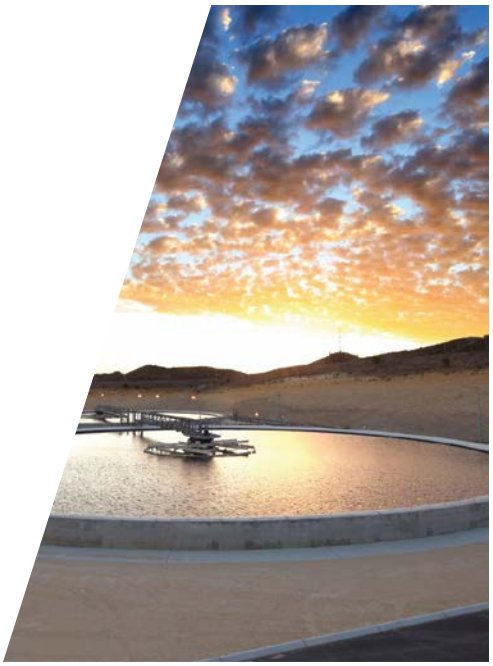
ATTACHMENT 17:

GHD. 2019. *Asbestos and Limited Lead Assessment Report.* August.

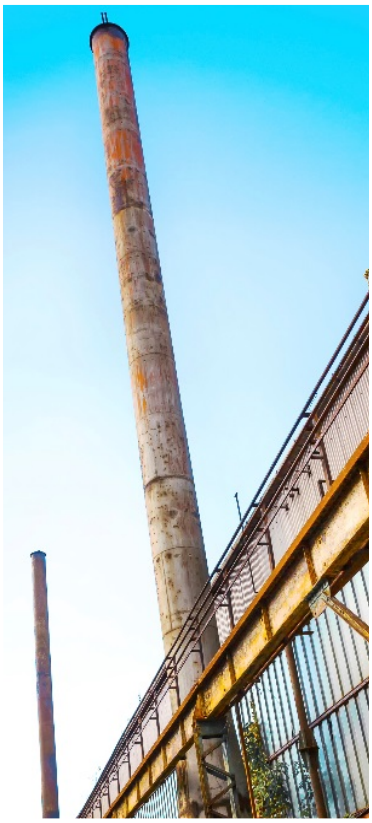


GHD Asbestos and Limited Lead Assessment Report

The DANCO Group

750 W San Carlos Street
San Jose, California

Multi-unit Residential Structure
Demolition Project



August 26, 2019

GHD | 718 3rd Street
Eureka, California | 95501

Project Number 11200028 | Phase 01
Report Version: | FINAL

Executive Summary

On August 13, 2019, GHD Inc. (GHD) conducted an asbestos and limited lead assessment sampling survey at fire-damaged multi-unit residential structure located at 750 W San Carlos Street in San Jose, California (project site). The project site is owned by The DANCO Group (DANCO). The asbestos and limited lead assessment included two components, collectively defined as the survey: 1) bulk sampling of suspect asbestos materials and 2) representative bulk sampling of suspect lead coatings (paint). The structure was generally intact with isolated areas of significant fire damage that limited access to such areas. The survey included the interior and exterior of the project site structure, as defined herein.

The survey was conducted by GHD in association with the planned project site building demolition project on behalf of DANCO. The survey included assessment of potentially hazardous materials throughout the project site, specifically suspect asbestos materials and lead coatings representative of those to be impacted by the project demolition scope as defined by DANCO. This report is subject to, and must be read in conjunction with the limitations, assumptions, and qualifications contained throughout the report.

The project site and general location of samples collected for the survey are depicted on Figure 1 located in Appendix A. Photographs generally depicting the project site, as well as select hazardous materials identified therein, are located in Appendix B. The laboratory analytical reports produced in association with this survey are located in Appendix C (Asbestos Analytical Data) and Appendix D (Lead Analytical Data).

As described in Table 4.1 Asbestos Laboratory Data and Quantification Summary (Table 4.1) located in Section 4, three homogeneous materials sampled for this survey were reported by the analyzing laboratory to contain asbestos. As summarized in Appendix E, asbestos material is subject to governmental regulations, including Title 8 California Code of Regulations Section 1529 (8CCR1529). A summary of all the samples collected for asbestos analysis is provided in Table G1.1 PLM Laboratory Data Summary located in Appendix G.

As summarized in Table 5.1 Lead Laboratory Data Summary (Table 5.1) located in Section 5, none of the three sampled surface coatings were reported to contain lead. Based on the age of the project site structure (built in 1940), suspect lead material (e.g., paint, ceramic glazing, metal flashing, metal vents and piping, coatings, varnishes, etc.) not identified in this report should be presumed to contain lead, unless appropriately sampled, analyzed and determined not to contain lead. As summarized in Appendix F, materials reported or presumed to contain lead are subject to applicable governmental regulations, including 8CCR1532.1.

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Asbestos and Limited Lead Assessment Survey Report
The DANCO Group
750 W San Carlos Street
Multi-unit Residential Structure Demolition Project

Report FINAL

August 26, 2019

GHD Project Number: 11200028 Phase 01

Submitted to:
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1. Introduction

GHD Inc. (GHD) is pleased to provide The DANCO Group (DANCO) with the following Asbestos and Limited Lead Assessment Report (the report) detailing the findings of the asbestos and limited lead sampling (the survey) conducted on August 13, 2019 at the DANCO fire damaged residence located at 750 West San Carlos Street (project site)San Carlos in San Jose, California. The survey included the interior and exterior of the multi-unit structure at the above noted address. The building is a fire damaged multi-unit 8,500 square foot (sf) residential structure located at the project site. The residential structure shall collectively be defined as the project site. The survey was completed in association with the planned building demolition to be completed by DANCO in association with Multi-unit Residential Structure Demolition Project (the project). The following subsections provide pertinent contextual information regarding the survey, project, and project site.

1.1 Client

The survey was conducted by GHD under contract with DANCO (the facility owner), thus DANCO shall herein be defined as the client. The project-specific client information is as follows:

The DANCO Group
Client Contact: McKenzie Dibble
Client Contact: Hailey Del Grande
5251 Ericson Way
Arcata, California 95521

1.2 Purpose of the Report

GHD performed the survey to evaluate specific areas and building materials within the project site for the presence of asbestos and lead. The survey was conducted to assist DANCO with compliance with the United States Environmental Protection Agency (USEPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, as well as California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) regulations governing asbestos and lead, as applicable to the project and project site. The purpose of the report is to transmit to DANCO the findings and conclusions resultant from the project site survey performed from August 13, 2019. The services undertaken by GHD in connection with preparing the report were limited as defined herein and are subject to the scope limitations set out in the report and associated contracting documents.

1.3 Survey Location

The project site is located at the following street address:

750 West San Carlos Street
San Jose, CA 95126

The August 13, 2019 survey was limited to the safely accessible interior and exterior areas of the above-defined structure, which defines the project site.

1.4 Survey Description

The survey was conducted at the request of, and on behalf of DANCO. The purpose of the survey was to classify the asbestos and lead content of building materials associated with the project site sites. The survey was limited to the specific areas and buildings which define the project site, as noted above in Section 1.3. Section 1.6 provides a general summary of the regulatory context governing the survey.

The survey consisted of the following specific components:

1. Bulk sampling of suspect asbestos containing materials throughout the project site
2. Limited bulk sampling of select suspect lead coatings generally representative of the most commonly observed types of coatings throughout the project site

For this survey, the following number of bulk samples were collected from the project site and submitted under chain of custody to AmeriSci Laboratories (AmeriSci) for analysis via the referenced methodology:

1. A total of **37** bulk material samples were analyzed for asbestos content via polarized light microscopy (PLM) methodology following USEPA method 600/R-93-116
2. A total of **3** bulk paint samples were analyzed for lead content via flame atomic absorption spectrometry (AAS) methodology following USEPA method 3050B/7420

The existing conditions encountered at the project site are described in Section 2. See Figure 1 – Project Site Sample Location Map (Figure 1) located in Appendix A (Figures) for the approximate location of bulk samples collected at the project site. Photographs of the project site generally depicting the homogeneous areas of asbestos material identified during this survey are located in Appendix B (Photographs). The survey laboratory analytical reports and chain of custody documentation are located in Appendix C (Asbestos Analytical Data) and Appendix D (Lead Analytical Data). All materials sampled at the project site for asbestos analysis are listed in Table G1.1 PLM Laboratory Data Summary located in Appendix G.

1.4.1 Survey Scope and Limitations

The survey scope of work associated with this report was limited to the project site areas shown on Figure 1 and the suspect hazardous materials described herein. The survey was limited to the following safely accessible areas of the project site, as defined in Section 1.3. The lead component of the survey was not completed for the purpose of compliance with United States Department of Housing and Urban Development (HUD) regulations governing lead.

Areas not surveyed by GHD (areas not in scope and/or not specifically defined in this report) are excluded from the definition of the project site. The areas and materials excluded from the scope of this survey included the following (areas and/or components not surveyed):

1. Sidewalks, roadways, soil and/or aggregate (naturally-occurring or imported)
2. Pressurized and/or energized systems, including: wiring, mechanical units and machinery

3. Materials not to be disturbed during the project, located outside the project scope, or associated with components to be removed intact (such as furniture and equipment)
4. Suspect materials located within permit-required confined spaces, or other inaccessible spaces, including material located underground
5. Suspect materials that could not be sampled without significantly damaging the functional integrity of the building element, including fire doors and materials encased in concrete
6. Suspect materials not safely accessible due to structural fire damage as shown on Figure 1 at NE corner, including the following areas:
   (1) Second level
   (2) Roof (metal)
   (3) Debris pile at NE corner
   (4) Fire damaged areas at NE corner
   (5) Air plenum or interstitial spaces

1.5 Survey and Reporting Assumptions

The content of the report is based on assumptions made by GHD as described in this report and associated contracting documents. This report is an instrument of service of GHD. It is GHD's understanding that the report is solely to be used by DANCO specifically in connection with the project and project site, and this stated purpose was a significant factor in determining the survey scope and level of service provided for in the contracting documents. Should the project or the report purpose change, this report immediately ceases to be valid and use of it by DANCO, or any other party without GHD's prior review and written authorization, shall be at the user's sole risk.

GHD has endeavored to conduct the services identified herein in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions as this project. No other representation, express or implied, is included or intended in this document. The scope of service GHD implemented was based, in part, on rules and regulations that GHD understood to be current or expected at the time GHD developed its proposal. Changes in regulations, interpretations, and/or enforcement policies may occur at any time and such changes could affect the extent of remediation required.

The report's findings are based on conditions that existed on the date(s) of GHD's site visit(s) and should not be relied upon to precisely represent conditions at any other time. Conclusions about site conditions under no circumstances comprise a warranty that conditions in all areas within the site are of the same quality as those sampled. Recognize, too, that hazardous materials and/or contamination might exist in forms not indicated by the survey described herein.

Samples of naturally-occurring soil/aggregate were not collected for this survey. Based on California Department of Conservation Division of Mines and Geology data[1], rock and/or soils associated with

[1] State of California Department of Conservation Division of Mines and Geology, *A General Location guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (August 2000), accessed on August 19, 2019 via: https://www.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf

Naturally Occurring Asbestos (NOA) are present in the project site region. If NOA is expected to be encountered during the project, the presence or absence of NOA must be confirmed by a Professional Geologist via California Air Resources Board (CARB) 435 soil sampling methodology.

1.6 Survey Regulatory Setting

This section provides a regulatory context for the survey and generally summarizes the hazardous materials regulatory setting applicable to the project site. Further information is provided in Appendix E (Asbestos Regulatory Summary) and Appendix F (Lead Regulatory Summary).

The USEPA enforces asbestos regulations authorized under the Clean Air Act and specifies work practices to be followed at all facilities to mitigate air pollution resultant from asbestos. To allay airborne asbestos fiber release, a survey must be conducted at a facility prior to renovation and/or demolition work to identify and sample suspect asbestos materials[2] in compliance with the USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, per Title 40 Code of Federal Regulations (CFR) Section 61, Subpart A and Subpart M. The project-specific NESHAP requirements are outlined in Section 6. Materials reported to contain greater than one percent (1%) asbestos by weight are regulated by the USEPA as either Asbestos Containing Material (ACM) or Regulated Asbestos Containing Material (RACM) based each material's distinctive physical characteristics. Material containing less than 1% asbestos is not subject to USEPA asbestos regulations.

