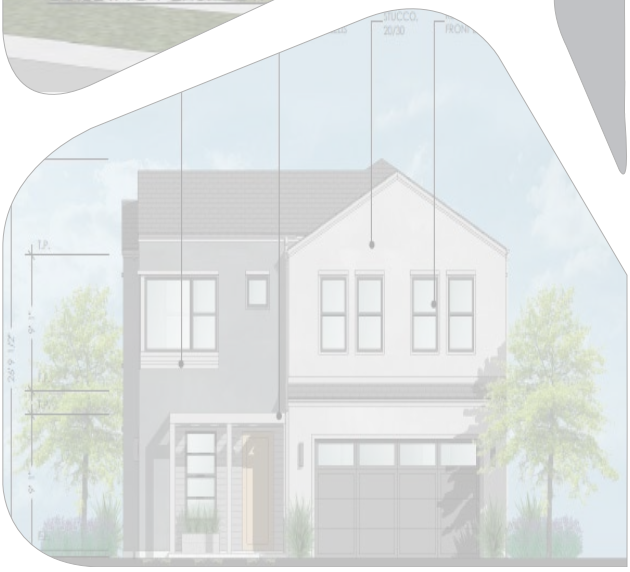
Appendix E

Phase 1 Environmental Site Assessment and Report of Findings



Phase I Environmental Site Assessment

1701, 1715-1723, 1751, 1801-1895, and 1901 North Euclid Street and 1020, 1026-1030 and 1144-1146 Rosecrans Avenue

Fullerton, California, 92835

February 11, 2021

Prepared for:

Shopoff Advisors, LP

Prepared by:

Roux Associates, Inc.
5150 East Pacific Coast Highway, Suite 450
Long Beach, California 908

3224.0008L110/R

Table of Contents

Tables

Figures

Appendices

Executive Summary

Shopoff Advisors, LP (Shopoff, the User) retained Roux Associates, Inc. (Roux) to perform a Phase I Environmental Site Assessment (ESA) of the property located at 1701, 1715-1723, 1751, 1801-1895, and 1901 North Euclid Street and 1020, 1026-1030 and 1144-1146 Rosecrans Avenue, Fullerton, California 92835, Assessor's Parcel Numbers (APNs) 287-241-01, 287-241-03, 287-241-04, and 287-241-06 (the Site). Based on interviews with the User, the Site is currently owned by Sunny Village LLC and NBS Holdings, LLC. Roux performed this Phase I ESA in general accordance with the American Society for Testing Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13) in an effort to identify, to the extent feasible, the presence of recognized environmental conditions (RECs) with respect to the Site as defined in ASTM E1527-13. Exceptions to, or deletions from, this practice are described in Section 9.1 of this report.

Based on Roux's review of historical sources, the Site was undeveloped in 1928. By 1938, the southwest portion of the Site was used for agricultural purposes. From at least 1947 through 1963, a majority of the Site, with the exception of the northeast corner, was used for agricultural purposes. By 1972, the Site was cleared and graded. The Site was developed with buildings and parking areas that are similar to the current Site configuration for commercial use by 1977, and the current structures were constructed between 1977 and 2005. According to building permits and fire records obtained from the City of Fullerton, Building D (1801-1895 North Euclid Street) was constructed by 1976, Building A (1701 North Euclid Street) and Building B (1715-1723 North Euclid Street) were constructed by 1977, Building E (1901 North Euclid Street) was constructed by 1978, Building G (1026-1030 Rosecrans Avenue) was constructed by 1987, Building C (1751 North Euclid Street) was constructed by 1989, Building F (1020 Rosecrans Avenue) was constructed by 1995, and Building H (1144 Rosecrans Avenue) was constructed by 1996. The address of 1146 Rosecrans Avenue is occupied by tennis courts. No significant changes to the Site improvements have occurred since 2005 (Figure 2).

The Site has been occupied by multiple tenants, consisting of restaurants and commercial businesses. In particular, a dry cleaner (Sunrise Cleaners) formerly operated on-Site (address of 1801 North Euclid Street) between approximately 1980 and 2014 with documented South Coast Air Quality Management District (SCAQMD) equipment permits using tetrachloroethene (PCE), also known as perchloroethylene (PERC), between February 1980 and January 2008. The Site entered the voluntary assistance program for regulatory oversight of the Orange County Health Care Agency (OCHCA) to address potential impacts associated with historical dry-cleaning operations. Between approximately 2008 and 2012, OCHCA oversaw Site assessments and remediation in the vicinity of the former dry-cleaning suite. PCE impacts were identified in the soil and soil vapor at the Site. Remediation, in the form of soil vapor extraction (SVE), was implemented at the Site from July 2010 through October 2011. Following remediation, OCHCA performed a desktop vapor risk assessment based on both commercial and residential land use, and issued a letter of No Further Action (NFA) Certification for unrestricted land use on June 19, 2012.

On November 12, 2020, Roux visually assessed the Site during the site reconnaissance for potential RECs, including, but not limited to, potential underground storage tanks (USTs), aboveground storage tanks (ASTs), polychlorinated biphenyl (PCB)-containing equipment, hazardous materials storage or handling areas, containerized or bulk wastes, and visual indications of impacted soil.

Roux also performed a records review in an effort to identify RECs in connection with the Site. This records review addressed the Site and surrounding properties. Roux reviewed commercially available records associated with the Site and nearby properties to assess potential concerns associated with the migration of hazardous substances. The records review also included reasonably ascertainable historical data, which can be helpful in identifying the past uses of the Site and surrounding areas, as it may relate to the environmental condition of the Site.

Roux performed interviews and/or file reviews with various government agencies and other parties with possible knowledge of the Site and surrounding properties in an effort to identify current and past uses of the Site and surrounding areas, as they may relate to the environmental condition of the Site.

ASTM E 1527-13 defines a Recognized Environmental Condition (REC) as:

> "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

A Controlled Recognized Environmental Condition (cREC) as:

> "A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

And a Historical Recognized Environmental Condition (hREC) as:

> "A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a *recognized* environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."

The term recognized environmental condition is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Executive Summary provides a brief overview of the findings of this Phase I ESA. Although the Executive Summary is an integral part of a report, it does not substitute for reading the entire report or the

appended or referenced documents in order to fully understand the findings and potential environmental concerns associated with the Site.

Based on the information obtained through the performance of this ESA, Roux identified the following RECs in connection with the current and historical operations at the Site or adjacent properties. To the extent possible, the locations of the RECs are shown in Figure 2. To avoid confusion, all RECs, cRECs, hRECs, and OEFs are numbered sequentially.

REC 1 – Former On-Site Dry-Cleaning Operations. A dry cleaner (Sunrise Cleaners) formerly operated on-Site (address of 1801 North Euclid Street; Building D) between approximately 1980 and 2014 with documented use of PCE between February 1980 through January 2008. Due to a release of chlorinated volatile organic compounds (VOCs) into the subsurface related to the dry-cleaning operations, the Site was formerly under the regulatory oversight of the OCHCA. Between approximately 2008 and 2012, OCHCA oversaw subsurface investigations and remediation in the vicinity of the former dry-cleaning suite. Remediation, in the form of SVE, occurred from July 2010 through October 2011. Following Site remediation, OCHCA performed a desktop vapor risk assessment based on both commercial and residential land use and found that the risk for exposure were below the target risk thresholds. OCHCA issued a letter of NFA Certification for unrestricted land use on June 19, 2012. Although a letter of NFA Certification was issued, the on-Site dry-cleaning operations are classified as a REC because of the following data gaps and changes to regulatory standards: 1) The residual concentrations of VOC impacts to soil vapor present a vapor intrusion risk in excess of current residential standards; 2) The historical soil vapor data was collected in the immediate vicinity of the former dry-cleaners and does not delineate the soil vapor plume laterally or vertically; and, 3) The laboratory detection limits for the historical groundwater samples exceed current regulatory limits, so it is unknown whether there are groundwater impacts in excess of regulatory limits at the Site. Therefore, the former on-Site dry-cleaning operations represent a REC.

Roux did not identify known or suspected cRECs in connection with the current and historical operations at the Site.

Roux did not identify known or suspected hRECs in connection with the current and historical operations at the Site.

The term recognized environmental condition is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Other environmental features (OEFs) are environmental conditions that do not meet the definition of a REC, but which may warrant mention in a comprehensive Phase I ESA. Based on the subject Phase I ESA, Roux identified the following OEFs. To the extent possible, the locations of the OEFs are shown in Figure 2.

OEF 2 – On-Site Drainage Feature. During the Site reconnaissance, Roux observed a drainage feature in the rear of the Pola Hair Salon at 1829 North Euclid Street (Building D). The sump appeared to be filled with concrete and had one cleanout cap. The sump may have been associated with the sewer line. According to the City Directory obtained from Environmental Data Resources, Inc. (EDR), previous tenants included Regency Clock Shop from at least 1980 through 1986 and James Hair from at least 1991 through 1995. During the review of available records, there was no evidence indicative of a significant environmental concern to the Site; therefore, the on-Site drainage feature represents an OEF.

OEF 3 – Historical Use of Adjoining Properties. At least two nearby properties are known to have used hazardous or petroleum-containing chemicals during their operation. A former Chevron gasoline service station operated at 2001 North Euclid Street from at least 1970 through 1995, which was located across Rosecrans Avenue, approximately 100 feet north of the Site. A former dry-cleaning facility (New Oxford Cleaners and Good Cleaners) at 1031 Rosecrans Avenue was also located across Rosecrans Avenue, approximately 250 feet north of the Site, with documented PCE use in 1993; the EDR City Directory lists cleaners at this address in 1986, 1991, and 1995. Although, undocumented releases of petroleum-related products in the case of the service station, and chlorinated solvents in the case of the drycleaner, are not uncommon, none of these operations are currently active and none appear to have been the subject of a known release or subsurface investigation based on available regulatory agency records. Furthermore, no evidence of impacts from these nearby facilities to the Site has been identified during on-Site subsurface investigations spanning from 2007 to 2012. On this basis, the historical uses of these adjoining properties do not constitute a REC and are therefore considered an OEF.

OEF 4 - Historical Agricultural Use On-Site. A majority of the Site, with the exception of the northeast corner, and the surrounding parcels were historically used for agricultural operations, containing orchards or other row crops, from at least 1947 through 1963. Although undocumented, the use of agricultural chemicals, such as pesticides, herbicides, and fertilizers, was commonplace for similar operations at that time. There is no documentation of known impacts from agricultural use. Based on the EDR Aerial Photographs, agricultural operations south of the Site ceased and residential structures were developed by 1963. By 1972, large amounts of grading activities occurred at the Site for the current commercial development and surrounding parcels to the east, south, and west were redeveloped for residential land use. The Site is currently asphalt paved with concrete slabs, limiting exposure to subsurface soils. Absent additional documentation indicative of known impacts and given the significant amount of time that has passed, the historical agricultural use on-Site represents an OEF.

1. Introduction

Roux Associates, Inc. (Roux) completed this Phase I Environmental Site Assessment (ESA) of the commercial property located at 1701, 1715-1723, 1751, 1801-1895, and 1901 North Euclid Street and 1020, 1026-1030 and 1144-1146 Rosecrans Avenue, Fullerton, California 92835 (the Site). The Site location is shown in Figure 1 and the Site and vicinity is shown in Figure 2. Roux performed this Phase I ESA in compliance with the scope and limitations of American Society for Testing Materials (ASTM) E1527-13 and the terms and conditions of Roux's proposal dated October 26, 2020. Roux conducted this Phase I ESA for the benefit of Shopoff Advisors, LP (Shopoff, the User). Based on interviews with the User, the Site is currently owned by Sunny Village LLC and NBS Holdings, LLC.

The following sections of this report present our Phase I ESA findings and conclusions. A glossary containing terms and definitions presented in ASTM E1527-13 is included in Appendix A – Glossary of Terms. Other appendices presented at the end of the report include historical topographic maps, historical aerial photographs, regulatory records review documentation, applicable historical records, and personnel qualifications.

1.1 Purpose

The purpose of this Phase I ESA is to identify and report, to the extent feasible, recognized environmental conditions (RECs) with respect to the Site. Performing a Phase I ESA in general compliance with ASTM E 1527-13 may enable a User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability. That is, the practice that constitutes one of the requirements for "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC Section 9601(35) (B).

1.2 Scope of Services

The scope of services for this Phase I ESA included, but was not limited to, the activities listed below.

- A review of reasonably ascertainable and practicably reviewable topographic maps, historical aerial photographs, and city directories, if available, to investigate past Site conditions;
- A review of specific government lists pursuant to ASTM Standard E 1527-13 regarding environmental activities for the Site and local area properties;
- A review of recorded land title records, building, assessors, and fire department records, for permits, citations, and reports connected to the Site that were reasonably ascertainable, practicably reviewable, and publicly available within reasonable time and cost;
- An inspection by an environmental professional to investigate the current use of the Site and to identify environmental concerns including but not limited to, the presence of hazardous substances or petroleum products, wastes, underground storage tanks (USTs), aboveground storage tanks (ASTs), or other environmental concerns;
- Interviews with available representatives of the owner of the Site, occupants, and local government officials by an environmental professional; and
- Preparation of this Phase I ESA report.

Roux initiated this Phase I ESA pursuant to receipt of written authorization to proceed on November 3, 2020.

1.3 Standard of Care

Roux conducted this Phase I ESA using a defined scope of services considered appropriate and agreed upon by all parties on the date the service was authorized, unless the scope of services or the methods used were later modified, in writing, and accepted by all parties prior to performance. Roux conducted this Phase I ESA in accordance with generally accepted practices in a manner consistent with that level of care exercised by other members of our profession in the same locality and under similar conditions of time and accessibility of improvements and information. No other representations, expressed or implied, and no warranty or guarantee is included or intended to be part of this Phase I ESA.

Please note that the scope of services performed in execution of this assessment may not be appropriate to satisfy the needs of other parties. We, therefore, are not responsible for independent conclusions, opinions, or recommendations of others based on our assessment. Furthermore, this Phase I ESA relates to the environmental conditions of the Site and does not address issues raised in transactions such as business risk, purchase of business entities, or interests therein, or of their assets, that may well involve environmental liabilities pertaining to properties previously owned or operated or other offsite liabilities.

Additionally, the findings of this Phase I ESA are based on Roux' observations, inquiries, and historical research using reasonably ascertainable and practically reviewable information obtained within reasonable time and cost constraints. Roux does not represent that this Phase I ESA is an exhaustive investigation that reflects the findings of all of the information available for the Site, nor is it representative of future Site conditions. If additional information is generated from the Site, it should be provided to Roux so that we may evaluate its impact on our conclusions. As such, activities or episodes that transpire subsequent to this Phase I ESA are not considered in this assessment. It is not intended that a Phase I ESA in accordance with ASTM E1527-13 be an exhaustive assessment of a property nor can it wholly eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a property.

1.4 Assumptions

This Phase I ESA Report, including the exhibits attached hereto, describes the results of Roux' investigation to identify the presence of *recognized environmental conditions* connected with the Site in accordance with ASTM E1527-13, as allowed by and consistent with the regulatory requirements of the All Appropriate Inquiry Rule, 40 CFR Part 312, Amendment to Standards and Practices for All Appropriate Inquires Under CERCLA, Final Rule, published December 30, 2013 (AAI Rule). Specifically, the preamble to the amended AAI Rule states:

> *The Environmental Protection Agency (EPA) today is taking final action to amend the standards and practices for conducting all appropriate inquiries under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to reference a standard practice recently made available by ASTM International, a widely recognized standards development organization. Specifically, this final rule amends the "All Appropriate Inquiries Rule" at 40 CFR Part 312 to reference ASTM International's E1527–13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site*

Assessment Process" and make clear that persons conducting all appropriate inquiries may use the procedures included in this standard to comply with the All Appropriate Inquiries Rule[1].

One of the requirements that a person acquiring real property must meet in order to qualify for either the innocent landowner, contiguous owner, or bona fide prospective purchaser (collectively hereinafter "Prospective Purchaser") defense to liability under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the Small Business Liability Relief and Brownfields' Revitalization Act of 2002, 42 U.S.C. 9601-9675 (collectively referred to hereafter as "CERCLA") is that person must conduct all appropriate inquiries into the previous ownership and uses of the property in conformance with the AAI Rule (or the ASTM E1527-13) prior to acquisition of the property. The User has acknowledged that, under the AAI Rule, Roux' performance of this Phase I ESA in accordance with ASTM E1527-13 will not alone result in the User satisfying all requirements of the AAI Rule and will not in itself provide a defense to CERCLA liability. The User has acknowledged that the AAI Rule also requires that the Prospective Purchaser undertake certain additional inquiries and post-acquisition activities to satisfy the CERCLA AAI requirements. Accordingly, Roux makes no guarantees or warranties, expressed or implied, regarding this Phase I ESA, including without limitation, that this Phase I ESA will qualify the User for a defense to CERCLA liability.

Roux has performed this Phase I ESA in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Professional judgments expressed herein are based on the facts currently available to Roux.

The AAI Rule requires, and the conclusions and recommendations stated herein represent, the application of a variety of engineering and technical disciplines to material facts and conditions associated with the Site. As such, these conclusions and recommendations are based on subjective interpretations and the exercise of discretion based on the facts available to Roux and conditions at the time of the performance of this Phase I ESA. Many of these facts and conditions are subject to change over time. Accordingly, the conclusions and recommendations must be considered within this context.

The User has agreed that Roux shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this Phase I ESA was performed. To the extent practicable, Roux has identified data gaps, and has evaluated the potential significance of such data gaps. Recommendations to address those data gaps are presented herein and are based on the data available at the time of the performance of this Phase I ESA. Implementation of the recommendations may not fully address the data gaps, and the information obtained from execution of those recommendations may alter and/or modify the interpretation of the Site conditions and conclusions, herein. This Phase I ESA does not include consideration of matters specifically excluded by ASTM E1527-13, including but not limited to, asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, and mold unless specifically identified herein.

Roux has not collected any soil and/or groundwater samples on the Site for Phase I purposes, and is relying on information presented by others, often in preliminary, draft, or verbal form. By referencing this information, Roux does not accept responsibility for the accuracy of the underlying data, sampling methods, laboratory analysis, or documentation.

[1] Federal Register: December 30, 2013 (Volume 78, Number 250) Page 79319

This Phase I ESA Report should not be considered a legal interpretation of existing environmental laws and regulations. This Phase I ESA was conducted with a reasonable degree of inquiry to identify *recognized environmental conditions*, but uncertainty is not eliminated. No Phase I ESA can wholly eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a property. The Phase I ESA process is intended to reduce, but not eliminate, the uncertainty involved with identifying *recognized environmental conditions*.

This Phase I ESA Report is not an appraisal or value judgment of the Site. The User has agreed that Roux shall not be liable for any use of this Phase I ESA Report as an appraisal or value judgment of the Site.

This Phase I ESA Report has been prepared for the exclusive use of the User for specific application to the Site covered by this Phase I ESA Report. The User has agreed that any third-party use of this Phase I ESA Report, upon disclosure by the User, is the sole responsibility and at the sole liability of the User.

1.5 User Reliance

This report is confidential and has been prepared at direction of Counsel for the exclusive use of the User. No additional parties may use the information contained in this report without obtaining the written permission of Roux or the User. Roux' duties and obligations extend to the User and to no other party. Roux' duties and obligations to the User are not transferable to persons, corporations, or organizations without the express written consent of the User and Roux. The User may rely upon the information provided in this Phase I ESA report for a period of 180 days from the date of issue. After 180 days, this Phase I ESA should be updated in accordance with ASTM guidance. Roux will not be liable for any consequential damages arising from the use of this report for other than its intended purpose, for use of this report beyond 180 days of its issue date, or from unauthorized use by third parties.

This Phase I ESA report must be read and interpreted as a whole and can only be considered representative of the conditions of the Site as of the date of our site reconnaissance described herein. Roux makes no representation whatsoever concerning the condition of the Site beyond the date of our site reconnaissance described herein. Individual sections and appendices of this report are dependent on the balance of this report, and on the terms, conditions, and stipulations contained in the proposal and written amendments accepted by Roux.

2. Site Description

2.1 Site Location and Description

Site Information	
Site Name	Sunrise Village
Street Address(es)	1701 North Euclid Street (Building A) 1715 – 1723 North Euclid Street (Building B) 1751 North Euclid Street (Building C) 1801 – 1895 North Euclid Street (Building D) 1901 North Euclid Street (Building E) 1020 Rosecrans Avenue (Building F) 1026 – 1030 Rosecrans Avenue (Building G) 1144 Rosecrans Avenue (Building H) 1146 Rosecrans Avenue (no building)
City	City of Fullerton
County	Orange County
State	California
Location	Southeast of the intersection between Rosecrans Avenue and Euclid Street (refer to Figures 1 and 2)
Assessor's Parcel Number (APN)	287-241-01 287-241-03 287-241-04 287-241-06
Site Acreage (per Orange County Assessor Website and Environmental Data Resources Inc. Website)	15.02 acres
Site Occupant(s)	Multi-tenant; refer to Section 5.1 for full list of occupants and on-Site operations.
On-Site Operations	Commercial including restaurants, retail, and medical offices, refer to Section 5.1 for full list of on-Site operations.
Description of On-Site Structures	Eight single-story commercial buildings (Buildings A through H) and designated asphalt- and concrete-paved customer parking areas
Site Paving	Commercial buildings sit on concrete slab. Designated customer parking areas are asphalt paved.
Site Grading	Graded to drain at a gentle slope roughly oriented east-southeast
Site Vicinity	Commercial and residential

Refer to Section 5.0 for a detailed description of the current condition of the Site and operations.

2.2 Vicinity General Characteristics

The facilities and improvements which are located immediately adjacent to the Site are provided in the following table.

