



DESCRIPTION OF WORK FOR  
INFORMAL BID PROPOSAL

DATE: July 14, 2015

RE: Destructive Testing for the following location(s):  
Mission Education Center ES, 1670 Noe Street, San Francisco, CA, 94131

**SCOPE OF WORK:**

Perform destructive testing (DT) as a method of exploratory demolition. All DT locations should be performed as described on the attachments and as specified at each school site. Each Destructive Testing Form identifies DT locations and corresponds with a sketch of the area, see Destructive Testing Request Forms, dated on 7-8-2015 and attached drawings, no. 6, 7 and 8. All DT locations must be concealed with a secure coverplate after observation (typically immediately following DT).  
*Patch-back to match existing conditions is not included.*

**Contractors License Classification:** In accordance with the provisions of California Public Contract Code § 3300, the District requires that Bidders possess the following classification(s) of California Contractors License at the time that the Bid Proposals are opened: **Class B, General Building Contractor**. Any Bidder not so duly and properly licensed shall be subject to all penalties imposed by law.

**ADDITIONAL NOTES:**

- (1) All equipment and clean-up required by contractor.
- (2) Contractor must be certified in working with Lead & Asbestos.

See attached Procedures as outlined in:

- a. Section 00335 – Existing Hazardous Materials Conditions
  - b. Summary of Hazardous Materials Work
  - c. Master Spec 01110 – Hazardous Materials Procedures
  - d. Asbestos Control Program Procedures
  - e. Lead Work Procedures
- (3) A work plan and schedule must be presented after selection. Dates and times for work must be coordinated and approved with SFUSD Project Manager/Construction Manager and the Architect can be present immediately following DT. District HazMat contact must also approve work plan.
  - (4) Prevailing wages are required on all SFUSD projects and are required at the request of the SFUSD.

**HAZARDOUS MATERIAL: Training Certificate/Basic Awareness/Training**

Respiratory protection is required at all times. To waive this requirement, Personal Air Sampling by SFUSD Asbestos Control Program to establish negative exposure assessment for Asbestos and Lead. To assist with this OSHA requirements, this test will be performed by SFUSD personnel. Proper work procedures and negative test results will allow all in-kind work without respiratory protection for up to one year; barring any verified complaints.  
SFUSD Contact: Rafael Picazo (415)241-6226/ext 3241

**PRE-PROPOSAL MEETING DATE:**

Thursday, July 16, 2015 @ 2:30 pm. in front of main entrance of Mission Education Center ES, 1670 Noe Street, San Francisco, CA, 94131

**DATE PROPOSAL DUE:**

Tuesday, July 21, 2015 @ 4:00 pm. Proposals can be received via hand, email, or fax.

**SCHEDULE OF WORK:**

If the proposal is accepted and approved by the District, the contractor is expected to start the destructive testing work on Thursday, July 23, 2015 and complete the work by Friday, July 31, 2015.

**CONTACT:**

William Chow, SFUSD Senior Project Manager, e-mail: choww@sfusd.edu, P (415) 241-6152 ext. 1555, F (415) 241-6148  
Facilities - Proposition A – Bond Programs  
135 Van Ness Avenue, Room 207A, San Francisco, CA 94102



## DESTRUCTIVE TESTING REQUEST FORM

Date: July 8, 2015  
Project: Choose a Project Mission Education Center  
District PM: Choose a Project Manager  
PPDM Manager: Choose a DPM

ARCHITECT FIRM & CONTACT: dsk Architects, Christopher Wu  
EMAIL | PHONE: Christopher Wu, [Christopher@dskarch.com](mailto:Christopher@dskarch.com) | 415-347-8555

NOTE: LOCATIONS PER STRUCTURAL COMMENT DRAWINGS

### SECOND FLOOR

#### 2<sup>ND</sup> FLOOR DEMO AREA #1

ROOM: 2<sup>nd</sup> Floor, Plan North-East Classroom  
WALL: Interior walls, Plan South-West Corner  
DT AREA: Sawcut (2) 2' X 2' openings, approx. 6" above 2<sup>nd</sup> floor (two wall faces) through (E) wall finish and sheathing to reveal studs and sill plate connection to 2<sup>nd</sup> floor slab. Do not damage (E) studs.

#### 2<sup>ND</sup> FLOOR DEMO AREA #2

ROOM: 2<sup>nd</sup> Floor, Plan North-East Classroom  
WALL: Interior walls, Plan South-West Corner  
DT AREA: Remove 2' x 2' of 2<sup>nd</sup> floor ceiling finish to reveal (E) floor joists and blocking over wall top plate in corner of classroom adjacent to (E) wood stud wall. Do not damage (E) studs or floor framing.

### THIRD FLOOR

#### 3<sup>RD</sup> FLOOR DEMO AREA #1

ROOM: 3<sup>rd</sup> Floor, Plan North-East Classroom  
WALL: Interior walls, Plan South-West Corner  
DT AREA: Sawcut (2) 2' X 2' openings, approx. 6" above 3<sup>rd</sup> floor (two wall faces) through (E) wall finish and sheathing to reveal studs and sill plate connection to 3<sup>rd</sup> floor slab. Do not damage (E) studs.

#### 3<sup>RD</sup> FLOOR DEMO AREA #2

ROOM: 3<sup>rd</sup> Floor, Plan North-East Classroom  
WALL: Interior walls, Plan South-West Corner  
DT AREA: Remove 2' x 2' of 3<sup>rd</sup> floor ceiling finish to reveal (E) ceiling joists and blocking over wall top plate to adjacent to (E) wood stud wall. Do not damage (E) studs or ceiling framing.

#### 3<sup>RD</sup> FLOOR DEMO AREA #3

ROOM: 3<sup>rd</sup> Floor, Plan South-East Classroom  
WALL: Interior walls, Plan North-East Corner  
DT AREA: Remove 2' x 2' of 3<sup>rd</sup> floor ceiling finish in corner in finish in corner of classroom cloak room adjacent to (E) concrete wall and wood stud wall. Do not damage (E) studs, ceiling framing, (including rim joist), or concrete wall.

**3<sup>RD</sup> FLOOR DEMO AREA #4**

ROOM: 3<sup>rd</sup> Floor, Plan East Staircase

WALL: Interior walls, Plan North-East Corner

DT AREA: Remove 2' x 2' of 3<sup>rd</sup> floor ceiling finish in stair corridor adjacent to (E) concrete wall. Do not damage existing roof joists.



## DESTRUCTIVE TESTING REQUEST FORM

**Date:** July 8, 2015  
**Project:** Choose a Project Mission Education Center  
**District PM:** Choose a Project Manager  
**PPDM Manager:** Choose a DPM

**ARCHITECT FIRM & CONTACT:** dsk Architects, Christopher Wu  
**EMAIL | PHONE:** Christopher Wu, [Christopher@dskarch.com](mailto:Christopher@dskarch.com) | 415-347-8555

**NOTE: LOCATIONS PER STRUCTURAL COMMENT DRAWINGS**

### FIRST FLOOR

**SCAN AREA: 1**

ROOM: Heating and Ventilating Room/Girl's Toilet

WALL: In between Heating and Ventilating and Girl's Toilet

DT AREA: Perform hazardous materials abatement work in a designated 2' x 2' area, starting at 5' A.F.F.

**SCAN AREA: 2**

ROOM: Boy's Toilet/similar Areas

WALL: Exterior Wall

DT AREA: Perform hazardous materials abatement work in a designated 2' x 2' area, starting at 5' A.F.F.

**SCAN AREA: 3**

ROOM: Plan East Staircase

WALL: Exterior Wall

DT AREA: Perform hazardous materials abatement work in a designated 2' x 2' area, starting at 5' A.F.F.

### SECOND FLOOR

**SCAN AREA: 3**

ROOM: Plan East Staircase

WALL: Exterior Wall

DT AREA: Perform hazardous materials abatement work in a designated 2' x 2' area, starting at 5' A.F.F.

### THIRD FLOOR

**SCAN AREA: 3**

ROOM: Plan East Staircase

WALL: Exterior Wall

DT AREA: Perform hazardous materials abatement work in a designated 2' x 2' area, starting at 5' A.F.F.

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**SECTION 00335**

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**EXISTING HAZARDOUS MATERIALS CONDITIONS**

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**PART 1 – GENERAL****1.01 SUMMARY**

- A. This section provides a list of known and assumed hazardous materials that may be impacted during renovation, demolition, repair, custodial and/or maintenance activities. The hazardous materials information has been provided through existing surveys conducted by the San Francisco Unified School District (District) and the District's environmental consultants.
- B. Some materials and items found at the Site either contain or may contain materials known to the State of California to be either hazardous, carcinogenic or reproductive toxins. These include but are not limited to asbestos, lead, PCB's, silica, and other materials.
- C. The Contractor shall hold the District and its consultants harmless for claims, damages, losses, and expenses, including attorney's fees arising out of the Contractor's hazardous materials related work including releases from any incidental disturbance of existing hazardous materials, on-site or off site spills of hazardous materials, or from non-compliance with the Contract Documents and regulatory requirements.

**1.02 HAZARD COMMUNICATION**

- A. The District may have conducted previous hazardous materials abatement projects at the site. The hazardous materials abatement oversight information is available for review by appointment only through the District's Asbestos Control Program at (415) 241-6226.
- B. Copies of previous hazardous materials report(s) and the AHERA Management Plan for the site are available for review by appointment only through the District's Asbestos Control Program at (415) 241-6226.
- C. Asbestos Hazards at Mission Education Center School
  - 1. Asbestos has been identified or is assumed to be present at concentrations greater than one percent (>1.0%) in the following materials:
    - a. Pipe insulation (30% Chrysotile Asbestos) on straight pipe runs, pipe elbows and tees at the following locations:
      - 1) Basement Floor at 001 Boiler Room; and
      - 2) Throughout at all Floors at ceiling plenums and wall cavities.

