LIMITED HAZARDOUS MATERIALS SURVEY REPORT
CHARLES G. EMERY ELEMENTARY SCHOOL
MULTI-PURPOSE ROOM BUILDING (LIMITED AREAS)
8600 SOMERSET STREET
BUENA PARK, CALIFORNIA 90621

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SEPTEMBER 10, 2021

PROJECT NO. 210527006

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EXECUTIVE SUMMARY

At the request of Buena Park School District (BPSD), Vista Environmental Consulting, Inc. (VISTA) performed a Limited Hazardous Materials Survey of the Multi-Purpose Room (MPR) Building within the campus of Charles G. Emery (Emery) Elementary School located at 8600 Somerset Street in the City of Buena Park, Orange County, California (the Project Site). The areas of the Project Site surveyed were limited to areas planned for renovation activities as part of a School Modernization project.

The survey was performed to identify and sample accessible, suspect asbestos-containing materials (ACMs), asbestos-containing construction materials (ACCMs), representative building components for the presence of lead-based paints (LBPs)/lead-bearing substances (LBSs), universal waste (UW) materials, polychlorinated biphenyls (PCBs) containing devices, mechanical equipment & machines which contain ozone depleting chemicals, devices with low-level radioactive sources, and other universal waste materials that may be present within the facility.

The results of the survey and testing indicate that hazardous or regulated materials ***are present*** at the Project Site. The following tables list the identified materials, the location of the materials and the estimated quantity:

Table 1 of 1 **Multi-Purpose Room Building (Limited Areas)**

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY[1]
Mastic with Vinyl Floor Tile	Black Mastic with 12" Beige with Gray Specks Tile	Multi-Purpose Room	Asbestos (ACM)	2,450 SF
Thermal System Insulation (TSI) Pipe System (Assumed)	*(Not Accessible/Needs destructive testing)*	Restrooms Walls and Ceilings Cavities	Asbestos (Assumed ACM)	100 LF Estimated (Not Observed)
Floor Cover	Gold/Brass	Multipurpose Room	Lead-Bearing Substance (LBS)	4 EA
Floor Drains	Gold/Brass	Restrooms	Lead-Bearing Substance (LBS)	4 EA
Wall	Tan/Ceramic	Hall	Lead-Bearing Substance (LBS)	50 SF
LCSCs Detected (See XRF Lead Data Table)				
Fluorescent Light Tubes		Interior	Universal Waste (UW)	50 EA
Light Fixture Ballasts		Interior	Suspect Polychlorinated Biphenyls (PCBs)/ Electronic Waste	25 EA
Exit Signs		Interior	Universal Waste (UW)	4 EA

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY[1]
Strobe Lights		Interior	Universal Waste (UW)	5 EA
Thermostat		Interior	Mercury	1 EA

Notes:
SF = square feet
LF = linear feet
EA = each
NA = not applicable
AC = air-conditioning
UW = universal waste
PCB = polychlorinated biphenyls
ACM = Asbestos-Containing Material, Greater than 1% of asbestos by Polarized Light Microscopy (PLM), as defined by USEPA
ACCM (<1%) = Asbestos-Containing Construction Material, found to contain trace asbestos (>0.1%, <1.0%) are subject to regulation by CAL/OSHA as ACCMs.
Lead-Based Paint = 1.00 milligrams per square centimeter (mg/cm^2) of lead or greater is present, as defined by 17 California Code of Regulations (CCR) 35001-36100
Lead-Containing Surface Coatings = 0.10 to 0.99 mg/cm^2 of lead present (8 California Code of Regulations [CCR] 1532.1). Contractor is responsible for employee exposure monitoring during abatement/demolition of LCSCs.
Lead-Bearing Substances = 1.00 mg/cm^2 of lead or greater is present
[1] Order of Magnitude ***ESTIMATED*** Quantities and Locations. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing to the Owner or the Owner's representative, ***PRIOR*** to bidding.

Asbestos

The results of the limited asbestos survey indicate that ***ACMs and Assumed ACMs are*** present at the project site building.

All disturbance and/or removal operations of ACMs/ACCMs must be performed by a Cal/OSHA registered and State licensed asbestos removal contractor in accordance with Title 8 of the California Code of Regulations, Section 1529 (8 CCR 1529). Notification must be provided to Cal/OSHA 24 hours prior to commencing such activities in accordance with 8 CCR 5203. All disturbance and/or abatement operations should be under the direction of a California Certified Asbestos Consultant.

Should the removal of identified asbestos-containing materials involve at least 100 square feet then a 14 calendar day written notification to the South Coast Air Quality Management District (SCAQMD) in accordance with Rule 1403, and a 24 hour written notice to Cal/OSHA prior to the initiation of such activities are required.

Notification to employees and contractors working within the building should be made in accordance with the California Health and Safety Code, Section 25915 *et.seq.*, and Proposition 65.

Lead

The results of the limited lead testing indicate that ***LBSs*** and ***LCSCs are*** present at limited areas at the project site buildings.

All activities involving potential and identified lead-containing surfaces should be performed in accordance with California Health & Safety Code sections 17920.10 and 10525, 10525.7, Title 8, California Code of Regulations (CCR), Section 1532.1. In addition, all activities involving identified lead-based paints (LBP) must be performed in accordance with Title 17, CCR, Division 1, Chapter 8, Sections 35001 through 36100, and 40 CFR 745 which proscribe the use of California Department of Public Health (CDPH) or Federal EPA certified firms, workers, work practices, and other requirements.

Written notification to Cal/OSHA must be accomplished should LBP activities involve equal to or more than 100 square feet or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Written notification to CDPH may be required.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 8 CCR 1537 Welding, Cutting, and Heating of Coated Metals. This standard requires 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, or 8 CCR 1536 Ventilation Requirements for Welding, Brazing, and Cutting.

Universal Waste

The results of the limited survey indicate that ***universal waste materials are*** present at limited areas at the project site buildings.

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

VISTA's limited visual survey indicated that light fixtures with ballasts that may contain PCB oil are present. However, due to the limited nature of the random spot checks, VISTA recommends that all ballasts be visually inspected, prior to disposal, to determine if they contain PCB's. Those ballasts marked No PCB's, PCB Free or dates after 1978 can be considered as such as should be treated as UW - electronic waste. 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.

Should materials similar to those identified in this report, or if other forms of suspect hazardous materials are discovered during work activities, maintenance personnel and/or contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel. All such materials should be assumed to be hazardous and handled accordingly until properly tested and assessed.

Respectfully Submitted,

Vista Environmental Consulting, Inc.

Stephen S. Reese
Senior Project Manager
Certified Asbestos Consultant #05-3853 (Expires 9/22/2021)
CDPH Lead Inspector-Assessor LRC#00006758/59 (Expires 11/25/2021)

1.0 INTRODUCTION

At the request of Buena Park School District (BPSD), Vista Environmental Consulting, Inc. (VISTA) performed a Limited Hazardous Materials Survey of the Multi-Purpose Room (MPR) Building within the campus of Charles G. Emery (Emery) Elementary School located at 8600 Somerset Street in the City of Buena Park, Orange County, California (the Project Site). The areas of the Project Site surveyed were limited to areas planned for renovation activities as part of a School Modernization project.

The survey was performed to identify and sample accessible, suspect asbestos-containing materials (ACMs), asbestos-containing construction materials (ACCMs), representative building components for the presence of lead-based paints (LBPs)/lead-bearing substances (LBSs), universal waste (UW) materials, polychlorinated biphenyls (PCBs) containing devices, mechanical equipment & machines which contain ozone depleting chemicals, devices with low-level radioactive sources, and other universal waste materials that may be present within the facility.

The purpose of this survey was to identify hazardous building materials prior to the planned renovation or demolition of the structures. Identified hazardous materials should be properly removed, waste characterized, and disposed prior to being impacted by any activities that may disturb the identified hazardous materials. The data provided in this report can assist all parties involved in this project make informed decisions with regards to regulatory compliance and the health and safety of their employees. This survey included the following:

- Visible and accessible suspect asbestos-containing materials (ACM) were assessed and sampled to determine asbestos content.
- Representative painted and coated building components were assessed and sampled to determine the lead concentrations.
- Visible and accessible materials commonly found in buildings which have the potential to have hazardous properties that are regulated were assessed, but not sampled. These materials included:

    - Universal Waste (UW) materials, such as non-incandescent lamps, batteries, mercury-containing devices, and electronic waste;
    - Polychlorinated biphenyls (PCBs) containing devices such as lamps, ballasts and hydraulic systems;

- Mechanical Equipment & Appliances which may contain ozone depleting chemicals, such as Heating, Ventilation and Air Conditioning (HVAC) systems, refrigerators, freezers, and water coolers/fountains;
- Devices which have low-levels of radioactivity such as exit signs (Tritium).

1.1 *Building Description*

The areas of the project site consist of Multi-Purpose Room Building (limited areas). Multipurpose Room is planned for renovation activities as part of a School Modernization project.

The Project Site buildings are constructed with concrete and wood frames, with interior walls finished with either plaster, base cove and/or drywall/joint compound; interior ceilings finished either plaster, drywall/joint compound and/or acoustic ceiling tiles; interior floors finished with vinyl floor tile and/or ceramic tile; and exterior walls finished with stucco.

The survey performed was limited to representative rooms/areas, was not intrusive in nature, and did not include access of areas and sampling of materials which would have required demolition or destructive testing. There is a possibility that additional hazardous materials may be encountered in inaccessible areas (e.g., interstitial wall and ceiling spaces) during building modernization or demolition activities. Suspect hazardous materials encountered during modernization or demolition activities that have not been assessed either may be assumed to be hazardous and handled accordingly, or may be properly sampled and analyzed to assess whether they are hazardous.

2.0 METHODOLOGY

The limited hazardous materials survey was performed on July 6, 2021 by Mr. Michael Tangonan under the direction of Mr. Stephen Reese. The project management and report preparation was performed by Mr. Reese. Mr. Reese and Mr. Tangonan are a State of California Division of Occupational Safety and Health (Cal/DOSH) Certified Asbestos Consultants (CACs). The survey team members are either a Lead-Related Construction Inspector-Assessor, Sampling Technician and/or Project Monitors as issued by the State of California Department of Public Health (CDPH). Copies of consultant certifications are attached as Appendix D.

Materials similar to those in this report may be present in areas which were not accessed. VISTA made every reasonable effort to access these areas. Subsurface investigations were not proposed nor performed as part of these surveys.

2.1 *Asbestos*

The asbestos survey was performed generally in accordance with the AHERA protocol (40 CFR Part 763, Subpart E) but modified for the limited areas and to include exterior areas in preparation for construction activities. Visual identification was performed by assessing visible and accessible structural, architectural, and mechanical components for the presence of suspect ACM at the Project Site. Samples were generally taken from locations that are not visible to the general population, such as areas that already showed signs of damage. ***The limited asbestos survey was performed of only limited areas that was not intrusive and did not include access and sampling of areas which required reasonable demolition to access as required by SCAQMD Rule 1403.***

This limited, ACM survey was performed in the following manner:

- Suspect ACM was categorized into homogeneous materials. A homogeneous material is defined as being a surfacing material, thermal system insulation, or miscellaneous material which is uniform in color and texture. It may also be additionally subcategorized using the date of installation, when available.

- A sampling scheme was developed based upon the location and quantity of the suspect homogeneous ACM. A Rough order of magnitude estimate of each suspect homogenous ACM was calculated and recorded for future reference. A sampling scheme, including a specific number of samples per suspect homogeneous ACM, was calculated prior to sampling.

- Sampling guidelines established by the United States Environmental Protection Agency (USEPA) were utilized for sampling each suspected homogeneous ACM.

- Trained California asbestos certified personnel, using appropriate sampling tools and sterile leak-tight containers, collected building materials that were suspected to contain ACM.

- Each suspect ACM sample was collected and sealed in its container and appropriately labeled with a unique sample identification number and recorded on an asbestos bulk sampling log. Each log contains a chain-of-custody to assure the proper transition of the samples from VISTA to the analytical laboratory.

- Sampling tools were decontaminated, by using a clean wet cloth, between the collection of each suspect sample to prevent the possibility of cross contamination to subsequent suspect ACM samples.

Suspect ACM bulk samples were delivered under proper chain-of-custody protocol, via FedEx to AmeriSci Group located at 24416 South Main Street, Suite 308, Carson, California (Phone: 310.834.4868). AmeriSci Group is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) and the California Environmental Laboratory Accreditation Program (Cal-ELAP).

The samples were submitted for analysis by Polarized Light Microscopy (PLM) utilizing dispersion staining techniques in accordance with the EPA's "Method for the Determination of Asbestos in Bulk Building Materials" U.S. EPA/600/R-93/116, Visual Area Estimate, dated July 1993 and adopted by the NVLAP as Test Method Code 18/A01.