Direction from Site	Improvements / Use (Addresses)
North	Rosecrans Avenue, followed by commercial space (Jack in the Box, 2001 North Euclid; and Eagle Tae Kwon Do, 1031 Rosecrans Avenue) and residential structures (1157 Rosecrans Avenue)
East	Euclid Street, followed by residential structures.
South	Paseo Dorado, followed by residential structures.
West	Residential structures.

2.3 Past Use of the Site

Based on Roux's review of historical sources, the Site was undeveloped in 1928. By 1938, the southwest portion of the Site was used for agricultural purposes. From at least 1947 through 1963, a majority of the Site, with the exception of the northeast corner, was used for agricultural purposes. By 1972, the Site was cleared and graded. The Site was developed with buildings and parking areas that are similar to the current Site configuration for commercial use by 1977, and the current structures were constructed between 1977 and 2005. According to building permits and fire records obtained from the City of Fullerton, Building D (1801-1895 North Euclid Street) was constructed by 1976, Building A (1701 North Euclid Street) and Building B (1715-1723 North Euclid Street) were constructed by 1977, Building E (1901 North Euclid Street) was constructed by 1978, Building G (1026-1030 Rosecrans Avenue) was constructed by 1987, Building C (1751 North Euclid Street) was constructed by 1989, Building F (1020 Rosecrans Avenue) was constructed by 1995, and Building H (1144 Rosecrans Avenue) was constructed by 1996. There address of 1146 Rosecrans Avenue is occupied by tennis courts. No significant changes to the Site improvements have occurred since 2005.

The Site has been occupied by multiple tenants, consisting of restaurants and commercial businesses. In particular, a dry cleaner (Sunrise Cleaners) formerly operated on-Site (address of 1801 North Euclid Street) between approximately 1980 and 2014 with documented South Coast Air Quality Management District (SCAQMD) equipment permits using tetrachloroethene (PCE), also known as perchloroethylene (PERC), between February 1980 and January 2008. The Site entered the voluntary assistance program for regulatory oversight of the Orange County Health Care Agency (OCHCA) to address potential impacts associated with historic dry-cleaning operations. Between approximately 2008 and 2012, OCHCA oversaw Site assessments and remediation in the vicinity of the former dry-cleaning suite. PCE impacts were identified in the soil and soil vapor at the Site. Remediation, in the form of soil vapor extraction (SVE), was implemented at the Site from July 2010 through October 2011. Following remediation, OCHCA performed a desktop vapor risk assessment based on both commercial and residential land use, and issued a letter of No Further Action (NFA) Certification for unrestricted land use on June 19, 2012.

2.4 Physical Setting

Roux obtained and reviewed published, reasonably ascertainable information concerning the physical setting of the Site. The following is a summary of the information reviewed from those physical setting sources.

Physical Setting Summary	
United States Geological Survey (USGS) Topographic Map	La Habra and Anaheim, California Quadrangle
Approximate Site Elevation / Source	Approximately 278 feet above mean sea level (msl) / La Habra and Anaheim, California (2012) 7.5-minute quadrangle topographic map published by the USGS
Nearest Surface Water Features / Approximate Distance	A concrete-lined stormwater drainage channel / immediately east of the Site
Regional Geology / Source	Older alluvium, lake, playa, and terrace deposits / California Department of Conservation, Geologic Map of California
Site Topography / Source	Generally flat with a gradual slope to the east-southeast / Site observation and USGS topographic map
Hydrogeological Region / Source	Located along the eastern edge of the Coastal Plain of Santa Ana Groundwater Basin / *California Department of Water Resources Bulletin 118, Update 2003 and Interim Update 2016*
Depth to Groundwater / Source	Approximately 22 to 38 feet below ground surface (bgs) / Groundwater monitoring data from previous subsurface investigation on Site (*No Further Action Certification*, OCHCA, 2012)
Groundwater Gradient Direction / Source	South-southeast / Groundwater monitoring data from previous subsurface investigation on Site (*No Further Action Certification*, OCHCA, 2012)
On-Site Soil	Based on previous investigations at the Site, soil at ground surface to approximately three feet bgs was classified as low plasticity silty clay with trace amounts of fine-grained sand and silt. Soil between three to 14 feet bgs consisted of fine to medium-grained sand. Soil between 21 and 44 feet bgs consisted of clay and silt (ASTECH, 2008).

3. Sources of Information

Sources of information utilized in preparing this Phase I ESA report included historical topographic maps; historical aerial photographs; a walkover survey of the Site and adjoining properties; in-person discussions with User and tenant personnel; a review of records available at selected local and state regulatory agencies; a review of databases maintained by local, state, and federal government agencies; and other records available from commercial and online sources.

3.1 Historical Sources

To help understand the history of the Site and past land uses, historical sources were obtained from Environmental Data Resources, Inc. (EDR), of Shelton, Connecticut. The sources and locations within the Appendices are provided in the table below.

EDR Historical Sources		
Historical Range	**Source**	**Appendix**
1896 - 2012	U.S. Geological Survey Topographic Maps	B
1928 - 2016	EDR Aerial Photographs "Decade Package"	C
No Available Coverage	EDR "Certified Sanborn® Map Report"	D
1920 - 2014	EDR "City Directory Image Report"	E

3.2 Government Databases

To document potential sources of contamination at or near the Site, a government records search was conducted by EDR. The search included local, state, and federal records for the Site and for other properties within ASTM-standard distances of the Site. The records search is summarized in Section 8.0 and a copy of "The EDR Radius Map™ Report with GeoCheck®," dated November 4, 2020, is included in its entirety as Appendix F. As recommended by ASTM, all but a few of the databases searched were "current," i.e., had been updated within 90 days prior to the search date.

3.3 Site Reconnaissance

On November 12, 2020, Roux personnel conducted a Site Reconnaissance of the Site, including the interiors of all suites open to access. Roux was unable to access the following suites:

- 1715 North Euclid Street: Vacant (Former Spot Color Unit Institute);
- 1723 North Euclid Street: Dentistry;
- 1807 North Euclid Street: IVY Fencing Club;
- 1837 North Euclid Street: Nang Man Café;
- 1839 North Euclid Street: Allegro;
- 1847 North Euclid Street: Reboot Gaming Center;
- 1855 – 1859 North Euclid Street: Dr. Charles Kim Dentistry;

- 1865 North Euclid Street: Kumon Learning Center;
- 1871 North Euclid Street: Vacant (Former shoe store);
- 1876 North Euclid Street: Dream Smart Education;
- 1895 North Euclid Street: Elite Kids Learning Center;
- 1020 Rosecrans Avenue: Del Taco; and
- 1026 Rosecrans Avenue: Papa John's.

During the Site Reconnaissance, Roux interacted with the current property manager, Mr. Jung (James) Lee, of Packo Investments, Inc. Mr. Lee provided limited information regarding recent operations of the Site, which is referenced, as appropriate, throughout the remainder of this Phase I ESA report. Select photographs from the Site reconnaissance are included as Appendix G.

3.4 Regulatory Agencies

Roux contacted governmental agencies for reasonably ascertainable information concerning environmental conditions at the Site. Roux contacted or reviewed information from the agencies provided in the following table. Refer to Appendix H – Regulatory Records Documentation for copies of the records reviewed. A summary of the information gathered from the regulatory agencies is provided in the table and details regarding the records were incorporated into applicable sections as noted.

Agency	Date Requested / Accessed	Response Date	Description of Records	Section Discussed
Federal				
U.S. Environmental Protection Agency (EPA) – FOIAonline	10/30/2020	11/05/2020	A response stated that public records can be accessed via the MyProperty portal. See the section below.	N/A
U.S EPA MyProperty Database	11/02/2020	N/A	One facility, CVS Pharmacy No 9756, was associated with the address 1751 North Euclid Street. Another facility, Del Taco #800, was associated with the address 1020 Rosecrans Avenue. No violations were identified.	N/A
National Pipeline Mapping System (NPMS) Online Database	10/30/2020	N/A	The nearest Hazardous Liquid pipeline (ID 99999) is permanently abandoned and approximately one mile south of the Site.	N/A
State				
State Water Resources Control Board (SWRCB): GeoTracker Online Database	10/30/2020	N/A	No records were associated with the Site. No listings were identified within 1,000 feet of the Site.	N/A
SWRCB: Storm Water Multiple Application and Report Tracking System (SMARTS) Online Database	10/30/2020	N/A	No records were associated with the Site.	N/A
Department of Toxic Substances Control (DTSC)	11/02/2020	11/05/2020	No records were associated with the Site.	N/A
DTSC: EnviroStor Online Database	10/30/2020	N/A	No records were associated with the Site. No listings were identified within 1,000 feet of the Site.	N/A

Agency	Date Requested / Accessed	Response Date	Description of Records	Section Discussed
DTSC: Hazardous Waste Tracking System (HWTS) Online Database	11/02/2020	N/A	Several documents tracked the types and quantities of hazardous waste generated on Site for disposal between 1995 and 2016.	N/A
California Air Resources Board (CARB)	11/02/2020	11/03/2020	No records were associated with the Site.	N/A
California Office of Environmental Health Hazard Assessment (OEHHA)	11/02/2020	11/06/2020	No records were associated with the Site.	N/A
CalEPA CalRecycle	11/02/2020	11/10/2020	No records were associated with the Site.	N/A
CalEPA CalRecycle Solid Waste Information System (SWIS) Online Database	10/30/2020	N/A	No records were associated with the Site. The nearest SWIS site is La Habra Disposal Station #11, which is a closed solid waste disposal site.	N/A
State of California Department of Conservation: California Geologic Energy Management (CalGEM)	10/30/2020	N/A	Nearby oil wells are plugged and abandoned. No current or former oil wells are located on-Site.	N/A
County / Regional				
Santa Ana Regional Water Quality Control Board (SA-RWQCB)	11/02/2020	11/12/2020	No records were associated with the Site.	N/A
South Coast Air Quality Management District (SCAQMD)	10/30/2020	11/05/2020	Records identified for the Site included facility equipment list reports, permits to operate, and notices of violation (NOVs).	3.4.1
SCAQMD Facility Information Detail (FIND) Online Database	10/30/2020	N/A	Records identified for the Site included facility equipment list reports, permits to operate, and notices of violation (NOVs).	3.4.1
Orange County Sanitation Department (OCSD)	11/02/2020	11/12/2020	Records identified for the addresses, 1801, 1855, and 1885 North Euclid Street, including waste hauler manifest forms, compliance reports, and inspection records ranging from 1995 to 2020.	3.4.2
Orange County Public Works (OCPW)	11/02/2020	11/09/2020	Records identified for the Site included a service request for a 150-gallon sewage spill at 1885 North Euclid Street in December 2015.	N/A

Agency	Date Requested / Accessed	Response Date	Description of Records	Section Discussed
Orange County Environmental Health (OCEH)	11/02/2020	11/10/2020	Several records identified for the address, 1801 North Euclid Street, including site assessment and remediation workplans, soil vapor investigation reports, and a vapor extraction system operation report related to PCE concentrations in the soil.	7.0
Orange County Health Care Agency (OCHCA)	11/02/2020	11/03/2020	OCHCA forwarded the request to OCEH. See section above.	N/A
Orange County Fire Authority (OCFA)	11/02/2020	11/02/2020	City of Fullerton does not contract with the OCFA; refer to the City of Fullerton - Fire Department information below.	N/A
Orange County Waste and Recycling	11/02/2020	11/03/2020	No records were associated with the Site.	N/A
City / Local				
City of Fullerton – City Clerk	11/02/2020	11/05/2020	No records from the Planning Division were associated with the Site. The online file review of the Building and Safety Division yielded digital copies of building permits for the range of addresses, 1751 – 1895 North Euclid Street.	3.4.3
City of Fullerton - Fire Department	11/02/2020	12/19/2020	Records identified for the Site included permits, inspection reports and violations related to fire compliance and standards, hazardous material and waste inventories, and other documentation for various businesses at the Site.	3.4.4

3.4.1 South Coast Air Quality Management District

The facility located at 1801 North Euclid Street operated as a former dry cleaner, Sunrise Cleaners. The SCAQMD Facility Equipment List Report listed several inactive permits for PCE dry-cleaning equipment from February 1980 through January 2008. The SCAQMD reported one Notice of Violation (NOV) in 2003 for failure to complete an Airborne Toxic Control Measure for Emissions (ATCM) required refresher course. According to an inspection report in 2007, clothing was being shipped out to a satellite location, and the dry cleaner operated only as a drop-off and pick-up location. Based on an inspection report in 2011, the PCE dry-cleaning machine was drained of all its contents after last being used in 2008 and the facility operated as an agency for their business, which is confirmed by a note to the Orange County Sanitation Department (OCSD) (refer to Section 3.4.2 for further details).. The dry-cleaning machine remained on-Site until at least 2013. By 2017, the dry-cleaning machine was removed from the facility, and the facility is occupied by Fullerton Hills Pet Clinic.

3.4.2 Orange County Sanitation Department

The OCSD provided certification records of no PCE discharge to the sewer system for 1801 North Euclid Street filled out by Sunrise Cleaners from 1995 through 2013. A letter dated October 5, 2013 from Sunrise Cleaners to OCSD stated that the dry-cleaning facility was changed to an agency on January 2009 and dry-cleaning equipment had not been operated at that time. An inspection note dated October 31, 2014 stated that the dry-cleaning business was gone, and the equipment was removed.

A Dental Discharger Compliance Report dated July 2006 was provided for 1855 North Euclid Street.

Waste hauler Manifest Forms were provided for food service establishments (FSE)-grease waste pickups from 1885 North Euclid Street from 2016 through 2020.

3.4.3 City of Fullerton - City Clerk

The City of Fullerton Building and Safety Division has an online database of records for multiple addresses associated with the Site. The records for seven addresses were reviewed in detail while a cursory review was performed for the remainder of the addresses due to time constraint.

Records for 1751 North Euclid Street ranged from April 1976 to September 2009. The facility had several occupants over the range of records that were available, but primarily operated as a pharmacy. Permits associated with the facility include building, plumbing, electrical, and sign permits; miscellaneous fee receipts; plan checks; and a certificate of occupancy.

Records for 1801 North Euclid Street ranged from February 1976 to August 2010. The facility primarily operated as a dry cleaner and records associated with the facility included building, electrical, plumbing, and sign permits.

Records for 1821 North Euclid Street ranged from April 1976 to June 2008. The facility primarily operated as a restaurant and records associated with the facility included building, electrical, plumbing, mechanical, and sign permits. According to the EDR City Directory, a listing “AUTO & MARINE SPECIALTIES INC” was identified at the Site address. During the review of available records, there was no evidence indicative of automobile operations at the Site were found. Refer to Section 4.1.1 for further details.

Records for 1829 North Euclid Street ranged from April 1976 to March 2010. Records associated with the facility included building, electrical, plumbing, mechanical, and sign permits.

Records for 1839 North Euclid Street ranged from April 1976 to April 2003. Records associated with the facility included building, electrical, plumbing, mechanical, and sign permits and a certificate of occupancy.

Records for 1847 North Euclid Street ranged from April 1976 to April 2019. Records associated with the facility included building, electrical, plumbing, and sign permits.

The City of Fullerton City Clerk provided the most records for 1885 North Euclid Street which ranged from April 1976 to April 2010. Records associated with the facility included building, electrical, plumbing, miscellaneous, and sign permits, inspection records, and plan checks.

3.4.4 City of Fullerton – Fire Department

The City of Fullerton Fire Department provided hazardous material and waste inventories for various businesses at the Site, as summarized in the table below. During the review of available records, there was no evidence indicative of a release at the Site.

Occupant	Address	Hazardous Material
CVS Pharmacy #9756	1751 North Euclid Street	Helium
Sav-on #9756	1751 North Euclid Street	Photo chemicals, helium.
Sunrise Cleaners	1801 North Euclid Street	PCE
Tara's Hallmark	1823 North Euclid Street	Helium
Uncle's Pool and Spa	1833 North Euclid Street	Hydrochloric acid, sodium hypochlorite
Ice Cream Castle	1859 North Euclid Street	Carbon dioxide
Vons Grocery Company	1885 North Euclid Street	Various bleach, insecticides, and automotive products. Various charcoal lighter fluids.
St. Jude Medical Center	1146 Rosecrans Avenue	Ethanol, methanol, isopropanol, xylene, alcohol, histoclear
Del Taco #800	1020 Rosecrans Avenue	Carbon dioxide, helium

3.5 User Provided Information

ASTM E1527-13 provides that the User perform certain tasks. The purpose of this section is to present select User-provided information that can assist in identifying possible *recognized environmental conditions* in connection with the Site. According to ASTM E1527-13, these tasks do not require the technical expertise of an environmental professional and the environmental professional generally does not perform these tasks. Roux administered a questionnaire to the User at the beginning of this Phase I ESA to assist them with these tasks. The following sections outline the parts of the questionnaire that the User completed.

3.5.1 Environmental Liens or Activity and Use Limitations

The User indicated that they have no knowledge regarding environmental liens or activity and use limitations (engineering/institutional controls) with respect to the Site.

3.5.2 Specialized Knowledge

The User did not report any specialized knowledge related to the Site.

3.5.3 Valuation Reduction for Environmental Issues

The User indicated that they have no knowledge regarding valuation reduction for environmental issues.

3.5.4 Commonly Known or Reasonably Ascertainable Information

The User did not have any knowledge regarding commonly known or reasonable ascertainable information about the Site not otherwise addressed.

3.5.5 Obvious Indicators of the Presence or Likely Presence of Contamination of the Site

The User did not have any knowledge regarding obvious indicators of the presence or likely presence of contamination of the Site not otherwise addressed.

4. Site History

This section documents the history of the Site and describes current conditions and existing or former environmental features.

4.1 Site History

The history of the Site and, to a lesser extent, the surrounding area, including previous land use, has been compiled based on information from the exhaustive list of sources provided in Section 3.

Summary of Historical Sources				
Decade	**Year**	**Source**	**Site Description**	**Vicinity Description**
Pre-1900s to 1920s	1896 - 1902	1896 EDR Historical Topographic Map: Anaheim (15-minute) 1898 EDR Historical Topographic Map: Anaheim (15-minute) 1901 EDR Historical Topographic Map: Anaheim (15-minute) 1902 EDR Historical Topographic Map: Corona (30-minute)	An 1896 EDR Historical Topographic Map suggests that the Site is undeveloped. No significant changes on the Site were noted in the 1898, 1901, and 1902 EDR Historical Topographic Maps.	An 1896 EDR Historical Topographic Map suggests that the vicinity is developed with a few roads and residences. A 1901 EDR Historical Topographic Map suggests further development of roads in the vicinity.
	1927 - 1928	1927 EDR Historical Topographic Map: La Habra (7.5-minute) 1928 EDR Aerial Photograph	The Site area was not covered in the 1927 EDR Historical Topographic Map. A 1928 EDR Aerial Photograph, the earliest aerial photograph available for review, indicates that the Site is undeveloped. A feature running along the eastern boundary of the Site appears to be a small stream/wash.	The immediate Site vicinity was not covered in the 1927 EDR Historical Topographic Map; however, the area further to the north remains undeveloped consistent with the 1902 Historical Topographic Map. According to the 1928 EDR Aerial Photograph, the immediate vicinity of the Site is undeveloped. There appears to be an unpaved road or railroad (later identified as a Union Pacific railway in the 1935 EDR Historical Topographic Map), approximately 0.15 mile southeast of the Site
1930s	1935 - 1938	1935 EDR Historical Topographic Map: Coyote Hills (7.5-minute) and Garden Grove (7.5-minute) 1938 EDR Aerial Photograph	No significant changes on the Site were noted in the 1935 EDR Historical Topographic Map. A 1938 EDR Aerial Photograph suggests the southwest section of the Site was used for agriculture purposes. Agricultural features are consistent with orchards or other row crops. A feature surrounding the stream along the eastern	A 1935 EDR Historical Topographic Map suggests the development of an unpaved road along the stream on the on the eastern boundary of the Site (later identified as North Euclid Street). Further developments of residences, roads, commercial property, and the Union Pacific Rail in the vicinity are also suggested in the 1935 EDR Historical Topographic Map.

