<table>
<thead>
<tr>
<th>Type of Services</th>
<th>Phase I Environmental Site Assessment and Soil Quality Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Phase 2 Lab Building Project</td>
</tr>
<tr>
<td></td>
<td>Menlo Atherton High School</td>
</tr>
<tr>
<td></td>
<td>555 Middlefield Road</td>
</tr>
<tr>
<td></td>
<td>Atherton, California</td>
</tr>
<tr>
<td>Client</td>
<td>Sequoia Union High School District</td>
</tr>
<tr>
<td>Client Address</td>
<td>480 James Avenue</td>
</tr>
<tr>
<td></td>
<td>Redwood City, California</td>
</tr>
<tr>
<td>Project Number</td>
<td>166-5-29</td>
</tr>
<tr>
<td>Date</td>
<td>September 14, 2016</td>
</tr>
</tbody>
</table>

Nicholas P. Brettner
Staff Geologist

Kurt M. Soenen
Principal Engineer
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SECTION 1: INTRODUCTION

This report presents the results of the Phase I Environmental Site Assessment (ESA) and Soil Quality Evaluation performed at the planned Phase 2 Lab Building Project located on the Menlo Atherton High School Campus at 555 Middlefield Road in Atherton, California (Site) as shown on Figures 1 and 2. This work was performed for Sequoia Union High School District (District) in accordance with our June 15, 2016 and August 23, 2016 Agreements (Agreements).

1.1 PURPOSE

1.1.1 Phase I ESA

The scope of work presented in the Agreement was prepared in general accordance with ASTM E 1527-13 titled, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” (ASTM Standard). The ASTM Standard is in general compliance with the Environmental Protection Agency (EPA) rule titled, “Standards and Practices for All Appropriate Inquiries; Final Rule” (AAI Rule). The purpose of this Phase I ESA is to strive to identify, to the extent feasible pursuant to the scope of work presented in the Agreement, Recognized Environmental Conditions at the property.

As defined by ASTM E 1527-13, the term Recognized Environmental Condition means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any 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.

Cornerstone Earth Group, Inc. (Cornerstone) understands that the District intends to demolish the existing improvements within the proposed development areas prior to constructing a new restroom/food service building, a new lab building, and a new tennis court. The new restroom/food service building and new lab building will have footprints of 4,800 and 6,240 square feet respectively and are expected to be of steel and wood framed construction. Appurtenant utilities, landscaping, and other improvements necessary for site development are also planned. The planned development is shown on Figure 3.
We performed this Phase I ESA to support the District in evaluation of Recognized Environmental Conditions at the Site. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions at the Site.

1.1.2 Soil Quality Evaluation

As part of our study, soil samples were collected at the Site to evaluate general soil quality near existing structures and a transformer.

1.2 SCOPE OF WORK

As presented in our Agreement, the scope of work performed for this during this study included the following:

- A reconnaissance of the Site to note readily observable indications of significant hazardous materials releases to structures, soil or ground water.
- Drive-by observation of adjoining properties to note readily apparent hazardous materials activities that have or could significantly impact the Site.
- Acquisition and review of a regulatory agency database report of public records for the general area of the Site to evaluate potential impacts to the Site from reported contamination incidents at nearby facilities.
- Review of readily available information on file at selected governmental agencies to help evaluate past and current Site use and hazardous materials management practices.
- Review of readily available maps and aerial photographs to help evaluate past and current Site uses.
- Interviews with persons reportedly knowledgeable of existing and prior Site uses.
- Collection and analyses of soil samples.
- Preparation of a written report summarizing our findings and recommendations.

The limitations for the Phase I ESA are presented in Section 11.

1.3 ASSUMPTIONS

In preparing this Phase I ESA, Cornerstone assumed that all information received from interviewed parties is true and accurate. In addition, we assumed that all records obtained by other parties, such as regulatory agency databases, maps, related documents and environmental reports prepared by others are accurate and complete. We also assumed that the boundaries of the Site, based on information provided by the District, are as shown on Figure 2. We have not independently verified the accuracy or completeness of any data received.
1.4 ENVIRONMENTAL PROFESSIONAL

This Phase I ESA was performed by Nicholas P. Brettner under the oversight of Kurt M. Soenen, P.E. Mr. Soenen meets the qualification requirements of an Environmental Professional described in ASTM E 1527-13 and 40 CFR 312 § 312.10 based on professional licensing, education, training and experience to assess a property of the nature, history and setting of the Site.

SECTION 2: SITE DESCRIPTION

This section describes the Site as of the date of this Phase I ESA. The location of the Site is shown on Figures 1 and 2. Tables 1 through 3 summarize general characteristics of the Site and adjoining properties. The Site is described in more detail in Section 7, based on our on-Site observations.

2.1 LOCATION AND OWNERSHIP

Table 1 describes the physical location, and ownership of the property, based on information provided by the District.

Table 1. Location and Ownership

<table>
<thead>
<tr>
<th>Assessor's Parcel No. (APN)</th>
<th>Not provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Address/Location</td>
<td>555 Middlefield Road, Atherton, California</td>
</tr>
<tr>
<td>Owner</td>
<td>Sequoia Union High School District</td>
</tr>
<tr>
<td>Approximate Project Size</td>
<td>1 Acre</td>
</tr>
<tr>
<td>Approximate Bldg. Size and Construction Date¹</td>
<td>Food Service Building: 1,500 square feet; constructed after 1998 Restroom Building: 2,400 square feet; constructed in 1952</td>
</tr>
</tbody>
</table>

¹ Estimated by Cornerstone based on our review of the project demolition plan and historical aerial photographs.

2.2 CURRENT/PROPOSED USE OF THE PROPERTY

The current and proposed uses of the property are summarized in Table 2.

Table 2. Current and Proposed Uses

<table>
<thead>
<tr>
<th>Current Use</th>
<th>Proposed Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food service building, restrooms, tennis court, and paved pedestrian walkways.</td>
<td>new food service/restroom building, new lab building, and new tennis court</td>
</tr>
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</table>

2.3 SITE SETTING AND ADJOINING SITE USE

The Site is located on the Menlo Atherton High School Campus and is surrounded by classroom buildings, athletic fields/courts, and asphalt pavement parking areas. Land use beyond the campus boundary is primarily residential.

SECTION 3: USER PROVIDED INFORMATION

The ASTM standard defines the User as the party seeking to use a Phase I ESA to evaluate the presence of Recognized Environmental Conditions associated with a property. For the purpose of this Phase I ESA, the User is the District. The “All Appropriate Inquiries” Final Rule (40 CFR
Part 312) requires specific tasks be performed by or on behalf of the party seeking to qualify for Landowner Liability Protection under CERCLA (i.e., the User).