2.2 *Lead*

Suspect lead-based paints (LBPs) and lead-bearing substances (LBS) were identified via visual inspection. Representative surface coatings and materials were tested utilizing an X-Ray Fluorescence (XRF) direct read spectrum analyzer device in accordance with the requirements of the manufacturer's performance characteristics sheet (PCS) to evaluate lead levels. The device used was a NITON Corporation XRF Spectrum Analyzer, Model XLp- 300 A. This device is a solid-state detector optimized for lead L-shell and K-shell X-ray detection and uses a 40 mCi 109Cd (1,480 Mbq) isotope for an excitation source.

This testing was a limited screening of paint for the purpose of characterizing the lead content in paint and coatings likely to be disturbed during work activities. For this purpose, XRF analysis was used to screen for lead levels and provides results that are generally representative of typical conditions but are not inclusive of all painted/coated surfaces present at the Project Site. This survey was not a surface by surface inspection as outlined in the U.S. Department of Housing and Urban Development (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* pursuant to Title X of the Housing and Community Development Act of 1992. This analytical data can be helpful in evaluation of lead-related environmental risks in general, but cannot be used to calculate worker exposures and is not a substitute for employee exposure monitoring or waste stream sampling.

The HUD specifies that lead-based paint (LBP) is present when paint contains lead equal or greater than 1.0 milligram per square centimeter (by XRF) by area or 0.5 percent by weight or 5,000 parts per million (or milligrams per kilogram).

2.3 *Devices with Potential Hazardous Materials*

Devices with potential hazardous materials were visually identified during the survey walk through and their quantities were estimated and recorded. No attempt was made to disassemble all devices or sample suspect materials within the devices.

For example, fluorescent light fixtures must be presumed to contain Universal Waste lamps and ballasts which contain PCB oil or are electronic waste, pending removal and disassembly of each unit to determine explicit product specific information that proves otherwise.

Appliances, such as televisions, movable refrigerators, microwaves, etc. and telecommunication equipment such as telephone, intercom and internet were not surveyed because they are typically fixed assets and likely to be reused.

3.0 RESULTS

3.1 *Asbestos*

A total of 38 suspect asbestos bulk samples were collected on July 6, 2021 from the subject site buildings at the Project Site for the determination of the presence of asbestos.

The results of the bulk samples collected for asbestos, and analyzed by PLM, indicate that detectable concentrations of asbestos ***are present*** in the following materials considered to be ACMs or Assumed ACMs:

Multi-Purpose Room (Limited Areas)

ID	MATERIAL	DESCRIPTION	LOCATION	CAL/OSHA CLASS	SCAQMD CLASS[1]
H	Mastic with Vinyl Floor Tile	Black Mastic with 12" Beige with Gray Specks Tile	Multi-Purpose Room	Class II	Class I – Non-Friable
O	Thermal System Insulation (TSI) Pipe System (Assumed)	*(Not Accessible/Needs destructive testing)*	Restrooms Walls and Ceilings Cavities	Class I (Assumed ACM)	Friable (Assumed ACM)

[1] SCAQMD Classes based upon the material's condition at the time of the survey or as rendered as a result of standard manual removal/demolition techniques. The use of "mechanical means", non-standard or other aggressive removal/demolition techniques may result in a different classification.
[2] Materials found to contain >0.1% but <1.0% are subject to regulation by CAL/OSHA.

The results of the bulk samples collected for asbestos, and analyzed by PLM, indicate that the following materials ***are*** ***not*** considered ACMs or ACCMs:

Multipurpose Room

ID	MATERIAL	DESCRIPTION	Number of Samples
A	Acoustic Ceiling Tile/Mastic	12" Random Hole Pattern/Tan Mastic	3
B	Drywall Ceiling with Joint Compound	Smooth Finish	3
C	Plaster Wall	Smooth Finish	3
D	Pressboard Wall	Beige/Waffle Pattern	3
E	Drywall Wall with Joint Compound	Smooth Finish	3
F	Base Cove/Mastic	6" Green/Cream Mastic	1
G	Base Cove/Mastic	6" Brown/Tan Mastic	3
I	Window Panels	Beige/Blue	1
J	Tile Grout	Gray	3
K	Plaster Ceiling	Rough Finish	3
L	Stucco Wall	White/Rough	3
M	Window Frame Sealant	Black	3
N	Wall Base Sealant	Gray	3

3.2 *Lead*

VISTA collected 61 XRF readings (including calibration readings) of paint and coatings from the project site buildings on July 6, 2021. The results for this testing indicate that the following building components and respective surface coatings ***did*** ***have*** lead concentrations defining them as Lead-Bearing Substances at Lead-Based Paint (LBP) levels, in accordance with Title 17 of the California Code of Regulations, Section 35001 et. Seq.

Table 1 of 1 **Multipurpose Room**

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY[1]
Floor Cover	Gold/Brass	Multipurpose Room	Lead-Bearing Substance (LBS)	4 EA
Floor Drains	Gold/Brass	Restrooms	Lead-Bearing Substance (LBS)	4 EA
Wall	Tan/Ceramic	Hall	Lead-Bearing Substance (LBS)	50 SF
LCSCs Detected (See XRF Lead Data Table)				

The XRF results for this survey indicate that some of the remaining building components and respective surface coatings have lead concentrations in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1. For purposes of this survey, and in accordance with Title 8 CCR, Section 1532.1 (8 CCR 1532.1) and Title 17 of the California Code of Regulations, (17 CCR) Section 35001 et. seq. the XRF results were interpreted as follows:

1. Lead-based paints/lead-bearing substances present were determined when XRF results revealed a lead concentration of ≥1.0 milligrams per square centimeter (mg/cm^2).

2. Non lead-based paint/lead-containing surface coatings were determined when XRF results revealed a lead concentration of <1.0 mg/cm^2. Due to the limitations of the XRF, materials with results 0.1 mg/cm^2 or greater must be treated as lead-containing.

Refer to the Recommendations Section below for clarification regarding lead related construction.

Analytical laboratory data, chain of custody documents, XRF data and field sketches including sample location maps are included in the appendices of this report. A copy of the CDPH Lead Hazard Evaluation Report (Form 8552) that was sent to CDPH is included in Appendix C.

3.3 *Devices with Potential Hazardous Materials*

Devices with potential hazardous materials were identified at the Project Site and are listed in the following tables:

Universal Waste, Suspect PCBs/Electronic Ballasts, Devices with Suspect Ozone Depleting Chemicals

Table 1 of 1 **Multipurpose Room**

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY[1]
Fluorescent Light Tubes		Interior	Universal Waste (UW)	50 EA
Light Fixture Ballasts		Interior	Suspect Polychlorinated Biphenyls (PCBs)/ Electronic Waste	25 EA
Exit Signs		Interior	Universal Waste (UW)	4 EA
Strobe Lights		Interior	Universal Waste (UW)	5 EA
Thermostat		Interior	Mercury	1 EA

4.0 RECOMMENDATIONS

4.1 *Asbestos*

The results of the limited asbestos survey indicate that ***ACMs and Assumed ACMs*** ***are*** present at the project site building.

Work performed during any activities that disturb the ACMs or ACCMs identified in this report must be performed in compliance with the most recent edition of all applicable federal, state, and local regulations, standards, and codes governing abatement, transport, and disposal of asbestos-containing materials. Materials encountered in the building that are not part of this report must be properly sampled for the content of asbestos or assumed to be asbestos containing prior to any disturbance.

All disturbance and/or removal operations of ACMs/ACCMs must be performed by a Cal/OSHA registered and State licensed asbestos removal contractor in accordance with Title 8 of the California Code of Regulations, Section 1529 (8 CCR 1529). Notification must be provided to Cal/OSHA 24 hours prior to commencing such activities in accordance with 8 CCR 5203. All disturbance and/or abatement operations should be under the direction of a California Certified Asbestos Consultant.

Should the removal of identified asbestos-containing materials involve at least 100 square feet then a 14 calendar day written notification to the South Coast Air Quality Management District (SCAQMD)

in accordance with Rule 1403, and a 24 hour written notice to Cal/OSHA prior to the initiation of such activities are required.

Notification to employees and contractors working within the building should be made in accordance with the California Health and Safety Code, Section 25915 *et.seq.*, and Proposition 65.

4.2 *Lead*

The results of the limited lead testing indicate that ***LBSs*** and ***LCSCs are*** present at limited areas at the project site buildings.

Written notification to Cal/OSHA must be accomplished should LBP activities involve equal to or more than 100 square feet or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Written notification to CDPH may be required.

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, Federal EPA requirements for residential buildings and child occupied facilities, and SB 460 lead hazard regulations that apply to lead-related construction activities, abatement activities and their associated 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 contaminates. 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 600 parts per million (ppm) or 0.06 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. Significant additional certification, notification, and work practices are required for materials found to be lead-based.

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. 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.

♦ **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/cm^2

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 & 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 & tenants, special training, certifications (for both companies & individuals), work practices, and clearance verification for such activities.

♦ **Cal/EPA** through the Division 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 or residential structures in regards to lead-based paint. These regulations require special certifications, work practices, and notification for such activities.

♦ **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 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. VISTA 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.

4.3 *Devices with Potential Hazardous Materials*

The results of the limited survey indicate that ***universal waste materials are*** present at limited areas at the project site buildings.

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

VISTA's limited visual survey indicated that light fixtures with ballasts that may contain PCB oil are present. However, due to the limited nature of the random spot checks, VISTA recommends that all ballasts be visually inspected, prior to disposal, to determine if they contain PCB's. Those ballasts marked No PCB's, PCB Free or dated after 1978 can be considered as such as should be treated as UW - electronic waste. 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.

5.0 LIMITATIONS & EXCLUSIONS

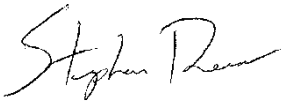
VISTA's scope of work was to perform a building-related hazardous materials survey prior to the planned renovation of the building. Subsurface investigations were not accomplished as part of this scope of work. Quantities and locations are based upon areas that were accessed. Materials similar to those in this report may be present in areas which were not accessed. Because of this VISTA recommends including line item pricing, allowances, and/or additive/deductive wording to bid sheets for unforeseen conditions.

All material quantities reported herein are rough order of magnitude estimates and should not be used for bidding purposes. All contractors are responsible for accurately determining quantities and locations of materials identified in this report. Findings, conclusions, recommendations and analytical data offered in this report have been derived from reviewing existing information provided by the client, visual survey of the building materials and systems, and the outcome of sampling and analysis of suspected hazardous materials.

Should materials similar to those identified in this report, or if other forms of suspect hazardous materials are discovered during work activities, maintenance personnel and/or contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel. All such materials should be assumed to be hazardous and handled accordingly until properly tested and assessed.

Respectfully Submitted,

Vista Environmental Consulting, Inc.



Stephen S. Reese
Senior Project Manager
Certified Asbestos Consultant #05-3853 (Expires 9/22/2021)
CDPH Lead Inspector-Assessor/Project Monitor LRC#00006758/59 (Expires 11/25/2021)

