

Appendix A (Continued)



Initial Study, Notice of Preparation (NOP), and
NOP Comment Letters

APPENDIX C



**100 E OCEAN AVENUE
SUSPENSION PS VELOCITIES
BOREHOLE B-5
LONG BEACH, CA**

**November 23, 2016
Report 16415-01 rev 0**

**100 E OCEAN AVENUE
SUSPENSION PS VELOCITIES
BOREHOLE B-5
LONG BEACH, CA**

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**November 23, 2016
Report 16415-01 rev 0**

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ANALYSIS RESULTS**

**APPENDIX B GEOPHYSICAL LOGGING SYSTEMS - NIST TRACEABLE
CALIBRATION RECORDS**

INTRODUCTION

GEOVision acquired borehole geophysical data in one borehole in Long Beach, CA. The work was performed for GeoDesign, Inc. Fieldwork was performed by Jonathan Jordan. Analysis was completed by John Diehl, and report was completed by Emily Feldman, and reviewed by John Diehl, Professional Engineer.

SCOPE OF WORK

This report presents results of Suspension PS velocity data acquired in one borehole on November 10, 2016, as detailed in Table 1. The purpose of these measurements was to supplement stratigraphic information by acquiring shear wave and compressional wave velocities as a function of depth.

The OYO Suspension PS Logging System (Suspension System) was used to obtain in-situ horizontal shear (S_H) and compressional (P) wave velocity measurements in one uncased borehole at 1.6 foot intervals. Measurements followed **GEOVision** Procedure for P-S Suspension Seismic Velocity Logging, revision 1.5. Acquired data were analyzed and a profile of velocity versus depth was produced for both S_H and P waves.

A detailed reference for the suspension PS velocity measurement techniques used in this study is:

Guidelines for Determining Design Basis Ground Motions, Report TR-102293,
Electric Power Research Institute, Palo Alto, California, November 1993, Sections
7 and 8.

INSTRUMENTATION

Suspension Velocity Instrumentation

Suspension velocity measurements were performed using the suspension PS logging system, manufactured by OYO Corporation, and their subsidiary, Robertson Geologging. This system directly determines the average velocity of a 3.3-foot high segment of the soil column surrounding the borehole of interest by measuring the elapsed time between arrivals of a wave propagating upward through the soil column. The receivers that detect the wave, and the source that generates the wave, are moved as a unit in the borehole producing relatively constant amplitude signals at all depths.

The suspension system probe consists of a combined reversible polarity solenoid horizontal shear-wave source (S_H) and compressional-wave source (P), joined to two biaxial receivers by a flexible isolation cylinder, as shown in Figure 1. The separation of the two receivers is 3.3 feet, allowing average wave velocity in the region between the receivers to be determined by inversion of the wave travel time between the two receivers. The total length of the probe as used in these surveys is approximately 25 feet, with the center point of the receiver pair 12.5 feet above the bottom end of the probe.

The probe receives control signals from, and sends the digitized receiver signals to, instrumentation on the surface via an armored multi-conductor cable. The cable is wound onto the drum of a winch and is used to support the probe. Cable travel is measured to provide probe depth data using a sheave of known circumference fitted with a digital rotary encoder.

The entire probe is suspended in the borehole by the cable, therefore, source motion is not coupled directly to the borehole walls; rather, the source motion creates a horizontally propagating impulsive pressure wave in the fluid filling the borehole and surrounding the source. This pressure wave is converted to P and S_H -waves in the surrounding soil and rock as it passes through the casing and grout annulus and impinges upon the wall of the borehole. These waves propagate

through the soil and rock surrounding the borehole, in turn causing a pressure wave to be generated in the fluid surrounding the receivers as the soil waves pass their location. Separation of the P and S_H -waves at the receivers is performed using the following steps:

1. Orientation of the horizontal receivers is maintained parallel to the axis of the source, maximizing the amplitude of the recorded S_H -wave signals.
2. At each depth, S_H -wave signals are recorded with the source actuated in opposite directions, producing S_H -wave signals of opposite polarity, providing a characteristic S_H -wave signature distinct from the P-wave signal.
3. The 6.3 foot separation of source and receiver 1 permits the P-wave signal to pass and damp significantly before the slower S_H -wave signal arrives at the receiver. In faster soils or rock, the isolation cylinder is extended to allow greater separation of the P- and S_H -wave signals.
4. In saturated soils, the received P-wave signal is typically of much higher frequency than the received S_H -wave signal, permitting additional separation of the two signals by low pass filtering.
5. Direct arrival of the original pressure pulse in the fluid is not detected at the receivers because the wavelength of the pressure pulse in fluid is significantly greater than the dimension of the fluid annulus surrounding the probe (feet versus inches scale), preventing significant energy transmission through the fluid medium.

In operation, a distinct, repeatable pattern of impulses is generated at each depth as follows:

1. The source is fired in one direction producing dominantly horizontal shear with some vertical compression, and the signals from the horizontal receivers situated parallel to the axis of motion of the source are recorded.
2. The source is fired again in the opposite direction and the horizontal receiver signals are recorded.

3. The source is fired again and the vertical receiver signals are recorded. The repeated source pattern facilitates the picking of the P and S_H -wave arrivals; reversal of the source changes the polarity of the S_H -wave pattern but not the P-wave pattern.

The data from each receiver during each source activation is recorded as a different channel on the recording system. The Suspension PS system has six channels (two simultaneous recording channels), each with a 1024 sample record. The recorded data are displayed as six channels with a common time scale. Data are stored on disk for further processing.

Review of the displayed data on the recorder or computer screen allows the operator to set the gains, filters, delay time, pulse length (energy), and sample rate to optimize the quality of the data before recording. Verification of the calibration of the Suspension PS digital recorder is performed every twelve months using a NIST traceable frequency source and counter, as presented in Appendix B.

MEASUREMENT PROCEDURES

Suspension Velocity Measurement Procedures

The borehole was logged uncased and filled with fresh water mud. Measurements followed the **GEOVision** Procedure for P-S Suspension Seismic Velocity Logging, revision 1.5. Prior to the logging run, the probe was positioned with the top of the probe even with a stationary reference point. The electronic depth counter was set to the distance between the mid-point of the receiver and the top of the probe, minus the height of the stationary reference point, if any. Measurements were verified with a tape measure, and calculations recorded on a field log.

The probe was lowered to the bottom of the borehole, stopping at 1.6 foot intervals to collect data, as summarized in Table 2. At each measurement depth the measurement sequence of two opposite horizontal records and one vertical record was performed. Gains were adjusted as required. The data from each depth were viewed on the computer display, checked, and saved to disk before moving to the next depth.

Upon completion of the measurements, the probe was returned to the surface and the zero depth indication at the depth reference point was verified prior to removal from the borehole.

DATA ANALYSIS

Suspension Velocity Analysis

Using the proprietary OYO program PSLOG.EXE version 1.0, the recorded digital waveforms were analyzed to locate the most prominent first minima, first maxima, or first break on the vertical axis records, indicating the arrival of P-wave energy. The difference in travel time between receiver 1 and receiver 2 (R1-R2) arrivals was used to calculate the P-wave velocity for that 1.0 meter segment of the soil column. When observable, P-wave arrivals on the horizontal axis records were used to verify the velocities determined from the vertical axis data. The time picks were then transferred into a Microsoft Excel[®] template to complete the velocity calculations based on the arrival time picks made in PSLOG. The Microsoft Excel[®] analysis files accompany this report.

The P-wave velocity over the 6.3-foot interval from source to receiver 1 (S-R1) was also picked using PSLOG, and calculated and plotted in Microsoft Excel[®], for quality assurance of the velocity derived from the travel time between receivers. In this analysis, the depth values as recorded were increased by 4.8 feet to correspond to the mid-point of the 6.33-foot S-R1 interval. Travel times were obtained by picking the first break of the P-wave signal at receiver 1 and subtracting the calculated and experimentally verified delay, in milliseconds, from source trigger pulse (beginning of record) to source impact. This delay corresponds to the duration of acceleration of the solenoid before impact.

As with the P-wave records, the recorded digital waveforms were analyzed to locate clear S_H -wave pulses, as indicated by the presence of opposite polarity pulses on each pair of horizontal records. Ideally, the S_H -wave signals from the 'normal' and 'reverse' source pulses are very nearly inverted images of each other. Digital Fast Fourier Transform – Inverse Fast Fourier Transform (FFT – IFFT) lowpass filtering was used to remove the higher frequency P-wave signal from the S_H -wave signal. Different filter cutoffs were used to separate P- and S_H -waves at different depths, ranging from 600 Hz in the slowest zones to 4000 Hz in the regions of highest velocity. At each depth, the filter frequency was selected to be at least twice the fundamental frequency of the S_H -wave signal being filtered.

Generally, the first maxima were picked for the 'normal' signals and the first minima for the 'reverse' signals, although other points on the waveform were used if the first pulse was distorted. The absolute arrival time of the 'normal' and 'reverse' signals may vary by +/- 0.2 milliseconds, due to differences in the actuation time of the solenoid source caused by constant mechanical bias in the source or by borehole inclination. This variation does not affect the R1-R2 velocity determinations, as the differential time is measured between arrivals of waves created by the same source actuation. The final velocity value is the average of the values obtained from the 'normal' and 'reverse' source actuations.

As with the P-wave data, S_H-wave velocity calculated from the travel time over the 6.33-foot interval from source to receiver 1 was calculated and plotted for verification of the velocity derived from the travel time between receivers. In this analysis, the depth values were increased by 4.8 feet to correspond to the mid-point of the 6.33-foot S-R1 interval. Travel times were obtained by picking the first break of the S_H-wave signal at the near receiver and subtracting the calculated and experimentally verified delay, in milliseconds, from the beginning of the record at the source trigger pulse to source impact.

Poisson's Ratio, ν , was calculated in the Microsoft Excel[®] template using the following formula:

$$\nu = \frac{\left(\frac{v_s}{v_p}\right)^2 - 0.5}{\left(\frac{v_s}{v_p}\right)^2 - 1.0}$$

Data and analyses were reviewed by a **GEOVision** Professional Geophysicist or Engineer as a component of the in-house data validation program.

Figure 2 shows an example of R1 - R2 measurements on a sample filtered suspension record. In Figure 2, the time difference over the 3.3 foot interval of 1.88 milliseconds for the horizontal signals is equivalent to an S_H -wave velocity of 1745 feet/second. Whenever possible, time differences were determined from several phase points on the S_H -waveform records to verify the data obtained from the first arrival of the S_H -wave pulse. Figure 3 displays the same record before filtering of the S_H -waveform record with a 1400 Hz FFT - IFFT digital lowpass filter, illustrating the presence of higher frequency P-wave energy at the beginning of the record, and distortion of the lower frequency S_H -wave by residual P-wave signal.