Per the ASTM standard, if the User has information that is material to Recognized Environmental Conditions, such information should be provided to the Environmental Professional. This information includes: 1) specialized knowledge or experience of the User, 2) commonly known or reasonably ascertainable information within the local community, and 3) knowledge that the purchase price of the Site is lower than the fair market value due to contamination. A search of title records for environmental liens and activity and use limitations also is required.

3.1 CHAIN OF TITLE

A chain-of-title was not provided for our review.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

An environmental lien is a financial instrument that may be used to recover past environmental cleanup costs. Activity and use limitations (AULs) include other environmental encumbrances, such as institutional and engineering controls. Institutional controls (ICs) are legal or regulatory restrictions on a property’s use, while engineering controls (ECs) are physical mechanisms that restrict property access or use.

The regulatory agency database report described in Section 4.1 did not identify the Site as being in 1) US EPA databases that list properties subject to land use restrictions (i.e., engineering and institutional controls) or Federal Superfund Liens or 2) lists maintained by the California Department of Toxic Substances Control (DTSC) of properties that are subject to AULs or environmental liens where the DTSC is a lien holder.

ASTM E 1527-13 categorizes the requirement to conduct a search for Environmental Liens and AULs as a User responsibility. A search of land title records for environmental liens and AULs was not within the scope of the current Phase I ESA.

3.3 SPECIALIZED KNOWLEDGE AND/OR COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Sequoia Union High School District does not have such specialized knowledge or experience, commonly known or reasonably ascertainable information regarding the Site, or other information that is material to Recognized Environmental Conditions except for the information contained in the provided reports described in Section 3.4.

3.4 DOCUMENTS PROVIDED BY THE DISTRICT

To help evaluate the presence of Recognized Environmental Conditions at the Site, Cornerstone reviewed and relied upon the documents provided by the District listed in Table 3. Please note that Cornerstone cannot be liable for the accuracy of the information presented in these documents. ASTM E1527-13 does not require the Environmental Professional to verify independently the information provided; the Environmental Professional may rely on the information unless they have actual knowledge that certain information is incorrect. A summary of the provided documents is provided below; please refer to the original reports for complete details (Appendix A).
In March 2016, Cornerstone performed a Preliminary Environmental Assessment (PEA) for the nearby Menlo Atherton High School G-Wing Project. As shown on Figure 2, the Site is bound to the north by the G-Wing Project. The areas of concern evaluated as part of the PEA process included: 1) possible prior agricultural use at the high school campus; 2) the potential presence of naturally occurring asbestos in soil; and 3) the presence of undocumented fill. This work was performed under the regulatory oversight of the Department of Toxic Substances Control (DTSC) Schools Division.

### 3.4.1 Prior Agricultural Use

Although difficult to interpret due to poor aerial photograph quality, the Menlo Atherton High School campus may have been used for agricultural/garden purposes in the late 1940’s to early 1950’s prior to development of the high school in 1952. Pesticides may have been applied to crops in the normal course of farming operations.

During the PEA investigation at the G-Wing Project, organochlorine pesticides (OCPs) including 4,4’-DDD, 4,4’-DDE, 4,4’-DDT, alpha-chlordane, and/or gamma-chlordane were detected in 10 of 14 soil samples. None of the detected OCPs contained concentrations that exceeded their respective Environmental Screening Criteria\(^1\). The detected metal concentrations are less than Environmental Screening Criteria and/or are similar to regional published background concentrations.

### 3.4.2 Naturally Occurring Asbestos

As discussed in the DTSC-approved PEA prepared for the G-Wing Project, the Menlo Atherton High School campus is located approximately 3.3 miles from the nearest surface outcrop of serpentinite. Chrysotile and amphibole asbestos occur naturally in certain geologic settings in the San Francisco Bay Area and are most commonly found in serpentinite.

The campus is located within the same watershed as five other schools that have been evaluated for naturally occurring asbestos (NOA) under oversight from the DTSC Schools Division. No further action was required at these nearby schools relating to NOA in native soils. Assuming geologic processes at the Site are similar to those at the nearby schools, Cornerstone concluded NOA in native soil at the G-Wing Project is not likely a significant concern and no further evaluation of NOA in native soils appeared warranted.

---

\(^1\) Environmental Screening Criteria are discussed in Section 9.1 of this Phase I ESA.
3.4.3 Fill

Up to 4 feet of fill consisting of clayey sands with gravel was observed in the geotechnical borings advanced at the northern portion of the Site, closest to the G-Wing Project. Prior work performed at the G-Wing Project also noted the same clayey sand with gravel fill.

During the PEA investigation at the G-Wing Project, selected soil samples were collected from the fill and analyzed for various organic and inorganic compounds including polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), OCPs, California Assessment Manual (CAM) metals, volatile organic compounds (VOCs), pH, and asbestos. Except for PAH compound benzo(a)pyrene or B(a)P, laboratory analyses of the soil samples collected did not detect analytes above Environmental Screening Criteria and the detected metal concentrations appear typical of regional natural background. B(a)P was detected in two soil samples (at 0.019 mg/kg) above its Environmental Screening Criteria of 0.016 milligrams per kilogram (mg/kg); however, the reported concentrations were estimated (J-flagged) because they were less than their respective reporting limit. Based on the data and the human health risk assessment, Cornerstone concluded the G-Wing Project does not pose a significant risk to human health and the environment and appears suitable to accommodate the District’s school redevelopment plans.

As part of their review of the PEA report prepared for the G-Wing Project, following the DTSC PEA Guidance (2015), DTSC converted the maximum concentrations of carcinogenic PAHs to B(a)P equivalents and determined that the total B(a)P equivalent is 0.035 mg/kg. DTSC noted that “while this value exceeds the US EPA RSL for B(a)P (0.016 mg/kg), this is below both the mean and 95% upper confidence limit (UCL) of the mean carcinogenic PAH concentration from the Northern California data sets”. The mean and 95 percent upper confidence limit (UCL) B(a)P equivalents presented in the 2002 study titled Background Levels of Polycyclic Aromatic Hydrocarbons in Northern California Surface Soil (Environ Corporation et al., 2002) are 0.21 mg/kg and 0.4 mg/kg, respectively.

3.4.4 PEA Approval

In their letter dated March 23, 2016, DTSC indicated that based on their review of the PEA report prepared for the G-Wing Project, “neither a release of hazardous material nor the presence of a naturally occurring hazardous material which would pose a threat to public health or the environment under unrestricted land use was indicated at the Site. Therefore, DTSC concurs with the conclusion of the revised PEA Report that further environmental investigation of the Site is not required and hereby approves the PEA Report.”