- b. Asbestos cement duct shielding / panels (65% Chrysotile asbestos) at the Basement Floor at 001 Boiler Room.
  - c. HVAC duct seam tape (70% Chrysotile asbestos) at the Basement Floor at 001 Boiler Room.
  - d. Taping compound (2% Chrysotile asbestos) on gypsum board partition walls at the Second Floor at 208 Office, 209 Office and 210 Office.
  - e. Speckled paint coating (1-5% Chrysotile asbestos) on plaster walls at J01 Janitor, T1 Girls Restroom, J02 Janitor, T3 Boys Restroom and 108 Kitchen at the First Floor; T6 Women's Restroom at the Second Floor; and T10 Men's Restroom at the Third Floor.
  - f. White countertop linoleum backing (20-30% Chrysotile asbestos) located below new non-asbestos containing formica countertops at Classrooms 101 and 103.
  - g. White countertop linoleum backing (20-30% Chrysotile asbestos) located at Classroom 102.
  - h. Floor tile mastic (black) (8% Chrysotile asbestos) at the First Floor at 110 Office and 110A Closet.
  - i. Exterior paints (2% Chrysotile asbestos) at upper concrete / rough aggregate concrete walls at the 2<sup>nd</sup> and 3<sup>rd</sup> Floors at the north and south elevations of the building.
  - j. Exterior caulking (2% Chrysotile asbestos) located between wood window framing / sills and concrete rough openings.
  - k. Exterior asphalt paving (5% Chrysotile asbestos) located at play yards.
  - l. Flange gaskets (Assumed) at the Basement Floor at 001 Boiler Room and 002 Crawlspace.
  - m. All light shield gaskets (Assumed).
  - n. All roofing materials (Assumed).
  - o. Asbestos cement underground sewer, water and drain piping (Assumed) located throughout the entire site.
2. The following sampled suspect materials had results that reported NO asbestos detected by PLM analysis:
- a. Interior wall and ceiling plasters throughout (*Note: the speckled paint coating at walls located at the First Floor at J01 Janitor, T1 Girls Restroom, J02 Janitor, T3 Boys Restroom and 108 Kitchen; Second Floor at T5 Men's Restroom and T6 Women's Restroom; and Third Floor at T9 Women's Restroom and T10 Men's Restroom was identified to contain asbestos at concentrations >1%*).
  - b. Interior skim coat plaster on concrete walls and ceilings throughout.
  - c. Interior paints throughout excluding the speckled paint coating the First Floor at J01 Janitor, T1 Girls Restroom, J02 Janitor, T3 Boys Restroom and 108 Kitchen; Second Floor at T5 Men's Restroom and T6 Women's Restroom; and Third Floor at T9 Women's Restroom and T10 Men's Restroom.
  - d. Gypsum board partition walls and paints at the Second Floor at 208 Office, 209 Office and 210 Office (*Note: the taping compounds were identified to contain asbestos at concentrations >1%*).
  - e. Gypsum board, taping compound and paints on walls at the following locations:

- 1) Second Floor at demising wall between 212 Corridor and SR12 Stair 1;
  - 2) Second Floor at demising wall between 204 Corridor and SR22 Stair 2;
  - 3) Second Floor at south wall of 213 Server Room.
- f. Acoustical ceiling tiles (12"x12" and 1'x2') and mastics throughout the site.
  - g. 2'x4' lay-in ceiling tiles at 107 Multi-purpose.
  - h. Floor tiles (12"x12" tan), mastic and floor leveling compounds at the First Floor at 101 Classroom and 107 Multi-purpose.
  - i. Floor tiles (12"x12" green) and white floor leveling compounds at 110 Office and 110A Closet (*Note: the black floor tile mastic was identified to contain asbestos at concentrations >1%*).
  - j. Floor tiles (12"x12" brown) and mastic at the Second Floor at 203 Classroom (patch), 206A Storage (patch) and 207A Storage.
  - k. Sheet flooring (yellow, tan and gray), backing and glues throughout at Corridors, Vestibules and Hallways and patched areas.
  - l. Battleship flooring (Brown and maroon), backing and glues throughout interiors.
  - m. Sheet flooring (blue with white speckles), backing, glues and leveling compounds at the Second Floor at T7 Restroom and the Third Floor at T8 Restroom.
  - n. All floor leveling compounds.
  - o. Felt moisture barrier located below all flooring throughout the site.
  - p. Terrazzo flooring (brown, yellow and off-white) and base at the First Floor at T1 Girls Restroom, J01 Janitor, T2 Unisex Restroom, T3 Boys Restroom, J02 Janitor and 108 Kitchen; Second Floor at T5 Mens Restroom and T6 Womens Restroom; and the Third Floor at T9 Womens Restroom and T10 Mens Restroom.
  - q. All cove base and mastics throughout.
  - r. Ceramic wall tiles (4"x4" white) wall tile, grout and glues at the First Floor at T2 Unisex Restroom.
  - s. Ceramic base tiles (6"x8" mauve), grout and mortar at the First Floor at the north wall of T1 Girls Restroom.
  - t. All tackboards and associated mastics.
  - u. Chalkboards (black slate) throughout interiors.
  - v. Chalkboards (green coating on the black slate) at the First Floor at 102 Classroom.
  - w. Sink undercoatings (gray) on one stainless steel sink at 101 Classroom.
  - x. Fiberglass HVAC duct insulation and canvas wrap on HVAC ducting at Restrooms.
  - y. HVAC seam tape (white) at duct work at 104 Vestibule and 106 Storage.
  - z. Fire doors.
  - aa. Black tar coating and paper wrap on gas lines.
  - bb. Exterior caulking at concrete rough openings and metal and wood door framing / casing.
  - cc. Exterior and interior glazing compounds on metal windows.
  - dd. Exterior paints, rough coated cementitious finish coat plaster / cement and base coat concrete at lower building walls.
  - ee. Exterior paints and smooth concrete at lower building walls.
  - ff. Exterior upper concrete / rough aggregate concrete walls at the 2<sup>nd</sup> and 3<sup>rd</sup> Floors at the north and south elevations of the building (*Note: the paints*

*located at these areas were identified to contain asbestos at concentrations >1%.*

- gg. Exterior paints, stucco /plaster finish coat and gray base coat cement at the north stairwell.
- hh. Exterior ceramic wall tile (blue), grout and mortar / glue at the north stairwell.
- ii. Exterior concrete retaining walls and paints.

#### D. Lead Hazards at Mission Education Center School

1. Lead has been detected in individual painted surfaces and surface coatings in concentrations greater than 5,000 parts per million (ppm) lead or 1.0 milligram of lead per square centimeter ( $\text{mg}/\text{cm}^2$ ). Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following:
  - a. Exteriors:
    - 1) Paints on ALL of the following building components:
      - a) Wood window wood window framing / casings and wood window sills ( $1.6$  to  $2.7 \text{ mg}/\text{cm}^2$ ) concealed by metal panning and frames.
      - b) Metal windows and metal window framing / casing located at the Basement Floor at 001 Boiler Room ( $5.1$  to  $5.4 \text{ mg}/\text{cm}^2$ ).
      - c) Flagpole at the upper play yard ( $5.3 \text{ mg}/\text{cm}^2$ ).
  - b. Interiors:
    - 1) Paints on ALL of the following building components throughout:
      - a) Metal windows and metal window framing / casing located at the Basement Floor at 001 Boiler Room ( $5.1$  to  $5.4 \text{ mg}/\text{cm}^2$ ).
      - b) Wood window framing / casings and wood window sills including wood transom windows ( $1.0$  to  $1.7 \text{ mg}/\text{cm}^2$ ).
      - c) Wood and plaster chair rail and crown molding ( $1.0$  to  $>9.9 \text{ mg}/\text{cm}^2$ ).
      - d) Painted vinyl covered tackboards and non-painted / non-vinyl covered tackboards ( $1.0$  to  $2.1 \text{ mg}/\text{cm}^2$ ).
      - e) Fire sprinkler piping ( $2.4$  to  $>9.9 \text{ mg}/\text{cm}^2$ ).
      - f) Metal drain piping ( $>9.9 \text{ mg}/\text{cm}^2$ ).
      - g) Wood benches at Corridors ( $1.4$  to  $3.5 \text{ mg}/\text{cm}^2$ ).
      - h) Lower walls ( $3.8$  to  $5.3 \text{ mg}/\text{cm}^2$ ).
      - i) Metal clad doors and metal clad door framing / casing / trim ( $1.7$  to  $>9.9 \text{ mg}/\text{cm}^2$ ).
      - j) Wood door framing / casing and wood trim ( $1.0$  to  $3.1 \text{ mg}/\text{cm}^2$ ).
      - k) Wood doors ( $1.4$  to  $>9.9 \text{ mg}/\text{cm}^2$ ).
    - 2) Paints on ALL upper and lower plaster and concrete walls and ceilings at all Corridors at all Floors ( $3.3$  to  $>9.9 \text{ mg}/\text{cm}^2$ ).
    - 3) Paints on ALL wood and plaster baseboards at all Corridors at all Floors ( $1.7$  to  $2.2$ ).