Asbestos is a known human carcinogen, thus worker exposure to asbestos is regulated by Cal/OSHA. Employee protection protocols per Title 8 California Code of Regulations (CCR) Sections 1529 (8CCR1529) apply to disturbance of material containing asbestos in any detectable concentration. Per Cal/OSHA, material containing greater than 1% asbestos is defined as Asbestos Containing Material (ACM), while Asbestos Containing Construction Material (ACCM) refers to material containing greater than 0.1% asbestos. Cal/OSHA requires that specific types of suspect asbestos materials located in buildings constructed no later than 1980 must be presumed to contain asbestos, unless sampled and proven to be otherwise. Presumed Asbestos Containing Material (PACM) includes thermal system insulation[3] (TSI) and surfacing materials[4]. Work conducted by an employee impacting ACM or ACCM is regulated by Cal/OSHA according to the specific material(s) to be disturbed and the size of the job. Materials reported to be nondetect via laboratory analysis are not subject to regulation by Cal/OSHA as ACM or ACCM.

The USEPA and Cal/OSHA regulate exposure to materials containing lead. Paint, glazing and other coating materials containing lead in a concentration above 90 parts per million (ppm) are defined by the United States Consumer Product Safety Commission (CPSC) as Lead Containing Paint (LCP).

[2] Suspect asbestos material includes, but is not limited to, the following materials: mastics, caulking, base cove, Thermal System Insulation applied to pipes, boilers, or other components to prevent heat loss or gain; Surfacing Materials, including spray or troweled-on surface coatings and acoustic/decorative textures; cementitious products, including cement paneling/piping; roofing products, including associated mastics, felts, or coatings; resilient flooring; gaskets and lagging; drywall; joint compound; plasters; vibration cloths, or expansion joints.

[3] Thermal system insulation (TSI) is defined by 8 CCR 1529 as ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

[4] Surfacing material is defined by 8 CCR 1529 as material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

Coatings reported to contain lead above 5,000 ppm, or 1.0 milligram per square centimeter (mg/cm^2), are defined as Lead Based Paint (LBP). Work impacting LCP, LBP and/or presumed lead material triggers compliance with applicable regulations, including 8CCR1532.1. Additionally, work at the project site impacting LBP must comply with USEPA and California Department of Public Health (CDPH) lead regulations and the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. Section 6901 et seq.), 40 CFR Part 745, Subpart E; and 17 CCR Division 1, Chapter 8.

2. Project Site Existing Conditions

This report includes the following information about the specific structure(s) and building features inspected in association with this survey, which shall further define the project site:

1. A plan-view diagram of the project site is shown on Figure 1 (Appendix A).
2. Approximate locations of general site features and bulk samples collected by GHD are shown on Figure 1. The extent and distribution of sample points noted on Figure 1 shall define the survey boundary.
3. Photographs generally showing the project site and select sample points are located in Appendix B.
4. Descriptions of the specific building materials sampled at the project site are listed in the data tables located in Sections 4 and 5, as well as in Appendix C and Appendix D.

3. Survey Methodology

The following protocol generally describes the sampling methodology for the project site survey. Copies of the professional certifications for key project personnel, including the survey field staff, are included in Section 7. The following list summarizes the sampling procedures utilized:

1. Suspect asbestos and lead materials were visually identified at the project site.
2. Suspect ACM was categorized into homogeneous materials/areas (note: homogeneous is defined as being uniform in texture, color, and date of installation/application).
3. A sampling scheme was developed based upon the location and quantity of the identified homogeneous materials. Representative suspect ACM was identified and selected for sampling in general accordance with NESHAP sampling guidelines.
4. Bulk samples were collected using appropriate sampling tools.
5. Samples were placed in leak-tight containers and labeled with a unique numerical identifier (sample number).

   i) Multiple samples were taken of some suspect ACM found to be distributed throughout the project site.

   ii) Friability, the susceptibility of the dry material to be crumbled, pulverized or reduced to a powder using hand pressure, was determined for each sampled suspect ACM.

6. The sample number, collection location and a description of the physical attributes of each bulk sample were recorded on GHD chain of custody forms.

   i) The chain of custody forms accompanied the sample set(s) to the analyzing laboratory.

7. The general location of each bulk sample was noted on a project site plan-view diagram.

8. Decontamination of sampling tools was employed to prevent the spread of secondary contamination to subsequent bulk samples.

9. Bulk samples were submitted under chain of custody via overnight shipment to AmeriSci Laboratories (AmeriSci), located in Carson, California

   i) Bulk samples were analyzed by AmeriSci for asbestos fiber content via PLM analysis following USEPA method 600/R-93-116 and/or lead content via AAS via USEPA Method 3050B/7000B.

   ii) Copies of the AmeriSci accreditations and certifications are located in Appendix H.

4. Findings for Asbestos

Based on the data reported by the analyzing laboratory for the 37 samples collected for the August 13, 2019 survey, three homogeneous asbestos materials were identified at the project site. The materials reported and/or presumed to contain asbestos are described in Table 4.1 Asbestos Laboratory Data and Quantification Summary (Table 4.1) located on the subsequent pages. Table 4.1 lists the physical description, approximate location, estimated quantity, applicable regulatory definition, and reported asbestos content for the identified asbestos materials. A summary of all samples collected for asbestos analysis as part of the survey is provided in Table G1.1 PLM Laboratory Data Summary located in Appendix G.

The applicable Cal/OSHA asbestos work class and Cal/OSHA or USEPA asbestos material category for each ACM and ACCM is noted in Table 4.1. The anticipated waste designation for each material is also listed in Table 4.1. Materials that are homogeneous to (i.e., alike and may be represented by) those listed herein shall be presumed to contain asbestos.

The survey asbestos PLM asbestos analytical data is located in Appendix C. Materials that were not determined to contain asbestos fibers above the laboratory detection limit are noted on the PLM analytical reports as nondetect (ND), or no asbestos detected (NAD). Materials not reported to contain asbestos (noted in Appendix C as ND or NAD) are not listed in Table 4.1.

Quantity estimates for the asbestos materials identified at the project site are provided in Table 4.1. The quantities include the total observed distribution of each material, cumulatively estimated for the project site, and do not define any partial quantities potentially disturbed during project work impacting only discrete location(s) or partial amount(s) of material. The actual quantity of asbestos to be impacted in association with the project is undefined, as the amount of asbestos disturbance is dependent on emergent project needs and developing contractor means/methods and scope.

Table 4.1 Asbestos Laboratory Data and Quantification Summary

750 W San Carlos Street, San Jose, California

Sample Number(s)	Material Description	Material Location	Asbestos %/Type	Estimated Quantity[1]	Asbestos Material Category[2]	Cal/OSHA Work Class[3]	Projected Waste Designation[4]
11200028-A15, A16, A17, A18	Popcorn Ceiling Texture (white/off-white)	Interior – Drywall wall and ceiling systems throughout	2% Chrysotile	2,500 SF	ACM (<1% via 400 PC)	Class II	Non-hazardous Asbestos Waste
11200028-A26, A27, A28, A29, A30, A31, A32	Knockdown Wall Texture (Joint compound) (white/off-white) associated with drywall wall and ceiling systems	Interior – Drywall wall and ceiling systems throughout	2% Chrysotile	32,000 SF	ACM (<1% via 400 PC)	Class II	Non-hazardous Asbestos Waste
11200028 – A33, A34-44	Mastic (black) associated with Vinyl Floor Tile (nondetect)	Interior – Flooring systems throughout interior	5% Chrysotile	8,500 SF (presumed throughout)	Category I Nonfriable ACM	Class II	Non-hazardous Asbestos Waste

Acronyms:

- ACM = Asbestos Containing Material (>1% asbestos)
- ACCM = Asbestos Containing Construction Material (>0.1% asbestos)
- Cal/OSHA = California Department of Industrial Relations, Division of Occupational Safety and Health
- LF = Linear feet
- NA = Not applicable
- RACM = Regulated Asbestos Containing Material
- RCRA = Resource Conservation and Recovery Act
- TSI = Thermal System Insulation
- SF = Square feet
- USEPA = United States Environmental Protection Agency
- VFT = Vinyl Floor Tile
- < = Symbol meaning “less than”
- > = Symbol meaning “greater than
- 400 PC = 400 Point Count analysis”

Annotations:

- [1] = The quantities in Table 4.1 are estimates of the total (cumulative) amount of each homogeneous asbestos material observed at the project site.
  - The provided quantities are estimates only, based on observations made at the time of the survey.
  - The actual amount of material to be removed should be verified by the contractor prior to bid.
- [2] = Asbestos material category definitions:
  - USEPA ACM and RACM: USEPA regulates material containing >1% asbestos, differentiated into two broad ACM categories: friable (RACM) and nonfriable (Category I and II ACM). Material containing <1% asbestos is not regulated by USEPA as ACM or RACM.
    - Cal/OSHA ACM and ACCM: Cal/OSHA regulates material containing >0.1% asbestos as ACCM and >1% asbestos as ACM.

Table 4.1 Asbestos Laboratory Data and Quantification Summary

750 W San Carlos Street, San Jose, California

Sample Number(s)	Material Description	Material Location	Asbestos %/Type	Estimated Quantity[1]	Asbestos Material Category[2]	Cal/OSHA Work Class[3]	Projected Waste Designation[4]

- [3] = Cal/OSHA differentiates asbestos removal operations into five classes (Class I to IV, plus unclassified work). Class I through IV operations include tasks impacting material containing >1% asbestos (ACM). Unclassified work includes tasks impacting material containing <1% asbestos.
  - Work impacting material containing asbestos in ANY quantity is subject to Cal/OSHA requirements.
  - It is recommended that unclassified work be conducted per Class II work protocols.
  - It is recommended that interior work, regardless of work classification, be conducted within sealed negative pressure containments.
- [4] = RACM is a hazardous waste if disposed of in California (non-RCRA hazardous waste). Category I and II nonfriable ACM that remains nonfriable during removal is characterized as non-hazardous asbestos-containing waste. The non-hazardous waste designation presumes that nonfriable material will not become friable during the project. If nonfriable ACM is rendered friable (e.g., via the use of mechanical removal means, fire damage, building demolition, etc.), then such material shall be reclassified as RACM and disposed of as a non-RCRA hazardous waste in California.
- [5] = Material analyzed by Point Count 400 methodology, per USEPA guidance, to more precisely determine the asbestos content of the material.

Notes:

- Work impacting material homogeneous (visually similar) to that noted in Table 4.1 shall be understood to impact asbestos, regardless of location.
- See Appendix E for further information on the asbestos regulatory environment, including USEPA material categories and Cal/OSHA work classes.

5. Findings for Lead

Of the three suspect lead material samples collected from the project site during the survey, none of the samples were reported to contain lead above the laboratory detection limit. The samples collected are described in Table 5.1 Lead Laboratory Data Summary (Table 5.1) located on the subsequent pages.

Table 5.1 provides the physical description, the approximate location, material substrate, lead content, and regulatory definition for each of the identified sampled for lead materials. The lead AAS lead analytical data associated with the survey is located in Appendix D.

The specific regulatory requirements governing lead are generally based on the amount of lead reported in a given material. When the laboratory-reported lead content for the sampled materials is above 5,000 ppm (mg/kg), 0.5% by weight, or 1.0 milligram per square centimeter (mg/cm^2), such coatings meet the CDPH and Cal/OSHA definition of Lead Based Paint (LBP). Additionally, when materials are reported to contain lead at a concentration above 90 parts per million (ppm), such coatings meet the CPSC definition of Lead Containing Paint (noted as “LCP” on Table 5.1).

Work impacting known or presumed lead material triggers compliance with applicable regulations, including Cal/OSHA worker protection protocols enforced under 8CCR1532.1. In addition to Cal/OSHA protocols, work at the project site impacting known or presumed lead material is governed by applicable USEPA and CDPH regulations, including: 40 Code of Federal Regulations (CFR) Part 745, Subpart E; and 17 CCR Division 1, Chapter 8.

Title 17, Division 1, Chapter 8, § 35001–36100 requires contractors that work on structures built before January 1, 1978 to use lead-safe work practices, including establishing containment(s) and completing post-project cleaning. Based on the age of the project site structures and the data collected for the survey, all surface coatings to be impacted in association with the project should be presumed to contain lead. Unsampled coatings at the project site should be presumed to contain lead above the LBP threshold, unless appropriately sampled, analyzed by an accredited laboratory, and determined to be nondetect for lead. The lead regulatory requirements for the project are further summarized in Appendix F.