APPENDIX A

SAMPLE LOCATION MAPS

VISTA ENVIRONMENTAL CONSULTING

BUILDING DIAGRAM

Client: BRSD

Address: Emery ES

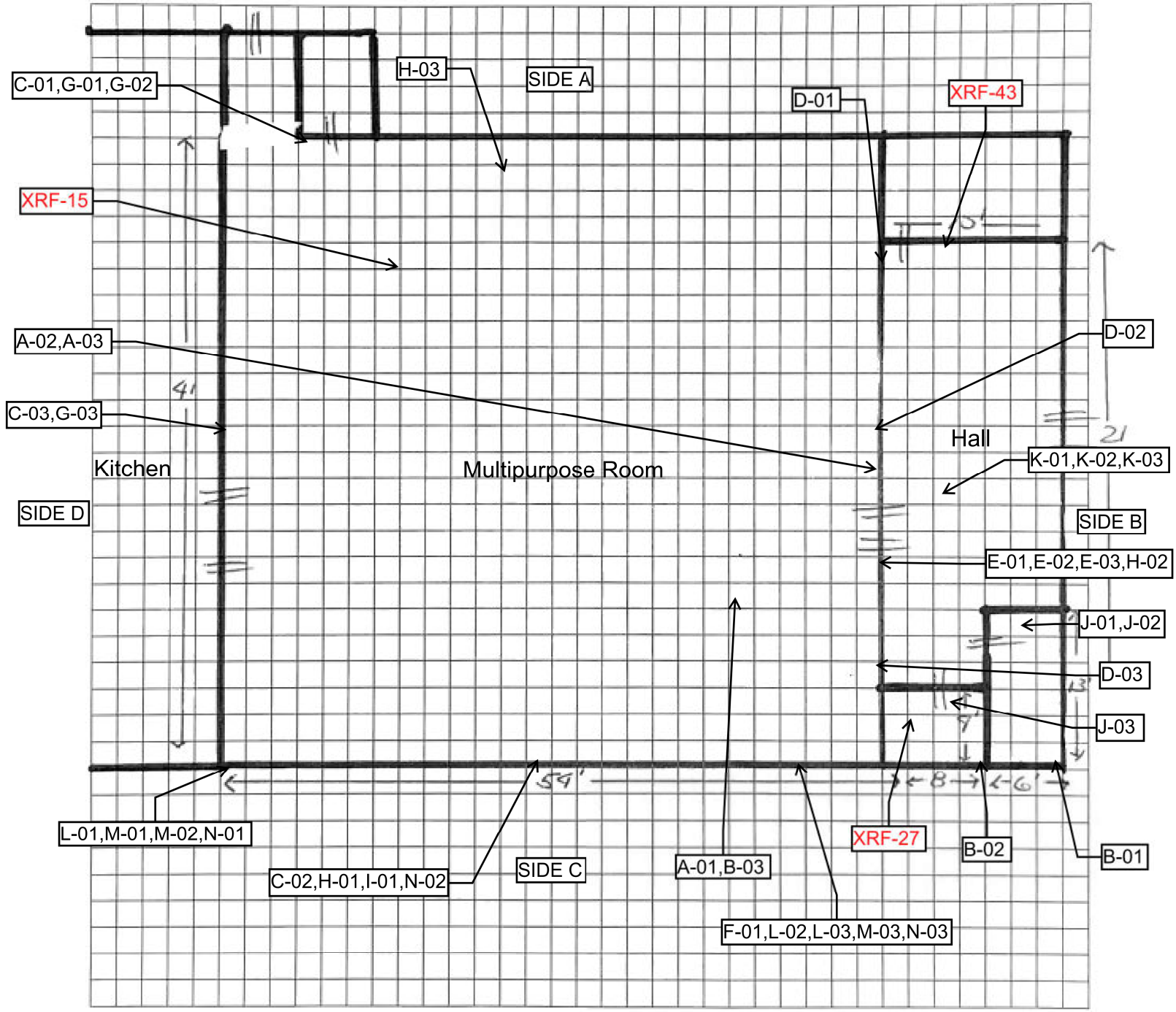
Building: MPR

Date: 7/6/21

Project No: 21052700

Vista Inspector: Tangonan

ATTIC Y (N) BASEMENT Y (N) CRAWL SPACE Y (N) GARAGE Y (N) NO # FLOORS: 1



N

(Not to Scale)

APPENDIX B

ASBESTOS LABORATORY ANALYTICAL RESULTS

Please Reply To:

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

FACSIMILE TELECOPY TRANSMISSION

To: Michael Cardone
Vista Environmental Consulting, Inc

Fax #:

Email: mikecardone@vista-env.com,mike@vista-env.com,andrew.schmidt@vista-env.com,socaladmin@vista-env.com

From: Thu M. Nguyen
AmeriSci Job #: 921071145
Subject: PLM 48 hour Results
Client Project: 210527006; BPSD; Emery ES - Multipurpose Room

Date: Monday, July 12, 2021
Time: 21:24:17
Comments:

Number of Pages: _____
(including cover sheet)

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Vista Environmental Consulting, Inc
Attn: Michael Cardone
1054 N. Tustin Avenue

Anaheim, CA 92807

Date Received 07/09/21 **AmeriSci Job #** 921071145
Date Examined 07/12/21 **P.O. #**
Page 1 **of** 10
RE: 210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - A01	921071145-01.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Ceiling			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Ceiling Tile **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			
MPR - A01	921071145-01.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Ceiling			
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - A02	921071145-02.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Ceiling			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Ceiling Tile **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			
MPR - A02	921071145-02.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Ceiling			
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - A03	921071145-03.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Wall			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Ceiling Tile **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - A03	921071145-03.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: 12" ACT / AWT w/ Mastic / Random Hole Pattern / MPR @ Wall			
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - B01	921071145-04.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / Restroom #1			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 50 %, Non-fibrous 50 %			
MPR - B01	921071145-04.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / Restroom #1			
Analyst Description: Off-White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 5 %, Non-fibrous 95 %			
MPR - B02	921071145-05.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / Restroom #2			
Analyst Description: Beige/Brown, Heterogeneous, Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 50 %, Non-fibrous 50 %			
MPR - B02	921071145-05.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / Restroom #2			
Analyst Description: Off-White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 5 %, Non-fibrous 95 %			
MPR - B03	921071145-06.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / MPR Center			
Analyst Description: White/Brown, Heterogeneous, Non-Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 70 %, Non-fibrous 30 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - B03	921071145-06.2	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Ceiling / Smooth Finish / MPR Center			
Analyst Description: Off-White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 2 %, Fibrous glass 2 %, Non-fibrous 96 %			
MPR - C01	921071145-07	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Wall / Smooth Finish / MPR - S/E			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - C02	921071145-08	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Wall / Smooth Finish / MPR - North			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - C03	921071145-09	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Wall / Smooth Finish / MPR - East			
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - D01	921071145-10	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Pressboard Wall / Beige / Waffle Pattern / MPR - West			
Analyst Description: Beige/Brown, Heterogeneous, Fibrous, Pressboard **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			
MPR - D02	921071145-11	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Pressboard Wall / Beige / Waffle Pattern / MPR - West			
Analyst Description: Beige/Brown, Heterogeneous, Fibrous, Pressboard **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - D03	921071145-12	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Pressboard Wall / Beige / Waffle Pattern / MPR - West			
Analyst Description: Beige/Brown, Heterogeneous, Fibrous, Pressboard **Asbestos Types:** **Other Material:** Cellulose 85 %, Non-fibrous 15 %			
MPR - E01	921071145-13.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			
Analyst Description: White, Heterogeneous, Non-Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 40 %, Non-fibrous 60 %			
MPR - E01	921071145-13.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			
Analyst Description: White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 5 %, Non-fibrous 95 %			
MPR - E02	921071145-14.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 40 %, Non-fibrous 60 %			
MPR - E02	921071145-14.2	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			
Analyst Description: White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 5 %, Non-fibrous 95 %			
MPR - E03	921071145-15.1	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			
Analyst Description: White/Brown, Heterogeneous, Fibrous, Joint Compound/Tape **Asbestos Types:** **Other Material:** Cellulose 40 %, Non-fibrous 60 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - E03	921071145-15.2	***No***	NAD
Location: DWJTC Wall / Smooth Finish / MPR - Entry Hall			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Off-White, Heterogeneous, Fibrous, Drywall **Asbestos Types:** **Other Material:** Cellulose 40 %, Non-fibrous 60 %			
MPR - F01	921071145-16.1	***No***	NAD
Location: 6" BCM / Green / MPR - North			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Green, Homogeneous, Non-Fibrous, Basecove **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - F01	921071145-16.2	***No***	NAD
Location: 6" BCM / Green / MPR - North			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Cream, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - G01	921071145-17.1	***No***	NAD
Location: 6" BCM / Brown / MPR - S/E			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - G01	921071145-17.2	***No***	NAD
Location: 6" BCM / Brown / MPR - S/E			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Tan, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - G02	921071145-18.1	***No***	NAD
Location: 6" BCM / Brown / MPR - East			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - G02	921071145-18.2	***No***	NAD
Location: 6" BCM / Brown / MPR - East			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - G03	921071145-19.1	***No***	NAD
Location: 6" BCM / Brown / MPR - East			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Basecove **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - G03	921071145-19.2	***No***	NAD
Location: 6" BCM / Brown / MPR - East			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Tan, Homogeneous, Non-Fibrous, Mastic **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - H01	921071145-20.1	***No***	NAD
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - North			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - H01	921071145-20.2	***Yes***	2 %
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - North			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Black, Heterogeneous, Fibrous, Mastic **Asbestos Types:** Chrysotile 2.0 % **Other Material:** Non-fibrous 98 %			
MPR - H02	921071145-21.1	***No***	NAD
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - Entry Hall			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - H02	921071145-21.2	***Yes***	2 %
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - Entry Hall			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Black, Heterogeneous, Fibrous, Mastic			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			
MPR - H03	921071145-22.1	***No***	NAD
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - South			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MPR - H03	921071145-22.2	***Yes***	2 %
Location: 12" VFT w/ Mastic / Beige w/ Gray Specks / MPR - South			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Black, Homogeneous, Fibrous, Mastic			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			
MPR - I01	921071145-23	***No***	NAD
Location: Window Lower Panel / Gray / Fibrous / Exterior - North			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Grey, Heterogeneous, Fibrous, Panel			
Asbestos Types:			
Other Material: Cellulose 85 %, Non-fibrous 15 %			
MPR - J01	921071145-24	***No***	NAD
Location: Tile Grout / Dark Gray / Restroom #1			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Dark Grey, Heterogeneous, Non-Fibrous, Grout			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MPR - J02	921071145-25	***No***	NAD
Location: Tile Grout / Dark Gray / Restroom #1			(by CVES) by Thu M. Nguyen on 07/12/21
Analyst Description: Dark Grey, Heterogeneous, Non-Fibrous, Grout			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - J03	921071145-26	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Tile Grout / Dark Gray / Restroom #2			
Analyst Description: Dark Grey, Heterogeneous, Non-Fibrous, Grout **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - K01	921071145-27	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Ceiling / Rough Finish / MPR Entry Hall			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - K02	921071145-28	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Ceiling / Rough Finish / MPR Entry Hall			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - K03	921071145-29	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Plaster Ceiling / Rough Finish / MPR Entry Hall			
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Plaster **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - L01	921071145-30	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Stucco Wall / Rough / White / Exterior - North			
Analyst Description: Tan/Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - L02	921071145-31	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Stucco Wall / Rough / White / Exterior - North			
Analyst Description: Tan/Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - L03	921071145-32	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Stucco Wall / Rough / White / Exterior - North			
Analyst Description: Tan/Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - M01	921071145-33	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Window Frame Sealant / Black / Exterior - North			
Analyst Description: Black, Homogeneous, Non-Fibrous, Sealant **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - M02	921071145-34	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Window Frame Sealant / Black / Exterior - North			
Analyst Description: Black, Homogeneous, Non-Fibrous, Sealant **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - M03	921071145-35	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Window Frame Sealant / Black / Exterior - North			
Analyst Description: Black, Homogeneous, Non-Fibrous, Sealant **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - N01	921071145-36	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Wall Base Sealant / Gray / Exterior - North			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MPR - N02	921071145-37	*No*	NAD (by CVES) by Thu M. Nguyen on 07/12/21
Location: Wall Base Sealant / Gray / Exterior - North			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

210527006; BPSD; Emery ES - Multipurpose Room

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MPR - N03	921071145-38	***No***	NAD (by CVES) by Thu M. Nguyen on 07/12/21

Location: Wall Base Sealant / Gray / Exterior - North

Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant
Asbestos Types:
Other Material: Non-fibrous 100 %

Reporting Notes:

Analyzed By: Thu M. Nguyen T Thu M. Nguyen; Date Analyzed: 7/12/2021 7.12.21

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By:_____

9210711145

VISTA ENVIRONMENTAL CONSULTING

ASBESTOS BULK SAMPLE LOG

1531 GRAND AVENUE, SUITE #C
SAN MARCOS, CA 92078
TEL 858.412.4715
FAX 888.296.0271

1054 NORTH TUSTIN AVENUE
ANAHEIM, CA 92807
TEL 714.289.2600
FAX 714.289.2603

CLIENT: BPSD

DATE: 7/6/21

LOCATION: Emery ES - Multipurpose Room

PROJECT NUMBER: 21052700 6

SAMPLED BY: M.Tangonan/

CAC OR SST NO: 19-6659/

BUILDING	HOMO. MAT. ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MPR	A	01	12" ACT/Al vT w/Mastic	Random Hole Pattern	MPR (a Ceiling	
↓	↓	02	↓	↓	↓ ↓	
↓	↓	03	↓	↓	↓ Ca Wall	
↓	B	01	DX/TC Ceiling	Smooth Finish	Restroom #1	
↓	↓	02	↓	↓	↓ #2	
↓	↓	03	↓	↓	MPR Center	
↓	C	01	Plaster Wall	Smooth Finish	MPR - S/E	
↓	↓	02	↓	↓	↓ - North	
↓	↓	03	↓	↓	↓ - East	
↓	D	01	Pressboard Wall	Beige/Waffle Pattern	MPR - West	

ANALYTICAL METHOD: (PLM) TURNAROUND TIME: SAME DAY RUSH 24-HR (48-HR) 3 DAY 5 DAY

EMAIL RESULTS TO: steve.reese@vista-env.com

EMAIL INVOICE TO: ACCOUNTING@VISTA-ENV.COM QUESTIONS CALL: Steve Reese (858)761-8188

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	PRINT/SIGNATURE	TITLE	INCLUSIVE DATES
1.	Michael Tangonan/	Field Tech.	7/6/21 - 7/8/21
2.	Glenda L.		7/9/21 @ 9:40
3.			