- 4) Paints on ALL interior finishes including but not limited to plaster walls, concrete walls, decorative plaster chair rails / wall trim and baseboards, concrete ceilings, plaster ceilings including plaster ceilings concealed by acoustical ceiling tiles, window sash, window framing / casing, transom windows, wall trim, doors, door framing / casing, door trim, etc.
  - 5) Paints on all concrete walls, columns and ceilings at 108 Kitchen and 109 Kitchen Office (9.5 to >9.9 mg/cm<sup>2</sup>).
2. Lead has been identified in individual painted surfaces and surface coatings in concentration less than 5,000 ppm lead or 1.0 mg/cm<sup>2</sup>. Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following surfaces:
- a. Exteriors:
    - 1) Paints on ALL of the following building components:
      - a) Concrete, stucco / plaster and rough aggregate building walls and concrete retaining walls (-0.3 to 0.7 mg/cm<sup>2</sup>).
      - b) Metal stair railings, treads, risers, support posts and support beams (-0.2 to 0.5 mg/cm<sup>2</sup>).
      - c) Metal hand railings, chain link gates and chain link fencing at play yards and stairs at campus exteriors (-0.1 to 0.0 mg/cm<sup>2</sup>).
      - d) Wood benches (-0.3 to 0.0 mg/cm<sup>2</sup>).
      - e) Metal doors and metal and wood door casing / framing and trim (-0.1 to 0.3 mg/cm<sup>2</sup>).
    - 2) Glazings on blue ceramic wall tile at the north stair leading to the Second Floor (-0.4 mg/cm<sup>2</sup>).
    - 3) Paints on the wood ramp entering 107 Multi-purpose from the west side of the building (-0.1 mg/cm<sup>2</sup>).
    - 4) Paints on the metal play structure at the upper play yard (-0.5 mg/cm<sup>2</sup>).
    - 5) Paints on wood flower boxes at the upper play yards (0.0 mg/cm<sup>2</sup>).
    - 6) Paints on the wood shed located at the north side of the building (0.0 mg/cm<sup>2</sup>).
  - b. Interiors:
    - 1) Paints on ALL of the following building components:
      - a) Wood cabinets (-0.1 to 0.1 mg/cm<sup>2</sup>).
      - b) Wood chalkboard trim and trays (0.2 to 0.4 mg/cm<sup>2</sup>).
      - c) Wood shelf and shelf supports (-0.1 to 0.1 mg/cm<sup>2</sup>).
      - d) Metal HVAC ducting (-0.2 to 0.1 mg/cm<sup>2</sup>).
      - e) Metal vent covers located below benches at corridors (-0.1 mg/cm<sup>2</sup>).
      - f) Stains on hardwood floors at 107 Multi-purpose and 107A Storage (-0.1 to 0.0 mg/cm<sup>2</sup>).
      - g) Gypsum board walls (-0.1 to 0.0 mg/cm<sup>2</sup>).
      - h) 12"x12", 1'x2' and 2'x4' acoustic ceiling tile (0.0 to 0.1 mg/cm<sup>2</sup>).

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- 2) Glazings on 4"x4" white ceramic wall tile at T2 Unisex Restroom (-0.3 to -0.2 mg/cm<sup>2</sup>).
  - 3) Paints on plywood partition walls at the Basement Floor at 001 Boiler Room (-0.3 mg/cm<sup>2</sup>).
  - 4) Paints on metal railings at the Basement Floor at 001 Boiler Room (0.3 mg/cm<sup>2</sup>).
3. The Contractor shall assume that all paints and surface coatings contain detectable quantities of lead requiring compliance with CAL/OSHA lead regulation in the absence of objective data to the contrary. Additionally, the Contractor shall assume that, at a minimum, lead is "present" in all of these materials at levels that have a potential, until proven otherwise, to create a lead hazard.
  4. The District has not verified that any paints, coatings, dusts, or materials are "lead free" or below 600 ppm. The Contractor shall treat all paints, coatings, dusts or materials as having a lead content greater than 600 ppm requiring dust controls and personal protective procedures for construction activities in conformance with the Cal/OSHA Lead Construction Standard, 8 CCR 1532.1 lead. Any paint, varnish, or other coating or finish not listed above shall be considered to be lead-based paint with lead levels at or exceeding 5000 ppm lead or 1.0 mg/cm<sup>2</sup> for this contract.
  5. In addition to lead-containing paints and coatings, the Contractor shall assume that lead is present at detectable levels over 600 ppm in existing plumbing components and solders, glazing compounds, roof jacks, and surficial soils.
- E. Metallic Mercury and mercury compounds are present at this site in "fluorescent lighting tubes, high intensity discharge lamps and mercury thermostats. All demolition and disposal of these items shall be conducted in accordance with applicable safety and environmental regulation and the requirements of the Contract Documents.
  - F. All light ballasts at this site have been replaced and light fixtures contain non polychlorinated biphenyl (PCB) containing fluorescent lighting ballasts.
  - G. Crystalline Silica is presumed present in all concrete, plaster, ceramic tile, grouts, and other cementitious materials at this site as well as soils. Worker protection and control of air dust during cutting, drilling, demolition and other construction operations is the responsibility of the Contractor.
  - H. The Contractor shall take into consideration all existing known and presumed hazardous materials that may be disturbed or otherwise impacted by the Work of this project. All work of this project that disturbs or otherwise impacts hazardous material shall be considered included in the Work of the project and shall be conducted in accordance with all applicable regulations and the Contract Documents. The Contractor shall use appropriately trained and qualified personnel to conduct all hazardous material related work and shall adhere to the requirements for handling, removal, clean-up, and disposal in accordance with the Contract Documents and all applicable Cal/OSHA, Cal/EPA, Department of Health Services (DHS), and Bay Area Air Quality Management District (BAAQMD) regulations.

1.03 RELATED DOCUMENTS

- A. Contract Documents including hazardous material-related plans and specifications and all other project construction documents. Refer to Section 01011 Summary of Work, Article 1.04 Related Documents for a more detailed listing.

1.04 USE OF HAZARDOUS MATERIALS INFORMATION

- A. Hazardous material information identified herein was obtained for the use of the District and its Consultants for planning and design stages of the Project. The above mentioned survey data and reports are not, as a whole, part of the Contract Documents, but can be relied upon by the Contractor to characterize general site conditions, although quantities, friability and other factors may have changed or altered since the published report dates.
- B. All statements, findings and interpretations in the above mentioned reports are those of the Survey or Environmental Consultant. The District makes no representation, either expressed or implied, as to the completeness or adequacy of the above mentioned reports. Bidders are advised that the limited testing of components allows for generalizations in describing the extent of hazardous materials. Contractors may visit the site and investigate to identify locations of hazardous materials identified herein. Specific components or materials, should be checked against the referenced survey reports and the Contract Documents, or be tested at affected locations, prior to disturbance of such components.

PART 2 – PRODUCTS: NOT USED

PART 3 – EXECUTION: NOT USED

END OF SECTION

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**SUMMARY OF HAZARDOUS MATERIALS WORK  
DESTRUCTIVE TESTING PROJECT**

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1.01 GENERAL

- A. The San Francisco Unified School District (SFUSD) is soliciting proposals for conducting asbestos and lead related work to support Destructive Testing at Mission Education Center School:
- B. The hazardous materials abatement portion of the project includes removal, clean-up, decontamination, and proper disposal of asbestos and lead containing materials as necessary to support the Destructive Testing Project.

1.02 HAZARDOUS COMMUNICATION

- A. Hazardous materials present in the building(s) and structures at this site include: asbestos containing materials (ACMs); assumed asbestos containing materials; asbestos containing construction materials (ACCMs); lead-based paint (LBP); lead-containing coatings and materials; and mercury containing fluorescent lighting tubes, switches, and thermostats. Refer to Section 00335 "Existing Hazardous Materials Conditions".

1.03 SCOPE OF WORK

- A. The Contractor(s) work includes the removal of asbestos and lead-containing materials to the extent specified to support the Destructive Testing Project. The Contractor is responsible for coordination with the General Contractor for the completion of the work of the project. All removal shall be to the extent necessary to properly complete the work of the project. Refer to the Destructive Testing Request Form for scope of work:

1.04 WORK SCHEDULE

- A. The following is the anticipated work schedule as defined by the Destructive Testing Project:
  - 1. Two (2) eight-hour shifts after 6:00pm on a weekday, weekend, or holiday when students and staff are not present. Contractor shall comply with local noise ordinance requirements.

1.05 RELATED DOCUMENTS

- A. Destructive Testing Request Form
- B. Destructive Testing Project Plans
- C. Consultant Agreement Proposal
- D. Section 00335 "Existing Hazardous Materials Conditions" dated July 10, 2015

1.06 SUBMITTALS

- A. Pre-start Submittals. Submit a minimum of one (1) copy of the following hazardous materials submittals to the Environmental Consultant at the site prior to the start of hazardous materials work. Additionally the Contractor shall maintain one (1) copy at the site at all times during hazardous materials related work. .

1. Licensing and Registration: Submit copies of current and valid certificates for the following:
  - a. Contractor's license and Contractor's asbestos certificate issued by the California State Licensing Board (CSLB);
  - b. Certified Lead Renovator for Bidding Contractor and Performing Contractor as required by 40 CFR 745.81(a)(2)(ii).
  
2. Notifications, Communications and Postings. Provide copies of all required notifications including the following:
  - a. Division of Occupational Safety and Health  
Local Office  
(Temporary work site notification for asbestos and lead)
  
  - b. California Department of Public Health  
Childhood Lead Poisoning Prevention Branch  
850 Marina Bay Parkway  
Building P, Third Floor  
Richmond, CA 94804-6403  
(Abatement of Lead Hazards Notification – All lead impacting work)
  
  - c. Where local police and fire departments have jurisdiction, provide required notifications.
  
3. Personnel Qualifications: Personnel documents required by this section shall be organized by individual employees and must be current and valid. All workers who will be performing work at the site will be required to show photo documentation prior to approval of their personnel documents. Workers who do not have all the required documentation present at the site, including photo documentation, will be denied access to the type of hazardous material Work Areas for which they are lacking full valid documentation.
  - a. Asbestos Certifications: Training Certificates for Asbestos: Submit proper documentation that Competent Person(s) and Workers scheduled for this project have successfully completed Cal/OSHA approved courses for asbestos abatement.
  
  - b. Certified Lead Renovator Certification for the Supervisor assigned to the subject project.
  
  - c. Lead Certifications. Employee training certifications demonstrating that all employees engaged in lead removal activities have attended formal training by a California Department of Public Health (CDPH) accredited training provider to conduct lead related activities in accordance with the worker training provisions in the CAL/OSHA and CDPH lead regulations;
  
  - d. Medical Examination: Submit proper documentation, in the form of the physician's written opinion, showing that all hazardous materials abatement personnel scheduled for this project have had the appropriate medical examinations applicable to their assignments. Exams must be in accordance with 8 CCR 1529 for asbestos, 8 CCR 1532.1 for lead and 8 CCR 5144 for respiratory protection. All exams must have been conducted within the last 12 months. Respiratory use evaluation exams alone do not suffice for asbestos and lead related work. Do not submit actual medical exam results. The written physician's opinion should indicate what exam(s) were provided and whether there are limitations on the worker.