RESULTS

Suspension Velocity Results

Suspension R1-R2 P- and S_H -wave velocities for borehole B-5 are plotted in Figure 4, respectively. Suspension velocity data are also presented in Table 3. The Microsoft Excel[®] analysis file accompanies this report.

P- and S_H -wave velocity data from R1-R2 analysis and quality assurance analysis of S-R1 data are plotted together in Figure A-1 in Appendix A to aid in visual comparison. It should be noted that R1-R2 data are an average velocity over a 3.3-foot segment of the soil column; S-R1 data are an average over 6.3 feet, creating a significant smoothing relative to the R1-R2 plots. The S-R1 velocity data are also presented in Table A-1 and included in the Microsoft Excel[®] analysis file, which also includes Poisson's Ratio calculations, tabulated data and plots.

SUMMARY

Discussion of Suspension Velocity Results

Suspension PS velocity data are ideally collected in uncased fluid filled boreholes drilled with rotary wash methods, as was the borehole for this project. Overall, Suspension PS velocity data quality is judged on 5 criteria, as summarized below.

	Criteria	B-5
1	Consistent data between receiver to receiver (R1 – R2) and source to receiver (S – R1) data.	Yes.
2	Consistency between data from adjacent depth intervals.	Yes
3	Consistent relationship between P-wave and S _H -wave (excluding transition to saturated soils)	Yes Saturation occurs at about 16ft BGS
4	Clarity of P-wave and S _H -wave onset, as well as damping of later oscillations.	This is excellent data
5	Consistency of profile between adjacent borings, if available.	Not applicable

Quality Assurance

These borehole geophysical measurements were performed using industry-standard or better methods for measurements and analyses. All work was performed under **GEOVision** quality assurance procedures, which include:

- Use of NIST-traceable calibrations, where applicable, for field and laboratory instrumentation
- Use of standard field data logs
- Use of independent verification of velocity data by comparison of receiver-to-receiver and source-to-receiver velocities
- Independent review of calculations and results by a registered professional engineer, geologist, or geophysicist.

Suspension Velocity Data Reliability

P- and S_H-wave velocity measurement using the Suspension Method gives average velocities over a 3.3-foot interval of depth. This high resolution results in the scatter of values shown in the graphs. Individual measurements are very reliable with estimated precision of +/- 5%. Depth indications are very reliable with estimated precision of +/- 0.2 feet. Standardized field procedures and quality assurance checks contribute to the reliability of these data.

Appendix IS-4 (Part 1)

Phase I Environmental Site Assessment



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
100 EAST OCEAN BOULEVARD AND A PORTION OF VICTORY PARK
LONG BEACH, CALIFORNIA 90802
(ASSESSOR'S PARCEL NUMBER 7278-007-928 & A PORTION OF 7278-
007-922)**

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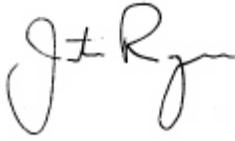
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June 2018
File No. 01218116.00

This Phase I Environmental Site Assessment Report for 100 East Ocean Boulevard and a portion of Victory Park located in Long Beach, California, dated June 2018, was prepared by Justin Rauzon and reviewed by Kevin Green.

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. The resumes for the individuals below are included in **Appendix F**. 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.



Justin Rauzon
Senior Project Professional
SCS ENGINEERS



Kevin W. Green, P.G.
Project Director
SCS ENGINEERS

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EXECUTIVE SUMMARY

SCS Engineers (SCS) was retained by Eyestone Environmental to prepare a Phase I Environmental Site Assessment (Phase I ESA) of 100 East Ocean Boulevard and a portion of Victory Park located in Long Beach, California (the “Property”). This assessment was performed in conformance with 40 CFR 312, Standards for Conducting All Appropriate Inquiries, and in general conformance with ASTM E1527-13.

The Property is located on the eastern side of Pine Avenue and is bounded to the north by East Ocean Boulevard and to the south by Seaside Way. It comprises approximately one acre. The main portion of the Property (Assessor’s Parcel Number [APN] 7278-007-928) is developed with an asphalt-paved parking lot. The northern portion of the Property (a portion of APN 7278-007-922) slopes up from the parking lot to a concrete retaining wall. The area at the base of the retaining wall is covered with dry vegetation. The area atop the retaining wall (situated approximately 20 feet higher in elevation than the parking lot) is covered with landscaping and The Loop sculpture that form part of Victory Park. There is a boarded up opening in the concrete retaining wall, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard.

The Property was undeveloped beach land and bluff from at least 1896 through 1906. By 1908, a small lunch building was constructed on the northwestern corner. Between 1912 and 1914, several small stores were constructed on the southern portion of the Property and a public toilet was built on the northeastern portion of the Property. Construction on a 10-story building on the southern portion of the Property began in 1916 and was completed by 1928. The Jergins Trust Building was a multi-story office building with a theater, stores, restaurants, and an arcade containing small shops on the lower three floors. Other tenants at the Property included a post office, barber shop, restaurants, news and magazine businesses, a school, etc. A city park was located on the northern portion of the Property. An underground arcade and tunnel extended below the center of the Property building and park from Seaside Avenue to the northern side of Ocean Boulevard. The northern entrance to the underground tunnel was closed in 1964. The Jergins Trust Building was demolished in 1988, leaving behind the concrete retaining wall separating the northern and southern portions of the Property. The southern portion of the Property remained a vacant lot until 2005 when it was paved and redeveloped as a parking lot. The northern portion of the property has remained a city park. Historical site operations are not commonly associated with elevated environmental risk.

No areas of environmental concern were identified on the Property during the site inspection. Regulatory agency records reviewed did not identify any evidence of recognized environmental conditions (RECs).

Conclusions

In summary, SCS performed a Phase I Environmental Site Assessment of 100 East Ocean Boulevard and a portion of Victory Park located in Long Beach, California, in conformance with the scope and limitations of 40 CFR 312 and ASTM E1527-13. Any exceptions to, or deletions from, this practice are described in Section 5 of this report.

In the opinion of the Environmental Professionals, this assessment has revealed no evidence of conditions indicative of releases or threatened releases of hazardous substances. Further investigation is not recommended.

Data Gaps

The following data gaps were identified:

There is a boarded up opening in a concrete retaining wall on the north-central portion of the Property, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard. The interior of the subterranean walkway area could not be accessed at the time of the site inspection. Based on the available information, however, this is not considered a significant data gap.

No interviews were conducted as part of this Phase I ESA. Based on the available information, this is not considered a significant data gap.

1 INTRODUCTION

SCS Engineers (SCS) was retained by Eyestone Environmental to prepare a Phase I Environmental Site Assessment (Phase I ESA) of 100 East Ocean Boulevard and a portion of Victory Park located in Long Beach, California (the “Property”). A location map for the Property is presented as **Figure 1** in **Appendix A**. This assessment was performed in conformance with 40 CFR 312, Standards for Conducting All Appropriate Inquiries, and in general conformance with ASTM E1527-13.

2 PURPOSE

This Phase I ESA is intended to constitute appropriate inquiry into the previous ownership and uses of the Property, as required to support the assertion of the innocent landowner, contiguous property owner, and/or bona fide prospective purchaser defenses to liability (collectively the landowner liability protections, or LLPs) under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA a.k.a. Superfund), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the Small Business Liability Relief and Brownfields Revitalization Act of 2002.

The purpose of this investigation was to identify conditions indicative of releases or threatened releases of hazardous substances as defined in CERCLA Section 101, and petroleum products, on, at, in, or to the Property.

If known or suspected contamination is identified, Users seeking to maintain LLPs have responsibilities in addition to completion of an AAI-compliant Phase I ESA. These “continuing obligations” include taking “appropriate care” and “reasonable steps” with respect to known or suspected releases of hazardous substances during the term of property ownership. In addition to these requirements under federal law, there are different requirements under state law with respect to liability protections. On request, SCS can provide support for clients with continuing obligations, as appropriate.

3 SCOPE OF SERVICES

This Phase I ESA is based on:

- Interviews with past and/or present owners, operators, and/or occupants of the Property.
- Reviews of federal, tribal, state, and local government records.
- Visual inspections of the Property and adjoining properties performed on May 23, 2018.
- Review of historical Property use information (topographic maps, aerial photographs, fire insurance maps, existing reports, etc.).
- Commonly known or reasonably ascertainable information about the Property (e.g., interviews with appropriate regulatory agency personnel and review of agency files review of available documents, interviews with other knowledgeable persons).
- Degree of obviousness of the presence or likely presence of contamination at the Property, and the ability to detect the contamination by appropriate investigation.

- Information provided as a result of the additional inquiries conducted by the User.

4 SPECIAL TERMS AND CONDITIONS

This Phase I ESA for 100 East Ocean Boulevard and a portion of Victory Park in Long Beach, California has been prepared specifically for Eyestone Environmental. The report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, express or implied, is made as to the professional opinions presented herein.

No other party, known or unknown to SCS, is intended as a beneficiary of this work product, its content, or information embedded therein. Third parties use this report at their own risk. Third party reliance letters may be issued on request to SCS subject to approval of Eyestone Environmental and payment to SCS of a fee for such letters.

5 LIMITATIONS AND ASSUMPTIONS

The investigation focused on releases and threatened releases of hazardous substances or petroleum products that could be considered a recognized environmental condition (REC) and/or a liability due to their possible presence in significant concentrations (e.g., above acceptable limits set by the Federal or state government) or due to the potential for contaminant migration through exposure pathways (e.g., soil vapor inhalation or groundwater ingestion). Materials that may contain substances which are not currently deemed hazardous by the federal or state of California EPA were not considered as part of this study.

Unless specifically included in our scope of services, formal surveys for asbestos-containing materials, lead-based paints, fire safety, vapor intrusion, indoor air quality, mold, and similar matters were not part of this assessment. The Property was not evaluated for compliance with land use, zoning, wetlands, or similar laws. This report is not intended to be an environmental compliance audit.

Hazardous substances naturally occurring in plants, soils, and rocks (e.g., heavy metals, naturally occurring asbestos, or radon) are not typically considered in these investigations. Similarly, construction debris (e.g., discarded concrete, asphalt) is not considered to be of concern unless observations suggest that hazardous substances are likely to be present in significant concentrations.

Unless otherwise noted, sampling and laboratory analyses of soil, water, air, building materials, or other media, were not performed as part of this investigation. Positive identification of hazardous substances can only be accomplished through sampling and appropriate laboratory analysis.