Table 5.1 Lead Laboratory Data Summary

750 W San Carlos Street, San Jose, California

Sample Number	Sample Description	Substrate	Color	Sample Location	Lead Content	Triggers Cal/OSHA Compliance (1532.1)	Lead Classification
11200028-750-PB1	Paint	Drywall	Off-white	Interior ceiling – Unit 1 – West side at north wall	<10 mg/kg	1532.1 Does not apply	Not LCP/LBP
11200028-750-PB2	Paint	Metal	Tan	Exterior – Unit 1 – West wall at center	<10 mg/kg	1532.1 Does not apply	Not LCP/LBP
11200028-750-PB3	Paint	Plaster	Grey	Exterior – Unit 5A at west wall	<10 mg/kg	1532.1 Does not apply	Not LCP/LBP

Acronyms:

- Cal/OSHA = California Department of Industrial Relations, Division of Occupational Safety and Health
- CDPH = California Department of Public Health
- LBP = Lead Based Paint = Paint containing lead in a concentration of greater than or equal to 5,000 ppm, 1.0 mg/cm^2, or 0.5% by weight
- LCP = Lead Containing Paint = Paint containing lead in a concentration of greater than 90 ppm, or 0.009% by weight
- mg/cm^2 = milligrams per square centimeter (laboratory units of measurement reporting weight of lead per area)
- mg/kg = milligrams per kilogram (laboratory units of measurement reporting lead concentration); equivalent to ppm
- ppm = Parts per million (laboratory units of measurement reporting lead concentration); equivalent to mg/kg
- USEPA = United States Environmental Protection Agency

Notes:

- Lead content is reported in percent (%) by weight (laboratory units of measurement reporting lead concentration)
- Notation “1532.1 Applies” signifies that the amount of lead in the sample triggers compliance with applicable regulations, including 8CCR1532.1.
- Notation “Not LBP” signifies that lead was not reported in a concentration above 5,000 ppm, or 0.5 percent by weight
- See Appendix F for further information on the lead regulatory environment.

6. Regulatory Jurisdiction and Notification

The limited asbestos survey was conducted to assist the client with compliance with the USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos requirements in association with the project site renovation project. The USEPA local authority with responsibility for administering the NESHAP regulations within the project site jurisdiction is the North Coast Unified Air Quality Management District (BAAQMD). Contact information for the BAAQMD is provided below:

Bay Area Air Quality Management District
375 Beal Street
San Francisco, CA 94105
Phone: (415) 749-4900
Website: http://www.baaqmd.gov

Work meeting the NESHAP definition of a demolition and/or work impacting RACM in quantities above specific size thresholds necessitates the submittal of a NESHAP Notification form and associated fee to the USEPA and BAAQMD (addresses above). The RACM quantity thresholds necessitating NESHAP notification to BAAQMD are greater than, or equal to the following:

1. 100 square feet, 100 linear feet (for pipe insulation), or 35 cubic feet (for debris or waste)

The NESHAP regulations stipulate that the project owner shall notify the BAAQMD at least 10 business days prior to the commencement of a renovation project, or commencement of work that impacts RACM in excess of the above-noted quantities. A NESHAP notification is required by the BAAQMD if a project includes one or more of the following element(s):

1. The impaction of RACM in excess of the BAAQMD NESHAP notification thresholds
2. Work that meets the NESHAP definition of a “demolition,” which is defined as the unweighting or removal of any structural members

i) Note: a NESHAP notification is required for all demolition projects and is not dependent on the presence or absence of asbestos (ACM or RACM)

In addition to the NESHAP regulations enforced by the BAAQMD, work at the project site shall be conducted in accordance with applicable employee protection regulations enforced by Cal/OSHA, including 8CCR1529, 5203 341.6-341.14 and the California Health and Safety Code.

As required by 8CCR1529(r) and 5203, written notification must be made to the nearest Cal/OSHA District Enforcement Office with jurisdiction over the project site for Asbestos-Related Work. For planned work exposing employees to lead, a Lead-Work Pre-Job Notification is required per 8CCR1532.1(p). Cal/OSHA notification shall be made at least 24 hours prior to the start of hazardous material-related work and is required if the planned project scope includes the one or both of the following elements:

1. The impaction of ACM, ACCM and/or LBP in excess of 100 square feet

The following table, Table 6.1 Pre-Work Regulatory Notifications (Table 6.1), summarizes the Cal/OSHA and BAAQMD notifications anticipated in association with the project.

Table 6.1 Pre-Work Regulatory Notifications

Agency	Notification Type	Anticipated Notification Requirement		Submittal Timeline
BAAQMD	NESHAP Demolition/ Renovation Notification	Notification:	☒ **Required** [1]	>10 Business Days Prior to Work Start
			☐ Not anticipated [2]	
Cal/OSHA	Temporary Worksite Notification	Notification:	☒ **Required** [3]	≥24 Hours Prior to Work Start
			☐ Not anticipated [4]	

Notes:

- BAAQMD = USEPA-delegated authority with jurisdiction over the project site
- Cal/OSHA = California Department of Industrial Relations, Division of Occupational Safety and Health
- NESHAP = National Emissions Standards for Hazardous Air Pollutants
- USEPA = United States Environmental Protection Agency
- [1] = Assumption: Removal/unweighting of structural members (demolition work) and/or disturbance of RACM in excess of BAAQMD notification thresholds **is** expected to occur during this project
- [2] = Assumption: Removal/unweighting of structural members (demolition work) and/or disturbance of RACM in excess of BAAQMD notification thresholds **is not** expected to occur during this project
- [3] = Assumption: asbestos and/or lead-related work in excess of 100 square feet **is** expected to occur
- [4] = Assumption: asbestos and/or lead-related work in excess of 100 square feet **is not** expected to occur
- ≥ = Signifying “greater than, or equal to”

Further discussion of USEPA and Cal/OSHA regulations is provided in Appendix E (Asbestos Regulatory Summary) and Appendix F (Lead Regulatory Summary).

7. Key Project Personnel

The August 13, 2019 survey was completed at the project site by Forensic Analytical Consulting Services (FACS), a GHD subconsultant. The onsite FACS inspector was Gene Spector, a Certified Asbestos Consultant (CAC) (#94-1308) and CDPH Lead Inspector/Assessor (#783).

This report was produced for the client by GHD. The report was authored by Matt. Tolley Certified Site Surveillance Technician (#17-6073) and CDPH Lead Paint Sampling Technician (#31089) and reviewed by Scott Harris, a GHD CAC (#11-4713) and CDPH Lead Inspector/Assessor (#21408). Copies of the certifications for staff performing survey and reporting work are included in this section in Figure 7.1 located on the following page.

Figure 7.1 Key Project Personnel Certifications

8. Conclusion

As described in Table 4.1 located in Section 4, three homogeneous materials sampled for this survey were reported by the analyzing laboratory to contain asbestos. The general location of the samples reported to contain asbestos are shown on Figure 1 located in Appendix A. The asbestos materials identified in Table 4.1 are subject to applicable governmental asbestos regulations, including those summarized in Appendix E.

Material containing greater than 1% asbestos is defined by USEPA as either ACM or RACM, and by Cal/OSHA as ACM. Material containing less than 1% asbestos via 400 point count methodology is not regulated by USEPA as ACM or RACM. Demolition work, as defined by NESHAP, will require removal of all RACM from a facility prior to commencement of demolition operations.

It is recommended that all asbestos material be removed by a licensed abatement contractor prior to the commencement of other project renovation and/or demolition work. Agency notifications, as summarized in Table 6.1 in Section 5, must be submitted by the contractor or the site owner prior to the commencement of any abatement, renovation or demolition work at the project site.

Material containing any amount of asbestos is regulated by Cal/OSHA, per 8CCR1529. Cal/OSHA requires material containing greater than 1% asbestos (ACM) to be removed using Class II work protocols, except for asbestos surfacing material and insulation (TSI), which must be removed in accordance Class I work protocols. Class I work must be conducted within sealed, negatively-pressurized containments. Work that impacts material containing less than 1% asbestos is considered an "unclassified" operation by Cal/OSHA. It is recommended that work impacting ACCM be performed using Class II work protocols, at a minimum. GHD recommends that all interior work impacting ACM and/or ACCM be performed within sealed, negative-pressure containments.

If suspect ACM is discovered at the project site, beyond the material listed in Table 4.1, then such material shall be assumed to contain greater than 1% asbestos, until appropriately sampled, analyzed and determined to be otherwise. If supplementary suspect asbestos material is discovered during site work, then work in that area shall stop, the material wetted, and access to the area restricted until an appropriate asbestos characterization can be made.

As noted in Table 5.1 located in Section 5, materials at the project site were reported and/or are presumed to contain lead. Project work is understood to meet the Cal/OSHA definition of construction work (8CCR1532.1[a]) and includes impaction of lead material, thus is subject to 8CCR1532.1. Suspect lead material (e.g., paint, ceramic glazing, metal flashing, metal vents and piping, coatings, varnishes, etc.) not identified in this report should be presumed to contain lead, unless appropriately sampled, analyzed and determined not to contain lead. Material reported or presumed to contain lead is subject to governmental regulations, including those summarized in Appendix F.

The findings in this report are based on information obtained from sampling at specific sample points as noted on Figure 1 (Appendix A) and described by the sample documentation appended to the laboratory analytical reports. Site conditions at other parts of the project site may be different from the conditions found at the specific sample points. This report should not be used to evaluate the potential disturbance of suspect hazardous materials in association with area(s), site feature(s), and/or projects beyond the scope of the survey.

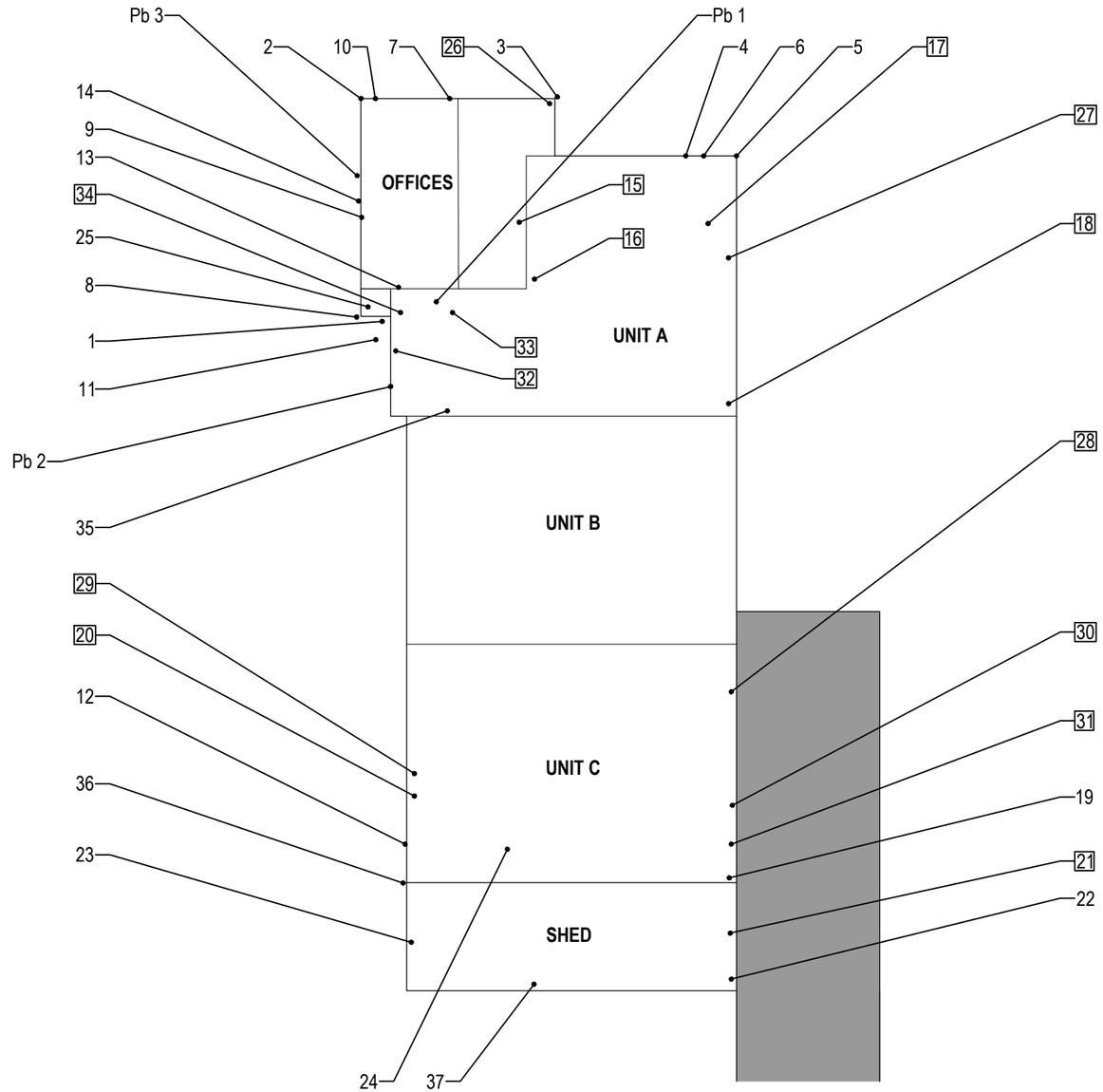
It is recommended that this report be provided to contractors and/or personnel who conduct work at the project site. It is recommended that the client maintain copies of this report for as long as the known hazardous materials remain at the project site, plus an additional period of 30 years.

