



HAZARDOUS MATERIALS SURVEY REPORT

SUBJECT PROPERTY:

GROSSMONT HIGH SCHOOL
CAFETERIA BUILDING, PRESS BOX AND WEIGHT ROOM/MUSEUM
1100 MURRAY DRIVE
EL CAJON, CALIFORNIA 92020

PREPARED FOR:

GROSSMONT UNION HIGH SCHOOL DISTRICT
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1.0 EXECUTIVE SUMMARY

On July 20th, 2021, at the request of Grossmont Union High School District (Client), Titan Environmental Solutions, Inc. (TES) performed a hazardous materials survey, which included asbestos-containing materials, lead-containing materials, and universal waste (UW) building materials / devices, within the Grossmont High School's Cafeteria Building, Press Box and Weight Room/Museum, located at 1100 Murray Drive, El Cajon, California 92020 (herein referred to as the Subject Property).

Grossmont Union High School District, representatives informed TES that the roof materials were removed and replaced during a recent renovation and modernization project. At the request of the Client, the roof materials were excluded from the survey and therefore, were not surveyed.

The following summarizes the sampling and findings:

Asbestos

- The asbestos survey was performed in accordance with the EPA's National Emissions Standard for Hazardous Air Pollutants (NESHAP) protocol for sample collection for demolition/renovation surveys and sample analysis in accordance with EPA's "Method for the Determination of Asbestos in Bulk Building Materials" (EPA 600-R-93-116).
- TES collected one-hundred thirty-three (133) bulk samples of suspect Asbestos Containing Materials / Asbestos Containing Construction Materials (ACMs/ACCMs) representing thirty-seven (37) identified homogenous areas in the survey area of the Subject Property, which were analyzed for asbestos content via Polarized Light Microscopy (PLM) visual estimation method. Additionally, TSI pipe runs and elbows, unidentified flooring and mirror/corkboard/chalkboard materials were identified as the 38th-41st homogenous areas and assumed to be ACM.
- In accordance with 40 CFR Section 61.141 and US EPA Applicability Determination Index Control Number: C112, if the amount by PLM visual estimation appears to be less than 10 percent, the owner or operator may (1) assume the amount to be greater than 1 percent and treat the materials asbestos-containing material, or (2) require verification of the amount by PLM point counting. If a result obtained by PLM point count is different from a result obtained by PLM visual estimation, the more accurate PLM point count result will be used.
- PLM point count analysis was not included in the contract, therefore in lieu of point counting, all materials surveyed containing less than one percent or "trace" amounts of asbestos are assumed to be asbestos-containing and must be managed as ACM.
- Less than one percent, "Trace" materials assumed to be ACM in accordance with 40 CFR Section 61.141 and the US EPA Applicability Determination Index Control Number C112, are available for further PLM point count analysis for up to thirty (30) days from the completion and submittal date of this report. PLM point count laboratory analysis was not included in this survey.



- At the request of the Client, the roof materials were excluded from the survey and therefore, were not surveyed.
- Mastic adhesive materials behind mirrors, chalkboards, green boards, white boards and corkboards within the Subject Property are assumed by TES to be asbestos-containing materials.
- ACMs were confirmed or assumed to be present in the following samples collected in the survey area.

Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-04-18 0720-04-19 0720-04-20	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Drywall and Joint Compound (Patch)	Misc.	NF	G	Within Cafeteria Building - Boiler Room	50 SF	2% Chrysotile (Joint Compound) <1% Chrysotile (Drywall and Joint Compound Composite) ND (Drywall)	Cat I ACM
0720-11-39 0720-11-40 0720-11-41	SE End of Large Office NE End of Large Office NW End of Large Office	Tan Floor Tile	Misc.	NF	G	Within Cafeteria Building - Large Office	400 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-12-42 0720-12-43 0720-12-44	SE End of Large Classroom Center of Large Classroom E End of Corridor	Brown 9"x9" Floor Tile	Misc.	NF	G	Within Cafeteria Building - Corridor and Large Classroom	4800 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-14-48 0720-14-49 0720-14-50	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Boiler Tank Insulation	TSI	F	G	Within Cafeteria Building - Boiler Room	350 SF	15% Amosite 6% Chrysotile	RACM
0720-15-51 0720-15-52 0720-15-53	N End of Attic N End of Attic N End of Attic	White TSI Packed Elbow	TSI	F	G	Within Cafeteria Building - Attic	50 SF	15% Amosite 6% Chrysotile	RACM



Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-16-54 0720-16-55 0720-16-56	SW End of Mezzanine Above Cook Storage NW End of Mezzanine Above Cook Storage E End of Mezzanine Above Cook Storage	White / Brown Packed Pipe Runs	TSI	F	G	Within Cafeteria Building - Attic	700 SF	50% Chrysotile	RACM
0720-24-88 0720-24-89 0720-24-90	S End of Film Room - Plenum S End of Film Room - Plenum S End of Equipment Room	Gray Corrugated Ducting	TSI	F	G	Within Weight Room and Museum Building - Film Room, Equipment Room and Plenum	400 SF	65% Chrysotile	RACM
0720-26-94 0720-26-95 0720-26-96	W End of Mechanical Room W End of Mechanical Room W End of Mechanical Room	White Boiler Tank Insulation	TSI	F	G	Within Weight Room and Museum Building - Mechanical Room	400 SF	14% Amosite 8% Chrysotile	RACM
0720-29-107 0720-29-108 0720-29-109	W End of Weight Room and Museum Building N End of Weight Room and Museum Building E End of Weight Room and Museum Building	Gray Window Putty	Misc.	F	G	Exterior of Weight Room and Museum Building	200 SF	3% Chrysotile (Window Glazing) ND (Putty / Caulking)	Cat I ACM
0720-30-110 0720-30-111 0720-30-112	W End of Main Corridor N End of Main Corridor E End of Main Corridor	Brown 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Main Corridor	600 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-31-113 0720-31-114 0720-31-115	SW End of Office N End of Office E End of Office	Gray 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Office	400 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-32-116 0720-32-117 0720-32-118	W End of Equipment Room S End of Equipment Room E End of Equipment Room	Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Equipment Room	300 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM



Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-33-119 0720-33-120 0720-33-121	W End of Storage Closet S End of Storage Closet E End of Storage Closet	Blue/ Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Storage Closet	100 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Cafeteria	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Weight Room and Museum Building	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	Unidentified Flooring Below Museum Wood Floor	Misc.	NF	G	Weight Room and Museum Building	Approximately 2650 SF	Assumed ACM	Cat I ACM
N/A	N/A	Unidentified Mirror / Corkboard / Chalkboard	Misc.	NF	G	Weight Room and Museum Building	Approximately 225 SF	Assumed ACM	Cat I ACM

Legend:

N = North, E = East, W = West, S = South, SF = Square Feet, LF = Linear Feet, ND = None Detected

Classification (Class.): Misc. = Miscellaneous, Surf. = Surfacing, TSI = Thermal System Insulation

Condition: G = Good, D = Damaged, SD = Significantly Damaged

Categories (Cat.):

- Cal/OSHA: ACCM = Asbestos Containing Construction Materials, ACM = Asbestos Containing Materials,
- NESHAP: Cat I = Category I Non-friable ACM, Cat II = Category II Non-friable ACM, RACM = Regulated Asbestos Containing Material

*Locations and quantities are estimates based on accessible materials located in the survey area only. Additional locations and quantities may be present at the Subject Property.

**In accordance to 40 CFR Section 61.141 and US EPA Applicability Determination Index Control Number: C112, if the amount by visual estimation appears to be less than 10 percent, the owner or operator may (1) assume the amount to be greater than 1 percent and treat the materials asbestos-containing material, or (2) require verification of the amount by point counting. If a result obtained by point count is different from a result obtained by visual estimation, the point count result will be used.

Please note the Certified Asbestos Consultant will assume any material that is <1% analyzed via PLM and not verified by point count as an Asbestos Containing Material (ACM).



Lead

- TES performed X-Ray Fluorescence (XRF) Analyzer testing of two-hundred thirty-five (235) surfaces painted/coated with suspect lead-based paints and/or lead-containing materials (LBPs/LCMs) in the survey area of the Subject Property.
- LBPs/LCMs were identified in the following tested surfaces collected in the survey area:

Table 1-2: Summary of Identified LCMs/LBPs

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
34	Cafeteria Exterior	N	Stairs	D	Concrete	Yellow	0.7	LCM
35	Cafeteria Exterior	E	Window Casing	I	Wood	Tan	1.2	LBP
39	Cafeteria Exterior	W	Door	I	Metal	Gray	0.7	LCM
43	Cafeteria Exterior	S	Window Sill	I	Wood	Tan	0.2	LCM
44	Cafeteria Exterior	E	Door Frame	I	Wood	Gray	2.5	LBP
45	Cafeteria Exterior	W	Post	I	Metal	Gray	0.7	LCM
48	Cafeteria Exterior	W	Stairs	I	Concrete	Yellow	2.9	LBP
50	Cafeteria Exterior	W	Door Frame	I	Metal	Tan	1.5	LBP
56	Large Classroom	E	Door	I	Wood	White	0.7	LCM
57	Large Classroom	E	Door Casing	I	Wood	White	0.7	LCM
64	Corridor	S	Door	I	Wood	White	0.7	LCM
71	Serve / Prep 1	N	Crown Molding	I	Wood	White	0.1	LCM
81	Men's Restroom	S	Window	I	Wood	White	1.3	LBP
82	Men's Restroom	S	Window Casing	I	Wood	White	0.2	LCM
89	Large Office	N	Wall	I	Wood	White	0.1	LCM
91	Large Office	S	Window Sill	I	Wood	White	0.2	LCM
94	Cashier 1	S	Wall	I	Ceramic	Green	>9.9	LBP
101	Cashier 2	E	Window	I	Wood	White	0.7	LCM
102	Cashier 2	E	Window Sill	I	Wood	White	0.2	LCM
107	Small Office	N	Crown Molding	I	Wood	White	0.1	LCM
110	Staff Locker	N	Door Frame	I	Wood	White	0.1	LCM
113	Staff Locker	E	Window	I	Wood	White	2.1	LBP
122	Custodian Closet	N	Sink	I	Metal	White	>9.9	LBP
129	N Entrance	E	Ladder	I	Wood	White	0.7	LCM
130	Cook Area	W	Ladder	I	Wood	White	0.7	LCM
131	Men's Restroom	N	Sink	I	Porcelain	White	4.4	LBP
138	Museum	S	Drinking Fountain	I	Porcelain	White	5.8	LBP
140	Main Corridor	N	Crown Molding	I	Wood	White	0.1	LCM
142	Main Corridor	N	Wall	I	Ceramic	Beige	>9.9	LBP
143	Main Corridor	N	Wall	I	Ceramic	Red	>9.9	LBP
157	Office	N	Crown Molding	I	Wood	White	0.2	LCM



Table 1-2: Summary of Identified LCMs/LBPs

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
165	Weight Room - Restroom	N	Sink	I	Porcelain	White	>9.9	LBP
174	Custodian Closet	S	Sink	I	Metal	White	>9.9	LBP
183	Weight Room	E	Post	D	Metal	White	2.4	LBP
195	Corridor	S	Bulletin Board	I	Wood	White	2.4	LBP
212	Weight Room	E	Bulletin Board	I	Wood	White	2.4	LBP
213	Weight Room	E	Cubbies	I	Wood	Tan	0.7	LCM
215	Exterior	E	Wall	I	Ceramic	Green	6.5	LBP
218	Exterior	E	Window Sill	I	Wood	Brown	0.7	LCM
226	Exterior	W	Post	I	Metal	Gray	4.1	LBP
234	Mechanical Room	E	Pipes	I	Metal	Silver	0.7	LCM
235	Mechanical Room	S	Door Jamb	I	Wood	Green	0.7	LCM
237	Corridor (Plenum)	N	Beam	I	Metal	Orange	4.5	LBP

Legend:

mg/cm² = milligrams per centimeter squared

1 Side: N = North, E = East, W = West, S = South, C = Center

2 Paint Condition: I = Intact, D = Deteriorated

3 Classification:

BDL = Below the XRF's detection level; less than 0.1 mg/cm².

LCM = Lead Containing Materials; equal to or exceeding 0.1 mg/cm².

LBP = Lead-Based Paints; equal to or exceeding 1.0 mg/cm².

*Paint conditions are based on visual observations in survey area. Different conditions may be present in other areas of the Subject Property.

ASBESTOS-CONTAINING BUILDING MATERIALS

TES has the following recommendations based on the findings of the asbestos-containing building materials survey:

- A California licensed and DOSH/Cal-OSHA registered asbestos abatement contractor should be contracted to remove/abate ACMs/ACCMs and materials containing asbestos that are damaged or will be disturbed.
- A DOSH/Cal-OSHA Certified Asbestos Consultant should be contracted to conduct monitoring and clearance of any removal/abatement of ACMs/ACCMs and materials containing asbestos.
- Any materials that have not been identified in this report should be considered suspect ACMs/ACCMs and handled as ACM unless sampled and proven to be non-ACM by a DOSH/Cal-OSHA Certified Asbestos Consultant.
- All asbestos activities must be performed in accordance with all applicable federal, state and local regulations including, but not limited to those summarized in this report.



LEAD-BASED PAINTS / LEAD-CONTAINING MATERIALS

TES has the following recommendations based on the findings of the lead in paint survey:

- In accordance with Title 8, California Code of Regulations, Section 1532.1 (8 CCR 1532.1), any disturbance of LCM and/or LBP should be performed by lead hazard communication trained workers using lead safe work practices that do not result in exposures above the Action Level (AL) of 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) and/or Permissible Exposure Limit (PEL) of 50 $\mu\text{g}/\text{m}^3$.
- In accordance with Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Section 261 (40 CFR 261) and California Department of Toxic Substance Control (DTSC) Title 22, California Code of Regulations, Division 4.5, Chapter 11 requirements, all lead containing wastes should be sampled and analyzed for total and leachable lead concentrations and disposed of accordingly based on the waste characterization analytical results.
- Any paints/coatings that have not been identified in this report should be considered presumed LBP and handled as LBP unless sampled and proven to be non-LBP by a CDPH Certified Lead Inspector/Assessor.
- All lead activities must be performed in accordance with all applicable federal, state and local regulations, including but not limited to those summarized in this report.

UNIVERSAL HAZARDOUS WASTES

TES performed a limited pre-renovation walk-through visual survey for universal waste materials / devices, including mercury containing thermostats, fluorescent light bulbs, and lighting ballasts with the potential to contain PCBs. Our investigation was limited to visual identification and did not include destructive testing or laboratory analysis.

The result of the visual walk-through survey indicated that universal waste materials are present at the Subject Property as summarized in Table 10-1 in this report.



2.0 INTRODUCTION

Titan Environmental Solutions, Inc. (TES) conducted a hazardous materials survey of the Grossmont High School's Cafeteria Building, Press Box and Weight Room/Museum, located at 1100 Murray Drive, El Cajon, California 92020 (herein referred to as the Subject Property).

The hazardous materials survey was conducted on July 20th, 2021. The survey included material sample collection and inventory of suspect asbestos-containing building materials (ACM) and/or asbestos containing construction materials (ACCM) and measurement of suspect lead-based paint and/or lead containing materials (LBP/LCMs), as well as inventory of universal hazardous wastes at the Subject Property. Universal waste materials / devices were assessed and inventoried but were not sampled.

The survey was performed by the following qualified staff:

- Mr. Marc Murrietta, California Division of Occupational Safety and Health (DOSH/Cal-OSHA) Certified Site Surveillance Technician (CSST No. 10-4694) and California Department of Public Health (CDPH) Certified Lead Project Monitor and Inspector/Assessor (CDPH No. LRC-00006096 and LRC-00006097); and
- Ms. Eugenie Laurent, DOSH/Cal-OSHA Certified Site Surveillance Technician (CSST No. 10-6776) and CDPH Certified Lead Inspector/Assessor (CDPH No. LRC-00006032).

This sampling, including preparation of this report, was conducted under the direction of Mr. Robert Menald, DOSH/Cal-OSHA Certified Asbestos Consultant (CAC No. 08-4323) and CDPH Certified Lead Inspector/Assessor and Project Monitor (CDPH No. LRC-00005259 and LRC-00005260), and Mr. Ibrahim M. Sobeih, DOSH/Cal-OSHA Certified Asbestos Consultant (CAC No. 06-4078) and TES Certified Industrial Hygienist in the Comprehensive Practice by the American Board of Industrial Hygiene (ABIH Certificate No. 5628CP).

3.0 BUILDING / LOCATION DESCRIPTION

The Subject Property is located at 1100 Murray Drive, El Cajon, California 92020. The Project Area consisted of the interior and exterior of the Cafeteria Building, Press Box and Weight Room/Museum's building materials and components of the building. The structures were built of wood framed construction on concrete slab on grade foundations for the Cafeteria Building and Weight Room/Museum and wood framed construction on raised foundation for the Press Box. The exterior wall and eave materials were finished with stucco materials on the Cafeteria Building and Weight Room/Museum and the exterior wall materials were finished with wood siding on the Press Box. The interior ceiling materials were finished with a combination of gypsum wallboard ceiling materials and 1'x1' pinhole ceiling tiles affixed to the ceiling substrate with mastic adhesive materials for the Cafeteria Building and Weight Room/Museum and the interior ceiling materials were finished with a combination of gypsum wallboard ceiling materials and joint compound materials for the Press Box. The interior wall finishes included plaster materials for the Cafeteria Building and the Weight Room/Museum. The interior walls were finished with gypsum wallboard wall materials within the Press Box. The floor finishes consisted of a mixture of vinyl resilient floor tiles, terrazzo



flooring and unfinished concrete in the Cafeteria Building and Weight Room; wood flooring in the Museum; and commercial grade carpet and adhesive materials in the Press Box.

4.0 SURVEY PURPOSE AND SCOPE

4.1 SURVEY PURPOSE

The purpose of the survey was to:

- Conduct a survey in the Project Area to identify friable and non-friable asbestos-containing materials (ACM) and/or asbestos-containing construction materials (ACCM) for the purpose of renovation and to document the material types, locations, asbestos content, friability and approximate total quantities of surveyed materials;
- Conduct a survey to determine if surfaces/materials scheduled for disturbance are painted/coated with LBP/LCM; and
- Conduct a survey to identify universal waste (UW) materials and polychlorinated biphenyls (PCBs) containing devices within the Project Area: suspect PCB-containing materials and equipment, suspect mercury containing equipment, suspect Freon/Chlorofluorocarbon (CFC) containing equipment, suspect Tritium containing devices which have low-levels of radioactivity such as exit signs and electronic components.

The survey did not include destructive investigation methods to identify or sample concealed materials (i.e. within wall cavities, pipe chases, encased in concrete, etc.), nor did it include dismantling to identify or sample inaccessible materials (i.e. gaskets, packings, etc.).

4.2 SURVEY SCOPE

The survey scope of work was limited to the areas and building materials identified by the Client that are scheduled for disturbance (herein referred to as the survey area). The survey area included the interior and exterior of the buildings at the Subject Property. The survey scope of work included the following:

- Collect bulk samples of suspect ACMs for demolition/renovation surveys in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP) protocol for sample collection for demolition/renovation surveys and submit to an accredited laboratory for analysis. Analyze asbestos bulk samples using polarized light microscopy (PLM) visual estimation in accordance with EPA's July 1993 method (EPA 600/R-93/116) for the determination of asbestos in bulk building materials.
- Conduct a limited survey for LBPs/LCMs using an X-ray Fluorescence (XRF) paint analyzer to screen materials suspected of being coated with LBPs and/or LCMs.
- Perform a visual assessment to identify items that are suspected of containing PCBs, such as light ballasts; universal waste, such as fluorescent light tubes, non-incandescent lamps and batteries;



mechanical devices that contain coolant gases, such as water fountains and HVAC systems; and devices that could contain low-levels of radioactive materials, such as exit signs.

- Submit written report including analytical results, regulatory requirements, conclusions and recommendations.

The survey did not include destructive investigation methods to identify or sample concealed materials (i.e. within wall cavities, pipe chases, encased in concrete, etc.) nor did it include dismantling equipment to identify or sample inaccessible materials (i.e. gaskets, packings, etc.).

5.0 ASBESTOS SAMPLING METHODOLOGY AND REGULATIONS

5.1 ASBESTOS SURVEY AND ANALYTICAL LABORATORY

The asbestos survey was conducted in accordance with NESHAP pre-demolition standards. The asbestos survey consisted of two (2) primary field activities [(1) visual inspection of the survey area and (2) representative bulk sampling of suspect asbestos containing materials], laboratory sample analysis, and preparation of a survey report.

TES typically conducts surveys in teams of two (2), one (1) person documenting the proceedings of the survey, the other performing bulk sampling and other miscellaneous activities. Small surveys are often surveyed by one (1) individual. The team performs a preliminary visual inspection of the survey area to identify and quantify suspect ACM/ACCM. A sampling strategy is then developed to provide representative sampling.

Asbestos Inspection

The visual inspection included the following activities: (1) identifying homogenous areas of suspect ACM, (2) determining friability and classification [surfacing = material that is spray or trowel applied, thermal system insulation (TSI) = material used to prevent heat gain/loss or condensation, or miscellaneous = material that is not surfacing or TSI] of each homogenous area of suspect ACM, (3) assessing the condition of each homogenous area of suspect ACM, and (4) quantifying each homogenous area of suspect ACM.

Visual inspection and physical handling are performed for all suspect materials to ensure proper friability classification, condition and potential damage - materials are assessed for any damage by impact, water, aging, deterioration, or delaminating from their substrata.

Once assessments are made, the material is assigned a hazard rating based on material condition and potential for damage. These conditions are defined in AHERA as follows:

- **Good Condition:** Material with no visible damage, deterioration, or showing only very limited damage or deterioration.
- **Damaged:** The surface is crumbling, blistered, water stained, gouged, marred or otherwise abraded over less than one-tenth of the surface if the damage is evenly distributed; or less than one quarter if the damage is localized. Accumulation of powder, dust, or debris similar in



appearance to the suspect material on surfaces beneath the material can be used as confirmatory evidence.

- **Significantly Damaged:** The surface is crumbling or blistered over at least one-tenth of the surface if the damage is evenly distributed or at least one quarter if the damage is localized; and water stains, gouges or mars over at least one-tenth of the surface if the damage is evenly distributed or at least one quarter if the damage is localized. Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the material can be used as confirmatory evidence.

Asbestos Sampling

The bulk sampling included the following activities: (1) developing a representative sampling plan for each homogenous area of suspect ACM based on the classification and estimated quantity, and (2) collecting representative bulk samples of each homogenous area of suspect ACM in the survey area at the Subject Property as identified by the Client. Efforts are made to obtain the samples from inconspicuous areas. Each sample is placed in a plastic or metal container. The container is sealed, labeled and placed in a larger storage bag.

Throughout the process, care is taken to prevent cross-contamination of the collected samples. Sampling equipment is cleaned after each sample is obtained. In addition, sample containers are placed directly beneath each sample location, when feasible, to collect any materials which may become dislodged during the sampling process. Any debris generated by the sampling is cleaned by wet-cleaning methods.

Samples are documented by entering the sample data on a bulk log, including a description of the material, sample number, location, condition, accessibility, friability, potential for damage, and estimated quantity. Typically, the sample location is marked on an 8-1/2 x 11-inch floor plan (not to scale).

Asbestos Sample Analysis

Upon completion of the bulk sampling activities, the samples were submitted to an accredited laboratory by the National Institute for Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP), under proper Chain-of-Custody (COC) documentation. Bulk sample analyses was conducted by Polarized Light Microscopy (PLM) with dispersion staining as described in the "Method for the Determination of Asbestos in Bulk Building Materials," Method EPA-600/R-93/116 (July 1993, Part 1). A sample is immersed in a solution of known refractive index and subjected to illumination by polarized light.

TES collected one-hundred thirty-three (133) bulk samples of suspect ACM/ACCMs representing thirty-seven (37) homogenous areas from the survey area of the Subject Property, which were analyzed for asbestos content via Polarized Light Microscopy (PLM) visual estimation by Eurofins EMLab P&K, located in Marlton, New Jersey. Eurofins EMLab P&K is accredited by the National Institute for Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 200844-0).



5.2 ASBESTOS REGULATORY DEFINITIONS AND STANDARDS

Asbestos Regulatory Definitions

The Environmental Protection Agency (EPA) defines asbestos-containing material (ACM) as follows:

- **ACM** is defined by EPA as any material containing more than one percent (>1%) asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). In order to verify a material with detected concentrations of asbestos is not an ACM, the EPA requires PLM point count analysis to confirm the asbestos concentration is <1.0%.
- **Friable ACM** as defined by the EPA, means material containing more than one percent (>1%) as determined by PLM that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.
- **Non-friable ACM** as defined by the EPA, means material containing more than one percent (>1%) as determined by PLM that when dry, may NOT be crumbled, pulverized, or reduced to powder by hand pressure. NESHAP further defines two (2) categories of non-friable ACM:
 - **Category I (Cat I) - Category I Non-friable ACM** is any asbestos-containing packing, gasket, resilient floor covering, mastic or asphalt roofing product which contains more than one percent (>1%) asbestos as determined using PLM according to the method specified in Appendix E, Subpart E, 40 CFR Part 763.
 - **Category II (Cat II) - Category II Non-friable ACM** is any material, excluding Category I non-friable ACM, containing more than one percent (>1%) asbestos as determined using PLM according to the methods specified in Appendix E, Subpart E, 40 CFR Part 763 that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
 - **Regulated Asbestos-Containing Material (RACM)** is defined by NESHAP as Friable ACM, Category I Non-friable ACM that has become friable, Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or Category II Non-friable ACM that has a high probability of becoming or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Federal Occupational Safety and Health Administration (OSHA) and the California Division of Occupational Safety and Health (DOSH/Cal-OSHA) Classes of Asbestos Work as codified in 29 CFR 1926.1101 and 8 CCR 1529, respectively:

- **Class I** Asbestos work means activities involving the removal of TSI and surfacing ACM and PACM.
- **Class II** Asbestos work means activities involving the removal of ACM which is no thermal system insulation or surfacing 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 / adhesives.



- **Class III** Asbestos work means repair and maintenance operations, where “ACM”, including TSI and surfacing ACM and PACM, is likely to be disturbed.
- **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.

The Federal Occupational Safety and Health Administration (OSHA) and the California Division of Occupational Safety and Health (DOSH/Cal-OSHA) use the following definitions for materials containing asbestos:

- **ACM** is defined by OSHA and DOSH/Cal-OSHA as any material containing more than one percent (>1%) asbestos.
- **Asbestos-containing construction material (ACCM)** is defined by DOSH/Cal-OSHA as any manufactured construction material containing greater than one tenth of one percent (>0.1%) asbestos.
- **Material Containing Asbestos** OSHA and DOSH/Cal-OSHA regulate materials containing any detectable concentrations of asbestos.

Asbestos Regulatory Standards Summary

NESHAP, OSHA, DOSH/Cal-OSHA, the California Department of Toxic Substance Control (DTSC) and local air quality/pollution control districts regulate the removal, disturbance and disposal of asbestos in California. The following is a brief list of these, not all, applicable regulatory standards:

- **Cat I and II/Class I and II Non-Friable ACM (>1% asbestos):**
 - NESHAP and local air quality/pollution control districts require the abatement/removal of ACM, both friable and non-friable in California, prior to renovation or demolition activities which would disturb them. The abatement/removal must be performed in accordance with the local air quality/pollution control district regulatory standard, including containment and notification as applicable.
 - DOSH/Cal-OSHA requires abatement/removal of ACM to be performed by a California licensed and DOSH/Cal-OSHA registered asbestos abatement contractor using work practices in accordance with the standards prescribed in 8 CCR Section 1529.
 - Federal OSHA requires abatement/removal of ACM to be performed in accordance with the standards prescribed in 29 CFR Section 1926.1101.
 - DTSC requires disposal of non-friable ACM that remains substantially intact as a Non-Friable/Non-Hazardous Asbestos Waste in California.
- **Friable ACM/RACM (friable, >1% asbestos):**
 - NESHAP and local air quality/pollution control districts require the abatement/removal of ACM, both friable and non-friable in California, prior to renovation or demolition activities which would disturb them. The abatement/removal must be performed in accordance with the local air quality/pollution control district regulatory standard, including containment and notification as applicable.



- DOSH/Cal-OSHA requires abatement/removal of ACM to be performed by a California licensed and DOSH/Cal-OSHA registered asbestos abatement contractor using work practices in accordance with the standards prescribed in 8 CCR Section 1529.
- Federal OSHA requires abatement/removal of ACM to be performed in accordance with the standards prescribed in 29 CFR Section 1926.1101.
- DTSC requires disposal of friable ACM as a Friable/Hazardous Asbestos Waste in California.
- **ACCM (>0.1% asbestos):**
 - DOSH/Cal-OSHA requires disturbance/removal of ACCM to be performed using properly trained workers and special work practices in accordance with the standards prescribed in 8 CCR Section 1529.
 - DOSH/Cal-OSHA requires a "report of use" for disturbance/removal of ACCM (8 CCR Section 5203) and further requires a DOSH/Cal-OSHA registered contractor for disturbance/removal of 100 square feet or more of ACCM (California Labor Code 6500-6510).
- **Material containing asbestos (<0.1% asbestos):**
 - OSHA and DOSH/Cal-OSHA requires disturbance/removal of materials containing asbestos to be performed using properly trained workers and special work practices in accordance with the standards prescribed in 29 CFR Section 1926.1101 and 8 CCR Section 1529.

6.0 LEAD SAMPLING METHODOLOGY AND REGULATIONS

6.1 LEAD SURVEY AND ANALYTICAL LABORATORY

The lead-containing materials survey was conducted in accordance with applicable standards including, but not necessarily limited to the following: HUD Guidelines and EPA requirements under TSCA Section 403 (24 CFR Part 35 and 40 CFR Part 745 respectively). The lead-containing materials survey was limited to materials/areas scheduled for disturbance within the survey area, as identified by the Client.

The lead-containing materials survey consisted of two (2) primary field activities [(1) visual inspection of the survey area and (2) representative testing/sampling of suspect LBP/LCM], as well as preparation of a survey report. TES typically conducts larger surveys in teams of two (2), one (1) person documenting the proceedings of the survey, the other performing the testing/sampling and other miscellaneous activities. Small surveys are often surveyed by one (1) individual.

Lead Paint Inspection

The lead paint inspection included the following activities: (1) identifying homogenous testing combinations (similar room equivalent, component and substrate) of suspect LBP/LCM and (2) assessing the condition of each homogenous area of suspect LBP/LCM.

Once assessments are made, the paint is assigned a condition. These conditions are defined as follows:

- **Intact:** Paint with no visible deterioration or damage.



- **Deteriorated:** Paint that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component.

Lead Paint Testing/Sampling

The lead paint testing/sampling included the following activities: (1) developing a representative testing/sampling plan for each homogenous area of suspect LBP/LCM and (2) conducting representative X-Ray fluorescence (XRF) testing of each homogenous area of suspect LBP/LCM.

In every "room equivalent" within the survey area, one (1) representative surface of each "testing combination" was tested. Commonly encountered interior components tested, if painted or varnished, include but are not necessarily limited to the following: walls, baseboards, doors, door trim, door jambs, windows trim, window sashes, and window sills. Commonly encountered exterior components tested, if painted or varnished, include but are not necessarily limited to the following: walls, fascia, trim, doors, door trim, door jambs, window assemblies and window wells.

XRF testing are documented by entering the test/sample data on a sample log, including a description of the material, sample number, location, condition, and estimated quantity. Typically, sample locations are marked on an 8-1/2 x 11-inch floor plan (not to scale).

XRF Analysis

A hand-held RMD LPA-1 XRF unit was used to determine the presence of lead in painted surface(s). An appropriate number of XRF reading(s) were collected from the survey area. Multiple reading(s) were recorded to resolve inconsistencies in the XRF reading(s). XRF reading(s) were recorded and data-logged using the "Quick Mode" option. No time setting is required with this option since the LPA-1 automatically adjusts its reading(s) time to the different paint substrates for precision. The duration of each test result was determined by the substrate density in combination with the age of the radioactive sources of the LPA-1 and the actual reading relative to the "LBP" level or "threshold" chosen. The testing combination includes a unique combination of room equivalent, building component and substrate.

XRF Instrument Specifications

Instrument Manufacturer:	Radiation Monitoring Devices, Inc. (RMD)
Model:	LPA-1
Serial Number:	3614
Modes of Operation:	Quick Mode for Inspection, Time Corrected Mode for Calibrations
Radioactive Source:	⁵⁷ Cobalt
Age of Radioactive Source:	Assayed August 23, 2019
Calibration Standard:	NIST Standard Reference Material of Red Paint Film with 1.02 mg/cm ² content

The RMD LPA-1 Spectrum Analyzer uses a ⁵⁷Co radioactive source and an advanced, solid-state, room temperature, radiation detector to generate and detect the x-ray fluorescence spectrum of a painted surface. The spectrum is then analyzed by a microprocessor to eliminate the effects of substrate and other factors such as scattering to allow an accurate determination of the amount of lead on a surface. Since the RMD LPA-1 is a Spectrum Analyzer, it can reject the signal from X-rays of unwanted energy.



