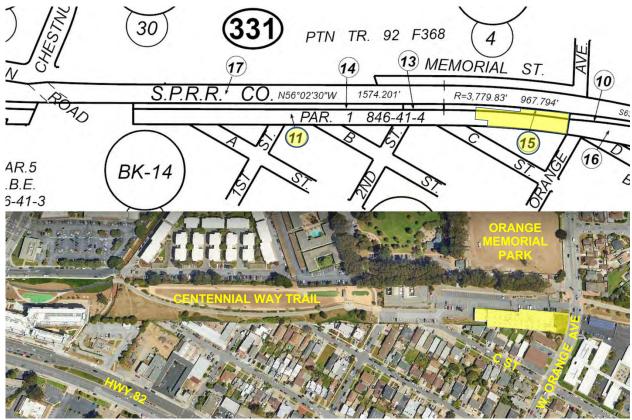


Fig.2 – 201 W. Orange Ave. (highlighted) – from AP map & aerial (north at upper left)



Fig.3-201 W. Orange Ave. - Site aerial

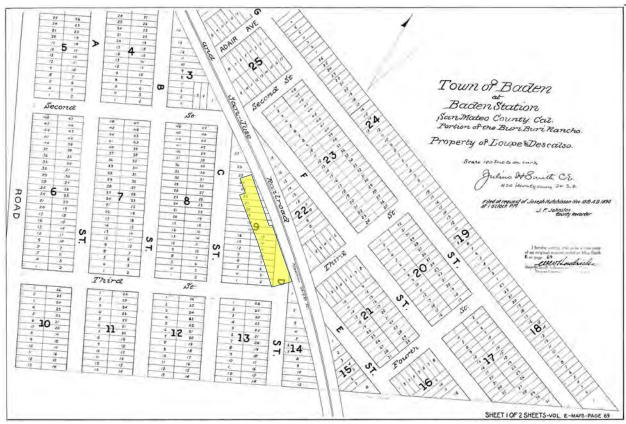


Fig.4 – 201 W. Orange Ave. (future, highlighted, approx.) – from 1890 map



Fig.5 – 201 W. Orange Ave. (future, highlighted, approx.) – from 1894 South San Francisco Land & Improvement Co. map, with Baden subdivision outlined

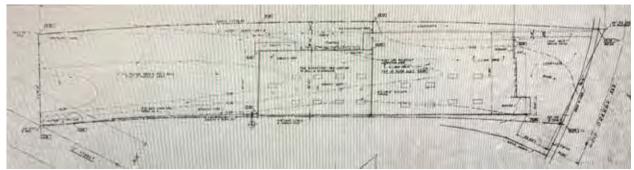


Fig.6 – 201 W. Orange Ave. – from 1961 site plan



Fig.7 – 201 W. Orange Ave. – Front (east) and part south side (figs.7-15, MH 2025)



Fig.8 – 201 W. Orange Ave. – Front (east)

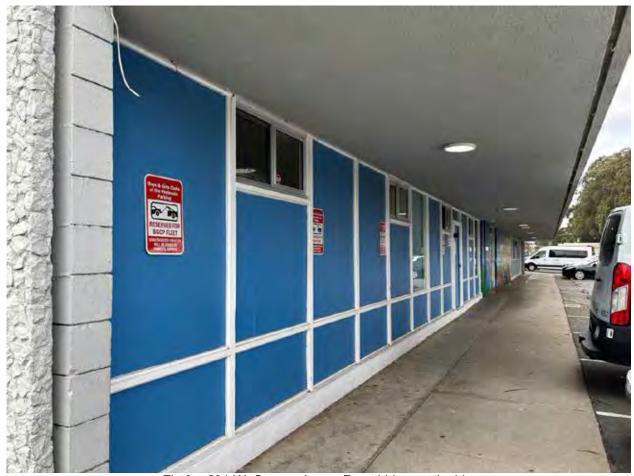


Fig.9 – 201 W. Orange Ave. – Front bldg., north side



Fig.10 – 201 W. Orange Ave. – North side



Fig.11 – 201 W. Orange Ave. – North side and rear (west)



Fig.12 – 201 W. Orange Ave. – Rear (west)



Fig.13 – 201 W. Orange Ave. – North side, entry area



Fig.14 – 201 W. Orange Ave. – North side, entry wall with cornerstone



Fig.15 – 201 W. Orange Ave. – Cornerstone



Fig.16 – 201 W. Orange Ave. (future) – from the Salinas Californian, 27 July 1961, p15