APPENDICES

Appendix A Figures

Figure(s) Depicting Sample Locations at 750 W San Carlos Street

1. DRAWING IS NOT TO SCALE.
2. ALL LOCATIONS ARE APPROXIMATE.
3. THIS SHEET TRANSMITS GHD SAMPLE LOCATIONS ONLY. NOT TO BE USED FOR CONSTRUCTION WORK.



LEGEND

- # — LOCATION OF BULK SAMPLE COLLECTED FOR ASBESTOS ANALYSIS
- [#] — SAMPLE REPORTED TO CONTAIN ASBESTOS (NONE)
- Pb # — LOCATION OF BULK SAMPLE COLLECTED FOR LEAD ANALYSIS
- [Pb #] — SAMPLE REPORTED TO CONTAIN LEAD (NONE)
- NOT INCLUDED IN SURVEY AREA

750 W SAN CARLOS STREET

N
PROJECT

No.	Issue	Drawn	Approved	Date

GHD Inc.
718 Third Street
Eureka California 95501 USA
T 1 707 443 8326 F 1 707 444 8330 W www.ghd.com

Drawn	A.CROWE	Designer	
Drafting Check	M.TOLLEY	Design Check	
Project Manager	M.TOLLEY	Date	8/16/2019
This document shall not be used for construction unless signed and sealed for construction.		Scale	NOT TO SCALE

Client **DANCO**
Project **SAN JOSE - LIMITED ASBESTOS AND LEAD ASSESMENT**
Title **FIGURE 1 - PROJECT SITE SAMPLE LOCATION MAP**
Project No. **11200028**
Original Size **ANSI D**
Sheet No.
Sheet **1** of **1**

Plot Date: 16 August 2019 - 4:25 PM
Plotted By: Alex Crowe
Filename: \\ghdnet\ghd\US\Eureka\Projects\561\11200028\Digital_Design\ACAD 2017\Figures\11200028-Figure2.dwg

Appendix B Photographs

Photographs Depicting the 750 W San Carlos Street Project Site

Site Photographs

The photographs presented in the following section generally depict the project site, including some of the materials sampled for the project site survey and reported to contain hazardous constituents.

Photograph 1 – Interior– Knockdown Surface Texture (white),(typical location noted with white arrow) reported to contain asbestos.

Photograph 2 – Interior– Popcorn Surface Texture (white) (typical, noted with white arrow) reported to contain asbestos.

Photograph 3 – Interior – Surface Texture (white) + Drywall (white) and Joint Compound (white)(typical, noted with white arrow) surface texture and JC reported to contain asbestos.

Photograph 4 – Interior– Mastic (black) associated with 9”X9” vinyl floor tile (shown) (noted with white arrow) reported to contain asbestos.

Appendix C Asbestos Analytical Data

PLM Laboratory Analytical Report(s) and Associated Chain(s) of Custody for 750 W San Carlos Street

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)
NVLAP Lab Code: 101459-0

GHD, Inc.
Project Manager
Consulting & Engineering
718 3rd Street
Eureka, CA 95501

Client ID: 1883
Report Number: B291555
Date Received: 08/13/19
Date Analyzed: 08/16/19
Date Printed: 08/16/19
First Reported: 08/16/19

Job ID/Site: 11178686.01- 750 W. San Carlos St.

Date(s) Collected: 08/13/2019

FALI Job ID: 1883
Total Samples Submitted: 37
Total Samples Analyzed: 37

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-1-A1	12200802						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO Date Analyzed: 08/16/19							
750-1-A2	12200803						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO Date Analyzed: 08/16/19							
750-1-A3	12200804						
Layer: Black Fibrous Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
Analyst: CVO Date Analyzed: 08/16/19							
750-1-A4	12200805						
Layer: Black Fibrous Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: White Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
Analyst: CVO Date Analyzed: 08/16/19							
750-1-A5	12200806						
Layer: Black Fibrous Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
Analyst: CVO Date Analyzed: 08/16/19							

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Report Number: B291555
Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-2-A6	12200807						
Layer: Grey Mortar			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-2-A7	12200808						
Layer: Grey Mortar			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-2-A8	12200809						
Layer: Grey Mortar			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-3-A9	12200810						
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: Cellulose (80 %)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-3-A10	12200811						
Layer: Black Felt			**ND**				
Total Composite Values of Fibrous Components: Cellulose (80 %)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-4-A11	12200812						
Layer: Black Cementitious Tar			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-4-A12	12200813						
Layer: Black Cementitious Tar			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-5-A13	12200814						
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						

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Report Number: B291555
Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-5-A14	12200815						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-5-A15	12200816						
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Layer: White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-5-A16	12200817						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-5-A17	12200818						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A18	12200819						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A19	12200820						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A20	12200821						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Analyst: CVO	Date Analyzed: 08/16/19						

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Report Number: B291555
Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-6-A21	12200822						
Layer: White Texture		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A22	12200823						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A23	12200824						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-6-A24	12200825						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-7-A25	12200826						
Layer: White Plaster			**ND**				
Layer: Off-White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-7-A26	12200827						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: White Tape			**ND**				
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (Trace)**					
Analyst: CVO	Date Analyzed: 08/16/19						

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Report Number: B291555
Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-7-A27	12200828						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: White Tape			**ND**				
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (Trace)**					
Cellulose (20 %) Fibrous Glass (10 %)							
Analyst: CVO	Date Analyzed: 08/16/19						
750-8-A28	12200829						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Off-White Tape			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (Trace)**					
Cellulose (20 %) Fibrous Glass (10 %)							
Analyst: CVO	Date Analyzed: 08/16/19						
750-8-A29	12200830						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Off-White Tape			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (Trace)**					
Cellulose (20 %) Fibrous Glass (10 %)							
Analyst: CVO	Date Analyzed: 08/16/19						
750-8-A30	12200831						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (Trace)**					
Cellulose (20 %) Fibrous Glass (10 %)							
Analyst: CVO	Date Analyzed: 08/16/19						
750-8-A31	12200832						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Off-White Tape			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (Trace)**					
Cellulose (20 %) Fibrous Glass (10 %)							
Analyst: CVO	Date Analyzed: 08/16/19						

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Report Number: B291555
Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
750-8-A32	12200833						
Layer: White Drywall			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Off-White Tape			**ND**				
Layer: Off-White Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %)		**Asbestos (Trace)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-9-A33	12200834						
Layer: Grey Tile		Chrysotile	**Trace**				
Layer: Black Mastic		Chrysotile	**5 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-9-A34	12200835						
Layer: Grey Tile		Chrysotile	**Trace**				
Layer: Black Mastic		Chrysotile	**5 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-10-A35	12200836						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-10-A36	12200837						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						
750-10-A37	12200838						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: CVO	Date Analyzed: 08/16/19						

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Report Number: B291555

Client Name: GHD, Inc. **Date Printed:** 08/16/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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Forensic Analytical LABORATORIES

Final Report

Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

GHD, Inc.
Project Manager
Consulting & Engineering
718 3rd Street
Eureka, CA 95501

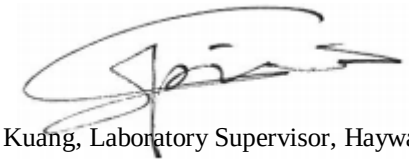
Client ID: 1883
Report Number: M214629
Date Received: 08/13/19
Date Analyzed: 08/14/19
Date Printed: 08/14/19
First Reported: 08/14/19

Job ID / Site: 111200028, 750 W San Carlos St, SJ
Date(s) Collected: 08/13/19

FALI Job ID: 1883
Total Samples Submitted: 3
Total Samples Analyzed: 3

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
750-PB1	30844900	Pb	< 0.007	wt%	0.007	EPA 3050B/7000B
750-PB2	30844901	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
750-PB3	30844902	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.



Sophie Kuang, Laboratory Supervisor, Hayward Laboratory

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

718 Third Street
Eureka, California 95501
Tel: 707.443.8326
Fax: 707.444.8330
www.ghd.com

CONTACT NAME: **Matt Tolley** | DATE: 8/13/19

CONTACT EMAIL: **scott.harris@ghd.com, matt.tolley@ghd.com**

JOB NUMBER: 11178686.01 | SITE: 750 W. San Carlos ST ~~GP - Richmond, CA~~

ANALYSIS METHOD: **PLM** (Please provide a result for all layers of material present) | TURNAROUND TIME: 72 hour

BULK SAMPLE COLLECTION CHAIN OF CUSTODY

SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	MATERIAL TYPE	FRIABLE
750-1- A1	Stucco	exterior, unit 5A, south west corner		N
A2		exterior, unit 5A, North west corner		
A3		exterior, unit 5B, Northeast corner		
A4		exterior, unit 1, Northeast area		
A5		exterior, unit 1, North east corner		
750-2- A6	Mortar	exterior, unit 1, Northeast area		
A7		exterior, unit 5A, North east corner		
A8		exterior, unit 5A, south west corner		
750-3- A9	Vapor barrier	unit 5A, shingled Roof, W		
A10	Vapor barrier	unit 5A, shingled roof, NE corner		
750-4- A11	asphalt	pavement, west side of building		
A12		pavement, W side of building, SW Area		
750-5- A13	Popcorn WT	interior, unit 5A, S wall		F
A14		interior, unit 5A, W wall		
A15		interior Unit 5B, E wall		

NOTES: Material Type: Thermal System Insulation = TSI, Surfacing Material = SM, Miscellaneous Material = MM; Friability: Friable = F, Non-Friable = NF (may become F, if damaged)

Relinquished By: [signature] **Date/Time:**	**Received By:** **Date/Time:** 12:40 pm
Relinquished By: **Date/Time:**	**Received By:** **Date/Time:**

RECEIVED AUG 13 2019

718 Third Street
Eureka, California 95501
Tel: 707.443.8326
Fax: 707.444.8330
www.ghd.com

CONTACT NAME: **Matt Tolley**	DATE: 8/13/19
CONTACT EMAIL: **scott.harris@ghd.com, matt.tolley@ghd.com**	
JOB NUMBER: 11178686.01	SITE: ~~GP - Richmond, CA~~
ANALYSIS METHOD: **PLM** (Please provide a result for all layers of material present)	TURNAROUND TIME: 72 hour

BULK SAMPLE COLLECTION CHAIN OF CUSTODY

SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	MATERIAL TYPE	FRIABLE
750-5-A16	Popcorn WT	interior, unit 1, ceiling, N side		F
A17	"	interior, unit 1, ceiling, E side		
750-6-A18	knockdown WT	interior, unit 1, E wall		
A19		interior, unit 3, ~~E wall~~ E W wall		
A20		interior, unit 3, W wall		
A21		interior, unit 4, W wall		
A22		interior, unit 4, W wall		
A23		interior, unit 4, E wall		
A24		interior, unit 3, ~~E~~ W column		
750-7-A25	WB & JC w/ popcorn WT	interior, unit 5A, SW corner		
A26		interior, unit 5B, NE corner		
A27		interior, unit 1, central E wall		
750-8-A28	WB & JC w/ knockdown WT	interior, unit 3, SE corner		
A29		interior, unit 3, W wall		
A30		interior, unit 3, central E corner		