VI

921071145

ASBESTOS BULK SAMPLE LOG

VISTA ENVIRONMENTAL CONSULTING

1531 GRAND AVENUE, SUITE #C
SAN MARCOS, CA 92078
TEL 858.412.4715
FAX 888.296.0271

1054 NORTH TUSTIN AVENUE
ANAHEIM, CA 92807
TEL 714.289.2600
FAX 714.289.2603

CLIENT: BPSD

DATE: 7/6/21

LOCATION: Emery ES - Multipurpose Room

PROJECT NUMBER: 21052700b

SAMPLED BY: M.Tangonan/

CAC OR SST NO: 19-6659/

BUILDING	HOMO. MAT. ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MPR	D	02	Pressboard Wall	Beige/Waffle Pattern	MPR - West	
↓	↓	03	↓	↓	↓ - ↓	
↓	E	01	DWTC Wall	Smooth Finish	MPR - Entry Hall	
↓	↓	02	↓	↓	↓	
↓	↓	03	↓	↓	↓	
↓	F	01	6" BCM	Green	MPR - North	
↓	G	01	↓	Brown	↓ - S/E	
↓	↓	02	↓	↓	↓ - East	
↓	↓	03	↓	↓	↓ ↓	
↓	H	01	12" VFT w/ Mastic	Beige w/ Gray Specks	MPR - North	

ANALYTICAL METHOD: (PLM) TURNAROUND TIME: SAME DAY RUSH 24-HR (48-HR) 3 DAY 5 DAY

EMAIL RESULTS TO: steve.reese@vista-env.com

EMAIL INVOICE TO: ACCOUNTING@VISTA-ENV.COM QUESTIONS CALL: Steve Reese (858)761-8188

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	PRINT/SIGNATURE	TITLE	INCLUSIVE DATES
1.	Michael Tangonan	Field Tech.	7/6/21 - 7/8/21
2.	Glenda L. Gyr		7/9/21 @ 9:40
3.			

9210711 45

ASBESTOS BULK SAMPLE LOG

VISTA ENVIRONMENTAL CONSULTING

1531 GRAND AVENUE, SUITE #C
SAN MARCOS, CA 92078
TEL 858.412.4715
FAX 888.296.0271

1054 NORTH TUSTIN AVENUE
ANAHEIM, CA 92807
TEL 714.289.2600
FAX 714.289.2603

CLIENT: BPSD

DATE: 7/6/21

LOCATION: Emery ES - Multipurpose Room

PROJECT NUMBER: 21052700

SAMPLED BY: M.Tangonan/

CAC OR SST NO: 19-6659/

BUILDING	HOMO. MAT. ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MPR	H	02	12" VFT w/ Mastic	Beige w/ Gray Specks	MPR - Entry Hall	
	↓	03	↓	↓	↓ - South	
	I	01	Window Lower Panel	Gray/ Fibrous	Exterior - North	
	J	01	Tile Grout	Dark Gray	Restroom #1	
	↓	02	↓	↓	↓ ↓	
	↓	03	↓	↓	↓ #2	
	K	01	Plaster Ceiling	Rough Finish	MPR Entry/Hall	
	↓	02	↓	↓	↓	
	↓	03	↓	↓	↓	
	L	01	Stucco Wall	Rough/ White	Exterior - North	

ANALYTICAL METHOD: (PLM)

TURNAROUND TIME: SAME DAY RUSH 24-HR (48-HR) 3 DAY 5 DAY

EMAIL RESULTS TO: steve.reese@vista-env.com

EMAIL INVOICE TO: ACCOUNTING@VISTA-ENV.COM

QUESTIONS CALL: Steve Reese (858)761-8188

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	PRINT/SIGNATURE	TITLE	INCLUSIVE DATES
1.	Michael Tangonan/	Field Tech.	7/6/21-7/8/21
2.	Glenda L.		7/9/21 @ 9:40
3.			

VL

9210711145

ASBESTOS BULK SAMPLE LOG

VISTA ENVIRONMENTAL CONSULTING

1531 GRAND AVENUE, SUITE #C
SAN MARCOS, CA 92078
TEL 858.412.4715
FAX 888.296.0271

1054 NORTH TUSTIN AVENUE
ANAHEIM, CA 92807
TEL 714.289.2600
FAX 714.289.2603

CLIENT: BPSD

DATE: 7/6/21

LOCATION: Emery ES - Multipurpose Room

PROJECT NUMBER: 21052700L

SAMPLED BY: M.Tangonan/

CAC OR SST NO: 19-6659/

BUILDING	HOMO. MAT. ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
MPR	L	02	Stucco w/ball	Rough/White	Exterior - North	
	↓	03	↓	↓	↓ ↓	
	M	01	Window frame Sealant	Black	Exterior - North	
	↓	02	↓	↓	↓ ↓	
	↓	03	↓	↓	↓ ↓	
	N	01	w/all Base Sealant	Gray	Exterior - North	
	↓	02	↓	↓	↓ ↓	
	↓	03	↓	↓	↓ ↓	

ANALYTICAL METHOD: (PLM) TURNAROUND TIME: SAME DAY RUSH 24-HR (48-HR) 3 DAY 5 DAY

EMAIL RESULTS TO: steve.reese@vista-env.com

EMAIL INVOICE TO: ACCOUNTING@VISTA-ENV.COM QUESTIONS CALL: Steve Reese (858)761-8188

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

	PRINT/SIGNATURE	TITLE	INCLUSIVE DATES
1.	Michael Tangonan/	Field Tech.	7/6/21 - 7/8/21
2.	Glenda L.		7/9/21 @ 9:40
3.			

V1

APPENDIX C

XRF LEAD DATA TABLE & CDPH FORM 8552

XRF LEAD DATA TABLE

EMERY ELEMENTARY SCHOOL-MULTIPURPOSE ROOM

READING NO.	TESTING DATE	COMPONENT	SUBSTRATE	COLOR	CONDITION	SIDE	BUILDING	ROOM	FLOOR	MISC.	RESULTS	LEAD (mg/cm^2)
1	7/6/2021				SHUTTER CALIBRATION						QA	1.24
2	7/6/2021					CALIBRATE					QA	1.1
3	7/6/2021					CALIBRATE					QA	1.1
4	7/6/2021					CALIBRATE					QA	1.2
5	7/6/2021	WALL	PRESSBOARD	BEIGE	INTACT	B	MPR	MPR	1	INTERIOR	Negative	0
6	7/6/2021	WALL	PRESSBOARD	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	Negative	0
7	7/6/2021	CABINET	WOOD	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	Negative	0
8	7/6/2021	WALL	PLASTER	BEIGE	INTACT	D	MPR	MPR	1	INTERIOR	LCSC	0.23
9	7/6/2021	WALL	PLASTER	BEIGE	INTACT	A	MPR	MPR	1	INTERIOR	LCSC	0.3
10	7/6/2021	DOOR	WOOD	BEIGE	INTACT	A	MPR	MPR	1	INTERIOR	Negative	0.01
11	7/6/2021	DOOR FRAME	WOOD	BEIGE	INTACT	A	MPR	MPR	1	INTERIOR	Negative	0
12	7/6/2021	DOOR JAMB	WOOD	BEIGE	INTACT	A	MPR	MPR	1	INTERIOR	Negative	0
13	7/6/2021	WINDOW PANEL	TRANSITE	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	Negative	0
14	7/6/2021	WINDOW PANEL	TRANSITE	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	Negative	0
15	***7/6/2021***	***FLOOR COVER***	***METAL***	***GOLD***	***INTACT***		***MPR***	***MPR***	***1***	***INTERIOR***	***LBS***	***7.6***
16	7/6/2021	CEILING	DRYWALL	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	LCSC	0.25
17	7/6/2021	CEILING	DRYWALL	BEIGE	INTACT	C	MPR	MPR	1	INTERIOR	Negative	0.08
18	7/6/2021	CEILING	DRYWALL	BEIGE	INTACT	B	MPR	RESTROOM #1	1	INTERIOR	Negative	0
19	7/6/2021	WALL	CERAMIC	BEIGE	INTACT	A	MPR	RESTROOM #1	1	INTERIOR	Negative	0
20	7/6/2021	WALL	CERAMIC	BEIGE	INTACT	D	MPR	RESTROOM #1	1	INTERIOR	Negative	0.02
21	7/6/2021	WALL TRIM	CERAMIC	GREEN	INTACT	D	MPR	RESTROOM #1	1	INTERIOR	Negative	0.02
22	7/6/2021	WALL TRIM	CERAMIC	GREEN	INTACT	B	MPR	RESTROOM #1	1	INTERIOR	Negative	0
23	7/6/2021	TOILET	CERAMIC	WHITE	INTACT	C	MPR	RESTROOM #1	1	INTERIOR	Negative	0
24	7/6/2021	FLOOR	CERAMIC	GRAY	INTACT	B	MPR	RESTROOM #1	1	INTERIOR	Negative	0
25	7/6/2021	DOOR	WOOD	BEIGE	INTACT	D	MPR	RESTROOM #1	1	INTERIOR	Negative	0
26	7/6/2021	DOOR FRAME	METAL	BEIGE	INTACT	D	MPR	RESTROOM #1	1	INTERIOR	Negative	0
27	***7/6/2021***	***FLOOR DRAIN***	***METAL***	***GOLD***	***INTACT***		***MPR***	***RESTROOM #1***	***1***	***INTERIOR***	***LBS***	***9***
28	7/6/2021	CEILING	DRYWALL	BEIGE	INTACT	C	MPR	RESTROOM #2	1	INTERIOR	Negative	0
29	7/6/2021	CEILING VENT	METAL	BEIGE	INTACT	C	MPR	RESTROOM #2	1	INTERIOR	Negative	0.03
30	7/6/2021	WALL	CERAMIC	BEIGE	INTACT	A	MPR	RESTROOM #2	1	INTERIOR	Negative	0
31	7/6/2021	WALL	CERAMIC	BEIGE	INTACT	C	MPR	RESTROOM #2	1	INTERIOR	Negative	0.03
32	7/6/2021	WALL TRIM	CERAMIC	GREEN	INTACT	C	MPR	RESTROOM #2	1	INTERIOR	Negative	0.06
33	7/6/2021	WALL TRIM	CERAMIC	GREEN	INTACT	A	MPR	RESTROOM #2	1	INTERIOR	Negative	0
34	7/6/2021	DOOR FRAME	METAL	BEIGE	INTACT	A	MPR	RESTROOM #2	1	INTERIOR	Negative	0
35	7/6/2021	DOOR JAMB	METAL	BEIGE	INTACT	A	MPR	RESTROOM #2	1	INTERIOR	Negative	0
36	7/6/2021	DOOR	WOOD	BEIGE	INTACT	A	MPR	RESTROOM #2	1	INTERIOR	Negative	0
37	7/6/2021	DOOR	CERAMIC	WHITE	INTACT	D	MPR	RESTROOM #2	1	INTERIOR	Negative	0.04
38	7/6/2021	FLOOR	CERAMIC	GRAY	INTACT	D	MPR	RESTROOM #2	1	INTERIOR	Negative	0
39	7/6/2021	DOOR FRAME	METAL	BROWN, DARK	INTACT	B	MPR	HALLWAY-ENTRY	1	INTERIOR	LCSC	0.5
40	7/6/2021	DOOR FRAME	METAL	BROWN, DARK	INTACT	B	MPR	HALLWAY-ENTRY	1	INTERIOR	LCSC	0.5
41	7/6/2021	DOOR FRAME	METAL	GRAY	INTACT	B	MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0
42	7/6/2021	DOOR	METAL	WHITE	INTACT	B	MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0
43	***7/6/2021***	***WALL***	***CERAMIC***	***TAN***	***INTACT***	***A***	***MPR***	***HALLWAY-ENTRY***	***1***	***INTERIOR***	***LBS***	***9.1***
44	7/6/2021	DRINKING FOUNTAIN	CERAMIC	TAN	INTACT	A	MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0.01
45	7/6/2021	WALL	PLASTER	BEIGE	INTACT	D	MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0.07
46	7/6/2021	WALL	DRYWALL	BEIGE	INTACT	C	MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0
47	7/6/2021	CEILING	PLASTER	BEIGE	INTACT		MPR	HALLWAY-ENTRY	1	INTERIOR	Negative	0
48	7/6/2021	WALL	STUCCO	BEIGE	INTACT	C	MPR		1	EXTERIOR	Negative	0
49	7/6/2021	WALL	STUCCO	BEIGE	INTACT	C	MPR		1	EXTERIOR	Null	0
50	7/6/2021	WALL	STUCCO	BEIGE	INTACT	C	MPR		1	EXTERIOR	Negative	0
51	7/6/2021	WINDOW PANEL	TRANSITE	BLUE	INTACT	C	MPR		1	EXTERIOR	Negative	0
52	7/6/2021	WINDOW PANEL	TRANSITE	BLUE	INTACT	C	MPR		1	EXTERIOR	Negative	0
53	7/6/2021	DOOR	METAL	BLUE	INTACT	B	MPR		1	EXTERIOR	Negative	0
54	7/6/2021	DOOR	METAL	BLUE	INTACT	B	MPR		1	EXTERIOR	Negative	0
55	7/6/2021	WINDOW FRAME	METAL	BLUE	INTACT	B	MPR		1	EXTERIOR	LCSC	0.5
56	7/6/2021	WALL PANEL	WOOD	WHITE	INTACT	B	MPR		1	EXTERIOR	Negative	0.03
57	7/6/2021					CALIBRATE					QA	1
58	7/6/2021					CALIBRATE					QA	1.1
59	7/6/2021					CALIBRATE					QA	0.8
60	7/6/2021					CALIBRATE					QA	1.2
61	7/7/2021				SHUTTER CALIBRATION						QA	1.28