- e. Respirator Fit Tests: Submit proper documentation that personnel who will be entering Regulated Areas have had a qualitative respirator fit test performed within the last 12 months for all face fitting respirators.
  - f. Baseline blood lead testing performed in accordance with CAL/OSHA 8 CCR 1532.1 Lead and Federal OSHA 29 CFR 1926.62 Lead. The baseline blood lead shall have been within the past 90 days.
  - g. Provide a signed copy of Certificate of Worker's Acknowledgment (Appendix C) for each worker conducting hazardous materials related removal work.
4. Calibration Data: Submit calibration data for the secondary standard (rotometer) that will be used on this project to calibrate personal air sampling pumps. The secondary standard must be calibrated to a primary standard within the last (6) six months.
5. HEPA Filtration Certifications:
- a. Provide third party test certificates for all Differential Pressure Equipment and HEPA Vacuums to be used on this project. Such Certificates shall document that each item of equipment has been tested on-site prior to start-up and that the results have demonstrated that each HEPA equipment assembly meets the efficiency requirement for HEPA filtration as an installed system or unit of equipment.
  - b. All HEPA filtration testing must be conducted by challenging the installed filter system with 0.3 micrometer diameter particles using a dioctyl phthalate (DOP) particle generator & appropriate aerosol measurement test equipment designed for this purpose. Alternate test methods may be accepted if demonstrated to be equivalent and approved by the Environmental Consultant.
  - c. Test certificate stickers shall be placed on each machine tested and a copy of the testing certification shall be provided to the Environmental Consultant. The test result, date and time of testing, testing firm, and signature of qualified test technician shall be included on each certification along with equipment identification information.

END OF SECTION

SECTION 01110

HAZARDOUS MATERIALS PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general requirements and procedures for hazardous materials related work activities, as applicable, to the Work and the existing conditions at the project site.
  - 1. Work includes Hazardous Materials Precautions and Handling Procedures for non-abatement trades, as applicable.
  - 2. Work includes controlled renovation procedures and hazardous materials controls, as applicable, including:
    - a) Drilling and attachment and minor disturbances to friable asbestos-containing materials (ACM), including thermal system insulation (TSI) and surfacing materials such as acoustical plasters and fireproofing, as applicable.
    - b) Drilling and attachments and minor disturbances to non-friable or non-surfacing asbestos-containing materials such as wall and ceiling non-acoustical plasters, sheetrock, transite board, vinyl floor tiles, thin coat paints, and floor tile mastics, as applicable.
    - c) Daily clean up of asbestos and lead-based paint debris from site demolition, coring, anchoring or other minor disturbances.
    - d) Final clean up of the site for lead wipe clearance sampling, airborne asbestos sampling or visual inspection, as applicable.
- B. Related Documents:
  - 1. Document 00235 - Existing Conditions: Hazardous Materials, where applicable.
  - 2. SFUSD's AHERA and Lead-Based Paint survey files with pertinent materials attached to the Contract Documents, where applicable.
- C. Related Sections:
  - 1. Section 01010 - Summary of Work.
  - 2. Section 01100 - Procedures for Working in Restricted Access Areas.
  - 3. Section 01300 - Submittals.
  - 4. Section 02090 - Hazardous Materials Abatement and Control.
  - 5. Appendix A - Abatement Work Plan/Related Sections Drawing/Plans.
  - 6. Section 15250 - Mechanical Reinsulation, where applicable.

## 1.2 DEFINITIONS

- A. **Abatement:** Primary work involving the removal, containment, control or treatment of hazardous materials.
- B. **Asbestos:** A generic name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separate into fibers. Asbestos includes any material that contains greater than 0.1 percent by weight the asbestiform varieties of chrysotile (serpentine); crocidolite (riebecklite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite. For the purposes of determining respiratory protection and worker protection both the asbestiform and non-asbestiform varieties of the above materials and any of these materials that have been chemically treated or altered shall be considered asbestos.
- C. **Asbestos-Containing Material (ACM):** Any material which contains more than one percent (>1%) asbestos by weight for the purposes of abatement, waste disposal and fiber controls specified under this Contract.
- D. **Asbestos Containing Construction Material (ACCM):** Any material which contains more than one tenth of one percent (>0.1%) asbestos by weight requiring personal protection, dust controls, Contractor registration, and worker training in compliance with Cal/OSHA regulation 8 CCR 1529. For waste disposal purposes, ACCM greater than 0.1% by weight and less than 1% by weight is classified as non-hazardous waste, although it is a regulated material under Cal/OSHA.
- E. **Hazardous Materials Control:** Incidental work procedures for control of releases of project-related hazardous materials, including containment, enclosure, wetting, controlled renovations and demolition procedures, and removal and disposal.
- F. **Hazardous Waste:**
1. Waste material, including asbestos, loose and peeling lead-based paints, PCB ballasts, and any other material which requires management, handling transport, treatment, storage or disposal according to the requirements of the Federal Resource, Conservation and Recovery Act (RCRA) and associated regulation 42 U.S.C. 6901 et seq. and 40 CFR Part 260 et seq.) or the California Hazardous Waste Control Law and associated regulations (Health and Safety Code 25000 et seq. and 22 CCR 66260 et seq.).
  2. References to hazardous material or contaminated material incorporate definitions of hazardous pollutants, hazardous contaminants, hazardous material, hazardous substance, hazardous waste, toxic pollutants and toxic substance applicable in accordance with Federal, State, regional and local statutes, laws, regulations and policies.
- G. **Lead:** Metallic lead, all inorganic lead compounds and organic lead soaps, and excluding all other organic lead compounds.
- H. **Lead-Based Paints:** Paints or coated surfaces that contain an amount of lead equal to, or in excess of, one milligram per square centimeter or more than half of one percent (0.5%) lead by weight.
- I. **Lead-Containing:** Any material, coating, substrate or product that contains metallic lead, all inorganic lead compounds and organic lead soaps, and excluding all other organic lead compounds.
- J. **Lead-Contaminated Dust:** Dusts that contain an amount of lead equal to, or in excess of, forty micrograms per square foot for floor surfaces and two hundred fifty micrograms per square foot for horizontal window surfaces.



- K. **Lead-Contaminated Soil:** Bare soil that contains lead equal to, or in excess of, four hundred parts per million (400 ppm) in children's play areas and one thousand parts per million (1,000 ppm) in all other areas.
- L. **Lead-Related Construction Work:** Means any construction, alteration, painting, demolition, salvage, renovation, repair or maintenance of any residential or public building, including preparation and clean-up, that, by using or disturbing lead-containing material or soil, may result in significant exposure of adults or children to lead.
- M. **Presumed Lead-Based Paint:** Means paint or surface coating affixed to a component in or on a structure, excluding paint or surface coating affixed to a component in or on a residential dwelling constructed on or after January 1, 1978.

### 1.3 SUBMITTALS

- A. **Submit the following in accordance with Section 01300 - Submittals.** For projects where Section 01300 does not exist, submit one copy each to the District's Asbestos Control Program and to the District's Environmental Consultant, typical.
  - 1. **Site-Specific Hazardous Materials Management Plan (HMMP):** Submit Contractor's HMMP for the District's approval within ten (10) days after the Notice to Proceed, including the following items.
    - a) **Overall scope and schedule of all hazardous materials management including but not limited to:**
      - (1) Descriptions of all hazardous materials work to be performed or managed, and intended control procedures.
      - (2) Schedule of all hazardous materials work.
      - (3) Description of personal protective equipment and methods as well as intended compliance monitoring.
    - b) **Name, phone number, pager number of Contractor's designated Hazardous Materials Supervisor as required in this section's "Quality Control."**
    - c) **Name, address and phone number of the Contractor's landfill.**
- B. **Submit Worker Documentation in accordance with the requirements outlined in the Contractor's HMMP, including but not limited to:**
  - 1. **Certification of the worker's awareness or hazards training by a Certified trainer or as stated on the Contractor's letterhead by the Contractor's Health & Safety Officer or Superintendent.**
  - 2. **Medical examination and approval for use of respiratory protection, as applicable, including current respirator fit test records.**

1.4 PROJECT CONDITIONS

- A. Contractor shall pay all costs associated with the compliance with applicable hazardous materials regulations or requirements incurred by the Contractor or its subcontractors for this Project.
- B. Take precautions necessary to protect the health and safety of construction workers, site visitors, District personnel, outside consultants, public and others from exposure to hazardous materials.
- C. Take precautions necessary to insure all surrounding properties or adjacent occupied areas are protected from any contamination from all hazardous materials from this Project Site.
- D. Review the information in the environmental and hazardous material investigation reports and make such information available to appropriate subcontractors and building occupants.
- E. Obtain and pay for all sampling and profiling analyses required for waste disposal. California DHS-accredited laboratories shall perform analyses.
- F. Minimize generation and migration of hazardous and contaminated materials, waste, dust, fumes and debris.
- G. Prevent contamination or further contamination of any material or area by hazardous or contaminated material, waste, dusts, fumes or debris.
- H. Avoid mixing or concentrating removed, or demolished materials so as to increase the cost of disposing of such materials required to be disposed as hazardous or contaminated wastes.
- I. Contractor shall retain, and the District will not indemnify against, any liability of Contractor resulting from the activities or duties which are the responsibility of Contractor under the terms of the Contract, including but not limited to present or future liability arising from the arrangement of transportation or disposal of any hazardous or contaminated material, whether on or off-site.
- J. Pursuant to 29 CFR 1926.1101, the Contractor shall be deemed to exercise general supervisory authority over the work covered by the standard, even though the General Contractor is not qualified to serve as the asbestos "Competent Person," as defined by the standard. As supervisor of the entire Project, the General Contractor shall ascertain whether any subcontractor is in compliance with the standard and shall require such contractor to come into compliance with the standard when necessary.
- K. Contractors shall schedule and coordinate abatement activities to time limitations indicated in the Contract Documents, allowing work shifts for asbestos, lead-based paint, PCB ballast, and other abatement as indicated in the Abatement Work Plan.
- L. Time limitations for hazardous materials removal work shall be in accordance with Section 00100 -- Instructions to Bidders and submittals approved by the District.