SECTION 4: RECORDS REVIEW

4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Cornerstone conducted a review of federal, state and local regulatory agency databases provided by Environmental Data Resources (EDR) to evaluate the likelihood of contamination incidents at and near the Site. The database sources and the search distances are in general accordance with the requirements of ASTM E 1527-13. A list of the database sources reviewed, a description of the sources, and a radius map showing the location of reported facilities relative to the project Site are attached in Appendix B.
The purpose of the records review was to obtain reasonably available information to help identify Recognized Environmental Conditions. Accuracy and completeness of record information varies among information sources, including government sources. Record information is often inaccurate or incomplete. The Environmental Professional is not obligated to identify mistakes or insufficiencies or review every possible record that might exist with the Site. The customary practice is to review information from standard sources that is reasonably available within reasonable time and cost constraints.

4.1.1 Campus-Wide Database Listings

The Site address of 555 Middlefield Road is listed on several databases including the HAZNET, EMI, RCRA-SQG, FINDS, and LUST databases; however, these listings appear to pertain to other areas of the campus. The HAZNET database includes information extracted from the copies of hazardous waste manifests received each year by the DTSC; the California Emissions Inventory (EMI) database includes toxics and criteria pollutant emissions data collected by the local air pollution agencies; the Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG) database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste; the Facility Index System/Facility Registry System (FINDS) database contains facility information; the leaking underground storage tank (LUST) database includes facilities with reported leaking underground tanks.

Additional information regarding the nearby LUST case is discussed below in Section 4.2.1.

4.1.2 Off-Campus Database Listings and Nearby Spill Incidents

No off-campus spill incidents were reported that appear likely to significantly impact soil, soil vapor or ground water beneath the Site. The potential for impact was based on our interpretation of the types of incidents, the locations of the reported incidents in relation to the Site and the assumed ground water flow direction.

4.2 ENVIROMENTAL RECORD SOURCES

4.2.1 San Mateo County Department of Environmental Health File Review

Cornerstone requested available files pertaining to 555 Middlefield Road from the San Mateo County Department of Environmental Health (DEH). No records were available for review except for LUST case documents previously provided during preparation of the PEA report for the G-Wing Project. For completeness, a discussion of these documents is repeated below.

In 1990 four underground storage tanks (USTs) containing bunker oil used for heating processes were removed from two off-Site locations at the campus. Based on an as-built drawing of the campus dated August 28, 1989 prepared by Keller & Daseking Architects, one 1,750 gallon UST and one 1,500 gallon UST were removed from the area directly behind the swimming pool bleachers, located approximately 200 feet North of the Site (Area 1); two 1,000 gallon USTs were removed from a location near the southwest corner of the existing soccer field, located approximately 40 feet West of the Site (Area 2).

During removal activities in Area 1, the USTs were observed to be supported on concrete pads at an approximate depth of eight feet. The USTs were reported to be in good condition; however, the seam at the fill pipe end of the 1,750 gallon UST (Area 1) reportedly was eroded on approximately 10 percent of the circumference. Confirmation samples collected from the
bottom of the excavation revealed total petroleum hydrocarbons in the diesel range (TPHd) at 48 mg/kg and 230 mg/kg, respectively. Additional soil was removed from the excavation prior to backfilling. Laboratory analyses of the final confirmation soil samples collected from the bottom of the excavation detected TPHd up to 2 mg/kg.

During removal activities in Area 2, the USTs were reported to be in good condition. Confirmation soil samples collected from the bottom of the excavation revealed TPHd up to 55 mg/kg, toluene up to 0.1 mg/kg, and xylenes up to 0.22 mg/kg. Additional soil was removed from the excavation. Laboratory analyses of the final confirmation soil samples collected from the bottom of the excavation did not detect petroleum hydrocarbons.

In October 1990, three ground water monitoring wells (MW-1, MW-2, and MW-3) were installed to an approximate depth of 30 feet; however, the wells were improperly installed since ground water was not encountered. MW-1 and MW-2 were installed near Area 2 and MW-3 near Area 1.

In July 1992, upon request by DEH, two replacement monitoring wells were installed near MW-1 and MW-3, respectively, and an additional well near Ringwood Avenue. The wells were installed to approximate depths of 48 to 50 feet. Ground water monitoring was performed on a quarterly basis from July 1992 to August 1993. No contaminants of concern were detected in the ground water samples collected from replacement wells MW-1 and MW-3. Depth to water measured in replacement wells MW-1 and MW-3 ranged from 31 to 37 feet. Ground water flow was calculated toward the northeast.

In their Case Closure Memorandum dated December 14, 1993, DEH indicated that “Due to the site investigation, source removal, analytical results and other available information currently on file, San Mateo County CROP staff has determined that any impact to ground water on site would be minimal. District staff has also determined that the water quality objectives of the San Francisco Bay Regional Water Quality Control Board have been satisfied. We therefore recommend that this case be concluded with the appropriate final procedures.”

4.2.2 Radon

Elevated levels of radon in indoor air are a result of radon moving into buildings from the soil, either by diffusion or flow due to air pressure differences. The ultimate source of radon is the uranium that is naturally present in rock, soil, and water. Some types of rocks are known to have uranium concentrations greater than others and, consequently, there is an increased chance of elevated radon concentrations in soils and weathered bedrock where they are located. Areas down-slope which received sediments and/or surface and ground water from rock units with above average uranium content also have an increased likelihood of elevated radon concentrations in soil gas. In California, bedrock that can contain above average uranium concentrations includes the Monterey formation, asphaltic rocks, marine phosphatic rocks, granitic rocks, felsic volcanic rocks, and certain metamorphic rocks.

The federal EPA has established an action level of 4 pCi/L, above which the EPA recommends taking action to reduce radon levels in structures. To help local, state, and federal agencies prioritize resources and implement radon-control building codes, the EPA published maps of radon hazards for each county in California (www.epa.gov/radon/zonemap/california.htm).

Radon potential maps are provided in the 2014 California Geological Survey (CGS) Special Report 226, titled Radon Potential in San Mateo County, CA (CGS 2014). These maps were
prepared based upon 1) indoor-radon data; 2) National Uranium Resource Evaluation (NURE) airborne equivalent uranium (eU) data; and 3) Natural Resources Conservation Service (NRCS) soil data for permeability and shrink-swell characteristics. As shown on the map, the Site is located in a “High Potential” zone for indoor radon levels to exceed the federal EPA action level.