Summary of Historical Sources				
Decade	**Year**	**Source**	**Site Description**	**Vicinity Description**
			boundary of the Site appears to be a wash.	A 1938 EDR Aerial Photograph suggests the land in close vicinity to the Site was used for agriculture purposes.
1940s	1942 - 1947	1942 EDR Historical Topographic Map: Anaheim (15-minute) 1947 EDR Aerial Photograph	No significant changes on the Site were noted in the 1942 EDR Historical Topographic Map. A 1947 EDR Aerial Photograph suggests all but the northeast corner of the Site was used for agriculture purposes.	No significant changes on the Site were noted in the 1942 EDR Historical Topographic Map. A 1947 EDR Aerial Photograph suggests more agriculture in the vicinity of the Site.
1950s	1950 - 1953	1950 EDR Historical Topographic Map: La Habra (7.5-minute) and Anaheim (7.5-minute) 1952 EDR Historical Topographic Map: La Habra (7.5-minute) 1953 EDR Aerial Photograph	No significant changes on the Site were noted in the 1950 and 1952 EDR Historical Topographic Maps or the 1953 EDR Aerial Photograph.	No significant changes on the Site were noted in the 1950 and 1952 EDR Historical Topographic Maps. A 1953 EDR Aerial Photograph suggests the development of additional residences southeast of the Site.
1960s	1963 - 1966	1963 EDR Aerial Photograph 1964, 1965 EDR Historical Topographic Map: La Habra (7.5-minute) and Anaheim (7.5-minute) 1966 EDR City Directory	A 1963 EDR Aerial Photograph suggests an undeveloped road along the bottom of the Site. No significant changes on the Site were noted in the 1964, 1965 EDR Historical Topographic Map.	A 1963 EDR Aerial Photograph shows what appears to be construction of residences southwest of the Site. A 1964, 1965 EDR Historical Topographic Map suggests the development of residences directly south of the Site and the development of Euclid Street.
1970s	1972 - 1978	1970 EDR City Directory 1972 EDR Historical Topographic Map: La Habra (7.5-minute) and Anaheim (7.5-minute) 1972 EDR Aerial Photograph 1975 EDR City Directory 1977 EDR Aerial Photograph City of Fullerton – Fire Department and City Clerk	No significant changes on the Site were noted in the 1972 EDR Historical Topographic Map. The 1972 EDR Aerial Photograph indicates that the Site is no longer used as agriculture. The Site has been cleared and graded. A feature that appears to be a ramp is located in the eastern portion of the Site, providing access to North Euclid Street. The eastern portion of the Site appears to be lower in elevation than North Euclid Avenue. A 1977 EDR Aerial Photograph appears to show the development of commercial buildings and parking lots on the Site (similar to the current Site configuration). Fire permits and building records from City of	The 1970 and 1975 EDR City Directories listed a service station at 2001 North Euclid Street (Refer to Section 6.1 for further details). A 1972 EDR Historical Topographic Map suggests residential structures were developed to the northwest, west, south, and east of the Site. A 1972 EDR Aerial Photograph suggests the further development of residential areas surrounding the Site, the development of Rosecrans Avenue and Paseo Dorado, and the development of facility that appears to be a service station at the corner of North Euclid Street and Rosecrans Avenue. This facility is later confirmed as a service station, constructed by

Summary of Historical Sources				
Decade	**Year**	**Source**	**Site Description**	**Vicinity Description**
			Fullerton indicate that Building D was constructed by 1976, Buildings A and B were constructed by 1977, and Building E was constructed by 1978.	1969, based on fire permits from the City of Fullerton Fire Department. A 1977 EDR Aerial Photograph suggests further residential development in the vicinity.
1980s	1980 - 1989	1980 EDR City Directory SCAQMD Facility Equipment List Report 1981 EDR Historical Topographic Map: La Habra (7.5-minute) and Anaheim (7.5-minute) 1986 EDR City Directory 1987 EDR Aerial Photograph City of Fullerton – Fire Department and City Clerk	The 1980 EDR City Directory listed multiple occupants that appeared to be commercial in nature, including "AUTO & MARINE SPECIALTIES INC" located at 1821 North Euclid Street (refer to Section 4.1.1 for further details) as well as restaurants, a pharmacy and a medical laboratory associate. A permit for dry cleaning equipment using PCE was first issued in 1980 by SCAQMD at 1801 North Euclid Street (refer to Section 3.4.1). Four buildings (Buildings A, B, C, and D) are depicted on the 1981 Historical Topographic Map, which are also shown on the 1987 EDR Aerial Photograph. The 1987 EDR Aerial Photograph also shows the construction of two additional buildings (Buildings E and G). The 1986 EDR City Directory lists multiple occupants for addresses associated with the Site, including restaurants, a pet clinic, and a histology lab.	No significant changes on the Site were noted in the 1981 EDR Historical Topographic Map or the 1987 EDR Aerial Photograph. The 1980 and 1986 EDR City Directories indicate the presence of a service station (Chevron) at 2001 North Euclid Street (refer to Section 6.1 for further details). The 1986 EDR City Directory listed several businesses at 1031 Rosecrans Avenue, one of which is listed as "Oxford Cleaners" (Refer to Section 6.2 for further details).

Summary of Historical Sources				
Decade	**Year**	**Source**	**Site Description**	**Vicinity Description**
1990s	1990 - 1996	1990 EDR Aerial Photograph 1991 EDR City Directory 1994 EDR Aerial Photograph 1994 EDR City Directory SCAQMD Facility Equipment List Report 1995 EDR City Directory 1999 EDR City Directory City of Fullerton – Fire Department and City Clerk	No significant changes on the Site were noted in the 1990 and 1994 EDR Aerial Photographs and the 1991 and 1995 EDR City Directory. Fire records and building permits obtained from the City of Fullerton, Building F was constructed by 1995 and Building H was constructed by 1996. Permits for dry cleaning equipment using PCE (or PERC) were issued in 1994 and 1998 by SCAQMD at 1801 North Euclid Street (refer to Section 3.4.1).	No significant changes on the Site were noted in the 1990 or 1994 EDR Aerial Photograph. The 1991, 1994, and 1995 EDR City Directories indicate the presence of a service station (Chevron) at 2001 North Euclid Street. The 1999 EDR City Directory listed "JACK IN THE BOX FAMILY RESTAURANTS" at 2001 North Euclid Street, indicating that the Chevron service station operations at this address have ceased (later confirmed in the 2005 EDR Aerial Photograph; refer to Section 6.1 for further details regarding the former service station). The 1991 and 1995 EDR City Directories listed several businesses at 1031 Rosecrans Avenue, one of which is listed as "Oxford Cleaners" (refer to Section 6.2 for further details).
2000s	2005 - 2009	2005 EDR Aerial Photograph 2009 EDR Aerial Photograph SCAQMD Facility Equipment List Report Letter from Sunrise Cleaners to Orange County Healthcare Agency, dated October 5, 2013 OCHCA Request for Remedial Action Supervision UST Tank Removal Report, prepared by Bechtel Environmental, Inc. (BEI), dated December 18, 1995	Building F (1020 Rosecrans Avenue) is depicted on the 2005 EDR Aerial Photograph. No significant changes on the Site were noted in the 2009 EDR Aerial Photograph. A permit for dry cleaning equipment using PERC was last issued in 2008 by SCAQMD at 1801 North Euclid Street (refer to Section 3.4.1). According to an SCAQMD inspection conducted on March 3, 2011, the dry cleaning facility at 1801 North Euclid Street ceased dry cleaning operations and the facility was used as an agency for their business (later confirmed based on a note to the OCSD dated October 5, 2013; refer to Section 3.4.1). Packo Investments, Inc. applied for oversight from the OCHCA under the voluntary assistance program and was approved in February 2008. Environmental investigations were performed (refer to Section 7).	A 2005 EDR Aerial Photograph suggests the service station at the corner of North Euclid Street and Rosecrans Avenue has been removed (later confirmed based on the 1999 EDR City Directory listing of Jack-In-The-Box at 2001 North Euclid Street). According to a UST closure report dated December 18, 1995, four USTs, fuel-dispenser islands, and associated product-piping were removed (refer to Section 6.1 for further details). A 2009 EDR Aerial Photograph suggests the land west adjacent to the Site has been cleared for construction.

Summary of Historical Sources				
Decade	**Year**	**Source**	**Site Description**	**Vicinity Description**
2010s	2012 - 2017	2012 EDR Historical Topographic Map: La Habra (7.5-minute) and Anaheim (7.5-minute) 2012 EDR Aerial Photograph 2016 EDR Aerial Photograph Orange County Sanitation District – Certification of Zero Discharge of PERC SCAQMD Facility Equipment List Report OCHCA NFA Certification Letter, dated June 19, 2012	No significant changes on the Site were noted in the 2012 EDR Historical Topographic Map or 2012 and 2016 EDR Aerial Photographs. Remediation, in the form of soil vapor extraction (SVE), was performed in the vicinity of 1801 North Euclid Street under OCHCA oversight (refer to Section 7). On June 19, 2012, OCHCA issued a letter of NFA Certification for unrestricted land use. An inspection note from the OSCD stated that Sunrise Cleaners was gone from 1801 North Euclid Street by October 31, 2014. According to an SCAQMD inspection conducted on May 31, 2017, dry cleaning facility at 1801 North Euclid Street had been replaced by Fullerton Hills Pet Clinic/Pet Grooming and the dry-cleaning equipment was no longer in the facility.	No significant changes on the Site were noted in the 2012 Historical Topographic Map. A 2012 EDR Aerial Photograph suggests residential developments west adjacent to the Site. No significant changes on the Site were noted in the 2016 EDR Aerial Photograph.

4.1.1 Former Automobile Facility Suite

According to a 1980 City Directory listing, a facility identified as “AUTO & MARIN E S PE CIALTIE S IN C” [sic] and “AUTO MAS TE R IN C E N GIN E RE BUILDE RS 1619 E Wilshiwe Av Santa Ana@” [sic] is associated with the Site address: 1821 North Euclid Street. There was no evidence regarding former automobile repair operations during the review of building records, previous reports, or other historical records. Furthermore, no indications of former automobile repair operations were observed during the Site reconnaissance. The listing may be erroneous, or it may be indicative of an administrative office. Due to the lack of evidence indicating that automobile repair operations were conducted on-Site, this EDR City Directory listing is not considered to represent a significant environmental concern to the Site.

5. Site Reconnaissance

Roux representatives conducted a reconnaissance of the Site and surrounding areas on November 12, 2020. During the Site visit, Roux representatives Mr. Justin Allen and Ms. Angela Truong met with Mr. Jung (James) Lee, of Packo Investments, Inc., who has been the Site property manager for approximately two and a half years. Roux also visually and/or physically observed adjoining properties from reasonably accessible locations on the Site and public thoroughfares. During the site reconnaissance, the weather was clear, and the temperature was approximately 70° Fahrenheit. Roux was unable to access the following suites:

- 1715 North Euclid Street; Vacant (Former Spot Color Unit Institute);
- 1723 North Euclid Street; Dentistry;
- 1807 North Euclid Street; IVY Fencing Club;
- 1837 North Euclid Street; Nang Man Café;
- 1839 North Euclid Street; Allegro;
- 1847 North Euclid Street; Reboot Gaming Center;
- 1855-1859 North Euclid Street; Dr. Charles Kim Dentistry;
- 1865 North Euclid Street; Kumon Learning Center;
- 1871 North Euclid Street; Vacant (Former shoe store);
- 1876 North Euclid Street; Dream Smart Education;
- 1895 North Euclid Street; Elite Kids Learning Center;
- 1020 Rosecrans Avenue; Del Taco; and
- 1026 Rosecrans Avenue; Papa John's.

The following sections summarize observations during the inspection. Roux was granted permission by Mr. Lee to document the Site reconnaissance with photographs (Appendix G).

5.1 Current Site Condition and Limitations

The Site is situated in a commercial area and can be accessed from Euclid Street to the east and from Rosecrans Avenue to the north. At the time of Site reconnaissance, the Site was occupied multiple tenants. Site Improvements on each parcel include the following:

Building	Address(es)	Occupant	Description of Operations
A	1701 North Euclid Street	Vacant	Former Bank
B	1715 North Euclid Street	Vacant	Former Spot Color Unit Institute
	1723 North Euclid Street	Dentistry	General dentistry operations
C	1751 North Euclid Street	Vacant	Former CVS

Building	Address(es)	Occupant	Description of Operations
D	1801 & 1805 North Euclid Street	Fullerton Hills Pet Clinic	Veterinarian, pet grooming
	1807 North Euclid Street	IVY Fencing Club	Gym
	1815 North Euclid Street	E4U	General Contractor Office, learning center
	1819 North Euclid Street	Vitamin Acupuncture	Commercial space
	1821 North Euclid Street	Bonjuk	Restaurant
	1823 North Euclid Street	Sunrise Village Pharmacy	Commercial space
	1829 North Euclid Street	Pola Hair Salon	Commercial space
	1837 North Euclid Street	Nang Man Café	Restaurant
	1839 North Euclid Street	Allegro	Music lessons
	1843 North Euclid Street	Fullerton Hearing Center	Commercial space
	1847 North Euclid Street	Reboot Gaming Center	Commercial space
	1855 - 1859 North Euclid Street	Dr. Charles Kim Dentistry	General dentistry operations
	1861 North Euclid Street	Hanseong	USPS, FedEx, mailbox, fax & printing, package facility
	1865 North Euclid Street	Kumon	Learning center
	1871 North Euclid Street	Vacant	Former shoe store
	1875 North Euclid Street	Dream Smart Education	Learning center
	1877 North Euclid Street	Pilates Culture	Gym
	1881 North Euclid Street	Joon's Kitchen	Restaurant
	1885 North Euclid Street	Mama's Kitchen Café, Imperial Spa	Restaurant, commercial space
	1895 North Euclid Street	Elite	Learning center
E	1901 North Euclid Street	Vacant	Vacant
F	1020 Rosecrans Avenue	Del Taco	Restaurant
G	1026 Rosecrans Avenue	Papa John's	Restaurant
	1028 Rosecrans Avenue	Sunrise Optometry	General optometry operations
	1030 Rosecrans Avenue	Coffee Code	Restaurant
H	1144 Rosecrans Avenue	Fullerton Red Cross	Medical facility
N/A	1146 Rosecrans Avenue	--	Tennis courts

APN 287-241-06 Site improvements include four multi-tenant buildings (Buildings A through D) occupied by commercial businesses and restaurants, an asphalt paved parking area, electrical transformers and trash enclosures in a parking area. APN 287-241-03 Site improvements include one commercial building (Building E) and an asphalt paved parking area. APN 287-241-04 one commercial building (Building F), one multi-

tenant building (Building G) occupied by commercial business and restaurants, an asphalt paved parking area, an electrical transformer and a trash enclosure. APN 287-241-01 Site improvements include one commercial building (Building H) with tennis courts, and an asphalt paved parking area.

5.2 Phase I ESA Observations

During Site reconnaissance, Roux personnel attempted to identify any environmental features that may be relevant in the context of the Phase I ESA. The features identified are summarized in the table below. Any such features are discussed in the following subsections.

Feature	Observed on the Site	Observed on an Adjacent Property
Areas of stressed vegetation		
Areas which receive flood or storm water from potentially contaminated areas		
Air Compressor Vent Discharges		
Drainage Swales and Culverts	X	
Other Drainage Features	X	
Discharge Areas		
Discolored or Spill Areas		
Drums (55 Gallons or Larger)	X	
Electrical Transformers	X	
Former Agricultural Applied Pesticide Area		
Hydraulic Lifts		
Incinerators		
Landfills or Landfarms		
Loading and Unloading Areas		
Non-Contact Cooling Water Discharge		
Oil-Water Separator(s)		
Open Areas Away from Production Areas		
Process Area Sinks and Piping		
Rail Cars/Railroad Spurs		
Septic Systems Leach Fields or Seepage Pits		
Silos		
Sprayfields		

Feature	Observed on the Site	Observed on an Adjacent Property
Storm Sewer and Spill Containment Collection System		
Storm Water Detention Pond		
Surface Impoundments and Lagoons		
Underground / Aboveground Storage Tanks and Associated Piping		
Vapor Intrusion		
Waste Piles		

5.2.1 Drainage Swales and Culverts

Roux observed one drainage swale along the eastern boundary of the Site. The north-south trending swale is approximately 570 feet long and runs along North Euclid Street.

5.2.2 Other Drainage Features

Roux observed one drainage feature on-Site, located in the rear of the Pola Hair Salon suite (1829 North Euclid Street). According to the City Directory obtained from EDR, previous tenants included Regency Clock Shop from at least 1980 through 1986 and James Hair from at least 1991 through 1995. The sump appears to have been filled with concrete and has one cleanout cap. According to the tenants, the suite has operated as a hair salon for at least two decades. The tenants also informed Roux that the sump was opened and the pipes were cleared when adjacent tenants had plumbing issues approximately five years ago. On this basis, the sump may have been associated with the sewer line. Based on the non-hazardous nature of the previous tenant operations at the suite, the on-Site drainage feature represents an OEF.

Roux observed several restaurant grease interceptors in the western rear parking area of several restaurants. Roux noted no evidence of staining, spills, blockage, or leaks around the interceptors. Based on the non-hazardous nature of the material, the oil-water separators are not expected to represent a significant environmental concern to the Site.

5.2.3 Drums (55 Gallons or Larger)

During the Site reconnaissance, Roux observed one empty drum on-Site. The observed drum was labeled “kitchen grease only.” Based on the non-hazardous nature of the material, the drum is not expected to represent a significant environmental concern to the Site.

5.2.4 Electrical Transformers

Roux observed several electrical transformers on the Site. Absent additional documentation, it remains possible that the electrical transformers may have contained PCBs. No evidence was found during the review of historical records, agency records, or previous reports indicating a release associated with the on-Site transformers. On this basis, the presence of the electrical transformers is not expected to represent a significant environmental concern to the Site.

6. Adjoining and Nearby Properties

The facilities and improvements which are located immediately adjacent to the Site are provided in the following table. Selected adjoining and nearby properties are shown in Figure 2.

Direction from Site	Improvements / Use (Addresses)	Environmental Concerns Identified
North	Rosecrans Avenue, followed by strip mall with three commercial buildings with multiple tenants (Jack in the Box, 2001 North Euclid; and multiple commercial businesses, 1031 Rosecrans Avenue) and residential structures (1157 Rosecrans Avenue)	No environmental concerns identified. The facility identified as "Oxford Cleaners" is associated with the address 1031 Rosecrans Avenue in the 1986, 1991, and 1995 City Directory. See Section 6.1 for further details.
East	Euclid Street, followed by residential structures.	No environmental concerns identified.
South	Paseo Dorado, followed by residential structures.	No environmental concerns identified.
West	Residential structures.	No environmental concerns identified.

6.1 Former Service Station to the North

According to historical sources, gasoline service station operations were located in the immediate vicinity, to the north of the Site. The presence of the service station operations was documented in aerial photographs from 1972 through 1994. Records obtained from the City of Fullerton Fire Department included an Underground Storage Tank Removal Report (UST Removal Report), prepared by BEI, dated December 18, 1995. According to the UST Removal Report, the former service station operated four USTs, which were abandoned in November 1995. The former service station was granted closure after excavation of impacted soil and confirmation samples did not indicate any residual contamination. Based on the information reviewed by Roux, the former service station has not been the subject of subsurface investigation and no documented releases have been reported. Moreover, Roux did not observe any indications of subsurface investigation at the former service station locations, such as patched borings or monitoring well vaults. Absent any additional information and given on-Site data collection/investigation spanning from 2007 to 2012 not indicating impacts from off-Site, Roux considers the former presence of the service stations to be an OEF in the context of this Phase I ESA.

6.2 Former Drycleaner to the North

According to the EDR City Directory listings from 1986, 1991, and 1995, a former drycleaner facility (New Oxford Cleaners / Good Cleaners) was located at 1031 Rosecrans Avenue (approximately 250 feet to the north of Site). The former drycleaner facility is discussed further in Section 8.1.2 below. Based on the listing, it appears that dry-cleaning took place on-site at the facility from late 1980 to early 1990s and included the use of PCE. The City of Fullerton Fire Department did not have any records associated with the former dry cleaner. Based on the information reviewed by Roux, the former dry-cleaning facility has not been the subject of subsurface investigation and no documented releases have been reported. Moreover, Roux did not observe any indications of subsurface investigation at the former drycleaner, such as patched borings or monitoring well vaults. Absent any additional information and given on-Site data collection/investigation spanning from 2007 to 2012 not indicating impacts from off-Site, Roux consider the former presence of the dry cleaner to be an OEF in the context of the Phase I ESA.

7. Summary of Key Previous Investigations

The following sections provide a summary of previous environmental investigations at the Site, particularly in regard to the former use of PCE dry-cleaning equipment at 1801 North Euclid Street (formerly Sunrise Cleaners). Figure 3 depicts historical boring locations based on previous investigations.

7.1 Phase I Environmental Site Assessment (Alpha, 2007)

Roux understands that Alpha Environmental (Alpha) prepared a Phase I ESA for three of the four parcels (APNs 287-241-01, 287-241-04, and 287-241-06) on December 7, 2007. It was reported that the only tenant of concern was the former Sunrise Cleaners at 1801 North Euclid Street. At the time of Alpha's Phase I ESA, there were no records indicating any spill or release on-Site. However, Alpha identified the former dry-cleaner as a REC due to the potential release of chlorinated solvents. Recommendations for the Site included a limited Phase II investigation to characterize subsurface conditions and identify potential impacts due to former dry-cleaning operations at the Site.

7.2 Site Assessment Report (ASTECH, 2008)

On January 2, 2008, ASTECH installed a total of six borings at Sunrise Cleaners to assess potential subsurface impacts due to tenant operations as a former dry cleaner. A total of ten soil samples and ten soil vapor samples were collected and analyzed for VOCs. Laboratory analytical results for soil matrix samples indicated that all constituents were below method detection limits (MDLs). Laboratory analytical results for soil vapor indicated that PCE was present in all ten samples at depths ranging from 5 to 15 feet bgs and ranged in concentration between 0.4 micrograms per liter (µg/L) and 11 µg/L. ASTECH concluded that releases of VOCs on-Site were due to former dry-cleaning activities. Despite their findings, ASTECH stated further investigation was not recommended pursuant to the pending real-estate acquisition.

7.3 Further Site Assessment Report & Vapor Extraction Pilot Test Workplan (ASTECH, 2008)

On January 22, 2008, Packo Investments, Inc. applied for oversight from the OCHCA under the voluntary assistance program for remedial action to address potential impacts associated with historical dry-cleaning operations at the Site. OCHCA accepted the case on February 22, 2008 and requested additional Site assessment to define the limits of impact. On May 28, 2008, ASTECH installed an additional six soil vapor probes to laterally delineate the VOC impact due to former dry-cleaning operations. In addition, vertical characterization was evaluated in the known areas of concern. A total of nine soil samples at depths ranging from 5 to 35 feet bgs, one groundwater grab sample at a depth of approximately 20 feet bgs, and six soil vapor samples at a depth of five feet bgs were collected and analyzed for VOCs. Groundwater samples did not indicate the presence of dissolved VOCs. PCE was detected in one soil sample at a concentration of 5 micrograms per kilogram (µg/kg). PCE was detected in five of the six soil vapor samples, ranging in concentrations from 0.9 µg/L to 1.7 µg/L. ASTECH concluded that the results of the soil vapor survey indicated that the lateral extent of impact was not fully characterized during the investigation and data gaps are present to the south, west, and north of the former dry-cleaners. The vertical limits of impact were deemed adequately characterized. Based on their findings, ASTECH recommended additional soil vapor investigation to the north and east of the former dry cleaner to laterally delineate the VOC plume, a continuous soil boring to characterize shallow soil, a soil vapor extraction (SVE) pilot test to evaluate the feasibility of remediation, and a baseline health risk assessment to assess indoor air quality.