NOTES: Material Type: Thermal System Insulation = TSI, Surfacing Material = SM, Miscellaneous Material = MM; Friability: Friable = F, Non-Friable = NF (may become F, if damaged)

Relinquished By: [signature] **Date/Time:**	**Received By:** **Date/Time:** 12:40pm
Relinquished By: **Date/Time:**	**Received By:** **Date/Time:**

RECEIVED AUG 13 2019 cjm

718 Third Street
Eureka, California 95501
Tel: 707.443.8326
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www.ghd.com

CONTACT NAME: **Matt Tolley**	DATE: 8/13/19
CONTACT EMAIL: **scott.harris@ghd.com, matt.tolley@ghd.com**	
JOB NUMBER: 11178686.01	SITE: ~~CP - Richmond, CA~~
ANALYSIS METHOD: **PLM** (Please provide a result for all layers of material present)	TURNAROUND TIME: 72 hour

BULK SAMPLE COLLECTION CHAIN OF CUSTODY

SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	MATERIAL TYPE	FRIABLE
750-8-A31	WB & JC w/ knockdown WT	interior, unit 3, E wall		F
A32	↓	interior, unit 1, E wall		↓
750-9-A33	9" x 9" beige FT & black mastic	interior, unit 1, central ~~E~~W side		NF
A34	↓	interior, unit 1, west side		↓
750-10-A35	concrete slab	interior, unit 1, SW floor		↓
A36	↓	interior, unit 4, NW floor		↓
A37	↓	interior, unit 4, S floor		↓

NOTES: Material Type: Thermal System Insulation = TSI, Surfacing Material = SM, Miscellaneous Material = MM; Friability: Friable = F, Non-Friable = NF (may become F, if damaged)

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Appendix D Lead Analytical Data

AAS Laboratory Analytical Report(s) and Associated Chain(s) of Custody for 750 W San Carlos Street

Forensic Analytical LABORATORIES

Final Report

Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

GHD, Inc.
Project Manager
Consulting & Engineering
718 3rd Street
Eureka, CA 95501

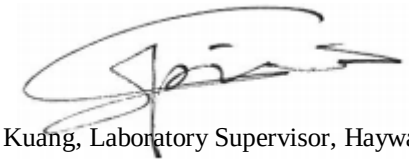
Client ID: 1883
Report Number: M214629
Date Received: 08/13/19
Date Analyzed: 08/14/19
Date Printed: 08/14/19
First Reported: 08/14/19

Job ID / Site: 111200028, 750 W San Carlos St, SJ
Date(s) Collected: 08/13/19

FALI Job ID: 1883
Total Samples Submitted: 3
Total Samples Analyzed: 3

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
750-PB1	30844900	Pb	< 0.007	wt%	0.007	EPA 3050B/7000B
750-PB2	30844901	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
750-PB3	30844902	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.



Sophie Kuang, Laboratory Supervisor, Hayward Laboratory

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

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reka, California 95501
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CONTACT NAME: **Scott Harris, Matt Tolley**	DATE SAMPLED: 8-13-19
CONTACT EMAIL: **matt.tolley@ghd.com, scott.harris@ghd.com**	
JOB NUMBER: 111200028	SITE: 750 W. San Carlos st, SJ
ANALYSIS METHOD(S): Lead via AAS and report in mg/cm	TURNAROUND TIME: 24 Hours

SURFACE COATING SAMPLE CHAIN OF CUSTODY

SAMPLE NUMBER	SAMPLE LOCATION (Room Equivalent, Building Component)	MATERIAL (Condition)	SUBSTRATE	COLOR	PEELING PAINT (%)
750-Pb 1	interior, unit 1, west side, North wall	poor ~~paint~~	any wall	off-white	
750-Pb 2	exterior, unit 1, west wall	poor	metal	tan	
750-Pb 3	exterior, unit 5A, west wall	poor	plaster	gray	

NOTES: Substrates: Brick, Concrete, Drywall, Metal, Plaster, Wood Sample Location (Wall ID): Wall at street address side is "A", others = B, C & D (labeled clockwise when facing front of structure

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Appendix E Asbestos Regulatory Summary

General Informational Summary of Governmental Asbestos Rules and Regulations

Appendix E Regulatory Overview for Asbestos

This appendix section provides a summary of governmental regulations applicable to asbestos in construction work and is applicable to the impaction of the asbestos building materials present at the project site.

E1.1 Asbestos Regulations

E1.1.1 Code of Federal Regulations

The following is a summary list of United States governmental regulations concerning asbestos:

1. 29 Code of Federal Regulations (CFR) 1926.1101, Asbestos (including all mandatory appendices)
2. 40 CFR 61, Subpart A and Subpart M USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP)
3. 40 CFR Parts 261, 265, and 268, Hazardous Waste Management
4. 40 CFR Part 763, Asbestos Emergency Hazard Emergency Response Act (AHERA)
5. 49 CFR Parts 172, 173, 178, 179, Hazardous Material Transportation

E1.1.2 California Code of Regulations

The following is a summary list of State of California governmental regulations concerning asbestos:

1. 8 CCR Division 1, Chapter 4, Construction Safety Orders
2. 8 CCR Article 2.5, Registration of Asbestos Work, Sections 341.6–341.14
3. 8 CCR Section 1529, Asbestos
4. 8 CCR Section 5144, Respiratory Protection
5. 22 CCR Division 4.5, Environmental Health Standards for Management of Hazardous Waste
6. California Environmental Protection Agency (Cal/EPA), California Air Resource Board (CARB), Final Regulation Order, Section 93105, Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying, and Surface Mining Operations

E1.1.3 Definitions

For the purpose of this report, the following definitions will apply to the discussion of hazardous materials contained herein.

1. Abatement – Hazardous materials related construction undertaken for the purpose of eliminating or reducing existing recognized hazardous materials related hazards as adapted from 29 CFR Part 1903 Inspections, Citation and Proposed Penalties, Standard 1903.19 Abatement Verification (29 CFR 1903.19), Subsection (b)(1).
2. Asbestos Containing Material (ACM) – A material determined to contain greater than one percent (1%) asbestos by weight as defined by the Title 8 California Code of Regulations

(CCR), Subchapter 4, Construction Safety Orders, Article 4. Dusts, Fumes, Mists, Vapors, and Gases, Section 1529 (8CCR1529), Subsection (b).

3. Asbestos Containing Construction Material (ACCM) – A construction material determined to contain detectable levels of asbestos fibers in concentrations of greater than 0.1 percent asbestos by weight as defined by Chapter 3.2 of the California Occupational Safety and Health Regulations, Subchapter 2, Regulations of the Division of Occupational Safety and Health, Article 2.5. Registration--Asbestos-Related Work, Section 341.6(c).

4. Containment – Protective physical barriers and associated means and methods used to contain airborne contaminant dust within the abatement work area and prevent contamination of surfaces and grounds below and adjacent to areas where a hazardous material is being disturbed.

5. Hazardous Material – Substance with properties that can cause injury or illness to humans or adversely impact living organisms in the environment under certain conditions. Hazardous materials include both organic and inorganic chemicals and chemical compounds. Includes any substance on the list of hazardous substances prepared by the Director, California Department of Industrial Relations, pursuant to Labor Code Section 6382 and also known as the Director's List. For the project, hazardous materials include, but are not limited to: asbestos, lead and universal waste.

6. Hazardous Waste – Waste material that is listed or meets the criteria for hazardous waste as set forth in CCR, Title 22, Division 4.5 and Article 9. at minimum, with regard to asbestos, the following shall be considered to be hazardous wastes with respect to this section:

   (1) Nonfriable Asbestos Containing Material (Category I and II) rendered friable during renovation or demolition

   (2) Regulated Asbestos Containing Material

E1.4 Nonfriable Asbestos Containing Material

Friability is a qualitative measure of a material's affinity for producing airborne asbestos fibers (dust). A material that, when dry, can be crumbled, pulverized or reduced to powder using hand pressure is classified as friable according to USEPA regulations. Nonfriable materials are those that do not meet the above-definition of friable.

Nonfriable materials are classified by the USEPA into the following categories:

1. Category I Nonfriable – Any asbestos containing gasket, packing, resilient floor covering, or asphalt roofing product that contains greater than 1% asbestos as determined by PLM, that, when dry cannot be crumbled, pulverized, or reduced to a powder using hand pressure.

2. Category II Nonfriable – Any material, excluding Category I nonfriable ACM, that contains greater than 1% asbestos as determined by PLM, that, when dry cannot be crumbled, pulverized, or reduced to a powder using hand pressure.

Category I Nonfriable ACM may be left in place during renovation work. Certain Category II Nonfriable ACM may be left in place during renovation or demolition; however, Category II ACM that may become friable (e.g., damaged, brittle and/or cementitious materials) must be removed prior to

renovation or demolition. Category I ACM and some Category II ACM may be left in situ during renovation; however Cal/OSHA will regulate such renovation activities as Class II work, as defined herein.

Note: Cal/OSHA employee protection protocols, including those summarized herein, apply to any disturbance of asbestos material, regardless of the USEPA material category (Category I, Category II, RACM), concentration of asbestos, or quantity of material. As such worker protection protocols per 8CCR1529 apply to work disturbing any asbestos.

If a nonfriable material is impacted with mechanical means (power tools, abrasive mechanical means, etc.) such material shall no longer be classified as nonfriable and shall instead be classified as RACM. A nonfriable material that has been significantly damaged may also be classified as friable, if the damaged material can be reduced to powder or crumbled using hand pressure.

E1.5 Regulated Asbestos Containing Material

A material is regulated by the USEPA as RACM if it conforms to one or more of the following:

1. It is a friable ACM
2. It is a Category I or II ACM that has become friable
3. It is a Category I ACM that will be subject to mechanical impaction
4. It is a Category II ACM that has a high probability of becoming friable during the course of renovation or demolition activities that are expected to impact the material

While the USEPA does not regulate material determined by PLM laboratory analysis using point count 400 methodology to contain less than 1% asbestos, some Cal/OSHA regulations apply to material determined to contain any detectable amount of asbestos.

Pursuant to NESHAP regulations, nonfriable materials are not classified as RACM if removed essentially intact using hand methods and not made “friable” during removal. The use of mechanical means to remove or impact nonfriable ACM will render that material friable, thus mechanically-impacted materials shall be considered RACM and subject to handling and disposal requirements governing RACM.

Asbestos containing material that meets the USEPA definition of RACM, if present in quantities greater than the Yolo Solano Air Quality Management District (BAAQMD) quantity thresholds noted in Section 5, must be removed from the project site prior to renovation. Additionally, Category I and Category II ACM that is associated with a fire-damaged structure must be classified as RACM, per USEPA regulation. Materials identified in this report as USEPA RACM will require disposal as a non-Resource Conservation and Recovery Act (RCRA) California hazardous asbestos waste, if disposed of in California.

Abatement of RACM that is Thermal System Insulation (TSI) or surfacing material requires Class I abatement methods as defined by the Occupational Safety and Health Administration (OSHA) and Cal/OSHA. RACM that is not TSI or surfacing material requires Class II abatement methods as defined by OSHA and Cal/OSHA. Class I and Class II abatement methods are described below.

E1.6 Cal/OSHA Work Classes

Cal/OSHA regulates material containing asbestos at any detectable level, thus worker protection, material handling, material labelling, and material disposal protocols per California Code of Regulations (CCR), Title 8, Section 1529 (8CCR1529) apply to impaction of any material determined to contain asbestos above the laboratory detection limit. Impaction of material determined to contain asbestos in concentrations of less than 1% by weight (ACCM and <0.1%) is categorized by Cal/OSHA as unclassified work.

Cal/OSHA regulates worker exposure to airborne asbestos by instituting work practice, notification, training, and personal protective equipment requirements for employers and employees. In an effort to mitigate worker exposure to airborne asbestos fibers, Cal/OSHA mandates specific material containerization and work practices when workers impact materials containing asbestos at any detectable level. Cal/OSHA categorizes asbestos related work into four work classes as described below and defined in 8CCR1529.