SCS Engineers assumes no responsibility for the accuracy of information obtained from, compiled by, or provided by third-party sources, such as regulatory agency listings. Unless obviously inaccurate or if information exists to the contrary, SCS Engineers assumes that information collected during this environmental site assessment is accurate and correct. Unless warranted, information collected has not been independently validated as part of this assessment.

The following information is the responsibility of the User (40 CFR 312.22) and is addressed in a questionnaire provided to the User and attached to this report as **Appendix G**:

- Specialized knowledge or experience of the User.
- The relationship of the purchase price to the fair market value of the Property. The purchaser of a Property is required to consider whether any differential between the purchase price and the fair market value of the Property is due to the presence of releases or potential releases of hazardous substances at the Property.

Certain other limitations could affect the accuracy and completeness of this report, as follows:

- Site Access Limitations – None.
- Physical Obstructions to Observations – There is a boarded up opening in a concrete retaining wall on the north-central portion of the Property, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard. The interior of the subterranean walkway area could not be accessed at the time of the site inspection. Based on the available information, however, this is not considered a significant data gap.
- Outstanding Information Requests – None.
- Historical Data Sources Failure – None.
- Other Limitations – No interviews were conducted as part of this Phase I ESA. Based on the available information, this is not considered a significant data gap.

6 GENERAL SITE CHARACTERISTICS

SITE LOCATION

The Property is located at the southeastern corner of East Ocean Boulevard and Pine Avenue. It comprises assessor's parcel number (APN) 7278-007-928 and the western portion of APN 7278-007-922. An APN map is provided as **Figure 2** in **Appendix A**.

GENERAL SITE DESCRIPTION

The Property comprises approximately one acre. The main portion of the Property (APN 7278-007-928) is developed with an asphalt-paved parking lot. The northern portion of the Property (a portion of APN 7278-007-922) slopes up from the parking lot to a concrete retaining wall. The area at the base of the retaining wall is covered with dry vegetation. The area atop the retaining wall (situated approximately 20 feet higher in elevation than the parking lot) is covered with landscaping and The Loop sculpture that form part of Victory Park. There is a boarded up opening in the concrete retaining wall, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard.

ADJOINING PROPERTY USE

- North – East Ocean Boulevard adjoins the Property immediately to the north. The Renaissance Long Beach Hotel (111 East Ocean Boulevard) is situated across the street to the north.
- East – An elevated concrete convention center walkway and a commercial office building (180 East Ocean Boulevard) adjoin the Property to the east. Victory Park (the remainder of APN 7278-007-922) extends further to the east of the northern portion of the Property.
- South – East Seaside Way adjoins the Property to the south. The Long Beach Convention & Entertainment Center (300 East Ocean Boulevard) is situated across the street further to the south.
- West – Pine Avenue adjoins the Property immediately to the west. The Historic Ocean Center Building (110 East Ocean Boulevard) is situated across Pine Avenue to the west.

7 PHYSICAL SETTING

PHYSIOGRAPHIC SETTING

The Property is located in Section 6, Township 5 South, and Range 13 West (San Bernardino Baseline and Meridian) in the Long Beach Plain at an elevation of approximately 5 feet above sea level (USGS, 1964). The Property is located in a topographic low area (historic beach front), with an abrupt rise to the Long Beach Mesa to the north.

GEOLOGY AND SOILS

The Property lies within the transition area from the historic beach to the Long Beach Mesa to the north. Geologic maps indicate that surface sediments in the Long Beach Mesa are a part of the Upper Pleistocene Lakewood Formation, which consists of unconsolidated marine and continental deposits (CDWR, 1961) of primarily fine-grained sediments comprised of sands, silts, and clays. The historic beach area consists of Holocene alluvium primarily comprised of sand and silt. The Holocene alluvium and Lakewood Formation are underlain by at least several thousand feet of mostly marine sediments of Tertiary age. All of the land south of the Property (presently the Convention Center, Shoreline Drive, etc.) was historically beach and ocean, and has since been reclaimed with fill material.

GROUNDWATER

The Property is located within the southeastern portion of the West Coast Groundwater Basin. The Gasper and Gage aquifers underlying the site are saline and extend to a depth of 350 feet. The Lower Silverado aquifer is present at depths of greater than 300 feet (EDR 1996). First shallow groundwater is anticipated to be approximately 10 feet below mean sea level (msl) on the southern portion of the Property, although perched groundwater may exist at shallower depths (DPW 1978). Monitoring wells placed on the southern portion of the Property determined that depth to groundwater was 7 to 10 feet below ground surface (bgs). Given its location approximately 20 feet higher in elevation, the depth to groundwater beneath the northern portion

of the Property is likely 27 to 30 feet bgs. Based on topography, groundwater in this area would be expected to flow southerly toward the ocean.

RADON

According to the California Department of Public Health’s February 2016 Radon Program report, screening in the area of the Property (90802 zip code) found no locations (out of 38) where buildings had radon levels greater than or equal to 4 picocuries per liter (pCi/L), the EPA action level. The maximum radon result for the Property’s zip code was 2.1 pCi/L. The alluvial geology of the Long Beach area is not normally associated with elevated radon levels. Note that elevated radon levels may also be attributed to other radon sources such as leaking natural gas or numerous building products such as drywall, cinderblock, concrete floors, brick, or stone products. Based on the available information, therefore, elevated radon gas is not expected in the area of the Property.

8 SITE INSPECTION

Justin Rauzon of SCS conducted an inspection of the Property and surrounding area on May 23, 2018. A Google Earth aerial image and photographs of the Property are provided in **Appendix B**.

The Property is publically accessible from the surrounding streets. The parking area on the southern portion of the Property is paved with asphalt. A parking meter machine is located on the southwestern corner of the Property. Limited vegetation borders the western and southern sides of the parking lot. Dry vegetation and a small homeless encampment are located on the lower portion of the northern portion of the Property. The upper park portion of the Property is covered with a crushed granite walking path, landscaping, and a sculpture known as The Loop. A shipping container is also located on the northern portion of the Property, situated behind a plywood screen. As noted above, an opening in the concrete wall separating the northern and southern sides of the Property was boarded up at the time of the site inspection.

HAZARDOUS SUBSTANCES

No hazardous materials or hazardous wastes were observed on the Property.

NATURAL DRAINAGE

Natural waterways are not currently located on the Property. Stormwater runoff flows overland to the surrounding streets.

DISTURBED AREAS

Since the Property is entirely paved except for limited landscaping, no disturbed areas were noted. A few asphalt patches were noted in the parking area, but they appeared to be repairs for degraded pavement.

ELEVATORS AND OTHER HYDRAULIC EQUIPMENT

No elevators or hydraulic equipment was identified on the Property.

WELLS

Two groundwater monitoring wells are located on the southern portion of the Property.

ELECTRICAL EQUIPMENT

No potentially fluid-filled electrical equipment was observed on or immediately adjacent to the Property.

WASTEWATER

Sanitary and industrial wastewater are not currently generated at the Property.

DRINKING WATER

Drinking water is not currently supplied to the Property. In the event of development, drinking water will be supplied by the City of Long Beach. All large public water suppliers in California have been required to test their water and comply with federal and state drinking water standards since the mid-1980s. Consequently, lead and other contaminants of concern are not expected to be present above applicable primary and secondary drinking water standards.

STORAGE TANKS

No evidence (fill ports, vent lines, or dispensers) of underground storage tanks (USTs) was observed on the Property. No aboveground storage tanks (ASTs) were observed on the Property.

VISUAL INSPECTION OF ADJOINING SITES

No obvious evidence of a REC or indications of contamination (e.g. remediation equipment, staining, USTs, ASTs, etc.), were observed on adjoining sites during the site inspection.

9 INTERVIEWS

No interviews were conducted as part of this Phase I ESA. Based on the available information, this is not considered a significant data gap.

10 SITE HISTORY

Site history was evaluated from the following sources:

- Historical U.S. Geological Survey (USGS) topographic maps provided by Environmental Data Resources (EDR) (May 16, 2018).
- Historical aerial photographs provided by EDR (May 16, 2018).

- Sanborn Fire Insurance maps from the EDR-Sanborn collection (May 16, 2018).
- City of Long Beach Building Permit Records Website and building permit information.
- A City Directory review report provided by EDR (May 16, 2018).

Copies of topographic maps, historical aerial photographs, city directories, selected building permit records, and Sanborn maps are included in **Appendix C**.

Year	Description	Source
1896	Roads and structures were shown in what is now the downtown Long Beach area. No structures were depicted at the southeast corner of Pine Avenue and Ocean Boulevard, which was shown to be adjoining the ocean waterline, east of a pier. A railroad, a road, and structures adjoined the Property to the north.	Topographic Map
1899	No appreciable changes to the Property or adjoining sites from the 1896 topographic map.	Topographic Map
1902	No appreciable changes to the Property or adjoining sites from the 1899 topographic map.	Topographic Map
1902	The Property was depicted as undeveloped land on and below a bluff, east of a roadway accessing the beach. Adjoining sites to the east and west were undeveloped. The area across Ocean Park Avenue to the north was developed with residences; to the northeast was a boarding house and various retail businesses. To the northwest was a bank, livery, and retail businesses. A double deck pleasure wharf, Long Beach Bath House, and associated power and pump house with oil tanks were west of the Property and a Pavilion (lunch tables and dance floor) was located southwest of the Property; the ocean was below the southern half of the Pavilion.	Sanborn Map
1905	No appreciable changes to the Property from the 1902 map were depicted on the Property. Most of the residences north of the Property had been converted to offices and a store. Stores, carnival type businesses, and a railroad depot were added west of the Property. The Pavilion was no longer present southwest of the Property.	Sanborn Map
1908	Except for a small structure labeled "Lunch" in the northwestern corner, the Property was vacant. Pine Avenue South was constructed west of the Property, terminating at an auditorium south and southeast of the Property. West of the Property was a railroad depot, pump house and oil tanks, theater, and stores. East Ocean (Ocean Park) Avenue, offices, stores, and apartments were northwest, north, and northeast of the Property. Pier Place, vacant lots, restaurants, and stores were east of the Property.	Sanborn Map