7.4 Soil Gas Investigation Report (ASTECH, 2008)

In a letter dated July 17, 2008, OCHCA requested additional characterization to evaluate VOC impacts within the interior portions of the adjacent suites and surrounding parking lots. On September 27 through October 6, 2008, ASTECH installed eight dual-nested soil vapor probes (at depth intervals of 5 and 10 feet bgs). A total of 16 soil vapor samples were collected and analyzed for VOCs. PCE was detected in twelve of the sixteen soil vapor samples and ranged in concentration between 1.2 µg/L and 15 µg/L. The highest concentration of PCE detected during the vapor survey was reported within the adjacent tenant space (Fullerton Hills Pet Clinic at 1805 North Euclid Street). Methylene chloride was detected in vapor samples at one location at both sample depths with a maximum concentration of concentrations of 75 µg/L. Toluene was detected in one vapor sample at a concentration of 1.6 µg/L. Based on the findings of the soil vapor investigation, ASTECH determined that the lateral limits of impact were adequately defined, and no further investigation was recommended with respect to the limits of PCE in soil vapor at the facility property.

7.5 Vapor Extraction System Operation Report (ASTECH, 2012)

In accordance with verbal directives and email correspondences issued by OCHCA, corrective action was requested at the Site under the voluntary assistance program. A total of five vapor extraction wells were installed to a maximum depth of 25 feet bgs around the exterior of 1801 and 1805 North Euclid Street (Figure 3). Based on the results of the SVE pilot test, a vapor extraction system was installed and began operation on July 1, 2011. The SVE system operated relatively continuously over a 4-month period. Based on the results of the performance sampling and in accordance with OCHCA directives, the VES was shut-down for rebound testing following a 45-day time period on October 31, 2011. On December 30, 2011, 15 single- or dual-nested soil vapor probes from 8 boring locations were sampled for verification sampling at depths ranging from 5 and 15 feet bgs (Figure 3). PCE was detected in six of the verification sample locations at concentrations ranging from 0.028 µg/L to 0.393 µg/L. PCE was not detected in any of the vapor samples collected from the 5-foot probes. ASTECH also performed water quality sampling and collected three groundwater samples from the vapor extraction wells. All constituents were below MDLs for all groundwater samples with a PCE detection limit of 0.5 µg/L. ASTECH requested case closure be granted based on the results of the verification sampling activities and upon the corrective action efforts performed. On June 19, 2012, OCHCA issued a letter of NFA Certification for unrestricted land use.

8. Records Review

8.1 Standard Environmental Record Sources

According to ASTM Standard E1527-13, the purpose of reviewing regulatory records is to obtain and review records that will help identify *recognized environmental conditions* in connection with the Site. In addition, some records to be reviewed pertain not only to the Site, but also to properties within an additional "approximate minimum search distance" in order to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The basis of the "approximate minimum search distance" is the Site boundary.

Roux retained EDR of Shelton, Connecticut to provide an ASTM Radius Map Report (EDR Report) for this Site. This report is a computerized search of select state and federal environmental databases that identify various properties with a record of environmental activity. Roux reviewed the report and summarized the relevant findings in the following sections. A copy of the compiled EDR Report has been included as Appendix F. The EDR report includes a detailed description of each of the databases searched, providing a summary of the type of information provided by each. A summary of Roux' review of the EDR Report listings is provided in Table 1.

The following section describes the findings of the database search. Roux used professional judgement in determining which EDR-listed sites to include in the narrative of this report. Facilities adjoining the Site were included due to their proximity to the Site and the potential for surface water discharges (e.g., storm water runoff, surface water effluent discharges) to enter the Site or through the migration of groundwater. Sites with listings indicative of a release (e.g., SHWS, LUST, RELEASE) are likewise discussed below. Nonadjacent facilities with database listings not necessarily indicative of a release (hazardous waste generator, FINDS, ECHO, NPDES, HAZNET, AST, or UST) will not be discussed unless considered potentially relevant in context of the Phase I ESA.

8.1.1 Site (Target Property)

The target property is listed in a number of the federal, state, and local databases searched under different addresses and/or with different owner/operations. Based on the available information, the target property listings are summarized in the table below. They are not, in themselves, indicative of a release at the property and are often an indication that good housekeeping measures are being implemented with regard to hazardous substances. Inclusion in other database records are summarized in the comments column of the table below. No listings for the Site were indicative of a REC that was not otherwise addressed in this report.

Address	Owner/Operator	Database	Comment
1801 N Euclid Street	Sunrise Cleaners	HWTS, DRYCLEANERS, HAZNET	DRYCLEANERS: S113027703
	Sunrise Cleaners	ORANGE CO. INDUSTRIAL SITE, DRYCLEANERS, EMI	
	GMS Realty	HWTS, HAZNET	HAZNET: S112908324
	Sunrise Cleaners	EDR HIST CLEANER	EDR Hist Cleaner: 1018941719
	Sunrise Cleaners	HWTS, HAZNET	HAZNET: S113092963
	Sunrise Cleaners, Sun Kie Sohn	EMI	EMI: S106840283
1146 Rosecrans Blvd	1X St Jude Medical Center	HWTS, HAZNET	HAZNET: S123733144
	Histology-St. Jude Medical Center	HWTS, HAZNET	HAZNET: S123766973
1020 Rosecrans Blvd	Del Taco #800	CERS	CERS: S123505820
	Del Taco #800	FINDS	FINDS: 1023363861
1751 N Euclid Street	CVS Pharmacy No 9756	RCRA-LQG, FINDS, ECHO	RCRA-LQG: 1016140227 FINDS: CAR000238527

The facility, located at 1801 North Euclid Street, had numerous listings under multiple owners/operators. The DRYCLEANERS and ORANGE CO. INDUSTRIAL SITE listings report the use of PCE associated with former dry-cleaning operations. Following subsurface investigations and remediation, the case was granted closure by OCHCA on June 20, 2012. Refer to Sections 3.4.1 and 7 for further discussion. The remaining database listings are not expected to represent a significant environmental concern to the Site.

The GMS Realty facility, located at 1801 North Euclid Street, was listed in the HAZNET and HWTS databases. According to the databases, 0.8428 tons of asbestos containing waste was generated in 2000. Based on the lack of evidence indicating a release or violations associated with the hazardous waste, the HAZNET and HWTS listings are not expected to represent a significant environmental concern to the Site.

The 1X St Jude Medical Center, Histology-St Jude Medical Center facility, located at 1146 Rosecrans Boulevard, was listed in the HWTS and HAZNET databases. According to the databases, 2.0637 and 0.4586 tons of oxygenated solvents waste were generated in 1991 and 1992, respectively. In addition, 0.2293 tons of laboratory waste chemicals were generated in both 1990 and 1991. The HWTS and HAZNET listings are not indicative of environmental releases; therefore, these listings are not considered to represent a significant environmental concern to the Site.

The Del Taco #800 facility, located at 1020 Rosecrans Avenue, was listed in the CERS and FINDS databases. The facility had compliance evaluation inspections, and no violations were found. The CERS and FINDS listings are not indicative of environmental releases; therefore, these listings are not considered to represent a significant environmental concern to the Site.

The CVS Pharmacy No 9756 facility, located at 1751 N Euclid Street, was listed in the RCRA-LQG, FINDS, and ECHO databases. The facility is classified as a large quantity waste generator, and no violations were found. Types of waste generated at the facility included nicotine and salts, epinephrine, nitroglycerine, and

acetone. The RCRA-LQG, FINDS, and ECHO listings are not indicative of environmental releases; therefore, these listings are not considered to represent a significant environmental concern to the Site.

8.1.2 Adjoining Properties

Adjoining properties were identified on several databases searched by EDR, as summarized below.

- **Former Chevron Service Station – 2001 North Euclid Street**

  The former Chevron service station at 2001 North Euclid Street adjoins the property (across Rosecrans Avenue) approximately 100 feet to the north of the Site. The location of the former service station was confirmed by historical sources (EDR Aerial Photographs). At this location, the former Chevron facility is considered to be hydraulically up-gradient of the Site based on a south-southeasterly groundwater flow direction. The Chevron facility is listed under various aliases in the SWEEPS UST, HIST UST, EDR HIST AUTO , and CA FID UST databases. The SWEEPS UST database documents the historic presence of USTs. Four USTs (three 10,000-gallon fuel and one 1,000-gallon waste oil) were reported at the facility but with no additional salient information. The HIST UST database also documents four historic USTs at the facility (three 10,000-gallon product, one 1,000-gallon waste) installed in 1988. The EDR HIST AUTO database indicates the historic presence of a service station. The listings report operators as PRICE BOB CHEVRON SERVICE (1972-1976, 1986, 1987), PRICE ROBERT CHEVRON SERVICE (1977-1985), BURCHIT JIM CHEVRON (1985, 1986, 1987, 1988-1996) and SUNNY HILLS CHEVRON (1988). Inclusion in these databases is not necessarily indication of a subsurface release beneath the facility.

- **New Oxford Cleaners / Good Cleaners – 1031 Rosecrans Avenue**

  The former New Oxford Cleaners facility at 1031 Rosecrans Avenue is located approximately 250 feet to the north of the Site (Good Cleaners listed at 1031 Rosecrans Avenue is thought to be the same operation). At this location, the former dry-cleaner facility is considered to be hydraulically up-gradient of the Site based on a south-southeasterly groundwater flow direction. The drycleaner is listed in the DRYCLEANERS, EDR HIST CLEANER, RCRA-SQG, FINDS, and ECHO databases. The DRYCLEANERS listing indicates that dry-cleaning equipment was used on premises and confirms the use of PCE and fluorocarbon. Neither listing provides any information regarding the possibility of a chlorinated solvent release or any subsurface investigation.

8.1.3 Orphan Sites

The EDR Report includes a section addressing “Orphan Sites.” Orphan sites are sites, which, due to incomplete geographic location data, incomplete address information or incorrect address information, cannot be plotted correctly. The database report identified three unmapped facilities.

- **Fullerton Lincoln Mercury (626 South Euclid Street).** The Fullerton Lincoln Mercury facility is listed in the RGA LUST database. The RGA LUST listing was classified the facility as a completed LUST cleanup site, which granted closure in August 1995. Based on the completed and closed status of the facility, this facility is not expected to represent a significant environmental concern to the Site.

- **McColl Dump Site (N/A W Rosecrans Avenue).** The McColl Dump Site facility, located approximately 1.5 miles west of the Site, is listed in the CPS-SLIC database. The CPS-SLIC listing classified the facility as an open cleanup program site with assessment and interim remedial action as of June 2009. The contaminant of concern is refinery waste with a media of concern of groundwater (uses other than drinking water) and soil. According information available on EnviroStor, this facility is a Superfund Site. Groundwater flow direction in the vicinity of the McColl Dump Site was reported to be towards the southwest (generally down to cross-gradient from the

Site) (USEPA, 2017). Based on the distance of the facility from the Site and the groundwater direction, this facility is not expected to represent a significant environmental concern to the Site.

- **Packers Cold Storage (310 W Euclid Street).** The Packers Cold Storage facility is listed in the LUST database. The LUST listing classified the facility as a completed LUST cleanup site, which was granted closure in August 2000. Based on the completed and closed status of the facility, this facility is not expected to represent a significant environmental concern to the Site.

None of the identified Orphan sites are expected to represent a significant environmental concern to the Site.

9. Findings

Roux has performed this Phase I ESA in general compliance with the scope and limitations of ASTM Standard Practice E1527-13. Roux separated the findings of this assessment into the following four categories: *recognized environmental conditions*, *controlled recognized environmental conditions*, *historical recognized environmental conditions* and *other environmental features*.

9.1 Data Gaps

During conduct of this ESA, the following data gaps, as defined in ASTM Standard E1527-13 were identified:

- Previous Site owners/operators were not available for an interview. This data gap is not considered significant due to sufficient information regarding Site history available from EDR historical documents and regulatory agencies.
- During the Site Reconnaissance, Roux was unable to access the following suites:
    - 1715 North Euclid Street: Vacant (Former Spot Color Unit Institute);
    - 1723 North Euclid Street: Dentistry;
    - 1807 North Euclid Street: IVY Fencing Club;
    - 1837 North Euclid Street: Nang Man Café;
    - 1839 North Euclid Street: Allegro;
    - 1847 North Euclid Street: Reboot Gaming Center;
    - 1855 – 1859 North Euclid Street: Dr. Charles Kim Dentistry;
    - 1865 North Euclid Street: Kumon Learning Center;
    - 1871 North Euclid Street: Vacant (Former shoe store);
    - 1876 North Euclid Street: Dream Smart Education;
    - 1895 North Euclid Street: Elite Kids Learning Center;
    - 1020 Rosecrans Avenue: Del Taco; and
    - 1026 Rosecrans Avenue: Papa John's.

9.2 Recognized Environmental Conditions

Based on the information obtained through the performance of this ESA, Roux identified the following RECs in connection with the current and historical operations at the Site or adjacent properties. To the extent possible, the locations of the RECs are shown in Figure 2. To avoid confusion, all RECs, cRECs, and hRECs, and OEFs are numbered sequentially.

REC 1 – Former On-Site Dry-Cleaning Operations. A dry cleaner (Sunrise Cleaners) formerly operated on-Site (address of 1801 North Euclid Street; Building D) between approximately 1980 and 2014 with documented use of PCE between February 1980 through January 2008. Due to a release of chlorinated volatile organic compounds (VOCs) into the subsurface related to the dry-cleaning operations, the Site was formerly under the regulatory oversight of the OCHCA. Between approximately 2008 and 2012, OCHCA oversaw subsurface investigations and remediation in the vicinity of the former

dry-cleaning suite. Remediation, in the form of SVE, occurred from July 2010 through October 2011. Following Site remediation, OCHCA performed a desktop vapor risk assessment based on both commercial and residential land use and found that the risk for exposure were below the target risk thresholds. OCHCA issued a letter of NFA Certification for unrestricted land use on June 19, 2012. Although a letter of NFA Certification was issued, the on-Site dry-cleaning operations are classified as a REC because of the following data gaps and changes to regulatory standards: 1) The residual concentrations of VOC impacts to soil vapor present a vapor intrusion risk in excess of current residential standards; 2) The historical soil vapor data was collected in the immediate vicinity of the former dry-cleaners and does not delineate the soil vapor plume laterally or vertically; and, 3) The laboratory detection limits for the historical groundwater samples exceed current regulatory limits, so it is unknown whether there are groundwater impacts in excess of regulatory limits at the Site. Therefore, the former on-Site dry-cleaning operations represent a REC.

9.3 Controlled Recognized Environmental Conditions

Roux did not identify known or suspected cRECs in connection with the current and historical operations at the Site

9.4 Historical Recognized Environmental Conditions

Roux did not identify known or suspected hRECs in connection with the current and historical operations at the Site or adjacent properties.

9.5 Other Environmental Features

OEFs are environmental conditions that do not meet the definition of a REC, cREC, or hREC, but which may warrant mention in a comprehensive Phase I ESA. Based on the subject Phase I ESA, Roux identified the following OEFs at or in the vicinity of the Site. To the extent possible, the locations of the OEFs are shown in Figure 2.

OEF 2 – On-Site Drainage Feature. During the Site reconnaissance, Roux observed a drainage feature in the rear of the Pola Hair Salon at 1829 North Euclid Street (Building D). The sump appeared to be filled with concrete and had one cleanout cap. The sump may have been associated with the sewer line. According to the City Directory obtained from Environmental Data Resources, Inc. (EDR), previous tenants included Regency Clock Shop from at least 1980 through 1986 and James Hair from at least 1991 through 1995. During the review of available records, there was no evidence indicative of a significant environmental concern to the Site; therefore, the on-Site drainage feature represents an OEF.

OEF 3 – Historical Use of Adjoining Properties. At least two nearby properties are known to have used hazardous or petroleum-containing chemicals during their operation. A former Chevron gasoline service station operated at 2001 North Euclid Street from at least 1970 through 1995, which was located across Rosecrans Avenue, approximately 100 feet north of the Site. A former dry-cleaning facility (New Oxford Cleaners and Good Cleaners) at 1031 Rosecrans Avenue was also located across Rosecrans Avenue, approximately 250 feet north of the Site, with documented PCE use in 1993; the EDR City Directory lists cleaners at this address in 1986, 1991, and 1995. Although, undocumented releases of petroleum-related products in the case of the service station, and chlorinated solvents in the case of the drycleaner, are not uncommon, none of these operations are currently active and none appear to have been the subject of a known release or subsurface investigation based on available regulatory agency records. Furthermore, no evidence of impacts from these nearby facilities to the Site has been identified

during on-Site subsurface investigations spanning from 2007 to 2012. On this basis, the historical uses of these adjoining properties do not constitute a REC and are therefore considered an OEF.

OEF 4 - Historical Agricultural Use On-Site. A majority of the Site, with the exception of the northeast corner, and the surrounding parcels were historically used for agricultural operations, containing orchards or other row crops, from at least 1947 through 1963. Although undocumented, the use of agricultural chemicals, such as pesticides, herbicides, and fertilizers, was commonplace for similar operations at that time. There is no documentation of known impacts from agricultural use. Based on the EDR Aerial Photographs, agricultural operations south of the Site ceased and residential structures were developed by 1963. By 1972, large amounts of grading activities occurred at the Site for the current commercial development and surrounding parcels to the east, south, and west were redeveloped for residential land use. The Site is currently asphalt paved with concrete slabs, limiting exposure to subsurface soils. Absent additional documentation indicative of known impacts and given the significant amount of time that has passed, the historical agricultural use on-Site represents an OEF.

10. References

Alpha Environmental (Alpha), *Phase I Environmental Site Assessment of 1701, 1715-1723, 1801-1891 North Euclid Street & 1020-1030, 1144-1146 Rosecrans Avenue, Fullerton, California*, December 7, 2007

American Society for Testing Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13)

ASTECH Environmental Services, Inc. (ASTECH), *Site Assessment Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, January 9, 2008

ASTECH, *Further Site Assessment Report & Vapor Extraction Pilot Test Workplan – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, June 5, 2008

ASTECH, *Soil Gas Investigation Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, October 23, 2008

ASTECH, *Vapor Extraction System Operation Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, February 2, 2012

Bechtel Environmental, Inc., *Underground Storage Tank Removal Report for Former Chevron Station No. 9-2285, 2001 North Euclid Street, Fullerton, California,* December 18, 1885

EDR, *The EDR Radius Map™ Report with GeoCheck®*, November 4, 2020

EDR, *The EDR Aerial Photo Decade Package*, November 2, 2020

EDR, *EDR Historical Topo Map Report*, November 2, 2020

EDR, *Certified Sanborn Map Report*, November 2, 2020

EDR, *The EDR-City Directory Abstract*, November 9, 2020

Orange County Health Care Agency (OCHCA), *No Further Action Certification, Sunrise Village, 1801 North Euclid Avenue, Fullerton, CA 92835*, June 19, 2012

State of California Department of Water Resources, *California's Groundwater Bulletin 118, Interim Update 2016*, December 22, 2016

United States Environmental Protection Agency (USEPA) Region IX, *Fourth Five-Year Review Report for McColl Superfund Site, Orange County, California,* September 27, 2017

11. Signature of Environmental Professional

Roux performed this assessment in accordance with the generally accepted practices for environmental assessments at the time of implementation. Roux made a reasonable effort to ensure that the information presented in this report is materially complete and accurate.

Roux completed a Phase I ESA in general compliance with the scope and limitations of ASTM Practice E1527-13 of the commercial property located at 1701, 1715-1723, 1751, 1801-1895, and 1901 North Euclid Street and 1020, 1026-1030 and 1144-1146 Rosecrans Avenue, Fullerton, California 92835, APNs 287-241-01, 287-241-03, 287-241-04, and 287-241-06.

“We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312” and,

“We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.”

Roux performed this Phase I ESA by, or under direct supervision of, the undersigned environmental professionals.

Respectfully Submitted,
ROUX ASSOCIATES, INC.