E1.6.1 Class I Work

Class I asbestos work consists of activities involving the removal of asbestos-containing TSI, asbestos-containing surfacing material, or PACM. TSI includes pipe, pipe fitting, duct, boiler, and flue asbestos-containing insulation. Surfacing material includes sprayed-on or troweled-on asbestos-containing fire proofing, acoustical plaster or decorative plaster. PACM is TSI or surfacing material installed prior to 1981. PACM is presumed to contain asbestos and must be handled according to Class I work protocols unless sampled and determined by PLM analysis to contain no detectable asbestos fibers. Class I abatement work is subject to OSHA and Cal/OSHA regulations. Class I work must be conducted within a regulated negative-pressure containment equipped with a three-stage decontamination chamber that includes an operable shower. Class I work must be performed by properly trained and protected workers using appropriate means and methods as described by 8CCR1529.

E1.6.2 Class II Work

Class II asbestos work means activities involving the impaction and removal of ACM, which is not TSI or surfacing material, and results in more than one bag of waste materials. This includes but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics. Class II work must be conducted within a regulated area containment and must be performed by properly trained and protected workers using appropriate means and methods as described by 8CCR1529.

E1.6.3 Class III Work

Class III asbestos work means activities involving the repair and maintenance operations, where ACM, including TSI, surfacing ACM and/or PACM, is likely to be disturbed. Class III asbestos removal operations are limited to work that generates no more waste than that which can fit into one 60 inch by 60-inch (60” x 60”) waste bag. Class III work must be conducted within a regulated area containment by properly trained and protected workers using appropriate means and methods described by 8CCR1529.

E1.6.4 Class IV Work

Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities. Class IV work must be conducted by properly trained and protected workers using appropriate means and methods described by 8CCR1529.

E1.7 Asbestos Containing Construction Material

Materials reported by laboratory analysis to contain detectable concentrations of asbestos fibers of less than 1% by weight are not regulated by the USEPA as ACM or RACM and are not governed by NESHAP regulations. While not regulated by the USEPA, materials containing less than 1% asbestos by weight are regulated by Cal/OSHA as ACCM and are subject to Cal/OSHA employee protection, waste labeling, and handling protocols. Employees impacting materials containing detectable levels of asbestos fibers, but in concentrations less than 1% asbestos by weight, must adhere to work practices and methods of compliance as mandated by Cal/OSHA and described in 8CCR1529.

E1.8 Exposure Limits for Asbestos

Employers must monitor the air their workers are breathing to determine the airborne concentration of asbestos fibers present in the work environment during the various shifts and while performing various tasks. Phase contract microscopy (PCM) sampling cassettes and low-volume air pumps are worn by employees during their work shift, typically for a period of eight hours. The PCM cassettes are analyzed by a laboratory and an exposure is determined, measured in asbestos fibers per cubic centimeter of air (fibers/cc), extrapolated across the eight-hour work shift. The eight-hour exposure is known as a time-weighted average (TWA).

The exposure limits noted in Table E1.8 Cal/OSHA Airborne Exposure Limits for Asbestos (Table E1.8) must be adhered to for employee protection to establish appropriate protective measures and controls when impacting material containing asbestos.

Table E1.8 Cal/OSHA Airborne Exposure Limits for Asbestos

Air Contaminant	Excursion Limit (Short Term Exposure Limit)	Permissible Exposure Limit (PEL) (8 hr TWA)
Asbestos	1.0 fibers/cc over 30 minutes	0.1 fibers/cc over an 8 hour TWA

Notes:

- Permissible Exposure Limit (PEL): Employer must ensure no employee is exposed above this level based on an 8 hour TWA. When employee expose levels meet or exceed the PEL, administrative, engineering and work practice controls must be implemented. Respiratory protection and other protective measures are required pending feasible engineering controls. Additional training, monitoring, and medical surveillance requirements apply to respirator usage and for exposure levels exceeding PEL.
- Short Term Exposure Limit (STEL): Short term exposure is measured over 30 minutes during periods of maximum expected exposure operations and is also known as the Excursion Limit

The Contractor should conduct representative breathing zone personal air monitoring of its employees, including a minimum of 25 percent of the crew, once each shift and repeated daily or

until a negative exposure assessment (NEA), as derived in accordance with 8CCR1529 (f)(2)(C), can be established. A NEA is documented proof that a given activity will not expose employees to asbestos in concentrations above the PELs noted in Table E1.8. A NEA may be established by maintaining initial air monitoring from the beginning of a project that is representative of work employees will be performing during the entire project showing exposure below the PEL or Short Term Exposure Limit (STEL).

Workers should wear personal air sampling devices for the full duration of their shift (eight hours). At least one sample should be collected representing each position/job classification in each work area of the project site. If exposures are determined to be above the PEL or STEL, appropriate worker protections should be instituted per 8CCR1529. Exposure monitoring should document the source of asbestos emissions.

Until an employee exposure assessment is completed and it has been determined and documented that the employee is not exposed above the PEL, the Contractor should treat the employee as if the employee were exposed above the PEL and should implement employee protective measures per 8CCR1529. Monitoring should be conducted by an individual experienced and knowledgeable about the methods of air monitoring in compliance with applicable regulatory standards.

E2.1 Requirements for Asbestos Impaction

E2.1.1 Asbestos Administrative Controls

Employers must establish a written hazard communication (HAZCOM) training program and train their employees to the hazards to which they are exposed. A HAZCOM program should be implemented for employees who will impact asbestos. If exposure monitoring shows worker airborne exposure to asbestos above the PEL, or above the excursion limit, then additional training and worker certification is necessary.

Supervisors who oversee asbestos work shall have completed 40 hours of USEPA Asbestos Hazard Emergency Response Act (AHERA)-accredited supervisor training. Employees interacting with asbestos must have a level of training appropriate for the class of asbestos work, ranging from two hours (HAZCOM) to 32 hours (AHERA-accredited Worker). At no time should suspected or known asbestos material be drilled, cut, sanded, scraped, or otherwise disturbed by untrained personnel.

Asbestos disturbance and/or removal operations must be conducted by a Cal/OSHA-registered and State-licensed asbestos removal contractor. Contractor registration with Cal/OSHA is required if greater than 100 square feet of ACM, RACM, or ACCM are disturbed by a contractor within a one-year period of time. Employers whose employees disturb asbestos must file a written Report of Use of Regulated Carcinogens (Report of Use) form with Cal/OSHA. A Report of Use form must be filed with Cal/OSHA by employers whose workers disturb material containing greater than 0.1 percent asbestos. Disturbance of asbestos and/or abatement operations should be supervised by a Competent Person, as defined by 8CCR1529, who is trained, knowledgeable and qualified in the techniques of asbestos abatement.

One or more of the following specialty certifications for asbestos is/are required by the California Contractors' State License Board (CSLB) for contractors who disturb greater than 100 square feet of asbestos in a year (some exceptions for specific materials apply):

1. C-22 – Asbestos abatement

E2.1.2 Work Practice Controls

Asbestos abatement should be performed by persons trained, qualified, licensed, and equipped to perform asbestos abatement. Employees must never be exposed to airborne asbestos above the PEL, thus specific administrative controls, work practice controls and personal protective equipment (PPE) protocols must be implemented by the employer. Whole-body coverings (including hood and foot-coverings), gloves, and HEPA cartridge-equipped respirators are the standard PPE utilized for asbestos work in most circumstances. The remainder of this section consists of a brief summary of selected work practices required when impacting materials containing asbestos.

A regulated area is required to be established using signage and/or barrier tape around a work area where asbestos is to be impacted if there is a "reasonable possibility" that airborne concentrations of asbestos will exceed the PEL (8CCR1529). A regulated area is also required for all Class I, II and III work. Regulated areas shall be demarcated "in a manner that minimized the number of persons within the area and protects persons outside the area from exposure to airborne asbestos" (8CCR1529). Access to regulated areas shall be limited to properly trained and protected workers.

The use of wet methods (water) to mitigate emissions of airborne dust is required whenever material containing asbestos is disturbed. The goal of using wet methods is to achieve no visible emissions of asbestos-related dust.

Vacuum cleaners equipped with High Efficiency Particulate Filters (HEPA) must be used by employees impacting material containing asbestos in detectable quantities and must also be used to address associated dust and debris. Material containing asbestos in detectable quantities may not be impacted by non-HEPA-equipped sanders, grinders, saws, or other abrasive power tools. Material containing asbestos (including associated dust and debris) may not be addressed using compressed air, dry sweeping, or dry shoveling.

Material containing asbestos in detectable quantities must be "promptly" containerized in leak tight containers. Prompt clean-up generally is understood to mean that material should not be left un-containerized (unpackaged or outside of a sealable disposal container or waste bin) after any work stoppage such as scheduled breaks and the end of any work shift. Waste containers containing ACM or RACM must be labeled in accordance with Cal/OSHA labeling requirements. Waste containers of RACM must be additionally labeled in accordance with USEPA labeling requirements.

E2.2 Asbestos Work Notifications

Notifications are required by regulatory agencies prior to conducting certain types of work which may impact hazardous materials. Pre-work notifications are required for the project by the local USEPA NESHAP delegated authority (air district) and Cal/OSHA office with jurisdiction over the project site as noted in Table 6.1 located in Section 5.

E2.2.1 Cal/OSHA Temporary Worksite Notification

For project activities which will involve asbestos-related work in excess of 100 square or linear feet, written notification must be made to Cal/OSHA. Such written notification to Cal/OSHA must be submitted to the nearest Cal/OSHA office exercising regulatory authority over the project at least 24 hours prior to the start of asbestos-related work. In addition, certain unexpected events related to asbestos work, such as employees exposed over the PEL without a respirator, must be reported to Cal/OSHA within 15 days of the incident.

E2.2.1 NESHAP Renovation or Demolition Notification

The USEPA NESHAP regulations are authorized by Section 112 of the Clean Air Act (published in 40 Code of Federal Regulations Parts 61 and 63) and specify work practices for asbestos to be followed during renovations and renovations of all structures meeting the NESHAP definition of a facility. The NESHAP regulations require the owner of the facility, or the facility operator, to notify a USEPA delegated authority at least 10 business days prior to the planned commencement of abatement, renovation, and/or renovation work triggering notification. The USEPA authority administering the NESHAP regulations for the project site is the BAAQMD.

A Renovation Notification must be supplied to the BAAQMD 10 business days before any work meeting one or more of the following criteria:

1. Impaction or removal of RACM in quantities greater than the notification thresholds noted in Section 5
2. Facility renovation, including unweighting or removal of any load-bearing structure
3. Intentional burning for fire training purposes

E2.3 Asbestos Disposal Requirements

Category I and Category II nonfriable ACM should be disposed of as asbestos-containing waste in California. Friable ACM (RACM), including nonfriable material that has become or will be rendered friable, should be disposed of in California as non-Resource Conservation and Recovery Act (non-RCRA) hazardous waste. Impacting nonfriable ACM with mechanical means will render such material friable and reclassify the material as RACM.

If point count laboratory analysis (Point Count 400) shows that a given material contains less than 1% asbestos, then such material is not considered a hazardous waste by USEPA, or the California Department of Toxic Substances Control (DTSC). Asbestos material containing less than 1% asbestos is not subject to Cal/OSHA asbestos waste labeling requirements. Waste materials containing less than 1% asbestos may generally be disposed of as construction debris in many California landfills and at many municipal transfer stations; however, the acceptance criteria of each facility may differ. The waste acceptor should be contacted, and their individual acceptance-criteria abided by, prior to waste transport and disposal.

Appendix F Lead Regulatory Summary

General Informational Summary of Governmental Rules and Regulations for Lead (Pb)

Appendix F Regulatory Overview for Lead

Work at the project site is understood to meet the Cal/OSHA definition of construction work (8CCR1532.1[a]) and includes the planned impaction of known lead containing surface coatings, thus, is subject to regulation by governmental agencies and standards, including those noted in this section.

F1.1 Lead Regulations

F1.1.1 Code of Federal Regulations (CFR)

1. 29 CFR 1926, Construction Standards
2. 40 CFR Parts 261, 265, and 268, Hazardous Waste Management
3. 40 CFR Part 745, Lead: Identification of Dangerous Levels of Lead
4. 40 CFR Part 745, Subpart E Lead Renovation, Repair and Painting Program
5. 49 CFR Parts 172, 173, 178, 179, Hazardous Material Transportation

F1.1.2 California Code of Regulations (CCR)

1. 8 CCR Division 1, Chapter 4, Construction Safety Orders
2. 8CCR1532.1, Lead in Construction
3. 8 CCR 1537, Welding, Cutting, and Heating of Coated Metals
4. 8 CCR 1531, Respiratory Protection
5. 17 CCR Division 1, Chapter 8, Accreditation/Certification, and Work Practices in Lead–Related Construction
6. 22 CCR Division 4.5, Environmental Health Standards for Management of Hazardous Waste

F1.2 Lead Based Paint

The USEPA, CDPH and Cal/OSHA define Lead Based Paint (LBP) as a surface coating containing lead in a concentration of equal to or greater than 0.5 percent by weight, 5,000 milligrams per kilogram (mg/kg), 5,000 ppm, or 1.0 milligram per square centimeter (mg/cm^2). In addition, Cal/OSHA regulates worker impaction of paint containing any detectable quantity of lead, thus such work triggers compliance with applicable regulations, including 8CCR1532.1.