### 4.2.3 Division of Oil, Gas and Geothermal Resources Maps

To evaluate the presence of oil or gas wells on-site and in the immediate site vicinity, maps available on-line at the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (http://www.consrv.ca.gov/dog) were reviewed. Review of the available map for the site area (District 6 Map) did not show oil or gas wells on-site or on the adjacent properties.

### SECTION 5: PHYSICAL SETTING

We reviewed readily available geologic and hydrogeologic information to evaluate the likelihood that chemicals of concern released on a nearby property could pose a significant threat to the site and/or its intended use.

#### 5.1 RECENT USGS TOPOGRAPHIC MAP

Menlo-Atherton High School is located on the flatlands surrounding San Francisco Bay about 1½ miles south of the present tidal flats and 2.7 miles northeast of the base of the peninsula portion of the Santa Cruz Mountains. The high school is located on land sloping gently northward. The ground surface at the campus ranges from approximately 45 to 55 feet in elevation. San Francisquito Creek drains northeast almost 1 mile southeast of the campus.

#### 5.2 HYDROGEOLOGY

During Cornerstone’s 2015 geotechnical investigation, ground water was not observed in the borings to a maximum depth explored of approximately 35 feet. Ground water was encountered at a depth of 38½ feet in Boring EB-1 from a previous Cornerstone geotechnical investigation performed in 2009 for the Media Arts project located approximately 450 feet North of the site. As discussed in Section 4.2.1, ground water monitoring performed at the campus in 1992 and 1993 reported ground water depths at approximately 31 to 37 feet. The calculated ground water flow direction was toward the northeast.

### SECTION 6: HISTORICAL USE INFORMATION

The objective of the review of historical use information is to develop a history of the previous uses of the site and surrounding area in order to help identify the likelihood of past uses having led to Recognized Environmental Conditions at the property. The ASTM standard requires the identification of all obvious uses of the property from the present back to the property’s first developed use, or back to 1940, whichever is earlier, using reasonably ascertainable standard historical sources.

#### 6.1 HISTORICAL SUMMARY OF SITE

The historical sources reviewed are summarized below. The results of our review of these sources are summarized in Table 4.
- **Historical Aerial Photographs:** We reviewed aerial photographs dated between 1939 and 2012 obtained from EDR of Milford, Connecticut; copies of aerial photographs reviewed are presented in Appendix C.


- **Historical Fire Insurance Maps:** We reviewed Sanborn fire insurance maps dated 1943 and 1958 obtained from EDR; copies of Sanborn maps are presented in Appendix C.

**Table 4. Summary of Historical Source Information for Site**

<table>
<thead>
<tr>
<th>Date</th>
<th>Source</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899 and 1902</td>
<td>Topographic Maps</td>
<td>No structures are shown on-Site. The Site appears to be undeveloped.</td>
</tr>
<tr>
<td>1939</td>
<td>Aerial Photograph</td>
<td>No structures are shown on-Site. The Site appears to be undeveloped and/or used for agricultural purposes.</td>
</tr>
<tr>
<td>1943, 1948, 1950</td>
<td>Aerial Photograph, Topographic Map and Sanborn Map</td>
<td>No structures are shown on-Site. The Site appears to be undeveloped and/or used for agricultural purposes.</td>
</tr>
<tr>
<td>1952</td>
<td>Sanborn Map</td>
<td>Except for the existing restroom building, the Site appears as vacant land associated with the Menlo Atherton High School campus.</td>
</tr>
<tr>
<td>1953 to 1997</td>
<td>Topographic Maps</td>
<td>Menlo Atherton High School is shown on the map.</td>
</tr>
<tr>
<td>1958</td>
<td>Aerial Photograph</td>
<td>The Site appears to have been improved with AC pavement.</td>
</tr>
<tr>
<td>1961 through 1998</td>
<td>Aerial Photographs</td>
<td>The Site appears similar to the 1958 aerial photograph.</td>
</tr>
<tr>
<td>2005</td>
<td>Aerial Photograph</td>
<td>Site appears to have been improved with a tennis court, the existing food service building, and several small sheds.</td>
</tr>
<tr>
<td>2009, 2010, and 2012</td>
<td>Aerial Photographs</td>
<td>The Site appears similar to the 2005 aerial photograph.</td>
</tr>
</tbody>
</table>

**6.2 HISTORICAL SUMMARY OF SITE VICINITY**

Based on our review of the information described in Section 6.1, the general history of the Site vicinity is summarized below.

**1899 and 1902**
The 1899 and 1902 topographic maps show the site to be in a sparsely developed area. The city of Palo Alto is shown to the southwest of the site, across San Francisquito Creek.

**1939, and 1943 to 1950**
On the 1939 aerial photograph, the Site vicinity appears to be a mix of undeveloped land, agricultural areas, and residences. A higher density of residential parcels is apparent to the
east, across Ringwood Avenue. By 1943, a larger commercial development is visible to the south across Middlefield Road.

1958 to 2012
The 1958 aerial photograph shows a significant increase in what appears to be mainly residential development in the Site vicinity. The development of Menlo Atherton High School around the Site has also occurred by this time. The subsequent aerial photographs show further increases in mainly residential development and corresponding decreases in undeveloped land.

SECTION 7: SITE RECONNAISSANCE

We performed a Site reconnaissance to evaluate current Site conditions and to attempt to identify Site Recognized Environmental Conditions. The results of the reconnaissance are discussed below. Additional Site observations are summarized in Table 5 in Section 7.2. Photographs of the Site are presented in Section 7.2.1.

7.1 METHODOLOGY AND LIMITING CONDITIONS

To observe current Site conditions (readily observable environmental conditions indicative of a significant release of hazardous materials), Cornerstone staff geologist Nicholas P. Brettner visited the Site on July 19, 2016, and was accompanied by the District’s representative Mr. Ralph Adams and Menlo Atherton High School facilities manager Mr. Brien Oliver. The Site reconnaissance was conducted by walking representative areas of the Site, including the interior(s) of the on-Site structure(s), the periphery of the structure(s) and the Site periphery. Cornerstone staff only observed those areas that were reasonably accessible, safe, and did not require movement of equipment, materials or other objects. Physical obstructions that limited our ability to view the ground surface at the Site included asphalt paved pedestrian walkways (typical of developed properties) and the tennis court in the northeast portion of the Site.

7.2 OBSERVATIONS

The Site is separated into two areas. The majority of the Site is approximately 250 feet west of Ringwood Avenue (Area 1). A small and separate portion of the Site (Area 2), approximately 3,500 square feet in size, is located just west of Ringwood Avenue (Figure 2). At the time of our visit, Area 2 consisted of an AC paved parking lot and landscaped areas. Area 2 was bordered to the north by the gym building, to the west by tennis courts, and to the south by landscaped areas.