1.5 QUALIFICATIONS

- A. Hazardous Materials Supervisor: Assign a qualified person directly responsible under the Contractor's Superintendent having the necessary training to be knowledgeable in the identification, control, and management of the hazardous materials on-site. The Hazardous Materials Supervisor is responsible for the following:
  - 1. Enforcing safe work and hygiene practices in compliance with the Site-Specific Hazardous Materials Management Plan (HMMP).

2. Advising subcontractors of potential hazards and minimum general requirements of the HMMP.
  3. Coordinating subcontractor's work regarding hazardous material procedures and controls.
  4. Establishing and maintaining restricted work areas.
  5. Requiring proper use of personal protective equipment.
  6. Communicating approved modified safety requirements to site personnel.
  7. Notification and coordinating signing of waste manifests with the District.
- B. Hazardous Materials Handlers:** Only qualified persons shall engage in hazardous material-related work. Contractor and subcontractor personnel who come into contact with, are exposed to, disturb, operate equipment or otherwise handle hazardous or contaminated material, or debris shall have appropriate hazard communication and required training, personal and medical monitoring, and shall be certified to wear appropriate personal protective equipment as required by the applicable laws and regulations. Special qualifications which may be required depending on the Contractor's means and methods include, but are not limited to, the following:
1. **Asbestos-Related Work Involving Asbestos-Containing Materials exceeding 100 square feet:**
    - a) Valid asbestos handling license issued by the California State Contractors Licensing Board and a valid current Certificate of Registration for Asbestos-Related Work as issued by the California Department of Industrial Relations - Division of Occupational Safety and Health (Cal/OSHA).
    - b) Work shall be completed under the on-site supervision of a Competent Person as defined by OSHA Regulation 29 CFR Part 1926.1101 (8 CCR 1529 in California).
    - c) All abatement workers shall have AHERA training with annual 8-hour refresher training, current medical exams for the use of respiratory protection, and current fit tests of appropriate respirators.
  2. **Lead-Hazard Work:** All affected workers shall have lead awareness training, current medical examinations and approval for the use of respiratory protection, and current fit testing of respirators complying with Cal/OSHA regulation 8 CCR 1532.1 when affecting lead paints and lead construction hazards including, but not limited to:
    - a) Demolishing or salvaging structural items where lead or material containing lead are present.
    - b) Removing or encapsulating materials containing lead.
    - c) Constructing, altering, repairing or renovating structures, substrates, or portions thereof, that contains lead or materials containing lead.
    - d) Installing of products containing lead.
    - e) Cleaning-up of lead contamination.

- f) Transporting, disposing, storing, or containing lead or lead-containing materials on the site or other locations where construction and renovation activities are performed.
3. Lead Abatement Work: Only qualified persons with California Department of Health Services' (DHS)-approved Lead Workers training, annual medical examinations and approval for the use of respiratory protection, and current fit testing of respirators under the direct supervision of a DHS approved Lead Abatement Supervisor shall engage in work defined under Cal/OSHA regulation 8 CCR 1532.1 affecting lead-based paints and lead construction hazards, including but not limited to:
- a) Working in an environment where lead exposures exceed 30 micrograms/m<sup>3</sup>.
  - b) Abating lead-based paints, including but not limited to abatement of loose and peeling lead-based paints, demolition and disposal of concrete-encased primed structural steel and/or stripping of lead coatings from structural steel prior to torching or welding.
  - c) As defined under Title 17, California Code of Regulations (CCR), Division 1, Chapter 8 "Accreditation, Certification and Work Practices in Lead-Related Construction," Article 1, Sections 35001 et al, and Article 16, Section 36000 and 36100.
4. PCB Ballast-Related Work: Removal of non-leaking PCB ballasts may be completed by workers with PCB hazard awareness training as verified by the Contractor's Health and Safety Officer or Superintendent. Removal of leaking or damaged PCB ballasts from lighting fixtures shall be completed by a trained worker, wearing protective gloves and following safety procedures as outlined in the HMMP. Hazardous waste shall be handled according to the U. S. Environmental Protection Agency's Standards 40 CFR 761.60 and 761.65 (22 CCR Section 66699(b) in California).
5. Biohazard Work: Work areas contaminated with fecal matter and human excretions, along with needles and syringes and other materials potentially contaminated with infectious bloodborne pathogens or other biohazards shall comply with the health and safety requirements as approved in a Site-Specific Hazardous Materials Management Plan, approved and signed by the Contractor's Certified Industrial Hygienist.
- C. Hazardous Materials Haulers:
- 1. Possess during the hauling of hazardous material, applicable federal, state, and local vehicle insurance requirements, valid driver's license, vehicle registration and licenses, and a current Class 1 Certification of Compliance from the California Highway Patrol affixed to each vehicle or container.
  - 2. Possess a Hazardous Substance Removal Certification granted by the State of California Department of Toxic Substances Control (510-540-3802) and other required certifications and insurance.
  - 3. Contractor shall be responsible for informing drivers of hauling vehicles about:
    - a) The nature of the material hauled.
    - b) Any recommended or required routes to and from the site.

- c) Applicable City Street use regulations and requirements, and State of California Department of Transportation (Caltrans) codes, regulations and requirements.
- d) The District's requirements for proper handling and transportation of hazardous waste.
- e) The legal maximum loads for each vehicle.

#### 1.6 REGULATORY REQUIREMENTS

- A. Hazardous and contaminated materials and hazardous waste shall be handled according to applicable laws and regulations in effect at the time of disturbance; transport or disposal of said hazardous materials or waste and requirements of the Contract Documents. In the event of conflict, the more stringent requirement shall apply.
- B. The District is the generator, as defined in 22 CCR Section 66260.10 and 40 CFR Part 261, of any hazardous waste, and will be responsible for that hazardous waste to the extent required by law.
- C. Contractor is alerted to and shall familiarize itself to the following laws and regulations regarding the generation, management, characterization and disposal of hazardous waste:
  - 1. Resources Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. and regulations 40 CFR Part 260 et seq.
  - 2. California Health and Safety Code, Division 20 and regulations, and 22 CCR Section 66000 et seq.
  - 3. For asbestos hazards: Comply with the applicable requirements of the Cal/OSHA Construction Asbestos Standard, 8 CCR Section 1529, and BAAQMD Regulation 11, Rule 2.
  - 4. For lead hazards and abatement: Comply with the applicable requirements of the Cal/OSHA Lead in Construction Standard, 8 CCR Section 1532.1; Cal/EPA Regulation 22 CCR Section 66000, et seq.; California Department of Health Services (DHS) Regulation 17 CCR 35001, et seq., and San Francisco Building Code, Chapter 36, "Work Practices for Exterior Lead-Based Paint".

#### 1.7 HAZARDOUS MATERIALS USED TO PERFORM THE WORK

- A. General: Minimize the use of hazardous materials to perform the work. Where materials which contain hazardous substances or mixtures are used to perform the work, material usage shall be in strict adherence to Cal/OSHA's safety requirements and the manufacturer's warnings and application instructions listed on the Material Safety Data Sheet provided by the product manufacturer and on the product container label.
  - 1. Contractor will be responsible for coordinating the exchange of MSDS or other hazard communication information between subcontractors at the site.
  - 2. Contractor will notify the District when a specific product or equipment, or their intended usage, may be unsafe prior to ordering the product or equipment or prior to the product or equipment being incorporated in the Work.
- B. Prohibited Material: The following materials and chemicals are specifically prohibited from use on this project unless otherwise accepted in writing by the District.

1. Material with a stated ACGIH threshold limit value of less than 25 parts per million.
2. Ethylene glycol monomethyl ether.
3. Dipropylene glycol methyl ether.
4. Ethylene glycol.
5. Formaldehyde.
6. Methylene chloride.
7. Isocyanates.
8. Chemicals with a flash point of less than 140 degrees Fahrenheit.

## PART 2 - PRODUCTS

### 2.1 HAZARDOUS MATERIAL CONTROLS AND EQUIPMENT

- A. Protective Devices: Temporary wash stations or showers, disposable clothing, respirators, gloves, hard hats, and other required items. Respirators shall protect against appropriate dusts, fumes and mists as approved by the National Institute for Occupational Safety and Health (NIOSH) under provisions of 30 CFR Part 11.
- B. Waste Receptacles: Conform to federal and State regulations, with 6-mil minimum thickness waste bags.
- C. Polyethylene Sheeting and Dust Barriers:
  1. Polyethylene sheeting shall be flame-retardant and approved and listed by the State Fire Marshal in accordance with Section 13121 and/or 13144.1 of the California Health and Safety Code.
    - a) Thickness and Size: 6-mil thick minimum, unless otherwise specified, sized to minimize the frequency of joints.
    - b) Flammability: Comply with NFPA Standard 701 with a flame spread rating of no greater than 5 and a smoke development rating of no more than 70 when tested in accordance with ASTM procedures.
- D. HEPA Vacuums and Negative Pressure Units (NPU) used for clean up of materials and detail cleaning shall be HEPA-filtered.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Notify the Contractor's Hazardous Material Supervisor of suspect conditions for testing by the District.
- B. Promptly notify the District of differing conditions. Please note that the Contract Documents may restrict access to some Crawlspace and plenums where known asbestos-containing thermal system insulation or damaged, friable surfacing materials exist. Access to these restricted areas will

require the use of respiratory protection; full coveralls and decontamination procedures if accessed by non-abatement trades unless a negative exposure assessment is submitted to show that lower standard of protection are acceptable.