Although lead atoms emit X-rays at a unique energy, some gamma-rays emitted from the ^{57}Co "scatter" or bounce off the painted surface and into the LPA-1 XRF detector, and some of these rays have an energy very close to that of lead K-X-rays. The intensity of scattered gamma-rays depends on the nature of the substrate under the paint. In order to compensate for this scatter, the LPA-1 XRF detector measures the intensities of X-rays and gamma-rays at many energies and computes a correction for substrate. Accordingly, the analysis of the energy spectrum allows for a definitive reading, 95% confidence level, which is displayed on the instrument which accounts for substrate effects. The XRF reading(s) are expressed in milligrams lead per square centimeter of surface area (mg/cm^2).

Based on the Performance Characteristic Sheet (PCS), no inconclusive reading(s) in the "Quick Mode" were encountered for paint on tested substrates. Inconclusive reading(s), however, may be encountered for paint on metal substrates.

XRF Instrument Calibration Checks

The calibration of the RMD LPA-1 is performed in accordance with of the HUD/EPA developed PCS Edition 5 for this instrument. Field calibration checks were performed prior, during and after each lead inspection to ensure the device functioning optimally within acceptable limits determined by the manufacturer. The Standard Reference Material (SRM) red paint film of $1.02 \text{ mg}/\text{cm}^2$, developed by the National Institute of Standards and Technology (NIST), is the calibration standard. The LPA-1 instrument is calibrated the NIST standard with a minimum of three (3) calibration reading(s) in the "30-Second Equivalent Standard" mode performed before and after each inspection to ensure manufacturer's standards are met as indicated below. For inspection extending more than four (4) hours additional calibration check reading(s) are made every four (4) hours. Each set of calibration checks is averaged and compared to the PCS calibration check "30-Second Equivalent Standard" limit for the LPA-1 in the PCS. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration SRM supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

XRF Lead Sampling

TES performed X-Ray Fluorescence (XRF) Analyzer testing of two-hundred thirty-five (235) surfaces painted/coated with suspect lead-based paints and/or lead-containing materials (LBPs/LCMs) in the survey area of the Subject Property preceded and followed by instrument calibration.

6.2 LEAD REGULATORY DEFINITIONS AND STANDARDS

Lead Regulatory Definitions

The following is a list of some of regulatory definitions associated with lead paint:

- **Lead Based Paints/Coatings (LBP)** is defined by the United States Department of Housing and Urban Development (HUD) and the California Department of Public Health (CDPH) as paints/coatings that contain an amount of lead equal to, or in excess of $1.0 \text{ mg}/\text{cm}^2$, 5,000 parts per million (ppm) or 0.5% by weight.



- **Lead Abatement** is defined by HUD and CDPH as any set of measures designed to reduce or eliminate lead hazards or lead-based paint permanently or for a minimum of 20 years for public and residential buildings but does not include containment or cleaning.
- **Lead Related Construction Work** is defined by CDPH as any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential or public building, including preparation and cleanup that, by using or disturbing lead-containing material or soil, may result in significant exposures of adults or children to lead.
- **Lead Hazardous Waste:** Lead waste streams are characterized by analyzing total lead content and soluble lead content and comparing it to California Title 22 Total Threshold Limit Concentrations of 1000 ppm and Solubility Threshold Limit Concentration of 5 mg/L, respectively. If any of these two (2) limits are equaled or exceeded, then the lead waste stream is classified as California Hazardous Waste and must be packaged and disposed in Class I or Class II landfills. Furthermore, the lead waste stream is tested for soluble lead in accordance with USPA Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic Leachate Procedure (TCLP) of 5 mg/L. If the TCLP is equaled or exceeded, the lead waste stream is classified as RCRA Waste.

Lead Regulatory Standards Summary

At present there is no state or federal regulation requiring mandatory lead removal or abatement prior to disturbance of building materials with identified lead paint or coatings. However, there are applicable Cal/OSHA worker protection and training requirements, Cal/EPA waste disposal requirements, CDPH requirements for public and residential buildings, and SB 460 lead hazard regulations that apply to lead-related construction activities, abatement activities and the associated lead wastes. The following is a brief discussion and summary of applicable regulatory requirements:

♦ **Cal/OSHA:** Title 8, California Code of Regulation (CCR), Section 1532.1 (8 CCR 1532.1) governs occupational exposure to lead. This regulation requires that prior to initiation of certain activities, referred to as “trigger tasks”, workers must be trained, medically evaluated, and properly fitted with respiratory protection, and protective clothing until statistically reliable personal eight-hour time weighted average (TWA) results indicate lead exposure levels below the Personal Exposure Limit (PEL) for each unique task which disturbs lead-based and lead-containing coatings. This process is known as a Negative Exposure Assessment or NEA.

If the result of the exposure assessment is above the Action Level (AL) additional monitoring is required and if the result is above the PEL additional exposure monitoring, worker protection (including respirator protection and PPE), training and medical requirements apply. However even where the NEA criteria is met, certain hazard communication training and work practice controls still apply where lead is disturbed. “Trigger tasks” are tasks that are assumed to exceed the PEL pending an exposure assessment and they encompass the majority of construction activities that disturb surface coatings.

Examples of “trigger” tasks range from manual paint scraping as a lower expected exposure up to hot work and abrasive blasting as the highest expected exposures, and include any non-listed task that the employer determines may potentially expose employees to lead levels above the AL.



“OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminants. Without air monitoring results or without the benefit of historical or objective data (including air sampling which clearly demonstrates that the employee cannot be exposed above the action level during any process, operation, or activity) the analysis of bulk or surface samples cannot be used to determine employee exposure.”- OSHA Standard Interpretation May 8, 2000.

OSHA states that these rules apply to “any detectable concentration of lead” without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 90 parts per million (ppm) or 0.009 wt% of lead, the variation of lead content due to aging and weathering, and the variation of detection limits associated with analysis of bulk materials, such as paint chips and surface content analysis via XRF, it is recommended that all painted or coated surfaces be treated as potentially containing lead.

Positive analytical results by either method can be used to indicate that detectable lead is present but negative results cannot be interpreted as conclusively demonstrating the absence of lead. Analytical data from analysis of bulk materials or surface content of lead can be helpful in evaluation of lead-related environmental risks in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring.

As a result of the above, any employee that works around potential lead-based or lead-containing coatings must have HAZCOM training and personal exposure air monitoring is additionally required for employees that disturb such coatings. Additional certification, notification, and work practices are required for materials found to be lead-based paint.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537 and/or 1536. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application with adequate exhaust ventilation.

♦ **Federal EPA Renovation, Repair and Painting Rule 40 CFR 745:** Effective April 22, 2010 this Rule covers all non-abatement renovation, repair or painting work in pre-1978 child occupied facilities and housing. Work which disturbs more than 6 square feet per room, or 20 square feet per exterior, of paint or other surface coatings that contain lead in concentrations equal to or in excess of 1.0 mg/cm² or 0.5% by weight are covered by this Rule. Paint or surface coatings, in pre-1978 child occupied facilities and housing, that have not been tested, or were tested using non-approved methods are also covered under this rule. Renovation, remodeling, painting, window replacement, plumbing, electrical work, heating and air-conditioning, demolition, plus work performed by trades like carpenters, electricians and handymen are all covered under this rule. The rule applies to persons working for rental property owners, schools, day care providers, non-profits and governmental agencies. These regulations require notifications to owners and tenants, special training, certifications (for both companies & individuals), work practices, and clearance verification for such activities.



♦ **Cal/EPA:** The Department of Toxic Substance Control (DTSC) regulates disposal of lead hazardous waste (22 CCR Division 4.5, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes). DTSC has issued guidance indicating that architectural debris with intact lead paint is normally expected to be handled as general construction waste. However, waste stream segregation and analysis is still required for all lead painted or coated debris regardless of if the paint or coating is intact on a building component or not. The resulting wastes may be hazardous under California and federal RCRA standards for lead and therefore require proper handling, packaging, labeling, and transportation under a proper manifest to a permitted hazardous waste storage, treatment and disposal facility.

♦ **CDPH:** The Department of Public Health (CDPH) has specific requirements (Title 17 Sections 35001 thru 36100 et. al.) for hazard assessment and work in public and residential structures in regard to lead-based paint. These regulations require special certifications, work practices, and notification for such activities. CDPH regulations rely on the HUD Guidelines 2012 Edition as the methods utilized in the inspection, risk assessment and abatement of LBP.

♦ **Senate Bill 460 (SB 460):** An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement. This bill allows for fines and criminal penalties to be levied by local code enforcement agencies on any person who is found to have performed lead abatement without containment or created a measurable "lead hazard" based upon current CDPH standards. A "lead hazard" means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure.

TES recommends that all parties who come into contact with paint or soil that have detectable lead concentrations follow all applicable federal, state and local regulations relating to employee health and safety and proper disposal of generated wastes.

7.0 UNIVERSAL WASTES REGULATORY STANDARDS

All potential and identified Universal Waste (UW) materials impacted by the work should be removed, recycled and/or disposed of in accordance with the UW guidelines established by DTSC, as stated in title 22, division 4.5, chapter 23, California Code of Regulations (CCR), Sections 66261.9 and 66273.1 thru 66273.90.

TES's visual survey indicated that light fixtures are present. However, due to the nature of the random spot checks, TES recommends that all ballasts be visually inspected, prior to disposal, to determine if they contain PCBs. Ballasts manufactured prior to 1979 are assumed to contain PCBs unless clearly marked as containing NO PCBs. Those ballasts marked No PCBs or PCB Free can be considered as such and should be treated as UW.

All PCB-containing devices including, but not limited to ballasts, should be removed or have the oils removed and properly handled, collected, stored, transported and recycled or disposed of by an approved recycling or disposal facility in accordance with the requirements of Title 22 CCR 67426.1.



Devices containing ozone depleting chemicals, low-level radiation, and other hazardous chemicals should be collected, waste characterized, disposed or recycled according to all applicable rules and regulations.

Notification to employees and contractors working within the buildings should be made in accordance with the California Health and Safety Code, Section 25915 et. seq. and Proposition 65 as appropriate to the material in question.

Please note that the above is not a comprehensive list of regulatory standards/requirements associated with UW disturbance/abatement/removal. There may be additional applicable federal, state and local regulations.

8.0 SUSPECT ACM/ACCM SAMPLING ANALYTICAL RESULTS

8.1 ASBESTOS ANALYTICAL RESULTS SUMMARY

The following Table 8-1 provides a summary of suspect ACM/ACCM samples analytical results.

Table 8-1: Asbestos Sampling PLM Analytical Results									
Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-01-01 0720-01-02 0720-01-03	SW End of S Booth Ceiling N End E Wall of Center Booth Center N Wall of N Booth	White Drywall and Joint Compound / Texture	Misc.	NF	G	Throughout Press Box	950 SF	ND	Non-ACM
0720-02-04 0720-02-05 0720-02-06 0720-02-07 0720-02-08 0720-02-09 0720-02-10	Center N Wall of N Storage Center S Wall of Boiler Room S End W Wall of Large Classroom W End S Wall of E Corridor Center W Wall of Cook Area S End W Wall of Large Office W End N Wall of Men's Restroom	Gray Skim Coat / Plaster / Button Board	Surf.	F	G	Throughout Cafeteria Building	29500 SF	ND	Non-ACM
0720-03-11 0720-03-12 0720-03-13 0720-03-14 0720-03-15 0720-03-16 0720-03-17	SE End of Large Office Ceiling S End of Serve / Prep E End of Prep #2 N End of N Corridor E End of Small Office N End of Large Classroom S End of Large Classroom	White Drywall without Joint Compound	Misc.	NF	G	Throughout Cafeteria Building	6500 SF	ND	Non-ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-04-18 0720-04-19 0720-04-20	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Drywall and Joint Compound (Patch)	Misc.	NF	G	Within Cafeteria Building - Boiler Room	50 SF	2% Chrysotile (Joint Compound) <1% Chrysotile (Drywall and Joint Compound Composite) ND (Drywall)	Cat I ACM
0720-05-21 0720-05-22 0720-05-23	N End of Large Classroom E End of Large Classroom S End of Large Classroom	White 3'x1.5' Drywall Ceiling Tile	Misc.	F	D	Within Cafeteria Building - Large Classroom	3500 SF	ND	Non-ACM
0720-06-24 0720-06-25 0720-06-26	SE End of Large Office Ceiling E End of Prep #2 N End of Large Classroom	White 12"x12" Pinhole Ceiling Tile	Misc.	F	G	Throughout Cafeteria Building	6500 SF	ND	Non-ACM
0720-07-27 0720-07-28 0720-07-29	SE End of Large Office Ceiling E End of Prep #2 N End of Large Classroom	Brown Ceiling Tile Mastic	Misc.	NF	G	Throughout Cafeteria Building	6500 SF	ND	Non-ACM
0720-08-30 0720-08-31 0720-08-32	W End N Wall of Large Office E End N Wall of Serve / Prep E End S Wall of Serve / Prep	Tan Cove Base Mastic	Misc.	NF	G	Within Cafeteria Building - Serve / Prep and Large Office	200 SF	ND	Non-ACM
0720-09-33 0720-09-34 0720-09-35	SE End of Large Office SE End of Serve / Prep NE End of Serve / Prep	Tan / Blue 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Cafeteria Building - Serve / Prep and Large Office	1100 SF	ND	Non-ACM
0720-10-36 0720-10-37 0720-10-38	SE End of Large Office SE End of Serve / Prep NE End of Serve / Prep	Light Brown Floor Tile Mastic (Middle Layer)	Misc.	NF	G	Within Cafeteria Building - Serve / Prep and Large Office	1100 SF	ND	Non-ACM
0720-11-39 0720-11-40 0720-11-41	SE End of Large Office NE End of Large Office NW End of Large Office	Tan Floor Tile	Misc.	NF	G	Within Cafeteria Building - Large Office	400 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-12-42 0720-12-43 0720-12-44	SE End of Large Classroom Center of Large Classroom E End of Corridor	Brown 9"x9" Floor Tile	Misc.	NF	G	Within Cafeteria Building - Corridor and Large Classroom	4800 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-13-45 0720-13-46 0720-13-47	SE End of Large Classroom Center of Large Classroom E End of Corridor	Black Floor Tile Mastic (Bottom Layer)	Misc.	NF	G	Within Cafeteria Building - Corridor, Large Classroom and Large Office	5500 SF	ND	Non-ACM
0720-14-48 0720-14-49 0720-14-50	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Boiler Tank Insulation	TSI	F	G	Within Cafeteria Building - Boiler Room	350 SF	15% Amosite 6% Chrysotile	RACM
0720-15-51 0720-15-52 0720-15-53	N End of Attic N End of Attic N End of Attic	White TSI Packed Elbow	TSI	F	G	Within Cafeteria Building - Attic	50 SF	15% Amosite 6% Chrysotile	RACM
0720-16-54 0720-16-55 0720-16-56	SW End of Mezzanine Above Cook Storage NW End of Mezzanine Above Cook Storage E End of Mezzanine Above Cook Storage	White / Brown Packed Pipe Runs	TSI	F	G	Within Cafeteria Building - Attic	700 SF	50% Chrysotile	RACM
0720-17-57 0720-17-58 0720-17-59 0720-17-60 0720-17-61 0720-17-62 0720-17-63	NW End of Cafeteria Building NE End of Cafeteria Building E End of Cafeteria Building SE End of Cafeteria Building SE End of Cafeteria Building - Men's Restroom S End of Cafeteria Building SW End of Cafeteria Building	Gray Exterior Stucco - Walls	Surf.	F	G	Exterior Cafeteria Building	9500 SF	ND	Non-ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-18-64 0720-18-65 0720-18-66 0720-18-67 0720-18-68	NW End of Cafeteria Building - Overhang NW End of Cafeteria Building - Overhang NE End of Cafeteria Building - Overhang SE End of Cafeteria Building - Overhang S End of Cafeteria Building - Overhang	Gray Exterior Stucco - Overhang	Surf.	F	G	Exterior Cafeteria Building	2500 SF	ND	Non-ACM
0720-19-69 0720-19-70 0720-19-71	W End of Cafeteria Building E End of Cafeteria Building S End of Cafeteria Building	White Window Putty	Misc.	F	G	Exterior Cafeteria Building	200 SF	ND	Non-ACM
0720-20-72 0720-20-73 0720-20-74 0720-20-75 0720-20-76 0720-20-77 0720-20-78	Center W Wall of Film Room E End S Wall of Equipment Room Center N Wall of Weight Room S End E Wall of Weight Room N End W Wall of Storage S End W Wall of Weight Room - Restroom E End N Wall of Museum	Gray Skim Coat / Plaster / Button Board	Surf.	F	G	Throughout Weight Room and Museum Building	36000 SF	ND	Non-ACM
0720-21-79 0720-21-80 0720-21-81	SW End of Museum SE End of Museum N End of Museum	White Drywall without Joint Compound	Misc.	NF	G	Throughout Weight Room and Museum Building - Museum	2750 SF	ND	Non-ACM
0720-22-82 0720-22-83 0720-22-84	SW End of Museum E End of Corridor SW End of Storage	White 12"x12" Pinhole Ceiling Tile	Misc.	F	G	Within Weight Room and Museum Building - Museum, Main Corridor, Storage and Office	3500 SF	ND	Non-ACM
0720-23-85 0720-23-86 0720-23-87	SW End of Museum E End of Corridor SW End of Storage	Brown Ceiling Tile Mastic	Misc.	NF	G	Within Weight Room and Museum Building - Museum, Main Corridor, Storage and Office	3500 SF	ND	Non-ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-24-88 0720-24-89 0720-24-90	S End of Film Room - Plenum S End of Film Room - Plenum S End of Equipment Room	Gray Corrugated Ducting	TSI	F	G	Within Weight Room and Museum Building - Film Room, Equipment Room and Plenum	400 SF	65% Chrysotile	RACM
0720-25-91 0720-25-92 0720-25-93	S End of Film Room W End of Film Room W End of N Entrance	White 2'x4' Ceiling Tile	Misc.	F	G	Within Weight Room and Museum Building - Film Room and N Entrance	400 SF	ND	Non-ACM
0720-26-94 0720-26-95 0720-26-96	W End of Mechanical Room W End of Mechanical Room W End of Mechanical Room	White Boiler Tank Insulation	TSI	F	G	Within Weight Room and Museum Building - Mechanical Room	400 SF	14% Amosite 8% Chrysotile	RACM
0720-27-97 0720-27-98 0720-27-99 0720-27-100 0720-27-101 0720-27-102 0720-27-103	SW End of Weight Room and Museum Building S End of Weight Room and Museum Building SE End of Weight Room and Museum Building E End of Weight Room and Museum Building NE End of Weight Room and Museum Building NW End of Weight Room and Museum Building W End of Weight Room and Museum Building	Gray Exterior Stucco - Walls	Surf.	F	G	Exterior of Weight Room and Museum Building	13000 SF	ND	Non-ACM
0720-28-104 0720-28-105 0720-28-106	SW End of Weight Room and Museum Building W End of Weight Room and Museum Building NW End of Weight Room and Museum Building	Gray Exterior Stucco - Overhang	Surf.	F	G	Exterior of Weight Room and Museum Building	1000 SF	ND	Non-ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-29-107 0720-29-108 0720-29-109	W End of Weight Room and Museum Building N End of Weight Room and Museum Building E End of Weight Room and Museum Building	Gray Window Putty	Misc.	F	G	Exterior of Weight Room and Museum Building	200 SF	3% Chrysotile (Window Glazing) ND (Putty / Caulking)	Cat I ACM
0720-30-110 0720-30-111 0720-30-112	W End of Main Corridor N End of Main Corridor E End of Main Corridor	Brown 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Main Corridor	600 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-31-113 0720-31-114 0720-31-115	SW End of Office N End of Office E End of Office	Gray 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Office	400 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-32-116 0720-32-117 0720-32-118	W End of Equipment Room S End of Equipment Room E End of Equipment Room	Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Equipment Room	300 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-33-119 0720-33-120 0720-33-121	W End of Storage Closet S End of Storage Closet E End of Storage Closet	Blue/ Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Storage Closet	100 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-34-122 0720-34-123 0720-34-124	N End of N Entrance W End of Film Room E End of Film Room	Brown 12"x12" Self Adhesive Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Film Room and N Entrance	400 SF	ND	Non-ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-35-125 0720-35-126 0720-35-127	N End of N Entrance W End of Film Room E End of Film Room	White 12"x12" Floor Tile (Bottom Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Film Room and N Entrance	400 SF	ND	Non-ACM
0720-36-128 0720-36-129 0720-36-130	S End of Equipment Room W End of Storage Closet E End of Corridor	Black Floor Tile Mastic (Bottom Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Main Corridor, Office, Equipment Room, Storage Closet, Film Room and N Entrance	2000 SF	ND	Non-ACM
0720-37-131 0720-37-132 0720-37-133	N End W Wall of N Entrance W End N Wall of Film Room E End S Wall of Film Room	Tan Cove Base Mastic	Misc.	NF	G	Within Weight Room and Museum Building - Film Room and N Entrance	125 SF	ND	Non-ACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Cafeteria	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Weight Room and Museum Building	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	Unidentified Flooring Below Museum Wood Floor	Misc.	NF	G	Weight Room and Museum Building	Approximately 2650 SF	Assumed ACM	Cat I ACM



Table 8-1: Asbestos Sampling PLM Analytical Results

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
N/A	N/A	Unidentified Mirror / Corkboard / Chalkboard	Misc.	NF	G	Weight Room and Museum Building	Approximately 225 SF	Assumed ACM	Cat I ACM

Legend:

N = North, E = East, W = West, S = South, SF = Square Feet, LF = Linear Feet, ND = None Detected

Classification (Class.): Misc. = Miscellaneous, Surf. = Surfacing, TSI = Thermal System Insulation

Condition: G = Good, D = Damaged, SD = Significantly Damaged

Categories (Cat.):

- Cal/OSHA: ACCM = Asbestos Containing Construction Materials, ACM = Asbestos Containing Materials,
- NESHAP: Cat I = Category I Non-friable ACM, Cat II = Category II Non-friable ACM, RACM = Regulated Asbestos Containing Material

*Locations and quantities are estimates based on accessible materials located in the survey area only. Additional locations and quantities may be present at the Subject Property.

**In accordance to 40 CFR Section 61.141 and US EPA Applicability Determination Index Control Number: C112, if the amount by visual estimation appears to be less than 10 percent, the owner or operator may (1) assume the amount to be greater than 1 percent and treat the materials asbestos-containing material, or (2) require verification of the amount by point counting. If a result obtained by point count is different from a result obtained by visual estimation, the point count result will be used.

Please note the Certified Asbestos Consultant will assume any material that is <1% analyzed via PLM and not verified by point count as an Asbestos Containing Material (ACM).

8.2 SUSPECT ACMs/ACCMs NOT SAMPLED

The suspect ACMs/ACCMs listed below may be present at the Subject Property and due to the non-destructive nature of this survey were not sampled in order to avoid (1) hazardous conditions, (2) impacting the integrity of the structure, (3) damaging building materials and finishes that cannot be easily repaired, (4) damaging equipment and/or mechanical systems, (5) voiding warranties, and/or (6) creating hazards including, but not limited to, an asbestos fiber release episode. If any of the following materials are identified at the Subject Property, these materials should be considered ACMs unless a DOSH/Cal-OSHA CAC determines they are not asbestos-containing.

- Cement asbestos/transite materials including, but not limited to:
 - Cement flues and pipes
 - Cement panels and siding
 - Cement roofing
 - Transite countertops and hoods
- Ceramic tile with underlayment and grout
- Electrical wire insulation
- Fire doors



- Gaskets, ropes, packings and brake shoes/pads associated with equipment (furnaces, ovens, elevator equipment, etc.)
- Inaccessible and/or concealed materials including, but not limited to:
 - Glues
 - Mastics, Chalkboard Mastic Adhesive, Blackboard Mastic, Whiteboard Mastic, Corkboard Mastic
 - Underlayment

8.3 NON-SUSPECT ACMs/ACCMs

The non-suspect ACMs/ACCMs listed below may be present at the Subject Property and were not sampled because they were determined to be non-suspect by a DOSH/Cal-OSHA CAC.

- Fiberglass: insulation, etc.;
- Glass: windows, doors, mirrors, etc.;
- Laminate/faux wood: flooring, wall covering, etc.;
- Metal materials/finishes: door and window framing, ducting, etc.;
- Terrazzo: flooring, wall covering, etc.; and
- Wood and laminate flooring materials/finishes: flooring, wall paneling, framing, etc.

9.0 SUSPECT LCM/LBP SAMPLING ANALYTICAL RESULTS

9.1 LEAD X-RAY FLUORESCENCE ANALYZER READINGS

The following Table 9-1 provides a summary of the lead paint XRF results.

Table 9-1: Lead-Paint XRF Results								
Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
1	Calibration						0.7	
2	Calibration						0.7	
3	Calibration						0.7	
Press Box								
4	Press Booth Exterior	N	Eave	I	Wood	Tan	-0.2	BDL
5	Press Booth Exterior	W	Wall	I	Wood	White	-0.4	BDL
6	Press Booth Exterior	W	Door	I	Wood	Off-White	-0.4	BDL
7	Press Booth Exterior	N	Door Jamb	I	Wood	White	-0.3	BDL
8	Press Booth Exterior	W	Handrail	I	Wood	Tan	-0.2	BDL
9	Press Booth Exterior	N	Floor	I	Wood	Tan	-0.3	BDL
10	N Booth	N	Ceiling	I	Drywall	White	-0.5	BDL
11	N Booth	N	Wall	I	Drywall	White	-0.5	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
12	N Booth	S	Baseboard	I	Wood	White	0.0	BDL
13	N Booth	W	Desk	I	Wood	White	-0.3	BDL
14	N Booth	W	Window Shutter	I	Wood	Off-White	-0.2	BDL
15	N Booth	S	Door	I	Metal	Brown	-0.4	BDL
16	N Booth	S	Door Frame	I	Metal	Brown	-0.8	BDL
17	Center Booth	N	Ceiling	I	Drywall	White	-0.2	BDL
18	Center Booth	S	Wall	I	Drywall	White	-0.3	BDL
19	Center Booth	N	Baseboard	I	Wood	White	-0.1	BDL
20	S Booth	N	Ceiling	I	Drywall	White	-0.3	BDL
21	S Booth	N	Wall	I	Drywall	White	-0.4	BDL
22	S Booth	N	Baseboard	I	Wood	White	-0.1	BDL
23	S Booth	W	Window Sill	D	Wood	White	-0.3	BDL
24	S Booth	W	Desk	I	Wood	Brown	-0.3	BDL
25	S Booth	N	Door	I	Metal	Brown	-0.2	BDL
26	S Booth	N	Door Casing	I	Wood	Brown	-0.4	BDL
27	Press Booth Exterior	W	Handrail	I	Metal	Gray	-0.3	BDL
28	Press Booth Exterior	N	Stairs	I	Metal	Gray	-0.4	BDL
Cafeteria								
29	Cafeteria Exterior	N	Wall	I	Stucco	White	-0.1	BDL
30	Cafeteria Exterior	N	Wall	I	Stucco	Tan	-0.2	BDL
31	Cafeteria Exterior	N	Fascia	I	Wood	Tan	-0.4	BDL
32	Cafeteria Exterior	N	Handrail	I	Metal	Gray	-0.7	BDL
33	Cafeteria Exterior	N	Stairs	D	Concrete	Gray	-0.5	BDL
34	Cafeteria Exterior	N	Stairs	D	Concrete	Yellow	0.7	LCM
35	Cafeteria Exterior	E	Window Casing	I	Wood	Tan	1.2	LBP
36	Cafeteria Exterior	W	Post	I	Metal	Gray	-0.7	BDL
37	Cafeteria Exterior	N	Overhang	I	Stucco	White	-0.3	BDL
38	Cafeteria Exterior	W	Door	I	Metal	Tan	-0.3	BDL
39	Cafeteria Exterior	W	Door	I	Metal	Gray	0.7	LCM
40	Cafeteria Exterior	S	Wall	I	Stucco	Tan	-0.1	BDL
41	Cafeteria Exterior	S	Wall	I	Stucco	White	0.0	BDL
42	Cafeteria Exterior	S	Fascia	I	Wood	Tan	-0.4	BDL
43	Cafeteria Exterior	S	Window Sill	I	Wood	Tan	0.2	LCM
44	Cafeteria Exterior	E	Door Frame	I	Wood	Gray	2.5	LBP
45	Cafeteria Exterior	W	Post	I	Metal	Gray	0.7	LCM
46	Cafeteria Exterior	N	Eave	I	Wood	White	-0.1	BDL
47	Cafeteria Exterior	E	Handrail	I	Metal	Gray	-0.5	BDL
48	Cafeteria Exterior	W	Stairs	I	Concrete	Yellow	2.9	LBP
49	Cafeteria Exterior	N	Door	I	Metal	White	-0.2	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
50	Cafeteria Exterior	W	Door Frame	I	Metal	Tan	1.5	LBP
51	Large Classroom	N	Ceiling	I	Tile	Beige	-0.1	BDL
52	Large Classroom	N	Ceiling	I	Tile	White	-0.1	BDL
53	Large Classroom	E	Wall	I	Plaster	White	-0.5	BDL
54	Large Classroom	E	Baseboard	I	Wood	Brown	-0.2	BDL
55	Large Classroom	W	Window Casing	I	Wood	White	-0.1	BDL
56	Large Classroom	E	Door	I	Wood	White	0.7	LCM
57	Large Classroom	E	Door Casing	I	Wood	White	0.7	LCM
58	Large Classroom	W	Window	I	Wood	White	0.0	BDL
59	Large Classroom	E	Vent	I	Metal	White	-0.1	BDL
60	Large Classroom	E	Conduit	I	Metal	White	-0.2	BDL
61	Corridor	N	Crown Molding	I	Wood	White	-0.2	BDL
62	Corridor	N	Wall	I	Plaster	White	-0.3	BDL
63	Corridor	N	Baseboard	I	Wood	Brown	-0.1	BDL
64	Corridor	S	Door	I	Wood	White	0.7	LCM
65	Custodial Closet	N	Ceiling	I	Plaster	White	-0.2	BDL
66	Custodial Closet	W	Wall	I	Plaster	White	-0.8	BDL
67	Boiler Room	N	Ceiling	I	Plaster	Tan	-0.7	BDL
68	Boiler Room	S	Wall	I	Plaster	Tan	-0.4	BDL
69	Prep 2	N	Ceiling	I	Tile	White	-0.1	BDL
70	Prep 2	N	Wall	I	Plaster	White	-0.2	BDL
71	Serve / Prep 1	N	Crown Molding	I	Wood	White	0.1	LCM
72	Serve / Prep 1	E	Wall	I	Plaster	White	-0.1	BDL
73	Wash Area	N	Ceiling	I	Plaster	White	-0.4	BDL
74	Wash Area	N	Wall	I	Plaster	White	-0.4	BDL
75	Wash Area	N	Floor	I	Ceramic	Brown	-0.5	BDL
76	Wash Area	S	Door Casing	I	Wood	White	0.0	BDL
77	Serve / Prep 1	S	Door	I	Wood	Gray	0.0	BDL
78	Men's Restroom	N	Ceiling	I	Plaster	White	-0.2	BDL
79	Men's Restroom	W	Wall	I	Plaster	White	-0.1	BDL
80	Men's Restroom	W	Wall	I	Terrazzo	Tan	-0.3	BDL
81	Men's Restroom	S	Window	I	Wood	White	1.3	LBP
82	Men's Restroom	S	Window Casing	I	Wood	White	0.2	LCM
83	Serve / Prep 1	S	Conduit	I	Metal	White	-0.1	BDL
84	Cook Area	N	Ceiling	I	Plaster	White	-0.2	BDL
85	Cook Area	W	Wall	I	Plaster	White	-0.2	BDL
86	Cook Area	W	Cabinet	I	Wood	White	-0.3	BDL
87	Cook Area	E	Cabinet Door	I	Wood	White	-0.3	BDL
88	Cook Area	E	Door Frame	I	Wood	White	-0.1	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
89	Large Office	N	Wall	I	Wood	White	0.1	LCM
90	Large Office	S	Wall	I	Plaster	Tan	-0.1	BDL
91	Large Office	S	Window Sill	I	Wood	White	0.2	LCM
92	Large Office	W	Cabinet	I	Wood	White	-0.4	BDL
93	Cashier 1	S	Wall	I	Ceramic	Green/Blue	-0.3	BDL
94	Cashier 1	S	Wall	I	Ceramic	Green	>9.9	LBP
95	Cashier 1	N	Ceiling	I	Plaster	White	-0.5	BDL
96	Cashier 1	E	Wall	I	Plaster	White	-0.4	BDL
97	Cashier 1	E	Cabinet	I	Wood	White	0.0	BDL
98	Cashier 1	N	Door Frame	I	Wood	White	-0.2	BDL
99	Cashier 2	N	Ceiling	I	Plaster	White	-0.3	BDL
100	Cashier 2	N	Wall	I	Plaster	White	-0.1	BDL
101	Cashier 2	E	Window	I	Wood	White	0.7	LCM
102	Cashier 2	E	Window Sill	I	Wood	White	0.2	LCM
103	Cashier 2	E	Cabinet	I	Wood	White	-0.4	BDL
104	Storage	N	Ceiling	I	Plaster	Beige	-0.3	BDL
105	Storage	S	Wall	I	Plaster	Beige	-0.6	BDL
106	Small Office	S	Wall	I	Plaster	White	-0.1	BDL
107	Small Office	N	Crown Molding	I	Wood	White	0.1	LCM
108	Staff Locker	N	Ceiling	I	Plaster	White	-0.5	BDL
109	Staff Locker	N	Wall	I	Plaster	White	-0.2	BDL
110	Staff Locker	N	Door Frame	I	Wood	White	0.1	LCM
111	Staff Locker	W	Locker Door	I	Wood	White	-0.3	BDL
112	Staff Locker	W	Locker	I	Wood	White	-0.6	BDL
113	Staff Locker	E	Window	I	Wood	White	2.1	LBP
114	Staff Restroom	N	Ceiling	I	Plaster	White	-0.3	BDL
115	Staff Restroom	N	Wall	I	Plaster	White	-0.4	BDL
116	Freezer Room	W	Door	I	Metal	White	-0.3	BDL
117	Freezer Room	W	Door Frame	I	Metal	White	-0.6	BDL
118	Prep 2	N	Floor	I	Terrazzo	Brown	-0.6	BDL
119	Cook Area	N	Floor	I	Terrazzo	Brown	-0.7	BDL
120	N Storage	N	Wall	I	Plaster	Tan	-0.3	BDL
121	N Storage	N	Ceiling	I	Plaster	Tan	-0.5	BDL
122	Custodian Closet	N	Sink	I	Metal	White	>9.9	LBP
123	Boiler Room	E	Electrical Panel	I	Metal	Gray	-0.6	BDL
124	Prep 2	W	Electrical Panel	I	Metal	White	-0.4	BDL
125	Cook Area Storage	N	Ceiling	I	Plaster	White	-0.4	BDL
126	Cook Area Storage	S	Wall	I	Plaster	White	-0.3	BDL
127	N Entrance	N	Ceiling	I	Plaster	White	-0.2	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
128	N Entrance	E	Wall	I	Plaster	White	-0.6	BDL
129	N Entrance	E	Ladder	I	Wood	White	0.7	LCM
130	Cook Area	W	Ladder	I	Wood	White	0.7	LCM
131	Men's Restroom	N	Sink	I	Porcelain	White	4.4	LBP
132	Cook Area Storage	W	Door	I	Wood	White	-0.1	BDL
Weight Room / Museum Building								
133	Museum	N	Ceiling	I	Tile	White	-0.1	BDL
134	Museum	E	Wall	I	Plaster	White	-0.3	BDL
135	Museum	E	Baseboard	I	Wood	White	-0.2	BDL
136	Museum	W	Window Casing	I	Metal	White	-0.2	BDL
137	Museum	N	Fire Extinguisher Cabinet	I	Metal	Red	-0.4	BDL
138	Museum	S	Drinking Fountain	I	Porcelain	White	5.8	LBP
139	Museum	W	Door	I	Metal	Gray	-0.2	BDL
140	Main Corridor	N	Crown Molding	I	Wood	White	0.1	LCM
141	Main Corridor	E	Door Jamb	I	Metal	Gray	-0.2	BDL
142	Main Corridor	N	Wall	I	Ceramic	Beige	>9.9	LBP
143	Main Corridor	N	Wall	I	Ceramic	Red	>9.9	LBP
144	Main Corridor	N	Window Casing	I	Wood	Tan	-0.3	BDL
145	Restroom	N	Ceiling	I	Plaster	White	-0.2	BDL
146	Restroom	N	Wall	I	Plaster	White	-0.4	BDL
147	Restroom	N	Floor	I	Terrazzo	Brown	-0.6	BDL
148	Restroom	W	Sink	I	Porcelain	White	-0.8	BDL
149	Restroom	W	Window	I	Metal	White	-0.1	BDL
150	Shower	N	Ceiling	I	Plaster	White	-0.1	BDL
151	Shower	N	Wall	I	Plaster	White	-0.2	BDL
152	Shower	W	Wall	I	Terrazzo	Brown	-0.4	BDL
153	Storage	N	Ceiling	I	Tile	White	-0.1	BDL
154	Storage	E	Wall	I	Plaster	Beige	-0.4	BDL
155	Storage	E	Door	I	Wood	Brown	-0.2	BDL
156	Storage	S	Door Jamb	I	Wood	Beige	-0.6	BDL
157	Office	N	Crown Molding	I	Wood	White	0.2	LCM
158	Office	S	Wall	I	Plaster	Yellow	-0.3	BDL
159	Office	S	Baseboard	I	Wood	Off-White	-0.3	BDL
160	Office	E	Window	I	Metal	Yellow	-0.2	BDL
161	Office	E	Door	I	Metal	Gray	-0.3	BDL
162	Weight Room - Restroom	N	Ceiling	I	Plaster	Beige	-0.3	BDL
163	Weight Room - Restroom	N	Wall	I	Plaster	Beige	-0.2	BDL
164	Weight Room - Restroom	N	Wall	I	Terrazzo	Brown	-0.6	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
165	Weight Room - Restroom	N	Sink	I	Porcelain	White	>9.9	LBP
166	Weight Room - Restroom	N	Stall Door	I	Wood	Blue	-0.1	BDL
167	Custodian Closet	N	Ceiling	I	Plaster	Off-White	-0.2	BDL
168	Custodian Closet	N	Wall	I	Plaster	Off-White	-0.6	BDL
169	Custodian Closet	E	Cabinet	I	Wood	Beige	-0.3	BDL
170	Storage	S	Cabinet	I	Wood	Tan	-0.4	BDL
171	Storage	S	Cabinet Door	I	Wood	Tan	-0.4	BDL
172	Office	S	Furnace	I	Metal	Yellow	-0.5	BDL
173	Custodian Closet	S	Ladder	I	Wood	Brown	-0.4	BDL
174	Custodian Closet	S	Sink	I	Metal	White	>9.9	LBP
175	Custodian Closet	N	Door Jamb	D	Wood	Tan	-0.2	BDL
176	Weight Room	N	Ceiling	I	Plaster	White	-0.2	BDL
177	Weight Room	W	Wall	I	Plaster	White	-0.4	BDL
178	Weight Room	N	Floor	I	Terrazzo	Brown	-0.5	BDL
179	Weight Room	N	Window Casing	I	Wood	Tan	-0.4	BDL
180	Weight Room	N	Door Casing	I	Wood	Tan	-0.1	BDL
181	Weight Room	W	Window	I	Metal	White	-0.2	BDL
182	Weight Room	E	Door	I	Wood	Brown	-0.4	BDL
183	Weight Room	E	Post	D	Metal	White	2.4	LBP
184	Weight Room	W	Wall	I	Plaster	Brown	-0.7	BDL
185	Weight Room	N	Wall	I	Plaster	Blue	-0.5	BDL
186	Storage Closet	N	Ceiling	I	Plaster	White	-0.1	BDL
187	Storage Closet	N	Wall	I	Plaster	White	-0.4	BDL
188	Storage Closet	N	Baseboard	I	Wood	White	-0.5	BDL
189	Storage Closet	E	Cabinet	I	Wood	White	-0.1	BDL
190	Storage Closet	S	Drawer	I	Wood	White	-0.2	BDL
191	Storage Closet	S	Window	I	Metal	White	-0.4	BDL
192	Corridor	N	Ceiling	I	Plaster	White	-0.2	BDL
193	Corridor	N	Wall	I	Plaster	White	-0.1	BDL
194	Corridor	N	Floor	I	Terrazzo	Blue	-0.5	BDL
195	Corridor	S	Bulletin Board	I	Wood	White	2.4	LBP
196	Corridor	W	Door	I	Wood	Brown	-0.1	BDL
197	Corridor	E	Door	I	Metal	Gray	-0.4	BDL
198	Corridor	N	Door Jamb	I	Wood	Beige	-0.2	BDL
199	Equipment Room	N	Ceiling	I	Plaster	White	-0.1	BDL
200	Equipment Room	E	Baseboard	I	Wood	White	-0.4	BDL
201	Equipment Room	E	Wall	I	Plaster	White	-0.3	BDL
202	N Entrance	N	Ceiling	I	Tile	White	-0.3	BDL
203	N Entrance	N	Wall	I	Plaster	White	-0.2	BDL