Year	Description	Source
1914	A toilet building built in 1912 was in the City Park on the northeast portion of the Property and 10 small buildings characterized as stores were depicted along the southern and western sides of the Property. The Municipal Auditorium and double deck pleasure pier were located to the south. A toilet building and stores were located to the east. Stores, apartments, and lodging were located to the north, northeast, and northwest. A railroad depot, City Park, bath houses, stores, and roller coaster were located west of the Property.	Sanborn Map
1916	According to the 1949 Sanborn map, the initial phase of construction of the Jergens Trust Building was initiated on the southern portion of the Property. Note that Sanborn maps refer to this as the “Jergens” building; other historical information sources refer to this as the “Jergins” building.	Sanborn Map
1920	The 1949 Sanborn map indicated that the building on the southern portion of the Property was expanded in 1920.	Sanborn Map
1923	The Long Beach area had been extensively developed. A large, multi-story building was on the Property. Adjoining sites west, north, and east were developed with multiple structures. A large structure was located south of the Property, and the ocean was to the south of that structure.	Aerial Photos
1923	There was no original building permit for construction of the Jergins Trust Building, but there was a 1923 permit for an upgrade of the State Theatre.	Building Permits
1924	Adjoining – City Dye Works & Laundry Co (north).	City Directory
1925	A building was depicted on the southern portion of the Property. A building was depicted south of the Property at what was the former waterline. Buildings were shown west, north, and east of the Property. The Pine Avenue Pier was shown west of the Property.	Topographic Map
1928	No appreciable changes to the Property from the 1923 photograph. The Rainbow Pier had been constructed south of the Property.	Aerial Photos
1928-1929	The 1949 Sanborn map indicated that a final phase of construction on the building on the southern portion of the Property was performed in 1928.	Sanborn Maps
1931	Property – 100, 106, 108, 116 East Ocean Boulevard – Jergins Trust Building (doctor offices), State Theatre, beauty shop, and vacant tenant spaces. Adjoining – Stores, barber, hat cleaner, tailor, lockers, dentist, beauty shop, restaurants, shoe repair, apartments, and an auto park.	City Directories

Year	Description	Source
1935	<p>Property – 100, 106, 108, 114, 116, 120 East Ocean Boulevard – Jergins Trust Building (Long Beach Welfare Bureau, Municipal Court), rooms, State Theatre, beauty salon, insurance office, store, and vacant tenant spaces.</p> <p>Adjoining – Stores, shoe repair, shoe shiner, restaurants, dentists, beauty shop, lockers, barber, apartments, social club, bus depot, auto parking, offices, ticket office, and a hotel.</p>	City Directories
1937	Building permit for alterations to office in the Jergins Trust Building. All subsequent permits from 1937 through 1984 related to alterations to offices and the State Theatre in the Jergins Trust Building.	Building Permits
1939	<p>Property – 100, 102, 106, 108, 110, 112, 114, 116, 118, 130 East Ocean Boulevard – Jergins Trust Building, State Theatre, booths, stores, and offices.</p> <p>Adjoining – Stores, restaurants, shoe repair, shoe shiner, dentist, optometrist, chiropractor, social clubs, offices, barber, photographer, furnished rooms, hat cleaner, auto parking, and a hotel.</p>	City Directories
1942	The area of the Property was depicted as urban development with no landmark buildings shown. The Property was just north of the waterline and a rainbow-shaped pier.	Topographic Map
1943	No significant changes from the 1942 map were noted on the Property or adjoining sites.	Topographic Map
1944	<p>Property – 100, 106, 108, 114 East Ocean Boulevard – Jergins (<i>sic</i>) Trust Building, State Theatre, booths, and offices.</p> <p>Adjoining – Stores, photographer, restaurants, shoe repair, tailor, offices, dentists, optometrist, watch repair, barber, furnished rooms, auto parking, and hotel.</p>	City Directories
1947	No appreciable changes to the Property or adjoining sites from the 1943 topographic map.	Topographic Map
1947	No appreciable changes to the Property from the 1928 photograph. The adjoining sites to the north and east also appeared generally the same as on the 1928 photograph. Multi-story buildings were located west and northwest of the Property. The building to the south was no longer present. The beach and a semi-circular pier were visible south and southeast of the Property.	Aerial Photos and Topographic Map

Year	Description	Source
1948	<p>Property – 100, 104, 108, 120 East Ocean Boulevard – Jergins Trust Building, Booths, State Theatre, office, and vacant tenant spaces.</p> <p>Adjoining – Stores, barber, dentist, optometrist, offices, photo lab, restaurants, shoe repair, furnished rooms, Society of Long Beach, and parking garages.</p>	City Directories
1949	<p>The southern portion of the Property was occupied by the 10-story Jergens Trust Building and the northern portion was a City Park. The first floor of the Jergens' building was an arcade that was connected by the underground tunnel to the north side of Ocean Boulevard; a post office and municipal restrooms were also underground in the northern portion of the Property. The map text states that 1st, 2nd, and 3rd floors were occupied by stores and restaurants facing all four streets and an arcade. The third floor (and floors 4-6) was occupied by a theater; the stage and scenery were on the 3rd floor. Because the Property was on a bluff, the third floor of the building was level with Ocean Boulevard. The building was serviced by four elevators. Notations on the map indicated that the building had been constructed in phases in 1916, 1920, and 1928.</p> <p>The Property was bounded on the north by Ocean Boulevard, stores, restaurants, and parking; on the east by Pier Place, across which were City Park, a toilet building, restaurant, and stores; on the south by Seaside Boulevard, across which was the beach and a lifeguard station; and on the west by Pine Avenue, across which were City Park, stores, restaurants, and a parking garage.</p>	Sanborn Map
1949	No appreciable changes to the Property from the 1947 topographic map. The Rainbow Pier and Municipal Auditorium were shown southeast of the Property.	Topographic Map
1950	No appreciable changes to the Property or adjoining sites from the 1949 Sanborn map.	Sanborn Map
1950	<p>Property – 100, 110, 114, East Ocean Boulevard – Jergins Trust Building, offices; 103, 105, 107 East Seaside Way – Stores, restaurants; 22, 24, 28, 34, 36, 40 South Pine Avenue – Offices, barber shop, restaurants, and stores.</p> <p>Adjoining – Stores, offices, barber, sales agency, photo lab, photo studio, dentist, restaurants, florist, Society of Long Beach, locker club, and Long Beach Amusement Co.</p>	City Directories

Year	Description	Source
1952	<p>Property – 100, 104, 114 East Ocean Boulevard – Jergins Trust Building, booths, State Theatre, offices; 22, 26, 28, 30, 34, 36, 40, 42, 44 South Pine Avenue – Post office, offices, shops, stores, and vacant.</p> <p>Adjoining – Stores, restaurants, lounge, shoe repair, dentist, optometrist, photo lab, photo studio, offices, barber, auto parking, hotel, bank, and locker club.</p>	City Directories
1953	No appreciable changes to the Property or adjoining sites from the 1947 photograph, except the area to the southwest had been developed with a parking lot.	Aerial Photos
1954	<p>Property – 100, 110, 114, 120 East Ocean Boulevard – Jergins Trust Building, offices; 103, 107, 119 East Seaside Way – Stores; 22, 40 South Pine Avenue – US Post Office and massage.</p> <p>Adjoining – Stores, offices, barber, photo lab, photo studio, restaurants, taverns, auto parking, Society of Long Beach, and Long Beach Amusement Co.</p>	City Directories
1956	No appreciable changes to the Property or adjoining sites from the 1953 photograph, except the area encompassed by the Rainbow Pier to the south and southeast was in the process of being filled, and the area to the immediate south of the Property was being used as a parking lot.	Aerial Photos
1957	<p>Property – 100, 70, 102, 104, 106, 108, 110, 112, 114, 114, 116, 118, 120 East Ocean Boulevard – Jergins Trust Building, State Theatre, offices, individuals, vacant; 103, 119 East Seaside Way – Stores; 22, 34, 36, 40 South Pine Avenue – US Post Office, Universal News, shops, and school.</p> <p>Adjoining – Stores, barber, offices, optometrist, photo lab, photo studio, tailor, dentists, restaurants, tavern, shoe repair, auto parking, residences, Society of Long Beach, school, individuals, and locker club.</p>	City Directories
1960	<p>Property – 100, 114, 120 East Ocean Boulevard – Jergins Trust Building, offices; 22, 34, 36, 44 South Pine Avenue – US Post Office, Universal News, shop, and café.</p> <p>Adjoining – Stores, offices, barber, photo lab, photo studio, restaurants, tavern, auto parking, individuals, Society of Long Beach, locker club, and lumber company.</p>	City Directories
1962	Adjoining – Lumber Company, Creosoting Company (west).	City Directories

Year	Description	Source
1963	No appreciable changes to the Property or adjoining sites from the 1956 photograph, except the area encompassed by the Rainbow Pier to the south was completely filled, additional structures were present, and the parking area had been enlarged.	Aerial Photos
1963	Property – 100, 102, 104, 108, 110, 114 East Ocean Boulevard – Jergins Trust Building, State Theatre, and offices. Adjoining – Stores, offices, tavern, barber, photo lab, photo studio, restaurants, tavern, shoe repair, auto park, residences, optometrist, Society of Long Beach, school, and individuals.	City Directories
1964	No appreciable changes to the Property from the 1949 topographic map were depicted. The area encompassed by the Rainbow Pier had been filled in.	Topographic Map
1964	Property – 100, 108, 110, 114, 120 East Ocean Boulevard – Jergins Trust Building, offices, individuals; 22, 34, 40, 44 South Pine Avenue – Post Office, Universal News, glass tinting, and restaurant. Adjoining – Offices, stores, barber, photo lab, photo studio, restaurants, taverns, club, auto parking, individuals, Society of Long Beach, locker club, and lumber company.	City Directories
1964	“In 1964, the City widened Ocean Boulevard into the park, further reducing its width varying by 10-20 feet. At that time, the City also covered over the entrance to the tunnel and arcade that had existed from the northeast corner of Ocean Boulevard and Pine Avenue, through the Jergins Trust Building basement to Seaside Way. The former entrance is now located in the parking lane under Ocean Boulevard.”	City of Long Beach Parks and Facilities Website
1965	Property – 108, 114 East Ocean Boulevard – Offices.	City Directories
1967	Property – 120 East Ocean Boulevard – Office. Adjoining – Offices.	City Directories
1968	No appreciable changes to the Property from the 1956 photograph. Extensive redevelopment and construction was underway south, southeast, and southwest of the Property.	Aerial Photos
1969	No appreciable changes to the Property or adjoining sites from the 1950 Sanborn map. The locations of stores, restaurants, and county offices were shown on the map in the Property building.	Sanborn Map