Notes:
XRF - X-ray fluorescence spectrum analyzer
mg/cm^2 - milligrams per square centimeter
Misc. - Miscellaneous
Null - Incomplete reading
QA - Quality Assurance Calibration Reading
LCSC - Lead-Containing Surface Coating (8 CCR 1532.1), lead present 0.1 or greater at Limit of Detection (LOD) and <1.0 mg/cm^2
LBP - Lead-Based Paint (17 CCR 35001 et. seq.), lead is present at 1.00 mg/cm^2 or greater
LBS - Lead-Bearing Substance, lead is present at 1.00 mg/cm^2 or greater

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation July 6, 2021

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify)

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
8600 Somerset Street	Buena Park	Orange County	90621

Construction date (year) of structure:

Type of structure: ☐ Multi-unit building ☑ School or daycare ☐ Single family dwelling ☐ Other

Children living in structure? ☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
Buena Park School District	714-522-8412

Address [number, street, apartment (if applicable)]	City	State	Zip Code
6885 Orangethorpe Avenue	Buena Park	CA	90620

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☑ Other Intact Lead-Bearing Substance detected

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Michael Tangonan	858-412-4715

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1531 Grand Avenue, Suite C	San Marcos	CA	92078

CDPH certification number	Signature	Date
LRC#00008049/50	Michael Tangonan	8/5/21

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX D

CONSULTANT CERTIFICATES

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

Stephen S Reese
Name

Certification No. 05-3853

Expires on 09/22/21

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.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
	Lead Inspector/Assessor	LRC-00006759	11/25/2021
	Lead Project Monitor	LRC-00006758	11/25/2021

Stephen Reese

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 Asbestos Consultant

Michael Q. Tangonan
Name

Certification No. **19-6659**

Expires on **11/13/21**

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.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
	Lead Project Monitor	LRC-00008050	12/30/2021
	Lead Sampling Technician	LRC-00008049	12/30/2021

Michael Tangonan

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.

HAZARDOUS MATERIAL SPECIFICATIONS FOR REMEDIATION
CHARLES G. EMERY ELEMENTARY SCHOOL
MULTI-PURPOSE ROOM BUILDING (LIMITED AREAS)
8600 SOMERSET STREET
BUENA PARK, CALIFORNIA 90621

PREPARED FOR:

MR. JEFFERY THOMAS, TELACU PROJECT MANAGER
CARE OF: BUENA PARK SCHOOL DISTRICT
6885 ORANGETHORPE AVENUE
BUENA PARK, CALIFORNIA 90620
PHONE: (714) 541-2390

PREPARED BY:

VISTA ENVIRONMENTAL CONSULTING, INC.
1054 NORTH TUSTIN AVENUE
ANAHEIM, CALIFORNIA 92807
PHONE: (714) 289-2600

SEPTEMBER 22, 2021

PROJECT NO. 210527006

TABLE OF CONTENTS

SECTION 13280 - HAZARDOUS MATERIALS REMOVALS

PART 1 - GENERAL

1.1 PROJECT SITE

The project site is identified as the School Modernization Project for the Buena Park School District (BPSD) at Multi-Purpose Room (MPR) Building within the campus of Charles G. Emery (Emery) Elementary School located at 8600 Somerset Street in the City of Buena Park, Orange County, California (the Project Site). The building is planned to be renovated as part of a School Modernization project.

1.2 SCOPE OF WORK

Work areas shall include areas where hazardous materials are to be impacted, as outlined in the bid documents and drawings provided by the client and architect; ***in conjunction with where hazardous materials are present as outlined in the Limited Hazardous Materials Survey Report dated September 10, 2021 prepared for BPSD by Vista Environmental Consulting, Inc. (VISTA), BPSD's Environmental (Hazardous Materials) Consultant.***

The reports indicates that hazardous or regulated materials ***are present*** at the Project Site Buildings. The following table lists the identified materials, the location of the materials and the estimated quantity:

Table 1 of 1 **Multi-Purpose Room Building (Limited Areas)**

MATERIAL	DESCRIPTION	LOCATION	CONTAMINANT	ESTIMATED QUANTITY[1]
Mastic with Vinyl Floor Tile	Black Mastic with 12" Beige with Gray Specks Tile	Multi-Purpose Room	Asbestos (ACM)	2,450 SF
Thermal System Insulation (TSI) Pipe System (Assumed)	*(Not Accessible/Needs destructive testing)*	Restrooms Walls and Ceilings Cavities	Asbestos (Assumed ACM)	100 LF Estimated (Not Observed)
Floor Cover	Gold/Brass	Multipurpose Room	Lead-Bearing Substance (LBS)	4 EA
Floor Drains	Gold/Brass	Restrooms	Lead-Bearing Substance (LBS)	4 EA
Wall	Tan/Ceramic	Hall	Lead-Bearing Substance (LBS)	50 SF
LCSCs Detected (See XRF Lead Data Table)				
Fluorescent Light Tubes		Interior	Universal Waste (UW)	50 EA
Light Fixture Ballasts		Interior	Suspect Polychlorinated Biphenyls (PCBs)/ Electronic Waste	25 EA
Exit Signs		Interior	Universal Waste (UW)	4 EA
Strobe Lights		Interior	Universal Waste (UW)	5 EA
Thermostat		Interior	Mercury	1 EA

Notes:
SF = square feet LF = linear feet
EA = each NA = not applicable
AC = air-conditioning UW = universal waste
PCB = polychlorinated biphenyls
ACM = Asbestos-Containing Material, Greater than 1% of asbestos by Polarized Light Microscopy (PLM), as defined by USEPA
ACCM (<1%) = Asbestos-Containing Construction Material, found to contain trace asbestos (>0.1%, <1.0%) are subject to regulation by CAL/OSHA as ACCMs.
Lead-Based Paint = 1.00 milligrams per square centimeter (mg/cm^2) of lead or greater is present, as defined by 17 California Code of Regulations (CCR) 35001-36100
Lead-Containing Surface Coatings = 0.10 to 0.99 mg/cm^2 of lead present (8 California Code of Regulations [CCR] 1532.1). Contractor is responsible for employee exposure monitoring during abatement/demolition of LCSCs.
Lead-Bearing Substances = 1.00 mg/cm^2 of lead or greater is present
[1] Order of Magnitude ***ESTIMATED*** Quantities and Locations. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing to the Owner or the Owner's representative, ***PRIOR*** to bidding.

. The goal for this project is the modernization of the MPR (limited areas) at the Project Site. All hazardous materials which will be impacted during the demolition at the Project Site are to be properly removed (prior to demolition) as part of the modernization project.

B. All removal and disturbance of asbestos-containing materials shall be performed by an asbestos abatement contractor, using 32-hour asbestos certified workers (Asbestos Worker trained as outlined in 40 CFR 763). Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of asbestos abatement, handling and disposal of asbestos-containing and/or asbestos-contaminated materials, and the subsequent cleaning of contaminated areas, including, at a minimum, Competent Person/Contractor Supervisor training as outlined in 40 CFR 763.

C. All removal and disturbance of lead-based materials shall be performed by a state-licensed contractor, using CDPH-certified workers with at least one CDPH-certified Supervisor. All removal and disturbance of lead-containing materials (not meeting the definition of "lead-based) as defined in 8 CCR 1532.1, shall be performed by a state-licensed contractor, using lead-trained workers with certification of training meeting the requirements of 8 CCR 1532.1. Abatement contractor's workforce shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of lead abatement, handling and disposal of lead-containing and/or lead-contaminated materials, and the subsequent cleaning of contaminated areas.

D. When exposure monitoring of a particular lead-related task indicates that the permissible exposure limit (PEL) is or will be exceeded, the contractor shall use CDPH-certified lead workers to complete the task. Contractors performing work that disturbs any Lead Containing Materials (LCM) must submit proof of negative exposure assessment (NEA) if personal protective equipment is not to be used.

E. For Cal/OSHA compliance purposes, all other painted, varnished, and glazed surfaces identified in the Hazardous Materials Survey Report as lead-containing surface coatings (LCSCs) require that contractors performing activities that will disturb these surfaces/materials comply with the requirements of 8 CCR 1532.1. These surfaces were identified in the above-referenced report to have detectable levels of lead, at concentrations less than 1.0 mg/cm^2 lead (the LBP standard) by X-Ray fluorescence.

F. Contractor shall utilize employees with HAZWOPER training, as outlined in 29 CFR 1910.120 and 8 CCR 5192, when handling all "other" hazardous materials, including fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and the like.

G. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of asbestos, lead, and other hazardous materials), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the hazardous materials identified.

H. The Work includes the removal, transport, and disposal of the following contaminated Materials:

1. All hazardous materials to be impacted during the modernization of the Project Site as indicated on project drawings, project specifications and instructions to bidders.
2. All materials used for work area preparation.
3. All discarded personnel protective equipment.
4. All other potentially contaminated materials.

I. Other items of work shall include:

1. As per agreement between Contractor and Owner.

J. Replacement of removed materials:

1. As per agreement between Contractor and Owner. Where replacement applies, replacement materials shall be free of asbestos, lead, and any other material deemed hazardous by the State of California.

K. Furnishings, cabinets, moveable objects, and equipment temporarily removed to gain access to hazardous materials shall be reinstalled to original location upon completion of work, unless other arrangements and approval have been provided by the Owner.

L. Damages caused during the performance of abatement activities shall be repaired by Contractor (e.g. paint peeled off by barrier tape, nail holes, water damage, etc.) at no additional expense to Owner, unless other arrangements and approval have been provided by the Owner.

M. Listed quantities are for budgetary information and are not to be used for bidding purposes. The abatement contractor has the sole responsibility for confirming the location, quantity and degree of difficulty in removing the identified materials. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing ***PRIOR*** to bidding.

1.3 WORK TO BE PERFORMED BY OTHERS

A. As per Project Specifications.

1.4 RESPONSIBILITIES OF OWNER

A. The Owner will provide daily oversight of and environmental monitoring surrounding the abatement/removal operations.

B. The Owner will provide existing water, at no cost to the Contractor, for construction purposes.

C. The Owner will provide existing electrical power, at no cost to the Contractor, for construction purposes.

D. The abatement contractor shall coordinate with the Owner and/or school representatives for the location of equipment storage, staging and waste storage locations.

1.5 REQUIRED LICENSURE

A. Contractor shall be licensed by the State of California, Contractors State License Board and be registered to perform asbestos related work with the Division of Occupational Safety and Health, Department of Industrial Relations. At a minimum contractor shall hold the following license classifications:

1. ASB - Asbestos Certification or C-22 Asbestos Abatement

B. Transportation of Friable and Non-Friable Asbestos Containing Materials: Contractor shall itself be or have a subcontractor who is a registered hazardous waste transporter with the State of California, Department of Toxic Substances Control.

C. Subcontractors shall hold all licenses applicable to specified trade work.

1.6 PERMITS

A. As required by California Division of Occupational Safety and Health (Cal/OSHA).
B. As required by the South Coast Air Quality Management District (SCAQMD).
C. As required by California Department of Public Health (CDPH), if applicable.
D. As required by local agencies for specific tasks.

1.7 NOTIFICATIONS

A. Contractor shall make all required written notifications to regulatory agencies including the following:

1. Cal/OSHA
2. SCAQMD
3. CDPH, if applicable.

1.8 INSURANCE REQUIREMENTS

A. Contractor and all subcontractors shall maintain, at a minimum, workers compensation insurance at the statutory limits required. This shall, at a minimum, include the limits necessary to maintain their DOSH Asbestos Certification in good standing.

B. Contractor shall maintain general liability insurance with a minimum rating of A RATING, with a limit of $1 Million per occurrence and $1 Million aggregate coverage, or per Contract or Owner's Requirements.