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
204	Film Room	N	Ceiling T-Bar	I	Metal	White	-0.1	BDL
205	Film Room	N	Wall	I	Plaster	White	-0.2	BDL
206	Film Room	N	Window	I	Metal	White	-0.4	BDL
207	N Entrance	E	Door Jamb	I	Metal	White	-0.3	BDL
208	N Entrance	N	Door	I	Metal	Gray	-0.6	BDL
209	Weight Room	N	Fire Extinguisher Cabinet	I	Metal	Red	-0.4	BDL
210	Restroom	W	Cabinet	I	Wood	White	-0.4	BDL
211	Storage	E	Desk	I	Wood	White	-0.2	BDL
212	Weight Room	E	Bulletin Board	I	Wood	White	2.4	LBP
213	Weight Room	E	Cubbies	I	Wood	Tan	0.7	LCM
214	Exterior	E	Wall	I	Stucco	White	-0.3	BDL
215	Exterior	E	Wall	I	Ceramic	Green	6.5	LBP
216	Exterior	E	Lockers	I	Metal	Tan	-0.5	BDL
217	Exterior	E	Window	I	Metal	Brown	-0.5	BDL
218	Exterior	E	Window Sill	I	Wood	Brown	0.7	LCM
219	Exterior	N	Eave	I	Stucco	White	-0.2	BDL
220	Exterior	S	Fascia	I	Wood	Brown	-0.1	BDL
221	Exterior	W	Door	I	Metal	Gray	-0.5	BDL
222	Exterior	W	Wall	I	Stucco	White	-0.3	BDL
223	Exterior	W	Window Casing	I	Stucco	Brown	-0.2	BDL
224	Exterior	S	Window	I	Metal	Brown	-0.7	BDL
225	Exterior	W	Door	I	Metal	Gray	-0.6	BDL
226	Exterior	W	Post	I	Metal	Gray	4.1	LBP
227	Exterior	W	Louvers	I	Metal	Brown	0.0	BDL
228	Exterior	N	Eave	I	Wood	Brown	-0.3	BDL
229	Exterior	W	Fascia	I	Wood	Brown	-0.2	BDL
230	Exterior	E	Door Frame	I	Metal	Gray	-0.5	BDL
231	Exterior	E	Drinking Fountain	I	Porcelain	White	-0.3	BDL
232	Mechanical Room	N	Ceiling	I	Plaster	Off-White	-0.2	BDL
233	Mechanical Room	S	Wall	I	Plaster	Off-White	-0.4	BDL
234	Mechanical Room	E	Pipes	I	Metal	Silver	0.7	LCM
235	Mechanical Room	S	Door Jamb	I	Wood	Green	0.7	LCM
236	Film Room	S	Wall	I	Plaster	Yellow	-0.2	BDL
237	Corridor (Plenum)	N	Beam	I	Metal	Orange	4.5	LBP
238	Weight Room	S	Vent	I	Metal	White	-0.2	BDL
239	Calibration						0.7	
240	Calibration						0.7	
241	Calibration						0.7	

Legend:
mg/cm² = milligrams per centimeter squared



Table 9-1: Lead-Paint XRF Results

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
<p>1 Side: N = North, E = East, W = West, S = South, C = Center 2 Paint Condition: I = Intact, D = Deteriorated 3 Classification: BDL = Below the XRF's detection level; less than 0.1 mg/cm². LCM = Lead Containing Materials; equal to or exceeding 0.1 mg/cm². LBP = Lead-Based Paints; equal to or exceeding 1.0 mg/cm². *Paint conditions are based on visual observations in survey area. Different conditions may be present in other areas of the Subject Property.</p>								

10.0 UNIVERSAL HAZARDOUS WASTE

Universal wastes are a specific set of hazardous waste items commonly used and disposed of by businesses, schools, and households. Universal wastes include batteries, fluorescent light bulbs, mercury thermostats and other mercury containing equipment. In addition, computers, televisions, copiers, and many other electronic devices may also be considered universal waste.

The Department of Toxic Substances Control (DTSC) identifies seven (7) categories of wastes, which are to be managed as universal wastes. Unwanted items, including those in the following list, can be handled, transported, and recycled, following the requirements of the universal waste regulations (UWR) (California Code of Regulations, Title 22, Division 4.5, chapter 23). The DTSC list of universal wastes is provided below.

DTSC Universal wastes:

1. **Electronic devices:** Includes any electronic device that is a hazardous waste (with or without a Cathode Ray Tube (CRT), including televisions, computer monitors, cell phones, VCRs, computer CPUs and portable DVD players.
2. **Batteries:** Most household-type batteries, including rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, alkaline batteries and other batteries that exhibit a characteristic of a hazardous waste.
3. **Electric lamps:** Fluorescent tubes and bulbs, high intensity discharge lamps, sodium vapor lamps and electric lamps that contain added mercury, as well as any other lamp that exhibits a characteristic of a hazardous waste. (e.g., lead).
4. **Mercury-containing equipment:** Thermostats, mercury switches, mercury thermometers, pressure or vacuum gauges, dilators and weighted tubing, mercury rubber flooring, mercury gas flow regulators, dental amalgams, counterweights, dampers and mercury added novelties such as jewelry, ornaments and footwear.
5. **CRTs:** The glass picture tubes removed from devices such as televisions and computer monitors.
6. **CRT glass:** A cathode ray tube that has been accidentally broken or processed for recycling.
7. **Non-empty aerosol cans.**



Solar Panels Waste: The main types of solar panels are the monocrystalline silicon, polycrystalline silicon, the cadmium telluride (CdTe) types and the newer thin film types, such as copper indium gallium selenide (CIS/CIGS).

In general, DTSC considers solar panels to be hazardous waste due to the presence of heavy metals in the semiconductors boards installed in the panels, including selenium, copper, cadmium, chromium VI, arsenic, etc.

Hazardous waste solar panels must be managed according to all applicable local and federal hazardous waste laws and regulations.

Non-hazardous waste such as glass, copper wire and aluminum framing can be taken to a non-hazardous landfill or to recycling centers to be dismantled and claimed for value through recycling. <https://dtsc.ca.gov/solarpanels/>

The DTSC sheet expanded the universal hazardous waste to include mercury switches within the following major appliances scheduled for disposal and recycling.

- Washer or dryer
- Water heater
- Dehumidifier
- Refrigerator; freezer
- Oven, stove, microwave
- Air-conditioner
- Trash compactor

10.1 SUMMARY OF FINDINGS – UNIVERSAL HAZARDOUS WASTE INVENTORY

The following Table 10-1 summarizes the inventory of universal hazardous wastes identified in the survey area.

Table 10-1: Universal Hazardous Waste Summary			
Room	Press Box	Cafeteria	Museum / Weight Room
Electronic Thermostat	0	0	4
Mercury Thermometers	0	0	0
Various Cleaning Solutions	0	50	25
Hydraulic Oils (new-used)	0	30	20
Wash Solution	0	50	30
Hand Cleaner	0	25	15



Table 10-1: Universal Hazardous Waste Summary

Room	Press Box	Cafeteria	Museum / Weight Room
Acid Acetic Glacial	0	0	0
X Ray Film Developer	0	0	0
Film Developing Machines	0	0	0
Refrigerators	0	15	1
Water Heater	0	1	1
Wall Mounted AC Unit	0	4	1
Air Handling Unit (AHU)	0	0	2
Fluorescent Tube Bulbs	6	200	140
Electronic Ballasts	3	100	70
Incandescent Spotlights	0	4	0
Transformers	0	4	0
Fire Extinguishers	0	8	4
Exit Signs	0	4	2
Electronic Waste	0	20	10
Fluorescent / HID / Sodium Halide Lamps	0	10	10
Batteries (aside from car batteries)	0	0	0
Aerosol Cans	0	0	0
PCBs Ballasts	0	0	10

11.0 CONCLUSIONS AND RECOMMENDATIONS

TES has the following recommendations based on the findings of this survey:

ASBESTOS-CONTAINING BUILDING MATERIALS

TES has the following recommendations based on the findings of the asbestos-containing building materials survey:

- The asbestos survey was performed in accordance with the EPA's National Emissions Standard for Hazardous Air Pollutants (NESHAP) protocol for sample collection for demolition/renovation surveys and sample analysis in accordance with EPA's "Method for the Determination of Asbestos in Bulk Building Materials" (EPA 600-R-93-116).



- In accordance to 40 CFR Section 61.141 and US EPA Applicability Determination Index Control Number: C112, if the amount by visual estimation appears to be less than 10 percent, the owner or operator may (1) assume the amount to be greater than 1 percent and treat the materials asbestos-containing material, or (2) require verification of the amount by PLM point counting. If a result obtained by PLM point count is different from a result obtained by PLM visual estimation, the more accurate PLM point count result will be used.
- PLM point count analysis was not included in the contract, therefore in lieu of PLM point counting, all materials surveyed containing less than one percent or "trace" amounts of asbestos are assumed to be asbestos-containing and must be managed as ACM.
- Less than one percent, "Trace" materials assumed to be ACM in accordance with 40 CFR Section 61.141 and the US EPA Applicability Determination Index Control Number C112, are available for further PLM point count analysis for up to thirty (30) days from the completion and submittal date of this report. PLM point count laboratory analysis was not included in this survey.
- At the request of the Client, the roof materials were excluded from the survey and therefore, were not surveyed.
- Mastic adhesive materials behind mirrors, chalkboards, green boards, white boards and corkboards within the Subject Property are assumed by TES to be asbestos-containing materials.
- A California licensed and DOSH/Cal-OSHA registered asbestos abatement contractor should be contracted to remove/abate ACMs/ACCMs and materials containing asbestos that are damaged or will be disturbed.
- A DOSH/Cal-OSHA Certified Asbestos Consultant should be contracted to conduct monitoring and clearance of any removal/abatement of ACMs/ACCMs and materials containing asbestos.
- Any materials that have not been identified in this report should be considered suspect ACMs/ACCMs and handled as ACM unless sampled and proven to be non-ACM by a DOSH/Cal-OSHA Certified Asbestos Consultant.
- All asbestos activities must be performed in accordance with all applicable federal, state and local regulations including, but not limited to those summarized in this report.

LEAD-BASED PAINTS / LEAD-CONTAINING MATERIALS

TES has the following recommendations based on the findings of the lead in paint survey:

- In accordance with Title 8, California Code Regulations, Section 1532.1 (8 CCR 1532.1), any disturbance of LCM and/or LBP should be performed by lead hazard communication trained workers using lead safe work practices that do not result in exposures above the Action Level (AL) of 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) and/or Permissible Exposure Limit (PEL) of 50 $\mu\text{g}/\text{m}^3$.



- In accordance with Resource Conservation and Recovery Act (RCRA) Title 40, Code of Federal Regulations, Section 261 (40 CFR 261) and California Department of Toxic Substance Control (DTSC) Title 22, California Code of Regulations, Division 4.5, Chapter 11 requirements, all lead containing wastes should be sampled and analyzed for total and leachable lead concentrations and disposed of accordingly based on the waste characterization analytical results.
- Any paints/coatings that have not been identified in this report should be considered presumed LBP and handled as LBP unless sampled and proven to be non-LBP by a CDPH Certified Lead Inspector/Assessor.
- All lead activities must be performed in accordance with all applicable federal, state and local regulations, including but not limited to those summarized in this report.

UNIVERSAL WASTES (UW)

Devices with potentially hazardous wastes were visually inspected, reviewed and inventoried. Please see Table 10-1 for an inventory of universal hazardous wastes within the interior of the Subject Property.

TES has the following recommendations based on the findings of the universal waste assessment:

- Presumed PCB-containing equipment should be removed prior to renovation/demolition. The equipment should be inspected for "No-PCB's" or "PCB Free" labeling during removal and non-labeled equipment should be handled and disposed of as PCB-containing waste.
- PCB-containing devices should be properly removed or have the oils removed, transported and recycled or disposed of at an approved recycling or waste disposal facility.
- PCB use, storage and disposal are regulated by U.S. EPA under the Toxic Substances Control Act (TSCA), and by Part 761, Title 40 of the Code of Federal Regulations (40 CFR Part 761). All materials or wastes that contain PCBs at concentrations of 50 ppm are regulated by TSCA.
- Identified Universal Waste (UW) materials shall be appropriately removed, recycled, or disposed of in accordance with the Department of Toxic Substances Control (DTSC), following strict adherence to the Title 22 of the California Code of Regulations.
- Presumed mercury containing equipment should be removed intact and disposed of by proper recycling prior to renovation/demolition.
- Electronic equipment should be removed intact and properly disposed of prior to renovation/demolition.
- Refrigerant containing equipment should have CFCs extracted and properly disposed of prior to renovation/demolition.
- All hazardous materials activities must be performed in accordance with all applicable federal, state and local regulations.



12.0 CERTIFICATION

This sampling, including preparation of this report, was conducted under the direction of Mr. Robert Menald, DOSH/Cal-OSHA Certified Asbestos Consultant (CAC No. 08-4323) and CDPH Certified Lead Inspector/Assessor and Project Monitor (CDPH No. LRC-00005259 and LRC-00005260), and Mr. Ibrahim M. Sobeih, DOSH/Cal-OSHA Certified Asbestos Consultant (CAC No. 06-4078) and TES Certified Industrial Hygienist in the Comprehensive Practice by the American Board of Industrial Hygiene (ABIH Certificate No. 5628CP), undersigned. If you have any questions or require any additional information or services, please contact our office toll free at (888) 948-4826.

Sincerely,

Titan Environmental Solutions, Inc.

Robert Menald, CIEC, CAC, CLI/A PM
Project Manager

Ibrahim M. Sobeih, MS, MSPH, CIH, CAC, FAIHA
Director of Industrial Hygiene and Safety



13.0 LIMITATIONS

TES is committed to providing state-of-the-art environmental consulting services that are of the highest quality. However, hazardous materials survey work is not an exact science. The possibility of field and general conditions beyond TES control that affect our work or that present a concern for the safety of our employees, our consultants, building occupants and the public at the site, and insurance constraints, requires that we qualify the services we provide with the following limitations:

- In accordance with the client specified scope of work, this survey was limited to accessible building materials and areas at the Subject Property identified by the Client; no destructive investigation was performed. Additional suspect materials located inaccessible areas and/or outside the scope of this survey may be present at the Subject Property.
- Reasonable effort is made by TES personnel to locate and sample all suspect hazardous materials. However, for any building there is the possibility that various types of unique or concealed hazardous materials may exist undetected. In addition, sampling and laboratory analyses constraints typically hinder the investigation. TES does not warrant, guarantee or profess to have the ability to locate or identify all hazardous materials in a building.
- Confined spaces and areas determined by TES personnel to be unsafe to access, are excluded from the scope of work.
- TES is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous materials or waste found or identified as a result of TES work.
- TES does not guarantee or warrant that the Subject Property or workplace are safe, nor does TES involvement in this property relieve the Client, building owner/operator or tenant of any continuing responsibility of providing a safe property or workplace.



- This report was based on those conditions observed on the day(s) the field evaluation was accomplished. In the event that changes in the nature of the property have occurred, or additional relevant information about the property is subsequently discovered, the findings and recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the conclusion of this report is modified and verified in writing.
- It is understood that the survey is a non-destructive assessment of potential hazardous materials and is to be used expressly for the purpose of evaluating the risk relative to the expected material disturbance at the Subject Property. Because destructive investigation has not been performed during the survey, the report may not reveal concealed hazardous materials. Subsequently, additional investigation including construction documents review and/or destructive investigation is recommended as a precaution to prevent accidental exposure when construction or demolition is planned for this Subject Property.
- It is understood that this is a modified survey and results are limited to the specific areas and materials sampled. This report is not valid for use outside of the specific areas identified by the Client or by individuals not associated with the currently planned work at the Subject Property.



ATTACHMENT I

Laboratory Analytical Report(s)
(Including Chain of Custody Forms)

Report for:

EPK San Diego
Titan Environmental Solutions, Inc.
1521 East Orangethorpe Ave, Ste B
Fullerton, CA 92831

Regarding: Project: 092751-AS; Grossmont High School - Cafeteria Building, Press Box and Weight Room/Museum
EML ID: 2689165

Approved by:



Approved Signatory
Balu Krishnan

Dates of Analysis:

Asbestos PLM: 07-26-2021 to 07-28-2021

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 200844-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Total Samples Submitted:** 133**Total Samples Analyzed:** 133**Total Samples with Layer Asbestos Content > 1%:** 38**Location: 0720-01-01, White Texture Drywall and Joint Compound - Orange Peel**

Lab ID-Version‡: 12858764-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound	ND
White Texture with Paint	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-01-02, White Texture Drywall and Joint Compound - Orange Peel

Lab ID-Version‡: 12858765-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-01-03, White Texture Drywall and Joint Compound - Orange Peel

Lab ID-Version‡: 12858766-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound	ND
White Texture with Paint	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-02-04, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858767-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-02-05, Grey Skim Coat/Plaster/Button Board**

Lab ID-Version‡: 12858768-1

Sample Layers	Asbestos Content
Beige Skim Coat	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-02-06, Grey Skim Coat/Plaster/Button Board**

Lab ID-Version‡: 12858769-1

Sample Layers	Asbestos Content
Beige Skim Coat	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

Location: 0720-02-07, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858770-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

Location: 0720-02-08, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858771-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

Location: 0720-02-09, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858772-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-02-10, Grey Skim Coat/Plaster/Button Board**

Lab ID-Version‡: 12858773-1

Sample Layers	Asbestos Content
Beige Skim Coat	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Hair/Wool
Sample Composite Homogeneity:	Good

Location: 0720-03-11, White Drywall without Joint Compound

Lab ID-Version‡: 12858774-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-03-12, White Drywall without Joint Compound

Lab ID-Version‡: 12858775-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-03-13, White Drywall without Joint Compound

Lab ID-Version‡: 12858776-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

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C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-03-14, White Drywall without Joint Compound**

Lab ID-Version‡: 12858777-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-03-15, White Drywall without Joint Compound

Lab ID-Version‡: 12858778-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-03-16, White Drywall without Joint Compound

Lab ID-Version‡: 12858779-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-03-17, White Drywall without Joint Compound

Lab ID-Version‡: 12858780-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

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Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-04-18, White Drywall and Joint Compound (Patch)**

Lab ID-Version‡: 12858781-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound with Paint	2% Chrysotile
Composite Asbestos Fibrous Content:	< 1% Asbestos
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Comments: Composite asbestos content provided is only for Drywall/Joint compound. Composite content provided for this analysis has been performed by following the NESHAP guidelines.

Location: 0720-04-19, White Drywall and Joint Compound (Patch)

Lab ID-Version‡: 12858782-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound with Paint	2% Chrysotile
Composite Asbestos Fibrous Content:	< 1% Asbestos
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Comments: Composite asbestos content provided is only for Drywall/Joint compound. Composite content provided for this analysis has been performed by following the NESHAP guidelines.

Location: 0720-04-20, White Drywall and Joint Compound (Patch)

Lab ID-Version‡: 12858783-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound with Paint	2% Chrysotile
Composite Asbestos Fibrous Content:	< 1% Asbestos
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Comments: Composite asbestos content provided is only for Drywall/Joint compound. Composite content provided for this analysis has been performed by following the NESHAP guidelines.

Location: 0720-05-21, White 3'X1.5' Drywall Ceiling Tile

Lab ID-Version‡: 12858784-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-05-22, White 3'X1.5' Drywall Ceiling Tile**

Lab ID-Version‡: 12858785-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-05-23, White 3'X1.5' Drywall Ceiling Tile

Lab ID-Version‡: 12858786-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-06-24, White 12"X12" Pin Hole Ceiling Tile

Lab ID-Version‡: 12858787-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-06-25, White 12"X12" Pin Hole Ceiling Tile

Lab ID-Version‡: 12858788-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-06-26, White 12"X12" Pin Hole Ceiling Tile**

Lab ID-Version‡: 12858789-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-07-27, Brown Ceiling Tile Mastic

Lab ID-Version‡: 12858790-1

Sample Layers	Asbestos Content
Dark Brown Glue	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-07-28, Brown Ceiling Tile Mastic

Lab ID-Version‡: 12858791-1

Sample Layers	Asbestos Content
Dark Brown Glue	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-07-29, Brown Ceiling Tile Mastic

Lab ID-Version‡: 12858792-1

Sample Layers	Asbestos Content
Dark Brown Glue	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-08-30, Tan Cove Base Mastic**

Lab ID-Version‡: 12858793-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-08-31, Tan Cove Base Mastic

Lab ID-Version‡: 12858794-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-08-32, Tan Cove Base Mastic

Lab ID-Version‡: 12858795-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-09-33, Tan and Blue 12"X12" Floor Tile

Lab ID-Version‡: 12858796-1

Sample Layers	Asbestos Content
Tan Floor Tile	ND
Light Brown Mastic	ND
Blue Floor Tile	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-09-34, Tan and Blue 12"X12" Floor Tile**

Lab ID-Version‡: 12858797-1

Sample Layers	Asbestos Content
Tan Floor Tile	ND
Light Brown Mastic	ND
Blue Floor Tile	ND
Sample Composite Homogeneity: Good	

Location: 0720-09-35, Tan and Blue 12"X12" Floor Tile

Lab ID-Version‡: 12858798-1

Sample Layers	Asbestos Content
Tan Floor Tile	ND
Light Brown Mastic	ND
Blue Floor Tile	ND
Sample Composite Homogeneity: Good	

Location: 0720-10-36, Light Brown Floor Tile Mastic

Lab ID-Version‡: 12858799-1

Sample Layers	Asbestos Content
Light Brown Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-10-37, Light Brown Floor Tile Mastic

Lab ID-Version‡: 12858800-1

Sample Layers	Asbestos Content
Light Brown Mastic	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-10-38, Light Brown Floor Tile Mastic**

Lab ID-Version‡: 12858801-1

Sample Layers	Asbestos Content
Light Brown Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-11-39, Tan Floor Tile

Lab ID-Version‡: 12858802-1

Sample Layers	Asbestos Content
Tan Floor Tile	6% Chrysotile
Black Mastic	ND
Tan Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-11-40, Tan Floor Tile

Lab ID-Version‡: 12858803-1

Sample Layers	Asbestos Content
Tan Floor Tile	6% Chrysotile
Black Mastic	ND
Tan Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-11-41, Tan Floor Tile

Lab ID-Version‡: 12858804-1

Sample Layers	Asbestos Content
Tan Floor Tile	6% Chrysotile
Black Mastic	ND
Tan Mastic	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-12-42, Brown 9"X9" Floor Tile**

Lab ID-Version‡: 12858805-1

Sample Layers	Asbestos Content
Brown Floor Tile	8% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-12-43, Brown 9"X9" Floor Tile

Lab ID-Version‡: 12858806-1

Sample Layers	Asbestos Content
Brown Floor Tile	8% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-12-44, Brown 9"X9" Floor Tile

Lab ID-Version‡: 12858807-1

Sample Layers	Asbestos Content
Brown Floor Tile	8% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-13-45, Black Floor Tile Mastic

Lab ID-Version‡: 12858808-1

Sample Layers	Asbestos Content
Black Mastic	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-13-46, Black Floor Tile Mastic**

Lab ID-Version‡: 12858809-1

Sample Layers	Asbestos Content
Black Mastic	ND
Sample Composite Homogeneity:	Good

Location: 0720-13-47, Black Floor Tile Mastic

Lab ID-Version‡: 12858810-1

Sample Layers	Asbestos Content
Black Mastic	ND
Sample Composite Homogeneity:	Good

Location: 0720-14-48, White Boiler Tank Insulation

Lab ID-Version‡: 12858811-1

Sample Layers	Asbestos Content
White Boiler Insulation	15% Amosite 6% Chrysotile
Composite Non-Asbestos Content:	30% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-14-49, White Boiler Tank Insulation

Lab ID-Version‡: 12858812-1

Sample Layers	Asbestos Content
White Boiler Insulation	15% Amosite 6% Chrysotile
Composite Non-Asbestos Content:	30% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-14-50, White Boiler Tank Insulation**

Lab ID-Version‡: 12858813-1

Sample Layers	Asbestos Content
White Boiler Insulation	15% Amosite 6% Chrysotile
Composite Non-Asbestos Content:	30% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-15-51, White TSI Packed Elbow

Lab ID-Version‡: 12858814-1

Sample Layers	Asbestos Content
White Insulation	15% Amosite 6% Chrysotile
Sample Composite Homogeneity:	Good

Location: 0720-15-52, White TSI Packed Elbow

Lab ID-Version‡: 12858815-1

Sample Layers	Asbestos Content
White Insulation	15% Amosite 6% Chrysotile
Sample Composite Homogeneity:	Good

Location: 0720-15-53, White TSI Packed Elbow

Lab ID-Version‡: 12858816-1

Sample Layers	Asbestos Content
White Insulation	15% Amosite 6% Chrysotile
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-16-54, White and Brown Packed Pipe Runs**

Lab ID-Version‡: 12858817-1

Sample Layers	Asbestos Content
White Pipe Insulation	50% Chrysotile
Brown Pipe Insulation	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-16-55, White and Brown Packed Pipe Runs

Lab ID-Version‡: 12858818-1

Sample Layers	Asbestos Content
White Pipe Insulation	50% Chrysotile
Brown Pipe Insulation	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-16-56, White and Brown Packed Pipe Runs

Lab ID-Version‡: 12858819-1

Sample Layers	Asbestos Content
White Pipe Insulation	50% Chrysotile
Brown Pipe Insulation	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-17-57, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858820-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity:	Good

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-17-58, Grey Exterior Stucco - Walls**