The eastern portion of Area 1 consisted of a tennis court on the northeast corner of the Site which was surrounded to the north, west, and south by asphalt concrete (AC) paved pedestrian walkway areas. Located on the AC paved walkway areas to the south of the tennis court were four small wood sheds. Mr. Oliver indicated three of the sheds were installed in 2006. Access to the interior of the sheds was not provided; Mr. Oliver indicated the sheds contained sporting equipment. The fourth shed reportedly was constructed in 1996 by enclosing a carport. The shed was observed to contain miscellaneous items such as school supplies, extra trash bins, abandoned bicycles, whiteboards, ladders, window screens, fence posts, etc.

A fifth small wood shed was located approximately 40 feet to the west of the tennis court and reportedly was installed in 2000. This shed consisted of a small office on its south end and a cleaning and maintenance supply storeroom on its north end. Cleaning and maintenance
supplies included paper products, five gallon containers of floor waxes and sealants, mops and brooms, small amounts of disinfectants, spray paints, window cleaner, deodorants, cleaning solutions, etc.

Located immediately adjacent to the south of the tennis court was also a small concrete utility pad mounted emergency diesel generator, self-contained in a metal panel housing. Mr. Oliver indicated the generator unit was installed in 1997 and no underground fuel storage was associated with the generator. Fuel was stored in an above ground 50-gallon tank located within the metal housing of the generator unit. The utility pad on which the generator was mounted and the pavement surrounding the pad appeared to be in good condition and no staining was observed at the base of the generator.

The southwest portion of Area 1 consisted of AC paved pedestrian areas and parking stalls for vehicles. This area was bordered to the south by the northern exterior wall of the library building. Located on-Site along this northern wall were a series of electrical switch gear boxes mounted on a single concrete utility pad.

Along the western edge of Area 1 was a wood-framed restroom building and on the northern edge was a food service building, also of wood-framed construction. Directly adjacent to the food service building along its western exterior wall was a small concrete utility pad mounted transformer. The utility pad on which the transformer was mounted and surrounding pavement appeared to be in good condition and no staining was observed at the base of the transformer.

The northern edge of Area 1 was bordered by the G-Wing Project, AC paved pedestrian areas, and a grass sports field. To the east of the Site were tennis courts.
### Table 5. Summary of Readily Observable Site Features

<table>
<thead>
<tr>
<th>General Observation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboveground Storage Tanks</td>
<td>50-gallon diesel tank in generator enclosure.</td>
</tr>
<tr>
<td>Agricultural Wells</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Air Emission Control Systems</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Boilers</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Burning Areas</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Chemical Mixing Areas</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Chemical Storage Areas</td>
<td>Campus cleaning supplies storeroom.</td>
</tr>
<tr>
<td>Clean Rooms</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Drainage Ditches</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Elevators</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Emergency Generators</td>
<td>Emergency diesel generator located immediately south of tennis court.</td>
</tr>
<tr>
<td>Equipment Maintenance Areas</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Fill Placement</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Ground Water Monitoring Wells</td>
<td>Not Observed</td>
</tr>
<tr>
<td>High Power Transmission Lines</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Hoods and Ducting</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Hydraulic Lifts</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Incinerator</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Petroleum Pipelines</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Petroleum Wells</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Ponds or Streams</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Railroad Lines</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Row Crops or Orchards</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Stockpiles of Soil or Debris</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Sumps or Clarifiers</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Transformers</td>
<td>Small transformer observed adjacent to existing food service building.</td>
</tr>
<tr>
<td>Underground Storage Tanks</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Vehicle Maintenance Areas</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Vehicle Wash Areas</td>
<td>Not Observed</td>
</tr>
<tr>
<td>Wastewater Neutralization Systems</td>
<td>Not Observed</td>
</tr>
</tbody>
</table>

The comment “Not Observed” does not warrant that these features are not present on-Site; it only indicates that these features were not readily observed during the Site visit.
7.2.1 Site Photographs

Photograph 1 (looking northwest). Sheds south of tennis court in Area 1.

Photograph 2 (looking northwest). Sheds south of tennis court in Area 1. Top of emergency generator can be seen behind wood fenced enclosure.

Photograph 5 (looking northwest). Tennis court in Area 1.

Photograph 6 (looking north). Emergency generator south of tennis court in Area 1.
To help obtain information on current and historical Site use and use/storage of hazardous materials on-Site, we provided an environmental questionnaire to the District. The completed questionnaire was not returned to us as of the date of this report. However, as discussed in Section 7.2, District representatives Mr. Ralph Adams and Mr. Brien Oliver were interviewed during our Site visit.

**SECTION 8: ENVIRONMENTAL QUESTIONNAIRE AND INTERVIEWS**

**8.1 ENVIRONMENTAL QUESTIONNAIRE / OWNER INTERVIEW**
8.2 INTERVIEWS WITH PREVIOUS OWNERS AND OCCUPANTS

Contact information for previous Site owners and occupants was not provided to us. Therefore, interviews with previous Site owners and occupants could not be performed.

SECTION 9: SOIL QUALITY EVALUATION

As discussed in the DTSC guidance document titled *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead From Lead-Based Paint, Organochlorine Pesticides from Termiteicides, and Polychlorinated Biphenyls from Electrical Transformers, Revised 06/09/06*, soil adjacent to structures built before 1993 that are painted with lead-containing paint can become impacted with lead as a result of the weathering and/or peeling of painted surfaces. Soil near wood framed structures also can be impacted by organochlorine pesticides (OCPs) historically used to control termites. Since the restroom building was constructed before 1993, soil sampling was performed near this structure to evaluate general soil quality. Soil samples were also collected from selected locations where the Site boundary extended to an adjacent off-Site building.

Soil adjacent to transformers can become impacted PCBs which were historically used as a cooling fluid within transformers. PCBs in building materials are also a potential concern. Therefore, soil sampling was also performed near the on-Site transformer. Selected soil samples collected near the structures were also analyzed for PCBs.

9.1 ENVIRONMENTAL SCREENING CRITERIA

The soil sampling results were compared to the DTSC recommended Screening Levels (SLs) presented in DTSC Office of Human and Ecological Risk (HERO) guidance document *Human Health Risk Assessment (HHRA) Note 3* dated June 2016 (HERO, 2016). If an SL is not established, the soil results were compared to Regional Screening Levels (RSLs) established by the USEPA Region 9 (USEPA, May 2016).