Year	Description	Source
1969	<p>Property – 100, 104, 108 East Ocean Boulevard – State Theatre, rooms, social club, vacant; 22, 30, 36, 40, 42, 44 South Pine Avenue – US Post Office, taverns, locker club, and vacant tenant spaces.</p> <p>Adjoining – Individuals, stores, school, restaurants, taverns, optometrist, blood bank, cleaners, photo lab, photo studio, barber, offices, car rentals, auto parking, hotel, apartments, and City Recreation Dept.</p>	City Directories
1970	<p>Property – 100 East Ocean Boulevard – Los Angeles County offices.</p> <p>Adjoining – Offices.</p>	City Directories
1971	Adjoining – Offices.	City Directories
1972	No appreciable changes to the Property from the 1964 topographic map were depicted. The area to the south of the Property had been expanded to its current limits, and Shoreline Drive was under construction.	Topographic Map
1972	No appreciable changes to the Property or adjoining sites from the 1968 photograph, except continuation of redevelopment and construction underway south and southeast of the Property. The adjoining site to the south was still a parking lot, but the lot had been reconfigured.	Aerial Photos
1975	<p>Property – 100, 104, 108, 110, 114, 116, 120 East Ocean Boulevard – Jergins Trust Building, State Theatre, offices, hair salon, social organization, reproduction services, Rent A Car, and private individuals; 119 East Seaside Way – Offices; 22, 30, 36, 42 South Pine Avenue – Shirts, tavern, The Quartermaster, uniforms, and The New Yorker.</p> <p>Adjoining – Offices, stores, photo lab, barber, restaurants, bar, Coast Guard, and Franwin Oil & Gas Co.</p>	City Directories
1976	Adjoining – Offices	City Directories
1976	No appreciable changes to the Property or adjoining sites from the 1972 photograph.	Aerial Photos
1977	No appreciable changes to the Property or adjoining sites from the 1976 photograph.	Aerial Photos
1977-1983	This photograph was labeled 1998 in the EDR report, but appears to actually be taken between 1977 and 1983. No appreciable changes to the Property or adjoining sites from the 1977 photograph, except the site to the east appeared vacant and under construction.	Aerial Photos

Year	Description	Source
1980	Property – 100, 108, 114, 120 East Ocean Boulevard – Jergins Trust Building, offices, salon, ticket sales, social organization, Rent A Car; 119 East Seaside Way – Offices; 30, 36, 42 South Pine Avenue – Tavern, The Quartermaster, and The New Yorker. Adjoining – Offices, restaurants, stores, and barber.	City Directories
1981	No appreciable changes to the Property from the 1972 topographic map. Development of the area south of the Property and Shoreline Drive had been largely completed.	Topographic Map
1981	Adjoining – Offices.	City Directories
1983	No appreciable changes to the Property or adjoining sites from the 1977 photograph or adjoining sites to the southwest, west, and northwest. A parking garage was south of the Property. A multi-story structure was east of the Property. Structures north of the Property had been removed and the site was being redeveloped.	Aerial Photos
1985	Property – 100, 102, 110, 120 East Ocean Boulevard – Jergins Trust Building, offices, shops, Rent-A-Car, shipping, air freight, and transport companies. Adjoining – Offices, parking, Kern Oil & Refining Co, Pacific Refinery, Western Fuel Oil Co, bank, and drapery cleaners.	City Directories
1986	Adjoining – Offices, Kern Oil & Refining Co, and parking.	City Directories
1988	Permit issued for demolition of an office building.	Building Permit Files
1989	The Property appeared to be a vacant lot with some features on the northern portion. Different buildings were visible on the adjoining site to the north and the site to the northwest appeared to be vacant and under construction.	Aerial Photos
1990	Adjoining – Offices, Kern Oil & Refining Co., Pacific Refining Co, dentist, and parking.	City Directories
1991	Adjoining – Hotel, florist, business center, restaurant, club, offices, Pacific Refining Co, True North Energy Co, Western Fuel Oil Co., parking, drapery cleaners, and magazine.	City Directories
1994	The Property appeared largely unchanged from the 1989 photograph. The Convention Center had been expanded onto the site adjoining the Property to the south. A high-rise structure was on the site northwest of the Property.	Aerial Photos
1995	Adjoining – Offices and bank.	City Directories
2000	Adjoining – Offices, restaurant, hotel, offices, social club, parking, and bank.	City Directories
2002	No appreciable changes to the Property or adjoining sites from the 1994 photograph, except the Property was being used as a parking lot and the area to the southwest was vacant and graded.	Aerial Photos

Year	Description	Source
2005	Weed abatement order issued for vacant lot.	Building Permit Files
2005	No appreciable changes to the Property or adjoining sites from the 2002 photograph, except the area to the southwest had been redeveloped.	Aerial Photos
2006	110 East Ocean Boulevard – Arts council. Adjoining – Offices, hotel, restaurants, individuals, offices, Kern Oil, transport service, and parking	City Directories
2009	No appreciable changes to the Property or adjoining sites from the 2005 photograph.	Aerial Photos
2010	Adjoining – Hotel, restaurants, offices, Kern Oil & Refining Co., Kern Fuels Research, San Pedro Bay Pipeline Co., Pacific Energy Resources, transport service, and bar.	City Directories
2012	The 2012 topographic map does not include site-specific details. No significant changes from the 1981 topographic map were noted on the Property or adjoining sites.	Topographic Maps
2012	No appreciable changes to the Property or adjoining sites from the 2009 photograph.	Aerial Photos
2014	Adjoining – Hotel, restaurants, lounge, technology group, individuals, offices, Kern Oil & Refining Co, Kern Fuels Research, Pacific Energy Resources, Petrocal Acquisition Co, Occidental Petroleum Corp, Tidelands Oil Production Inc, transport service, and market.	City Directories
2016	No appreciable changes to the Property or adjoining sites from the 2012 photograph.	Aerial Photos

HISTORICAL USE SUMMARY

The Property was undeveloped beach land and bluff from at least 1896 through 1906. By 1908, a small lunch building was constructed on the northwestern corner. Between 1912 and 1914, several small stores were constructed on the southern portion of the Property and a public toilet was built on the northeastern portion of the Property. Construction on a 10-story building on the southern portion of the Property began in 1916 and was completed by 1928. The Jergins Trust Building was a multi-story office building with a theater, stores, restaurants, and an arcade containing small shops on the lower three floors. Other tenants at the Property included a post office, barber shop, restaurants, news and magazine businesses, a school, etc. A city park was located on the northern portion of the Property. An underground arcade and tunnel extended below the center of the Property building and park from Seaside Avenue to the northern side of Ocean Boulevard. The northern entrance to the underground tunnel was closed in 1964. The Jergins Trust Building was demolished in 1988, leaving behind the concrete retaining wall separating the northern and southern portions of the Property. The southern portion of the Property remained a vacant lot until 2005 when it was paved and redeveloped as a parking lot. The northern portion of the property has remained a city park. In general, historical site operations are not commonly associated with elevated environmental risk.

HISTORICAL USE OF ADJOINING SITES

Development on the south side of Ocean Boulevard atop the bluff and on the beach began in the early part of the 20th century. Few of the early buildings survived the first quarter of the century. More permanent development began in the late 1920s and continued through the 1930s. These buildings were generally used for stores, restaurants, offices, or residences. The shoreline area to the south of the Property was expanded and developed throughout the 1950s, 1960s, and 1970s, and is currently used for the Long Beach Convention Center and various retail and entertainment establishments. Extensive redevelopment occurred on the adjoining sites to the north and east in the 1980s and 1990s, but the general types of uses remained largely unchanged.

1.1 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

In order to identify commonly known or reasonably ascertainable information about the Property, SCS reviewed previous environmental reports and various regulatory agency files and interviewed regulatory agency personnel. The following information was identified.

PREVIOUS ENVIRONMENTAL REPORTS

SCS previously performed a Phase I ESA for the southern portion of the Property. In addition, two other previous Phase I ESA reports were reviewed as part of the previous SCS Phase I ESA. The park on the northern portion of the Property was not included as part of the Property in the previous three investigations.

Mactec. *Report of Monitoring Well Installation, Proposed 100 East Ocean Development, 100 East Ocean Boulevard, Long Beach, California.* Prepared for 100 East Ocean Partners LLC. September 21, 2004.

Waterstone Environmental Inc. *Phase I Environmental Assessment Report, Subject Property Located at 100 East Ocean Boulevard, Long Beach, California 90802.* Prepared for Sidley Austin LLP. June 3, 2009.

SCS Engineers. *Phase I Environmental Site Assessment, 100 East Ocean Boulevard, Long Beach, California 90802 (APN 7278-007-048).* Prepared for Long Beach Redevelopment Agency. December 2010.

Mactec

Subsequent to a geotechnical investigation (referred to in the report but not available to SCS for review), Mactec was asked to drill two monitoring wells on the Property. The purpose of the wells was not stated in the report. Depth to groundwater was measured at 7.9 feet bgs (south end) and 10.95 feet bgs (north end). Boring logs indicated that the top five feet of soil was sandy fill material underlain by poorly graded sand and sandy silt to 20 feet bgs. No groundwater samples were collected for analysis.

Waterstone

Waterstone identified no RECs on the Property or at any adjoining sites that might affect the Property. According to Waterstone, the EDR database listed a Standard Oil service station at 100 East Ocean Boulevard in 1952. Waterstone determined that this listing was actually for a Standard Oil Company office in the office building on the Property and was not a service station. Waterstone also reviewed a previous Phase I ESA report prepared by Targhee, Inc. for James Ratkovich & Associates (May 10, 2004). This report also did not identify RECs for the Property or nearby sites.

SCS Engineers

SCS identified no recognized environmental conditions on the Property or on any adjoining site.

REGULATORY AGENCY RECORDS

Local regulatory agencies and other sources were contacted in an effort to identify any known or suspected contamination sites or incidents of hazardous waste storage or disposal which might have resulted in soil and/or groundwater contamination, or volatile organic compounds (VOCs) vapor migration to the Property. Generally, this includes records for the Property and adjacent parcels, although relevant information for other sites of possible interest in the area (up to one mile) may also be included. Within the City of Long Beach, the Long Beach Fire Department generally acts as the lead enforcement agency for underground storage tank compliance. If a tank has leaked, the Long Beach Department of Health and Human Services generally undertakes the oversight of subsequent investigations and remediation. If groundwater contamination is suspected, the Los Angeles Regional Water Quality Control Board (LARWQCB) generally becomes the lead agency in supervising contaminant characterization and cleanup.

California Environmental Protection Agency Files

The Property is not a listed site on the California Environmental Protection Agency (CalEPA) Regulated Site Portal website (**Appendix D**).

Los Angeles Regional Water Quality Control Board Files

The Property does not appear on the State Water Resources Control Board's GeoTracker website (**Appendix D**).

South Coast Air Quality Management District Files

SCS reviewed South Coast Air Quality Management District (AQMD) files through the online Facility Information Detail (FIND) website. Ocean Properties was listed as Facility ID 12513 at 100-120 East Ocean Boulevard. The database information described this facility as "active," and the business as a real estate agent/manager. No air emissions equipment was listed and no violations were noted. Based on the available information, this listing does not indicate a past source of air emissions that would represent an environmental concern.