The United States Consumer Product Safety Commission defines lead containing paint (LCP) as a surface coating containing lead in a concentration of equal to or greater than 0.009 percent by weight or 90 ppm (90 mg/kg).

F1.3 Trigger Tasks and Lead Impaction Activities

Specific construction tasks, known as Trigger Tasks, when performed on material(s) known to contain detectable quantities of lead, should be understood to expose employees above the lead PEL and thus necessitate specific employee protection measures per 8CCR1532.1. A Trigger Task or Activity is defined herein as a construction operation, process or task specifically identified by the

Cal/OSHA lead standard (8CCR1532.1) as a potential lead exposure hazard requiring certain protective measures to be implemented prior to obtaining the results of an initial exposure assessment.

Performing a Trigger Task should be understood to expose employees above the Permissible Exposure Limit (PEL) and should thus necessitate employee protection measures, including the following: wearing of respirators and protective clothing, action level training (at a minimum) and initial employee biological medical monitoring (blood tests), until personal air sampling proves otherwise. Untrained and/or unprotected workers should not perform trigger tasks. Specific trigger tasks and their expected resultant airborne exposure levels are described below.

F1.3.1 Trigger Task I

The following trigger task I activities are expected to create airborne lead concentrations of 50 to 500 micrograms per cubic meter of air (µg/m^3):

1. Manual renovation
2. Paint preparation (scraping and sanding)
3. Using heat guns
4. Using HEPA-filtered equipment
5. Debris clean-up

F1.3.2 Trigger Task II

The following trigger task II activities are expected to create airborne lead concentrations of 500 to 2,500 µg/m^3:

1. Lead mortar work
2. Lead burning
3. Rivet busting
4. Use of non-HEPA-filtered equipment
5. Dry abrasive blast debris clean-up or containment movement

F1.3.3 Trigger Task III

The following trigger task II activities are expected to create airborne lead concentrations of greater than 2,500 µg/m^3:

1. Welding
2. Abrasive blasting
3. Torch cutting/burning

F1.4 Competent Person Designation

The Contractor shall designate, in writing, one or more individuals as Competent Persons(s) when tasking individuals to perform work at the project site that may impact lead containing surface

coatings. Written designation shall certify that each designated Competent Person has the appropriate training and knowledge required of a Competent Person under Article 6 of the construction Safety Orders, Title 8, California Code of Regulations.

F1.5 Personal Air Monitoring

The Contractor should conduct worker breathing zone exposure monitoring (also known as personal air monitoring) to determine the airborne concentration of lead present within the work environment as required by Cal/OSHA per 8CCR1532.1. Air monitoring of Contractor personnel performing lead impaction work is required by Cal/OSHA and is the obligation of the Contractor. The Contractor is responsible for providing daily Cal/OSHA compliance monitoring as per 8CCR1532.1 (Lead). The Contractor shall monitor workers for lead exposure.

Air monitoring should continue for each task for the duration of the project, unless a negative exposure assessment is achieved. The exposure limits noted in F1.5 Cal/OSHA Exposure Limits for Lead (Table F1.5) must be adhered to for employee protection to establish appropriate protective measures and controls when impacting material containing lead.

Table F1.5 Cal/OSHA Airborne Exposure Limits for Lead

Air Contaminant	Action Level (AL) (8-hr TWA)	Permissible Exposure Limit (PEL) (8-hr TWA)
Lead	30 µg/m^3	50 µg/m^3

Notes:

- µg/m^3 = Micrograms per cubic meter of air
- 8-hr TWA = Eight-hour time-weighted average
- Action Limit (AL): When employee exposure levels exceed the AL, specific administrative, engineering and work practice controls must be implemented.
- Permissible Exposure Limit (PEL): Employer must ensure no employee is exposed above this level based on an 8 hour TWA. When employee exposure levels exceed the PEL, all applicable administrative, engineering and work practice controls must be implemented. Respiratory protection and other protective measures are required pending feasible engineering controls. Additional training, monitoring, and medical surveillance requirements apply to respirator usage and for exposure levels exceeding PEL.

The Contractor should conduct representative (≥25% of crew) breathing zone personal air monitoring of its employees once each shift and repeated daily or until a NEA showing airborne lead exposure below the PEL or Action Level (AL), as derived in accordance with and 8CCR1532.1 (d) can be established. Monitoring should be conducted by an individual experienced and knowledgeable about the methods of air monitoring and in accordance with 8CCR1532.1. If exposures are determined to be above the action level, appropriate worker protections should be instituted per 8CCR1532.1. Exposure monitoring should document the source of lead emissions.

Until an employee exposure assessment is completed and it has been determined and documented that the employee is not exposed above the PEL, the Contractor should treat the employee as if the employee were exposed above the PEL and should implement employee protective measures per 8CCR1532.1, if any Trigger Tasks are to be performed.

F1.6 Personnel Training

Individuals engaged in lead-related construction work activities should attend lead hazard training appropriate to their assignments. All training for other lead–related construction activities should be in accordance with the worker training provisions in the Cal/OSHA and CDPH lead regulations.

Employees, including crew leaders, supervisors, and any other Contractor personnel or agents who may be exposed to airborne concentrations of lead must have received at a minimum: lead awareness training (HAZCOM) as required by Cal/OSHA 8CCR1532.1. If air monitoring demonstrates an exposure above the AL or PEL for lead, the Contractor should maintain documentation that employees receiving this exposure level have received Action Level training if exposed above Action Level. The Contractor should maintain documentation affirming that employees have appropriate CDPH lead worker certification if exposed above PEL while working at a public building.

F1.6.1 Hazard Communication Training

All workers should receive lead hazard communication (HAZCOM) training prior to the commencement of work that may disturb painted surfaces known or presumed to contain lead at the project site. Such training should be documented and such documentation retained onsite for review. Training should include, but may not be limited to, the locations and presence of lead containing material at the project site, the potential hazards of lead exposure, the purpose and meaning of warning signage, the isolation (using signage and barrier tape) of identified lead debris, the required procedures and training necessary to impact lead containing material and prohibited practices regarding lead containing material at the project site, the content of 8CCR1532.1, the specific nature of operations which could expose employees to lead above the action level, the proper use of respirators, the purpose and a description of the medical surveillance program, the content of the Contractor Lead Compliance Plan, and the proper use/restrictions on chelating agents.

F1.6.2 Action Level Training

The Action Level (AL) is an established airborne contaminate level that when met or exceeded, certain protective health and safety measures are triggered per 8CCR1532.1 (l) (2). For lead, the AL is an exposure of 30 micrograms per cubic meter of air (µg/m^3) of airborne lead as an 8-hour TWA. The Contractor should provide training for all workers who may be exposed to lead in excess of the AL or PEL in accordance with Title 8CCR1532.1, Subsection (l), Parts (1) and (2) Awareness Training. Contractor should maintain documentation that employees receiving this exposure level have received Action Level training if exposed above Action Level.

The Contractor should itself establish, or have site personnel attend, an Action Level Training program. Such a training program should assure that each employee is trained in the following:

1. The content of 8CCR1532.1 and its appendices.
2. The specific nature of the operations which could result in exposure to lead above the action levels.
3. The purpose, proper selection, fitting, use, and limitations of respirators.

4. The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females and hazards to the fetus and additional precautions for employees who are pregnant).
5. The engineering controls and work practices associated with the employee's job assignment including training of employees.
6. The contents of any compliance plan and the location of regulated areas in effect.
7. Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used except under the direction of a licensed physician.
8. The employee's right of access to records under CCR Section 3204.

F1.7 Medical Surveillance Compliance

Use only workers trained and medically qualified for the assigned lead work and respirator usage for trigger tasks or other work known or reasonably expected to generate airborne exposures to lead in excess of the Action Level (AL) or PEL.

Contractor employees shown to be exposed above the AL, PEL, and/or engaged in Trigger Tasks in the absence of a NEA, must be medically-qualified to do so and have the appropriate medical examinations as specified in 8CCR1532.1. Medically-qualified should mean that the worker who performs trigger tasks, or other lead-related construction tasks likely to exceed the AL or PEL, has received, at minimum, lead biological monitoring and medical evaluation for use of respiratory protection in accordance with 8CCR1532.1(j).

Medical requirement for lead-related construction work compliance should include:

9. Documentation of medical surveillance examination by a licensed medical physician prior to commencement of onsite Lead–Related Construction “trigger task” work. Documentation should include baseline blood lead levels. The baseline blood lead should have been within 30 days in advance of starting work.
10. Documentation from physician that all employees or agents who may be exposed to airborne lead in excess of background levels have received medical examination to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects in accordance with 8 CCR 153. Medical exams should have been performed not more than 12 months prior to the completion of Contractor work at the project site. Biological monitoring records documenting employee blood lead level test results should be kept for 30 years. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g., high temperatures, humidity, chemical contaminants) that may impact on the employee's ability to perform work activities.
11. Documentation that each employee required to wear respirators has passed a respirator fit test within the past 12 months and has been assigned an individual respirator based on the fit test.

12. Methods, procedures and plan for monitoring employee airborne lead exposure as required by Cal/OSHA during lead component removal, clean-up and surface preparation activities. Methods and procedures, at a minimum, should comply with requirements outlined in 8CCR1532.1 Lead. Include Name, address and certification information for laboratory to be used for air sample analysis.

F1.8 Requirements for Lead Impaction

Surface coatings (paint) applied to interior and exterior surfaces at the project site have been reported and/or are assumed to contain lead. Employers whose employees perform impaction of surface coatings at the project site should monitor their employees for airborne lead exposure and institute necessary employee protection precautions per the Cal/OSHA lead standard (8CCR1532.1) when conducting work at the project site.

As required by 8CCR1532.1, employees performing work at the project site, including foreman, supervisor, and any other company personnel or agents who may be exposed to any airborne concentrations of lead, should receive training which includes, at a minimum, Lead Awareness training, also known as lead HAZCOM training.

If air monitoring demonstrates an employee exposure to lead above 30 micrograms per cubic meter of air (µg/m^3), a threshold known as the Cal/OSHA Action Level, or 50 µg/m^3, a threshold known as the PEL, the employer must maintain documentation that employees receiving such exposure(s) have received Action Level training (if exposed above the Action Level or PEL) and have appropriate CDPH certification. It should be noted that CDPH certification is applicable if employees are exposed above the PEL in a building generally accessible to the public as defined by 17 CCR, Division 1, Chapter 8, Article 1.

Employee protection measures are mandated by Cal/OSHA when workers impact lead and the scope and magnitude of these measures are generally dependent on the amount of lead present in the air. At a minimum, work impacting lead must include the following protocols:

13. Establishment of a regulated work area (posting of warning signage)
14. Establishment of hygiene controls (hand washing facilities)
15. Use of wet methods (water) to mitigate airborne dust generation
16. Use of HEPA filter-equipped vacuums and tools
17. Use of PPE, including respirators, as appropriate

F2.1 Lead Waste Disposal

F2.1.2 Waste Segregation and Characterization

The Resource Conservation and Recovery Act (RCRA) gave the USEPA authority to regulate the waste status of demolition and renovation debris, including lead-containing materials. Specific notification and testing requirements are required to be addressed prior to transporting, treating, storing, or disposing of hazardous wastes. Lead containing wastes are considered hazardous waste under RCRA if Toxicity Characteristic Leaching Procedure (TCLP) results exceed five milligrams per liter (mg/l). The USEPA exempts from most RCRA requirements those generators whose

combined hazardous waste generation is less than 100 kilograms per month. Site owner or contractor should provide for secure onsite temporary storage for known or suspect hazardous LBP paint chip, dust/debris, and cleanup related waste.