9.2 SOIL SAMPLE COLLECTION AND LABORATORY ANALYSES

On August 23, 2016 our field geologist collected 14 soil samples from seven locations (S-2 through S-8) using hand sampling techniques. The sample locations are shown on Figure 2. At each location, one soil sample was collected from first encountered soil beneath pavement and base rock section, and a second soil sample was collected at a depth of up to approximately 2 feet below the shallower sample. If refusal was encountered during advancement of the boring, a soil sample was collected from the refusal depth.

The soil samples were submitted to a state-certified laboratory in an ice-chilled cooler under chain-of-custody documentation. The seven soil samples collected from the first encountered soil were analyzed for lead (EPA Test Method 6010B) and organochlorine pesticides (OCPs) (EPA Test Method 8081). The seven deeper samples were analyzed for OCPs. Four of the shallow samples were selected (including the sample collected from the boring near the transformer) and analyzed for PCBs (EPA Test Method 8082).

Copies of the laboratory reports are attached in Appendix D. Data summary tables are presented below in Tables 6 and 7.
### Table 6. Analytical Results of Soil Samples – OCPs
(Concentrations in mg/kg)

<table>
<thead>
<tr>
<th>Boring ID</th>
<th>Sample ID</th>
<th>Date</th>
<th>Depth (feet)</th>
<th>4,4'-DDE</th>
<th>4,4'-DDE</th>
<th>4,4'-DDT</th>
<th>DDT Total</th>
<th>alpha-Chlordane</th>
<th>Chlordane</th>
<th>Dieldrin</th>
<th>gamma-Chlordane</th>
<th>Heptachlor</th>
<th>Heptachlor epoxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB-2</td>
<td>SB-2(0.5-1)</td>
<td>8/23/2016</td>
<td>½-1</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.04</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-2(1-1.5)</td>
<td>8/23/2016</td>
<td>1-1½</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.04</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>SB-3</td>
<td>SB-3(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>0.016</td>
<td>0.0023</td>
<td>0.0183</td>
<td>&lt;0.002</td>
<td>&lt;0.04</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-3(4-4.5)</td>
<td>8/23/2016</td>
<td>4-4½</td>
<td>&lt;0.002</td>
<td>0.0046</td>
<td>0.0046</td>
<td>&lt;0.002</td>
<td>&lt;0.039</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>SB-4</td>
<td>SB-4(1.5-2)</td>
<td>8/23/2016</td>
<td>1½-2</td>
<td>0.0038</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-4(3.5-4)</td>
<td>8/23/2016</td>
<td>3½-4</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>0.0058</td>
<td>0.0044</td>
<td>0.0074</td>
<td>0.0087</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>SB-5</td>
<td>SB-5(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-5(4-4.5)</td>
<td>8/23/2016</td>
<td>4-4½</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>SB-6</td>
<td>SB-6(0.5-1)</td>
<td>8/23/2016</td>
<td>½-1</td>
<td>&lt;0.0059</td>
<td>0.0082</td>
<td>0.0068</td>
<td>0.4</td>
<td>&lt;0.0039</td>
<td>0.063</td>
<td>&lt;0.0039</td>
<td>&lt;0.0039</td>
<td>&lt;0.0039</td>
<td>&lt;0.0039</td>
</tr>
<tr>
<td></td>
<td>SB-6(2.5-3)</td>
<td>8/23/2016</td>
<td>2½-3</td>
<td>&lt;0.004</td>
<td>0.0088</td>
<td>0.0088</td>
<td>0.19</td>
<td>1.1</td>
<td>&lt;0.004</td>
<td>0.18</td>
<td>0.0054</td>
<td>0.0099</td>
<td>0.0099</td>
</tr>
<tr>
<td>SB-7</td>
<td>SB-7(0.5-1)</td>
<td>8/23/2016</td>
<td>½-1</td>
<td>&lt;0.002</td>
<td>0.019</td>
<td>0.019</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-7(1.5-2)</td>
<td>8/23/2016</td>
<td>1½-2</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>SB-8</td>
<td>SB-8(1-1.5)</td>
<td>8/23/2016</td>
<td>1-1½</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td></td>
<td>SB-8(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
<td>&lt;0.002</td>
</tr>
</tbody>
</table>

| Maximum Detection | 0.016    | 0.019    | 0.019    | 0.19     | 1.1      | 0.0074   | 0.18     | 0.0054    | 0.0099 |

| RSL<sup>1</sup> - (Residential) | 2       | 1.9     | NE       | NE       | 1.7      | 0.034    | NE   | 0.13     | 0.07  |
| DTSC<sup>2</sup> - SL (Residential) | NE      | NE      | NE       | NE       | 0.44     | NE    | NE   | NE   | NE |

---

1. Regional Screening Level (RSL), USEPA Region 9 - May 2016.
2. DTSC Recommended Screening Level (SL), HERO Note 3 - June 2016.
< Not detected at or above laboratory reporting limit
NE Not Established

**BOLD** Concentration exceeds selected environmental screening criteria
Table 7. Analytical Results of Soil Samples - Lead/PCBs  
(Concentrations in mg/kg)

<table>
<thead>
<tr>
<th>Boring ID</th>
<th>Sample ID</th>
<th>Date</th>
<th>Depth (feet)</th>
<th>Lead</th>
<th>PCBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB-2</td>
<td>SB-2(0-5-1)</td>
<td>8/23/2015</td>
<td>½-1</td>
<td>2.7</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>SB-2(1-1.5)</td>
<td>8/23/2015</td>
<td>1-1½</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-3</td>
<td>SB-3(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>8.8</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>SB-3(4-4.5)</td>
<td>8/23/2016</td>
<td>4-4½</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-4</td>
<td>SB-4(1-1.5)</td>
<td>8/23/2016</td>
<td>1½-2</td>
<td>7.6</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>SB-4(3-3.5)</td>
<td>8/23/2016</td>
<td>3½-4</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-5</td>
<td>SB-5(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>1.2</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>SB-5(4-4.5)</td>
<td>8/23/2016</td>
<td>4-4½</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-6</td>
<td>SB-6(0-5-1)</td>
<td>8/23/2016</td>
<td>½-1</td>
<td>16</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>SB-6(2-2.5)</td>
<td>8/23/2016</td>
<td>2½-3</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-7</td>
<td>SB-7(0-5-1)</td>
<td>8/23/2016</td>
<td>½-1</td>
<td>25</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>SB-7(1-1.5)</td>
<td>8/23/2016</td>
<td>1½-2</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>SB-8</td>
<td>SB-8(1-1.5)</td>
<td>8/23/2016</td>
<td>1-1½</td>
<td>&lt;0.86</td>
<td>ND</td>
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<tr>
<td></td>
<td>SB-8(2-2.5)</td>
<td>8/23/2016</td>
<td>2-2½</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

Maximum Detection: 25  ND

RSL¹ - (Residential)  400  Variable
DTSC - SL² (Residential)  80  Variable

1 Regional Screening Level (RSL), USEPA Region 9 - May 2016.
2 DTSC Recommended Screening Level (SL), HERO Note 3 - June 2016.
< Not detected at or above laboratory reporting limit
ND Not detected at or above reporting limit
NE Not Established
--- Not Analyzed
SECTION 10: FINDINGS, OPINIONS AND CONCLUSIONS (WITH RECOMMENDATIONS)

Cornerstone performed this Phase I ESA in general accordance to ASTM E1527-13 to support Sequoia Union High School District in evaluation of Recognized Environmental Conditions. Our findings, opinions and conclusions are summarized below.