Lab ID-Version‡: 12858821-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-17-59, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858822-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-17-60, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858823-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-17-61, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858824-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-17-62, Grey Exterior Stucco - Walls**

Lab ID-Version‡: 12858825-1

Sample Layers	Asbestos Content
Gray Stucco with Paint	ND
Sample Composite Homogeneity:	Good

Location: 0720-17-63, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858826-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity:	Good

Location: 0720-18-64, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858827-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity:	Good

Location: 0720-18-65, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858828-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity:	Good

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Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria
Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-18-66, Grey Exterior Stucco - Overhang**

Lab ID-Version‡: 12858829-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-18-67, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858830-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-18-68, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858831-1

Sample Layers	Asbestos Content
Pink Stucco with Paint	ND
Gray Stucco	ND
Sample Composite Homogeneity: Good	

Location: 0720-19-69, White Window Putty

Lab ID-Version‡: 12858832-1

Sample Layers	Asbestos Content
White Window Glazing	ND
Sample Composite Homogeneity: Good	

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-19-70, White Window Putty**

Lab ID-Version‡: 12858833-1

Sample Layers	Asbestos Content
Gray Window Glazing	ND
Sample Composite Homogeneity:	Good

Location: 0720-19-71, White Window Putty

Lab ID-Version‡: 12858834-1

Sample Layers	Asbestos Content
Off-White Window Glazing	ND
Sample Composite Homogeneity:	Good

Location: 0720-20-72, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858835-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Green Skim Coat with Paint	ND
Gray Plaster	ND
Sample Composite Homogeneity:	Good

Location: 0720-20-73, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858836-1

Sample Layers	Asbestos Content
Green Skim Coat with Paint	ND
Gray Plaster	ND
Sample Composite Homogeneity:	Good

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-20-74, Grey Skim Coat/Plaster/Button Board**

Lab ID-Version‡: 12858837-1

Sample Layers	Asbestos Content
Green Skim Coat with Paint	ND
Gray Plaster	ND
Sample Composite Homogeneity: Good	

Location: 0720-20-75, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858838-1

Sample Layers	Asbestos Content
Green Skim Coat with Paint	ND
Gray Plaster	ND
Sample Composite Homogeneity: Good	

Location: 0720-20-76, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858839-1

Sample Layers	Asbestos Content
White Skim Coat with Paint	ND
Gray Plaster	ND
Sample Composite Homogeneity: Good	

Location: 0720-20-77, Grey Skim Coat/Plaster/Button Board

Lab ID-Version‡: 12858840-1

Sample Layers	Asbestos Content
Green Skim Coat with Paint	ND
Gray Plaster	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity: Good	

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Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-20-78, Grey Skim Coat/Plaster/Button Board**

Lab ID-Version‡: 12858841-1

Sample Layers	Asbestos Content
Gray Plaster with Paint	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-21-79, White Drywall without Joint Compound

Lab ID-Version‡: 12858842-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-21-80, White Drywall without Joint Compound

Lab ID-Version‡: 12858843-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-21-81, White Drywall without Joint Compound

Lab ID-Version‡: 12858844-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-22-82, White 12"X12" Pin Hole Ceiling Tile**

Lab ID-Version‡: 12858845-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-22-83, White 12"X12" Pin Hole Ceiling Tile

Lab ID-Version‡: 12858846-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-22-84, White 12"X12" Pin Hole Ceiling Tile

Lab ID-Version‡: 12858847-1

Sample Layers	Asbestos Content
Brown Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-23-85, Brown Ceiling Tile Mastic

Lab ID-Version‡: 12858848-1

Sample Layers	Asbestos Content
Brown Mastic	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-23-86, Brown Ceiling Tile Mastic**

Lab ID-Version‡: 12858849-1

Sample Layers	Asbestos Content
Brown Mastic	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-23-87, Brown Ceiling Tile Mastic

Lab ID-Version‡: 12858850-1

Sample Layers	Asbestos Content
Brown Mastic	ND
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-24-88, Grey Corrugated Ducting

Lab ID-Version‡: 12858851-1

Sample Layers	Asbestos Content
Gray Duct Insulation	65% Chrysotile
Composite Non-Asbestos Content:	20% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-24-89, Grey Corrugated Ducting

Lab ID-Version‡: 12858852-1

Sample Layers	Asbestos Content
Gray Duct Insulation	65% Chrysotile
Composite Non-Asbestos Content:	20% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-24-90, Grey Corrugated Ducting**

Lab ID-Version‡: 12858853-1

Sample Layers	Asbestos Content
Gray Duct Insulation	65% Chrysotile
Composite Non-Asbestos Content:	20% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-25-91, White 2'X4' Ceiling Tile

Lab ID-Version‡: 12858854-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	45% Mineral Wool 40% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-25-92, White 2'X4' Ceiling Tile

Lab ID-Version‡: 12858855-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	45% Mineral Wool 40% Cellulose
Sample Composite Homogeneity:	Good

Location: 0720-25-93, White 2'X4' Ceiling Tile

Lab ID-Version‡: 12858856-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	45% Mineral Wool 40% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-26-94, White Boiler Tank Insulation**

Lab ID-Version‡: 12858857-1

Sample Layers	Asbestos Content
White Insulation	14% Amosite 8% Chrysotile
Sample Composite Homogeneity: Good	

Location: 0720-26-95, White Boiler Tank Insulation

Lab ID-Version‡: 12858858-1

Sample Layers	Asbestos Content
White Insulation	14% Amosite 8% Chrysotile
Sample Composite Homogeneity: Good	

Location: 0720-26-96, White Boiler Tank Insulation

Lab ID-Version‡: 12858859-1

Sample Layers	Asbestos Content
White Insulation	14% Amosite 8% Chrysotile
Sample Composite Homogeneity: Good	

Location: 0720-27-97, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858860-1

Sample Layers	Asbestos Content
Tan Stucco	ND
Gray Cementitious Material	ND
Light Gray Non-Fibrous Material with Paint	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-27-98, Grey Exterior Stucco - Walls**

Lab ID-Version‡: 12858861-1

Sample Layers	Asbestos Content
Tan Stucco	ND
Sample Composite Homogeneity:	Good

Location: 0720-27-99, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858862-1

Sample Layers	Asbestos Content
Tan Stucco	ND
Light Gray Non-Fibrous Material with Paint	ND
Sample Composite Homogeneity:	Good

Location: 0720-27-100, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858863-1

Sample Layers	Asbestos Content
Gray Stucco	ND
Tan Skim Coat with Paint	ND
Gray Skim Coat with Paint	ND
Sample Composite Homogeneity:	Good

Location: 0720-27-101, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858864-1

Sample Layers	Asbestos Content
Gray Stucco	ND
Tan Skim Coat with Paint	ND
Gray Skim Coat with Paint	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT**Location: 0720-27-102, Grey Exterior Stucco - Walls**

Lab ID-Version‡: 12858865-1

Sample Layers	Asbestos Content
Gray Stucco	ND
Tan Skim Coat with Paint	ND
Sample Composite Homogeneity: Good	

Location: 0720-27-103, Grey Exterior Stucco - Walls

Lab ID-Version‡: 12858866-1

Sample Layers	Asbestos Content
Gray Stucco	ND
White Skim Coat with Paint	ND
Sample Composite Homogeneity: Good	

Location: 0720-28-104, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858867-1

Sample Layers	Asbestos Content
Gray Stucco	ND
White Skim Coat	ND
Tan Skim Coat with Paint	ND
Sample Composite Homogeneity: Good	

Location: 0720-28-105, Grey Exterior Stucco - Overhang

Lab ID-Version‡: 12858868-1

Sample Layers	Asbestos Content
Gray Stucco	ND
White Skim Coat	ND
Tan Skim Coat with Paint	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-28-106, Grey Exterior Stucco - Overhang**

Lab ID-Version‡: 12858869-1

Sample Layers	Asbestos Content
Gray Stucco	ND
White Skim Coat	ND
Tan Skim Coat with Paint	ND
Sample Composite Homogeneity: Good	

Location: 0720-29-107, Grey Window Putty

Lab ID-Version‡: 12858870-1

Sample Layers	Asbestos Content
Gray Putty	ND
Tan Window Glazing with Paint	2% Chrysotile
Sample Composite Homogeneity: Good	

Location: 0720-29-108, Grey Window Putty

Lab ID-Version‡: 12858871-1

Sample Layers	Asbestos Content
Gray Putty	ND
Tan Window Glazing with Paint	2% Chrysotile
White Putty	ND
Silver Caulk	ND
Sample Composite Homogeneity: Good	

Location: 0720-29-109, Grey Window Putty

Lab ID-Version‡: 12858872-1

Sample Layers	Asbestos Content
Gray Putty	ND
Tan Window Glazing with Paint	3% Chrysotile
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-30-110, Brown 12"X12" Floor Tile**

Lab ID-Version‡: 12858873-1

Sample Layers	Asbestos Content
Yellow Floor Tile	2% Chrysotile
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-30-111, Brown 12"X12" Floor Tile

Lab ID-Version‡: 12858874-1

Sample Layers	Asbestos Content
Yellow Floor Tile	2% Chrysotile
Black/Yellow Mastic	ND
Gray Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity: Good	

Location: 0720-30-112, Brown 12"X12" Floor Tile

Lab ID-Version‡: 12858875-1

Sample Layers	Asbestos Content
Yellow Floor Tile	2% Chrysotile
Black Mastic	ND
Yellow Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-31-113, Green 12"X12" Floor Tile

Lab ID-Version‡: 12858876-1

Sample Layers	Asbestos Content
Green Floor Tile	2% Chrysotile
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

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ASBESTOS PLM REPORT**Location: 0720-31-114, Green 12"X12" Floor Tile**

Lab ID-Version‡: 12858877-1

Sample Layers	Asbestos Content
Green Floor Tile	ND
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-31-115, Green 12"X12" Floor Tile

Lab ID-Version‡: 12858878-1

Sample Layers	Asbestos Content
Green Floor Tile	2% Chrysotile
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-32-116, Green 9"X9" Floor Tile

Lab ID-Version‡: 12858879-1

Sample Layers	Asbestos Content
Green Floor Tile	6% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-32-117, Green 9"X9" Floor Tile

Lab ID-Version‡: 12858880-1

Sample Layers	Asbestos Content
Green Floor Tile	6% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

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Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria
Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-32-118, Green 9"X9" Floor Tile**

Lab ID-Version‡: 12858881-1

Sample Layers	Asbestos Content
Green Floor Tile	6% Chrysotile
Black Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-33-119, Blue and Green 9"X9" Floor Tile

Lab ID-Version‡: 12858882-1

Sample Layers	Asbestos Content
Green Floor Tile	7% Chrysotile
Black/Yellow Mastic	ND
Light Green Floor Tile	ND
Sample Composite Homogeneity: Good	

Location: 0720-33-120, Blue and Green 9"X9" Floor Tile

Lab ID-Version‡: 12858883-1

Sample Layers	Asbestos Content
Green Floor Tile	8% Chrysotile
Black/Yellow Mastic	ND
Light Green Floor Tile	ND
Sample Composite Homogeneity: Good	

Location: 0720-33-121, Blue and Green 9"X9" Floor Tile

Lab ID-Version‡: 12858884-1

Sample Layers	Asbestos Content
Green Floor Tile	8% Chrysotile
Black/Yellow Mastic	ND
Light Green Floor Tile	ND
Sample Composite Homogeneity: Good	

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria
Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-34-122, Brown Self Adhesive Floor Tile**

Lab ID-Version‡: 12858885-1

Sample Layers	Asbestos Content
Dark Brown Sheet Flooring	ND
Transparent Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-34-123, Brown Self Adhesive Floor Tile

Lab ID-Version‡: 12858886-1

Sample Layers	Asbestos Content
Dark Brown Sheet Flooring	ND
Transparent Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-34-124, Brown Self Adhesive Floor Tile

Lab ID-Version‡: 12858887-1

Sample Layers	Asbestos Content
Dark Brown Sheet Flooring	ND
Transparent Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-35-125, 12"X12" White Floor Tile

Lab ID-Version‡: 12858888-1

Sample Layers	Asbestos Content
White Floor Tile	ND
Transparent Mastic	ND
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

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Re: 092751-AS; Grossmont High School - Cafeteria
Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-35-126, 12"X12" White Floor Tile**

Lab ID-Version‡: 12858889-1

Sample Layers	Asbestos Content
White Floor Tile	ND
Transparent Mastic	ND
Black/Yellow Mastic	ND
Sample Composite Homogeneity: Good	

Location: 0720-35-127, 12"X12" White Floor Tile

Lab ID-Version‡: 12858890-1

Sample Layers	Asbestos Content
White Floor Tile	ND
Transparent Mastic	ND
Black/Yellow Mastic	ND
Gray Leveling Compound	ND
Sample Composite Homogeneity: Good	

Location: 0720-36-128, Black Floor Tile Mastic

Lab ID-Version‡: 12858891-1

Sample Layers	Asbestos Content
Black Mastic	ND
Gray Debris	ND
Sample Composite Homogeneity: Good	

Location: 0720-36-129, Black Floor Tile Mastic

Lab ID-Version‡: 12858892-1

Sample Layers	Asbestos Content
Black Mastic	ND
Sample Composite Homogeneity: Good	

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Client: Titan Environmental Solutions, Inc.

C/O: EPK San Diego

Re: 092751-AS; Grossmont High School - Cafeteria

Building, Press Box and Weight Room/Museum

Date of Sampling: 07-20-2021

Date of Receipt: 07-21-2021

Date of Report: 07-28-2021

ASBESTOS PLM REPORT**Location: 0720-36-130, Black Floor Tile Mastic**

Lab ID-Version‡: 12858893-1

Sample Layers	Asbestos Content
Black Mastic with Leveler	ND
Sample Composite Homogeneity:	Good

Location: 0720-37-131, Tan Cove Base Mastic

Lab ID-Version‡: 12858894-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity:	Good

Location: 0720-37-132, Tan Cove Base Mastic

Lab ID-Version‡: 12858895-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity:	Good

Location: 0720-37-133, Tan Cove Base Mastic

Lab ID-Version‡: 12858896-1

Sample Layers	Asbestos Content
Tan Mastic	ND
Sample Composite Homogeneity:	Good

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Project No.: 092751-AS
 Project Name: Grossmont High School - Cafeteria Building, Press Box & Weight Room / Museum
 Project Address: 1100 Murray Drive, El Cajon CA 92020
 Inspector: Murrieta
 Sample Date: 07-20-2021
 Send Results to: RESULTS.SOCAL@TITAN-ENVIRO.COM
 Analysis: PLM Bulk Asbestos Analysis by EPA 600/R-93/116 / Other:

Special Instructions:
☐ Stop at first positive (>1%) EXCEPT for wall systems.
☐ Stop at first positive (>1%) for ALL samples.
☒ Other: No Stop At First Positive

Lab: Em Labs - San Diego
 TAT: 3 hr / 6 hr / 24 hr / Other: 5 Day

Sample	Sample Location	Material Description	Material Locations	Quantity
0720-01	01 S.W end / South Booth - Ceiling	NA / White	Throughout Press Box	950 SF
	02 N. end / E. wall / Center Booth	Texture Drywall & Joint Compound		
	03 Canter / N. wall / North Booth	Orange Peel / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc		
		Condition: G / D / SD		
0720-02	04 Center - N. wall - North Storage	NA / Grey	Throughout Cafeteria Building	29,500 SF
	05 Center - S. wall - Boiler Room	Skim Coat / Plaster / Button Board		
	06 S. end - W. wall - Large Classroom	NA / NA		
	07 W. end - S. wall - East Corridor	NA / NA		
	08 Center - W. wall - Cook Area	TSI / Non-Friable		
	09 S. end - W. wall - Large Office	TSI / Surf / Misc		
	10 W. end - N. wall - Mens Restroom	Condition: G / D / SD		
0720-03	11 S.E end - Large Office - Ceiling	NA / White	Throughout Cafeteria Building	4300 SF
	12 S. end - Serve / Prep	Drywall Without Joint Compound		
	13 E. end - Prep 2	NA / NA		
	14 N. end - North Corridor	NA / NA		
	15 E. end - Small Office	TSI / Non-Friable		
	16 N. end - Large Classroom	TSI / Surf / Misc		
	17 S. end - Large Classroom	Condition: G / D / SD		

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 7/22/21 9:00

CORPORATE ADDRESS: 1521 EAST ORANGETHORPE AVENUE, SUITE B, FULLERTON, CA 92831 * PHONE: 888-948-4826

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Sample		Sample Location	Material Description	Material Locations	Quantity
0720-04	18	W. end - Boiler Room	NA / White	Within Cafeteria Building - Boiler Room	50 SF
	19	W. end - Boiler Room	Drywall & Joint Compound (Patch)		
	20	W. end - Boiler Room	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		
0720-05	21	N. end - Large Classroom	3'x1.5' / White	Within Cafeteria Building - Large Classroom	3500 SF
	22	E. end - Large Classroom	White 3'x1.5' Drywall Ceiling Tile		
	23	S. end - Large Classroom	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		
0720-06	24	S.E. end - Large Office - Ceiling	12"x12" / White	Throughout Cafeteria Building	6500 SF
	25	E. end - Prep 2	White 12"x12" Flat Hole Ceiling Tile		
	26	N. end - Large Classroom	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-07	27 S.E. end - Large Office - Ceiling	NA / Brown	Throughout Cafeteria Building	6500 SF
	28 E. end - Prep 2	Brown Ceiling Tile Mastic		
	29 N. end - Large Classroom	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-08	30 W. end - N. wall - Large Office	NA / Tan	Within Cafeteria Building - Serve / Prep &	200 SF
	31 E. end - N. wall - Serve / Prep	Tan Cove Base Mastic	Large Office	
	32 E. end - S. wall - Serve / Prep	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-09	33 S.E. end - Large Office	12"x12" / Tan & Blue	Within Cafeteria Building - Serve / Prep &	1100 SF
	34 S.E. end - Serve / Prep	Tan & Blue 12"x12" Floor Tile	Large Office	
	35 N.E. end - Serve / Prep	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample		Sample Location	Material Description	Material Locations	Quantity
0720-10	36	S.E end - Large Office	NA / Light Brown	Within Cafeteria Building - Serve / Prep &	1100 SF
	37	S.E end - Serve / Prep	Light Brown Floor Tile Mastic	Large Office	
	38	N.E end - Serve / Prep	NA / NA		
			NA / Middle		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		
0720-11	39	S.E end - Large Office	NA / NA	Within Cafeteria Building - Large Office	400 SF
	40	N.E end - Large Office	Tan Floor Tile		
	41	N.W end - Large Office	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		
0720-12	42	S.E end / Large Classroom	9"x9" / Brown	Within Cafeteria Building - Corridor &	4800 SF
	43	Center / Large Classroom	Brown 9"x9" Floor Tile	Large Classroom	
	44	E end / Corridor	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		



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J. Smith

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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-13	45	S.E. end / Large Classroom	NA / Black	Within Cafeteria Building - Corridor & 5500 SF
	46	Center / Large Classroom	Black Floor Tile Mastic	Large Classroom & Large Office
	47	E end / Corridor	NA / NA	
		NA / Bottom		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-14	48	W. end - Boiler Room	NA / White	Within Cafeteria Building - Boiler Room 350 SF
	49	W. end - Boiler Room	White Boiler Tank Insulation	
	50	W. end - Boiler Room	NA / NA	
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-15	51	N. end - Attic	NA / White	Within Cafeteria Building - Attic 50 SF
	52	N. end - Attic	White TSI Packed Elbow	
	53	N. end - Attic	NA / NA	
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample		Sample Location	Material Description	Material Locations	Quantity
0720-16	54	S.W end / Mezzanine above Cook Storage	NA / White & Brown	Within Cafeteria Building - Attic	700 SF
	55	N.W end / Mezzanine above Cook Storage	White & Brown Packed Pipe runs		
	56	E. end / Mezzanine above Cook Storage	NA / NA		
			NA / NA		
			Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		
0720-17	57	N.W end - Cafeteria Building	NA / Grey	Exterior Cafeteria Building	9500 SF
	58	N.E end - Cafeteria Building	Grey Exterior Stucco - Walls		
	59	E. end - Cafeteria Building	Rough Dash / NA		
	60	S.E end - Cafeteria Building	NA / NA		
	61	S.E end - Cafeteria Building - Mens RR	Friable / Non-Friable		
	62	S. end - Cafeteria Building	TSI / Surf / Misc.		
	63	S.W end - Cafeteria Building	Condition: G / D / SD		
0720-18	64	N.W end - Cafeteria Building - Over Hang	NA / Grey	Exterior Cafeteria Building	2500 SF
	65	N.W end - Cafeteria Building - Over Hang	Grey Exterior Stucco - Overhang		
	66	N.E end - Cafeteria Building - Over Hang	Rough Dash / NA		
	67	S.E end - Cafeteria Building - Over Hang	NA / NA		
	68	S. end - Cafeteria Building - Over Hang	Friable / Non-Friable		
			TSI / Surf / Misc.		
			Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-19	69 W. end - Cafeteria Building	NA / White	Exterior Cafeteria Building	200 SF
	70 E. end - Cafeteria Building	White Window Putty		
	71 S. end - Cafeteria Building	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-20	72 Center - W. wall - Film Room	NA / Grey	Throughout Weight Room & Museum	36000 SF
	73 E. end - S. wall - Equipment Room	Skim Coat / Plaster / Button Board	Building	
	74 Center - N. wall - Weight Room	NA / NA		
	75 S. end - E. wall - Weight Room	NA / NA		
	76 N. end - W. wall - Storage	Friable / Non-Friable		
	77 S. end - W. wall - Weight Room Restroom	TSI / Surf / Misc.		
	78 E. end - N. wall - Museum	Condition: G / D / SD		
0720-21	79 S.W end - Museum	NA / White	Within Weight Room & Museum	2750 SF
	80 S.E end - Museum	Drywall Without Joint Compound	Building - Museum	
	81 N. end - Museum	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-22	82 S.W end - Museum	12"x12" / White	Within Weight Room & Museum	3500 SF
	83 E. end - Corridor	White 12"x12" Pin Hole Ceiling Tile	Building - Museum, Main Corridor,	
	84 S.W end - Storage	NA / NA	Storage & Office	
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc		
		Condition: G / D / SD		
0720-23	85 S.W end - Museum	NA / Brown	Within Weight Room & Museum	3500 SF
	86 E. end - Corridor	Brown Ceiling Tile Mastic	Building - Museum, Main Corridor,	
	87 S.W end - Storage	NA / NA	Storage & Office	
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc		
		Condition: G / D / SD		
0720-24	88 S. end - Film Room - Plenum	NA / Grey	Within Weight Room & Museum	400 SF
	89 S. end - Film Room - Plenum	Grey Corrugated Ducting	Building - Film Room, Equipment Room &	
	90 S. end - Equipment Room	NA / NA	Plenum	
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc		
		Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-25	91 S. end / Film Room	2'x4' / White	Within Weight Room & Museum	400 SF
	92 W. end / Film Room	White 2'x4' Ceiling Tile	Building - Film Room & North Entrance	
	93 W. end / North Entrance	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-26	94 W. end - Mechanical Room	NA / White	Within Weight Room & Museum	400 SF
	95 W. end - Mechanical Room	White Boiler Tank Insulation	Building - Mechanical Room	
	96 W. end - Mechanical Room	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-27	97 S.W end - Museum / Weight Room Building	NA / Grey	Exterior of Weight Room & Museum	13000 SF
	98 S. end - Museum / Weight Room Building	Grey Exterior Stucco Walls	Building	
	99 S.E end - Museum / Weight Room Building	Rough Dash / NA		
	100 E. end - Museum / Weight Room Building	NA / NA		
	101 N.E end - Museum / Weight Room Building	Friable / Non-Friable		
	102 N.W end - Museum / Weight Room Building	TSI / Surf / Misc.		
	103 W. end - Museum / Weight Room Building	Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-28	104 S.W end - Museum / Weight Room Building	NA / Grey	Exterior of Weight Room & Museum	1000 SF
	105 W. end - Museum / Weight Room Building	Grey Exterior Stucco - Overhang	Building	
	106 N.W end - Museum / Weight Room Building	Rough Dash / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-29	107 W. end - Museum / Weight Room Building	NA / Grey	Exterior of Weight Room & Museum	200 SF
	108 N. end - Museum / Weight Room Building	Grey Window Putty	Building	
	109 E. end - Museum / Weight Room Building	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-30	110 W. end - Main Corridor	12"x12" / Brown	Within Weight Room & Museum	600 SF
	111 N. end - Main Corridor	Brown 12"x12" Floor Tile	Building - Main Corridor	
	112 E. end - Main Corridor	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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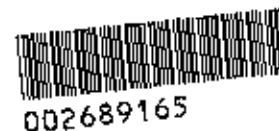
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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-31	113 S.W. end - Office	12"x12" / Grey	Within Weight Room & Museum	400 SF
	114 N. end - Office	Green 12"x12" Floor Tile	Building - Office	
	115 E. end - Office	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-32	116 W. end - Equipment Room	9"x9" / Green	Within Weight Room & Museum	300 SF
	117 S. end - Equipment Room	Green 9"x9" Floor Tile	Building - Equipment Room	
	118 E. end - Equipment Room	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-33	119 W. end - Storage Closet	9"x9" / Blue & Green	Within Weight Room & Museum	100 SF
	120 S. end - Storage Closet	Blue & Green 9"x9" Floor Tile	Building - Storage Closet	
	121 E. end - Storage Closet	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-34	122 N. end - North Entrance	12"x12" / Brown	Within Weight Room & Museum	400 SF
	123 W. end - Film Room	Brown Self Adhesive Floor tile	Building - Film Room & North Entrance	
	124 E. end - Film Room	NA / NA		
		NA / Top Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-35	125 N. end - North Entrance	12"x12" / White	Within Weight Room & Museum	400 SF
	126 W. end - Film Room	White Floor tile	Building - Film Room & North Entrance	
	127 E. end - Film Room	NA / NA		
		NA / Bottom Layer		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
0720-36	128 S. end - Equipment Room	NA / Black	Within Weight Room & Museum	2000 SF
	129 W. end - Storage Closet	Black Floor Tile/Mastic	Building - Main Corridor, Office	
	130 E. end - Corridor	NA / NA	Equipment Room, Storage Closet,	
		NA / Bottom Layer	Film Room & North Entrance	
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
0720-37	131 N. end - W. wall - North Entrance	NA / Tan	Within Weight Room & Museum	125 SF
	132 W. end - N. wall - Film Room	Tan Cove Base Mastic	Building - Film Room & North Entrance	
	133 E. end - S. wall - Film Room	NA / NA		
		NA / NA		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
	Cafeteria Assume Material	Size/Color		
	Unidentified TSI pipe runs or elbows are to	Material		
	Assume Asbestos containing material due to	Texture/Pattern		
	Limited access into the attic / plenum	Assembly/Layers		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
	Museum / Weight Room Assume Material	Size/Color		
	Unidentified TSI pipe runs or elbows are to	Material		
	Assume Asbestos containing material due to	Texture/Pattern		
	NO access into the attic / plenum chase	Assembly/Layers		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Sample	Sample Location	Material Description	Material Locations	Quantity
	Museum / Weight Room Assume Material	Size/Color		
	Unidentified Flooring below the museum	Material		
	Wood floor is to be Assume Asbestos	Texture/Pattern		
	containing material	Assembly/Layers		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
	Museum / Weight Room Assume Material	Size/Color		
	Unidentified Mirror / Cork Board / Caulk	Material		
	Board is to be Assume Asbestos	Texture/Pattern		
	containing material	Assembly/Layers		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		
		Size/Color		
		Material		
		Texture/Pattern		
		Assembly/Layers		
		Friable / Non-Friable		
		TSI / Surf / Misc.		
		Condition: G / D / SD		



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Project Number: 092751-AS, XRF, OT		Date of Inspection:
Project Name: Grossmont High School Cafeteria Bldg., Press Box		Time of Inspection:
Project Address: 1100 Murray Dr. El Cajon, CA		CDPH Inspector Name: E. Laurent
XRF Manufacture (Viken, RMD or Niton): RMD	XRF Serial Number: 31014	Assay Date: 23 Aug 19
Inspection County: San Diego	Paint Condition Codes: I = Intact, D = Deteriorated	
Structure Type (Single Story or Multi-story): Multi	Children under the age of 18 reside and/or present in residence/Structure (Yes or No): Yes	

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
01	CAL	N/E/S/W			Intact / Deteriorated		0.7
02	CAL	N/E/S/W			Intact / Deteriorated		0.7
03	CAL	N/E/S/W			Intact / Deteriorated		0.7
	Press Booth	N/E/S/W			Intact / Deteriorated		
04	Exterior	(N)E/S/W	Columns	wood	(Intact) / Deteriorated	tan	-0.2
05	Exterior	N/E/S/(W)	wall	wood	(Intact) / Deteriorated	white	-0.4
06	Exterior	N/E/S/(W)	Door	wood	(Intact) / Deteriorated	offwhite	-0.4
07	Exterior	(N)E/S/(W)	Door jamb	wood	(Intact) / Deteriorated	white	-0.3
08	Exterior	N/E/S/(W)	Handrails	wood	(Intact) / Deteriorated	tan	-0.2
09	Exterior	(N)E/S/W	Floor	wood	(Intact) / Deteriorated	tan	-0.3
10	N. Booth	(N)E/S/W	Ceiling	Drywall	(Intact) / Deteriorated	white	-0.5
11	N. Booth	(N)E/S/W	wall	drywall	(Intact) / Deteriorated	white	-0.5
12	N. Booth	N/E/S/(W)	Baseboard	wood	(Intact) / Deteriorated	white	-0.0
13	N. Booth	N/E/S/(W)	Desk	wood	(Intact) / Deteriorated	white	-0.3
14	N. Booth	N/E/S/(W)	Window shutter	wood	(Intact) / Deteriorated	offwhite	-0.2
15	N. Booth	N/E/S/(W)	Door	Metal	(Intact) / Deteriorated	brown	-0.4
16	N. Booth	N/E/S/(W)	Door Frame	Metal	(Intact) / Deteriorated	Brown	-0.8
17	Center Booth	(N)E/S/W	Ceiling	Drywall	(Intact) / Deteriorated	white	-0.2
18	Center Booth	N/E/S/(W)	wall	Drywall	(Intact) / Deteriorated	white	-0.3

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
19	Center Bath	(N) E/S/W	Baseboard	wood	Intact / Deteriorated	white	-0.1
20	S. Bath	(N) E/S/W	Ceiling	drywall	Intact / Deteriorated	white	-0.3
21	S. Bath	(N) E/S/W	wall	drywall	Intact / Deteriorated	white	-0.4
22	S. Bath	(N) E/S/W	Baseboard	wood	Intact / Deteriorated	white	-0.1
23	S. Bath	N/E/S/W	Window Sill	wood	Intact / Deteriorated	white	-0.3
24	S. Bath	N/E/S/W	Desk	wood	Intact / Deteriorated	Brown	-0.3
25	S. Bath	(N) E/S/W	Door	metal	Intact / Deteriorated	Brown	-0.2
26	S. Bath	(N) E/S/W	Door Casing	wood	Intact / Deteriorated	Brown	-0.4
27	Exterior	N/E/S/W	Handrail	metal	Intact / Deteriorated	Grey	-0.3
28	Exterior	(N) E/S/W	Stairs	metal	Intact / Deteriorated	Grey	-0.4
	Cafeteria	N/E/S/W			Intact / Deteriorated		
29	Exterior	(N) E/S/W	wall	stucco	Intact / Deteriorated	white	-0.1
30	Exterior	(N) E/S/W	wall	stucco	Intact / Deteriorated	tan	-0.2
31	Exterior	(N) E/S/W	Fascia	wood	Intact / Deteriorated	tan	-0.4
32	Exterior	(N) E/S/W	Handrail	metal	Intact / Deteriorated	Grey	-0.7
33	Exterior	(N) E/S/W	Stairs	concrete	Intact / Deteriorated	Grey	-0.5
34	Exterior	(N) E/S/W	Stairs	concrete	Intact / Deteriorated	Yellow	0.7
35	Exterior	N/E/S/W	Window Case	wood	Intact / Deteriorated	Tan	1.2
36	Exterior	N/E/S/W	Post	metal	Intact / Deteriorated	Grey	-0.7
37	Exterior	(N) E/S/W	Overhang	stucco	Intact / Deteriorated	white	-0.3
38	Exterior	N/E/S/W	Door	metal	Intact / Deteriorated	tan	-0.3
39	Exterior	N/E/S/W	Door	metal	Intact / Deteriorated	Grey	0.7
40	Exterior	N/E/S/W	wall	stucco	Intact / Deteriorated	tan	-0.1
41	Exterior	N/E/S/W	wall	stucco	Intact / Deteriorated	white	-0.0
42	Exterior	N/E/S/W	Fascia	wood	Intact / Deteriorated	tan	-0.4