Long Beach Fire Department Files

SCS contacted the LBFD and received a response that it had no files for the Property. SCS also reviewed the LBFD list of sites with USTs for addresses associated with the Property. No listings were found for the Property (**Appendix D**).

Department of Toxic Substances Control Files

The Property does not appear in the California Department of Toxic Substances Control (DTSC) EnviroStor website. Recent DTSC case files, if any, would be listed on this website (**Appendix D**).

12 REVIEW OF FEDERAL, STATE, TRIBAL, AND LOCAL GOVERNMENT DATABASES

A database search for sites listed on various federal, state, tribal, and local databases in the area around the Property was obtained from EDR (May 16, 2018). A description of each of the databases searched is included in the report, which is attached as **Appendix E**. Among the databases included in the EDR report are NPL (federal, tribal, and state-equivalent), proposed and delisted NPL, CORRACTS (RCRA facilities subject to corrective actions), hazardous waste sites identified for investigation or remediation (SEMS [Superfund Enterprise Management System, formerly known as CERCLIS], State CERCLIS, VCP, Brownfields Calsites, etc.), LUST, sites with engineering controls, former CERCLIS (NFRAP), RCRA and state hazardous waste generators, ERNS, SWLF, USTs, and Toxic Pits.

Review of these records satisfies all requirements as set forth in 40 CFR Section 312.26 (b) and (c) with regard to the review of federal, tribal, and state government records of databases of such government records and local government records and databases of such records pertaining to both the Property and the nearby or adjoining properties. Further, the search distances for each particular database are as specified in 40 CFR 312.26 and ASTM E1527-13.

Any known or suspected contaminated sites included on these lists within 0.25 miles of the Property are discussed in the following text. As a general rule, sites beyond 0.25 miles are not anticipated to impact a site significantly. Any sites beyond 0.25 miles with a high potential to impact the Property are also discussed. (Please note: the distances and directions listed in this report have been field verified and might not always match those in the EDR report.)

Sites such as TSD facilities, hazardous waste generators, HAZNET, FINDS, SQGs, LQGs, USTs, HIST UST, RCRA violations, and TRIS facilities with toxic chemical releases (generally in accordance with permitting requirements - into the air, water, or land as reported under SARA Title III) use or store hazardous materials and thus may pose a potential problem in the event of a spill or leak. However, unless these sites also appear in an agency list of contaminated sites, there is no evidence of any problems at this time. Therefore, sites on these lists will not be discussed unless on or in close proximity to the Property.

Please refer to **Appendix E** for further information on these sites.

PROPERTY LISTINGS

Edgewater on Ocean Condominium Project was listed on the Property at 100 Ocean on the FINDS list (EPA's index system). This listing contains no indications of violations. A search online of the California Water Boards – Los Angeles – Region 4 Enforcement Orders and Reports identified this business. The entity proposed to construct a condominium tower with subterranean parking garage that would have required dewatering of up to 1.4 million gallons per day of groundwater during construction. A historical Notice of Violation (NOV) was given to 100 East Ocean Partners LLC on August 10, 2008. The status is listed as “historical.”

100 East Ocean Boulevard is listed in the EDR report as a historical gas station in 1952 (Standard Stations). EDR's historical gas station listings are based on city directory information. In this particular case, a review of city directories discussed in the previous SCS Phase I ESA report (2010) indicates that Standard Oil Co. of California occupied offices (507, 517, 527, and/or 537) in the Jergins Trust Building from at least 1945 through at least 1958. There is no information to indicate that Standard Oil ever operated a service station on the Property.

In addition, a Historical Cleaners – Mehesey Fur Company – is listed at 115 East Seaside Way in 1920. According to Sanborn maps, in 1914, 115 Seaside was located near the northwest corner of Locust and Seaside, approximately 200 feet east of the Property. According to city directory information from SCS' previous Phase I ESA (December 2010), Mehesey Fur Company occupied 115 Seaside in 1924 and 1931, and this address was vacant by 1935. By 1949, 115 Seaside was a store within the Jergins Trust Building. It's not clear that Mehesey Fur Company ever operated on the Property, or that Mehesey Fur Company actually conducted cleaning as a part of their services. Regardless, in the early Twentieth Century, gasoline was the main dry cleaning fluid in the U.S. By 1928, the U.S. Department of Commerce had issued a standard for the use of Stoddard solvent (a petroleum distillate) for dry cleaning. As late as 1955, Stoddard solvent use still dominated the industry, with the use of Stoddard solvent exceeding the use of perchloroethylene (PCE) (the second most prevalent chemical in use at that time) by a factor of 18 to 1. The use of PCE as a dry cleaning fluid began in the U.S. in about 1934, primarily to replace the carbon tetrachloride that had been the principal competitor to Stoddard solvent. In summary, it is likely that Stoddard and not a chlorinated solvent like PCE, was used for dry cleaning operations, if any. Stoddard has much less potential for contamination of subsurface soils than chlorinated solvents. Further, Stoddard is much less toxic, has a much higher degradation rate, and cleanup levels for Stoddard would be much higher than for solvents such as PCE. Based on this information and the period in which the possible “clothes cleaning” was conducted (circa 1920 to 1931), the potential for contamination from this operation is minimal.

In summary, given that if Mehesey Fur Company may not have been located on the Property, may not have offered cleaning services, and that cleaning services, if any, were unlikely to use chlorinated solvents, SCS does not consider this historical cleaners a REC or warrant further investigation.

ADJACENT SITE LISTINGS

The following adjacent sites were listed in the databases searched by EDR:

- O C Locker Club Cleaners, 39 South Pine Avenue, Long Beach (adjacent west) (Historical Cleaners and Dyers – 1963. This listing contained no indications of a past release or violation.
- Ocean Center Garage and Ocean Center Building, 110 West Ocean Boulevard, Long Beach (adjacent west) (Historical Auto and UST – 1935-1987). Sanborn Maps show this to be an apparent parking garage on the 4th and 5th floors of the building with an inclined ramp access from the north. According to the LBFD UST database, three USTs were installed in 1952 and removed in 1985. The available information reviewed does not indicate that there was a release from a UST at this site. Consequently, SCS no negative environmental affect to the Property is anticipated. This site is situated cross-gradient from the Property.
- Renaissance Hotel, Renaissance Long Beach Hotel, 111 East Ocean Boulevard, Long Beach (adjacent north) (UST – 2014 – one tank, dual walled). According to the LBFD UST database, a 2,000-gallon diesel UST was installed in 1986. A compliance sticker was issued in 1999. While this site is located upgradient of the Property, there have been no reported releases. Based on the available information, no negative impact to the Property was identified.
- Geo Roplos, 117 East Ocean Boulevard, Long Beach (adjacent north) (Historical Hat Cleaners and Blockers – 1931). This listing contained no indications of a past release or violation.
- French Dry Cleaners & Dyers, 121 East Ocean Boulevard, Long Beach (adjacent north) (Historical Cleaners – 1920). This listing contained no indications of a past release or violation.
- John Karras/Thomas Velonis, 129 E. Ocean Boulevard, Long Beach (adjacent north-northeast) (Historical Clothes Pressers & Cleaners, Historical Hat Cleaners & Blockers – 1935-1939). This listing contained no indications of a past release or violation.
- Sports Park, 100 South Pine Avenue. This address is directly south of the Property, across Seaside Way. However, the Sports Park Brownfields site is located approximately 3 miles from the Property. A portion of the Long Beach Convention Center is located across Seaside Way, to the south of the Property. This listing appears to be in error or may refer to an office located at 100 North Pine Avenue.

Based on age, few of the historical dry cleaners in the area around the Property likely used chlorinated solvents. The database contains no information about past releases and the few that might have used such solvents are located at distances from the Property that make significant impacts unlikely.

OTHER DATABASE SITES

The EDR report provides a summary table of regulatory database sites within specified distances of the Property, including: 1. standard environmental records, 2. additional environmental

records, and 3. high risk historical records. This summary table is provided beginning on Page 4 of the EDR report (**Appendix E**). In addition to the Property and adjacent sites listings discussed above, SCS identified the following site of potential concern within 0.25 miles of the Property:

- Landmark Square/Island Freeman, 125 West Ocean Boulevard, Long Beach (approximately 300 feet northwest) (LUST and AST) – This leaking UST case affected soil only and was closed March 7, 2011, under City of Long Beach and LARWQCB oversight. Based on its case status and location cross-gradient, this site is not anticipated to affect the environmental condition of the Property. The facility is also listed as the location of an AST, with no details as to what is stored or the quantity.

Other sites located within 0.25 miles of the Property with known releases of hazardous substances such as LUST, HIST CORTESE, and ENVIROSTOR are located cross- or downgradient, or based on case status and/or distance, are not anticipated to negatively affect the environmental condition of the Property. Several sites located within 0.25 miles appear in databases not typically associated with documented releases, such as RCRA-LQG, RCRA-SQG, RCRA NonGen/NLR, FINDS, ECHO, EDR Hist Cleaners, UST, EDR Hist Auto, AST, SWEEPS UST, CA FID UST, EMI, HAZNET, LOS ANGELES CO. HMS, DRYCLEANERS, and FUELS PROGRAM. Based on a review of the database information, none of these sites are known to have any contamination at this time; therefore, none are anticipated to have negatively affected the environmental condition of the Property. Similarly, none of the sites situated beyond 0.25 miles are anticipated to have impacted the Property.

Unmappable or Orphan Sites

Two unmappable sites were identified in the EDR report. Unmappable sites cannot be plotted due to inaccurate or incomplete addresses. Based on review of the provided data, including the estimated locations of the unmappable sites in relation to the Property, it appears unlikely that the unmappable sites have adversely affected the environmental condition of the Property.

LANDFILLS

A review of the Major Waste Systems Map (June 1972) was conducted to locate any landfills or transfer stations within a one-mile radius of the Property. No landfills were identified within one mile of the Property.

According to the EDR-provided review of the California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System, no active or inactive landfills were identified within 0.5 mile of the Property. Based on the available information, it is unlikely that landfills have adversely affected the environmental condition of the Property.

OIL AND GAS WELLS

Available oil and gas well maps from the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) were reviewed to identify oil and gas wells on the Property or in the nearby area. According to the DOGGR Well Finder online database, the property is located in the Wilmington Oil and Gas Field. A cluster of 4 production wells and 11

water injection wells is located approximately 0.25 miles west-southwest of the Property, and the major oil producing platform – Island Grissom – is located approximately 0.75 mile southeast of the Property.

A map showing the location of the Property relative to nearby oil and gas wells is provided in **Appendix D**. No oil and gas wells are located on the Property or within 0.25 mile of the Property. Based on the available information, no significant environmental impacts to the Property are anticipated from oil and gas wells.