C. Contractor shall maintain pollution and environmental liability insurance with the same limits and rating requirements as the general liability insurance requirements in Item 1.8.B, above.

D. Contractor and all subcontractors shall maintain, at a minimum, auto insurance with a minimum rating of A RATING, and a limit of $1 Million per occurrence and $1 Million aggregate coverage, or per Contract or Owner's Requirements.

1.9 BONDING REQUIREMENTS

A. Please refer to Owner's General Conditions and Requirements from Purchasing.

1.10 PROJECT SCHEDULE

A. Project Start Date: To Be Determined (TBD) Project Completion Date: TBD

B. All work shall be performed as per agreement between Contractor and Owner.

C. For the purposes of this Work Plan "submittal due date" shall mean the day on which submittals required by Article 1.12 shall be received by the Construction Manager, "start work" shall mean the day Contractor arrives on the project site, and "completion date" shall mean the day Contractor leaves the project site including final clearance testing and demobilization.

D. Contractor to indicate the number and duration of shifts required to perform abatement monitoring as part of the bid document. Costs associated with hazardous materials abatement monitoring, beyond those pertaining to the project duration indicated in the Contractor's Bid, shall be deducted from Contractor's Contract Amount.

1.11 APPLICABLE REGULATIONS

A. Contractor shall perform all Work in compliance with the most recent edition of all applicable federal, state, and local regulations, standards and codes governing asbestos abatement, transport, and disposal of asbestos containing/contaminated materials, lead-based/containing surface coatings and contaminated materials, and all other hazardous materials.

1. Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

B. Regulations, Standards, and Codes (General):

1. General applicability of federal, state, and local regulations, standards and codes governing hazardous materials abatement, demolition, transport, and disposal, except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable regulations, standards, and codes have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.

C. Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices, transport, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

1. The contractor is responsible for providing training, medical examinations and maintaining training/medical records of personnel as required by the applicable federal, state, and local regulations, including personal air monitoring for all work practices.

2. The Contractor shall hold the Owner and Project Environmental Consultant harmless for failure to comply with any applicable hazardous materials abatement,

transport, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

1.12 SUBMITTALS

A. No later than ten days prior to commencement of work, Contractor shall submit (three copies, unless otherwise specified) to the Project Environmental Consultant documentation that includes, without limitation, the following:

1. Current Copies of licenses and registrations required by Article 1.5 Required Licensure (include copies of subcontractor's licenses).

2. Copies of written notifications to the following regulatory agencies:

   a. Cal/OSHA
   b. SCAQMD
   c. CDPH, if applicable.

3. Current Proof of insurance coverage required by Article 1.8 Insurance Requirements (include proof of insurance for subcontractors).

4. Current Proof that required permits, site location and arrangements for transport and disposal of asbestos containing waste materials have been made.

5. Current Proof of legal right to use patented equipment or processes

6. Current Manufacturer's certification that HEPA vacuums, differential pressure air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79 and have been permitted by the SCAQMD.

7. Current Documentation showing that Contractor's employees, including foreman, supervisor, and any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of asbestos abatement activities, have received training as required by 29 CFR 1926.1101 and 8 CCR 1529.

8. Current Documentation showing that Contractor's employees, including foreman, supervisor, and any other company personnel or agents who may be exposed to airborne lead dust or who may be responsible for any aspects of lead abatement activities, have received training as required by 29 CFR 1926.62 and 8 CCR 1532.1.

9. Current Documentation from Physician (signed by an M.D.) showing that all employees or agents who may be exposed to airborne asbestos fibers in excess of background levels have received medical monitoring to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, chemical contaminants) that may impact on the employee's ability to perform work activities.

10. Current Documentation of respirator fit-testing for all Contractor employees and agents who must enter the work area. This fit-testing shall be conducted annually and in accordance with procedures as required by 29 CFR 1910.134 and 8 CCR 5144.

11. An emergency preparedness plan as required by Article 1.15 - Emergency Planning.

12. Master schedule, showing phasing, number of shifts, time for air clearances, tear down and manpower loading to be utilized for the duration of the project.

13. A site specific work plan based on scope of work. Include a diagram showing containment set-up, decontamination unit(s), location of negative air machine and exhaust placement.

B. During abatement activities, Contractor shall submit to Project Environmental Consultant documentation that includes, without limitation, the following:

1. Copies of the work area entry/exit log book. Log book must record name, affiliation, time in, and time out for each entry into the work area.

2. Copies of logs documenting filter changes on respirators, HEPA vacuums, differential pressure air filtration devices, water filtration device, and other engineering controls.

3. Copies of Safety Data Sheets (SDS) for solvents, encapsulants, wetting agents, replacement materials, and other substances brought by Contractor to the Project Site. SDSs shall be available the first day that subject materials/substances are present on the project site.

4. Results of all required OSHA compliance air monitoring. Results shall be available prior to the start of the following shift and within 24 hours of completion of the last shift.

5. Copies of all accident/incident reports where injury or damage has occurred on or to the Owner's property.

6. Copies of daily logs indicating location(s) worked, type of materials removed, quantity of materials removed and number of personnel conducting the aforementioned activities.

7. Copies of all transport manifests, trip tickets and disposal receipts for all asbestos waste materials removed from the work area within 48 hours of the transport, to:

A. ***Mr. Mike Anderson***
Director of Facilities, Maintenance & Operations
Buena Park School District
6885 Orangethorpe Avenue
Buena Park, California 90620
Phone: (714) 231-6777

8. Abatement contractor is responsible for profiling all waste streams at the start of the project. Results must be submitted to the Environmental Consultant for verification of proper disposal.

1.13 NOTICES

A. Post in the clean room area of the worker decontamination enclosure a list containing the names, and telephone numbers of Owner, Construction Manager, Abatement Contractor, and Project Environmental Consultant.

B. Post in the clean room area of the worker decontamination enclosure a list of all persons authorized to enter the work area.

C. Additional postings shall include:

1. Visitor Entry and Exit Log.
2. Employee Daily Sign in Log.
3. Entry and Exit Procedures.
4. Emergency Procedures.
5. Copies of permits required in Article 1.6 of this document and copies of notifications required in Article 1.7 of this document.
6. As required by the Department of Labor.

1.14 SITE USE AND SECURITY

A. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond which areas on which work is indicated are not to be disturbed.

B. The work area shall be restricted only to authorized, trained and protected personnel, including Contractor, Contractor's employees, Owner employees, Owner, Construction Manager, Project Environmental Consultant, State and Local Inspectors.

C. Entry into the work area by unauthorized individuals shall be reported immediately to the Project Environmental Consultant.

D. Contractor shall be responsible for Project site security during abatement operations in order to protect work efforts and equipment.

1.15 EMERGENCY PLANNING

A. Emergency planning and procedures shall be developed by Contractor prior to abatement initiation.

B. Emergency procedures shall be in written form and prominently posted. Contractor shall ensure that all persons entering the work area read these procedures and understand the Project site layout, location of emergency exits and emergency procedures.

C. Emergency planning shall include considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, school emergencies and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided by Contractor.

D. Employees shall be trained in evacuation procedures in the event of work place emergencies.

1. For non-life-threatening situations, employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow

workers, if necessary, before exiting the work place to obtain proper medical treatment.

2. For life-threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the work place and secure proper medical treatment.

3. Telephone numbers of all emergency response personnel and map to closet hospital shall be prominently posted in the clean and equipment rooms.

1.16 FIRE PROTECTION

A. All plastic, spray-on strippable coatings, and structural materials used in the asbestos abatement process shall be UL-approved and certified as fire retardant or noncombustible.

B. Wood shall be pressure impregnable and certified as fire retardant.

C. Safety Data Sheets (SDS) for fire retardant materials shall be made available upon request.

D. All combustible rubbish and debris, including properly bagged asbestos shall be properly disposed of at the end of each working day.

E. A minimum of one (1) 4A/60BC dry-chemical extinguisher shall be maintained at each of the following locations:

1. At each corner of the work area. Where no clear corners exist, four (4) extinguishers shall be placed around the exterior wall of the work area so that they are approximately 25 percent of the total distance apart.

a. Exception: Where total contained work area is less than 1,000 square feet, two (2) 4A/60BC extinguishers shall be provided. All extinguishers shall be clearly identified with red tape.

2. Contractor shall ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.

F. All existing fire detection, alarm systems, connections and standpipes shall remain in place, active and unobstructed. Any alteration to this equipment must be approved by Project Environmental Consultant.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Generally, Contractor shall carefully adhere to the following:

1. All plastic, spray-on strippable coatings and structural materials used shall be UL-certified as fire retardant or non-combustible.

2. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name (where applicable).

3. Fire-retardant polyethylene sheeting utilized for worker decontamination and construction/containment barriers shall be a minimum of six-mil in thickness.

4. Disposal bags shall be of six-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (I) (iv) or applicable Cal/OSHA requirements.

5. Stick-on labels as per EPA or Cal/OSHA requirements for disposal drums.

6. Warning signs as required by Cal/OSHA shall be utilized.

7. Disposal drums shall be 55-gallon DOT A1A (DOT 17H) with locking ring tops and will meet the requirements of 49 CFR 172-178.

B. Removal and Encapsulation:

1. Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in proportion of 1 fluid once to 5 gallons.
2. The encapsulating agent to be applied shall adhere to the substrate surfaces from which asbestos-containing material has been stripped.

3. The encapsulating agent shall not be flammable and should not be solvent-based or utilize a vehicle (the liquid in which the solid parts of the encapsulant are suspended) consisting of hydrocarbon.

4. If utilized, mastic removal solvents shall ***NOT*** be or create a RCRA waste, and shall be of the low odor variety.

C. Replacement:

1. Submit manufacturers certification indicating that replacement materials (if used) do not contain asbestos or more than 600 parts per million (dry weight) of lead.

2.2 EQUIPMENT

A. General:

1. A sufficient quantity of HEPA vacuums and/or differential pressure air filtration devices equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos Containing Materials in Buildings. To calculate total air flow requirement:

$$\text{Total ft}^3\text{/min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{\text{15 min}}$$

To calculate the number of units needed for the abatement:

$$\text{Number of units needed} = \frac{\text{[total ft}^3\text{/min]}}{\text{[capacity of unit in ft}^3\text{/min]}}$$

2. At a minimum, full-face powered air-purifying respirators (PAPRs) with P-100 cartridges shall be utilized during all friable/Class I asbestos removal and for all removal of lead-containing paints/substances involving abrasive removal techniques.

3. At a minimum, half-face air-purifying respirators with P-100 cartridges shall be utilized during all ceramic tile or lead-containing paint removal/impact except abrasive removal, or for the removal of all non-friable/Class II asbestos removal.

4. Respirators shall be furnished to the abatement workers by Contractor. The respirators shall have been tested and approved by National Institute of Occupational Safety and Health (NIOSH) for use in asbestos atmospheres.

5. Full body disposable protective clothing, including head, body, and foot coverings shall be furnished to visitors in sizes adequate to accommodate movement without tearing.

6. Additional safety equipment as supplied in accordance with 8 CCR 1514 through 8 CCR 1522, (e.g. hard hats, eye protection, safety shoes, hand protection, hearing protection, body protection, etc.), as necessary, shall be furnished to all workers and authorized visitors.

7. Non-skid foot wear shall be furnished to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.

8. Furnish a sufficient supply of disposable mops, rags, and sponges for work area decontamination.

B. Removal:

1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g., scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be furnished as needed.

2. Rubber dustpans and rubber squeegees shall be furnished for cleanup.

3. Brushes utilized for removing loose asbestos-containing material shall have nylon or fiber bristles, not metal.

4. A sufficient supply of HEPA filtered vacuum systems shall be furnished during cleanup.

C. Encapsulation: Encapsulants shall be sprayed using airless spray equipment or hand pressurized sprayer.

D. Enclosure: Hand tools equipped with HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports if there is any need to disturb asbestos containing materials during this process. As an alternative asbestos material may be partially removed following controlled removal procedures approved by the Project Environmental Consultant.

PART 3 - EXECUTION

3.1 CLASS I ASBESTOS REMOVAL WORK

The following procedures shall be utilized for all removal of friable and/or Class I ACM, and from non-friable ACM utilizing mechanical removal methods from all impacted buildings.

A. Contractor shall coordinate all items of work with the Project Environmental Consultant.

B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as an air intake), the HVAC system shall remain off during the project.

C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, insure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.

D. Install worker decontamination unit described in Article 3.8 or as agreed upon with Project Environmental Consultant.

E. Post warning signs meeting the specifications of 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.

F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.

G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Contractor shall not use any methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.

H. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers, skylights and any other openings between the Work Area and uncontaminated areas outside of the Work Area with two layers six-mil fire retardant polyethylene sheeting and tape.

I. Cover floors in the area, as follows (cover floors where flooring finishes, such as floor tile and/or mastic, are to be removed, during Class I activities).