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
43	Exterior	N/E/S/W	Windowsill	Wood	Intact/Deteriorated	Tan	0.2
44	Exterior	N/E/S/W	Door Frame	Wood	Intact/Deteriorated	Green	2.5
45	Exterior	N/E/S/W	Post	Metal	Intact/Deteriorated	Green	0.7
46	Exterior	N/E/S/W	Eaves	Wood	Intact/Deteriorated	White	-0.1
47	Exterior	N/E/S/W	Handrail	Metal	Intact/Deteriorated	Green	-0.5
48	Exterior	N/E/S/W	Stairs	Concrete	Intact/Deteriorated	Yellow	2.9
49	Exterior	N/E/S/W	Door	Metal	Intact/Deteriorated	White	-0.2
50	Exterior	N/E/S/W	Door Frame	Metal	Intact/Deteriorated	Tan	1.5
51	Large Classroom	N/E/S/W	Ceiling	Ceiling tile	Intact/Deteriorated	Beige	-0.1
52	Large Classroom	N/E/S/W	Ceiling	Ceiling tile	Intact/Deteriorated	White	-0.1
53	Large Classroom	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.5
54	Large Classroom	N/E/S/W	Baseboard	Wood	Intact/Deteriorated	Brown	-0.2
55	Large Classroom	N/E/S/W	Window Casing	Wood	Intact/Deteriorated	White	-0.1
56	Large Classroom	N/E/S/W	Door	Wood	Intact/Deteriorated	White	0.7
57	Large Classroom	N/E/S/W	Door Casing	Wood	Intact/Deteriorated	White	0.7
58	Large Classroom	N/E/S/W	Window	Wood	Intact/Deteriorated	White	-0.0
59	Large Classroom	N/E/S/W	Vent	Metal	Intact/Deteriorated	White	-0.1
60	Large Classroom	N/E/S/W	Conduit	Metal	Intact/Deteriorated	White	-0.2
61	Corridor	N/E/S/W	Crown molding	Wood	Intact/Deteriorated	White	-0.2
62	Corridor	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.3
63	Corridor	N/E/S/W	Baseboard	Wood	Intact/Deteriorated	Brown	-0.1
64	Corridor	N/E/S/W	Door	Wood	Intact/Deteriorated	White	0.7
65	Custodial closet	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.2
66	Custodial closet	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.8
67	Boiler	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	Tan	-0.7

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
68	Boiler	N/E/S/W	wall	Plaster	Intact Deteriorated	Tan	-0.4
69	Prep 2	N/E/S/W	Ceiling	Ceramic tile	Intact Deteriorated	white	-0.1
70	Prep 2	N/E/S/W	wall	Plaster	Intact Deteriorated	white	-0.2
71	Service/Prep 1	N/E/S/W	Crown Molding	wood	Intact Deteriorated	white	0.1
72	Service/Prep 1	N/E/S/W	wall	Plaster	Intact Deteriorated	white	-0.1
73	Wash area	N/E/S/W	Ceiling	plaster	Intact Deteriorated	white	-0.4
74	Wash area	N/E/S/W	wall	Plaster	Intact Deteriorated	white	-0.4
75	Wash Area	N/E/S/W	Floor	Ceramic	Intact Deteriorated	Brown	-0.5
76	Wash area	N/E/S/W	Door casing	wood	Intact Deteriorated	white	0.0
77	Service/Prep 1	N/E/S/W	Door	wood	Intact Deteriorated	Grey	-0.0
78	Men's Restroom	N/E/S/W	Ceiling	Plaster	Intact Deteriorated	white	-0.2
79	Men's Restroom	N/E/S/W	wall	Plaster	Intact Deteriorated	white	-0.1
80	Men's Restroom	N/E/S/W	wall	Terrazo	Intact Deteriorated	Tan	-0.3
81	Men's Restroom	N/E/S/W	Window	wood	Intact Deteriorated	white	1.3
82	Men's Restroom	N/E/S/W	Window casing	wood	Intact Deteriorated	white	0.2
83	Service/Prep 1	N/E/S/W	Conduit	metal	Intact Deteriorated	white	-0.1
84	Cook Area	N/E/S/W	Ceiling	Plaster	Intact Deteriorated	white	-0.2
85	Cook Area	N/E/S/W	wall	Plaster	Intact Deteriorated	white	-0.2
86	Cook Area	N/E/S/W	Cabinet	wood	Intact Deteriorated	white	-0.3
87	Cook Area	N/E/S/W	Cabinet door	wood	Intact Deteriorated	white	-0.3
88	Cook Area	N/E/S/W	Door frame	wood	Intact Deteriorated	white	-0.1
89	Large Office	N/E/S/W	wall	wood	Intact Deteriorated	white	0.1
90	Large Office	N/E/S/W	wall	Plaster	Intact Deteriorated	Tan	-0.1
91	Large Office	N/E/S/W	Window Sill	wood	Intact Deteriorated	white	0.2
92	Large Office	N/E/S/W	Cabinet	wood	Intact Deteriorated	white	-0.4

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
93	Cashier 1	N/E/S/W	Wall	Ceramic	Intact/Deteriorated	Green/Blue	-0.3
94	Cashier 1	N/E/S/W	Wall	Ceramic	Intact/Deteriorated	Green	79.9
95	Cashier 1	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.5
96	Cashier 1	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.4
97	Cashier 1	N/E/S/W	Cabinet	Wood	Intact/Deteriorated	White	-0.0
98	Cashier 1	N/E/S/W	Door Frame	Wood	Intact/Deteriorated	White	-0.2
99	Cashier 2	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.3
100	Cashier 2	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.1
101	Cashier 2	N/E/S/W	Window	Wood	Intact/Deteriorated	White	0.7
102	Cashier 2	N/E/S/W	Window Sill	Wood	Intact/Deteriorated	White	0.2
103	Cashier 2	N/E/S/W	Cabinet	Wood	Intact/Deteriorated	White	-0.4
104	Storage	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	Beige	-0.3
105	Storage	N/E/S/W	Wall	Plaster	Intact/Deteriorated	Beige	-0.6
106	Small Office	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.1
107	Small Office	N/E/S/W	Door molding	Wood	Intact/Deteriorated	White	-0.1
108	Staff Locker	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.5
109	Staff Locker	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.2
110	Staff Locker	N/E/S/W	Door Frame	Wood	Intact/Deteriorated	White	0.1
111	Staff Locker	N/E/S/W	Locker Door	Wood	Intact/Deteriorated	White	-0.3
112	Staff Locker	N/E/S/W	Locker	Wood	Intact/Deteriorated	White	-0.6
113	Staff Locker	N/E/S/W	Window	Wood	Intact/Deteriorated	White	2.1
114	Staff Restroom	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.3
115	Staff Restroom	N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.4
116	Freezer Room	N/E/S/W	Door	Metal	Intact/Deteriorated	White	-0.3
117	Freezer Room	N/E/S/W	Door Frame	Metal	Intact/Deteriorated	White	-0.4

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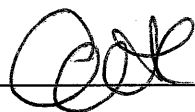
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Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
118	Prep 2	(N) E/S/W	Floor	Terrazo	(Intact) Deteriorated	Brown	-0.6
119	Cook Area	(N) E/S/W	Floor	Terrazo	(Intact) Deteriorated	Brown	-0.7
120	N. Storage	(N) E/S/W	Wall	Plaster	(Intact) Deteriorated	Tan	-0.3
121	N. Storage	(N) E/S/W	Ceiling	Plaster	(Intact) Deteriorated	Tan	-0.5
122	Custodial Closet	(N) E/S/W	Sink	metal	(Intact) Deteriorated	White	29.9
123	Boiler	N (E) S/W	Elec. Panel	metal	(Intact) Deteriorated	Grey	-0.6
124	Prep 2	N/E/S/(W)	Elec. Panel	metal	(Intact) Deteriorated	White	-0.4
125	Cook Area Storage	(N) E/S/W	Ceiling	Plaster	(Intact) Deteriorated	White	-0.4
126	Cook Area Storage	N/E/(S) W	Wall	Plaster	(Intact) Deteriorated	White	-0.3
127	N. Entrance	(N) E/S/W	Ceiling	Plaster	(Intact) Deteriorated	White	-0.2
128	N. Entrance	N (E) S/W	Wall	Plaster	(Intact) Deteriorated	White	-0.6
129	N. Entrance	N (E) S/W	Ladder	Wood	(Intact) Deteriorated	White	0.7
130	Cook Area	N/E/S/(W)	Ladder	Wood	(Intact) Deteriorated	White	0.7
131	Men's Restroom	(N) E/S/W	Sink	Porcelain	(Intact) Deteriorated	White	4.4
132	Cook Area Storage	N/E/S/(W)	Door	Wood	(Intact) Deteriorated	White	-0.1
133	Weight Room/Museum	N/E/S/W		Plaster	(Intact) Deteriorated		
133	Museum	(N) E/S/W	Ceiling	Ceiling tile	(Intact) Deteriorated	White	-0.1
134	Museum	N (E) S/W	Wall	plaster	(Intact) Deteriorated	White	-0.3
135	Museum	N (E) S/W	Baseboard	Wood	(Intact) Deteriorated	White	-0.2
136	Museum	N/E/S/(W)	Window Case	Metal	(Intact) Deteriorated	White	-0.2
137	Museum	(N) E/S/W	Fire extinguisher cabinet	Metal	(Intact) Deteriorated	Red	-0.4
138	Museum	N/E/(S) W	Drinking Fountain	Porcelain	(Intact) Deteriorated	White	5.8
139	Museum	N/E/S/(W)	Door	Metal	(Intact) Deteriorated	Grey	-0.2
140	Main Corridor	(N) E/S/W	Crown molding	Wood	(Intact) Deteriorated	White	0.1
141	Main Corridor	N (E) S/W	Door Jamb	Metal	(Intact) Deteriorated	Grey	-0.2

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
142	Main Corridor	N/E/S/W	wall	ceramic	Intact / Deteriorated	Beige	>9.9
143		N/E/S/W	wall	ceramic	Intact / Deteriorated	Red	>9.9
144		N/E/S/W	window casing	wood	Intact / Deteriorated	Tan	-0.3
145	Restroom	N/E/S/W	ceiling	plaster	Intact / Deteriorated	white	-0.2
146	Restroom	N/E/S/W	wall	plaster	Intact / Deteriorated	white	-0.4
147	Restroom	N/E/S/W	Floor	Terrazo	Intact / Deteriorated	Brown	-0.4
148	Restroom	N/E/S/W	Sink	porcelain	Intact / Deteriorated	white	-0.8
149	Restroom	N/E/S/W	Window	metal	Intact / Deteriorated	white	-0.1
150	Shower	N/E/S/W	ceiling	plaster	Intact / Deteriorated	white	-0.1
151	Shower	N/E/S/W	wall	plaster	Intact / Deteriorated	white	-0.2
152	Shower	N/E/S/W	wall	Terrazo	Intact / Deteriorated	Brown	-0.4
153	Storage	N/E/S/W	ceiling	ceiling tile	Intact / Deteriorated	white	-0.1
154	Office	N/E/S/W	wall	plaster	Intact / Deteriorated	Beige	-0.4
155		N/E/S/W	door	wood	Intact / Deteriorated	Brown	-0.2
156		N/E/S/W	Door Jamb	wood	Intact / Deteriorated	Beige	-0.6
157	Office	N/E/S/W	Crown Molding	wood	Intact / Deteriorated	white	0.2
158		N/E/S/W	wall	plaster	Intact / Deteriorated	Yellow	-0.3
159		N/E/S/W	Baseboard	wood	Intact / Deteriorated	Off white	-0.3
160	Weight room	N/E/S/W	Window	metal	Intact / Deteriorated	Yellow	-0.2
161		N/E/S/W	Door	metal	Intact / Deteriorated	Grey	-0.3
162		N/E/S/W	ceiling	plaster	Intact / Deteriorated	Beige	-0.3
163	Weight room	N/E/S/W	wall	plaster	Intact / Deteriorated	Beige	-0.2
164		N/E/S/W	wall	Terrazo	Intact / Deteriorated	Brown	-0.6
165		N/E/S/W	Sink	Porcelain	Intact / Deteriorated	white	>9.9
166		N/E/S/W	Stall Door	wood	Intact / Deteriorated	Blue	-0.1

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Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
167	Custodial Closet	N/E/S/W	Ceiling	Plaster	Intact / Deteriorated	offwhite	-0.2
168		N/E/S/W	Wall	Plaster	Intact / Deteriorated	offwhite	-0.6
169	Storage	N/E/S/W	Cabinet	wood	Intact / Deteriorated	Beige	-0.3
170		N/E/S/W	Cabinet	wood	Intact / Deteriorated	Tan	-0.4
171	Office	N/E/S/W	Cabinet door	wood	Intact / Deteriorated	Tan	-0.4
172		N/E/S/W	Furnace	Metal	Intact / Deteriorated	Yellow	-0.5
173	Custodial closet	N/E/S/W	Ladder	wood	Intact / Deteriorated	Brown	-0.4
174		N/E/S/W	Sink	Metal	Intact / Deteriorated	White	>9.9
175	Weight Room	N/E/S/W	pur Jamb	wood	Intact / Deteriorated	Tan	-0.2
176		N/E/S/W	Ceiling	Plaster	Intact / Deteriorated	white	-0.2
177		N/E/S/W	Wall	Plaster	Intact / Deteriorated	White	-0.4
178		N/E/S/W	Floor	Terrazo	Intact / Deteriorated	Brown	-0.5
179		N/E/S/W	Window Casing	wood	Intact / Deteriorated	Tan	-0.4
180		N/E/S/W	Door Casing	wood	Intact / Deteriorated	Tan	-0.1
181		N/E/S/W	Window	Metal	Intact / Deteriorated	White	-0.2
182		N/E/S/W	Door	wood	Intact / Deteriorated	Brown	-0.4
183		N/E/S/W	Post	Metal	Intact / Deteriorated	White	2.4
184		N/E/S/W	Wall	Plaster	Intact / Deteriorated	Brown	-0.7
185	Storage Closet	N/E/S/W	Wall	Plaster	Intact / Deteriorated	Blue	-0.5
186		N/E/S/W	Ceiling	Plaster	Intact / Deteriorated	White	-0.1
187		N/E/S/W	Wall	Plaster	Intact / Deteriorated	White	-0.4
188		N/E/S/W	Baseboard	wood	Intact / Deteriorated	White	-0.5
189		N/E/S/W	Cabinet	wood	Intact / Deteriorated	White	-0.1
190		N/E/S/W	Drawer	wood	Intact / Deteriorated	White	-0.2
191		N/E/S/W	Window	Metal	Intact / Deteriorated	White	-0.4

IH Signature



Date

7-20-21

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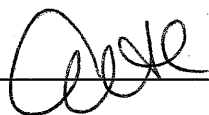
8 of 10

Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
192	Corridor	N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.2
193		N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.1
194		N/E/S/W	Floor	Terrazo	Intact/Deteriorated	Blue	-0.5
195		N/E/S/W	Bulletin Board	Wood	Intact/Deteriorated	White	2.4
196		N/E/S/W	Door	Wood	Intact/Deteriorated	Brown	-0.1
197	Equipment Room	N/E/S/W	Door	Metal	Intact/Deteriorated	Gray	-0.4
198		N/E/S/W	Door Jamb	Wood	Intact/Deteriorated	Beige	-0.2
199		N/E/S/W	Ceiling	Plaster	Intact/Deteriorated	White	-0.1
200		N/E/S/W	Baseboard	Wood	Intact/Deteriorated	White	-0.4
201		N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.3
202	N. Entrance	N/E/S/W	Ceiling	Ceiling tile	Intact/Deteriorated	White	-0.3
203		N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.2
204	Film Room	N/E/S/W	Ceiling T-bar	Metal	Intact/Deteriorated	White	-0.1
205		N/E/S/W	Wall	Plaster	Intact/Deteriorated	White	-0.2
206	N. Entrance	N/E/S/W	Window	Metal	Intact/Deteriorated	White	-0.4
207		N/E/S/W	Door Jamb	Metal	Intact/Deteriorated	White	-0.3
208		N/E/S/W	Door	Metal	Intact/Deteriorated	Gray	-0.6
209	Weight Room	N/E/S/W	Fire extinguisher cabinet	Metal	Intact/Deteriorated	Red	-0.4
210	Restroom	N/E/S/W	Cabinet	Wood	Intact/Deteriorated	White	-0.4
211	Storage	N/E/S/W	Desk	Wood	Intact/Deteriorated	White	-0.2
212	Weight Room	N/E/S/W	Bulletin Board	Wood	Intact/Deteriorated	White	2.4
213	Weight Room	N/E/S/W	Cubbies	Wood	Intact/Deteriorated	Tan	0.7
214	Exterior	N/E/S/W	Wall	Stucco	Intact/Deteriorated	White	-0.3
215	Exterior	N/E/S/W	Wall	Ceramic	Intact/Deteriorated	Green	0.5
216	Exterior	N/E/S/W	Lockers	Metal	Intact/Deteriorated	Tan	-0.5

IH Signature



Date

7-20-21

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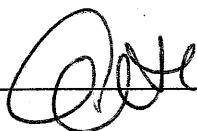
9 of 10

Project Number:

Project Name:

Sample Number	Room	Wall	Component	Substrate	Paint Condition	Color	Lead (MG/CM2)
217	Exterior	N/E/S/W	Window	Metal	Intact / Deteriorated	Brown	-0.5
218	Exterior	N/E/S/W	Window sill	Wood	Intact / Deteriorated	Brown	0.7
219	Exterior	N/E/S/W	Eaves	Stucco	Intact / Deteriorated	White	-0.2
220	Exterior	N/E/S/W	Fascia	Wood	Intact / Deteriorated	Brown	-0.1
221	Exterior	N/E/S/W	Door	Metal	Intact / Deteriorated	Grey	-0.5
222	Exterior	N/E/S/W	Wall	Stucco	Intact / Deteriorated	White	-0.3
223	Exterior	N/E/S/W	Window casing	Stucco	Intact / Deteriorated	Brown	-0.2
224	Exterior	N/E/S/W	Window	Metal	Intact / Deteriorated	Brown	-0.7
225	Exterior	N/E/S/W	Door	Metal	Intact / Deteriorated	Grey	-0.6
226	Exterior	N/E/S/W	Post	Metal	Intact / Deteriorated	Grey	4.1
227	Exterior	N/E/S/W	Louvers	Metal	Intact / Deteriorated	Brown	-0.0
228	Exterior	N/E/S/W	Eaves	Wood	Intact / Deteriorated	Brown	-0.3
229	Exterior	N/E/S/W	Fascia	Wood	Intact / Deteriorated	Brown	-0.2
230	Exterior	N/E/S/W	Door frame	Metal	Intact / Deteriorated	Grey	-0.5
231	Exterior	N/E/S/W	Drinking Fountain	Porcelain	Intact / Deteriorated	White	-0.3
232	Mechanical Room	N/E/S/W	Ceiling	Plaster	Intact / Deteriorated	Offwhite	-0.2
233	Mechanical Room	N/E/S/W	Wall	Plaster	Intact / Deteriorated	Offwhite	-0.4
234	Mechanical Room	N/E/S/W	Pipes	Metal	Intact / Deteriorated	Silver	0.7
235	Mechanical Room	N/E/S/W	Door jamb	Wood	Intact / Deteriorated	Green	0.7
236	Film Room	N/E/S/W	Wall	Plaster	Intact / Deteriorated	Yellow	-0.2
237	Corridor (Plenum)	N/E/S/W	Beam	Metal	Intact / Deteriorated	Orange	4.5
238	Weight Room	N/E/S/W	Vent	Metal	Intact / Deteriorated	White	-0.2
239	CLC	N/E/S/W			Intact / Deteriorated		0.7
240	CLC	N/E/S/W			Intact / Deteriorated		0.7
241	CLC	N/E/S/W			Intact / Deteriorated		0.7

IH Signature



Date

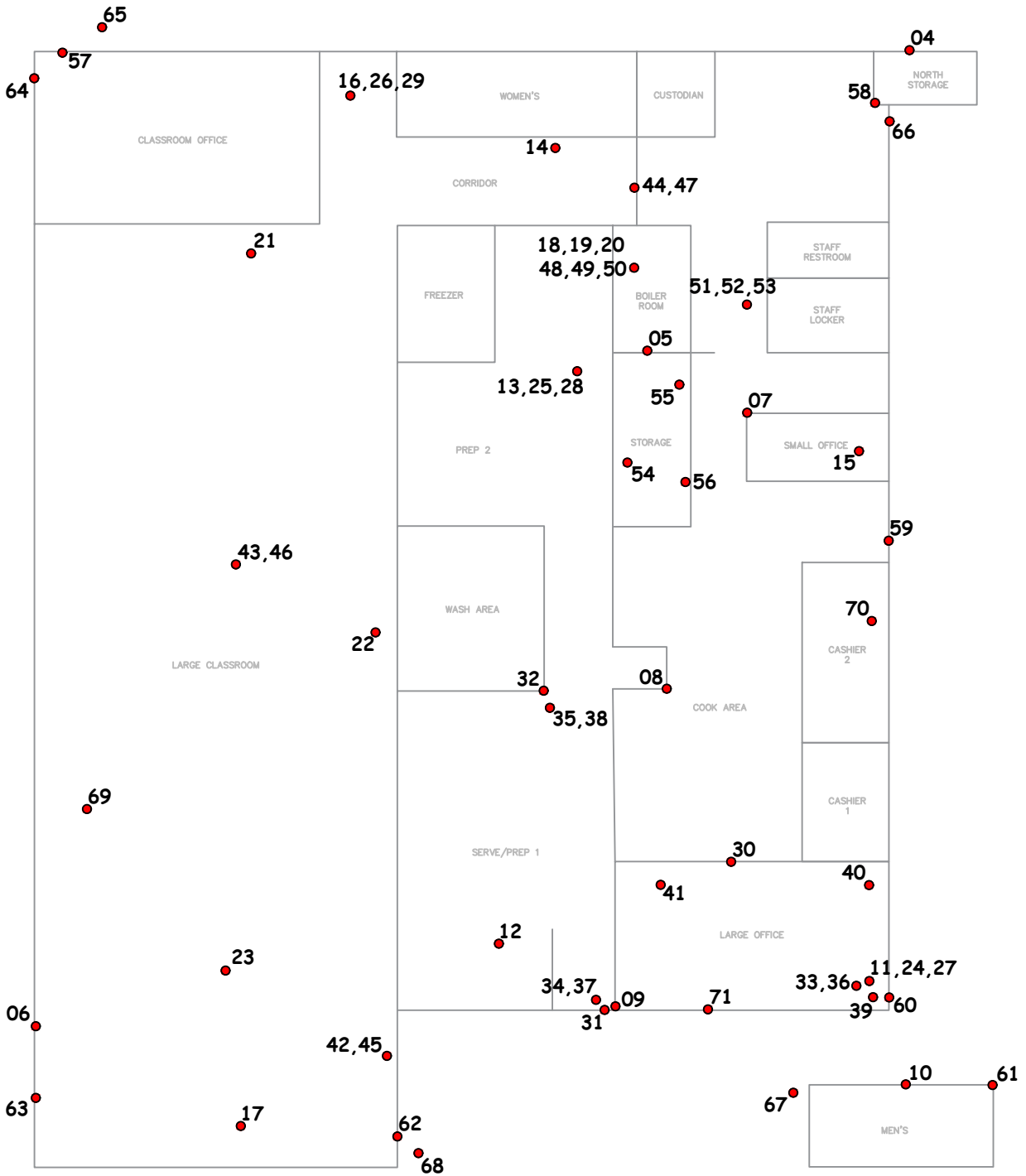
7-20-21

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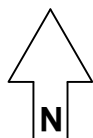


ATTACHMENT II

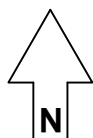
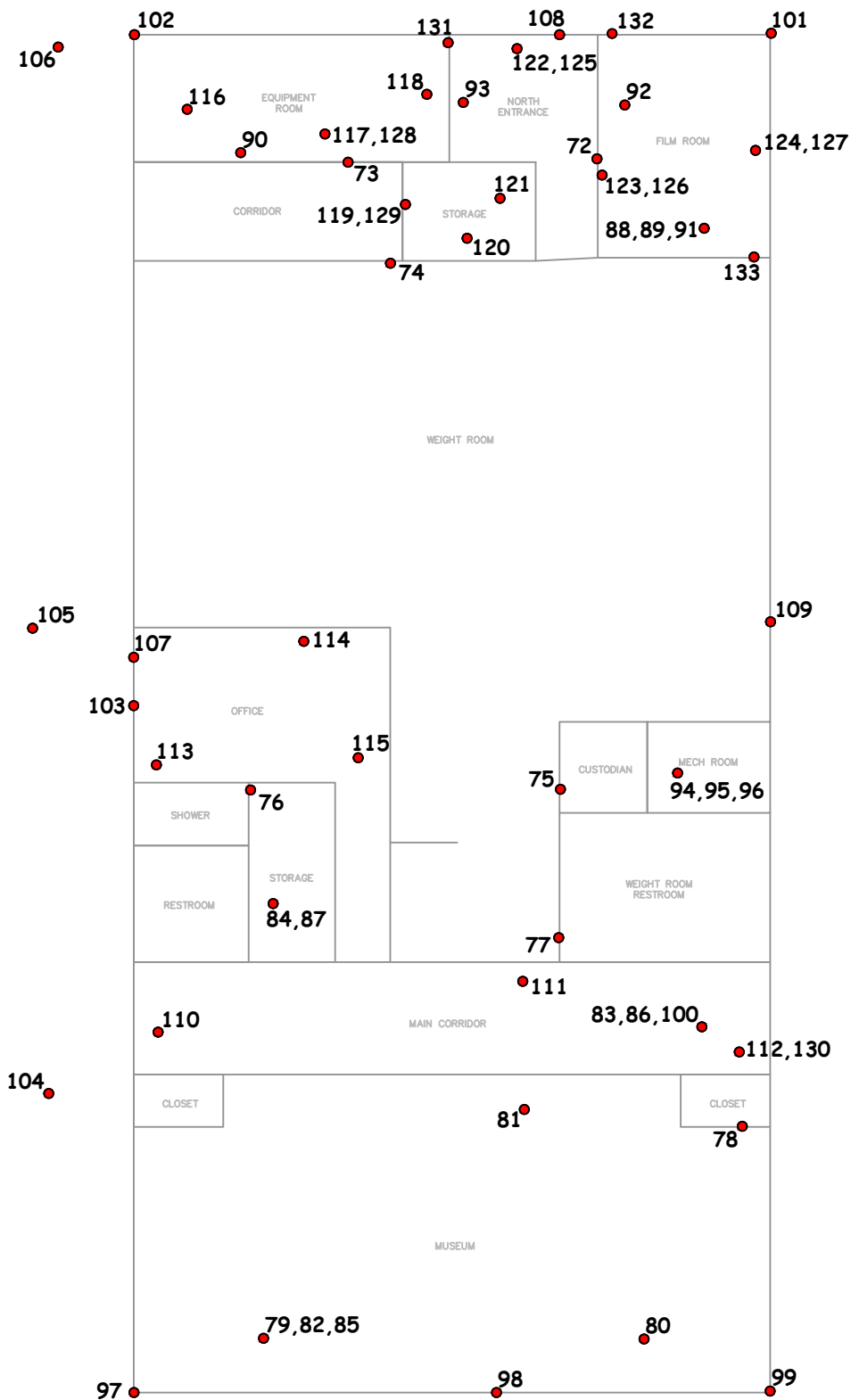
CAD Floor Plan Drawings




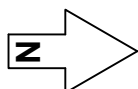
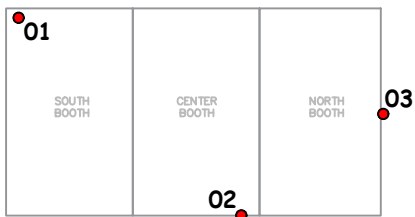
<p>LEGEND</p> <p>● ASBESTOS SAMPLE LOCATION</p>	PROJECT NAME		GROSSMONT HIGH SCHOOL	
	ADDRESS		1100 MURRAY DRIVE EL CAJON, CA 92020	
	PROJECT NO.		DATE SAMPLED	
	092751		7/20/21	
	REFERENCE:			
	FIGURE: 1		CAFETERIA	




1521 E. Orangethorpe Ave, Suite B
Fullerton, CA 92831
Phone: (714) 871-8711



<div>LEGEND</div> <div><div>●</div>ASBESTOS SAMPLE LOCATION</div>		PROJECT NAME		GROSSMONT HIGH SCHOOL		
		ADDRESS		1100 MURRAY DRIVE EL CAJON, CA 92020		
		PROJECT NO.	DATE SAMPLED		<div><div>1521 E. Orangethorpe Ave, Suite B Fullerton, CA 92831 Phone: (714) 871-8711</div></div>	
		092751	7/20/21			
		REFERENCE:				
		FIGURE: 2		MUSEUM/WEIGHT ROOM		



LEGEND  ASBESTOS SAMPLE LOCATION		PROJECT NAME		GROSSMONT HIGH SCHOOL	
		ADDRESS		1100 MURRAY DRIVE EL CAJON, CA 92020	
		PROJECT NO.		DATE SAMPLED	
		092751		7/20/21	
		REFERENCE:			
FIGURE: 3		PRESS BOX			



ATTACHMENT III

Photo Log

Photo Log

Project Name:	092751-AS,XRF,OT
Project Location:	Grossmont High School Cafeteria Building, Press Box and Weight Room/Museum







	
<p>Photo of non-asbestos containing drywall/joint compound ceiling and wall materials within Press Box.</p>	<p>Photo of flooring underneath carpet in Press Box; no mastic identified.</p>
	
<p>Photo of asbestos-containing white/brown packed pipe run in Cafeteria Building – Attic.</p>	<p>Photo of asbestos-containing white TSI packed elbow in Cafeteria Building – Attic.</p>
	
<p>Photo of asbestos-containing brown 9"x9" floor tile in Cafeteria Building.</p>	<p>Photo of asbestos-containing white boiler tank insulation in Cafeteria Building.</p>



Photo of asbestos-containing white drywall and joint compound (patch) in Cafeteria Building.



Photo of lead-based tan wood window casing on the exterior of the Cafeteria.



Photo of lead-based green ceramic wall in Cafeteria Building - Cashier 1.



Photo of asbestos-containing gray corrugated ducting in Weight Room/Museum Building.



Photo of asbestos-containing white boiler tank insulation in Weight Room/Museum Building.



Photo of asbestos-containing gray window putty on exterior of Weight Room/Museum Building.



Photo of asbestos-containing blue/green 9"x9" floor tile in Weight Room/Museum Building – Equipment Room.



Photo of lead-based beige and white ceramic walls in Weight Room/Museum Building – Main Corridor.



Photo of lead-containing tan wood cubbies in Weight Room.



Photo of lead-containing silver metal pipe in Mechanical Room.



ATTACHMENT IV

Inspector Certification(s)

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician

Marc A Murrietta



Name

Certification No. **10-4694**

Expires on **11/17/21**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Marc Murrietta

CERTIFICATE TYPE:

Lead Inspector/Assessor
Lead Project Monitor

NUMBER:

LRC-00006097
LRC-00006096

EXPIRATION DATE:

5/10/2022
5/10/2022

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician

Eugenie M Laurent

Name

Certification No. **10-6776**

Expires on **10/06/21**



This certification was issued by the Division of
Occupational Safety and Health as authorized by
Sections 7160 et seq. of the Business and
Professions Code.



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Eugenie Laurent

CERTIFICATE TYPE:

Lead Inspector/Assessor

NUMBER:

LRC-00006032

EXPIRATION DATE:

3/16/2022

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State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Robert B Menald

Name



Certification No. **08-4323**

Expires on **01/17/22**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Robert Menald

CERTIFICATE TYPE:

Lead Inspector/Assessor
Lead Project Monitor

NUMBER:

LRC-00005260
LRC-00005259

EXPIRATION DATE:

2/20/2022
2/20/2022

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State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant



Ibrahim M Sobeih

Name

Certification No. 06-4078

Expires on 10/18/21

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7100 et seq. of the Business and Professions Code.

TITAN

ENVIRONMENTAL
SOLUTIONS

ASBESTOS, LEAD AND UNIVERSAL WASTE (UW) CONTAINING MATERIALS ABATEMENT SPECIFICATIONS

SUBJECT PROPERTY:

GROSSMONT HIGH SCHOOL
CAFETERIA BUILDING, PRESS BOX AND WEIGHT ROOM/MUSEUM
1100 MURRAY DRIVE
EL CAJON, CALIFORNIA 92020

PREPARED FOR:

GROSSMONT UNION HIGH SCHOOL DISTRICT
ATTN: MS. KATY WRIGHT
1100 MURRAY DRIVE
EL CAJON, CALIFORNIA 92020

PREPARED BY:



TITAN ENVIRONMENTAL SOLUTIONS, INC.
1521 EAST ORANGETHORPE AVENUE, SUITE B
FULLERTON, CALIFORNIA 92831

PROJECT No. 092751-OT

AUGUST 4, 2021

Northern California
1901 Harrison Street, Suite 1100
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Corporate Office
1521 East Orangethorpe Ave., Suite B
Fullerton, CA 92831

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www.titan-enviro.com

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SECTION I – ASBESTOS ASBESTOS ABATEMENT AND ASBESTOS-RELATED WORK

PART 1 - GENERAL

1.1.0 DESCRIPTION

- A. Work included: The licensed Contractor shall furnish all labor, employee training, materials, services, permits and agreements, insurance (specifically covering the handling and transportation of Asbestos-Containing Material, Asbestos-Containing Construction Material and Asbestos-Containing Waste Material), and equipment which is specified, shown, or reasonably implied for abatement or disturbance of the materials included for abatement and all other work in accordance with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the State of California Division of Occupational Safety and Health (DOSH), and any other applicable federal, state and local government regulations.
- B. The scope of work for this project includes the removal and disposal of the identified material in the following Table.