10.1 HISTORICAL SITE USAGE

Although difficult to interpret due to poor photo quality, based on the aerial photographs obtained during this study, the Site appears to have been undeveloped and/or used for agricultural purposes until 1952, when Menlo Atherton High School was constructed. Initial improvements at the Site included the existing restroom building with asphalt pavement. The Site remained this way until the existing tennis court, food service building, and several small sheds were added to the Site sometime between 1998 and 2005.

10.2 CHEMICAL STORAGE AND USE

No significant quantities of hazardous materials were observed at the Site during our visit. A shed on-Site housed a storeroom where various small quantities (5 gallon buckets or less) of typical campus janitorial and maintenance supplies were stored. General housekeeping of the storeroom appeared orderly with no readily observable evidence of significant spills or leaks. An on-Site emergency generator contained a 50-gallon above ground diesel fuel tank housed within its metal enclosure. No staining or leaks were observed near the generator at the time of our Site visit. These materials are unlikely to have significantly impacted soil or ground water quality beneath the Site.

10.3 GENERAL SOIL QUALITY NEAR STRUCTURES

Laboratory analyses of the soil samples collected at the Site did not detect OCPs, lead, or PCBs above Environmental Screening Criteria except for chlordane detected in one soil sample (SB-6) collected on the north side of the restroom building at a concentration of 1.1 mg/kg. The Environmental Screening Criteria for chlordane is 0.44 mg/kg. The 95 percent upper confidence limit concentration for chlordane is 0.304 mg/kg. Historically, chlordane was commonly used for pest control near the foundations of wood framed buildings.

Based on the results of the soil samples collected from other areas near the restroom building, soil with chlordane concentrations that exceed its Environmental Screening Criteria appears limited to the north side of the restroom building. Although the 95 percent UCL concentration for chlordane is less than its Environmental Screening Criteria, due to the anticipated small volume of soil (possibly less than 10 cubic yards) we recommend the chlordane impacted soil near the SB-6 location be excavated and disposed at a permitted facility.

10.4 AGRICULTURAL USE

It is possible that the Menlo Atherton High School campus had been used for agricultural purposes for several decades prior to construction of the campus in the early 1950’s. Pesticides may have been applied to crops in the normal course of farming operations. Organochlorine
pesticides were first introduced into California agriculture in 1944 and reached peak usage in the 1960’s (DTSC, 2008). Some studies have shown a lower likelihood of occurrence of significant soil concentrations of organochlorine pesticides at agricultural properties that terminated farming operations prior to the early 1950’s (DTSC, 2008), similar to the Menlo Atherton High School campus. The use of arsenical pesticides, however, pre-dates the 1950’s and could have been applied.

As part of the DTSC-approved PEA prepared for the adjacent G-Wing Project, sampling was performed to evaluate potential impacts to soil quality from possible historical agricultural uses. Laboratory analyses of the soil samples did not detect OCPs above Environmental Screening Criteria and the detected pesticide-related metal concentrations (arsenic, lead, and mercury) appear typical of regional natural background.

Based on: 1) the soil analytical data from the G-Wing Project; 2) the proximity of the Site to the G-Wing Project; 3) similar historical agricultural uses at the campus property; 4) construction of the campus by the early 1950’s; and 5) the analytical results of the soil samples collected at the Site, agricultural-related soil impacts do not appear to be a significant concern at the campus. No further evaluation of agricultural-related impacts in soil appears warranted at this time.

10.5 NATURALLY OCCURRING ASBESTOS

Chrysotile and amphibole asbestos occur naturally in certain geologic settings in the San Francisco Bay Area and are most commonly found in serpentinite and other ultramafic rocks. These are igneous and metamorphic rocks with a high content of magnesium and iron minerals. The most common type of asbestos is chrysotile, which commonly is found in serpentinite rock formations. When disturbed by construction, grading, quarrying, or surface mining operations, asbestos-containing dust can be generated. Exposure to asbestos can result in lung cancer, mesothelioma, and asbestosis.

As discussed in the DTSC-approved PEA prepared for the G-Wing Project, the Menlo Atherton High School campus is located within the same watershed as five other schools that have been evaluated for NOA under oversight from the DTSC Schools Division. A no further action determination was made by DTSC at these nearby schools relating to NOA in native soils. Assuming geologic processes at the Site are similar to those at the nearby schools, NOA in native soil at the Menlo Atherton High School campus is not likely a significant concern. No further evaluation of NOA in native soils appears warranted at this time.

10.6 FILL

Up to 4 feet of fill consisting of clayey sands with gravel was observed in the geotechnical borings advanced at the northern portion of the Site, closest to the G-Wing Project. Prior work performed at the G-Wing Project also noted the same clayey sand with gravel fill.

During the PEA investigation at the G-Wing Project, selected soil samples were collected from the fill and analyzed for various organic and inorganic compounds including PAHs, PCBs, OCPs, metals, VOCs, pH, and NOA. Except for PAH compound B(a)P, laboratory analyses of the soil samples collected did not detect analytes above Environmental Screening Criteria and the detected metal concentrations appear typical of regional natural background. B(a)P was detected in two soil samples (at 0.019 mg/kg) above its Environmental Screening Criteria of 0.016 mg/kg; however, the reported concentrations were estimated (J-flagged) because they
were less than their respective reporting limit. Based on the data and the human health risk assessment, Cornerstone concluded the G-Wing Project does not pose a significant risk to human health and the environment and appears suitable to accommodate the District’s school redevelopment plans.

In their letter dated March 23, 2016, DTSC indicated that based on their review of the PEA report, “neither a release of hazardous material nor the presence of a naturally occurring hazardous material which would pose a threat to public health or the environment under unrestricted land use was indicated at the Site. Therefore, DTSC concurs with the conclusion of the revised PEA Report that further environmental investigation of the Site is not required and hereby approves the PEA Report.”