### 3.2 ASBESTOS HAZARD CONTROL PROCEDURES

#### A. Prohibited Activities not specified in this Section:

1. Asbestos-containing materials shall not be disturbed by cutting, sawing, grinding, pulverizing, crumbling, breaking, or otherwise rendered friable or airborne unless these activities are conducted under the requirements of all applicable regulations and guidelines or controlled renovation procedures as outlined in the Contract Documents.
2. Work exceeding 100-sq. ft. or 100 linear feet of asbestos-containing materials shall be completed by a qualified Asbestos Abatement Contractor per Cal/OSHA regulation 8 CCR 1529. All work affecting friable asbestos-containing materials shall be completed in compliance with Cal/OSHA Work Class I or III procedures, as applicable. Class III work may be completed by workers with EPA Asbestos Operations and Maintenance training and annual refresher training, minimum. Refer to Section 02090 - Hazardous Materials Abatement and Control.

#### B. Controlled Renovation Procedures for Installation of Anchors and Minor Disturbances to Asbestos- Containing Material under 100 SF or 100 LF, except thermal system insulation or surfacing materials (including but not limited to vinyl floor tiles, carpet or tile mastics, transite board, sheetrock wallboard, ceiling tile mastics):

1. Minor work affecting non-friable materials, such as drilling molly anchors into wallboard or seismically bracing equipment through asbestos-containing vinyl floor tiles, may be completed by construction workers or maintenance personnel following procedures under the General Industry Asbestos Standards, 8 CCR 5208. Such workers shall have initial training regarding the hazards of the operation, control procedures, and hands-on training on anchoring procedures. Workers with over 30 days of exposure to such activities, exceeding 1-hour duration per day, shall comply with Cal/OSHA's medical surveillance requirements. Protective clothing, including full body coveralls and half-facepiece HEPA-filtered respirators shall be worn by all workers within the regulated controlled renovation zone unless a negative exposure assessment has been produced to show lower levels of protection are acceptable.
2. Demarcate the area of exposure to minimize traffic within the area and to protect persons outside the area from airborne asbestos exposures, even if a negative exposure assessment has been produced.
3. The following materials are classified as not "surfacing" materials for controlled renovation purposes involving anchoring or minor disturbances:
  - a) Wall and ceiling troweled-on plasters over metal or wooden lath or buttonboard, except acoustical plasters or decorative plasters with an appearance like acoustical plaster.
  - b) Stucco.
  - c) Paint that has been sprayed-on or otherwise applied to a wall, ceiling, eave, etc.

- d) Sheetrock wall and ceiling board and joint compounds, including joint compounds applied for texturing purposes, which are not otherwise classified as acoustical plasters.
  - e) Cement or plaster skimcoats on concrete or sheetrock with a smooth finish.
  - f) Floor leveling compounds.
  - g) Mastics troweled-on concrete floor surfaces to adhere resilient tiles.
4. Assemble equipment and supplies, including but not limited to a Hudson sprayer, an HEPA-filtered vacuum, polyethylene drop cloths and wetted sponges.
  5. Install a drop cloth below the area to be disturbed and shoot or drill the anchor through the wetted sponge or cut the material through a wetted sponge, as applicable. HEPA vacuum the area following all work and place the sponge and debris into a sealed plastic disposal bag. Do not use these procedures on asbestos-containing thermal system insulation (TSI) or asbestos-containing surfacing materials, such as asbestos fireproofing or acoustical sprayed-on plaster finishes.
  6. Immediately clean up all debris dislodged from coring or drilling through asbestos and trace asbestos substrates using a wetted sponge and HEPA vacuum. Contamination of the site by use of improper procedures will require extensive clean-up and clearance air sampling by the District, at the Contractor's expense.
  7. Vinyl Floor Tiles: Cordon off the room or area and remove the floor tiles before drilling through the concrete or wooden substrate, where feasible, using water to dislodge the tiles. Where tiles cannot be removed in advance of coring, saturate the tile with shave cream and core through the tiles, frequently wiping up all chips and debris and disposing as Category 1 non-friable waste. Continue using wet methods and reapply shaving cream as a barrier to prevent airborne releases. Wet wipe with a clean sponge and HEPA vacuum the area upon completion of work. Do not let cores and intact ACM debris to fall into the ceiling plenum or crawl space below.
  8. Carpet Mastics: Cordon off the room or area and cutout the carpeting and mastics using a carpet knife, saturating the carpet with water to prevent airborne asbestos fiber releases. Remove excess mastics using a mastic remover with a flash point greater than 140 deg. F., as approved by the District. Dispose of the carpet segment and mastics as Category 1 non-friable waste. Wet wipe and HEPA vacuum the area following completion of the controlled renovation procedures.
  9. Vinyl Floor Tile Mastics: Cordon off the room or area and remove the mastics using a mastic remover with a flash point greater than 140 deg. F., as approved by District. Dispose of the mastic and rags as Category 1 non-friable waste. Wet wipe and HEPA vacuum the area following completion of the controlled renovation procedures.
  10. Transite Board and Mastics: Cordon off the room or area and remove the board intact, where feasible, following installation of drop cloths below. If removal is not feasible, drill through the board using the shaving cream methods described for Vinyl Floor Tiles above. Dispose of transite debris as Category 2 non-friable waste Wet wipe and HEPA vacuum the area following completion of the controlled renovation procedures
  11. Sheetrock Wall or Ceiling Board: Shoot or drill anchors through a wetted sponge, where feasible. Cordon off the room or area and cut holes for receptacles or other devices using



drop cloths on the ground and wet methods. Remove the sheetrock avoiding the joint compounds, where feasible. Continually wet the controlled renovation area during the process and wet wipe and HEPA vacuum the area following completion of the controlled renovation procedures. Dispose of the sheetrock and joint compounds as "trace" non-hazardous waste.

12. Thin-Layered Asbestos-Containing Paints: Shoot or drill anchors through a wetted sponge, where feasible. Cordon off the room or area and core using drop cloths on the ground and wet methods. Continually wet the controlled renovation area during the process and wet wipe and HEPA vacuum the area following completion of the controlled renovation procedures. Dispose of the paints as Category 1 or 2 non-friable waste as determined by the substrate's composition.
13. Other Non-Friable Materials: Complete controlled renovation procedures in compliance with Cal/OSHA's Work Class 2 procedures per 8 CCR 1529.
14. Work exceeding 100 SF or 100 LF or affecting friable asbestos surfacing materials or thermal system insulation shall be completed by a qualified Asbestos Abatement Contractor.

**C. Controlled procedures for installation of anchors or coring through friable asbestos materials, including but not limited to sprayed-on or troweled-on acoustical plasters, structural fireproofing, and linoleum backing:**

1. Avoid contact with friable ACM where practical. Anchor to non-ACM materials where feasible.
2. Install drop cloths on the ground and use a glovebag or mini-containment constructed of 6-mil polyethylene sheeting to contain work affecting friable materials.
3. Wet the ACM with water and remove limited material as required for installations. Immediately clean up all debris and seal the waste in a double 6-mil disposal bag for disposal as asbestos waste.
4. Clean up the immediate area using wet methods and a HEPA vacuum. Dispose of friable plasters, linoleum backing, fireproofing and thermal system insulation as friable asbestos waste.
5. Fireproofing and Textured Acoustical Plasters: Cordon off the area and set-up negative pressurization of the controlled renovation activity using glovebag or mini-containment methods. Do not drill or core openly through friable ACM; a Certified Asbestos Worker only under Cal/OSHA Work Class I or III procedures, as applicable shall complete such work. Wet the materials throughout the controlled renovations. Do not allow ACM on cores to fall into the ceiling plenum or Crawl Space below. Following the controlled renovation activities, clean up the mini-containment using wet methods and a HEPA vacuum. Gooseneck and dispose of the glovebags, where applicable, within a double waste bag.
6. Thermal System Insulation (TSI): Avoid disturbing intact pipe and fitting lagging. Work within posted Crawl Spaces or plenums will require respiratory protection for all workers entering such zones, and use of personnel and equipment decontamination procedures in compliance with 8 CCR 1529. Avoid contacting TSI while installing conduit, etc. Use glovebag or mini-containment procedures for controlled renovation work as described

above and in compliance with Cal/OSHA's Work Class III procedures per 8 CCR 1529. Dispose of lagging as friable asbestos waste.

7. **Linoleum Backing:** Cordon off the room and work area and cutout the linoleum, using a carpet knife prior to coring. Wet the backing using water and shave cream and remove the asbestos containing backing intact. Dispose of debris as friable asbestos waste. Wet wipe and HEPA vacuum the area of the controlled renovations for final clearance. Do not allow linoleum on cores to fall into the ceiling plenum or Crawl Space below, as applicable.
  8. **Other Friable Asbestos:** Remove materials in compliance with Cal/OSHA Work Class 3 procedures per 8 CCR 1529.
  9. **Avoid contact or disturbance with intact asbestos-containing pipe lagging within concealed wall and plenum areas as well as within all accessible areas.** Notify the Contractor's Hazardous Materials Supervisor (HMS) of the presence of damaged ACM materials, if accidentally contacted.
- D. Demolition of non-ACM obstructing known intact ACM.**
1. **Remove non-contaminated and non-asbestos materials for access using standard dust control procedures as required for painted assemblies, etc.**
  2. **Minimize disturbances to substrates concealing friable or damaged asbestos-containing materials, such as laid-in ceiling tiles concealing asbestos-containing fireproofing, demolition of non-ACM partitions which may destabilize sprayed-on asbestos-containing acoustical finishes, etc.** Qualified workers shall complete Work impacting asbestos-containing materials only.
  3. **Remove and dispose of non-contaminated waste, where feasible.** Alert the Contractor's Hazardous Material Supervisor of contaminated conditions for proper removal and disposal and cordon off the affected areas where contamination is encountered. Do not dry sweep affected wastes and debris.
- E. Unexpected exposure to known or suspect intact ACM.**
1. **Where asbestos materials are intact, such as intact pipe lagging, proceed to remove the affected substrate and immediately label the asbestos material with a "caution" sign to prevent unintentional disturbances.**
  2. **Where asbestos materials uncovered are damaged or unknown asbestos contaminated conditions are encountered, discontinue work in the immediate contaminated area, shutdown the areas HVAC system, if not already disengaged, and alert the Contractor's Hazardous Materials Supervisor of the conditions for proper removal and disposal.**
- F. Unexpected release of asbestos into the environment.**
1. **Cordon off the immediate area (10 to 20 ft. radius average minimum), and shutdown the area's HVAC system (if applicable).**
  2. **Notify the Contractor's Hazardous Materials Supervisor for proper removal and disposal using wet methods and HEPA-filtered vacuums.** Clean-up work shall be completed under the directions of a Competent Person with 16-hour minimum EPA Operations and

Maintenance asbestos training and by workers with 2-hours asbestos awareness training minimum unless exposures exceed the permissible exposure limit of 0.1 fibers/cc.