Table 1-1: Summary of Identified ACMs									
Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-04-18 0720-04-19 0720-04-20	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Drywall and Joint Compound (Patch)	Misc.	NF	G	Within Cafeteria Building - Boiler Room	50 SF	2% Chrysotile (Joint Compound) <1% Chrysotile (Drywall and Joint Compound Composite) ND (Drywall)	Cat I ACM
0720-11-39 0720-11-40 0720-11-41	SE End of Large Office NE End of Large Office NW End of Large Office	Tan Floor Tile	Misc.	NF	G	Within Cafeteria Building - Large Office	400 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM

Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-12-42 0720-12-43 0720-12-44	SE End of Large Classroom Center of Large Classroom E End of Corridor	Brown 9"x9" Floor Tile	Misc.	NF	G	Within Cafeteria Building - Corridor and Large Classroom	4800 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-14-48 0720-14-49 0720-14-50	W End of Boiler Room W End of Boiler Room W End of Boiler Room	White Boiler Tank Insulation	TSI	F	G	Within Cafeteria Building - Boiler Room	350 SF	15% Amosite 6% Chrysotile	RACM
0720-15-51 0720-15-52 0720-15-53	N End of Attic N End of Attic N End of Attic	White TSI Packed Elbow	TSI	F	G	Within Cafeteria Building - Attic	50 SF	15% Amosite 6% Chrysotile	RACM
0720-16-54 0720-16-55 0720-16-56	SW End of Mezzanine Above Cook Storage NW End of Mezzanine Above Cook Storage E End of Mezzanine Above Cook Storage	White / Brown Packed Pipe Runs	TSI	F	G	Within Cafeteria Building - Attic	700 SF	50% Chrysotile	RACM
0720-24-88 0720-24-89 0720-24-90	S End of Film Room - Plenum S End of Film Room - Plenum S End of Equipment Room	Gray Corrugated Ducting	TSI	F	G	Within Weight Room and Museum Building - Film Room, Equipment Room and Plenum	400 SF	65% Chrysotile	RACM
0720-26-94 0720-26-95 0720-26-96	W End of Mechanical Room W End of Mechanical Room W End of Mechanical Room	White Boiler Tank Insulation	TSI	F	G	Within Weight Room and Museum Building - Mechanical Room	400 SF	14% Amosite 8% Chrysotile	RACM
0720-29-107 0720-29-108 0720-29-109	W End of Weight Room and Museum Building N End of Weight Room and Museum Building E End of Weight Room and Museum Building	Gray Window Putty	Misc.	F	G	Exterior of Weight Room and Museum Building	200 SF	3% Chrysotile (Window Glazing) ND (Putty / Caulking)	Cat I ACM

Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
0720-30-110 0720-30-111 0720-30-112	W End of Main Corridor N End of Main Corridor E End of Main Corridor	Brown 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Main Corridor	600 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-31-113 0720-31-114 0720-31-115	SW End of Office N End of Office E End of Office	Gray 12"x12" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Office	400 SF	2% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-32-116 0720-32-117 0720-32-118	W End of Equipment Room S End of Equipment Room E End of Equipment Room	Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Equipment Room	300 SF	6% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
0720-33-119 0720-33-120 0720-33-121	W End of Storage Closet S End of Storage Closet E End of Storage Closet	Blue/ Green 9"x9" Floor Tile (Top Layer)	Misc.	NF	G	Within Weight Room and Museum Building - Storage Closet	100 SF	8% Chrysotile (Floor Tile) ND (Mastic)	Cat I ACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Cafeteria	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	TSI Pipe Runs or Elbows	TSI	F	G	Weight Room and Museum Building	Approximately 50 SF (Elbows) and Approximately 700 SF (Runs)	Assumed ACM	RACM
N/A	N/A	Unidentified Flooring Below Museum Wood Floor	Misc.	NF	G	Weight Room and Museum Building	Approximately 2650 SF	Assumed ACM	Cat I ACM
N/A	N/A	Unidentified Mirror / Corkboard / Chalkboard	Misc.	NF	G	Weight Room and Museum Building	Approximately 225 SF	Assumed ACM	Cat I ACM

Legend:

N = North, E = East, W = West, S = South, SF = Square Feet, LF = Linear Feet, ND = None Detected

Classification (Class.): Misc. = Miscellaneous, Surf. = Surfacing, TSI = Thermal System Insulation

Condition: G = Good, D = Damaged, SD = Significantly Damaged

Categories (Cat.):

- Cal/OSHA: ACCM = Asbestos Containing Construction Materials, ACM = Asbestos Containing Materials,
- NESHAP: Cat I = Category I Non-friable ACM, Cat II = Category II Non-friable ACM, RACM = Regulated Asbestos Containing Material

Table 1-1: Summary of Identified ACMs

Sample No.	Sample Locations	Material Description	Class.	Friable/ Non-Friable	Condition (G, D, SD)	Material Location(s)*	Estimated Quantity*	Analytical Results	Cat.
<p>*Locations and quantities are estimates based on accessible materials located in the survey area only. Additional locations and quantities may be present at the Subject Property.</p> <p>**In accordance to 40 CFR Section 61.141 and US EPA Applicability Determination Index Control Number: C112, if the amount by visual estimation appears to be less than 10 percent, the owner or operator may (1) assume the amount to be greater than 1 percent and treat the materials asbestos-containing material, or (2) require verification of the amount by point counting. If a result obtained by point count is different from a result obtained by visual estimation, the point count result will be used.</p> <p>Please note the Certified Asbestos Consultant will assume any material that is <1% analyzed via PLM and not verified by point count as an Asbestos Containing Material (ACM).</p>									

- C. Contractor is required to verify the scope of work prior to commencing work, including quantities of materials to be removed and to determine the degree of difficulty in removing the identified materials.
- D. Applicable Publications: The publications listed below form a part of these Specifications to the extent referenced. The publications are referred to in the text by the basic designation only.
 1. Code of Federal Regulations (CFR) Publications:

29 CFR 1910.1001	Asbestos
29 CFR 1926.1101	Asbestos
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.1020	Access to Employee Exposure and Medical Records
29 CFR 1910.132	General Requirements - Personal Protective Equipment
29 CFR 1910.133	Eye and Face Protection
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specifications for Accident Prevention, Signs and Tags
29 CFR 1910.146	Confined Space
29 CFR 1910.147	Lockout/Tagout
40 CFR 61, Subpart A	General Conditions
40 CFR 61, Subpart M	National Emission Standards for Asbestos
40 CFR 61.152	Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations
 2. American National Standard Institute/American Industrial Hygiene Association (ANSI/AIHA) Publications:

Z9.2-2006	Fundamentals Governing the Design and Operation of Local Exhaust Systems
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 3. American National Standard Institute/American Society of Safety Engineers (ANSI/ASSE) Publications:

Z88.2-2015	Practices for Respiratory Protection
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 4. National Fire Protection Association (NFPA):

Standard 90A	Installation of Air Conditioning and Ventilation Systems, 2015 Edition
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5. U. S. Environmental Protection Agency (EPA):
Publication No.
560/5-85-024 Guidance for Controlling Asbestos-Containing
Materials in Buildings, June, 1985
6. American Society for Testing and Materials (ASTM) Publications:
E 849-82 Safety and Health Requirements Relating to
Occupational Exposures to Asbestos
P 189 Specifications for Encapsulants for Friable Asbestos-
Containing Materials
7. National Institute of Occupational Safety and Health (NIOSH) Publications:
Manual of Analytical Methods, 2nd Edition, Volume 1
Method 7400 Asbestos and Other Fibers by PCM
8. Underwriters Laboratories, Inc. (UL) Publications:
586-77 (R1982) Test Performance of High Efficiency Particulate Air
Filter Units
9. California Code of Regulations (CCR) Publications:
8 CCR 1529 Construction Safety Orders-Asbestos
8 CCR 5208 General Industry Safety Orders-Asbestos
8 CCR 5144 Respiratory Protective Equipment
10. San Diego County Air Pollution District (SDCAPCD):
Rule 1206-Asbestos Removal, Renovation, and Demolition
11. Other Local or Regional Regulations that apply to Asbestos-Related Work.

Please note the Contractor is responsible for ascertaining the extent to which these regulations will affect removal operations and to comply therewith.

1.1.1 DEFINITIONS

- A. Owner: Grossmont Union High School District
- B. Abatement: Procedures to control fiber release from Asbestos-Containing building materials. Includes removal, encapsulation, and enclosure.
- C. Aggressive Method: means removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.
- D. Air Lock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area (See Decontamination Enclosure System Plan in the Drawing section of this Project Manual).
- E. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.
- F. Air Sampling Professional: The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in Worker protection equipment and procedures during both planning and on-site phases of an Abatement Project. Acceptable Air Sampling Professionals include

Industrial Hygienists, Environmental Engineers and Environmental Scientists with equivalent experience in Asbestos air monitoring and Worker protection.

- G. Amended Water: Water to which a surfactant has been added.
- H. Area Monitoring: Sampling of airborne fiber concentrations within the Asbestos Work Area and outside the Asbestos Work Area which are representative of the airborne concentrations of Asbestos fibers which may reach the breathing zone.
- I. Asbestos: Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummingtonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.
- J. Asbestos (CCR definitions): Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummingtonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.
- K. Asbestos-Containing Material (ACM): Material composed of asbestos of any type in an amount greater than one percent (1%) by weight, either alone or mixed with other fibrous or non-fibrous materials.
- L. Asbestos-Containing Construction Material (ACCM): Means any manufactured construction material which contains more than one-tenth of one percent (0.1%) asbestos by weight.
- M. Asbestos-Containing Waste Material: Means friable asbestos waste and asbestos waste from control devices (Pollution Control Devices). Asbestos-Related Work: means any activity which by disturbing ACCM may release asbestos fibers into the air.
- N. Assumed ACM: means materials assumed to contain more than one percent (>1%) asbestos.
- O. Asbestos Fibers: Asbestos fibers having an aspect ratio of at least 3:1 and 5 micrometers in length when air samples analyzed using Phase Contrast Microscopy (PCM).
- P. Authorized Visitor: The Owner's Project Team members, the Owner's Representative, and any representative of a regulatory or other agency having jurisdiction over the Project.
- Q. Category I Non-Friable ACM: means packings, gaskets, resilient floor covering, mastics, and asphalt roofing products containing more than 1 percent (>1%) asbestos.
- R. Category II Non-Friable ACM: means material containing more than 1 percent (>1%) asbestos that is not Category I Non-Friable ACM, and when dry, and in its present form, cannot be crumbled, pulverized, or reduced to powder by hand pressure. For the purposes of this Specification, these products include transite board, pipe and asbestos cement products, plaster, stucco, and paint – unless removed by aggressive or mechanical methods.
- S. Clean Room: An uncontaminated area or room which is a part of the Worker Decontamination Enclosure with provisions for storage of Workers' street clothes and protective equipment.
- T. Contained Work Area: A Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System.
- U. Curtained Doorway: A device to allow ingress or egress from one area to another while permitting minimal air movement between the areas, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, and securing the vertical edge of the outer two sheets along the opposite vertical side of the doorway (see detail on Decontamination Enclosure System Plan in the Drawing section of this Project Manual.)

- V. Decontamination Enclosure System: A series of connected rooms, with Air Locks or Curtained Doorways between any two adjacent rooms, for the decontamination of Workers and of materials and equipment. A Decontamination Enclosure System always contains at least one Air Lock to the Work Area.
- W. Disturbance: means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.
- X. Encapsulant (sealant): A liquid material which can be applied to Asbestos-Containing material and which controls the possible release of Asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- Y. Encapsulation: All herein-specified procedures necessary to apply an encapsulant to Asbestos-Containing building materials to control the possible release of Asbestos fibers into the ambient air.
- Z. Enclosure: All herein-specified procedures necessary to enclose completely Asbestos-Containing Material behind airtight, impermeable, permanent barriers.
- AA. Excursion Limit: An exposure of airborne concentrations of Asbestos fibers of one fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.
- BB. Equipment Room: A contaminated area or room which is part of the Worker Decontamination Enclosure with provisions for storage of contaminated clothing and equipment.
- CC. Equipment Decontamination Enclosure: That portion of a Decontamination Enclosure System designed for controlled transfer of materials, waste containers and equipment, typically consisting of a Washroom and a Holding Area.
- DD. Friable Asbestos Material (40 CFR 61, Subpart M Definition): Material that contains more than one percent (1%) Asbestos by weight and that can be broken, crumbled, pulverized, or reduced to powder by hand pressure when dry.
- EE. Fixed Object: A unit of equipment or furniture or other building component which cannot be detached from the building or can only be detached by destructive methods resulting in irreparable damage to the item.
- FF. Glovebag Method: A method with limited applications for removing small amounts of friable Asbestos-Containing material from heating ventilation and air-conditioning ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces in an (HVAL) Isolated (non-contained) Work Area. The glovebag (typically constructed of six [6] mil transparent Regulite plastic) has two inward-projecting long sleeve rubber gloves, one inward-projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for Asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all Asbestos fibers released during the removal process. All Workers who are permitted to use the Glovebag Method must be highly trained, experienced, and skilled in this method.
- GG. HEPA Filter: A high-efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of all monodispersed particles (Asbestos fibers) equal to or greater than 0.3 microns in mass median aerodynamic equivalent diameter.

- HH. HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.
- II. Holding Area: A room in the Equipment Decontamination Enclosure located between the Washroom and an uncontaminated area. The Holding Area consists of a chamber with an Air Lock connecting it to the Washroom and an Air Lock connecting it to the uncontaminated area.
- JJ. Isolation: The sealing of all openings into a Work Area.
- KK. Isolated (non-contained) Work Area: A Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.
- LL. Movable Object: A unit of equipment, furniture or other building component which is detached or can be detached from the building without destructive methods or results.
- MM. Miscellaneous ACM: means building material containing more than one percent (>1%) asbestos that is not surfacing or TSI.
- NN. Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.
- OO. Non-friable Asbestos-Containing Material: Material that contains more than one (1) percent Asbestos by weight in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the Asbestos is well bound and will not release fibers during any appropriate end-use, handling, demolition, storage, transportation, processing, or disposal.
- PP. Operations and Maintenance (O&M) Activities: means repair and maintenance operations which disturb an amount of ACM that does not exceed one 60" by 60" waste bag.
- QQ. Owner's Representative: The agent of the Owner or the Owner's Representative who shall observe the Work, perform tests, verify that abatement methods and procedures specified by the Contract Documents are being complied with, and reports all observations and test results to the Owner or the Owner's Representative.
- RR. Permissible Exposure Limit (PEL): An airborne concentration of asbestos, (Chrysotile, Crocidolite, Amosite, Tremolite, Anthophyllite, Actinolite, or a combination of the six (6) types of asbestos) in excess of 0.1 fibers per cubic centimeter (f/cc) of air as an eight (8) hour time-weighted average (TWA), as determined by the method prescribed in Appendix A of Section Five, 29 CFR Part 1926 §1926.1101(c).
- SS. Personal Monitoring: Sampling of Asbestos fiber concentrations within the breathing zone of an Asbestos Worker.
- TT. Plasticize: To cover floors, walls and other structural elements of a Work Area with plastic sheeting as herein specified with all seams securely taped.
- UU. Presumed Asbestos Containing Material (PACM): means thermal system insulation and surfacing material found in buildings constructed no later than 1980.
- VV. Regulated Area: means an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit. Requirements for regulated areas are set out in Title 8 CCR 1529.

- WW. Regulated Asbestos Containing Material (RACM): means material containing more than one percent (>1%) asbestos that is friable or has been or will be rendered friable. This includes all materials disturbed by aggressive or mechanical methods.
- XX. Removal: All herein-specified procedures necessary to remove Asbestos-Containing materials from the designated areas and to dispose of these materials at an acceptable site.
- YY. Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure with hot and cold or warm running water, and suitably arranged for complete showering during decontamination. The Shower Room comprises an Air Lock between contaminated and clean areas.
- ZZ. Surfacing ACM: means building material containing more than one percent (>1%) asbestos 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).
- AAA. Surfactant: A chemical wetting agent added to water to reduce surface tension and improve penetration.
- BBB. Thermal System Insulation (TSI) ACM: means building material containing greater than one percent (>1%) asbestos that is applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.
- CCC. Washroom: A room between the Work Area and the Holding Area in the Equipment Decontamination Enclosure System where equipment and waste containers are decontaminated. The Washroom comprises an Air Lock.
- DDD. Wet Cleaning: The process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as Asbestos-contaminated waste.
- EEE. Work Area (Also known as "Regulated Area"): Designated rooms, spaces, or areas of the Project in which Asbestos Abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A Contained Work Area is a Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System. An Isolated (non-contained) Work Area is a Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.
- FFF. Worker Decontamination Enclosure System: That portion of a Decontamination Enclosure System designed for controlled passage of Workers, and other personnel and Authorized Visitors, typically consisting of a Clean Room, a Shower Room, and an Equipment Room.

1.1.2 QUALITY CONTROL

- A. Safety Compliance: In addition to detailed requirements of this Specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities and publications regarding handling, storing, transporting, and disposing of Asbestos Waste materials. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the Work. Where the requirements of this Specification and referenced documents vary, the most stringent requirement shall apply.
- B. Contractor shall have at least one copy each of 29 CFR Part 1910 - Occupational Safety and Health Standards, 29 CFR 1926.1101, 40 CFR 61 Subparts A & M, 8 CCR Title 8 1529,

SDCAPCD Rule 1206 and all pertinent state and local regulations at his office and at the job site.

- C. Before the commencement of any work at the site, the Contractor shall post bilingual (as appropriate) EPA, OSHA and DOSH caution signs at entrances/exits to the Work Area to comply with EPA, OSHA and DOSH regulations.
- D. Area Monitoring shall be performed by the Owner's Representative, which will conduct air sampling of the Abatement Project (1) outside the building, (2) immediately outside the Work Area, (3) in the Work Area, and (4) for Work Area Clearance Testing after decontamination operations.
- E. Personal Monitoring and other monitoring, which are required by law, or considered necessary by the Contractor for Worker protection shall be the responsibility of the Contractor.
- F. Job Walk: The Contractor must attend the Job Walk to qualify to bid on any or all portions of this Contract.

1.1.3 SUBMITTALS AND NOTIFICATIONS

- A. Personnel Training: Prior to the start of work, the Contractor shall submit (1) declaration certifying that all Contractor employees have been adequately trained, and (2) photocopy of training certificates for each employee from their respective training agency or organization. When certified or other formal worker training is required by state or local agencies, the Contractor may submit a photocopy of the employee's Asbestos Worker Certification card in lieu of training certificates.
- B. Respirators: Submit prior to the start of work, manufacturer's certification that the respirators to be used in this Project comply with government agency requirements. Contractor's certifications for each employee must clearly state that each employee has been fit tested and properly trained for respirators.
- C. Medical Examinations: Submit proof that all persons providing labor and/or professional services that will be entering contaminated areas have had current (less than one year prior to the date of their participation on the Project) medical examinations. Furnish physician's interpretation of said examinations to the Owner on the Certificate of Medical Compliance form provided in the Supplementary General Conditions section of these Construction Documents prior to the start of work, or prior to that person's commencing work on this Project, and for each person subsequently providing labor and/or professional services at the job site for whom a certificate was not initially furnished. NOTE: In lieu of the above certificate, current medicals will be acceptable providing that a statement in the medical exam declares that the worker can wear a negative pressure respirator while performing their work. Contractor shall resubmit physician's interpretation of medical examination for each worker or professional employed by him whose physician or regulatory required annual or employment termination examination becomes due while said worker or professional is participating in the Project. This requirement can be waived or modified only by the Owner in writing or verbally, followed up in writing.
- D. Product Submittals and Substitutions: Comply with pertinent provisions of Section 01340.
- E. Abatement Product Data: Within ten (10) days after Contractor has received the Owner's Notice of Award, submit manufacturer's catalogue, samples, Safety Data Sheets, (SDS) and other items needed to demonstrate fully the quality of the proposed abatement materials.

Under no circumstances shall proposed materials be used before written approval from the Owner, Owner's Representative. Submittals are required if the following materials are proposed (not necessarily a complete list.) Do not submit data on products not proposed for this project:

1. Encapsulant,
 2. Surfactant,
 3. Protective packaging,
 4. Lagging adhesive,
 5. Glovebags,
 6. Resaturant, and
 7. Solvents.
- F. Permits: Submit prior to the start of work proof satisfactory to the Owner, Owner's Representative that all required permits have been obtained. If no permits are required, submit notarized letter stating such.
- G. Waste Transportation: Submit prior to the start of work the method of transport of Hazardous Waste, including the name, address, EPA ID number, and telephone number of the Transporter(s).
- H. Hazardous Waste Disposal Facility: Submit for approval prior to the start of work the name, address, EPA ID number, and telephone number of the Hazardous Waste Disposal Facility(s) to be used.
- I. Contractor's Work Plan: Submit prior to the start of work for approval a detailed plan of the work procedures to be used in the removal, repair, cleanup or encapsulation of materials containing Asbestos. Such a plan shall include:
1. Location of Asbestos Work Areas.
 2. Layout and construction details of Decontamination Enclosure Systems.
 3. Project schedule including important milestones, critical paths and interface of trades involved in the Work.
 4. Personal air monitoring procedures.
 5. Detailed description of the method to be employed to control pollution, including negative air equipment calculations.
 6. Names of Superintendent, Foremen, Project Manager and other key personnel, and their daytime and emergency telephone numbers.
 7. Security Plan including sketches necessary to clearly describe the plan.
 8. Emergency evacuation plan for injured workers, compressor failure, fire and other emergencies.
 9. Fire Watch Plan including any sketches necessary to clearly describe the plan.
 10. A contingency plan, in the event of a major contamination incident caused by fire (on or off the floor being abated), a large breach in the Work area containment barrier, the opening of stairwell doors, breakage of the building's exterior windows or sabotage. Such a plan will focus on how to maintain safety and order when the building is fully occupied by office employees and other building users.
 11. The Asbestos Plan must be approved in writing by the Owner's Representative and Owner before the start of any work.

- J. Equipment Certification: Submit prior to the start of work, manufacturers' certification that vacuums, negative air pressure equipment filters, and other local exhaust ventilation equipment conform to ANSI Z9.2-2006.
- K. Rental Equipment: When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment shall be signed by the rental company and submitted to the Owner's Representative prior to the start of work.
- L. Notifications: Contact the following government agencies in writing by certified/registered mail or overnight mail service, postmarked or delivered at least ten (10) days prior to Project commencement:
 - 1. California Division of Occupational Safety and Hygiene (DOSH/Cal-OSHA):
San Diego District Office
7575 Metropolitan Drive, Suite 207
San Diego, California 92108
 - 2. San Diego County Air Pollution Control District (SDAPCD):
10124 Old Grove Rd
San Diego, California 92131

All notifications shall contain at a minimum the following information:

- 1. Name, address and telephone number of the Owner including the contact person.
- 2. Name, address, EPA numbers, license number and telephone number of the Contractor including the contact person.
- 3. Name, address and description of the building, including size, age, and prior use of building.
- 4. The type and quantity of friable Asbestos material involved and the description of the Work.
- 5. Scheduled starting and completion dates for Abatement Work.
- 6. Procedures that shall be employed to comply with the regulations.
- 7. The name, address, EPA number and telephone number of the Transporter.
- 8. The name and address of the Hazardous Waste Disposal Facility where the Asbestos Waste shall be deposited.

Copies of all government agency correspondence and proof of delivery shall be delivered to the Owner, Owner's Representative prior to the start of work. NOTE: No work shall commence until verification of required notifications is made by the Owner, Owner's Representative.

- M. Certificate of Worker's Release: The Contractor shall have any person providing labor and professional services at the Project site sign a Certificate of Worker's Release, on the form provided in the Supplementary General Conditions section of these Construction Documents, before commencing work on this Project. Contractor shall furnish the notarized original of such Certificate of Worker's Release for each such person prior to the start of work or before that person's commencement of Work, and for each person subsequently providing labor or professional services at the job site for which a Certificate was not initially furnished. This requirement can be waived or modified only by the Owner, in writing or verbally, followed in writing.

- N. Provide proof of Contractor's License and Asbestos Certification from the Contractor Licensing Board, and proof of registration with the Division of Occupational Safety and Health in accordance with California Labor Code, Section 6501. Submit proof with Bid.
- O. Encapsulant manufacturer's certification (when required) that the Contractor is an approved applicator of the encapsulants to be used on this project
- P. Scaffolding: Submit to the Owner's Representative prior to abatement work, certification from a licensed Civil or Structural Engineer that the scaffolding design and installation is safe and adequate for the purpose for which it will be used. Submit copy of scaffolding permit when required by local regulatory agencies.
- Q. Certification naming the manufacturer of supplied-air respirator equipment. Include certification of compliance with Occupational Safety and Health Administration, United States Environmental Protection Agency, and all other pertinent regulatory agencies. Include testing reports (previous and current). Include the rated capacity of each type of equipment used.

1.1.4 ADMINISTRATION OF THE CONTRACT

- A. All Work is to be performed under the observation of the Owner's Representative, who shall be free to enter and review all Work.

1.1.5 SAFETY

- A. Submit prior to the start of work written procedures for evacuation of injured Workers. Aid for seriously injured Workers shall not be delayed in order to comply with standard decontamination procedures. It is the responsibility of the Contractor to decide if the seriousness of the injury warrants noncompliance with the standard decontamination procedures.

1.1.6 TRAINING PROGRAM

- A. Each employee shall receive AHERA MAP training including the proper handling of materials that contain Asbestos, including all aspects of work procedures and protective measures, use of protective clothing and respiratory protection, use of showers, entry and exit procedures from Work Areas and in OSHA and DOSH/Cal-OSHA regulations. All workers who are scheduled to use the Glovebag Method must be highly trained, experienced and skilled in this method. Each employee shall also understand the health implications and risks involved, including the illness possible from exposure to airborne Asbestos fibers and the increased risk of lung cancer associated with smoking cigarettes and Asbestos exposure, understand the use and limits of the respiratory equipment to be used, and understand the purpose of medical surveillance and the monitoring of airborne quantities of Asbestos as related to health and respiratory equipment. The training program shall comply with federal, state or local regulatory requirements.
- B. Emergency evacuation procedures to be followed in the event of Worker injury or compressor failure shall be included in Worker Training program.

1.1.7 DRESS AND EQUIPMENT

- A. Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves, sneakers or equivalent. Sleeves at wrists and cuffs at ankles shall be secured. Fire

retardant full-body coveralls are required in areas of open flame, or where required by local regulations.

- B. Eye protection and hard hats shall be available as appropriate or as required by applicable safety regulations.
- C. Provide Authorized Visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter the Work Area.

1.1.8 RESPIRATORS

- A. Respiratory protective equipment shall be National Institute of Occupational Safety and Health (NIOSH) approved in accordance with the provisions of 42 CFR 84 unless superseded by local regulations with more stringent requirements. Respiratory instructions shall be posted in the Clean Room.
- B. Use Supplied-Air Respirator in the following locations or for the abatement of the following materials until the Contractor establishes the average airborne concentrations of Asbestos fibers the employees will confront. Determine in accordance with 29 CFR 1926.1101 regulations both the Excursion Limit and the 8-hours' time-weighted average (TWA) concentration of Asbestos fibers to which employees will be exposed in each Work Area. When the exposure limits are established, the respirators presented in 42 CFR 84, that afford greater protection at such upper concentrations of airborne Asbestos, may be used.
 - 1. When required by regulations or Owner.
- C. At the sole discretion of the Contractor use Powered Air Purifying Respirators In lieu of Supplied Air Respirators in the following locations or for the abatement of the following materials until the Contractor establishes the average airborne concentrations of Asbestos fibers the employees will confront. Determine, in accordance with 29 CFR 1926.1101 regulations, both the 30 minutes' Excursion Limit and the 8-hours TWA concentration of Asbestos fibers to which employees will be exposed in each Work Area. When the exposure levels are established the respirators presented in 42 CFR 84, that afford greater protection at such upper concentrations of airborne Asbestos fibers, may be used.
 - 1. When required by regulations or Owner.
- D. Half-mask or full-face air-purifying respirators with HEPA filters may be worn during the preparation of the Work Area, performance of repair work, use of glovebag techniques and decontamination work, provided Work Area fiber concentrations are less than 0.1 f/cc.
- E. Compressed air systems shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. The compressed air systems shall have a receiver of adequate capacity to allow escape of all respirator wearers from contaminated areas in the event of compressor failure. Compressors must meet the requirements of 29 CFR 1910.134(d) or local regulations. Compressors must have an in-line carbon monoxide monitor, and periodic inspection of the carbon monoxide monitor must be evidenced. Documentation of adequacy of compressed air system/respiratory protection system must be retained on site. This documentation will include a list of compatible components, with the maximum number and type of respirators that may be used with the system. Periodic testing of compressed air shall insure that systems provide air of sufficient quality.

- F. When supplied air respirators are not required, the Contractor shall provide Workers with approved, permanently personally issued and marked respirators with changeable filters. The Contractor shall provide sufficient quantity of filters approved for Asbestos so that Workers can change filters during the workday. Filters shall not be used any longer than one (1) workday or whenever an increase in breathing resistance is detected. The respirator filters shall be stored at the job site in the Clean Room and shall be totally protected from exposure to Asbestos before their use.
- G. Workers shall always wear a respirator, properly fitted on the face, in the Work Area, from the initiation of preparation work until all areas have been given written clearance by the Owner's Representative.
- H. Provide at least two (2) extra air hoses and respirators when supplied air respirators are required. Provide at least two (2) extra Powered Air Purifying Respirator (PAPR) respirators when this type of respirator is required. Provide instruction on the use of the above respirators to Authorized Visitors.

PART 2 - PRODUCTS

1.2.0 GENERAL

- A. Contractor shall furnish, provide and utilize the following products in the Work Area as specified.

1.2.1 PROTECTIVE COVERING (PLASTIC)

- A. Ten (10) mil, six (6) mil, and four (4) mil fire-retardant polyethylene plastic sheets in sizes to minimize the frequency of joints.

1.2.2 TAPE

- A. Duct Tape 2" or wider, or equal, and capable of sealing joints of adjacent sheets of plastic, and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials, and capable of adhering under both dry and wet conditions, including use of amended water.

1.2.3 PROTECTIVE PACKAGING

- A. Appropriately labeled clear, double six (6) mil sealable polyethylene bags at a minimum.
- B. Appropriately labeled, sealable, impermeable drum containers.
- C. Bilingual labels (English and other appropriate language[s]) on containment glovebags, waste packages, contaminated material packages and other containers shall be in accordance with EPA, OSHA and DOSH/Cal-OSHA standards.

1.2.4 WARNING LABELS AND SIGNS

- A. As required by 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1926.1101 and other pertinent local, state and federal regulations including 8 CCR 1529. Utilize the most stringent signage requirements at the time of the abatement project.

1.2.5 SURFACTANT

- A. Surfactant, or wetting agent, for amending water will be 50 percent polyoxyethylene glycol ester and 50 percent polyoxyethylene ether, or equivalent, at a concentration of one (1) ounce per five (5) gallons of water.

1.2.6 LAGGING ADHESIVE

- A. Shall meet NFPA 90A Code, such as Arabol, Childers CP52, Insul-Coustic 102, or approved equal.

1.2.7 GLOVEBAGS

- A. The glovebag (typically constructed of six [6] mil transparent regulated plastic) has two (2) inward-projecting long sleeve rubber gloves, one (1) inward-projecting water wand sleeve, an internal tool pouch, and an attached labeled receptacle for Asbestos Waste.

1.2.8 TOOLS AND EQUIPMENT

- A. Provide suitable tools for asbestos removal and encapsulation.
- B. Negative air pressure equipment: HEPA filtration systems shall have filtration equipment in compliance with ANSI Z9.2-2006, local exhaust ventilation. No air movement system or air filtering equipment shall discharge unfiltered air outside the Work Area.
- C. Manometer:
 - 1. Shall have a built-in alarm. Continuous hard copy readout optional.
- D. HEPA Vacuums:
 - 1. Shall comply with ANSI Z9.2-2006.
- E. Vacuum Loaders:
 - 1. Shall have HEPA filtration system in compliance with ANSI Z9.2-2006.
 - 2. Meets or exceeds OSHA, DOSH and EPA safety regulations.
 - 3. Fully enclosed negative pressure system.

1.2.9 LUMBER

- A. Shall be flame retardant and carrying markings certifying such properties.

1.2.10 SOLVENTS

- A. Shall be non-toxic, non-carcinogenic, nonflammable (flashpoint in excess of 200° F.), nonreactive with or damaging to materials it will come in contact with and approved for indoor use by regulatory agencies. Provide ventilation of Work Area as required by manufacturer. Vent exhaust to the exterior of the building and in a manner that will not result in adverse effects to other areas of the facility, adjacent facilities or public areas. Solvents shall not be used in areas which food stuffs are stored.