NATIONAL PIPELINE MAPPING SYSTEM

SCS reviewed the National Pipeline Mapping System (NPMS) website for the Property and surrounding area to identify any hazardous materials pipelines. The NPMS is a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), and Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS consists of geospatial data, attribute data, public contact information, and metadata pertaining to the interstate and intrastate hazardous liquid trunklines and hazardous liquid low-stress lines as well as gas transmission pipelines, liquefied natural gas (LNG) plants, and hazardous liquid breakout tanks (tanks that receive and store liquids transported by pipeline) jurisdictional to PHMSA. The nominal accuracy of geospatial data in the NPMS is +/-500 feet. The NPMS does not contain information on interconnects, pump and compressor stations, valves, direction of flow, capacity, throughput, or operating pressure. In addition, distribution and gathering pipelines are not included in the NPMS.

The NPMS is built from data submitted by pipeline, LNG plant, and breakout tank facility operators. Since 2002, transmission pipeline and LNG plant facility operators are required to submit mapping information to the NPMS and to update their submissions annually. Breakout tank operators are able to submit data to the NPMS on a voluntary basis.

Based on review of the NPMS website, there are no hazardous materials pipelines within 0.8 mile of the Property.

13 USER PROVIDED INFORMATION

A User Questionnaire was completed by Greg Steinhauer and is included in **Appendix G**. The provided information is discussed below.

TITLE RECORDS

No title report was provided to SCS for review.

ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

No information regarding environmental liens or activity use limitations due to environmental issues was provided to SCS. No environmental liens or activity/use limitations were identified by SCS during the course of this assessment. The City of Long Beach has required easements on

the northeastern portion of the Property. There is also a reported record of an existing lease for mineral rights beneath the Property, but it has not been exercised and has not affected the Property.

SPECIALIZED KNOWLEDGE

No specialized knowledge regarding the Property was provided to SCS by the User.

VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

No property valuation information was provided to SCS.

14 DEGREE OF OBVIOUSNESS OF THE PRESENCE/LIKELY PRESENCE OF CONTAMINATION ON THE PROPERTY

As discussed above, the Property was originally part of the upper beach below the bluff. Several small stores were constructed on the Property and surrounding sites in the early part of the 20th century, and construction on the Jergins Trust Building (initially the Maxwell Building) began in 1916. That multi-story office building occupied the Property until 1988. The southern portion of the Property was then an unpaved vacant lot until approximately 2005 when it was paved for use as a parking lot. The northern portion of the Property is part of a city park. None of the identified uses are typically associated with contamination, and none is anticipated on the Property.

15 DATA GAPS

A data gap represents an inability on the part of the environmental professional to obtain information required by the standards and practices of 40 CFR 312 to fully identify conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the Property.

The following data gaps were identified:

There is a boarded up opening in a concrete retaining wall on the north-central portion of the Property, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard. The interior of the subterranean walkway area could not be accessed at the time of the site inspection. Based on the available information, however, this is not considered a significant data gap.

No interviews were conducted as part of this Phase I ESA. Based on the available information, this is not considered a significant data gap.

16 FINDINGS AND OPINIONS

Based on the scope of work performed, SCS finds the following:

The Property is located on the eastern side of Pine Avenue and is bounded to the north by East Ocean Boulevard and to the south by Seaside Way. It comprises approximately one acre. The main portion of the Property (Assessor's Parcel Number [APN] 7278-007-928) is developed with an asphalt-paved parking lot. The northern portion of the Property (a portion of APN 7278-007-922) slopes up from the parking lot to a concrete retaining wall. The area at the base of the retaining wall is covered with dry vegetation. The area atop the retaining wall (situated approximately 20 feet higher in elevation than the parking lot) is covered with landscaping and The Loop sculpture that form part of Victory Park. There is a boarded up opening in the concrete retaining wall, related to a former concrete subterranean walkway that crossed beneath the northern portion of the Property and Ocean Boulevard.

The Property was undeveloped beach land and bluff from at least 1896 through 1906. By 1908, a small lunch building was constructed on the northwestern corner. Between 1912 and 1914, several small stores were constructed on the southern portion of the Property and a public toilet was built on the northeastern portion of the Property. Construction on a 10-story building on the southern portion of the Property began in 1916 and was completed by 1928. The Jergins Trust Building was a multi-story office building with a theater, stores, restaurants, and an arcade containing small shops on the lower three floors. Other tenants at the Property included a post office, barber shop, restaurants, news and magazine businesses, a school, etc. A city park was located on the northern portion of the Property. An underground arcade and tunnel extended below the center of the Property building and park from Seaside Avenue to the northern side of Ocean Boulevard. The northern entrance to the underground tunnel was closed in 1964. The Jergins Trust Building was demolished in 1988, leaving behind the concrete retaining wall separating the northern and southern portions of the Property. The southern portion of the Property remained a vacant lot until 2005 when it was paved and redeveloped as a parking lot. The northern portion of the property has remained a city park. Historical site operations are not commonly associated with elevated environmental risk.

No areas of environmental concern were identified on the Property during the site inspection. Regulatory agency records reviewed did not identify any evidence of recognized environmental conditions (RECs).

In summary, SCS performed a Phase I Environmental Site Assessment of 100 East Ocean Boulevard and a portion of Victory Park located in Long Beach, California, in conformance with the scope and limitations of 40 CFR 312 and ASTM E1527-13. Any exceptions to, or deletions from, this practice are described in Section 5 of this report.

In the opinion of the Environmental Professionals, this assessment has revealed no evidence of conditions indicative of releases or threatened releases of hazardous substances. Further investigation is not recommended.

17 REFERENCES

- ASTM International, November 1, 2013. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation: E1527-13.
- California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Website: <http://www.conservation.ca.gov/dog/Pages/Index.aspx>.
- California Department of Health Services (CDHS), Updated February 2016. *California Indoor Radon Test Results*:
<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf>
- California Department of Toxic Substance Control (DTSC) EnviroStor Website:
<https://www.envirostor.dtsc.ca.gov/public/>.
- California Environmental Protection Agency (CalEPA), Site Portal Website:
<https://siteportal.calepa.ca.gov/nsite/>.
- California Environmental Protection Agency, State Water Resources Control Board (SWRCB), GeoTracker Website: <http://geotracker.waterboards.ca.gov/>.
- City of Long Beach Building Permit Records Website:
<http://citydocs.longbeach.gov/WebLink8/CustomSearch.aspx?SearchName=SearchbyAddress>.
- Environmental Data Resources, Inc. (EDR), www.edrnet.com, (800) 352-0050.
- Federal Register, The Daily Journal of the United States Government, November 1, 2005. Part III, Environmental Protection Agency, 40 CFR Part 312, Standards and Practices for All Appropriate Inquiry. Volume 70, No. 210. Amended December 30, 2013, Volume 78, No. 250.
- Los Angeles County Department of Public Works (LACDPW). 900 Fremont Avenue, Alhambra, California 91803, (626) 458-5100.
- Mactec. *Report of Monitoring Well Installation, Proposed 100 East Ocean Development, 100 East Ocean Boulevard, Long Beach, California*. Prepared for 100 East Ocean Partners LLC. September 21, 2004.
- National Pipeline Mapping System (NPMS) Website:
<http://www.npms.phmsa.dot.gov/PublicViewer/>.
- SCS Engineers. *Phase I Environmental Site Assessment, 100 East Ocean Boulevard, Long Beach, California 90802 (APN 7278-007-048)*. Prepared for Long Beach Redevelopment Agency. December 2010.
- South Coast Air Quality Management District (AQMD), Facility Information Detail (FIND) website: <http://www3.aqmd.gov/webappl/fim/prog/search.aspx>.

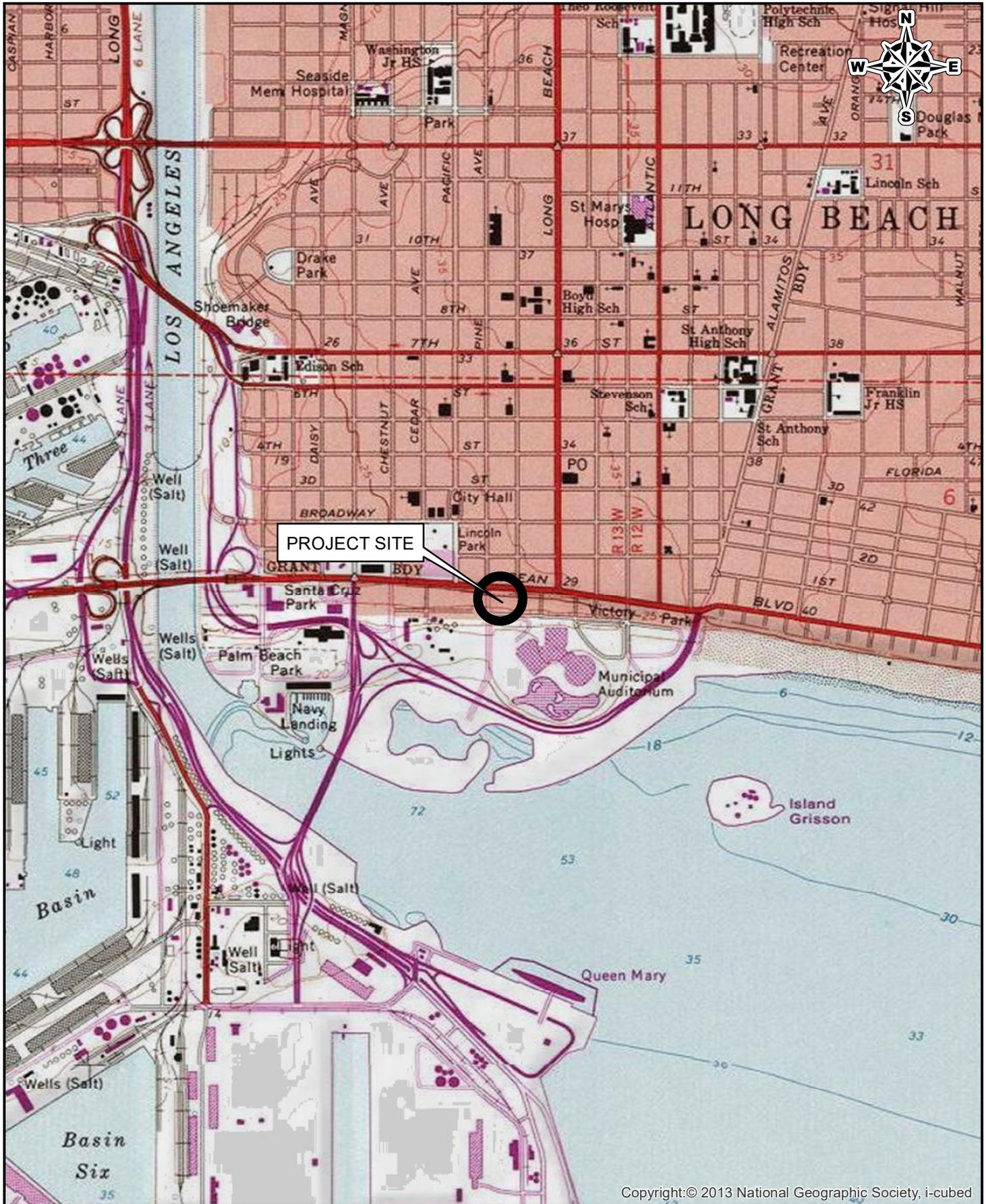
Waterstone Environmental Inc. *Phase I Environmental Assessment Report, Subject Property Located at 100 East Ocean Boulevard, Long Beach, California 90802.* Prepared for Sidley Austin LLP. June 3, 2009.