Andrea Berlinghof, P.E.
Senior Engineer

Mauricio Escobar, P.G.
Principal Geologist

Report of Findings

Sunrise Village
1801 North Euclid Street
Fullerton, California
(Site Code: 401971-11)

August 6, 2021

Prepared for:

Shopoff Advisors, L.P.
2 Park Plaza, Suite 700
Irvine, CA 92614

Prepared by:

Roux Associates, Inc.
5150 East Pacific Coast Highway, Suite 450
Long Beach, California 90804

3224.0008L118/CVR

Table of Contents

Tables

Figures

Appendices

Abbreviations and Acronyms

µg/kg	Micrograms per kilogram
µg/L	Micrograms per liter
µg/m^3	micrograms per cubic meter
1,1-DFA	1,1-difluoroethane
AIS	American Integrated Services, Inc.
Alpha	Alpha Environmental
Amsl	Above mean sea level
APN	Assessor's Parcel Number
ASTECH	ASTECH Environmental Services, Inc.
Bgs	Below ground surface
CA MCL	California Maximum Contaminant Levels
Cal/EPA	California Environmental Protection Agency
CCR	California Code of Regulations
CLRRA	California Land Reuse and Revitalization Act
COPC	Contaminants of potential concern
CSM	Conceptual Site Model
DOT	Department of Transportation
DPT	Direct push technology
DTSC	Department of Toxic Substances Control
EM	Electromagnetic induction
Enthalpy	Enthalpy Analytical, LLC
EPC	Exposure point concentrations
ESA	Environmental Site Assessment
Eurofins	Eurofins Calscience
Geotek	Geotek, Inc.
GPR	Ground penetrating radar
GPS	Global positional system
Gregg	Gregg Drilling, LLC
HAS	Hollow stem auger
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HERO	Human and Ecological Risk Office
HHRA	Human Health Risk Assessment
HI	Hazard Index
HQ	Hazard Quotient
IDW	Investigation-derived waste
ILCR	Incremental Lifetime Cancer Risk
J&E	Johnson-Ettinger
LARWQCB	Los Angeles Regional Water Quality Control Board
LLC	Leak check compound
MDL	Method detection limit
mL/min	Millimeters per minute
NFA	No Further Action
OCHCA	Orange County Health Care Agency

OEF	Other environmental feature
Operation & monitoring	O&M
OSHA	Occupational Safety and Health Administration
PCE	Tetrachloroethene
PEA	Preliminary Endangerment Assessment
PID	Photoionization detector
PVC	Polyvinylchloride
QA/QC	Quality assurance and quality control
QC	Quality control
REC	Recognized environmental condition
Report	Report of Findings
RL	Reporting limits
Roux	Roux Associates, Inc.
RSL	Regional Screening Levels
SCAQMD	South Coast Air Quality Management District
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SL	Screening levels
Strongarm	Strongarm Environmental Field Services, Inc.
Subsurface Surveys	Subsurface Surveys & Associates, Inc.
SVE	Soil vapor extraction
SVSL	Soil vapor screening levels
TPH-cc	Total petroleum hydrocarbon carbon chain
USA	Underground Service Alert
USEPA	United States Environmental Protection Agency
USGS	Untied States Geological Survey
VIMS	Vapor intrusion mitigation system
VOC	volatile organic compound
WLM	Water level meter

Executive Summary

On behalf of Sunrise Village Owner, LLC, Roux Associates, Inc. (Roux), has prepared this *Report of Findings* (Report) for submittal to the California Department of Toxic Substances Control (DTSC) to summarize the findings of the investigations conducted at the shopping center known as Sunrise Village, located at 1801 North Euclid Street, Fullerton, California 92835, Assessor's Parcel Numbers (APNs) 287-241-01, 287-241-04, and 287-241-05 (Site; Figure 1). The Site is currently owned by Sunrise Village Owner, LLC, who acquired the Site for commercial/residential redevelopment on March 29, 2021. The DTSC is the lead regulatory agency for the Site. The DTSC refers to the Site as the Sunrise Village, SITE CODE: 401971-11 & DOCKET NO. HSA-FY20/21-149. Sunrise Village Owner, LLC finalized a California Land Reuse and Revitalization Act (CLRRA) agreement with the DTSC on June 9, 2021. The work outlined in this Report was conducted for Sunrise Village Owner, LLC as part of due diligence and Site investigation; therefore, a workplan was not prepared for DTSC.

Based on Roux's review of historical sources and previous reports, a dry cleaner (Sunrise Cleaners) formerly operated in an on-Site suite near the southwestern corner of the Site (address of 1801 North Euclid Street) between approximately 1980 and 2015. The former owners entered the voluntary assistance program for regulatory oversight of the Orange County Health Care Agency (OCHCA) to address potential impacts associated with historic dry-cleaning operations at the Site. Between approximately 2008 and 2012, OCHCA oversaw Site assessments and remediation in the vicinity of the former dry-cleaning suite. The main volatile organic compound (VOC) constituent identified in the subsurface was tetrachloroethene (PCE), which was used at the former dry-cleaning operation. A soil vapor extraction (SVE) system operated from July 2010 through October 2011 at the Site. Following shutdown of the SVE system, verification soil vapor and groundwater samples were collected in December 2011. The maximum reported PCE concentration in soil vapor at the Site following remediation was 393 micrograms per cubic meter ($\mu g/m^3$). No VOCs were reported above the laboratory method reporting limit of 0.5 micrograms per liter (ug/L) in groundwater. Following Site remediation, OCHCA performed a desktop vapor risk assessment using the DTSC-modified Johnson-Ettinger (J&E) vapor intrusion model based on both commercial and residential land use. In consultation with the Santa Ana Regional Water Quality Control Board (SA-RWQCB), OCHCA concluded that the risk for exposure was below the target risk thresholds for cancer and non-cancer for commercial and residential uses. OCHCA issued a letter of No Further Action (NFA) Certification for the Site on June 19, 2012.

As part of due diligence for potential Site acquisition by Sunrise Village Owner, LLC, Roux prepared a Phase I Environmental Site Assessment (Phase I ESA) for the Site and identified the former Sunrise Cleaners as a Recognized Environmental Condition (REC) for the Site. Roux conducted multiple subsurface investigations at the Site between November 2020 and June 2021to evaluate Site conditions and the potential need for remedial actions and/or mitigation measures to facilitate future residential and commercial redevelopment. Based on the results of recent and historical soil, soil vapor, and groundwater investigations; the results of Roux's Human Health Screening Evaluation (HHSE); and in consideration of the future commercial/residential development, Roux concludes the following:

Soil

- Historical soil samples collected and analyzed for VOCs from within and immediately outside the dry cleaner suite, and in the areas surrounding the dry-cleaning machine (the former source areas) before SVE remediation occurred in 2010 and 2011, showed no significant sources of PCE in soils.

- Soil samples collected by Roux in 2020 and 2021 immediately surrounding the former dry cleaner suite confirm that no significant sources of PCE remain in soils at the former source area or anywhere across the Site. Detections of all VOCs in soil were approximately two orders of magnitude below their respective screening levels.

- Metals concentrations were below their respective screening levels, with the exception of arsenic, which was below background concentration established for Southern California (DTSC, 2018).

- There were no detections of total petroleum hydrocarbon carbon chain (TPH-cc) in soil.

- Based on the above, Roux concludes that soil has been completely investigated and no data gaps for soil exist for the Site.

Soil Vapor

- The lateral extent of PCE impacts in soil vapor at the Site have been fully delineated at 5 feet and 15 feet bgs.

- The highest soil vapor PCE concentration was encountered at 30 feet bgs immediately behind the former dry cleaner's suite. Based on lithology (siltstone/mudstone) and soil sample analytical results, it is believed that PCE in deeper vapor probes is unlikely to mobilize.

- Chloroform was reported in samples collected from multiple vapor probes at the Site, with the highest concentration detected in a 5-foot sample collected from adjacent to an active spa near the central-western portion of the Site (Imperial Spa, 1885 N Euclid Street). During Roux's Phase I Site reconnaissance, multiple pools, saunas, and shower stalls were observed within the spa. Chloroform can be formed as a byproduct when chlorine is used to treat water (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1997). It is considered likely that chloroform detections are associated with surface discharges or leaks of chlorinated water from the spa's multiple, chlorinated baths. Chloroform is extremely volatile with a reported half-life for degradation of approximately 100 to 180 days (International Programme on Chemical Safety, 1994). Although the maximum concentration of chloroform exceeds risk thresholds under a residential scenario, this condition is considered transient because the spa will be demolished and removed as part of Site redevelopment; therefore, sources of chloroform will be eliminated from the Site. Based on the above, chloroform detections are not considered significant in the context of the future residential and commercial uses of the Site.

- Sporadic detections of 1,2-dibromoethane, benzene, bromodichloromethane, and ethylbenzene were found above their respective soil vapor screening levels (SVSLs) at the Site. No historical sources of these chemicals were identified on-Site and lateral migration from potential nearby sources is not occurring, as evidenced by perimeter probes.

- Based on the above, Roux concludes that soil vapor has been sufficiently delineated to allow for evaluation of potential risks to future workers and residents of the Site and no additional soil vapor investigation are necessary for the Site.

Groundwater

- Groundwater was encountered at significantly different depths across short lateral distances of the Site (24.5 feet bgs at RSV-17 and 48.8 feet bgs at RSV-18). Based on observed lithology, depth to groundwater and direction of flow is likely controlled through fractures in siltstone and mudstone, as opposed to porous media flow.

- Roux attempted to collect groundwater samples at six locations immediately surrounding and downgradient of the former dry cleaner's suite but was only successful at two. Groundwater was

encountered at depths of 24.5 and 48.8 feet bgs with reported PCE concentrations of 14 and less than 5 micrograms per liter (µg/L), respectively. No groundwater was encountered (dry conditions) at the four locations attempted with final depths ranging between 30 and 65 feet bgs.

- VOC concentrations in groundwater samples historically collected in the immediate vicinity of the source area and recently collected by Roux are either below or slightly exceed the maximum contaminant level (MCL) for PCE.

- Based on the above, Roux concludes that no additional groundwater investigations are necessary for the Site.

Future Risk to Receptors

In order to assess potential risk to future workers and occupants of the Site, Roux prepared a Human Health Screening Evaluation (HHSE) for the Site. The HHSE utilized select historical data from environmental investigations conducted prior to 2012 and data collected by Roux between November 2020 and June 2021. The following bullet points summarize the results of the HHSE.

- A future residential scenario was evaluated for the portions of the Site slated for residential redevelopment and a future commercial/industrial worker scenario was evaluated for the portion of the Site, which will remain in commercial use.

    - The cumulative risk estimate for a future residential exposure to soil and indoor air is slightly above the most conservative 1E-06 cancer risk threshold for the low-end estimates (applying a 0.001 AF) and slightly above 1E-04 cancer risk threshold for the high-end estimates (applying a 0.03 AF). For non-cancer risk, the low-end risk estimate does not exceed the non-cancer target risk threshold of 1; however, the high-end risk estimate slightly exceed the non-cancer target risk threshold.

    - Both the low-end and high-end cancer risk estimates for future indoor commercial/industrial exposure to indoor air are below the most conservative 1E-06 target cancer risk threshold. Both the low-end and high-end non-cancer risk estimate for future indoor commercial/industrial exposure to indoor air does not exceed the non-cancer target risk threshold of 1.

- As stated above, chloroform was shown to exceed the cancer risk threshold under a residential scenario at one location of the Site. Because the presence of chloroform at the Site is considered a transient condition, this risk is not considered further in the context of the future redevelopment.

- The table below presents the calculated risk estimates for the currently proposed development scenarios. The HHSE shows that under unmitigated Site conditions, elevated risk from VOCs in soil vapor may be present for future residents within the southwestern portion of the Site. However, unmitigated conditions do not pose unacceptable risk for future indoor commercial/industrial workers. Based on the results of the HHSE, mitigation will be required for the southwestern portion of the Site.

Cumulative Cancer and Non-Cancer Risks by Receptor

Receptor (Exposure Unit) Media	Non-Cancer Risk	Cancer Risk
	Total Hazard Index (HI)	Total Incremental Lifetime Cancer Risk (ILCR)
Future Resident (Planned Residential Development)		
Soil	3.8E-01	2.2E-08
Indoor Air (low-end & high-end)	5.6E-02 to 1.7E+00	3.9E-06 to 1.2E-04
Cumulative (low-end & high-end)	4.3E-01 to 2.1E+00	3.9E-06 to 1.2E-04
Commercial/Industrial Indoor Worker (Northeast Commercial Parcels)		
Indoor Air (low-end & high-end)	2.9E-04 to 1.7E-02	6.1E-09 to 3.6E-07

Recommendations

Based on the comprehensive results of subsurface investigations for the Site and the calculated risk as presented in the HHSE, Roux recommends preparation of a Response Plan for the southwestern portion of the Site that will be developed as residential. The Response Plan will outline mitigation measures, future operation and monitoring (O&M) activities, and administrative controls to mitigate potential risk to future residents at the southwestern corner of the Site. It is expected that engineering controls will include passive vapor intrusion mitigation systems (VIMS) beneath future residential building slabs at and near the location of the former dry cleaner.

1. Introduction

On behalf of Sunrise Village Owner, LLC, Roux Associates, Inc. (Roux), has prepared this *Report of Findings* (Report) for submittal to the California Department of Toxic Substances Control (DTSC) to summarize the findings of the investigations conducted at the shopping center known as Sunrise Village, located at 1801 North Euclid Street, Fullerton, California 92835, Assessor's Parcel Numbers (APNs) 287-241-01, 287-241-04, and 287-241-05 (Site; Figure 1). The Site is currently owned by Sunrise Village Owner, LLC, who acquired the Site for commercial/residential redevelopment on March 29, 2021. The DTSC is the lead regulatory agency for the Site. The DTSC refers to the Site as the Sunrise Village, SITE CODE: 401971-11 & DOCKET NO. HSA-FY20/21-149. Sunrise Village Owner, LLC finalized a California Land Reuse and Revitalization Act (CLRRA) agreement with the DTSC on June 9, 2021. The work outlined in this Report was conducted for Sunrise Village Owner, LLC as part of due diligence and Site investigation; therefore, a workplan was not prepared for DTSC.

Based on Roux's review of historical sources and previous reports, a dry cleaner (Sunrise Cleaners) formerly operated in an on-Site suite near the southwestern corner of the Site (address of 1801 North Euclid Street) between approximately 1980 and 2015. The former owners entered the voluntary assistance program for regulatory oversight of the Orange County Health Care Agency (OCHCA) to address potential impacts associated with historic dry-cleaning operations at the Site. Between approximately 2008 and 2012, OCHCA oversaw Site assessments and remediation in the vicinity of the former dry-cleaning suite. The main volatile organic compound (VOC) constituent identified in the subsurface was tetrachloroethene (PCE), which was used at the former dry-cleaning operation. A soil vapor extraction (SVE) system operated from July 2010 through October 2011 at the Site. Following shutdown of the SVE system, verification soil vapor and groundwater samples were collected in December 2011. The maximum reported PCE concentration in soil vapor at the Site following remediation was 393 micrograms per cubic meter ($\mu g/m^3$). No VOCs were reported above the laboratory method reporting limit of 0.5 ug/L in groundwater. Following Site remediation, OCHCA performed a desktop vapor risk assessment using the DTSC-modified Johnson-Ettinger (J&E) vapor intrusion model based on both commercial and residential land use. In consultation with the Santa Ana Regional Water Quality Control Board (SA-RWQCB), OCHCA concluded that the risk for exposure was below the target risk thresholds for cancer and non-cancer for commercial and residential uses. OCHCA issued a letter of No Further Action (NFA) Certification for the Site on June 19, 2012.

As part of due diligence for potential Site acquisition by Sunrise Village Owner, LLC, Roux prepared a Phase I Environmental Site Assessment (Phase I ESA) for the Site and identified the former Sunrise Cleaners as a Recognized Environmental Condition (REC) for the Site. Roux conducted multiple subsurface investigations at the Site between November 2020 and June 2021 to evaluate Site conditions and the potential need for remedial actions and/or mitigation measures to facilitate future residential and commercial redevelopment. The Site background, and the methods and results of the investigations are discussed in this Report.

2. General Background

2.1 Site Identification Information

The Site is a 13.94-acre shopping center known as Sunrise Village located in the City of Fullerton. The Site consists of commercial spaces and restaurants, covering three individual parcels, identified by the Orange County Tax Assessor's Office with APNs 287-241-01, 287-241-04, and 287-241-05.

The Site is currently developed with eight single-story commercial buildings and designated asphalt- and concrete-paved customer parking areas:

- 1701 North Euclid Street (Building A);
- 1715 – 1723 North Euclid Street (Building B);
- 1751 North Euclid Street (Building C);
- 1801 – 1895 North Euclid Street (Building D);
- 1020 Rosecrans Avenue (Building E);
- 1026 – 1030 Rosecrans Avenue (Building F); and
- 1144 Rosecrans Avenue (Building G).

In addition, there is one address (1146 Rosecrans Avenue) associated with tennis courts in the northwestern portion of the Site.

The Site is bound by Rosecrans Avenue to the north, by Euclid Street followed by residential structures to the east, by Paseo Dorado followed by residential structures to the south, and by residential structures to the west (Figure 2). The former Sunrise Cleaners facility located at 1801 Euclid Avenue is currently a dog wash facility.

2.2 Site Geology and Hydrogeology

2.2.1 Site Geology

The Site is located on the United States Geological Survey (USGS) 7.5-Minute La Habra and Anaheim, California Quadrangle map (USGS, 2012). The elevation ranges from approximately 220 feet above mean sea level (amsl) in the southeastern portion and rises at a gentle to moderate slope to approximately 280 feet at the northwestern portion.

According to the California Department of Conservation, Geologic Map of California, the Site is situated in the Peninsular Ranges geomorphic province, which consist of northwest-trending valleys with granitic and older metamorphic rocks that extend into Southern California (California Department of Conservation, California Geological Survey, 2002). The area is underlain by older alluvium, lake, playa, and terrace deposits.

Site lithology was classified as sandstone, mudstone, and siltstone by Geotek, Inc. (Geotek) during geotechnical investigations at the Site in April 2020, and is associated with Los Coyotes Hills, which consist of folded layers of sandstone, shale, and conglomerate that are over a thousand feet in thickness. Specifically, deposits beneath the Site are grouped into the La Habra Formation, which ranges in age from

about 400,000 to 10,000 years, and consists of fine-grained sandstone, claystone/mudstone, and some coal lenses.

2.2.2 Site Hydrogeology

The Site is located along the eastern edge of the Coastal Plain of Orange County Groundwater Basin. The regional groundwater flow direction is reportedly to the south-southeast, based on groundwater monitoring data from previous subsurface investigations on Site, and depth to groundwater reportedly ranges between 22 feet to 38 feet below ground surface (bgs) (OCHCA, 2012). During advancement of geotechnical borings in April 2020, Geotek encountered groundwater at 48 feet bgs in a boring located in the northeast corner of the Site (Geotek, 2020). During subsurface investigations conducted by Roux between November 2020 and June 2021, groundwater was encountered at significantly different depths across short lateral distances of the Site (24.5 feet bgs at RSV-17 and 48.8 feet bgs at RSV-18). Based on observed lithology, known geology of the Site and immediately surrounding areas (La Habra Formation), depth to groundwater and direction of flow is likely controlled through fractures in siltstone and mudstone, as opposed to porous media flow. Roux attempted to collect groundwater samples at six locations immediately surrounding and downgradient of the former dry cleaner's suite but was only successful at two. No groundwater was encountered (dry conditions) at the four locations attempted with final depths ranging between 30 and 65 feet bgs.

2.3 Summary of Historical Site Uses

Roux has compiled the following Site history using sources obtained and referenced in previous environmental documents. The Site history presented below, including the former Site uses, was documented in a Phase I Environmental Site Assessment (ESA) prepared by Roux in February 2021 (Roux 2021).

Based on Roux's review of historical sources, the Site was undeveloped in 1928. By 1938, the southwest portion of the Site was used for agricultural purposes. From at least 1947 through 1963, a majority of the Site, with the exception of the northeast corner, was used for agricultural purposes. By 1972, the Site was cleared and graded. The Site was developed with commercial buildings and parking areas that are similar to the current Site configuration for commercial use by 1977, and the current commercial structures were constructed between 1977 and 2005. No significant changes to the Site improvements have occurred since 2005.

The Site has been occupied by multiple tenants, consisting of restaurants and commercial businesses. A dry cleaner (Sunrise Cleaners) formerly operated in an on-Site suite near the southwestern corner of the Site (address of 1801 North Euclid Street) between approximately 1980 and 2014 with documented South Coast Air Quality Management District (SCAQMD) equipment permits using tetrachloroethene (PCE), between February 1980 and January 2008. The former owners of the Site entered into the voluntary assistance program for regulatory oversight with the Orange County Health Care Agency (OCHCA) to address potential impacts associated with historic dry-cleaning operations. Between approximately 2008 and 2012, PCE impacts were identified in the soil and soil vapor at the Site and remediation was conducted in the vicinity of the former dry-cleaning suite under OCHCA oversight. Remediation, in the form of SVE, was implemented at the Site from July 2010 through October 2011. Following Site remediation, OCHCA performed a desktop vapor risk assessment based on both commercial and residential land use. In consultation with the SA-RWQCB, OCHCA concluded that the risk for exposure was below the target risk thresholds for cancer and non-cancer for commercial and residential uses. OCHCA issued a letter of NFA Certification for the Site on June 19, 2012.

2.4 Previous Environmental Investigations

Roux reviewed historical documents for the Site, including reports of environmental investigations and other relevant studies conducted at the Site, particularly in regard to the former use of PCE dry-cleaning equipment at the former Sunrise Cleaners. Roux reviewed the following reports:

- Phase I Environmental Site Assessment, prepared by Alpha Environmental (Alpha), dated December 7, 2020;
- Site Assessment Report, prepared by ASTECH Environmental Services, Inc. (ASTECH), dated January 9, 2008;
- Further Site Assessment Report & Vapor Extraction Pilot Test Workplan, prepared by ASTECH, dated June 5, 2008;
- Soil Gas Investigation Report, prepared by ASTECH, dated October 23, 2008;
- Vapor Extraction System Operation Report, prepared by ASTECH, dated February 2, 2012;
- No Further Action Certification, prepared by OCHCA, dated June 19, 2012; and
- Phase I Environmental Site Assessment, prepared by Roux, dated February 11, 2021.

2.4.1 Phase I Environmental Site Assessment (Alpha, 2007)

Alpha prepared a Phase I ESA for the Site in December 2007. It was reported that the only tenant of concern was the former Sunrise Cleaners at 1801 North Euclid Street. Recommendations for the Site included a limited Phase II investigation to characterize subsurface conditions and identify potential impacts due to former dry-cleaning operations at the Site.

2.4.2 Site Assessment Report (ASTECH, 2008)

In January 2008, ASTECH installed six borings at Sunrise Cleaners to assess potential subsurface impacts. A total of ten soil samples (at 2 or 5 feet bgs) and ten soil vapor samples (at 5 or 10 feet bgs) were collected and analyzed for VOCs from within and immediately outside the dry cleaner suite, and in the areas surrounding the dry-cleaning machine. Laboratory analytical results for soil matrix samples indicated that all constituents were below method detection limits (MDLs). Laboratory analytical results for soil vapor indicated that PCE was present in all ten samples at depths ranging from 5 to 15 feet bgs and ranged in concentration between 0.4 micrograms per liter (µg/L) and 11 µg/L. ASTECH concluded that releases of VOCs on-Site were due to former dry-cleaning operations. Further investigation was not recommended.