1. Two layers of six-mil (minimum) sheeting. Additional layers of sheeting may be utilized as a drop cloth to aid in cleanup of bulk materials, and/or to ensure protection from water leaks.

2. Containment plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is sufficient. Do not locate any seams at wall/floor joints.

3. Floor sheeting shall extend at least 12" up the side walls of the Work Area.

4. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.

J. Cover all immovable items (plumbing, etc.) and/or construct walls in the Work Area with fire retardant polyethylene sheeting and seal with duct tape. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant). Walls shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls, including louvers in Mechanical Rooms, must be sealed by critical barriers.

1. Walls shall be covered with two layers six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).

2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.

3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.

4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.

5. Where necessary for structural support, plywood sheeting and/or 2x4 lumber shall be utilized to ensure the structural integrity of the containment and critical barriers.

6. Fire exits shall be clearly labeled as required by Regulations.

K. Install the minimum number of 2' x 3' clear view windows that will provide visual access to ALL areas of each enclosure.

L. Install and initiate operation of negative pressure air filtration differential as required in Article 2.2 - Equipment. Negative pressure differential shall be at a minimum of -0.02" of water column at all times during asbestos removal operations.

M. Install and maintain a manometer equipped with a strip chart recorder. Manometer shall be capable of detecting at least 0.02" of water column.

N. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as power washers, are acceptable, as long as they are equipped with proper HEPA-filtration equipment and do not create an undue hazard.

O. Keep the ACM's being removed wet throughout removal operations by the use of an airless sprayer. In the event that visible dust is generated during the abatement process, also mist

the air within containment periodically with water or an amended water solution with an airless sprayer to reduce airborne asbestos fiber concentrations.

P. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.

Q. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.

R. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.2 CLASS II ASBESTOS REMOVAL WORK - GENERAL

The following procedure shall be utilized for all removal of non-friable/Class II ACM from all impacted buildings.

A. Contractor shall coordinate all items of work with the Project Environmental Consultant.

B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as an air intake), the HVAC system shall remain off during the project.

C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, insure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.

D. Install worker decontamination unit described in Article 3.8 or as agreed upon with Project Environmental Consultant.

E. Post warning signs meeting the specifications of 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.

F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.

G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Contractor shall not use any methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.

H. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers, skylights and any other openings between the Work Area and

uncontaminated areas outside of the Work Area with two layers six-mil fire retardant polyethylene sheeting and tape.

I. Cover floors in the area of vapor barrier removal with fire retardant polyethylene sheeting (do not cover floors where flooring finishes, such as floor tile and/or mastic, are to be removed).

1. A single layer of six-mil (minimum) sheeting. Additional layers of sheeting shall be utilized as a drop cloth to aid in cleanup of bulk materials.

2. Containment plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is sufficient. Do not locate any seams at wall/floor joints.

3. Floor sheeting shall extend at least 12" up the side walls of the Work Area.

4. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.

J. Cover all immovable items (plumbing, etc.) and/or construct walls in the Work Area with fire retardant polyethylene sheeting. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant). Walls shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls must be sealed by critical barriers.

1. Walls shall be covered with two layers six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).

2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.

3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.

4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.

5. Fire exits shall be clearly labeled as required by Regulations.

K. Install the minimum number of 2' x 3' clear view windows that will provide visual access to ALL areas of the enclosure.

L. Install and initiate operation of negative pressure air filtration differential as required in Article 2.2 - Equipment. Negative pressure differential shall be at a minimum of -0.02" of water column at all times during asbestos removal operations.

M. Install and maintain a manometer equipped with a strip chart recorder. Manometer shall be capable of detecting at least 0.02" of water column.

N. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as bead-blasters for mastic removal activities, are acceptable, as long as they are equipped with proper HEPA-filtration equipment.

O. Keep the ACMs being removed wet throughout removal operations. In the event that visible dust is generated during the abatement process, also mist the air within containment periodically to reduce airborne asbestos fiber concentrations.

P. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.

Q. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.

R. Dispose of all asbestos containing/contaminated waste; debris shall be kept wet at all times and be bagged while wet in accordance with Article 3.9 - Disposal Procedures.

3.3 CLASS II ASBESTOS REMOVAL WORK – ROOFING PRODUCTS

The following procedure shall be utilized for all removal of non-friable/Class II asbestos-containing roofing products.

A. Contractor shall coordinate all items of work with the Project Environmental Consultant.

B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in supply or pass through the work area. In the event that there is any impact to the HVAC system (such as a fresh air intake), the HVAC system shall remain off during the project.

C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power and lighting sources, ensure safe installation of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel.

D. Install worker decontamination unit described in Article 3.8 or as agreed upon with Project Environmental Consultant. If installation cannot occur on the roof, installation shall occur as close to the roof access as possible, with polyethylene sheeting laid-down between the decontamination unit and the roof access.

E. Post warning signs meeting the specifications of 8 CCR 1529, 8 CCR 5208, and 29 CFR 1926.1101, at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure (generally, at roof accesses, or at least twenty feet from removal, if on roof).

F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2.A. Double-suiting is recommended if decontamination unit is not on roof.

G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques, as appropriate. Generally, this will include roof-mounted duct work and equipment only; there is no need to pre-clean surfaces to be removed. Contractor shall not use methods that would raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, and shall not disturb asbestos-containing materials during the pre-cleaning phase.

H. Seal off all windows, doorways, drains, ducts, skylights, roof penetrations, and any other openings between the Work Area and uncontaminated areas outside of the Work Area with six-mil fire retardant polyethylene sheeting and tape.

I. Cover all immovable items (plumbing, etc.) and/or construct walls around immovable objects with fire-retardant polyethylene sheeting. Walls, where present, shall be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g., tile) are considered porous. Openings through these walls must be sealed by critical barriers.

1. Walls shall be covered with six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).

2. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least six feet.

3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.

4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when Negative Pressure Ventilation Systems area utilized.

5. Fire exits shall be clearly labeled as required by Regulations.

J. The Contractor shall carry out all asbestos removal activities in a manner that will minimize pulverizing, breaking or creation of dust. Generally, manual removal methods will be preferred, although larger systems, such as mechanical shears for cutting membranes into strips, are acceptable, as long as they are equipped with proper shrouding and HEPA-filtration equipment.

K. Keep the ACM's being removed wet throughout removal operations. In the event that visible dust is generated during the abatement process, also mist the air within regulated area periodically to reduce airborne asbestos fiber concentrations.

1. Bags of asbestos waste shall not be dropped or thrown from the roof, but carefully lowered to the ground.

L. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.

M. Encapsulate entire work area with a penetrating and/or lock-down type encapsulant following acceptance of clean-up activities.

N. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.4 CLASS III ASBESTOS DISTURBANCE

Asbestos-related disturbance is the drilling, coring, removal or similar disturbance of asbestos-containing construction materials (ACCM) or asbestos-containing materials (ACM) not to exceed three (3) square feet in any one opening and not to disturb 100 square feet or greater cumulatively on any one project (contract). Asbestos-related disturbance work is considered to be Class III work in accordance with Title 8, Section 1529 (Asbestos) of the California Code of Regulations. In the event that disturbance greater than 3 square feet or 100 square feet total is required, the asbestos-related work shall be considered Class I or Class II asbestos abatement and require the use of an asbestos abatement contractor using 40-hour asbestos-trained workers and notification to the SCAQMD, as required, (See Sections 3.1, 3.2, and 3.3 of this specification).

A. Minor disturbance activities must be performed, at a minimum, by personnel possessing current 16-hour asbestos operations and maintenance (O & M) training. ACM waste must be disposed of as hazardous/non-hazardous asbestos-containing waste. ACCM waste generated during minor disturbances can be disposed of as non-regulated construction waste.

B. The following buildings will have ACM or ACCM impacted by drilling and coring during the planned Modernization Project

- Refer to drawings and instructions to bidders for building components to be impacted.

C. Shut off air handling equipment to rooms where work will occur.

D. Demarcate the work area with plastic "Caution" tape. Provide and post signs at the entrance to the work area affected. The signs shall comply with Cal/OSHA regulations.

E. Clean the area immediately under the location to be disturbed.

F. Move any moveable furniture or objects from immediately beneath the area to be disturbed.

G. At a minimum, 6-mil plastic sheeting shall be placed on the floor below the work area. The plastic sheeting will be secured to the closest wall and floor surface with tape. The plastic sheeting shall extend away from the work area a sufficient distance so that debris is confined to the plastic and that debris is not tracked onto adjoining flooring or carpeted surfaces.

H. For Class III disturbances requiring the cutting of an opening of 1 square foot or greater, but less than 3 square feet, through ACM or ACCM, or into an asbestos-contaminated space, provide an enclosure around the area of disturbance. This may include, but is not limited to:

1. Mini-enclosure where not more than two persons may occupy for the purpose cutting holes in walls or ceilings.

2. For drilling, coring, sawing or similar disturbance, an enclosure shall be placed over the area of disturbance of sufficient size to cover that area and contain the tools used. This can include drilling with a shroud, through a wet sponge, through a plastic enclosure, or similar

designs which will ensure control of Asbestos fibers and other dust. Drilling or coring with the use of a vacuum collection device shall be equipped with a HEPA filter.

I. A HEPA-equipped vacuum shall be used for all disturbance, decontamination, and debris clean-up work.

3.5 LBP IMPACTS – REMOVAL/DEMOLITION

This section applies to the removal of lead-based paints and/or the demolition of components coated with lead-based paints.

A. Post warning signs meeting the specifications of 8 CCR 1532.1 and 29 CFR 1926.62 at any location and approaches to a location where airborne concentrations of lead dust may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure. Barrier tape shall be utilized in conjunction with signs for exterior removal activities, to delineate the extent of regulated work areas.

B. Prepare appropriate fall protection systems in accordance with the requirements of Title 8 California Code of Regulations, Sections 1669, 1670, 1724 and anchoring guidance from Title 8 California Code of Regulations, Section 3283 (where applicable).

C. Install worker decontamination unit described in Article 3.8 or as agreed upon with Project Environmental Consultant.

D. Lead-containing materials (LCM) handlers involved in removal procedures shall wear two disposable Tyvek suits, including gloves, hood and footwear. Minimum respiratory protective equipment shall be half-face air-purifying respirators equipped with P100 filters. Upon exiting the work area the handlers shall HEPA vacuum all visible debris from the outer suit, dispose of it as lead-contaminated waste, and proceed through the decontamination unit for full decontamination.

E. Isolate work area by installing critical barriers or curtained doorways across all openings where airborne lead dust migration may cause secondary lead contamination (for work where components will be removed relatively intact, such as doors, downspouts, and wood trim, drop cloths will suffice).

F. Cover floors in each work with fire retardant polyethylene sheeting (do not cover floors where flooring finishes, such as ceramic flooring, for example, are to be removed).

1. A single layer of six-mil (minimum) sheeting.

2. Containment plastic shall be sized to minimize seams.

3. Where multiple layers of floor poly are utilized, sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material.

G. Cover all immovable items and/or construct walls in the Work Area with fire retardant polyethylene sheeting. Walls that will be demolished do not necessarily need protection (check with Project Environmental Consultant).

1. Walls shall be covered with six-mil fire-retardant polyethylene sheeting (sealed airtight with duct tape).

2. Plastic shall be sized to minimize seams.

3. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal for negative pressure.

4. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This may require additional support/attachment when Negative Pressure Ventilation Systems area utilized.

5. Fire exits shall be clearly labeled with red tape or equivalent.

H. Where manual demolition is employed for lead removal, such as ceramic tile demolition (for example), periodically mist the work area and materials to be impacted to maintain a wet condition and avoid the creation of airborne dust, which may carry lead.

I. The Contractor shall carry out all impacts to lead-based surface coatings in a manner that will minimize pulverizing, breaking, abrading, or in any other way impacting lead-containing paints and generating airborne lead-containing dust.

J. Once all removal activities have been completed, clean-up of the work areas shall be conducted in accordance with Article 3.7 - Clean-Up.

K. Dispose of all lead-containing/contaminated waste in accordance with Article 3.9 - Disposal Procedures.

3.6 UNIVERSAL WASTE RULE IMPACTS (REFRIGERANTS, PCBs, Etc.)

This section applies to the removal of all Universal Waste Rule items, such as fluorescent light fixture ballasts, non-incandescent lamps (fluorescent light tubes), as well as other commonly encountered items, such as refrigerants.