Suspect hazardous waste streams and waste categories listed below should be considered lead hazardous waste until proven otherwise through testing. Suspect hazardous waste should be segregated by the Client or site owner based on potential for exhibiting hazardous waste characteristics. Lead related wastes, at a minimum, are to be segregated into the below listed categories:

18. Category I: Paint removed by chemical stripping, mechanical removal or abrasive media, paint chips, vacuum bags, used cleaning materials. These materials are typically hazardous wastes and should be assumed hazardous unless proven nonhazardous via approved laboratory analysis.

19. Category II: Plastic sheeting and tape, disposable clothing, and equipment. These materials should be non-hazardous if properly cleaned and decontaminated. However, these items are to be considered hazardous wastes subject to testing.

20. Category III: Work dust and debris from lead painted finishes and structures undergoing work are to be considered hazardous waste subject to testing.

Composite representative samples should be taken of each waste stream category generated. Samples from a given waste stream category may be composited into one sample for analysis. The site owner and contractor should ensure a sufficient number of representative samples are taken from each category of segregated waste. Waste streams should be tested using the lead testing analytical thresholds for determination of hazardous waste characterization as shown on the following tables, Table F2.1 and Table F2.2.

Table F2.1 Cal/EPA Testing Protocol for Lead

Lead Content Analytical Method	Hazardous Waste Threshold	Waste Characterization
Total Threshold Limit Concentration (TTLC)	≤50 ppm	Non-Hazardous Waste
Total Threshold Limit Concentration (TTLC)	>50 ppm - ≤1,000 ppm	Run STLC
Total Threshold Limit Concentration (TTLC)	>1,000 ppm	California Hazardous Waste, Run TCLP
Soluble Threshold Limit Concentration (STLC)	≤5 mg/L	Non-Hazardous Waste
Soluble Threshold Limit Concentration (STLC)	>5 mg/L	California Hazardous Waste, Run TCLP

Notes:
- > = greater than
- ≤ = less than or equal to
- mg/L = milligrams per liter, laboratory unit of measurement for soluble analytes
- ppm = parts per million, laboratory unit of measurement

Any waste greater than or equal to 1,000 ppm lead using the TTLC analysis method should be considered a lead hazardous waste. If the TTLC result for a waste stream is less than 50 ppm lead, then the waste stream is non-hazardous and no further testing is required for the sampled waste stream unless the waste changes in character or composition.

Table F2.2 USEPA Testing Protocol for Lead

Lead Content Analytical Method	Hazardous Waste Threshold	Waste Characterization
Toxicity Characteristic Leaching Procedure (TCLP)	>5 mg/L	RCRA Hazardous Waste
Toxicity Characteristic Leaching Procedure (TCLP)	≤5 mg/L	Non-RCRA Hazardous Waste

Notes:

- > = greater than
- ≤ = less than or equal to
- mg/L = milligrams per liter, laboratory unit of measurement for soluble analytes
- RCRA = Resource Conservation and Recovery Act

Based on the above testing protocols, any representative waste stream having a soluble lead concentration greater than or equal to five (5) ppm lead as determined by STLC or TCLP analyses or any waste greater than or equal to 1,000 ppm lead using the TTLC analysis method should be considered a lead hazardous waste.

Each category of suspect hazardous waste should be tested and characterized according to requirements of the selected permitted waste disposal site. If other hazardous constituents are known or suspected to be present, the testing should also include those substances or conditions.

The waste should be packaged, stored, handled, transported and disposed of for each category of waste generated based on the testing results and regulatory protocol. All testing should be performed by a laboratory that complies with and is certified under the Environmental Laboratory Accreditation Program (ELAP) established by the CDPH.

Appendix G Bulk Sample PLM Data Summary Table

Data Table Listing All Bulk PLM Samples Collected for the Project

Table G1.1 PLM Laboratory Data Summary

750 W San Carlos Street, DANCO Residence, San Jose, California

Sample Number	Sample Description	Sample Location	Asbestos Content	Asbestos Material Category	Cal/OSHA Work Class	Projected Waste Designation
11200028-A1	Stucco (brown)	Exterior – Unit 5 A at SW corner	ND	NA	NA	NA
11200028-A2	Stucco (brown)	Exterior – Unit 5 A at NW corner	ND	NA	NA	NA
11200028-A3	Stucco (brown)	Exterior – Unit 5 B at NE corner	ND	NA	NA	NA
11200028-A4	Stucco (brown)	Exterior – Unit 1at NE area	ND	NA	NA	NA
11200028-A5	Stucco (brown)	Exterior – Unit 1 at NE corner	ND	NA	NA	NA
11200028-A6	Mortar (grey)	Exterior – Unit 1 at NE area	ND	NA	NA	NA
11200028-A7	Mortar (grey)	Exterior – Unit 5A at NE corner	ND	NA	NA	NA
11200028-A8	Mortar (grey)	Exterior – Unit 5A at SW corner	ND	NA	NA	NA
11200028-A9	Vapor Barrier (black)	Unit 5A – Shingled roof at west at center	ND	NA	NA	NA
11200028-A10	Vapor Barrier (black	Unit 5A – Shingled roof west at NE corner	ND	NA	NA	NA
11200028-A11	Asphalt (grey)	Exterior – pavement at west side of building	ND	NA	NA	NA
11200028-A12	Asphalt (grey)	Exterior pavement – West side of building at SW area	ND	NA	NA	NA
11200028-A13	Wall Texture (white)	Main Shed - South window bank at center	ND	NA	NA	NA

Table G1.1 PLM Laboratory Data Summary

750 W San Carlos Street, DANCO Residence, San Jose, California

Sample Number	Sample Description	Sample Location	Asbestos Content	Asbestos Material Category	Cal/OSHA Work Class	Projected Waste Designation
11200028-A14	Popcorn Surface Texture (white), (paint)	Interior – Unit 5A at south wall	ND	NA	NA	NA
11200028-A15	**Popcorn Surface Texture (white), lab report description is off-white texture**	**Interior – Unit 5B at east wall**	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A16	**Popcorn Surface Texture (white), lab report description is off-white texture**	**Interior – Unit 1 – Ceiling at west side**	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A17	**Popcorn Surface Texture (white), lab report description is off-white texture**	**Interior – Unit 1 – Ceiling at west side**	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A18	**Knockdown Surface Texture (white), (lab report description is off-white texture)**	Interior – Unit 1 at east wall	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A19	Knockdown Surface Texture (white),	Interior – Unit 3 at west wall	ND	NA	NA	NA
11200028-A20	**Knockdown Surface Texture (white), (lab report description is off-white texture)**	**Interior – Unit 3 at east wall**	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A21	**Knockdown Surface Texture (white), (lab report description is off-white texture)**	**Interior – Unit 4 at west wall**	**2% Chrysotile**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A22	Knockdown Surface Texture (white)	Interior – Unit 4 at west wall	ND	NA	NA	NA

Table G1.1 PLM Laboratory Data Summary

750 W San Carlos Street, DANCO Residence, San Jose, California

Sample Number	Sample Description	Sample Location	Asbestos Content	Asbestos Material Category	Cal/OSHA Work Class	Projected Waste Designation
11200028-A23	Knockdown Surface Texture (white)	Interior – Unit 4 at east wall	ND	NA	NA	NA
11200028-A24	Knockdown Surface Texture (white)	Interior – Unit 3 at west column	ND	NA	NA	NA
11200028-A25	Drywall (white) + Joint Compound (white) + Popcorn Surface Texture (white)	Interior – Unit 5A at SW corner	ND	NA	NA	NA
11200028-A26	**Drywall (white) + Joint Compound (white) + Popcorn Surface Texture**	**Interior – Unit 5B at NE corner**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A27	**Drywall (white) + Joint Compound (white) + Popcorn Surface Texture**	**Interior – Unit 1 at center wall**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A28	**Drywall (white) + Joint Compound (white) + Knockdown Surface Texture**	**Interior – Unit 3 at SE corner**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A29	**Drywall (white) + Joint Compound (white) + Knockdown Surface Texture**	**Interior – Unit 3 at west wall**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A30	**Drywall (white) + Joint Compound (white) + Knockdown Surface Texture**	**Interior – Unit 3 at center east corner**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A31	**Drywall (white) + Joint Compound (white) + Knockdown Surface Texture**	**Interior – Unit 3 at east wall**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**

Table G1.1 PLM Laboratory Data Summary

750 W San Carlos Street, DANCO Residence, San Jose, California

Sample Number	Sample Description	Sample Location	Asbestos Content	Asbestos Material Category	Cal/OSHA Work Class	Projected Waste Designation
11200028-A32	**Drywall (white) + Joint Compound (white) + Knockdown Surface Texture**	**Interior – Unit 1 at east wall**	**2% Chrysotile (JC)**	**RACM**	**Class II**	**California hazardous Waste (non-RCRA)**
11200028-A33	**9”X9” Vinyl Floor Tile (beige) + Mastic (black)**	**Interior – Unit 1 at central west side**	**5% Chrysotile (Mastic)**	**Category I Nonfriable ACM**	**Class II**	**Non-hazardous Asbestos Waste**
11200028-A34	**9”X9” Vinyl Floor Tile (beige/grey) + Mastic (black)**	**Interior – Unit 1 at west wall**	**5% Chrysotile (Mastic)**	**Category I Nonfriable ACM**	**Class II**	**Non-hazardous Asbestos Waste**
11200028-A35	Concrete Slab (grey)	Interior – Unit 1 – Floor at SW corner	ND	NA	NA	NA
11200028-A36	Concrete Slab (grey)	Interior – Unit 4 – Floor at NW corner	ND	NA	NA	NA
11200028-A37	Concrete Slab (grey)	Interior – Unit 4 – Floor at south	ND	NA	NA	NA

Acronyms:

- ACM = Asbestos Containing Material (>1% asbestos)
- ACCM = Asbestos Containing Construction Material (>0.1% asbestos)
- Cal/OSHA = California Department of Industrial Relations, Division of Occupational Safety and Health
- LF = Linear feet
- NA = Not applicable
- ND = Nondetect (no asbestos detected)
- RACM = Regulated Asbestos Containing Material
- RCRA = Resource Conservation and Recovery Act
- TSI = Thermal System Insulation
- SF = Square feet
- USEPA = United States Environmental Protection Agency
- VFT = Vinyl Floor Tile
- < = Symbol meaning “less than”
- > = Symbol meaning “greater than”

Table G1.1 PLM Laboratory Data Summary

750 W San Carlos Street, DANCO Residence, San Jose, California

Sample Number	Sample Description	Sample Location	Asbestos Content	Asbestos Material Category	Cal/OSHA Work Class	Projected Waste Designation

Notes:

- Asbestos material category definitions:
  - USEPA ACM and RACM: USEPA regulates material containing >1% asbestos, differentiated into two broad ACM categories: friable (RACM) and nonfriable (Category I and II ACM). Material containing <1% asbestos is not regulated by USEPA as ACM or RACM.
    - Cal/OSHA ACM and ACCM: Cal/OSHA regulates material containing >0.1% asbestos as ACCM and >1% asbestos as ACM.
- Cal/OSHA differentiates asbestos removal operations into five classes (Class I to IV, plus unclassified work). Class I through IV operations include tasks impacting material containing >1% asbestos (ACM). Unclassified work includes tasks impacting material containing <1% asbestos.
  - Work impacting material containing asbestos in ANY quantity is subject to Cal/OSHA requirements.
  - It is recommended that unclassified work be conducted per Class II work protocols.
  - It is recommended that interior work, regardless of work classification, be conducted within sealed negative pressure containments.
- RACM is a hazardous waste if disposed of in California (non-RCRA hazardous waste). Category I and II nonfriable ACM that remains nonfriable during removal is characterized as non-hazardous asbestos-containing waste. The non-hazardous waste designation presumes that nonfriable material will not become friable during the project. If nonfriable ACM is rendered friable (e.g., via the use of mechanical removal means, fire damage, building demolition, etc.), then such material shall be reclassified as RACM and disposed of as a non-RCRA hazardous waste in California.
- Work impacting material homogeneous (visually similar) to that noted herein shall be understood to impact asbestos, regardless of location.

Appendix H Laboratory Certifications

Accreditations and Certifications for Laboratories Providing Analytical Data for the Project

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101459-0

Forensic Analytical Laboratories, Inc.

Hayward, CA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2019-07-01 through 2020-06-30

Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

NVLAP® National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 101459-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code	*Description*
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

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