3. Decontaminate or dispose of friable waste in double 6-mil thick goosenecked labeled waste bags for manifesting and disposal.
- G. Procedures for reporting Suspect Asbestos Containing Materials.
1. Advise the Contractor's Hazardous Materials Supervisor (HMS) of suspect conditions for testing by the District. Do not remove or disturb suspect materials until tested and approved.
- H. Perimeter Action Level: Failure of the Contractor to follow wet methods, immediate clean-up, and fiber control procedures as outlined herein resulting in exceedances to the Perimeter Action Level of 0.01 fibers/cc by Phase Contrast Microscopy at the perimeter of the regulated area or within adjoining occupied zones as measured by the District shall result in clean-up and analysis of the samples by Transmission Electron Microscopy (TEM) at the Contractor's expense.

### 3.3 LEAD HAZARD CONTROL PROCEDURES

- A. Prohibited Activities Not Specified in this Section.
1. Lead-related construction work affecting lead-based paints or lead-contaminated soils as defined under DHS. Refer to Section 02090 - Hazardous Materials Abatement and Control.
- B. Prohibited Activities:
1. Open flame burning or torching of lead-based paints or presumed lead-based paints, including use of propane-fueled heat grids.
  2. Scraping, sanding, or grinding of lead-based paints or presumed lead-based paints without proper containment or a HEPA local vacuum exhaust tool.
  3. Uncontained hydroblasting or high-pressure washing of lead-based paints or presumed lead-based paints.
  4. Abrasive blasting or sandblasting of lead-based paints or presumed lead-based paints without proper containment or a HEPA local vacuum exhaust or dust collector.
  5. Heat guns operating above 1,100 degrees Fahrenheit.
  6. Dry sweeping of debris and removal of surface coatings by torch or flame.
  7. Disturbance of lead-painted or lead-coated surfaces scheduled to remain within the structure(s) by cutting, sawing, grinding, or other construction operations without adequate dust controls.
  8. Eating, smoking and drinking in or in the proximity of lead hazard operations.
  9. Removal of lead-containing coatings with a torch or flame, except as a result of unavoidable welding or torching of back-to-back structural elements that cannot be adequately previously abated without affecting the integrity of the structure.

10. Steam cleaning and compressed air removal for lead-based paints or presumed lead-based paints.
11. Lead hazard contamination beyond the containment barriers.

**C. Handling:**

1. For existing lead-painted or lead-coated surfaces, which are indicated to remain, advise workers of the potential hazards.
2. For areas where handling or disturbance of loose or peeling paints are required, verify that the paint that remains on interior walls, ceilings, and other surfaces in areas of active work, as applicable, is adhered to the substrate sufficiently to support eventual repainting. Paints that peel or loosen during wetting shall be handled and removed as specified in this Section.
3. Clean debris and surfaces with HEPA-filtered vacuums and wet methods. Dry sweeping is not permitted.
4. Show where existing lead-painted or lead-coated surfaces are scheduled to remain, workers shall be advised of the potential hazard of these materials with all work completed by qualified workers.
5. Shoveling, wet sweeping, and brushing may be used only where vacuuming or other equally effective methods have been tried and are found to be ineffective.
6. Loose debris and scraped materials with a lead content greater than 1.0 mg/m<sup>3</sup> or 0.5% by weight shall be treated as hazardous waste. Construction waste coated with intact lead paints or glazing may be disposed as construction debris in accordance with Cal/EPA requirements.
7. Workers shall decontaminate themselves and appropriate equipment prior to eating, drinking and smoking.

**D. Recycling:** Items to be recycled, such as but not limited to lead roof flashings or lead sheeting, shall be accompanied with a bill of lading and a memorandum from the recycler acknowledging that lead may be present and work activities and disposal will comply with applicable regulations. Submit in accordance with procedures of Section 01300 - Submittals.

**E. Cleaning:** Provide daily "housekeeping" on the project site including, but limited to:

1. Clean up of loose debris and contamination daily prior to leaving the job site, or covering with tarpaulins to prevent unwanted disturbances.
2. Daily clean up of traffic areas, using HEPA vacuum and/or wet methods.
3. Repair of torn or damaged protective barriers.

**F. Field Quality Control:**

1. Maintain airborne dust levels within the regulated construction zone and throughout the construction site below the Cal/OSHA Project Action Level of 30 micrograms per cubic meter. Levels above the Project Action Level may require an upgrade in respiratory

protection for all affected workers, as well as amended work practices and clean up of affected areas at no additional cost to the District.

2. Maintain airborne lead dust levels at the site's property line or adjoining occupied non-construction areas below the National Ambient Air Quality Standard (NAAQS) of 1.5 micrograms per cubic meter. Exceeding this level may require further isolation of the work areas; amended work practices, and clean up of affected areas at no additional cost to the District.
3. All costs for additional sampling of contaminated areas, including the District's time and expenses for handling, shipping, and analysis charges, required to show background levels below the lead standards specified within these Contract Documents shall be at the Contractor's expense.
4. Failure by the Contractor to contain construction dust and debris and exceedances of the NAAQS standard of 1.5 micrograms/cubic meter outside the construction boundaries within adjoining occupied areas of the school as measured by District will require detailed clean-up and additional clearance wipe sampling at the Contractor's expense.

**G. Project Hygiene Facilities:** Provide project hygiene wash-up facilities including:

1. A 2-stage decontamination assembly, minimum, including an equipment and contiguous clean room with a bucket wash-up facility positioned outside all regulated work areas. The Equipment Room shall contain labeled bags for storing contaminated protective clothing and equipment. The Clean Room shall contain lockers and containers for storing employee street clothes and personal items, including a suitable supply of potable water to permit each employee to wash their hair, hands, forearms, face and neck. Provide 1 wash station minimum for every 10 workers.
2. Sufficient sets of protective full-body clothing to be worn in the designated work areas and whenever a potential airborne lead hazard exists. Clothing shall include, but not be limited to, full-body coveralls, headgear, eye protection, and gloves. Disposable-type protective clothing is acceptable.

**H. General Dust Controls:** Provide general dust control including:

1. Hudson or airless sprayers for wetting-down construction materials and debris throughout demolition or scraping phases.
2. Fire-retardant polyethylene dust barriers.
3. HEPA-filtered vacuums for clean up of loose debris and suspect contamination.
4. Polyethylene drop cloths for protection of floors, furnishings, landscaping, etc., as applicable, to prevent contamination or damage to building surfaces, equipment or finishes.

**I. Warnings and Signs:** Provide the following minimum signs and posting requirements:

1. Cordon off the proximity (within approximately 20-ft.) of regulated work areas using construction tape, polyethylene dust barriers, or other appropriate means. Persons entering the regulated "cordoned" work areas shall wear appropriate respiratory protection and full-body coveralls.

2. Affix warning signs at the entry and approaches to the regulated areas.
3. Lockout electrical and HVAC equipment within the regulated area, as necessary.

### 3.4 PCB BALLAST PROCEDURES

- A. Identifying PCB ballasts: All ballasts not specifically labeled "non-PCB" or "PCB free" shall be considered PCB-containing.
- B. Prohibited Activities Not Specified in this Section: Removal of ballasts from fixtures with hazard awareness training as indicated by the Contractor's Hazardous Materials Supervisor.
- C. Procedures for Removal of Non-Leaking Ballasts: Non-leaking ballasts shall be removed from their fixtures and packed in kitty litter-lined steel drums for hazardous waste disposal. Workers removing ballasts may require protective gloves as a precaution against unforeseen leaks or damage.
- D. Procedure for Handling Leaking PCB Ballasts:
  1. Workers removing ballasts from fixtures shall wear protective clothing and nitrile or neoprene gloves.
  2. Leaking ballasts pose a health and safety hazard and shall therefore be removed by trained workers only (Cal/OSHA 40-hour Hazwoper training is recommended).
  3. Wipe down the fixture showing signs of overheated or leaking ballasts with paper towels after the unit has been cooled to room temperature.
  4. Follow with additional wiping with an organic solvent, e.g., mineral spirits or isopropyl alcohol.
  5. Place leaking ballasts and rags into a plastic bag, which is tied-off and secured.
  6. Pack the ballasts in steel drums for hazardous waste disposal.
- E. Procedure for Disposal of PCB ballasts:
  1. Pack PCB ballasts and bagged leaking ballasts and rags into a steel drum, sealed, labeled, and transported to an approved incinerator following required manifest procedures as specified in this Section.
  2. Absorbent material, such as kitty litter, shall be used as a cushion and absorbent within the drums.
  3. Do not exceed the incinerator's drum loading requirements, typically 350 to 500 lbs. per drum.
  4. Transport hazardous waste for disposal per the requirements under 22 CCR Section 66268.110.
  5. Dispose as a hazardous waste per EPA Regulation 40 CFR 761.00 and 761.65 and Cal/EPA Regulation 22 CCR Section 66508.

3.5 MERCURY-CONTAINING LAMP REMOVAL PROCEDURES

- A. Prohibited Activities Not Specified in this Section: Disposal of quantities over 25 lamps per day as non-hazardous waste.
- B. Handling and Disposal of Lamps:
  - 1. Spent fluorescent and other mercury-containing lamps shall be considered a hazardous waste by the California Department of Health Services (DHS; 22 CCR Section 66699(b)).
  - 2. Ship lamps exceeding 25 units per site per day to a commercial recycler where they are to be crushed and the mercury reclaimed.
  - 3. Comply with DOT requirements for manifests, with evidence of proper disposal provided to the District, including a log of shipping dates and quantities.
  - 4. Load into secured cardboard boxes for shipment to prevent unnecessary breakage.
  - 5. In the event of lamp breakage, clean-up broken glass and debris immediately, using an HEPA-filtered vacuum for final clean up.