A. All fluorescent light fixtures to be disposed of shall be disassembled in a non-destructive manner. All fluorescent light tubes shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

B. Once fluorescent light tubes have been removed from light fixtures to be disposed of, ballasts shall be visually inspected. All ballasts which are not clearly marked "No PCBs" or "PCB Free" shall be assumed to contain PCBs, and shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code. Any ballasts which are observed to be leaking shall be containerized, and shall be disposed via incineration as per 40 CFR 761. All other ballasts may be incinerated or recycled, in accordance with 40 CFR 761. ***In spite of the small capacitor variance, land disposal of PCB-containing ballasts shall not be considered an acceptable disposal method, under any circumstances.***

C. Mercury switches identified in thermostat controls and/or any other electrical switching equipment to be demolished shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and

Sections 25157.8, et al, of the California Health and Safety Code. ***The Owner's preferred method of disposal shall be recycling.***

D. All identified refrigerants shall be collected and disposed of in accordance with all applicable SCAQMD and federal EPA guidelines. ***The Owner's preferred method of disposal shall be recycling.***

E. All other Universal Waste Rule wastes shall be removed intact, where feasible, and shall be packaged and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

3.7 CLEAN-UP PROCEDURES

A. Remove and containerize all visible accumulations of asbestos-containing material, LCM, and asbestos/lead-contaminated debris utilizing rubber dust pans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste within contained work areas.

Asbestos-containing/contaminated waste shall be placed in leak tight disposal bags. Disposal bags shall be doubled six-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (I) (iv), Cal/OSHA (Title 8 CCR Sections 1529 and 5208), SCAQMD Regulations, and if applicable Title 22 CCR Section 66504. Lead-containing wastes shall be containerized in 55-gallon steel drums with labels as required by 8 CCR 1532.1 and 22 CCR 66504.

All other hazardous wastes shall be containerized as appropriate and disposed of in a manner that satisfies the requirements for waste characterization and disposal in accordance with the requirements of Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

B. Whether cleaning an asbestos work area or a lead work area (or both), wet clean all surfaces in the work area utilizing rags, mops and sponges, and clean all horizontal surfaces within each work area with a HEPA-vacuum, as appropriate.

C. Remove the cleaned layer of polyethylene sheeting from floors and walls, as applicable. Windows, doors, HVAC system vents and all other openings (critical barriers, if employed) shall remain sealed. Dispose of as asbestos-contaminated or lead-contaminated as appropriate to the work area in question.

D. After gross cleaning of the work area, HEPA-vacuum and wet clean all objects and surfaces in the work area are completed, remove all containerized waste from the work area.

E. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.

F. Project Environmental Consultant will inspect the work area for visible residue. If any accumulation of residue is observed, it will be assumed to be asbestos and/or lead, as appropriate to the work area, and a second settling period and cleaning cycle repeated at no additional cost to Owner.

G. Following the satisfactory completion of clearance air monitoring or clearance wipe testing, the remaining barriers may be removed and prepared for proper disposal. A final visual

inspection by Project Environmental Consultant will be performed. Unsatisfactory conditions may require additional cleaning and air monitoring/wipe sampling, at no additional cost to Owner.

3.8 WORKER DECONTAMINATION SYSTEMS

A. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. At a minimum, one three-stage system at a single location is required. Each work area where negative pressure enclosure is the selected method of engineering controls shall have a worker decontamination unit.

B. Worker decontamination enclosure systems constructed at the Project site shall utilize six-mil, fire-retardant polyethylene sheeting, or other approved materials for privacy.

C. Personnel Decontamination Units shall not be located inside the work area(s) unless specifically authorized by the Project Environmental Consultant.

D. Alternate methods of providing Decontamination facilities may be submitted to the Project Environmental Consultant for approval. Do not proceed with any such method(s) without the written authorization.

E. The worker decontamination enclosure system shall consist of at least a cleansing station in accordance with the requirements of 8 CCR 1527 and 8 CCR 1529, equipped with adequate water, towels and cleansing agents to accommodate the entire crew and visitors.

3.9 DISPOSAL PROCEDURES

A. All friable asbestos waste shall be disposed of as Hazardous, Friable Asbestos Waste. All non-friable asbestos waste shall be disposed of as Non-Hazardous, Non-Friable Asbestos Waste. Contractor is responsible for characterization of lead waste prior to waste being transported off site. All waste characterization samples must be taken under the supervision of the Project Environmental Consultant. Characterization sample results must be submitted to the District for review prior to waste being transported off site.

All lead waste shall be either disposed of as construction debris (if STLC/TCLP results allow) or lead-containing waste (with attendant RCRA codes, if STLC/TCLP results so require).

All asbestos-containing waste shall be placed and stored in clear, sealed, leak-tight and appropriately labeled containers, in accordance with 8 CCR 1529 and SCAQMD Regulations, and transported to an appropriate landfill for disposal.

B. All lead wastes shall be either disposed of as construction debris (if STLC/TCLP results allow) or lead-containing waste (with attendant RCRA codes, if STLC/TCLP results so require).

C. All hazardous wastes (including non-hazardous asbestos wastes) must be disposed of by a certified waste hauler approved by the Owner.

D. Arrange for proper disposal of any generated hazardous waste stream through an Owner-approved waste disposal facility.

E. Obtain the EPA Hazardous Waste Generator Identification Number and State of California Hazardous Waste Tax Identification Number from the Owner.

F. All hazardous waste manifests or non-hazardous material data forms shall be delivered to the Project Environmental Consultant. Record keeping format shall utilize a chain of custody form which includes the names and addresses of the Generator (Owner), Contractor, Waste Hauler, pickup site, disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form shall be signed by the Generator, Contractor, Waste Hauler and the Disposal Site Operator, as the responsibility for the material changes hands.

3.10 REESTABLISHMENT OF THE WORK AREAS

A. Reestablishment of the work area shall only occur following the completion of clean-up procedures and after clearance air monitoring has been performed and documented to the satisfaction of Project Environmental Consultant.

B. Contractor and Project Environmental Consultant shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning and air monitoring requirements at no additional cost to Owner, until approved by PEC.

C. Upon approval by Project Environmental Consultant, the Contractor shall remove remaining fire retardant polyethylene sheeting, critical barriers, and decontamination unit.

D. Repair all areas of damage that occurred as a result of abatement activities at no additional cost to Owner, unless other arrangements and approval have been provided by the Owner.

3.11 ENVIRONMENTAL MONITORING

Stop work order due to inefficiencies:

If, at any time, the Owner's Representative or Project Environmental Consultant decides work practices are violating Specifications, or, Federal or local regulations to extent of potential endangerment of building users, workers, Owner's Representative, employees or public, he will immediately notify Contractor (followed up in writing) that operations shall cease until corrective action is taken by Contractor. Contractor shall take such corrective action before proceeding with work. Loss or damage due to Stop Work Order(s) shall be Contractor's responsibility. A Stop Work Order, issued by Owner's Representative or Project Environmental Consultant shall become effective immediately.

A. Air monitoring will be carried out by the Project Environmental Consultant on behalf of the Owner to verify that the building beyond the contamination area and the outside environment remains uncontaminated.

B. Background Air Monitoring:

1. The Project Environmental Consultant will conduct pre-abatement air monitoring to determine ambient fiber levels prior to abatement. The analytical method shall utilize Phase Contrast Microscopy (PCM) using the NIOSH 7400 Method.

C. Area Air Monitoring: The Project Environmental Consultant will conduct in-progress air monitoring daily to determine area airborne contaminant concentrations within the confines of the work area.

1. Environmental Air Sampling: Ambient air samples are taken and analyzed to

indicate fiber migration from containment to the environment. Should any environmental sample outside work areas exceed the base line of 0.01 f/cc of air, or established background concentrations as determined by PCM analysis, all work will immediately halt except for corrective work. The PEC shall determine the source of the high fiber count and notify the contractor with directions for the corrective action.

D. Clearance Air/Wipe Monitoring:

1. Following the completion of final clean-up operations, notify the Project Environmental Consultant that work areas are ready for final inspection and clearance air monitoring.

2. Project Environmental Consultant will then sample the air in the work area for airborne fiber concentrations.

3. Phase Contrast Microscopy (PCM): In each homogeneous work area after completion of all cleaning work, a minimum number of samples will be collected and analyzed in accordance with the NIOSH 7400 Methodology as follows:

   For work areas less than 160 square feet or 260 linear feet:

   a. 5 interior aggressive air samples, 1 field blank sample and 1 lab blank sample for areas that had asbestos-containing materials removed.

   b. Release Criteria: Decontamination of the work site is complete when each sample analyzed reveals airborne asbestos fiber concentrations are below 0.010 f/cc, or established background concentrations.

   c. If these conditions are not met then the decontamination is incomplete and the cleaning procedures noted in Article 3.7 above shall be repeated. The area shall be re-tested at no additional cost to Owner until satisfactory levels are obtained.

4. Transmission Electron Microscopy (TEM): In each homogeneous work area after completion of all cleaning work, a minimum number of samples ***may*** be collected and analyzed by TEM in accordance with the requirements of 40 CFR Part 763, Subpart E (AHERA) as follows:

   For work areas equal to or greater than 160 square feet or 260 linear feet:

   a. 5 interior aggressive air samples, 1 field blank sample and 1 lab blank sample for areas that had asbestos-containing materials removed.

   b. Release Criteria: Decontamination of the work site is complete when the average of the interior samples reveals that airborne asbestos fiber concentrations are below 70 structures/mm^2.

   c. If these conditions are not met, decontamination shall be deemed incomplete, and the cleaning procedures noted in Article 3.7 above shall be

repeated. The area shall be re-cleaned and re-tested at no additional cost to Owner until satisfactory levels are obtained.

5. For work associated with LBP, wipe sampling shall be performed within the controlled work areas following completion of all lead-related impact and decontamination efforts.

   a. Release Criteria: Decontamination of the work site is complete when each of at least two samples per work area are analyzed and reveal lead dust concentrations below those set forth by CDPH in 17 CCR 35001, et. seq. Generally, this shall be 40 micrograms of lead per square foot of area on interior floors and 400 micrograms of lead per square foot of area on exterior floors.

   b. If these conditions are not met then the decontamination is incomplete and the cleaning procedures noted in Article 3.7 above shall be repeated. The area shall be re-tested at no additional cost to Owner until satisfactory levels are obtained.

3.12 OSHA PERSONAL AIR MONITORING:

A. **Worker exposure personal air monitoring and laboratory analysis required by OSHA is the responsibility of the contractor. The contractor is responsible for providing daily OSHA compliance monitoring as per 29 CFR 1926.1101, 8 CCR 1529 for asbestos and 29 CFR 1926.62 and 8 CCR 1532.1 for lead. A "negative exposure assessment (NEA)" will NOT be accepted to remove respiratory protection since respiratory protection is required at ALL times during asbestos and lead-based paint abatement activities.**

1. At minimum, Contractor shall conduct representative (25% of crew) breathing zone personal air monitoring of its employees twice each shift and repeated daily, as derived in accordance with 29 CFR 1926.1101 (f)(2)(iii) and 8 CCR 1529 for asbestos, and 8 CCR 1532.1 for lead.

2. Monitoring shall be conducted by a qualified air professional experienced and knowledgeable about the methods of air monitoring and in accordance with 29 CFR 1926.1101, 8 CCR 1529 and 8 CCR 1532.1.

3. Monitoring results and appropriate laboratory analysis work shall be submitted to Project Environmental Consultant **within 72 hours of the monitoring work.**

3.13 ALTERNATIVE PROCEDURES

A. If specified procedures cannot be utilized, a request shall be made in writing to Project Environmental Consultant providing details of the problem encountered and recommended alternatives.

B. The removal of all “other” hazardous materials shall be handled as an alternative procedure. Contractor shall submit a work plan for the removal, handling, and disposal of all “other” hazardous materials, including but not limited to fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and radioactive smoke detector sources. Work described in

said work plan(s) shall not commence until the work plan has been accepted and approved, in writing, by Project Environmental Consultant.

C. Alternative procedures shall provide equivalent or greater protection than procedures that are replaced.

D. Any alternative procedure must be approved in writing by the Project Environmental Consultant prior to the implementation of the procedure.

NOTES:

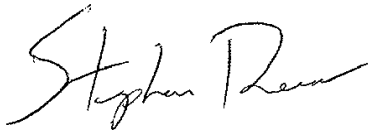
- ***VISTA's ESTIMATED quantities ARE NOT to be solely used for the purpose of bidding on this project. It is the responsibility of the Contractor to verify quantities and locations through site visit(s) and drawing take-off's. Any discrepancies between the documentation and the site visit must be submitted to the Owner or Owner's representative in writing PRIOR to bidding.***

- ***Fire doors with ACM insulation may exist but will not be apparent until hardware is removed.***

- ***Assumed Asbestos - Containing Cement (Transite) Pipe maybe present below grade. Should assumed asbestos- containing cement pipe be discovered during grading and/or irrigation work, all work in the area should cease and the district and/or the district's representative should be notified immediately.***

Respectfully Submitted,

Vista Environmental Consulting, Inc.



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CDPH Lead Inspector-Assessor/Project Monitor LRC#00006759/58 (Expires 11/25/2021)

End of Section 13280