2.4.3 Further Site Assessment Report & Vapor Extraction Pilot Test Workplan (ASTECH, 2008)

On January 22, 2008, Packo Investments, Inc. applied for oversight from the OCHCA under the voluntary assistance program for remedial action to address potential impacts associated with historical dry-cleaning operations at the Site. OCHCA requested additional Site assessment to define the limits of impact. In May 2008, ASTECH installed six additional soil vapor probes to delineate VOC impacts laterally and vertically. A total of nine soil samples collected from two boring locations (west and south of the dry cleaner suite) at depths ranging from 5 to 35 feet bgs, one groundwater grab sample at a depth of approximately 20 feet bgs (EB8GW1 depicted in Figure 8), and six soil vapor samples at a depth of five feet bgs were collected and

analyzed for VOCs. All constituents were below MDLs for the groundwater sample with a PCE detection limit of 0.5 µg/L. PCE was detected in one soil sample at a concentration of 5 micrograms per kilogram (µg/kg). PCE was detected in five of the six soil vapor samples, ranging in concentrations from 0.9 µg/L to 1.7 µg/L. ASTECH recommended additional soil vapor investigation to the north and east of the former dry cleaner to laterally delineate the VOC plume, a continuous soil boring to characterize shallow soil, a SVE pilot test to evaluate the feasibility of remediation, and a baseline health risk assessment to assess indoor air quality.

2.4.4 Soil Gas Investigation Report (ASTECH, 2008)

In September and October 2008, ASTECH installed eight dual-nested soil vapor probes (at depth intervals of 5 and 10 feet bgs). A total of 16 soil vapor samples were collected and analyzed for VOCs. PCE was detected in 12 of the 16 soil vapor samples and ranged in concentration between 1.2 µg/L and 15 µg/L. Based on the findings of the soil vapor investigation, ASTECH determined that the lateral limits of impact were adequately defined, and no further investigation was recommended.

2.4.5 Vapor Extraction System Operation Report (ASTECH, 2012)

Five SVE wells were installed to a maximum depth of 25 feet bgs around the exterior of 1801 and 1805 North Euclid Street. Based on the results of the SVE pilot test, a vapor extraction system was installed and began operation on July 1, 2011. The SVE system operated relatively continuously over a 4-month period. The SVE system was shut-down for rebound testing following a 45-day time period on October 31, 2011. On December 30, 2011, soil vapor probes were sampled for verification sampling at depths ranging from 5 and 15 feet bgs. PCE was detected in six of the verification sample locations at concentrations ranging from 0.028 µg/L (28 µg/m^3) to 0.393 µg/L (393 µg/m^3). PCE was not detected in any of the vapor samples collected from the 5-foot probes. ASTECH also performed water quality sampling and collected three groundwater samples from the vapor extraction wells (GW1, GW2, and GW5, depicted in Figure 8). All constituents were below MDLs for all groundwater samples with a PCE detection limit of 0.5 µg/L. ASTECH requested case closure be granted based on the results of the verification sampling activities.

2.4.6 No Further Action Certification (OCHCA, 2012)

Following Site remediation, OCHCA performed a desktop vapor risk assessment using the DTSC-modified J&E vapor intrusion model based on both commercial and residential land use. In consultation with the SA-RWQCB, OCHCA concluded that the risk for exposure was below the target risk thresholds for cancer and non-cancer for commercial and residential uses. OCHCA issued a letter of No Further Action (NFA) Certification for the Site on June 19, 2012.

2.4.7 Phase I Environmental Site Assessment (Roux, 2021)

Roux completed a Phase I ESA for the Site in February 2021. The Phase I ESA identified the following Recognized Environmental Condition (REC) for the Site:

- Former on-Site dry-cleaning operations: A former on-Site dry cleaner facility, Sunrise Cleaners, was present at 1801 North Euclid Street and was under the oversight from OCHCA. Sunrise Cleaners was issued NFA Certification in 2012.

The Phase I ESA identified the following Other Environmental Features (OEFs) for the Site:

- On-Site drainage feature: During the Site reconnaissance, Roux observed a drainage feature in the rear of the Pola Hair Salon at 1829 North Euclid Street. The sump appeared to be filled with concrete and had one cleanout cap. The sump may have been associated with the sewer line. There was no evidence indicative of a significant environmental concern to the Site.

- Historical use of adjoining properties: At least two nearby properties are known to have used hazardous or petroleum-containing chemicals during their operation. A former Chevron gasoline service station operated at 2001 North Euclid Street from at least 1970 through 1995, which was located across Rosecrans Avenue, approximately 100 feet north of the Site. A former dry-cleaning facility (New Oxford Cleaners and Good Cleaners) at 1031 Rosecrans Avenue was also located across Rosecrans Avenue, approximately 250 feet north of the Site, with documented PCE use in 1993. None of these operations are currently active and none appear to have been the subject of a known release or subsurface investigation based on available regulatory agency records.

- Historical agriculture use on-Site: A majority of the Site, with the exception of the northeast corner, and the surrounding parcels were historically used for agricultural operations from at least 1947 through 1963. Although undocumented, the use of agricultural chemicals, such as pesticides, herbicides, and fertilizers, was commonplace for similar operations at that time. There was no documentation indicative of known impacts related to agriculture use on-Site.

3. Subsurface Field Investigations

3.1 Investigation Objectives

Roux conducted multiple Site investigations, consisting of four separate Site mobilizations, between November 2020 and June 2021, as part of the due diligence process and to evaluate Site conditions and the potential need for additional remedial actions and/or mitigation measures to facilitate development. The dates of the mobilizations were: November 19 through December 1, 2020 (first mobilization); December 22, 2020 through January 11, 2021 (second mobilization); May 3 through May 7, 2021 (third mobilization); and June 11 through June 14, 2021 (fourth mobilization).

The subsurface field investigations were designed to address the following objectives:

- Sample soil, soil vapor, and groundwater in the vicinity of the former dry cleaner facility at 1801 North Euclid Street to confirm the current lateral and vertical extent of residual VOC contamination;
- Sample soil vapor for VOCs at the northern Site boundary to investigate potential off-Site sources (former gasoline service station and former dry cleaner across Rosecrans Avenue);
- Sample soil vapor at the downgradient southern Site boundary to investigate potential migration of VOC impacts;
- Laterally delineate the extent of soil vapor impacts on-Site to determine which future residential structures, if any, may require a sub-slab vapor intrusion mitigation system (VIMS);
- Identify location of sewer line from the former dry-cleaning facility and collect soil vapor samples in the vicinity of the sewer line to check for potential historical leaks and secondary sources of PCE; and
- Sample soil to evaluate levels of VOCs, petroleum hydrocarbons, and metals in anticipation of potential soil export.

Due to Site access restrictions (dog washing tenant did not allow entry), no samples were collected from within the former dry cleaner suite.

Protocols and procedures utilized by Roux during the investigation were in accordance with the following State guidance documents:

- October 2011 DTSC Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance);
- February 2020 Draft DTSC Supplemental Guidance: Screening and Evaluating Vapor Intrusion (Draft Supplemental Guidance); and
- July 2015 California Environmental Protection Agency (Cal/EPA), DTSC, Los Angeles Regional Water Quality Control Board (LARWQCB), and San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), Advisory, Active Soil Gas Investigations (Soil Gas Advisory).

All work was conducted under the direct oversight of a California-registered Professional Geologist or Engineer. The sections that follow outline the work completed during the investigation to meet the outlined objectives.

3.2 Pre-field Activities

3.2.1 Health and Safety

Prior to the start of field activities, Roux prepared a Site-specific Health and Safety Plan (HASP), which complies with the pertinent requirements of both California Occupational Safety and Health Administration and the United States Occupational Safety and Health Administration (OSHA). Work was performed in accordance with Roux's COVID-19 Interim Health and Safety Guidance (COVID-19 Guidance), effective date of March 2021, most recently revised June 11, 2021. Field personnel verbally acknowledged familiarity with all safety procedures and indicated their intent to follow the HASP after the tailgate safety meeting, which took place at the beginning of each field day. In addition to containing information regarding Roux's standard safety practices, the HASP described potential hazards relating to Site activities and provided the locations and contact information of nearby emergency services. Personnel were OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) trained, consistent with federal regulation 29 CFR 1910.120. The HASP is included as Appendix A.

3.2.2 Utility Clearance and Geophysical Investigation

Roux pre-marked the Site boundaries with white paint and notified Underground Service Alert (USA) of Southern California at least 72 hours in advance of each Site mobilization for intrusive subsurface work (USA Ticket numbers A203171292-00A, A203560780-00A, B211130083-01A, and B211550204-00B).

A private geophysical services and utility locating firm, Subsurface Surveys & Associates, Inc. (Subsurface Surveys) of Carlsbad, California, was contracted to evaluate the proposed boring locations and to mitigate the risk of potentially encountering buried utility lines (i.e., natural gas, electric, water, sewer, telephone, fiber optic, etc.) or other subsurface features prior to each Site mobilization. On November 19, 2020, December 22, 2020, May 3, 2021, and June 11, 2021, under oversight from Roux personnel, SubSurface Surveys utilized a variety of tools, including electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) to clear boring locations and/or investigate the location of the on-Site sewer line. Subsurface Surveys located a north-south trending sewer line that runs along the western rear parking lot of the building and bends towards the east along the southern side of Building C (the former CVS building) before its depth bgs increased and it was no longer able to be traced (Figure 2). No subsurface utilities or structures identified during the geophysical survey interfered with the proposed boring locations.

3.2.3 Permitting

A Well Construction Permit (#20-11-20) was obtained from the OCHCA for the three temporary groundwater monitoring wells that were proposed as a part of the first mobilization in November 2020. A Well Construction Permit (#20-12-39) was obtained from the OCHCA for the four additional temporary groundwater monitoring wells that were included as a part of the second mobilization in December 2020. Copies of the permits are included in Appendix B. No permits were required for the soil vapor probes that were installed during the third and fourth mobilizations.

3.3 Field Activities

3.3.1 Soil Boring Advancement

On November 23 and 25, 2020, Strongarm Environmental Field Services, Inc. (Strongarm) of Fullerton, California (C-57 License #766463) advanced 11 soil borings at the Site (RSV-1 through RSV-11). On December 1, 2020, Roux advanced two additional borings along the northeast boundary (RSV-12 and RSV-

13). From January 4 to 6, 2021, Gregg Drilling, LLC (Gregg) of Signal Hill, California (C-57 License # 1044456) advanced six borings at the Site (RSV-14 through RSV-19). On May 4, 2021, Strongarm advanced nine borings at the Site (RSV-20 through RSV-28). On June 11, 2011, ABC Liovin Drilling, Inc. (ABC Liovin) of Signal Hill, California (C-57 License #422904) advanced four borings at the Site (RSV-29 through RSV-32) (Figure 2).

All borings were hand-cleared using a hand auger down to a depth of five feet bgs to clear for utilities. Borings RSV-3 through RSV-8, RSV-10, RSV-11, RSV-20, RSV-22 through RSV-26, and RSV-31 through RSV-32 were further advanced with a Geoprobe 6620 track-mounted direct push technology (DPT) drilling rig to terminal depths ranging between 15.5 and 32 feet bgs. Lithologic refusal was encountered at RSV-8 and RSV-11 at 30 feet bgs and 32 feet bgs, respectively. Borings RSV-14 through RSV-19 were advanced with a D25 hollow-stem auger (HSA) drilling rig to terminal depths ranging between 30 and 65 feet bgs. Lithologic refusal was encountered at RSV-15 and RSV-19 at 65 feet bgs.

Boring RSV-8 was continuously logged, and borings RSV-15 and RSV-18 were logged every five feet in a manner consistent with the Unified Soil Classification System for materials, color, moisture and other pertinent geological observations. The boring logs are included in Appendix C. For all other boring locations, photoionization detector (PID) field screenings and major lithology changes can be found in the field notes, provided as Appendix D. Boring locations were logged in the field by Roux using a handheld Trimble Geo 7X handheld Global Positional System (GPS) unit.

3.3.2 Soil Sampling and Analysis

On November 23, 2020, a total of six soil samples (five primary, one duplicate) were collected from four borings (RSV-5 through RSV-8) at depths of 5 and/or 32 feet bgs. From January 4 through 6, 2021, an additional nine soil samples (eight primary, one duplicate) were collected from six borings (RSV-14 through RSV-19) at depths of 5 and/or 30 feet bgs. On May 4, 2021, a total of three primary samples were collected from three borings (RSV-21, RSV-24, and RSV-26) at depths of 2 or 3 feet bgs. Soil samples were collected based on PID field readings or proximity to the former Sunrise Cleaners suite. Due to Site access restrictions (dog washing tenant did not allow entry), no samples were collected from within the former dry cleaner suite.

Soil samples collected for VOC analysis were collected using preservation method 5035 with TerraCore sampling kits, directly from the acetate sleeve, or split spoon sampler. For the remaining analytes, soil was homogenized in Ziploc® bags before being bottled in appropriate laboratory-provided sampling containers. Soil samples were labeled based on their boring number and sampling depth (e.g., RSV-8-5 was a soil sample collected at boring RSV-8 located at 5 feet bgs).

After sample collection, soil samples were placed on ice and transported under strict chain-of-custody protocols. Soil samples collected during the first two mobilizations were transported to Enthalpy Analytical, LLC (Enthalpy), of Orange, California, a California-certified laboratory. Soil samples collected during the third mobilization were transported to Eurofins Calscience (Eurofins) of Garden Grove, California, a California-certified laboratory. Soil samples (primary, duplicate) were analyzed for the following constituents:

- 18 samples (16 primary, 2 duplicate) analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method 8260B/5035;
- 6 samples (5 primary,1 duplicate) analyzed for Title 22 Metals by USEPA Method 6010B/7471A, and

- 6 samples (5 primary, 1 duplicate) analyzed for total petroleum hydrocarbon carbon chain (TPH-cc) by USEPA Method 8015B.

3.3.3 Soil Vapor Probe Installation, Soil Vapor Sampling, and Analysis

On November 23 and 25, 2020, temporary single-nested soil vapor probes were installed at 5 feet bgs at five locations (RSV-1, RSV-2, RSV-9, RSV-12, and RSV-13), and temporary dual-nested soil vapor probes were installed at 5 and 15 feet bgs at eight locations (RSV-3 through RSV-8, RSV-10 and RSV-11). From January 4 to 6, 2021, temporary single-nested soil vapor probes were installed at 30 feet bgs at three locations (RSV-14, RSV-16, and RSV-18) and temporary dual-nested soil vapor probes were installed at 15 and 22 feet bgs at RSV-17 and at 15 and 30 feet bgs at RSV-19. A boring was advanced at RSV-15 with the purpose of collecting groundwater, without planned installation of a soil vapor probe. On May 4, 2021, temporary single-nested soil vapor probes were installed at 5 feet bgs at three locations (RSV-21, RSV-27, and RSV-28) and temporary dual-nested soil vapor probes were installed at 5 and 15 feet bgs at six locations (RSV-20 and RSV-22 through RSV-26). On June 11, 2011, temporary single-nested soil vapor probes were installed at 5 feet at two locations (RSV-29 and RSV-30) and at 15 feet at RSV-32 and temporary dual-nested soil vapor probes were installed at 5 and 15 feet bgs at RSV-31.

In accordance with the Soil Gas Advisory, the probes were installed by placing ¼-inch nylon (NylaFlow®) tubing with a filter stone in the center of a sand pack consisting of a minimum 12-inch layer of #3 sand, followed by a minimum 12-inch layer of dry bentonite chips, and then sealed to the surface or to the bottom of the sand pack of the next shallowest probe using hydrated bentonite. The tubing was labeled with depth of placement and capped using a gas-tight valve set to the "off" position.

Portland cement grout and bentonite were used to seal the borings from groundwater to the bottom of the deepest soil vapor probe in OCHCA-permitted boring locations, in accordance with the well construction permit.

In general accordance with the Soil Gas Advisory, prior to sampling, a minimum equilibration period was observed after installation of soil vapor probes[1]. Prior to purging or sampling, a shut-in test was performed to confirm that the aboveground lines and three-way valves were properly sealed at each location. As a secondary test, a leak check compound (LCC), 1,1-difluoroethane (1,1- DFA), was utilized during sampling to check for leaks during sampling and was included among the laboratory analyte list for soil vapor. Upon successful completion of the shut-in test, three purge volumes were extracted from the sampling system at a flow rate of 200 milliliters per minute (mL/min). A vacuum gauge was used to ensure the applied vacuum remained below 100 inches of water during purging and sampling.

On November 30 and December 1, 2020, a total of 21 primary soil vapor samples were collected; duplicate samples were not able to be collected due to SUMMA® canister malfunctions. On January 11, 2021, a total of seven soil vapor samples (six primary, one duplicate) were collected. On May 6 and 7 2021, a total of 17 soil vapor samples (15 primary, 2 duplicates) were collected. On June 14, 2021, a total of six soil vapor samples (five primary, one duplicate) were collected. Soil vapor probes RSV-16-30, RSV-20-5, and RSV-31-15 were not properly purged in accordance with the Soil Gas Advisory due to low flow conditions; however, a sample was able to be collected by connecting a SUMMA® cannister to the probe for an extended sampling period. Soil vapor probes RSV-18-30 and RSV-21-15 were unable to be sampled due to low flow conditions,

[1] Probes RSV-12 and RSV-13 along the northern property boundary were installed with a mechanical hand-auger and sampled 2 hours after installation, the remaining soil vapor probes had an equilibration period of 48-hours.

followed by water being collected within the SUMMA® canister when it was connected to the probe for an extended sampling period.

All soil vapor samples were collected in 1-Liter batch-certified SUMMA® canisters with 200 mL/min flow controllers. Each sample was immediately labeled with a unique sample identifier based on their boring number and sampling depth (e.g., RSV-1-5 was a soil vapor sample collected at boring RSV-1 located at 5 feet bgs). Soil vapor samples from the first two mobilizations were transported to Enthalpy and analyzed for VOCs by USEPA Method TO-15 SCAN. Soil vapor samples from the third and fourth mobilization were transported to Eurofins and analyzed for VOCs by USEPA Method TO-15 SIM.

3.3.4 Grab Groundwater Sampling and Analysis

On November 23 and 25, 2020, Roux attempted to collect grab groundwater samples from borings RSV-8 and RSV-11 and lithologic refusal was encountered at 32 feet bgs and 30 feet bgs, respectively. A 1-inch diameter Schedule 40 polyvinylchloride (PVC) temporary well with a five-foot screen was installed at the total boring depth to try to collect potential groundwater. A water level meter (WLM) was used to check if groundwater entered the borehole. After a few hours, the temporary wells remained dry. Wet soil conditions were not observed during drilling activities. No groundwater was able to be collected during the first mobilization.

From January 4 to 6, 2021, Roux attempted to collect grab groundwater samples from borings RSV-15, RSV-17, RSV-18, and RSV-19. All four borings were advanced with an HSA drilling rig to install temporary groundwater wells. At borings RSV-17 and RSV-18, a 1-inch diameter Schedule 40 PVC temporary wells was installed with a five-foot screen from 25 to 30 feet bgs and 50 to 55 feet bgs, respectively. Plastic disposable bailers were used to collect grab groundwater samples. Field measurements taken using a WLM indicated depth to groundwater was 24.5 feet bgs at boring RSV-17 and 48.8 feet bgs at boring RSV-18. A duplicate groundwater sample was collected at RSV-18. Groundwater was not encountered at 65 feet bgs at borings RSV-15 and RSV-19. Temporary groundwater wells were set at 65 feet bgs at both locations; however, after a few hours, the wells remained dry.

After all temporary wells were removed, the boreholes were backfilled with Portland cement grout and bentonite, in accordance with the well construction permit, to the depth of installation for the soil vapor probes.

Upon collection, each groundwater sample was immediately labeled with a unique sample identifier based on their boring number and media (e.g., RSV-17-GW was a groundwater sample collected at boring RSV-17). Groundwater samples were then transported under proper chain-of-custody procedures to Enthalpy and analyzed for VOCs by USEPA Method 8260B.

3.3.5 Borehole Abandonment

OCHCA-permitted boring locations were backfilled using Portland cement grout and bentonite, in accordance with the well construction permit. Following sampling, each of the soil vapor probes were abandoned by pulling the tubing and filling any void space with hydrated bentonite. Borings were patched to match the existing ground surface.

3.3.6 Field Sampling Quality Control

Field quality assurance and quality control (QA/QC) samples were collected during the investigations to assess whether reported concentrations of chemicals identified through analytical testing were of acceptable quality, as follows:

- Field Duplicates: Duplicate soil samples were collected for at least 10% of analyzed samples for QA/QC, with the exception of soil vapor samples on November 30 and December 1, 2020, due to SUMMA® canister malfunctions. Duplicate samples were collected and stored in the same manner as the primary samples. The duplicate sample results are shown beneath the primary soil sample results in Tables 1 and 2.

- Equipment Blank: Equipment blanks were collected by running deionized water over and through the hand auger bucket at the end of the field days after the equipment underwent the decontamination procedures explained in Section 3.3.7. The equipment blanks were analyzed for VOCs using USEPA Method 8260B.

- Trip Blank: Trip blank samples were provided by the laboratory and transported with the samples. The trip blank samples were analyzed for VOCs using USEPA Method 8260B.

3.3.7 Equipment Decontamination

Drilling equipment and reusable sampling equipment was decontaminated using a triple rinse with distilled water and Alconox between each boring location. New disposable gloves were worn when handling clean sampling equipment and during sampling activities. Soil vapor sampling equipment involved in the sample collection was not re-used between sampling locations or depth intervals.

3.3.8 Investigation-Derived Waste

Investigation-derived waste (IDW) generated from soil cuttings and decontamination activities was contained in 19 Department of Transportation (DOT)-rated 55-gallon drums and temporarily stored on Site.