18 GLOSSARY/DEFINITIONS

<u>AAI</u>	-- All Appropriate Inquiry
<u>AUL</u>	-- Activity and Use Limitations
<u>BTEX</u>	-- benzene, toluene, ethylbenzene, and total xylenes
<u>CERCLA</u>	-- Comprehensive, Environmental Response, Compensation, and Liability Act
<u>CERCLIS</u>	-- Comprehensive Environmental Response, Compensation, and Liability Information System
<u>CFR</u>	-- Code of Federal Regulations
<u>CORRACTS</u>	-- Corrective Action Against Responsible Parties at a RCRA site
<u>CREC</u>	-- 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 (e.g., property use restrictions, AULs, or institutional or engineering controls).
<u>DOGGR</u>	-- Department of Oil, Gas, and Geothermal Resources
<u>De Minimis Condition</u>	-- A condition that generally does 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. Conditions determined to be <i>de minimis conditions</i> are not RECs or CRECs.
<u>DTSC</u>	-- California EPA Department of Toxic Substances Control
<u>EDR</u>	-- Environmental Data Resources, Inc.
<u>EPA</u>	-- Environmental Protection Agency
<u>ERNS</u>	-- Emergency Response Notification System
<u>ESA</u>	-- Environmental Site Assessment
<u>FINDS</u>	-- Facility Index System
<u>HAZNET</u>	-- California EPA Hazardous Waste Facility and Manifest Data
<u>HREC</u>	-- Historical Recognized Environmental Condition: 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
<u>LQG</u>	-- Large Quantity Hazardous Waste Generator
<u>LUST</u>	-- Leaking Underground Storage Tank
<u>MCL</u>	-- Maximum contaminant level
<u>MTBE</u>	-- Methyl-tert-butyl-ether
<u>NFA</u>	-- No Further Action determination
<u>NFRAP</u>	-- No Further Remedial Action Planned
<u>NPL</u>	-- National Priority List (Superfund)
<u>PAHs</u>	-- Polynuclear aromatic hydrocarbons
<u>PCBs</u>	-- Polychlorinated biphenyls
<u>PRGs</u>	-- Preliminary Remediation Goals
<u>RCRA</u>	-- Resource Conservation and Recovery Act
<u>RCRIS</u>	-- Resource Conservation and Recovery Information System

- RECs -- *Recognized environmental conditions* is defined by ASTM E 1527-13 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*.”
- ROD -- Record of Decision
- RBSLs -- Risk-based Screening Levels
- RWQCB -- Regional Water Quality Control Board
- SARA -- Superfund Amendments and Reauthorization Act
- SLIC -- Spills, Leaks, Investigations, and Cleanups database
- SQG -- Small Quantity Hazardous Waste Generator
- SWIS -- Solid Waste Information System
- SWLF -- Solid Waste Facility/Landfills
- TPH -- Total Petroleum Hydrocarbons
- TRIS -- Toxic Release Inventory System
- TSD -- Treatment, Storage, and/or Disposal Facility
- User -- The person or persons seeking to establish the innocent landowner defense, bona fide prospective purchaser liability protection, and/or contiguous property owner liability protection pursuant to CERCLA sections 101 and 107.
- USGS -- United States Geologic Survey
- UST -- Underground Storage Tank
- VCP -- Voluntary Cleanup Program
- VOCs -- Volatile organic compounds

APPENDIX A
FIGURES 1 AND 2



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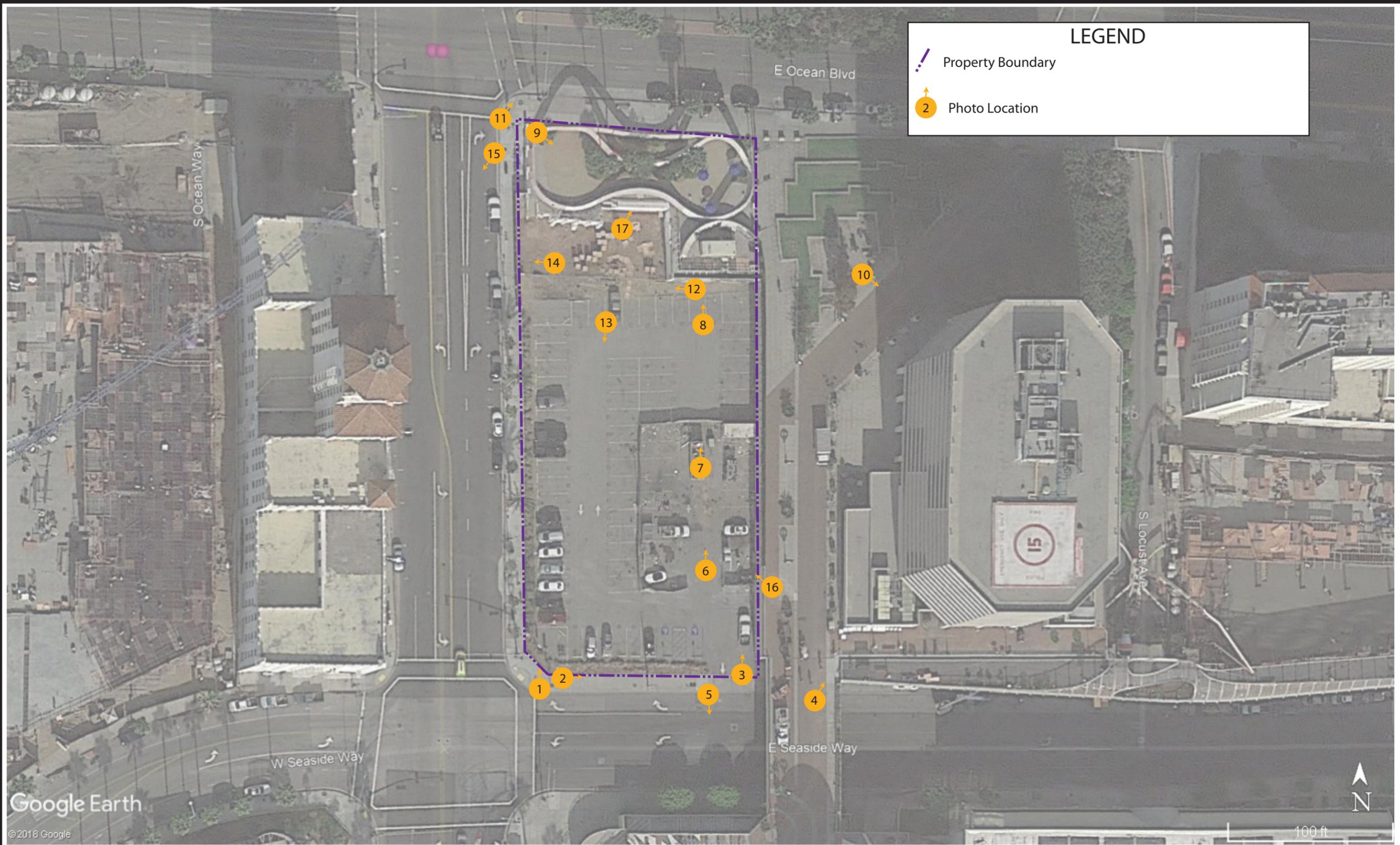
SCS ENGINEERS
 3900 KILROY AIRPORT WAY, STE 100
 LONG BEACH, CALIFORNIA 90806-6816

SITE: 100 East Ocean Boulevard
 Long Beach, California 90802

Job No.: 01218116.00
 Title: SITE LOCATION MAP

FIGURE
 1

APPENDIX B
AERIAL IMAGE AND SITE PHOTOGRAPHS



LEGEND

-  Property Boundary
-  Photo Location

Google Earth
© 2018 Google

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS <small>3900 KILROY AVENUE, SUITE 100 LONG BEACH, CA 90806 PH. (562) 426-8544 FAX. (562) 427-9805</small>	DATE: MAY 2018
	SCALE: SEE FIGURE
CLIENT: EYESTONE ENVIRONMENTAL 2121 ROSECRANS AVENUE, SUITE 3355 EL SEGUNDO, CALIFORNIA 90245	SHEET TITLE: GOOGLE EARTH AERIAL IMAGE SHOWING PHOTO LOCATIONS
PROJ. NO.: 01218116.00	PROJECT TITLE: A100 EAST OCEAN BOULEVARD AND A PORTION OF VICTORY PARK LONG BEACH, CALIFORNIA 90802
DWN. BY: J. RAUZON APP. BY: K. GREEN	FIGURE NO.: AERIAL



Photo 1 – View from the southwestern corner of the Property looking towards the north.



Photo 2 – View to the east along the southern edge of the Property.



Photo 3 – View to the north along the eastern side of the Property.



Photo 4 – Entrance to the underground parking garage of the adjoining site to the east (180 East Ocean Boulevard).



Photo 5 – Parking lot associated with the Long Beach Convention & Entertainment Center located across East Seaside Way to the south of the Property.



Photo 6 – Asphalt patches on the parking lot portion of the Property.



Photo 7 – Evidence of former soil borings on the Property.



Photo 8 – View showing the concrete retaining wall on the northeastern portion of the Property.



Photo 9 – Landscaping and The Loop sculpture on the northern portion of the Property.



Photo 10 – 180 East Ocean Boulevard located to the east of the Property.



Photo 11 – View to the north of the Property.



Photo 12 – Dry vegetation at the base of the retaining wall.



Photo 13 – View to the south in the parking lot.



Photo 14 – Small homeless encampment on the northwestern portion of the Property.



Photo 15 – 110 West Ocean, across the street to the west of the Property.



Photo 16 – View from the elevated walkway to the east looking down on the Property.



Photo 17 – The opening in the center of the retaining wall leading to a former subterranean walkway beneath Ocean Boulevard.



Photo 18 – Groundwater monitoring well on the southern portion of the Property.