PART 3 – EXECUTION

1.3.0 WORKER PROTECTION

- A. Worker protection procedures – to be posted in clean room:
1. Bilingual (English and other appropriate language[s]) Worker Protection Procedures must be posted in the Clean Room. If the first language of all Workers is English, the bilingual procedures are accepted.
 2. Each Worker and Authorized Visitor shall, upon entering the job site: remove street clothes in the Clean Room and put on a respirator and clean protective clothing before entering the Equipment Room or the Work Area.
 3. All Workers shall, each time they leave the Work Area: remove gross contamination from clothing before leaving the Work Area; proceed to the Equipment Room and remove all clothing except respirators; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash themselves.
 4. Following showering and drying off, each Worker shall proceed directly to the Clean Room and dress in their personal clothing. Before reentering the Work Area, each Worker and Authorized Visitor shall put on a clean respirator and shall dress in clean protective clothing.
 5. Contaminated protective clothing and work footwear shall be stored in the Equipment Room when not in use in the Work Area. At appropriate times or upon completion of Asbestos Abatement, dispose of protective clothing and footwear as contaminated waste, or launder in accordance with government regulations.
 6. Workers removing waste containers from the Equipment Decontamination Enclosure shall enter the Holding Area from outside wearing a respirator and dressed in clean disposable coveralls. No Worker shall use this system to leave or enter the Washroom or the Work Area.
 7. The disposable clothing worn outside the Work Area shall be of different color or markings from the disposable clothing worn inside the Work Area.
 8. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the Work Area.
 9. Workers and Authorized Visitors with beards or who are unshaven shall not enter the Work Area.

B. Medical Examinations and Histories

1. Before exposure to airborne Asbestos, the Contractor will provide each employee providing labor or professional services at the Project site with a current comprehensive medical exam, including a history of respiratory and gastrointestinal diseases, meeting the general definition outlined in 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1101 and California Administrative Code (CAC) Title 8, Section 5208, Section 5144 and Section 1529. Contractor shall submit a current Medical Examination report. The medical report shall contain a statement from the examining physician that the employee can (or cannot) function normally wearing a respirator or that the safety or health of the employee or other employees will or will not be impaired by his use of a respirator. No employee will be allowed to enter the Work Area without having first provided a copy of their Medical Examination, to the Owner's Representative and until the submitted form or medical has been approved by the Owner's Representative. Local medical requirements shall apply if they are more stringent.

C. Employee Identification

1. The Contractor shall furnish an employee roster to the Owner's Representative for each work shift. Each employee entering the Work Area shall have in his possession a plastic-coated identification tag with the employee's photograph, name, age, height, weight, and eye color. Each employee shall bring to the job at least two forms of identification, one of which has his/her photograph.

1.3.1 WORK AREA PREPARATION

A. Preparation procedures for removal of non-friable roofing materials, non-friable exterior materials and non-friable ACCM:

1. Above removal and debris cleanup activities unless specified otherwise, shall be executed in a "Regulated" Work Area.
2. Contractor shall prepare the Work Area for the duration of the Project, completely sealing all openings, including but not limited to, HVAC system intake and exhausts, skylights, doorways and windows, vents, and pipe vents with two layers of six (6) mil polyethylene sheet plastic securely taped to a clean surface. The preparation of the Work Area for the roof shall also prevent roofing debris from falling into the site building. Roofing debris falling into ceiling cavities shall be removed and ceiling cavities cleaned, immediately. Spray adhesive applied on finished surfaces should be avoided where possible.
3. HVAC systems shall be shut down. If the air handling system cannot be shut down and there is an avenue for asbestos fibers generated during abatement work to enter into the air stream of the HVAC system, construct a single-layer six (6) mil polyethylene plastic barrier (Mini Containment) around the item(s) being abated. In addition, contain/secure HVAC System when possible without interfering with service to areas outside the Work Area.
4. The Contractor shall check regularly (at the beginning, middle and end of each shift as a minimum) all polyethylene isolation barriers for punctures, loose seals, contact

with heat-generating devices, etc. Problem areas shall be repaired or mended immediately.

5. Provide temporary lighting in Work Areas when required to perform work with limited lighting, such as night work.

1.3.2 WARNING SIGNS

- A. At each separate work area, the contractor performing asbestos abatement shall display a warning sign in the following manner wherever the treatment process is expected to break or disturb any asbestos-containing substances.
- B. Before removing or disturbing asbestos, the Contractor shall post signs immediately outside all entrances and exits to the work area.
- C. The Contractor shall ensure that warning signs meet the following description:
 1. The sign is at least 20" by 14" and states the date and place of the asbestos abatement project.
 2. The sign shall state in bold lettering at least 2" high:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY**

1.3.3 DECONTAMINATION ENCLOSURE SYSTEMS

- A. Decontamination Enclosure Systems (Worker and Equipment) general requirements:
 1. Build suitable wood, metal or Polyvinyl Chloride (PVC) framing as described herein and as approved by the Owner's Representative at the shop drawing submittal stage. [Framed walls susceptible to damage or which also form a security barrier between Work Areas and public areas shall be sheathed with 3/8" min. plywood. Paint public facing side of plywood (color to be selected by Owner).] Portable prefab units, if utilized, must be submitted for review and approval by the Owner's Representative before start of construction. Submittal shall include, but not be limited to, a floor plan layout complying with the schematic layouts bound herein, showing dimensions, materials, sizes, thickness, plumbing, and electrical outlets, etc.
- B. Decontamination Enclosure System for asbestos abatement work in "Contained" Work Areas:
 1. Construct a Workers' Decontamination Enclosure System contiguous to the Work Area consisting of three totally enclosed chambers to conform with standard drawings bound herein as follows:
 - a. An Equipment Room with an Air Lock to the Work Area and a Curtained Doorway to the Shower Room.

- b. A Shower Room with two Curtained Doorways, one to the Equipment Room and one to the Clean Room. Plastic on Shower Room and adjoining Equipment and Clean Rooms shall be opaque. The Shower Room shall contain at least one shower with hot and cold or warm water. Careful attention shall be paid to the shower enclosure to ensure against leaking of any kind. Trap shower waste using filters having maximum pore size of 1.0 micron and drain into a sanitary sewer. Replace filters when they become clogged. Ensure supply of soap and disposable towels at all times in the Shower Room.
 - c. A Clean Room with one Curtained Doorway into the shower and one entrance or exit to non-contaminated areas of the building. The Clean Room shall have sufficient space for storage of the Workers' street clothes, towels, and other non-contaminated items. Joint use of this space for other functions, such as offices, storage of equipment, materials, or tools, shall be prohibited.
 - 2. Construct an Equipment Decontamination Enclosure System consisting of two totally enclosed chambers as follows:
 - a. A Washroom with an Air Lock to a designated staging area of the Work Area and a Curtained Doorway to the Holding Room.
 - b. A Holding Room with a Curtained Doorway to the Washroom and a doorway to an uncontaminated area.
- C. Decontamination Enclosure System for asbestos-abatement work in "Isolated" Work Areas:
- 1. Construct a Decontamination Enclosure System consisting of two totally enclosed chambers, as follows:
 - a. An Equipment Room, consisting of a Curtained Doorway to the Isolated Work Area and a Curtained Doorway to the Shower Room.
 - b. A Shower Room, consisting of a Curtained Doorway to the Equipment Room and a Curtained Doorway to an uncontaminated area. Plastic on Shower Room and adjoining Equipment and Clean Rooms shall be opaque. The Shower Room shall contain at least one shower with hot and cold or warm water. Careful attention shall be paid to the shower enclosure to ensure against leaking of any kind. Trap shower waste using filters having maximum pore size of 1.0 micron and drain into a sanitary sewer. Replace filters when they become clogged. Ensure supply of soap and disposable towels at all times in the Shower Room.
 - 2. Construction of an Equipment Decontamination Enclosure System is optional.
 - a. A Washroom with an Air Lock to a designated staging area of the Work Area and a Curtained Doorway to the Holding Room.
 - b. A Holding Room with a Curtained Doorway to the Washroom and a doorway to an uncontaminated area.

1.3.4 ASBESTOS REMOVAL

- A. Before removal, Asbestos materials shall be sprayed with Amended Water. The Asbestos materials shall be sufficiently saturated without causing excessive dripping and to prevent emission of airborne fibers, at any time, in excess of Maximum Acceptable Level. Spray

materials repeatedly during the work process to maintain a wet condition. If the materials are not easily saturated, then the Work Area shall be constantly misted to keep fiber emission minimal.

- B. Asbestos material shall be removed in manageable sections by a multi-person team, some of whom are wetting and the remainder removing and cleaning. Any material which falls to the floor shall be wetted and picked up immediately. Material shall not be allowed to dry out. Material drop shall not exceed 15 feet. For heights up to 50 feet, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 50 feet, provide enclosed dust-proof chutes. Before a second area can be started, removed material shall be packed into approved and labeled packaging while it is still wet. The outside of all containers shall be clean before leaving the Work Area. Move containers to the Washroom (Shower Room when Equipment Decontamination System is not required), wet-clean each container thoroughly, and move to Holding Area pending removal to uncontaminated areas.
- C. Asbestos material applied to concrete, steel decks, beams, columns, pipes, tanks, and other nonporous surfaces shall be wet cleaned to a degree that no traces of debris or residue are visible.
- D. Asbestos material debris, drippings, splatters, and overspray on surfaces within accessible ceiling cavities and other accessible areas shall be removed in the same manner and cleaned to the degree as specified above.
- E. The Work Area shall be kept orderly, clean and clear of work materials, polyethylene sheeting, tape, cleaning material, and clothing, and all other disposable material or items used in the Work Area. These materials shall be packed into properly labeled protective packaging and removed from the Work Area.
- F. Protective packages and drums containing Asbestos materials shall be cleaned and stored in the isolated Holding Area until that time when the materials are to be loaded and hauled to the Hazardous Waste Disposal Facility for burial. The packages and drums shall be stored in piles no higher than four (4) feet, and in a manner that will not result in damage to the packages or drums. Transport bags in covered drums or carts from the Holding Area to the transport.
- G. Equipment removal procedures: Clean surfaces of contaminated equipment thoroughly by wet-sponging or wiping before moving such items into the Washroom (Shower Room when Equipment Decontamination System is not required) for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave Work Area through the Equipment Decontamination Enclosure.
- H. Do not bag water used during abatement activities. Properly filter and drain water into building sanitary drain unless prohibited by local regulations. Filter shall have a maximum pore size of 1.0 micron.
- I. Non-friable materials:
 - 1. Remove materials with wet methods and in a manner that will not create visual emissions or exposures above the PEL. Adequately wet the materials before, during and after removal.

2. Do not use saws, grinders, chippers, bead blasters, buffers or other such mechanical equipment without HEPA filtered local exhaust ventilation.
3. The Work Area shall be kept orderly, clean and clear of work materials, debris, etc.
4. Package non-friable materials in two layers of leak-tight containers consisting of 6-mil poly bags or lined containers labeled as Non-Hazardous Waste – Non-Friable Asbestos, or in accordance with the disposal facility's requirements.

1.3.5 DECONTAMINATION OF WORK AREA

A. Decontamination procedure for "Regulated" Work Areas:

1. The Contractor shall perform a complete visual inspection of the Work Area.
2. Asbestos debris encountered shall be removed.
3. Sealed drums and bags, and all equipment used in the Work Area shall be included in the cleanup and shall be removed from the Work Area at the appropriate time in the cleaning sequence.
4. Upon completion of his visual inspection and any necessary cleaning, the Contractor shall notify the Owner's Representative that the Work Area is ready for Initial Review.
5. Upon proper notification, the Owner's Representative will review the Work Area for general conformance with the Specifications. Any nonconformance of the Work shall be remedied by the Contractor until the Work Area is in compliance, and at the Contractor's expense.
6. Upon successful compliance with the Initial Review, the Owner's Representative shall conduct Clearance Testing. Refer to appropriate Article in this Section on Air Monitoring for Clearance Testing standards.
7. Upon written notification from the Owner's Representative that the Work Area has passed the standard for Clearance Testing, the Contractor shall apply the asbestos-free replacement materials, when included in the contract, and re-establish objects and systems as specified in these Specifications.
8. Upon completion of the application of replacement materials, or if no replacement materials are required, after the re-establishment of objects and systems, the Contractor shall notify the Owner's Representative within twenty-four (24) hours, in advance, that the Work Area is ready for Pre-Final Review.
9. Upon notification, the Owner's Representative will review the Work Area. Improper application of the replacement materials, unapproved damage to the facility or its contents or improper re-establishment of objects and systems shall be itemized on a Punch List for correction by the Contractor at his expense. If no deficiencies are discovered, the Contract, or this portion of the Contract, shall be approved in writing by the Owner's Representative as complete. If deficiencies are noted continue with the subsequent procedures. NOTE: If deficiencies noted do not prevent the Owner from occupancy or proceeding with reconstruction work, the Contract, or this portion of the Contract, shall be specified in writing by the Owner's Representative and the Owner's Representative Substantially Complete.
10. Upon correction of Punch List deficiencies, the Contractor shall notify the Owner's Representative in advance that the Work Area is ready for Final Review.

11. Upon notification the Owner's Representative will review the corrected Punch List deficiencies. If all deficiencies have been corrected, the Contract or this portion of the Contract shall be approved in writing by the Owner's Representative as complete. If deficiencies have not been properly corrected, the Contractor shall repeat, at his expense, procedures 10 and 11 until all deficiencies have been corrected and approved. NOTE: If deficiencies noted do not prevent the Owner from occupancy or proceeding with reconstruction work, the Contract or this portion of the Contract shall be specified in writing by the Owner's Representative Substantially Complete.

1.3.6 ASBESTOS DISPOSAL

- A. Asbestos-Containing Waste Materials shall be packed into approved sealed and labeled protective packaging.
- B. Containers removed from the Holding Area must be removed by Workers who have entered from uncontaminated areas dressed in clean coveralls. Workers must not enter from uncontaminated areas into the Washroom or the Work Area; contaminated Workers must not exit the Work Area through the Equipment Decontamination Enclosure System.
- C. Contractor shall deliver Asbestos-Containing Waste Materials to the CWRCB permitted and designated Hazardous Waste Disposal Facility in accordance with the guidelines of the EPA.
- D. The Contractor shall notify the Owner's Representative twenty-four (24) hours, in advance, when Asbestos-Containing Waste Materials are to be removed from the site. The Owner's Representative must be present during the removal of Asbestos-Containing Waste Materials from the Work Area. A copy of the Uniform Hazardous Waste Manifest, or other document required by State or Local agencies, shall be submitted to the Owner's Representative for review and signature prior to transporting Asbestos-Containing Waste Materials to the disposal facility.
- E. At the conclusion of Work, the Contractor shall provide evidence (such as a "Bill of Lading" or "Hazardous Waste Manifest") that the Asbestos-Containing Waste Material was disposed of at the CWRCB permitted and approved Hazardous Waste Disposal Facility. The evidence shall be submitted with the final request for payment. The Contractor shall indicate on the "Bill of Lading" or "Hazardous Waste Manifest" the weight, in tons, of the Asbestos-Containing Waste Material generated from the Project. This weight amount must be confirmed by a party independent from the Contractor.
- F. The Contractor shall be responsible for the safe handling and transportation of all Non-Hazardous and/or Hazardous Waste, generated by the Project of this Contract, to the designated Non-Hazardous and/or Hazardous Waste Disposal Facility. The Contractor shall bear all costs for all claims, damages, losses, and clean up expenses against the Owner or the Owner's Representative, including but not limited to attorney's fees rising out of, or resulting from, Asbestos spills on the site or spills in route to the Hazardous Waste Disposal Facility.
- G. Non-friable Debris Disposal: Roofing, Transite, resilient floor tiles, mastic and other Non-Friable Asbestos-Containing Materials shall be disposed of as non-friable asbestos waste.

1.3.7 AIR MONITORING AND TESTING

A. Area Air Monitoring:

1. Throughout removal, encapsulation, and cleaning operations, Area Air Monitoring shall be conducted by the Owner's Representative to ensure that the Contractor's engineering controls and work practices are minimizing worker and public exposures to airborne asbestos fibers, in accordance with applicable codes, regulations, and ordinances. Fiber counting shall be done by PCM in accordance with NIOSH Method 7400, with the following as the appropriate sampling areas, volume and number of samples as recommended by the EPA:

<u>Areas to Be Sampled</u>	<u>Minimum Number of Samples</u>	<u>Minimum Volume</u>
Work Area	1/work shift	1200L
Adjacent to Work Area	1/work shift	1200L
At Negative Air Equipment Exhausts	1/work shift	1200L

2. The Owner's Representative shall report the Area Air Monitoring results to the Contractor on the following day. If Area Air Monitoring results are unsatisfactory, the Contractor shall make changes in his engineering controls and work practices to assure compliance with the following standards. Unsatisfactory results are fiber counts within the Work Area in excess of the Maximum Acceptable Level or fiber counts outside the Work Area in excess of the Benchmark.

3. AHERA TEM Air Clearance Sampling

As an alternative to PCM air clearance sampling, the District may require AHERA Transmission Electron Microscopy (TEM) clearance sampling in general accordance with the method outlined in 40 CFR Part 763 Appendix A to Subpart E. TEM air clearance requirement will include a minimum of five samples per abatement area, with two field blanks, and one sealed blank. EPA AHERA clearance criteria, 70 structures per square millimeters (S/mm²) will be utilized for TEM AHERA air clearance criteria.

B. Personal Air Monitoring:

1. Contractor shall conduct initial and periodic eight (8) hours TWA and thirty (30) minute excursion limit air monitoring of Worker exposures to airborne concentrations of Asbestos fibers in accordance with OSHA (CFR 1926.1101) and DOSH (CCR Title 8 Section 1529) requirements.
2. Once OSHA and DOSH/Cal-OSHA sampling requirements are satisfied the Contractor shall conduct, as a requirement of this Contract, not less than one (1) personal air sample, twice per calendar week, to determine 8-hours TWA exposures and thirty (30) minute Excursion Limit exposures of workers operating in each Work Area. Samples shall be collected within the Workers' breathing zones. Samples shall be taken for each ten (10) workers from the time preparation work is started until the Work Area has passed Clearance Testing. NOTE: Contract required personal sampling is not necessary while the Contractor is conducting OSHA and/or DOSH/Cal-OSHA required sampling or when Type C Respirators are in use.

3. The Contractor shall report Personal Monitoring results to the Owner's Representative within 48 hours from the end of the work shift. Worker exposures to airborne asbestos concentrations shall not exceed the Permissible Exposure Limit (PEL) of 8-hours TWA of 0.1 fibers per cubic centimeter of air, or the 1 f/cc 30 minutes' period Excursion Limit.

1.3.8 REIMBURSEMENT OF COSTS

- A. In the event that reviews and/or Clearance Testing by the Owner's Representative or regulatory agencies shows that the Work Area or any portion of the Work Area is not decontaminated or if the Work is not in conformance with the Contract Documents, the Owner and Owner's Representative will record all time, tests and project related expenses expended to monitor the Work until the work is in compliance. All time, and expenses recorded by the Owner and Owner's Representative to monitor the above work, and all time, tests and project related expenses incurred by the Owner and Owner's Representative outside the Project Work Days, Work Hours or Contract Time shall, at the discretion of the Owner, be paid for by the Contractor. The Contractor, promptly upon receipt of the billing from the Owner, or the Owner's Representative, shall reimburse the Owner at the normal billing rate of the Owner or the Owner's Representative, or the Owner is authorized to withhold funds from the Contract Sum, for all time spent by the Owner and Owner's Representative for reviews, testing, and other project related expenses when any of the above conditions occur.

1.3.9 STOPPING THE WORK

- A. If, at any time, the Owner's Representative decides that Work Practices are violating pertinent regulations, these Specifications or, in his opinion, endangering Workers or the public, he will immediately notify the Contractor (followed up in writing) that operations shall cease until corrective action is taken, and the Contractor shall take such corrective action before proceeding with the Work. Loss or Damages due to a Stop Work Order shall be borne by the Contractor.

1.3.10 CLEANUP

- A. Contractor shall maintain a clean Project site during and upon completion of the Project. Cleaning shall be in accordance with the General Conditions.

END OF SECTION I

SECTION II- LEAD-CONTAINING MATERIALS LEAD ABATEMENT AND LEAD-RELATED CONSTRUCTION WORK SPECIFICATIONS

PART 1 - GENERAL

2.1.0 DESCRIPTION

- A. Work included: Contractor shall furnish all labor, materials, services, permits, insurance (specifically covering the handling and transportation of Lead Based Material & Lead-Containing Material and Lead-Containing Waste Material), and equipment which is specified, shown, or reasonably implied for lead-related construction work associated with the Lead-Based and/or Lead-Containing Paints listed in the following table:

Table 2-1: Summary of Identified LCMs/LBPs								
Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
34	Cafeteria Exterior	N	Stairs	D	Concrete	Yellow	0.7	LCM
35	Cafeteria Exterior	E	Window Casing	I	Wood	Tan	1.2	LBP
39	Cafeteria Exterior	W	Door	I	Metal	Gray	0.7	LCM
43	Cafeteria Exterior	S	Window Sill	I	Wood	Tan	0.2	LCM
44	Cafeteria Exterior	E	Door Frame	I	Wood	Gray	2.5	LBP
45	Cafeteria Exterior	W	Post	I	Metal	Gray	0.7	LCM
48	Cafeteria Exterior	W	Stairs	I	Concrete	Yellow	2.9	LBP
50	Cafeteria Exterior	W	Door Frame	I	Metal	Tan	1.5	LBP
56	Large Classroom	E	Door	I	Wood	White	0.7	LCM
57	Large Classroom	E	Door Casing	I	Wood	White	0.7	LCM
64	Corridor	S	Door	I	Wood	White	0.7	LCM
71	Serve / Prep 1	N	Crown Molding	I	Wood	White	0.1	LCM
81	Men's Restroom	S	Window	I	Wood	White	1.3	LBP
82	Men's Restroom	S	Window Casing	I	Wood	White	0.2	LCM
89	Large Office	N	Wall	I	Wood	White	0.1	LCM
91	Large Office	S	Window Sill	I	Wood	White	0.2	LCM
94	Cashier 1	S	Wall	I	Ceramic	Green	>9.9	LBP
101	Cashier 2	E	Window	I	Wood	White	0.7	LCM
102	Cashier 2	E	Window Sill	I	Wood	White	0.2	LCM
107	Small Office	N	Crown Molding	I	Wood	White	0.1	LCM
110	Staff Locker	N	Door Frame	I	Wood	White	0.1	LCM
113	Staff Locker	E	Window	I	Wood	White	2.1	LBP
122	Custodian Closet	N	Sink	I	Metal	White	>9.9	LBP
129	N Entrance	E	Ladder	I	Wood	White	0.7	LCM
130	Cook Area	W	Ladder	I	Wood	White	0.7	LCM
131	Men's Restroom	N	Sink	I	Porcelain	White	4.4	LBP

Table 2-1: Summary of Identified LCMs/LBPs

Reading	Room	Side ¹	Structure	Condition ²	Substrate	Color	Reading (mg/cm ²)	Classification ³
138	Weight Room / Museum Building - Museum	S	Drinking Fountain	I	Porcelain	White	5.8	LBP
140	Main Corridor	N	Crown Molding	I	Wood	White	0.1	LCM
142	Main Corridor	N	Wall	I	Ceramic	Beige	>9.9	LBP
143	Main Corridor	N	Wall	I	Ceramic	Red	>9.9	LBP
157	Office	N	Crown Molding	I	Wood	White	0.2	LCM
165	Weight Room - Restroom	N	Sink	I	Porcelain	White	>9.9	LBP
174	Custodian Closet	S	Sink	I	Metal	White	>9.9	LBP
183	Weight Room	E	Post	D	Metal	White	2.4	LBP
195	Corridor	S	Bulletin Board	I	Wood	White	2.4	LBP
212	Weight Room	E	Bulletin Board	I	Wood	White	2.4	LBP
213	Weight Room	E	Cubbies	I	Wood	Tan	0.7	LCM
215	Exterior	E	Wall	I	Ceramic	Green	6.5	LBP
218	Exterior	E	Window Sill	I	Wood	Brown	0.7	LCM
226	Exterior	W	Post	I	Metal	Gray	4.1	LBP
234	Mechanical Room	E	Pipes	I	Metal	Silver	0.7	LCM
235	Mechanical Room	S	Door Jamb	I	Wood	Green	0.7	LCM
237	Corridor (Plenum)	N	Beam	I	Metal	Orange	4.5	LBP

Legend:

mg/cm² = milligrams per centimeter squared

1 Side: N = North, E = East, W = West, S = South, C = Center

2 Paint Condition: I = Intact, D = Deteriorated

3 Classification:

BDL = Below the XRF's detection level; less than 0.1 mg/cm².

LCM = Lead Containing Materials; equal to or exceeding 0.1 mg/cm².

LBP = Lead-Based Paints; equal to or exceeding 1.0 mg/cm².

*Paint conditions are based on visual observations in survey area. Different conditions may be present in other areas of the Subject Property.

- B. Contractor is required to verify the scope of work prior to commencing work, including quantities of materials to be removed, and to determine the degree of difficulty in removing the identified materials.
- C. Applicable Publications: The work conducted shall comply with all applicable federal, state and local regulations. Applicable guidelines and standards listed in this Scope of Work include, but are not necessarily limited to:
 1. Department of Housing & Urban Development (HUD) "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" dated June 1995.
 2. Code of Federal Regulations (CFR) Publications:
 - 29 CFR 1910.134 Respiratory Protection
 - 29 CFR 1910.145 Specifications for Accident Prevention Signs & Tags
 - 29 CFR 1910.147 Lockout/Tagout
 - 29 CFR 1910.1020 Access to Employee Exposure & Medical Records
 - 29 CFR 1910.1025 Lead General Industry Standard
 - 29 CFR 1910.1200 Hazard Communications

- | | |
|-----------------|---|
| 29 CFR 1926.55 | Gases, Vapors, Fumes, Dusts & Mists |
| 29 CFR 1926.62 | Lead Construction Standard |
| 29 CFR 1926.200 | Signs, Signals & Barricades |
| 40 CFR 61 | National Emission Standards for Hazardous Air Pollutants |
| 40 CFR 257 | Criteria for Classification of Solid Waste |
| 40 CFR 261 | Identification and Listing of Hazardous Waste Disposal Facilities and Practices |
| 40 CFR 262 | Standards Applicable to Generators of Solid Waste |
| 40 CFR 745 | Lead-Based Paint Poisoning Prevention in Certain Residential Structures |
3. California Code of Regulations (CCR) Publications:
- | | |
|------------------------|---------------------------------------|
| 8 CCR 1532.1 | Construction Safety Orders - Lead |
| 8 CCR 5198 | General Industry Safety Orders - Lead |
| 8 CCR 5144 | Respiratory Protective Equipment |
| 17 CCR Div. 1, Chap. 8 | Lead Based Paint and Lead Hazards |
4. American National Standards Institute (ANSI) Publications:
- | | |
|------------|--------------------------------------|
| Z88.2-2015 | Practices for Respiratory Protection |
| Z87.1-2010 | Eye Protection |
5. National Institute of Occupational Safety & Health (NIOSH) Publications:
- Manual of Analytical Methods, 2nd Edition, Volume 1, Physical & Chemical Analysis Methods (P&CAM)
- Method 7082
- Method 7300
- Method 7303
6. Other Local or Regional Regulations that apply to Lead-Related Work.

Please note Contractor is responsible for ascertaining the extent to which these regulations will affect removal operations and to comply therewith.

2.1.1 DEFINITIONS

General Explanation: A substantial amount of specification language constitutes definitions for terms found in other contract documents. Certain terms used in Contract Documents are defined in this article.

- A. Owner: Grossmont Union High School District (GUHSD)
- B. Abate or Abatement: Means any set of measures designed to reduce or eliminate lead hazards or lead-based paint.
- C. Accredited or Accreditation: A person or laboratory accredited in accordance with Section 206 of Title II of the Toxic Substances Control Act (TSCA) and/or accredited by the American Industrial Hygiene Association (AIHA).
- D. Aerosol: A system consisting of particles, solid or liquid, suspended in air.

- E. Air Monitoring: The process of measuring the lead content of a specific volume of air.
- F. Authorized Visitor: The Owner, the Owner's Representative, testing lab 2F, the Consultant/Engineer, emergency personnel or a representative of any federal, state and local regulatory or other agency having authority over the project.
- G. Barrier: Any surface that seals off the work area to inhibit the movement of particles.
- H. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.
- I. Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.
- J. Certified Industrial Hygienist (C.I.H.): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.
- K. California Certified Lead Professional: means an individual who has a current Lead-Related Construction Certificate with the California Department of Public Health (CDPH). This includes Certified Inspector/Assessors, Project Monitors, Contactor Supervisors and Sampling Technicians.
- L. Contractor: Means any business entity, public unit, or person performing the actual abatement for a lead abatement project.
- M. Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.
- N. Disposal Bag: A properly labeled 6 mil thick leak-tight plastic bags used for transporting lead waste from work and to disposal site.
- O. Encapsulation: Means to resurface or cover surfaces and to seal or caulk seams with a durable material, so as to prevent or control chalking, flaking lead-containing substances from becoming part of construction dust.
- P. Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.
- Q. HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of particles greater than 0.3 microns in diameter.
- R. HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining lead particles. Filters should be of 99.97% efficiency for retaining particles of 0.3 microns or larger.
- S. High-efficiency particulate air filter: HEPA refers to a filtering system capable of trapping and retaining 99.97 percent of all monodispersed particles 0.3 um in diameter or larger.
- T. Interior Work Area: A hallway, room or group of rooms in which abatement takes place on the inside of a property.

- U. Lead-Based Paint (LBP): Paint or other surface coatings that contain lead equal to or greater than one milligram per square centimeter (1.0 mg/cm^2) or more than half of one percent (0.5%) by weight or more than five-thousand parts per million (5,000 ppm) by weight.
- V. Lead-Containing Paint (LCP): Paint or other surface coatings that contain lead equal to or greater than 0.1 mg/cm^2 as measured by XRF RMD or any detectable concentration by AAS or ICP analyses.
- W. Lead-Related Construction Work: means any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance activity, including preparation and cleanup, that, by using or disturbing lead-containing material or soil, may result in significant exposure of adults or children to lead.
- X. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.
- Y. Negative Pressure Ventilation System: A pressure differential and ventilation system in containments.
- Z. Personal Monitoring: Sampling of the lead concentrations within the breathing zone of an employee.
- AA. Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the Work Area at a lower pressure than any adjacent area, and which cleans recirculated air or generates a constant air flow from adjacent areas into the Work Area.
- AB. Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.
- AC. Repair: Returning damaged lead-based paint to an undamaged condition or to an intact state so as to prevent particle release.
- AD. Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period usually 8-hours.
- AE. Visible Emissions: Any emissions containing particulate material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
- AF. Wet Cleaning: The process of eliminating lead contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water containing 5% trisodium phosphate (TSP) or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as lead-contaminated waste.

- AG. Work Area: The area where lead-related work or removal operations are performed which is defined and/or isolated to prevent the spread of lead dust or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926.62.

2.1.2 SUBMITTALS

- A. Copies of medical records and blood testing results of workers to be utilized on the project, as performed by an occupational physician or medical doctor and appropriate blood laboratory, as applicable.
- B. Record of successful fit testing performed by a qualified individual within the previous six months, for each employee to be used on this project with the employee's name and social security number with each record.
- C. Proposed respiratory protection program for employees throughout all phases of the job, including make, model and NIOSH approval number of the respirators to be used.
- D. Safety Data Sheets (SDS) on potentially hazardous materials to be used on the project.
- E. The name and address of the Contractor's blood lead testing lab, OSHA, CDC listing and Certification in the State where the work is located.
- F. For lead abatement and disturbance of LBP, Contractor shall submit certification that the job supervisor/foreperson and each lead abatement worker has successfully completed CDPH training courses and that each has had instruction on the dangers of lead exposure, respirator use, decontamination and applicable regulations.
- G. For lead-related construction work and disturbance of LCP, Contractor shall submit documentation that the job supervisor/foreperson and each lead-related construction worker has successfully completed lead hazard communication training and that each has had instruction on the dangers of lead exposure, respirator use, decontamination and applicable regulations.

2.1.3 PERSONAL PROTECTION & HYGIENE

- A. All persons working on a lead abatement or lead-related construction site shall, when present in the work area, wear disposable clothing with attached foot and head covers and at minimum a half face air purifying respirator equipped with high efficiency particulate air filters.
- B. The Contractor shall ensure that all persons entering the work area without exception:
 - 1. Change from street clothes to protective clothing at designated areas prior to starting the day's work.
 - 2. No smoking, eating or drinking is to take place beyond the established critical barrier. Prior to smoking, eating or drinking, the workers will be fully decontaminated. Each worker will then dress in clean overalls to eat, drink or smoke. These new coveralls can then be worn back into the work area.
- C. The Contractor shall require that each person entering the Work Area shall wear an approved respirator and protective clothing. There shall be no exceptions to this rule.

- D. Protective clothing shall consist of disposable full-body clothing of non-woven material comprised of heat and pressure-bonded polyethylene fibers. Material shall be chemically and biologically inert, low-linting and static free (unless laundered); durable enough to resist abrasion, puncturing and tearing; highly resistant to penetration of air-borne particulate when wet or dry. Suits may be fabricated with integral head and foot covering. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
- E. The Contractor shall require a minimum of a half-face negative pressure respirator with high efficiency filters during the removal and clean-up operations. Supply a sufficient quantity of respirator filters so that workers can change filters as needed. Require that respirators be wet rinsed and filters discarded each time a worker exits the work area. Require that new filters be installed each time a worker re-enters the work area. Store respirators and filters at the job site and protect them totally from exposure to lead dust prior to their use.
- F. Wearing of contact lenses in the contaminated atmosphere shall not be permitted.