Samples were collected from the solid and/or liquid drums generated for laboratory analysis to characterize the IDW prior to disposal. The samples were analyzed for the following constituents:

- VOCs by USEPA Method 8260B;
- Title 22 metals by USEPA Method 6010B/7471A; and
- TPH-cc by USEPA Method 8015M.

Based on the analytical results, American Integrated Services, Inc. (AIS) of Long Beach, California characterized the IDW as non-hazardous. The IDW from the first two mobilizations was removed from the Site on January 29, 2021, and transported to the final disposal facility, Soil Safe, on February 3, 2021.

The third and fourth mobilizations generated one DOT-rated 55-gallon drums of soil, respectively. The non-hazardous IDW will be transported by AIS to the final disposal facility in August 2021.

4. Results and Discussion

This section presents and examines the findings of the subsurface field investigations conducted by Roux, including analytical results for soil, soil vapor, and groundwater. Results of detected analytes in soil are presented in Tables 1 through 2, soil vapor in Table 3, and groundwater in Table 4. The full analytical laboratory reports are included in Appendix E.

4.1 Soil Results

A total of 18 soil samples (16 primary, 2 duplicate) were collected from 13 borings (RSV-5 through RSV-8, RSV-14 through RSV-19, RSV-21, RSV-24, and RSV-26) at depths ranging from 5 to 32 feet bgs and analyzed for VOCs, Title 22 Metals, and/or TPH-cc.

Sample results were compared to DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 residential cancer and non-cancer screening levels (SLs) for soil, dated June 2020 and the USEPA Regional Screening Levels (RSLs) for residential soil, dated May 2021.

4.1.1 VOCs

A total of 18 soil samples (16 primary, 2 duplicates) were collected and analyzed for VOCs by USEPA Method 8260B. Analytical results for VOCs in the soil samples above laboratory reporting limits (RLs) are summarized in Table 1 and in the table below. A total of four VOCs were detected above laboratory RLs with no exceedances in DTSC residential SL or USEPA residential RSL; PCE and its daughter products were not detected above RLs. There were no other detections above RLs.

Summary of Soil VOC Data

Compound	Detection Frequency (Excluding Duplicates)	Range of Detections (µg/kg)	DTSC Residential SL (µg/kg)	USEPA Residential RSL (µg/kg)
Acetone	3 / 16	58 - 86	NA	61,000,000
Methylene Chloride	5 / 16	6.5 B – 15 B	2,200	57,000
Para-Isopropyl Toluene	1 / 13	10	NA	NA
Toluene	1 / 16	6.3	1,100,000	47,000,000

(1) µg/kg = micrograms per kilogram
(2) B = contaminant found in associated method blank

Detections of VOCs in soil were at least two orders of magnitude below their respective screening levels. Methylene chloride was detected in the method blank and trip blanks, as discussed in Section 4.4; methylene chloride is a common laboratory contaminant (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 2012).

4.1.2 Title 22 Metals

A total of six soil samples (five primary, one duplicate) were collected and analyzed for Title 22 Metals by USEPA Method 6010B/7471A. Analytical results for metals in the soil samples above laboratory RLs are summarized in Table 2 and in the table below. A total of 13 metals were detected above laboratory RLs. There were no other detections above RLs.

Summary of Soil Title 22 Metals Data

Compound	Detection Frequency (Excluding Duplicates)	Range of Detections (mg/kg)	DTSC Residential SL (mg/kg)	USEPA Residential RSL (mg/kg)
Arsenic	5 / 5	2.4 - 4.1	0.11	0.68
Barium	5 / 5	35 - 240	NS	15,000
Beryllium	1 / 5	0.55	16	160
Cadmium	3 / 5	0.94 - 2.6	71	71
Chromium	5 / 5	5.4 - 32	NS	120,000
Cobalt	5 / 5	3.4 - 11	NS	23
Copper	5 / 5	4.9 - 14	NS	3,100
Lead	5 / 5	1.6 - 3.8	80	400
Molybdenum	5 / 5	1.2 - 22	NS	390
Nickel	5 / 5	7.9 - 27	820	1,500
Selenium	1 / 5	5.6	NS	390
Vanadium	5 / 5	22 - 44	NS	390
Zinc	5 / 5	19 - 53	NS	23,000

(1) mg/kg = milligrams per kilogram
(2) NS = no screening level available
(3) Highlight indicates exceedance of at least one SL.

Detections of metals in soil were below their respective screening levels with the exception of arsenic. Arsenic exceeds the DTSC residential SLs and USEPA residential RSLs but below the background concentration for arsenic generally established for Southern California of 12 mg/kg (DTSC, 2018). Concentrations of arsenic detected at the Site are likely naturally occurring, based on their frequency and range of detections.

4.1.3 TPH-cc

A total of six soil samples (five primary, one duplicate) were collected and analyzed for TPH-cc by USEPA Method 8015B with cumulative values listed for carbon ranges C6 to C12 corresponding to gasoline range, C13 to C22 corresponding to diesel range, and C23 to C44 corresponding to motor oil range. TPH-cc was not detected above laboratory RLs in any soil samples.

4.2 Soil Vapor Results

A total of 51 soil vapor samples (47 primary, 4 duplicate) were collected and analyzed for VOCs by USEPA Method TO-15 SCAN for the first two mobilizations and by USEPA Method TO-15 SIM for the third and fourth mobilizations. Concentrations that were detected below the laboratory reporting limit (RL) but greater than or equal to the MDL are flagged in the laboratory reports with a “J” qualifier. Per the Draft Supplemental Guidance, an attenuation factor of 0.03 was applied to the DTSC HERO HHRA Note 3 SLs for residential air, dated June 2020, and the USEPA RSLs for residential air, dated May 2021, to calculate soil vapor screening levels (SVSLs).

4.2.1 VOCs

Analytical results for VOCs in the soil vapor samples above laboratory MDLs are summarized in Table 3. A total of 56 VOCs were detected above laboratory MDLs; seven exceed the calculated DTSC residential SVSLs and/or USEPA residential RSL SVSL, as summarized in the table below:

Summary of Soil Vapor VOC Data

Compound	Detection Frequency (Excluding Duplicates)	Exceedance Frequency (Excluding Duplicates)	Range of Detections (µg/m^3)	DTSC Residential SVSL (µg/m^3)	USEPA Residential RSL SVSL (µg/m^3)
1,2-Dibromoethane	2 / 27	2 / 27	0.68 J - 1.2 J	0.16	0.16
Benzene	47 / 47	11 / 47	0.12 J - 41	3.2	12
Bromodichloromethane	27 / 47	3 / 47	0.16 J – 12	2.5	2.5
Chloroform	47 / 47	24 / 47	0.21 - 190	NS	4.0
Ethylbenzene	45 / 47	2 / 47	0.15 – 94	NS	37
Tetrachloroethene	46 / 47	25 / 47	0.41 J - 980	15	367
Vinyl Chloride	6 / 47	4 / 47	0.059 J – 1.1	0.32	5.7

(1) µg/m^3 = micrograms per cubic meter
(2) NS = no screening level available
(3) J = detection exceeds MDL but less than or equal to RL
(4) Highlight indicates exceedance of at least one SVSL

4.2.1.1 PCE

Based on the comprehensive soil vapor analytical results at the Site, the primary contaminant of potential concern (COPC) at the Site was PCE, due to historical usage from the former dry cleaner on-Site. The lateral and vertical distribution of PCE detections at 5 and 15+ feet bgs are shown in Figure 3a and 3b, respectively. Soil vapor concentrations for PCE at shallow 5 feet bgs probes indicate low concentrations of diffused residual contamination focused in the southwestern portion of the Site in the area of the former dry cleaner (Figure 3a). Soil vapor concentrations of PCE at all probes increase with depth, with the exception of two soil vapor probes: RSV-8 and RSV-20, which had higher concentrations at 5 feet than 15 feet bgs (Figure 3b).

Soil vapor PCE concentrations at the Site boundary slightly exceed conservative SVSLs with a maximum PCE concentration at 5 feet bgs of 93 µg/m^3 in perimeter probe RSV-11. Soil vapor results at the northern property boundary do not indicate significant migration of VOCs onto the Site from the off-Site historical dry cleaners or gasoline service station, with concentrations of 2.3 and 1.5 "J" µg/m^3 at probes RSV-12 and RSV-13, respectively.

An overlay of the 5 feet bgs, 15 feet bgs, and 15+ feet bgs soil vapor PCE data with the current development plan for the Site are provided on Figures 4 through 6, respectively. As shown in the figures, the lateral extent of VOC impacts on the Site have been fully delineated at 5 feet and 15 feet bgs. The interpreted DTSC SVSL isocontour for PCE of 15.33 ug/m^3 suggests that future residential structures at the southwestern portion of the Site may require sub-slab VIMS, under the most conservative scenario. The concentration of PCE at RSV-1 in the northwestern portion of the Site is 23 µg/m^3, which is only slightly higher than the DTSC SVSL of 15.33 µg/m^3, and additional samples collected around RSV-1 were below the PCE DTSC SVSL.

4.2.1.2 Chloroform

Chloroform was reported in samples collected from multiple vapor probes at the Site, with the highest concentration detected in a 5-foot sample collected from adjacent to an active spa near the central-western portion of the Site (Imperial Spa, 1885 N Euclid Street). During Roux's Phase I Site reconnaissance, multiple pools, saunas, and shower stalls were observed within the spa. Chloroform can be formed as a byproduct when chlorine is used to treat water (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1997). It is considered likely that chloroform detections

are associated with surface discharges or leaks of chlorinated water from the spa's multiple, chlorinated baths. Chloroform is extremely volatile with a reported half-life for degradation of approximately 100 to 180 days (International Programme on Chemical Safety, 1994).

Chloroform is present in soil vapor at low concentrations across the Site. Approximately half of the reported concentrations exceeded the conservative residential SVSL of 4.0 µg/m^3, which may be indicative of water leaks at various locations throughout the Site. By comparison, the reported chloroform concentration in the probe placed adjacent to the spa (RSV-##-#) was approximately three times higher than the next highest detection. As shown on Figure 7, the concentrations in chloroform that exceed the SVSL appear to be located near the sewer line (which may be indicative of a sewer leak of chlorinated water discharged from the spa); or in the parking lot to the east of Building D and north of Building C. The second highest concentration of chloroform of 65 µg/m^3 was detected adjacent to the spa (RSV-30), and in the parking lot (RSV-21-5). During sampling activities at RSV-21, the probe installed at 15 feet bgs was unable to be sampled due to water in the probe, even though no groundwater was encountered during drilling activities; based on the location of RSV-21 within a planter, and field observations that the planter was over-irrigated, it is possible that the detections of chloroform in the parking lot are due to chlorinated irrigation water.

Because the spa will be demolished and all Site infrastructure removed and replaced as part of Site redevelopment and therefore sources of chloroform will be removed from the Site, chloroform detections are not considered significant in the context of the future residential and commercial uses of the Site.

4.2.1.3 Benzene

Soil vapor concentrations of benzene do not seem to consistently increase or decrease with depth; however, benzene did exceed the conservative SVSLs in all three samples collected from the 30 feet bgs probes. There does not seem to be any pattern to the lateral distribution of benzene detections that exceed SVSLs. The maximum concentration of benzene occurred at RSV-31-15 (41 µg/m^3), with the shallower 5-foot bgs probe located at RSV-31-5 having a benzene concentration that was an order of magnitude lower (4.1 µg/m^3). Since the higher concentration is within the deeper soil vapor probe and there are no known sources of benzene, it is not considered to be of significant environmental concern or likely to impact future receptors at the Site.

4.2.1.3 Other VOCs

Sporadic detections of 1,2-dibromoethane, benzene, bromodichloromethane, and ethylbenzene were found above their respective SVSLs at the Site. No historical sources of these chemicals were identified on-Site and lateral migration from potential nearby sources is not occurring, as evidenced by perimeter probes.

4.3 Groundwater Conditions and Results

Of the six attempts to collect groundwater by Roux, only two attempts were successful due to an inconsistent depth to water, lithologic refusal at 30 and 32 feet bgs using a DPT drilling rig, and/or unencountered groundwater at 65 feet bgs using an HSA drilling rig. Groundwater was encountered at significantly different depths across short lateral distances of the Site (24.5 feet bgs at RSV-17 and 48.8 feet bgs at RSV-18). Based on observed lithology and known geologic conditions beneath the Site (La Habra Formation), depth to groundwater and direction of flow is likely controlled through fractures in siltstone and mudstone, as opposed to porous media flow. Groundwater beneath the Site was anticipated from 20 to 38 feet bgs (OCHCA, 2012). Geotek reported that groundwater was encountered at 48 feet bgs in the northeast corner of the Site during a geotechnical investigation in April 2020 (Geotek, 2020).

A total of three groundwater samples (two primary, one duplicate) were collected and analyzed for VOCs. Sample results were compared to the California Maximum Contaminant Level (CA MCL) for drinking water, per 22 California Code of Regulations (CCR) § 64431.

4.3.1 VOCs

Analytical results for VOCs in the groundwater samples above laboratory MDLs are summarized in Table 4. A total of two VOCs were detected above laboratory RLs with one exceedance in CA MCLs. There were no other detections above RLs.

Compound	Detection Frequency (Excluding Duplicates)	Exceedance Frequency (Excluding Duplicates)	Range of Detections (µg/L)	CA MCL (µg/L)
Methylene Chloride	2 / 2	0 / 2	5.2 B – 11 B	NS
Tetrachloroethene	1 / 2	1 / 2	14	5

(1) µg/L = micrograms per liter
(2) NS = no screening level available
(3) B = contaminant detected in associated method blank
(4) Highlight indicates exceedance of CA MCL

The distribution of PCE detections and attempted groundwater sample locations are shown in Figure 8. Groundwater at RSV-17, located at the southwestern corner of the Site, was encountered at 24.5 feet bgs; groundwater at RSV-17 had a concentration of PCE of 14 µg/L, which slightly exceeded the MCL for PCE of 5 µg/L. Groundwater was encountered at 48.8 feet bgs at RSV-18; there were no detections of PCE in RSV-18.

Methylene chloride was detected in the method blank and trip blanks, as discussed in Section 4.4; methylene chloride is a common laboratory contaminant (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 2012).

4.4 Data Quality Evaluation

In total, five equipment blank samples and five trip blank samples were collected and analyzed for VOCs by USEPA Method 8260B. Additionally, two duplicates soil samples and three duplicate soil vapor samples were collected. A review of the quality control (QC) information in the analytical reports found that no chemicals, with the exception of methylene chloride, were detected in laboratory blank samples and laboratory QC ranges were found to be within acceptable ranges. Methylene chloride is a common laboratory contaminant (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 2012).

4.4.1 Field Duplicates

Two duplicate soil samples and four duplicate soil vapor samples were collected during the investigation as a check for sample homogeneity and laboratory precision. The duplicate samples were collected, labeled, packaged and sealed in the same manner as the primary sample, and analyzed for the same analytes as the primary sample.

The duplicate soil samples collected during this investigation are within the range of acceptable precision.

Concentrations of benzene, ethyl acetate, methylene chloride, and PCE were observed to be anomalous between the primary and duplicate soil vapor sample at RSV-17-22. These samples were collected concurrently using a sampling "T". There was no LCC detected in the primary or duplicate soil vapor sample, although a LCC was used during sampling. Roux confirmed analytical results with the laboratory. The anomaly between the primary and duplicate sample is likely related to an equipment malfunction. Due to the anomaly in sampling, the concentrations detected in RSV-17-22 could underestimate the actual concentrations. A soil vapor sample was collected from RSV-26-15 in the vicinity of RSV-17-22; the concentration of PCE in RSV-26-15 was 61 µg/m^3 and the concentration of PCE in RSV-17-22 was 110 µg/m^3, indicating that the primary soil vapor sample likely does not significantly underestimate the actual concentration of PCE. The remaining duplicate soil vapor samples collected during the investigation are within the range of acceptable precision.

4.4.2 Leak Check Analysis

The leak check compound, 1,1-DFA, was detected in 12 of the 51 soil vapor samples. According to the Soil Gas Advisory, "if the concentration of the leak check compound is greater than or equal to 10 times the reporting limit for the target analyte(s), then corrective action is necessary." All detections of 1,1-DFA were either reported with a "J" qualifier or less than 10 times the reporting limit. Therefore, all leak check compound detections were below 10 times the reporting limit.

5. Conceptual Site Model and Summary of Site Characterization

5.1 Conceptual Site Model

American Society for Testing and Materials (ASTM, 2013) defines a conceptual site model (CSM) as a written and/or graphical representation of an environmental system and the biological, physical, and chemical processes that govern the transport of contaminants from sources through environmental media to environmental receptors within the system. The CSM is based on all available information and identifies the potential risk(s) a site may pose to human health and/or the environment such that appropriate assessment or sampling strategies can be developed. The findings of these assessments may, in turn, be used to update the CSM.

A simplified CSM for the Site is presented in the table below, including only complete or potentially complete exposure pathways. In simple terms, the Site may pose a risk to human receptors via exposure to chlorinated VOCs present in soil and soil vapor. A more detailed exposure pathway analysis is included in the HHSE, which is summarized in Section 6.0 and included in its entirety as Appendix F to this report.

Primary Source	Secondary Source	Exposure Media	Exposure Route	Receptor
Historical on-Site Releases	Impacted Soil	Soil	Ingestion, dermal contact, or inhalation of particles	• Future Resident
	Impacted Soil Vapor	Indoor Air	Inhalation	• Future Resident • Future Indoor Commercial/Industrial Worker

5.2 Reasonably Anticipated Foreseeable Uses - Proposed Development

Sunrise Village Owner, LLC plans to develop the Site for commercial/residential use. As shown on Figures 4 through 6, the conceptual development plan currently includes 174 dwelling units with a total gross Site area of approximately 14 acres. The Site will be paved to provide parking for up to 459 vehicles. The northeastern portion of the Site will remain commercial, without changes to the existing buildings.

The grading plan is in progress and yet to be finalized, but in general, the Site will be regraded and flattened to optimize project design and functionality. The current proposed project expects minimal soil removal to accommodate redevelopment, and future buildings will be slab-on-grade. The Site will be connected to Euclid Street and Rosecrans Avenue via paved access roads.

5.3 Contaminants of Potential Concern

Based on the available data, it appears that that VOCs (primarily PCE) associated with the former dry-cleaning operations were released at the Site and impact soil vapor. Conservatively considering the potential for vapor intrusion into future on-Site buildings, there is a potentially complete pathway for exposure of future residents and future commercial/industrial workers to inhalation risks associated with VOCs.

5.4 Exposure Pathways

5.4.1 Soil Pathway

The Site is currently developed with eight, single-story commercial buildings and designated asphalt- and concrete-paved customer parking areas. Soil disturbing activities are expected to include future demolition and removal of on-Site structures, Site-wide grading and compaction, and installation of future utilities and other subsurface Site improvements. Although the current plan for redevelopment will effectively maintain the current Site grade, future redevelopment may extend deeper than this and, thus, exposure to disturbed subsurface soil is possible.

Only future residential exposure to soil was evaluated in the HHSE, as this exposure scenario is protective of all other receptor soil exposure anticipated at the Site. Namely, future residential exposure to soil is more conservative than both future commercial/industrial outdoor worker exposure and construction worker exposure.

Soil samples were collected by ASTECH in 2008 to evaluate the Site for potential soil impacts. In January 2008, ASTECH collected soil samples from two and five feet below ground surface (bgs), and in June 2008, ASTECH collected soil samples from 5 to 25 feet bgs. More recently, Roux collected additional soil samples in November 2020, January 2021, and May 2021 at the corresponding vapor probe locations and depths (approximately 5 and 32 feet bgs). Soil samples collected above 15 feet bgs were evaluated in the HHSE, assuming this would be the deepest reasonable extent of soil disturbances at the Site. Samples analyzed for VOCs by USEPA Test Method 5035/8260B and analyzed for metals by USEPA Test Method 6010B/7471A were evaluated.

5.4.2 Groundwater/Surface Water Pathway

Groundwater was encountered at significantly different depths across short lateral distances of the Site (24.5 feet bgs at RSV-17 and 48.8 feet bgs at RSV-18). Based on observed lithology and known geologic conditions beneath the Site, depth to groundwater and direction of flow is likely controlled through fractures in siltstone and mudstone, as opposed to porous media flow. Roux attempted to collect groundwater samples at six locations immediately surrounding and downgradient of the former dry cleaner's suite but was only successful at two. Groundwater was encountered at depths of 24.5 and 48.8 feet bgs with reported PCE concentrations of 14 and less than 5 micrograms per liter (µg/L), respectively. No groundwater was encountered (dry conditions) at the four locations attempted with final depths ranging between 30 and 65 feet bgs.

The shallowest historical observed groundwater elevation depth at the Site is 20 feet bgs, which is below the expected excavation depth for redevelopment activities at the Site and deeper than any other future redevelopment activities would extend (over-excavations are unlikely to extend past 15 feet bgs). Accordingly, construction workers and any other workers that may need to access subsurface utilities/structures would not contact groundwater. However, a future land use covenant (LUC) will restrict shallow groundwater from being used for drinking water purposes at the Site, thus, no future resident or commercial/industrial worker is anticipated to contact groundwater. Accordingly, no complete exposure pathway exists to groundwater on-Site.

Groundwater samples collected during 2012 environmental Site investigations in the vicinity of the former dry cleaner did not detect any VOCs (including no detections of PCE).[2] In 2012, OCHCA consulted with the SA-RWQCB, regarding the residual concentrations of PCE at the Site. SA-RWQCB staff concluded that the low concentrations and small mass of residual PCE did not appear to pose any significant threat to the beneficial use of groundwater within the Orange County Groundwater Management Zone, and that no further action was required for the Site.