The imported fill present at the campus in the area of the G-Wing Project and northern portion of the Site was evaluated as part of the PEA process completed for the G-Wing Project. The fill does not appear to pose a significant risk to human health and the environment and appears suitable to accommodate the District’s school redevelopment plans at the Site.

10.7 POTENTIAL ENVIRONMENTAL CONCERNS WITHIN THE SITE VICINITY

Based on the information obtained during this study, no hazardous material spill incidents have been reported in the Site vicinity that would be likely to significantly impact the Site. The potential for impact was based on our interpretation of the types of incidents, the locations of the reported incidents in relation to the Site and the assumed ground water flow direction.

10.8 ASBESTOS CONTAINING BUILDING MATERIALS (ACBMS)

Due to the age of the on-Site structure(s), building materials may contain asbestos. Since demolition is planned, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACBMs prior to building demolition or renovation that may disturb the ACBM.

10.9 LEAD-BASED PAINT

The Consumer Product Safety Commission banned the use of lead as an additive in paint in 1978. Based on the age of the building, lead-based paint may be present. Since demolition is planned, the removal of lead-based paint isn’t required if it is bonded to the building materials. However, if the lead-based paint is flaking, peeling, or blistering, it should be removed prior to demolition. In either case, applicable OSHA regulations must be followed; these include requirements for worker training, air monitoring and dust control, among others. Any debris or soil containing lead must be disposed appropriately.

10.10 SCHOOL SITE REGULATORY AGENCY ENVIRONMENTAL REVIEW AND APPROVAL PROCESS

The DTSC has established a process for evaluation of environmental conditions at school sites. The process is intended for schools that receive state funding. We understand the District will be seeking state funding, at a minimum, for construction of the planned lab building (Figure 3). This report must be forwarded to DTSC’s School Property Evaluation and Cleanup Division for their review and approval. We recommend consulting with DTSC to determine their
requirement for agency oversight beyond their review of this Phase I ESA, and if necessary, obtaining partial site approval for the portion of the Site that includes the planned lab building.

10.11 DATA GAPS

ASTM Standard Designation E 1527-13 requires the Environmental Professional to comment on significant data gaps that affect our ability to identify Recognized Environmental Conditions. A data gap is a lack of or inability to obtain information required by ASTM Standard Designation E 1527-13 despite good faith efforts by the Environmental Professional to gather such information. A data gap by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. The following data gap was identified:

- The environmental questionnaire provided for completion by the Site owner was not returned to us as of the date of this report. The general environmental setting of the Site appears to have been established based on the information reviewed from other data sources. We do not consider this data gap to be significant.

10.12 DATA FAILURES

As described by ASTM Standard Designation E 1527-13, a data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the historical research objectives have not been met. Data failures are not uncommon when attempting to identify the use of a Site at five year intervals back to the first use or to 1940 (whichever is earlier). ASTM Standard Designation E 1527-13 requires the Environmental Professional to comment on the significance of data failures and whether the data failure affects our ability to identify Recognized Environmental Conditions. A data failure by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. No significant data failures were identified during this Phase I ESA.

10.13 RECOGNIZED ENVIRONMENTAL CONDITIONS

Cornerstone has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E 1527-13 of the Planned Lab Building Project at Menlo Atherton High School in Atherton, California. This assessment identified the following Recognized Environmental Conditions.

- As discussed in Section 10.3, chlordane was detected in one soil sample collected near the restroom building above its Environmental Screening Criteria. However, the 95 percent UCL concentration for chlordane is less than its Environmental Screening Criteria. Due to the anticipated small volume of soil (possibly less than 10 cubic yards), we recommend the soil near the SB-6 location that exceeds its Environmental Screening Criteria be excavated and disposed at a permitted facility.

As discussed in Section 10.10, we understand the District will be seeking state funding, at a minimum, for construction of the planned lab building (Figure 3). This planned building is located southeast of the existing restroom building that will be demolished. This report must be forwarded to DTSC’s School Property Evaluation and Cleanup Division for their review and approval. We recommend consulting with DTSC to determine their requirement for agency oversight beyond their review of this Phase I
ESA, and if necessary, obtaining partial site approval for the portion of the Site that includes the planned lab building.

SECTION 11: LIMITATIONS

Cornerstone performed this Phase I ESA to support Sequoia Union High School District in evaluation of Recognized Environmental Conditions associated with the Site. Sequoia Union High School District understands that no Phase I ESA can wholly eliminate uncertainty regarding the potential for Recognized Environmental Conditions to be present at the Site. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions. Sequoia Union High School District understands that the extent of information obtained is based on the reasonable limits of time and budgetary constraints.

Findings, opinions, conclusions and recommendations presented in this report are based on readily available information, conditions readily observed at the time of the Site visit, and/or information readily identified by the interviews and/or the records review process. Phase I ESAs are inherently limited because findings are developed based on information obtained from a non-intrusive Site evaluation. Cornerstone does not accept liability for deficiencies, errors, or misstatements that have resulted from inaccuracies in the publicly available information or from interviews of persons knowledgeable of Site use. In addition, publicly available information and field observations often cannot affirm the presence of Recognized Environmental Conditions; there is a possibility that such conditions exist. If a greater degree of confidence is desired, soil, ground water, soil vapor and/or air samples should be collected by Cornerstone and analyzed by a state-certified laboratory to establish a more reliable assessment of environmental conditions.

Cornerstone acquired an environmental database of selected publicly available information for the general area of the Site. Cornerstone cannot verify the accuracy or completeness of the database report, nor is Cornerstone obligated to identify mistakes or insufficiencies in the information provided (ASTM E 1527-13, Section 8.1.3). Due to inadequate address information, the environmental database may have mapped several facilities inaccurately or could not map the facilities. Releases from these facilities, if nearby, could impact the Site.

Sequoia Union High School District may have provided Cornerstone environmental documents prepared by others. Sequoia Union High School District understands that Cornerstone reviewed and relied on the information presented in these reports and cannot be responsible for their accuracy.

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Cornerstone makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.
New Laboratory Building Project
Menlo-Atherton High School
Atherton, CA

Approximate Site Boundaries

Site Plan

Approximate boundary of G-Wing Project
DTSC PEA SITE CODE: 204280

Legend
- Approximate location of soil boring (SB)

Food Service Building
Restroom Building

Ringwood Avenue

Approximate Scale (Feet)

Base by Google Earth, dated 4/5/2016
Approximate Scale (Feet)

Approximate Site Boundaries

DTSC PEA SITE CODE: 204280

Legend
⊙ Approximate location of soil boring (SB)