3.6 WASTE DISPOSAL AND MANIFESTING PROCEDURES

- A. Hazardous Waste Disposal:
  - 1. Packing, labeling, transporting, and disposing of hazardous waste shall comply with Cal/EPA regulations under 22 CCR, including completion of the Uniform Hazardous Waste Manifest Form (DTSC 8022A and EPA 8700-22).
  - 2. A "Waste Manifest" shall be completed for disposal of hazardous waste. The transporter shall possess a valid EPA Transporter I.D. number. The Contractor's Hazardous Materials Supervisor shall notify the District's Project Manager at least 48 hours prior to the time that the Manifest is required to be signed by the District.
  - 3. Applicable information to be included in the "Waste Manifest" includes the following:
    - a) EPA Generator I.D. Number: Verify with the Project Manager.
    - b) Generator's Name and Address & Tax I.D. Number: Verify with the District's Project Manager.
- B. Disposal of Contaminated and Other Materials:
  - 1. Disposal of intact lead-coated architectural or structural elements may occur as non-hazardous waste in accordance with Cal/EPA's and the Department of Toxic Substances Control's requirements.
  - 2. Loose and peeling lead-based paints and miscellaneous lead debris shall be treated as hazardous waste, unless otherwise indicated. Lead wastes shall be profiled by the Contractor by means of standard digestion and extraction tests (TCLP, WET and SW846), as appropriate, and shall be manifested and properly disposed.

3.7 FINAL PROJECT CLEAN-UP AND REOCCUPANCY CLEARANCE CRITERIA PROCEDURES

- A. Asbestos: Asbestos-containing materials will be abated with clearance by visual inspection and phase contrast microscopy (PCM) or transmission electron microscopy (TEM), as applicable, as outlined under the "Asbestos Abatement" or "Hazardous Materials Abatement and Control" Sections, as applicable.
- B. Lead Hazards:
  - 1. Visual Inspection: Final clean-up prior to the District's reoccupancy or Substantial Completion shall include wet wiping using a TSP solution and HEPA vacuuming all suspect dust and debris for final visual inspection or wipe dust sampling as outlined under the "Lead Hazard" or "Hazardous Materials Abatement and Control" Sections, as applicable.
  - 2. Final Reoccupancy Cleaning:
    - a) Final clean up prior to District's reoccupancy shall include wet wiping using a TSP solution and HEPA vacuuming all suspect dust and debris areas.
  - 3. Final Reoccupancy Clearance:
    - a) Following the final clean-up, the District may visually inspect for any loose dust or debris, followed by wipe sampling of the settled dust to document surface lead levels below the specified clearance levels. Samples will be collected using commercial wipes moistened with a non-alcohol wetting agent. A one-foot square area will be wiped in an "S" pattern, folding the wipe inward and placing it in a labeled sample container. The wipe sample will be analyzed by flame atomic absorption using NIST Standard 1578.
    - b) The Contractor shall reclean the zone when surface concentrations exceed the following "EPA Dust Clearance Standards:"
 

40 micrograms/SF	for floors
250 micrograms/SF	for interior window sills and stools
800 micrograms/SF	for exterior window sills and interior window wells
800 micrograms/SF	for concrete or other rough surfaces
800 micrograms/SF	for attic and non-public areas
    - c) All Kindergarten through 2nd Grade Rooms affected by demolition or scraping of painted surfaces shall be cleared by wipe sampling.
    - d) Areas that do not comply with the "Final Reoccupancy Clearance Criteria" shall continue to be cleaned by and at the Contractor's expense until the specified criteria is achieved, as evidenced by results of inspections as previously specified.

END OF SECTION



## SFUSD-Asbestos Control Program (ACP)

### Guidance for Incidental Contact with Asbestos and Lead Containing Materials - Destructive Testing Work

The following requirements and procedures shall be incorporated into contracts:

1. All wall penetrations are to be treated as drilling through (a) asbestos containing materials, and (b) lead-based or containing paints.
2. Work can be performed by either a hazardous materials (lead and asbestos) abatement contractor or a contractor with the appropriate training as listed below.
3. Training. Personnel (a) performing drilling,(b) pulling wiring through, and/or (c) entering crawlspaces designated as being contaminated shall at the minimum have:
  - a. 16 hours asbestos "operations and maintenance" training, and
  - b. lead hazard awareness training.

Note: Higher level trained personnel (i.e. 40 hour asbestos abatement workers, CA Dept of Health Services lead workers) may also be used to perform the specified work.

4. Work shall be performed with a High Efficiency Particulate Air (HEPA) filter equipped vacuum cleaner available, as well as a supply of plastic sheeting, sponges, plastic waste bags, water, etc.
5. Plastic sheeting shall be laid down immediately (i.e. a 5 foot square) beneath the location where a hole will be drilled. The area shall be closed off from foot traffic using barrier tape.
6. Holes shall be drilled through a wet sponge.
7. Any dust generated shall be immediately vacuumed or wiped up using wet sponges.
8. No clearance air samples or wipes will be collected. Areas are subject to visual inspection with any observable dust or debris being considered to be lead and asbestos contamination and subject to re-vacuuming and wiping at no extra charge.

## SFUSD Building and Grounds Lead-Based Paint (LBP) Operations and Maintenance Work Procedures

### Interior Work Site Preparation Levels (Not Including Windows)

Description	Level 1	Level 2	Level 3	Level 4
Typical Hazard Applications (Hazard Controls)	Dust removal and any interim control method disturbing no more than 2sq. ft. of painted surfaces per room.	Any interim control method disturbing between 2-10 sq. ft. of painted surface per room.	Same as Level 2	Any interim control method disturbing more than 10 sq. ft. of painted surface per room.
Time Limit Per Work Area/Zones	One work day	One work day	Two to five work days	No Limit
Location of work	No students or staff should be present in the work area. Students and staff can be let back into the area as soon as the work is completed.	Same as level 1	Same as Level 1	Same as Level 1
Containment and Barrier System	Single layer of plastic sheeting on the floor extending 5 ft. beyond the perimeter of the area to be treated in all directions. No plastic sheeting on doorways required. Area should be secured so that non-worker can not access work areas.	Two layers of plastic on the entire floor. Plastic sheet with primitive airlock flaps on all doorways to the work area. Doors secured from inside the work area need not be sealed.	Two layers of plastic on the entire floor. Plastic sheet with primitive airlock flaps on all doorways to the work area. Doors secured from inside the work area need not be sealed. Overnight barriers should be secured.	Two layers of plastic on the entire floor. If multiple rooms are being treated, cleaned and cleared individual room need not be sealed. If only a few rooms/areas are being treated, seal all doorways with primitive airlock flaps to avoid cleaning the entire areas. Doors secured from inside the work area need not be sealed.
Warning Signs	Required at the entry to work area/zones, but not on the building (Unless exterior work is also being performed).	Same as 1	Posted on Doors and/or plastic flaps to work area(s)/zone(s).	Posted on Doors and/or plastic flaps to work area(s)/zone(s).
HVAC System	Site ventilation system turned off, but vents do not need to be sealed with plastic if they are more than 10ft. away from the surface being treated. Negative air machines are not required, unless large supply of fresh air is needed to control exposure to other hazardous substances. (for example, solvent vapors).	Site ventilation system turned off and all vents sealed with plastic. Negative air machines are not required, unless large supply of fresh air is needed to control exposure to other hazardous substances. (for example, solvent vapors).	Same as 2	Same as 2
Furniture	Leave in place uncovered if furniture is more than 5 ft. away from work area/zone. If within 5 ft. the furniture should be sealed with a single layer of plastic or moved away from work area more than 5 ft.	Furniture should be removed from the work area. Large items that cannot be removed can be sealed with a single layer of plastic sheeting and left in the work area.	Same as 2	Same as 2

Note: Primitive air locks are constructed using two sheets of plastic. The first one is taped on the top, the floor, and two sides of the doorway. Next, cut a slit about 6' high down the middle of the plastic; do not cut slit all the way down to the floor. Tape the second sheet of plastic across the top of the door only, so that it acts like a flap. The flap should open into the work area(s).

**SFUSD Building and Grounds  
Lead-Based Paint (LBP)  
Operations and Maintenance Work Procedures**

Description	Level 1	Level 2	Level 3	Level 4
Clean up Methods	HEPA vacuum, wet wash and HEPA vacuum all surfaces and floor extending 5 ft. in all directions from treated surface. For dust removal HEPA vacuum and wet wash cycle is adequate (i.e., no second pass with the HEPA vacuum is needed). Also wet wash and HEPA vacuum floor in adjacent area(s) used as a pathway to work area. Do not store debris inside the work area overnight: transfer to a locked secured area at the end of the day.	HEPA vacuum, wet wash and HEPA vacuum all surfaces in work area. Also wet wash and HEPA vacuum floor in adjacent area(s) used as a pathway to work area. Do not store debris inside the work area overnight: transfer to a locked secured area at the end of the day.	Remove top layer of plastic from floor and discard. Keep bottom layer of plastic on the floor for use on the next day. HEPA vacuum, wet wash and HEPA vacuum all surfaces in the work area(s). Also wet wash and HEPA vacuum floor in adjacent area(s) used as a pathway to work area. Do not store debris inside the work area overnight: transfer to a locked secured area at the end of the day.	Same as 3
Dust Wipe Sampling	Visual and/or Clearance Wipe	Visual and/or Clearance Wipe	One sample collected outside work area(s) every few jobs, plus clearances	Visual and Clearance Wipe Samples

Note: All work must be performed using wet methods and HEPA vacuums.

Note: Primitive air locks are constructed using two sheets of plastic. The first one is taped on the top, the floor, and two sides of the doorway. Next, cut a slit about 6' high down the middle of the plastic; do not cut slit all the way down to the floor. Tape the second sheet of plastic across the top of the door only, so that it acts like a flap. The flap should open into the work area(s).