Out of the two groundwater samples collected by Roux in January 2021, PCE was not detected in RSV-18, and RSV-17 had a concentration of PCE of 14 µg/L, which slightly exceeds the MCL for PCE of 5 µg/L. As previously stated, there were no sources of PCE detected in soil at the source area. Given the absence of VOCs in groundwater samples collected during historical investigations, the minimal detections in groundwater downgradient of the former dry cleaner, and the bedrock lithology beneath the Site controlling groundwater flow, Roux does not recommend additional groundwater investigation.

5.4.3 Air Pathway

The indoor air pathway is considered a potentially complete exposure pathway; therefore, inhalation of VOCs in indoor air through vapor intrusion by future residents and future commercial/industrial workers was quantitatively evaluated in the HHSE (Section 6). Based on the results of the HHSE, planned dwellings within or in the immediately vicinity of the former dry cleaner will be engineered with a sub-slab VIMS underneath building slabs. However, as per DTSC's Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor (Vapor Intrusion Guidance) (DTSC, 2011), future exposure was quantitatively evaluated assuming the absence of any engineered controls.

The potential indoor air exposure pathway did not consider soil vapor samples below 15 feet bgs. Thus, a total of 56 soil vapor samples analyzed for USEPA TO-15 SCAN, TO-15 SIM, or USEPA 8260B were evaluated for residential exposure and a total of two soil vapor samples analyzed for USEPA TO-15 SCAN were evaluated for commercial/industrial exposure.

5.5 Data Gaps

As discussed below, data gaps were identified at the Site, however, due to Site and/or redevelopment conditions, further investigation of these items are not recommended:

- **Soil within the Former Source Area:** Although Roux did not have access to enter the former Sunrise Cleaners Suite during the investigations, soil has historically been sampled from within the former Sunrise Cleaners suite and was laboratory MDLs, as described in Sections 2.4.2 and 2.4.3. Based on soil results during this investigation and historical soil results, in addition to SVE which operated at the Site under OCHCA oversight in 2011, Roux does not recommend additional soil investigation at the Site.

- **Vertical Delineation of PCE in Soil Vapor:** Concentrations of PCE within vapor is laterally delineated at 5 feet and 15 feet bgs on-Site, and select soil vapor samples were collected near the source area at 30 feet bgs. Soil vapor has not been fully vertically delineated; however, no sources of PCE have been identified in soil and for the purposes of the Site redevelopment, soil vapor above 15 feet bgs is considered relevant to human health risk. Deeper soil vapor sampling is not recommended.

[2] Groundwater samples collected in 2012 by ASTECH were part of verification sampling after the SVE system shutdown on October 31, 2011.

- **Delineation of PCE in Groundwater:** In 2012, OCHCA consulted with the SA-RWQCB, regarding the residual concentrations of PCE at the Site. SA-RWQCB staff concluded that the low concentrations and small mass of residual PCE did not appear to pose any significant threat to the beneficial use of groundwater within the Orange County Groundwater Management Zone, and that no further action was required for the Site. As shown in Figure 8, given the absence of VOCs in groundwater samples collected during historical investigations, the concentration detected in shallow groundwater downgradient of the former dry cleaners only slightly exceeded MCL for PCE from this investigation, and the difficulty with collecting groundwater samples at the Site due to the groundwater flow through fracture flow, Roux does not recommend additional groundwater investigation at the Site.

5.5.1 Recommendations

Based on the discussion above and in the preceding sections, Roux believes additional investigation is not necessary.

Roux recommends preparation of a Response Plan for the southwestern portion of the Site that will be developed as residential. The Response Plan will outline mitigation measures, future operation and monitoring (O&M) activities, and administrative controls to mitigate potential risk to future residents at the southwestern corner of the Site. It is expected that engineering controls will include passive VIMS beneath future residential building slabs at and near the location of the former dry cleaner.

6. Human Health Screening Evaluation

An HHSE was conducted in accordance with DTSC's Preliminary Endangerment Assessment (PEA) Guidance Manual (DTSC, 2015) to provide a conservative evaluation of the potential risk from exposure to chemicals detected in the subsurface at the Site. The HHSE utilized data gathered during the previous environmental investigations conducted at the Site, including ASTECH in January and April 2008, December 2011, and January 2012 and Roux in November and December 2020 and January, May and June 2021. Historical soil vapor and groundwater data collected prior to the SVE remediation were excluded from the HHSE because verification testing after remedial efforts were completed better represents current Site conditions. The objective of the HHSE was. For the purposes of the HHSE, all chemicals detected in each evaluated media were initially considered COPCs. The HHSE then eliminated select COPCs and incomplete pathways, as appropriate, and determined that a potential risk to human receptors via exposure to chlorinated solvents present in soil and soil vapor exists at the Site. The HHSE calculated the estimated risks associated with the presence of these COPCs in each medium where exposure pathways are considered potentially complete pursuant to the DTSC PEA Guidance Manual (DTSC, 2015). VOCs were the COPCs identified for the Site.

A future residential scenario was evaluated for the portion of the Site slated for residential redevelopment and a future commercial/industrial worker scenario was evaluated for the northeastern portion of the Site, which will remain in commercial use. Future residential exposure is considered protective of current commercial/industrial exposure and construction worker exposure. The methodology and results of the HHSE are summarized below. The full HHSE is included as Appendix F.

6.1 Evaluation of Exposure Pathways

The future use of the property is proposed as residential and commercial development. As discussed below, points of potential future human contact are limited to soil and indoor air. The simplified CSM presented in Section 5.1 and summarized in the table below has been used in this HHSE. In simple terms, the Site may pose a risk to human receptors via exposure to chlorinated solvents present in soil and soil vapor. Evaluation of residential receptors in the HHSE is consistent with DTSC guidance (DTSC, 2015).

Primary Source	Secondary Source	Exposure Media	Exposure Route	Receptor
Historical on-Site Releases	Impacted Soil	Soil	Ingestion, dermal contact, or inhalation of particles	• Future Resident
	Impacted Soil Vapor	Indoor Air	Inhalation	• Future Resident
				• Future Indoor Commercial/Industrial Worker

6.2 Evaluation of Exposure to COPCs and Exposure Point Concentrations

Exposure point concentrations (EPCs) are estimated concentrations of contaminants that are contacted by a receptor over an assumed duration. For the purpose of the HHSE, maximum detections were selected as EPCs, consistent with the PEA Guidance Manual. DTSC recommended attenuation factors were applied, as appropriate, when evaluating soil vapor concentrations in the context of indoor air risks.

6.3 Human Health Screening Levels

To evaluate future residential and commercial exposures (herein referred to as residential and commercial/industrial exposure for the purposes of the HHSE) to soil and soil vapor, USEPA RSLs and DTSC SLs for non-carcinogenic and carcinogenic effects were utilized in the screening.

6.4 Evaluation of Chemical Toxicity

The toxicity assessment describes the quantitative relationship between the extent of exposure to a contaminant and the increased likelihood and/or severity of adverse effects. This quantitative relationship generally takes the form of toxicity values that are identified for use in risk evaluations. Toxicity values are used to quantify the chance of observing cancer or non-cancer effects in exposed receptors. Toxicity values may be based on epidemiological studies or animal studies. DTSC SL values were used when available, otherwise USEPA RSLs were used.

6.5 Risk Characterization

The risk characterization process integrates the results of the data evaluation, exposure assessment, and toxicity assessment to provide a quantitative estimation of cumulative non-carcinogenic and carcinogenic risks for a potential future exposure to indoor air and soil at the Site as summarized below:

- The cumulative risk estimate for a future residential exposure to soil and indoor air is slightly above the most conservative 1E-06 cancer risk threshold for the low-end estimates (applying a 0.001 AF) and slightly above 1E-04 cancer risk threshold for the high-end estimates (applying a 0.03 AF). For non-cancer risk, the low-end risk estimate does not exceed the non-cancer target risk threshold of 1; however, the high-end risk estimate slightly exceeds the non-cancer target risk threshold.

- Both the low-end and high-end cancer risk estimates for future indoor commercial/industrial exposure to indoor air are below the most conservative 1E-06 target cancer risk threshold. Both the low-end and high-end non-cancer risk estimate for future indoor commercial/industrial exposure to indoor air do not exceed the non-cancer target risk threshold of 1.

The table below presents the calculated risk estimates for the currently proposed development scenario. The HHSE shows that under unmitigated Site conditions, elevated risk from VOCs in soil vapor may be present for future residents within the southwestern portion of the Site. In addition, risk from sporadic detections of certain VOCs (e.g., benzene and chloroform) also show elevated risk unmitigated Site conditions and limited and specific areas of the Site. Unmitigated conditions do not pose unacceptable risk for future indoor commercial/industrial workers. Based on the results of the HHSE, mitigation may be required for the southwestern portion of the Site and further consideration is warranted for sporadic detections of certain VOCs in other areas of the Site.

Cumulative Cancer and Non-Cancer Risks by Receptor

Receptor (Exposure Unit) Media	Non-Cancer Risk	Cancer Risk
	Total Hazard Index (HI)	Total Incremental Lifetime Cancer Risk (ILCR)
Future Resident (Planned Residential Development)		
Soil	3.8E-01	2.2E-08
Indoor Air (low-end & high-end)	5.6E-02 to 1.7E+00	3.9E-06 to 1.2E-04
Cumulative (low-end & high-end)	4.3E-01 to 2.1E+00	3.9E-06 to 1.2E-04

The cumulative risk estimates for exposure to soil and indoor air fall below the most conservative 1E-06 cancer risk threshold for the low-end estimate (applying a 0.001 AF) and slightly above 1E-06 cancer risk threshold for the high-end estimates (applying the 0.03 AF). Both the cumulative low-end and high-end non-cancer risk estimates do not exceed the non-cancer target risk threshold of 1.

6.5.1 Cancer Risks

For carcinogens, risk is expressed as the probability that an individual will develop cancer over a lifetime as a result of exposure to the carcinogen and is expressed as incremental lifetime cancer risk (ILCR). The NCP indicates that the ILCR posed by a site should not exceed a range of 1E-06 to 1E-04. Based on the results of the HHSE, the following conclusions can be made regarding cancer risk related to COPCs in soil vapor:

- Future residential risk is within the cancer risk range of 1E-06 to 1E-04. Future commercial/industrial indoor worker cancer risk is below 1E-06.

6.5.2 Non-Cancer Risks

Non-carcinogenic risk is calculated by dividing the EPC for each compound by its respective screening level for residential receptors to arrive at a Hazard Quotient (HQ) for each chemical. To assess the potential for non-carcinogenic health effects posed by exposure to multiple constituents, a HI approach is used. This approach assumes that non-carcinogenic hazards associated with exposure to more than one constituent are additive (HI = sum of the HQs). The HI is then compared to the DTSC threshold of 1 (DTSC, 2015). Based on the results of the HHSE, the following conclusions can be made regarding non-cancer risk related to COPCs in soil vapor.

- Future residential non-cancer risk has an HI below 1. Future commercial/industrial indoor worker non-cancer risk is below 1.

7. Summary and Conclusions

As part of due diligence for potential Site acquisition by Sunrise Village Owner, LLC, Roux prepared a Phase I Environmental Site Assessment (Phase I ESA) for the Site and identified the former Sunrise Cleaners as a Recognized Environmental Condition (REC) for the Site. Roux conducted multiple subsurface investigations at the Site between November 2020 and June 2021 to evaluate Site conditions and the potential need for remedial actions and/or mitigation measures to facilitate future residential and commercial redevelopment. The subsurface field investigations were conducted to determine current Site concentrations in soil, soil vapor, and groundwater specifically related to the former on-Site dry cleaner, and to investigate the potential migration of contamination onto and off-of the Site.

Based on the results of the recent and historical soil, soil vapor, and groundwater investigations; the results of Roux's HHSE; and in consideration of the future commercial/residential development, Roux concludes the following:

7.1 Soil

- Historical soil samples collected and analyzed for VOCs from within and immediately outside the dry cleaner suite, and in the areas surrounding the dry-cleaning machine (the former source areas) before SVE remediation occurred in 2010 and 2011, showed no significant sources of PCE in soils.

- Soil samples collected by Roux in 2020 and 2021 immediately surrounding the former dry cleaner suite confirm that no significant sources of PCE remain in soils at the former source area or anywhere across the Site. Detections of all VOCs in soil were approximately two orders of magnitude below their respective screening levels.

- Metals concentrations were below their respective screening levels, with the exception of arsenic, which was below background concentration established for Southern California (DTSC, 2018).

- There were no detections of total petroleum hydrocarbon carbon chain (TPH-cc) in soil.

- Based on the above, Roux concludes that soil has been completely investigated and no data gaps for soil exist for the Site.

7.2 Soil Vapor

- The lateral extent of PCE impacts in soil vapor at the Site have been fully delineated at 5 feet and 15 feet bgs.

- The highest soil vapor PCE concentration was encountered at 30 feet bgs immediately behind the former dry cleaner's suite. Based on lithology (siltstone/mudstone) and soil sample analytical results, it is believed that PCE in deeper vapor probes is unlikely to mobilize.

- Chloroform was reported in samples collected from multiple vapor probes at the Site, with the highest concentration detected in a 5-foot sample collected from adjacent to an active spa near the central-western portion of the Site (Imperial Spa, 1885 N Euclid Street). During Roux's Phase I Site reconnaissance, multiple pools, saunas, and shower stalls were observed within the spa. Chloroform can be formed as a byproduct when chlorine is used to treat water (U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1997). It is considered likely that chloroform detections are associated with surface discharges or leaks of chlorinated water from the spa's multiple, chlorinated baths. Chloroform is extremely volatile with a reported half-life for degradation of approximately 100 to 180 days (International Programme on

Chemical Safety, 1994). Because the spa will be demolished as part of Site redevelopment and therefore sources of chloroform will be removed from the Site, chloroform detections are not considered significant in the context of the future residential and commercial uses of the Site.

- Sporadic detections of 1,2-dibromoethane, benzene, bromodichloromethane, and ethylbenzene were found above their respective soil vapor screening levels (SVSLs) at the Site. No historical sources of these chemicals were identified on-Site and lateral migration from potential nearby sources is not occurring, as evidenced by perimeter probes.

- Based on the above, Roux concludes that soil vapor has been sufficiently delineated to allow for evaluation of potential risks to future workers and residents of the Site and no additional soil vapor investigation are necessary for the Site.

7.3 Groundwater

- Groundwater was encountered at significantly different depths across short lateral distances of the Site (24.5 feet bgs at RSV-17 and 48.8 feet bgs at RSV-18). Based on observed lithology, depth to groundwater and direction of flow is likely controlled through fractures in siltstone and mudstone, as opposed to porous media flow.

- Roux attempted to collect groundwater samples at six locations immediately surrounding and downgradient of the former dry cleaner's suite but was only successful at two. Groundwater was encountered at depths of 24.5 and 48.8 feet bgs with reported PCE concentrations of 14 and less than 5 micrograms per liter (µg/L), respectively. No groundwater was encountered (dry conditions) at the four locations attempted with final depths ranging between 30 and 65 feet bgs.

- VOC concentrations in groundwater samples historically collected in the immediate vicinity of the source area and recently collected by Roux are either below or slightly exceed the maximum contaminant level (MCL) for PCE.

- Based on the above, Roux concludes that no additional groundwater investigations are necessary for the Site.

7.4 Future Risk to Receptors

In order to assess potential risk to future workers and occupants of the Site, Roux prepared a Human Health Screening Evaluation (HHSE) for the Site. The HHSE utilized select historical data from environmental investigations conducted prior to 2012 and data collected by Roux between November 2020 and June 2021. The following bullet points summarize the results of the HHSE.

- A future residential scenario was evaluated for the portions of the Site slated for residential redevelopment and a future commercial/industrial worker scenario was evaluated for the portion of the Site, which will remain in commercial use.

    - The cumulative risk estimate for a future residential exposure to soil and indoor air is slightly above the most conservative 1E-06 cancer risk threshold for the low-end estimates (applying a 0.001 AF) and slightly above 1E-04 cancer risk threshold for the high-end estimates (applying a 0.03 AF). For non-cancer risk, the low-end risk estimate does not exceed the non-cancer target risk threshold of 1; however, the high-end risk estimate slightly exceed the non-cancer target risk threshold.

- Both the low-end and high-end cancer risk estimates for future indoor commercial/industrial exposure to indoor air are below the most conservative 1E-06 target cancer risk threshold. Both the low-end and high-end non-cancer risk estimate for future indoor commercial/industrial exposure to indoor air does not exceed the non-cancer target risk threshold of 1.

- As stated above, chloroform was shown to exceed risk threshold under a residential scenario at one location of the Site. Because the presence of chloroform at the Site is considered a transient condition, this risk is not considered further in the context of the future redevelopment.

- The table below presents the calculated risk estimates for the currently proposed development scenarios. The HHSE shows that under unmitigated Site conditions, elevated risk from VOCs in soil vapor may be present for future residents within the southwestern portion of the Site. However, unmitigated conditions do not pose unacceptable risk for future indoor commercial/industrial workers. Based on the results of the HHSE, mitigation will be required for the southwestern portion of the Site.

Cumulative Cancer and Non-Cancer Risks by Receptor

Receptor (Exposure Unit) Media	Non-Cancer Risk	Cancer Risk
	Total Hazard Index (HI)	Total Incremental Lifetime Cancer Risk (ILCR)
Future Resident (Planned Residential Development)		
Soil	3.8E-01	2.2E-08
Indoor Air (low-end & high-end)	5.6E-02 to 1.7E+00	3.9E-06 to 1.2E-04
Cumulative (low-end & high-end)	4.3E-01 to 2.1E+00	3.9E-06 to 1.2E-04
Commercial/Industrial Indoor Worker (Northeast Commercial Parcels)		
Indoor Air (low-end & high-end)	2.9E-04 to 1.7E-02	6.1E-09 to 3.6E-07

7.5 Recommendations

Based on the comprehensive results of subsurface investigations for the Site and the calculated risk as presented in the HHSE, Roux recommends preparation of a Response Plan for the southwestern portion of the Site that will be developed as residential. The Response Plan will outline mitigation measures, future operation and monitoring (O&M) activities, and administrative controls to mitigate potential risk to future residents at the southwestern corner of the Site. It is expected that engineering controls will include passive VIMS beneath future residential building slabs at and near the location of the former dry cleaner.

8. Closing

Roux is available to answer any questions regarding this Report. Please contact Mauricio H. Escobar at 310-879-4920 or via email at mescobar@rouxinc.com, or Andrea Berlinghof at 562-446-8623 or via email at aberlinghof@rouxinc.com.

Sincerely,

Angela Truong, E.I.T.
Staff Engineer

Andrea Berlinghof, P.E.
Senior Engineer

Mauricio H. Escobar, P.G.
Principal Geologist

9. References

American Society of Testing and Materials (ASTM) E1527-13, Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process, ASTEM International, West Conshohocken, PA, 2013.

Alpha Environmental (Alpha), *Phase I Environmental Site Assessment of 1701, 1715-1723, 1801-1891 North Euclid Street & 1020-1030, 1144-1146 Rosecrans Avenue, Fullerton, California*, December 7, 2007.

ASTECH Environmental Services, Inc. (ASTECH), *Site Assessment Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, January 9, 2008.

ASTECH, *Further Site Assessment Report & Vapor Extraction Pilot Test Workplan – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, June 5, 2008.

ASTECH, *Soil Gas Investigation Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, October 23, 2008.

ASTECH, *Vapor Extraction System Operation Report – Sunrise Village Retail Center – Sunrise Cleaners, 1801 North Euclid Avenue, Fullerton, California*, February 2, 2012.

California Department of Conservation, California Geological Survey, Note 36. 2002. California Geomorphic Provinces.

California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC), 2011. *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*. October.

Cal/EPA, DTSC, Los Angeles Regional Water Quality Control Board (LARWQCB), San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). 2015. *Advisory, Active Soil Gas Investigations.* July.

California Water Board, *California Regulations Related to Drinking Water,* April 16, 2019.

DTSC, 2011. DTSC Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). October 2011. Accessed at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/Final_VIG_Oct_2011.pdf

DTSC, 2015. Preliminary Endangerment Assessment Guidance Manual: A guidance manual for evaluating hazardous substance release sites. Revised October 2015. Accessed at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/PEA_Guidance_Manual.pdf

DTSC, 2018. Determination of a Southern California Regional Background Arsenic Concentration in Soil, G. Chernoff, W. Bosan and D. Oudiz. January.

DTSC, 2020a. Draft DTSC Supplemental Guidance: Screening and Evaluating Vapor Intrusion. Accessed at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Public-Draft-Supplemental-VI-Guidance_2020-02-14.pdf.

DTSC, 2020b. Human Health Risk Assessment Note 3: DTSC-Modified Screening Levels; HHRA-Note-3-Tables-June-2020-A.xlsx. dated June 2020.

Foxall, K. Chloroform Toxicological Overview. CHAPD HQ Health Protection Agency. Version 1. 2007.

Geotek, Inc. DRAFT Log of Exploratory Boring. April 2, 2020.

International Programme on Chemical Safety (IPCS). *Chloroform*. *Environmental Health Criteria 163.* 1994, WHO: Geneva.

Roux Associates, Inc. *Phase I Environmental Site Assessment*. February 2021.

Orange County Health Care Agency (OCHCA), *No Further Action Certification, Sunrise Village, 1801 North Euclid Avenue, Fullerton, CA 92835*, June 19, 2012.

U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry. 1997. Toxicological Profile for Chloroform. Accessed at: https://www.atsdr.cdc.gov/ToxProfiles/tp6.pdf.

U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry. 2012. Toxicological Profile for Methylene Chloride. Accessed at: https://www.atsdr.cdc.gov/toxprofiles/tp14.pdf.

United States Environmental Protection Agency (USEPA). 2021. May 2021 Regional Screening Levels-User's Guide: dated May 2021. Accessed at: https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables .

The Phase 1 ESA and Report of Finding's full appendices, including the EDR report outputs, are available for viewing at City Hall. Please visit City Hall and contact Heather Allen (Planning Manager) view appendices files.