2.1.4 RESPIRATORS

- A. The Contractor shall provide approved respirators to all workers at no charge.
- B. The Contractor shall require that each person entering the work area shall wear an approved respirator. There shall be no exceptions to this rule.
- C. The Contractor shall instruct and train each worker involved in lead abatement or lead-related construction in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the work area from the start of any operation which may cause airborne lead particles until the work area is completely decontaminated.
- D. The Contractor shall ensure that the employees will use respiratory protection that is appropriate for the lead level encountered in the workplace or as required for other toxic or oxygen-deficient situations encountered.
- E. Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.
 - OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1025 and Section 134, 29 CFR 1926.62.
 - DOSH/Cal-OSHA – Title 8, California Code of Regulations, Sections 5208, 1532.1 and 5144.
 - ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-2015.
 - NIOSH - National Institute for Occupational Safety and Health Approved Respiratory Protection Devices and Lead Air Samples Analytical Methods

- CDPH – California Department of Public Health Title 17 Lead Regulations

F. Air Purifying Respirators

1. Respirator Face-Piece: Provide half face or full-face type respirators. Equip full face respirators with a nose cup or other anti-fogging device.
2. Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH Certification for "P-100" and color-coded magenta. In addition, a chemical cartridge section may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate magenta and black color code and NIOSH Certification.
3. Non-permitted respirators: Do not use single use, disposable or quarter face respirators.

G. Fit Testing:

1. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection training course. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing have been provided.
2. On an Annual Basis: check the fit of worker's respirator by having irritant smoke blown onto the respirator from a smoke tube.
3. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (2015).

H. Permissible Exposure Limit (PEL):

1. 8-Hours' Time Weighted Average: TWA concentration of lead to which any worker may be exposed to shall not exceed 50 µg/m³.

I. Respiratory Protection Factor:

From 8 CCR 5144 Table 1 – Assigned Protection Factors

<u>Respirator Type</u>	<u>Protection Factor</u>
Air purifying respirator: Negative pressure respirator P-100 filter Half facepiece	10
Air purifying respirator: Negative pressure respirator P-100 filter Full facepiece	50
Powered Air Purifying Respirator (PAPR): Positive pressure respirator P-100 filter Full facepiece	1,000

Supplied Air Respirator: 1,000
Positive pressure respirator
Continuous flow or Pressure demand or
other positive pressure mode
Full facepiece

Self-contained breathing apparatus (SCBA): 10,000
Pressure Demand mode

2.1.5 DRESS AND EQUIPMENT

- A. The Contractor shall provide approved protective clothing to all workers, and to all official representatives of the Owner, State or other governmental entity, and the Consultant who may inspect the job site.
- B. Protective clothing shall consist of disposable full-body clothing of non- woven material comprised of heat and pressure-bonded polyethylene fibers. Material shall be chemically and biologically inert, low-linting and static free (unless laundered); durable enough to resist abrasion, puncturing and tearing; highly resistant to penetration of air-borne particulate when wet or dry. Suits may be fabricated with integral head and foot covering. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
- C. Disposable protective clothing shall be disposed of as lead waste every time the wearer exits from the workspace/equipment room to the shower room while proceeding to the clean area. Workers shall thoroughly wash with soap and water before exiting the shower room.
- D. If launderable clothing is to be worn underneath disposable protective clothing, it shall be provided by the Contractors to all abatement and lead-related construction workers. (It is recommended that launderable clothing be a unique, specific color to enable it to be distinguished from general purpose blue, gray or black coveralls which are commonly worn). It is preferable that the following procedures be utilized:
 - 1. Launderers must be trained in proper techniques for handling lead contaminated clothing and provided with personal protective equipment consisting of appropriate respirators and disposable clothing for use when needed.
 - 2. Machines used for laundering contaminated clothing shall be isolated and restricted for such use.
 - 3. Discharged water shall not exceed 0.02 mg/l of lead.
 - 4. Dryers shall be isolated and restricted for use with contaminated fabrics and have HEPA filtered exhaust.
 - 5. Such maintenance shall be performed by protected individuals (as per paragraph a above).
- E. Additional safety equipment: Hard hats shall meet the requirements of ANSI Standard Z89.1-2014; eye protection shall meet the requirements of ANSI Standard Z87.1-2010 and foot protection shall meet the requirements of ANSI Standard Z41.1-1991; disposable PVC gloves as necessary shall be provided to all workers and authorized visitors. Non-skid footwear shall be provided to all abatement and lead-related construction workers.

PART 2 - PRODUCTS

2.2.0 WASHING AGENT

- A. 5% Tri-Sodium phosphate (TSP) at one ounce per gallon of water.

2.2.1 PROTECTIVE COVERING

- A. Protective sheeting for floors and walls shall be a minimum of 6-mil in thickness and conform to ASTM E154, D124B, D2103 and D4379.
- B. Polyethylene sheeting shall be fire resistive.
- C. Polyethylene sheeting shall be opaque in color.

2.2.2 PROTECTIVE PACKAGING

- A. Bags utilized for waste shall be a minimum of 6-mil thickness and labeled for hazardous waste. Drums utilized for waste shall be 55-gallon drums with a sealable lid and properly labeled.

2.2.3 WARNING SIGNS

- A. At each separate work area, the contractor performing abatement or lead-related construction shall display a warning sign in the following manner wherever the treatment process is expected to break or disturb any lead-containing substances.
- B. Before removing or disturbing lead, the Contractor shall post signs immediately outside all entrances and exits to the work area.
- C. The Contractor shall ensure that caution signs meet the following description:
 - 1. The sign is at least 20" by 14" and states the date and place of the lead abatement project.
 - 2. The sign shall state in bold lettering at least 2" high:

**DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA**

2.2.4 CHEMICAL STRIPPING AGENT

- A. Contractor shall receive Environmental Consultant's approval of chemical stripping agents prior to implementation. Stripping agents shall not contain methylene chloride.

PART 3 - EXECUTION

2.3.0 WORK AREA PREPARATION

- A. Contractor shall ensure that the lead contamination is confined within the work area and that all surfaces located in the work area are free from any lead accumulation when the work is completed. This shall be accomplished by creation of an impermeable containment.
- B. Procedures for the removal/disturbance of lead-based paint (LBP) from interior components and removal of lead-containing ceramic tile shall be executed in a Contained Work Area:
 - 1. Establish critical barriers to contain and prevent the movement of lead out of the work area. Critical barriers will be established over all penetrations leading to areas adjacent to work areas, utilizing two layers of 6-mil polyethylene sheeting.
 - 2. Cover floor in the work area with a minimum of two layers of polyethylene sheeting at least 6-mil thickness and duct tape. All seams and joints shall be at least six (6) feet apart, where applicable, and sealed with duct tape.
 - 3. Erect containment walls utilizing a minimum of two of fire resistive and opaque 4-mil polyethylene sheeting.
 - 4. Connect a two-stage de-contamination unit to the contained work area. Decontamination unit shall consist of a clean room and an equipment room. Z locks shall be established to contain and prevent the movement of lead out of the work area.
 - 5. Containment shall not impede ingress or egress from residences.
- C. Procedures for the removal/disturbance of lead-based paint (LBP) from exterior components shall be executed in an Isolated Work Area:
 - 1. Establish barriers to contain and prevent the movement of lead out of the work area. Barriers will be established to isolate the Work Area utilizing barricade tape.
 - 2. Cover ground in the Work Area with a minimum of one layer of polyethylene sheeting at least 6-mil thickness. All seams and joints shall be at least six (6) feet apart, where applicable, and sealed with duct tape. Sheeting is to extend a minimum of 15 feet out from the component in all directions.
 - 3. Decontamination equipment shall consist of a wash station and HEPA equipment. Steps shall be taken to contain and prevent the movement of lead out of the Work Area.
 - 4. Containment shall not impede ingress or egress from non-Work Area.
- D. Procedures for the removal/disturbance of lead-containing paint (LCP) from components shall be executed in a Regulated Work Area:
 - 1. Establish barriers to contain and prevent the movement of lead out of the work area. Barriers will be established to isolate the Work Area utilizing barricade tape.
 - 2. Cover ground in the Work Area with a minimum of one layer of polyethylene sheeting at least 6-mil thickness. All seams and joints shall be at least six (6) feet apart, where applicable, and sealed with duct tape. Sheeting is to extend a minimum of 6 feet from the component in all directions.
 - 3. Decontamination equipment shall consist of a wash station. Steps shall be taken to contain and prevent the movement of lead out of the Work Area.
 - 5. Containment shall not impede ingress or egress from non-Work Area.

2.3.1 DECONTAMINATION PROCEDURES

- A. The employer shall assure that all employees, who work in areas where airborne exposure to lead is expected, decontaminate whenever exiting the work area and at the end of the work shift.
- B. Decontaminating will consist of rinsing the whole body and protective clothing with water from a water sprayer or portable shower located in the two-stage decontamination unit and then disposing of the protective clothing.
- C. All shower wastewater will be filtered through a final stage 5 microns' filter prior to disposal.
- D. Disposable protective clothing shall be disposed of as lead waste every time the wearer exits from the work area.

2.3.2 REMOVAL PROCEDURES

- A. Begin work by applying a light mist of TSP-treated water to painted surfaces to be abated. Scrape off flaking paint using soft nylon bristled brushes.
- B. If chemical stripping agents are to be utilized, use of said products shall be used in strict accordance with the manufacturer's instructions. Products containing Methylene Chloride are prohibited, unless approved in writing.
- C. In the case of lead-containing ceramic tiles, the tile must be removed in manageable sections by a multi-person team, some of whom are wetting to prevent emission of lead-based paint dust and the remainder removing and cleaning.
- D. Prevent build-up of excess water and debris by regularly using a HEPA vacuumed system to containerize debris and water.
- E. Once all flaking paint has been removed, prepare surface for re-painting by lightly feathering painted surface with sandpaper and primer.
- F. Wash all work area surfaces with TSP solution and HEPA vacuum area.

2.3.3 CLEANUP OF THE WORK AREA

- A. After completion of the removal, separate and deposit all lead waste, including sealing tape, plastic sheeting, mop heads, sponges, filters, and disposable clothing in double polyethylene bags of at least 6 mils thick and seal each bag separately.
- B. Again, wash with TSP, vacuum-clean all surfaces in the work area woodwork, walls, floors, etc. with a HEPA vacuum.
- C. No equipment, supplies or materials (except properly containerized waste materials) shall be removed from the project work area unless such equipment, supplies and/or materials have been cleaned free of lead debris. Where the configuration of the equipment, supplies and/or materials is such that decontamination and cleaning free of lead debris is neither possible or feasible, then the object shall be thoroughly wrapped in a minimum of two (2) layers of six (6) mil fire-resistant polyethylene sheeting with all joints, seams and overlaps sealed with duct

tape; or containerized in a metal drum with a locking lid. Examples include, but are not limited to Air Filtration or HEPA vacuuming equipment which may be wrapped in plastic rather than dismantling beyond the filters for cleaning purposes; sections of woodwork or other objects to be disposed of intact may be wrapped in plastic without prior removal of lead; wood or other materials used to construct on-site decontamination setup or shower units may be wrapped in plastic for transport to another contaminated work site for reuse.

- D. HEPA vacuums shall be emptied of collected lead waste contents prior to removal of the equipment from the work area.
- E. Plastic shall be bagged as contaminated waste, until testing can prove otherwise.
- F. Following the verification, by an independent third party, that "no visible debris remains", the critical barriers and floor covering may be removed and disposed.

2.3.4 AIR MONITORING AND CLEARANCE TESTING

- A. Throughout removal operations, Area Air Monitoring shall be conducted by the Owner's Representative to ensure that the Contractor's engineering controls, and work practices are effective. Air sample analysis shall be performed by ICP in accordance with NIOSH Methods No. 7300, 7302 or 7304 for lead. The following sampling protocol may be employed:

Areas to Be Sampled	Minimum No. of Samples	Minimum Volume
Benchmark at		
Work Area	1/work area	960L
Common Area Adjacent to Work Area	1/work area	960L
Work Area	1/work shift	960L
Common Area Adjacent to Work Area	1/work shift	960L
At Negative Air Equipment (if exhausts inside building)	1/work shift	960L

- B. If Area Monitoring results are unsatisfactory Contractor shall make changes in his engineering controls and work practices to ensure compliance with the following standards. Unsatisfactory results are dust levels within the Work Area in excess of the PEL (50 micrograms per cubic meter) or dust levels outside the Work Area in excess of the benchmark.
- C. Clearance Testing
 - 1. After the final clean-up, a preliminary visual inspection will be conducted by the Owner's Representative to ensure that all visible dust and debris has been removed. The Contractor shall provide the Owner's Representative at least 24 hours' notice prior to scheduling inspections. If the results of the initial visual inspection are satisfactory, the Owner's Representative will proceed to collect clearance dust wipe samples within 24 hours of the inspection.
 - 2. If the Work Area is not visibly clean, as determined by the preliminary visual inspection by the Owner's Representative, the Contractor shall re-clean and decontaminate, until the work area passes inspection.

3. All clearance wipe samples shall be collected in accordance with Regulatory Guidelines at the discretion of the Owner's Representative, a minimum of three samples per 1,000 SF, one each from the floor, window sill and exterior horizontal surface.
 - a. Clearance Guidelines:
40 $\mu\text{g}/\text{ft}^2$ (Interior floors)
250 $\mu\text{g}/\text{ft}^2$ (window sills)
400 $\mu\text{g}/\text{ft}^2$ (exterior horizontal surfaces)

2.3.5 REIMBURSEMENT OF COSTS

- A. In the event that reviews and/or Clearance Testing by the Owner's Representative or regulatory agencies shows that the Work Area or any portion of the Work Area is not decontaminated or if the Work is not in conformance with the Contract Documents, the Owner and Owner's Representative will record all time, tests and project related expenses expended to monitor the Work until the work is in compliance. All time, and expenses recorded by the Owner and Owner's Representative to monitor the above work, and all time, tests and project related expenses incurred by the Owner and Owner's Representative outside the Project Work Days, Work Hours or Contract Time shall, at the discretion of the Owner, be paid for by the Contractor. The Contractor, promptly upon receipt of the billing from the Owner, or the Owner's Representative, shall reimburse the Owner at the normal billing rate of the Owner or the Owner's Representative, or the Owner is authorized to withhold funds from the Contract Sum, for all time spent by the Owner and Owner's Representative for reviews, testing, and other project related expenses when any of the above conditions occur.

2.3.6 BUILDING CONTAMINATION

- A. If it is determined by visual identification or air samples that building contamination has occurred as a result of the negligence and/or poor work practices of the Contractor, the Contractor agrees to clean the affected premises at no charge to the Owner. The Contractor also agrees to accept all liability for damages claimed or lawsuits brought by person(s) exposed to such contamination.
- B. The Contractor shall be responsible for all costs incurred by the Consultant should other portions of the building become contaminated with lead dust as a result of the Contractors poor work practices or other activities.

2.3.7 REPAIR AND PAINTING

- A. Contractor shall leave all finished surfaces and other items in Work Areas in the condition in which they were prior to the commencement of the Project. Damage to finishes and other items as the result of Work under this Contract shall be repaired or replaced, painted or cleaned to the satisfaction of the Owner's Representative. Delays due to repair Work are not cause for extension of the deadline for the completion of the Project. Repairs shall be in accordance with standard construction methods for the item(s) in need of repair. Submit for approval all repair materials and methods. All costs for cleaning, painting, and repair as the result of the Contractor's or his Subcontractors' activities shall be borne by the Contractor.

2.3.8 DISPOSAL OF LEAD-BASED PAINT WASTE

- A. The Contractor shall contact the regional EPA, state, and local authorities to determine lead-based paint debris disposal requirements. The requirements of RCRA shall be complied with as well as applicable state solid waste plan requirements. During abatement, the Contractor shall not leave debris on the property, incinerate debris, dump waste by the road or in an unauthorized dumpster, or introduce lead-contaminated water into storm (will not be flushed down yard inlet or street drain) or sanitary sewers (will not be flushed down toilet or other household drain).
- B. The Contractor shall have representative samples collected and analyzed of waste streams containing any confirmed, suspect or presumed/assumed lead containing materials/wastes to include, but not necessarily limited to the following:
1. Painted components;
 2. Paint chips;
 3. Debris;
 4. Dust from HEPA filters and from damp sweeping;
 5. Plastic sheeting, duct tape, or tape used to cover floors and other services during the lead abatement or lead-related construction;
 6. Liquid waste, such as wash water used to decontaminate wood after removal has been performed;
 7. Waste water;
 8. Rags, sponges, mops, scrapers, and other materials used for testing, abatement, lead-related construction, and clean up;
 9. Disposable work clothes and respirator filters used during lead abatement or lead-related construction activities; and
 10. Any other items intended for non-hazardous disposal that are painted or coated.
- C. In order to determine whether the wastes are classified as nonhazardous solid or hazardous waste as defined under the Resource Conservation and Recovery Act, the Toxicity Characteristic Leaching Procedure (TCLP) must be performed utilizing the appropriate SW-846 analytical methods by the Contractor or the Contractor's Representative using accredited laboratories. Representative samples shall be required of all material to be disposed. Representative sampling shall be at a minimum, one sample of each component with lead-based paint to be disposed of.
- Contractor or the Contractor's Representative must comply with California regulations on projects in California and conduct hazardous waste sampling and analysis in accordance with the appropriate EPA SW-846 methods for Total Threshold Limit Concentration (TTLC) and the Waste Extraction Test (WET) for Soluble Threshold Limit Concentration (STLC) using accredited laboratories. If any of these samples are above the TTLC, STLC, or TCLP regulatory limits, the Contractor shall dispose of all of that type of material in accordance with regulations for hazardous waste.
- D. The Contractor shall submit written manifest to Owner or Owner's Representative prior to removing any waste from site and shall submit complete manifest to Owner or Owner's Representative after waste is disposed at the approved landfill.
- E. For waste disposal and classification, the following documents are made applicable and part of this Section: 40 CFR 241, 257, 261, 262, and 49 CFR 172, 173, 178, and 179.

2.3.9 DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOLID WASTE

- A. The Contractor shall place lead-based paint chips, debris, and lead dust in double six-mil polyethylene bags that are air-tight and puncture resistant. Pieces of wood or other types of substrates that do not fit into plastic bags shall be wrapped and labeled "DANGER, LEAD DUST".
- B. The Contractor shall place all disposable cleaning materials, such as sponges, mop heads, filters, disposable clothing in double 6-mil plastic bags and seal.
- C. The Contractor shall clean surfaces and equipment and bag large debris. Lead Abatement Sub-Contractor shall then remove plastic sheeting and tape from covered surfaces. Prior to removing the plastic sheeting, Lead Abatement Sub-Contractor shall lightly mist the sheeting in order to keep dust down and fold inward to form tight bundles to bag for disposal. Lead Abatement Sub-Contractor shall place all plastic sheeting in double 6-mil thick plastic bags and seal. Any bags shall be labeled "Danger, Lead Dust".
- D. The Contractor shall bag and seal vacuum bags and filters in double 6-mil thick plastic bags.
- E. The Contractor shall place all contaminated clothing or work area clothing used during abatement, in plastic bags for disposal prior to leaving the work area.
- F. The Contractor shall place caustic paste residues in drums made from materials that cannot be dissolved or corroded by chemicals. Caustic and acid waste must be segregated and not stored in the same containers.
- G. The Contractor shall contain and properly dispose of all liquid waste, including lead-dust contaminated wastewater.
- H. The Contractor shall HEPA vacuum the exterior of all liquid waste containers. Prior to removing the waste containers from the work area, and wet wipe the containers to ensure that there is no residual contamination. Containers shall then be moved out of the work area into the designated storage area.
- I. The Contractor shall carefully place the containers into the truck or dumpster used for disposal.
- J. The Contractor shall ensure that all waste is transported in covered vehicles to a landfill, or lined landfill, if available, in accordance with applicable California Environmental Protection Agency's (Cal/EPA) Department of Toxic Substance Control (DTSC), United States Department of Transportation (DOT) and EPA Regulations.
- K. The Contractor shall submit to Owner, the waste transfer procedure and route, and shall comply with all DTSC and DOT regulations concerning hazardous and non-hazardous waste removal and transportation. If a Lead Abatement Sub-Contractor is utilized for the disposal procedure, the Contractor shall submit for Owner's or Owner's Representative approval, the Contractor qualifications to perform the work as specified in this Specification. The Contractor shall be responsible for all actions of the waste hauler as pertaining to waste removal and disposal under this Section.

2.3.10 DISPOSAL OF HAZARDOUS WASTE

- A. The Contractor and transporting Sub-Contractor will be required to comply with the RCRA and with all applicable state and local regulations.
- B. The Contractor shall comply with all EPA regulations.
- C. The Contractor shall place caustic paste residues in drums made from materials that cannot be dissolved or corroded by chemicals. Caustic and acid waste must be segregated from each other and cannot be stored in the same containers. Other materials testing as hazardous shall be prepared for disposal as follows:
 - 1. Packaged and sealed in containers approved under Title 49 CFR 173, 178, and 199.
 - 2. Containers shall be numbered to correspond to the seal number, labeled with the type of materials, date it was filled and sealed, seal number, weight of sealed container in addition to the information required under Title 49 CFR 172.
 - 3. A log shall be prepared at time of filling, identifying each numbered container and the information from "b" above. A copy of this log shall be turned over to the Owner's Representative/Industrial Hygienist within 3 working days after the containers are filled.
 - 4. Name, location and telephone number of the disposal site used. A copy of the sites state and locally issued license, and a signed agreement that they will accept the hazardous lead waste, shall be provided to the Owner's Representative/Industrial Hygienist.
 - 5. Name, address and telephone number of any waste Sub-Contractors used. Provide copies of licenses and signed agreements to the Owner's Representative/Industrial Hygienist.
 - 6. Submit copies of the Hazardous Waste manifest as required by these specifications.
- D. Waste Containers: The Contractor will comply with DTSC, EPA and DOT regulations for containers. The Contractor shall contact state and local authorities to determine their criteria for containers, with such information presented to the Owner and Owner's Representative/Industrial Hygienist. The more stringent regulation shall apply.
- E. Waste Transportation: If the Contractor is not a certified hazardous waste transporter, a contract shall be entered into with a certified transporter to move the waste that shall be at the approval of Owner. The Contractor shall require the certified hazardous waste transport to follow RCRA and DOT regulations.
- F. Prior to the removal of any hazardous waste the below listed information must be received in writing to the Owner's Representative/Industrial Hygienist and Owner for their review and approval. Once approval is received by the Contractor from the Owner's Representative/Industrial Hygienist, the waste may be transported as required.

1. Quantity of Hazardous Waste.
 2. Type of Waste Materials.
 3. Method of Containerizing Waste or Waste Treatment and appropriate licensing, certification and regulatory approvals.
 4. Proposed Waste Hauler and Disposal Route.
 5. Proposed Waste Disposal Site or Landfill.
- G. Receipts from the Waste Hauler and waste disposal site or landfill must be received and approved by Owner and Owner's Representative/Industrial Hygienist prior to approval of completion of the applicable phase of work.

2.3.11 COST FOR DISPOSAL OF HAZARDOUS WASTE

- A. The cost for the correct disposal of all waste of this project shall be included in the Total Base Bid, including the lead abatement waste to be disposed of as hazardous waste based upon TTLC, STLC, and TCLP testing as outlined in this section, and according to 40 CFR 241, 261, and 262. The cost for the disposal as hazardous waste shall include all fees, permits, labor, materials, profit, overhead, waste transfer costs, and all other costs incidental of hazardous disposal.
- B. The Contractor shall submit to its approved laboratory for testing, samples of each type of component removed as part of the work of this project. The Contractor's total base bid shall include minimum requirements of the testing of materials referred to in this Section. In addition to these materials, the Contractor's base bid shall include the cost of two samples of each type component that was not removed in the sample dwelling units but will be removed during the project.
- C. Any additional TTLC, STLC, and TCLP testing requested by the Owner shall be at cost agreed to between Owner and Contractor. This cost shall be based upon required turnaround time for sample analysis results, and upon type of analysis requested. The Contractor shall provide a minimum of three (3) competitive prices for review by Owner. The Contractor shall apply for payment for additional testing costs under proper change order procedures as defined in the Contract Documents. The acceptance of the application for change order is subject to the review and approval of the Owner.

END OF SECTION II

SECTION III – PCBs AND MERCURY PCB CONTAINING BALLAST AND MERCURY CONTAINING FLUORESCENT TUBE REMOVAL AND DISPOSAL SPECIFICATIONS

PART 1 - GENERAL

3.1.1 DESCRIPTION

- A. This section applies to all fluorescent light ballasts and mercury-containing fluorescent light tubes at the Site. The work includes, but is not limited to, the following:
1. Partial dismantling of light fixtures and/or other PCB contaminated electrical components to permit removal and separation of oils and ballasts.
 2. Cleaning any PCB contamination on fixtures surfaces.
 3. Placement of all mercury light tubes, PCB or PCB-contaminated items generated as a result of work activities in approved drums or containers.
 4. Appropriate disposal offsite of all mercury light tubes, PCB or PCB-contaminated items.
- B. Materials to be removed:

Table 3-1: Universal Hazardous Waste Summary			
Room	Press Box	Cafeteria	Museum / Weight Room
Electronic Thermostat	0	0	4
Various Cleaning Solutions	0	50	25
Hydraulic Oils (new-used)	0	30	20
Wash Solution	0	50	30
Hand Cleaner	0	25	15
Refrigerators	0	15	1
Water Heater	0	1	1
Wall Mounted AC Unit	0	4	1
Air Handling Unit (AHU)	0	0	2
Fluorescent Tube Bulbs	6	200	140
Electronic Ballasts	3	100	70
Incandescent Spotlights	0	4	0
Transformers	0	4	0

Table 3-1: Universal Hazardous Waste Summary			
Room	Press Box	Cafeteria	Museum / Weight Room
Fire Extinguishers	0	8	4
Exit Signs	0	4	2
Electronic Waste	0	20	10
Fluorescent / HID / Sodium Halide Lamps	0	10	10
PCBs Ballasts	0	0	10

- C. Contractor is required to verify the scope of work prior to commencing work, including quantities of materials to be removed, and to determine the degree of difficulty in removing the identified materials.

3.1.2 APPLICABLE REGULATIONS

- A. The applicable sections, latest editions and addenda of the following government regulations, codes, industry standards and recommended practices, form a part of these specifications.
1. EPA - Environmental Protection Agency Title 40 Code of Federal Regulations (CFR) 761, Polychlorinated Biphenyls (PCBs), Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.
 2. Generators of Hazardous Waste – 40 CFR 262
 3. General Information, Regulation and Definitions – 49 CFR 171
 4. Hazardous Materials, Tables, and Hazardous Materials Communications Regulations – 49 CFR 172
 5. NEC - National Electrical Code
 6. NEMA - National Electrical Manufacturers Association
 7. RCRA - Resource Conservation and Recovery Act (RCRA)-Identification and Listing of Hazardous Waste, Title 40 CFR 261
 8. TSCA - Toxic Substances Control Act Title 15 USC 2695
 9. DOT - Department of Transportation 49 CFR 178.80 - 178.150, Shipping Container Specifications
 10. Cal/OSHA – State of California, Department of Industrial Relations, Division of Occupational Safety and Health
 11. Cal/DTSC – State of California Department of Toxic Substances Control (DTSC) Title 22 CCR 66261 Chapter 24
 12. All other applicable Federal, State and local Standards and Regulations.

Please note Contractor is responsible for ascertaining the extent to which these regulations will affect removal operations and to comply therewith.

3.1.3 DEFINITIONS

- A. Capacitor: A device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by a dielectric. A Small Capacitor is a capacitor, which contains less than 1.36 kg (3 Lbs.) of dielectric fluid.
- B. Fluorescent Light Ballast: A device that electrically controls fluorescent light fixtures and includes a capacitor containing 0.1 kg or less of dielectric fluid.

3.1.4 SUBMITTALS

- A. The Contractor shall be required to submit the following data:
 - 1. PREWORK SUBMITTALS
 - a. A list of full-time personnel to be engaged in the contract and their training and job experience.
 - b. An outline of the worker training course and medical surveillance program conducted by the company.
 - c. Proposed respiratory protection program for employees throughout all phases of the job, including make, model and NIOSH approval number of the respirators to be used.
 - d. The name of and evidence that the project supervisor/foreperson has completed the initial OSHA 40-hours HAZWOPER and 8-hours annual refresher training, and that abatement workers have each successfully completed a training course and/or been instructed on the dangers of PCBs and mercury exposure, respirator use, levels of protection and decontamination per applicable regulations.
 - e. A basic procedures manual endorsed or authorized by the company describing working procedures, equipment, type of decontamination facilities, respirator program, special removal techniques, etc.
 - f. PCB and Mercury Removal Work Plan
 - 2. CLOSEOUT SUBMITTALS
 - a. Certificate(s) of Disposal
 - b. Waste Manifests (as applicable)
- B. No portion of the work requiring submittals shall be commenced until the submittals are approved by Owner or its designated representative.
- C. Delays to the work caused by late or disapproved submittals shall be the sole responsibility of the Contractor. No extensions will be made to the contract time on account of such delays.

3.1.5 PERSONAL PROTECTION & HYGIENE

- A. The Contractor shall take all precautions and measures required to protect employees, related trade employees, inspection personnel, and the general public from exposure to PCB and mercury solids, liquids and vapors.

- B. All equipment shall be confined to the work area until work is complete and containers are sealed and equipped properly and safely stored for transport.

3.1.6 DRESS AND EQUIPMENT

- A. The Contractor shall provide approved protective clothing to all workers, and to all official representatives of the Owner, State or other governmental entity, and the Consultant who may inspect the job site.
- B. Protective clothing shall consist of disposable full-body clothing of non- woven material comprised of heat and pressure-bonded polyethylene fibers. Material shall be chemically and biologically inert, low-linting and static free (unless laundered); durable enough to resist abrasion, puncturing and tearing; highly resistant to penetration of air-borne particulate when wet or dry. Suits may be fabricated with integral head and foot covering. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
- C. Disposable protective clothing shall be disposed as waste every time the wearer exists from the workspace to a clean area.
- D. If launderable clothing is to be worn underneath disposable protective clothing, it shall be provided by the Contractors to all abatement workers. (It is recommended that launderable clothing be a unique, specific color to enable it to be distinguished from general purpose blue, gray or black coveralls which are commonly worn).
- E. Additional safety equipment: Hard hats shall meet the requirements of ANSI Standard Z89.1-2014; eye protection shall meet the requirements of ANSI Standard Z87.1-2010 and foot protection shall meet the requirements of ANSI Standard Z41.1-1991; disposable PVC gloves as necessary shall be provided to all workers and authorized visitors. Non-skid footwear shall be provided to all abatement workers.

PART 2 - PRODUCTS

3.2.0 MATERIALS AND EQUIPMENT

- A. Storage containers:
 - 1. All liquids generated as a result of clean-up activities shall be disposed of in DOT 17E closed top drums.
- B. Solvents, Sorbents, And Cleaners:
 - 1. Solvents: Diesel fuel, deodorized kerosene, or other solvents recognized for high degree of PCB solubility (minimum of 5 percent solubility by weight).
 - 2. Sorbents: Material recognized for high degree of absorption such as perlite, or oil-dry.
- C. PCB Spill Kit – Assemble a spill kit to include the following items:
 - 1. Disposable gloves (Polyethylene)

2. Gloves with a high degree of impermeability to PCB

PART 3 - EXECUTION

3.3.0 BALLAST REMOVAL

- A. Disconnect power from all light fixtures in the work area.
- B. All brands of ballasts shall be removed.
- C. All ballasts shall be individually inspected for "no-PCB" labeling.
 1. If no labeling is observed, ballasts shall be assumed to contain PCBs, and placed in DOT 5, SB, or 17C open top drums.
 2. If "no-PCB" labeling is observed, ballasts should be segregated and placed into appropriate packaging with applicable labeling.
- D. All leaking ballasts shall be segregated and containerized in DOT 5, SB, or 17C open top drums. All light troffers and other electrical equipment which has come in contact with leaking dielectric fluid shall be disposed of in the same manner as the ballasts (DOT 5, SB, or 17C open top drums).
- E. Sufficient sorbent material shall be placed in containers with PCB-containing ballasts and leaking ballasts to absorb any leaking dielectric fluid.
- F. Containers with PCB-containing ballasts and leaking ballasts shall be sealed and labeled according to Section 3.5.C.

3.3.1 FLUORESCENT & MERCURY VAPOR LIGHT TUBES

- A. Spent fluorescent light tubes contain mercury-vapor, which is considered a hazardous waste. All light tubes shall be removed and placed in appropriate packaging pending offsite disposal.

3.3.2 CONTAINERIZATION AND MARKING

- A. All liquids generated as a result of work activities and clean-up operation shall be placed in DOT 17E closed top drums and sealed.
- B. All solids such as sorbents, rags, disposable protective clothing, and other incidentals shall be placed in DOT 17C open top drums and sealed.

3.3.3 ON-SITE STORAGE

- A. All drums shall be permanently sealed and labeled before being moved to a location acceptable to the Owner. Handle drums with utmost care during transportation between removal area and storage area.

3.3.4 REMOVAL AND DISPOSAL

- A. Contractor will be responsible for the removal and disposal of all ballasts and fluorescent light tubes.
- B. All light tubes and ballasts with "no-PCB" labeling shall be transported to an accepting recycling facility. The Contractor shall maintain a log of shipment dates and quantities.

END OF SECTION III