

**SECTION 02 83 00**  
**LEAD REMEDIATION**

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK**

- A. General: This section includes precautions and procedures required for lead contaminant control and lead waste disposal during the life of the Contract. It applies to removal, containment and disposal of lead containing paint and adhesives.
- B. Work Area: The work areas are throughout the buildings and are described in reports listed in References. In addition, the Work Areas for lead-based paint and/or adhesive removal include:
  - 1. Two feet on each side of locations intended to be cut using heat or flame. Coordinate with the demolition contractor to determine locations.
  - 2. Painted surfaces to be abraded or cut using abrasive tools. Coordinate with the demolition contractor to determine locations.

**1.2 QUALITY CONTROL:**

- A. Contractor Qualifications: The Contractor shall be a firm of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workmen skilled in lead-based paint abatement and shall have performed this work on previous projects.
- B. The Contractor shall provide proof of current insurance pertaining to general liability and lead-based paint abatement work coverage.

**1.3 SUBMITTALS**

- A. Initial Submittals of Lead Abatement Contractor or Subcontractor Qualification Information
  - 1. Contractor Qualification Information:
    - a. Name and location of at least 3 similar lead removal projects performed by the Contractor, including name and telephone number of contract representative.
    - b. Experience and Qualifications of Supervision: Name and experience record of superintendent and foreman. Include evidence of knowledge of applicable regulations; evidence of participation and successful completion of Occupational Safety and Health Administration (OSHA) approved training course in lead-based paint removal and/or supervision of lead related work; and experience with lead related work in a supervisory position as evidenced through supervision of at least three lead-based paint abatement contracts.
    - c. Name and experience record of workers who will be assigned to this project. Include for each person evidence of successful completion of OSHA lead-based

paint abatement training given by qualified personnel. Provide certification that employees meet the medical surveillance requirements of 29 Code of Federal Regulations (CFR) Section 1910.125 - Lead.

2. Names and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and a 24-hour point of contact.
- B. The following submittals are required to be approved by the Owner's Authorized Representative after award, but prior to receiving notice to proceed: Plan of Action: Submit a detailed plan of the procedures proposed for use in complying with the requirements and regulations included in this specification. The plan shall include the location and layout of decontamination areas, the sequencing of lead work, the interface of trades involved in the performance of work, and methods to be used to assure the safety of visitors to the site.
1. Methods and materials for lead-based paint and adhesive removal.
  2. Methods and materials for enclosure, dust control, and dust collection.
  3. Work plan for waste containment, removal, and disposal. Wastes shall be cleaned up and containerized daily.
  4. Site Safety and Health Plan.
- C. The following submittals are required to be submitted to the Owner's Authorized Representative at the completion of work:
1. All sample analytical results.
  2. Waste disposal receipts (manifests, bills of lading, and Certificates of Destruction or Disposal).
  3. Daily air monitoring data, both personal and perimeter monitoring.
- D. Qualifications
1. The Contractor shall be registered in the DRNA ("Departamento de Recursos Naturales y Ambientales") / Environmental Quality Board (EQB)) as an approved and authorized firm to perform removal of lead-based paint.
  2. The abatement Contractor shall comply with Chapter V (Rules 1540 through 1547) of the Regulation for the Control of Lead-Based Paint Abatement Activities ("Reglamento para el Control de Actividades de Mitigación de Pintura con Base de Plomo") enforced by the Environmental Quality Board (EQB). These rules pertain to the requirements for the registration and certification of the abatement Contractor and the employees in the EQB.
  3. The abatement Contractor shall comply with Chapter VI (Rules 1550 through 1557) of the Regulation for the Control of Lead-Based Paint Abatement Activities ("Reglamento para el Control de Actividades de Mitigación de Pintura con Base de Plomo") enforced by the Environmental Quality Board (EQB). These rules pertain to the permits required

to perform the abatement, the proper removal, storage, and disposal of the lead based containing wastes.

#### 1.4 REFERENCES

- A. American National Standards Institute (ANSI) Publication:
  - 1. Z9.2-79 Fundamentals Governing the Design and Operation of Local Exhaust Systems
- B. Code of Federal Regulations:
  - 1. 29 CFR 1910.1025: OSHA LEAD
  - 2. 29 CFR 1926.62: LEAD
  - 3. 29 CFR 1910.134: OSHA General Industry Respirator Requirements
- C. Local Regulations: Applicable Puerto Rico regulations shall apply
  - 1. Regulation for Lead-Based Paint Abatement Activities (“Reglamento para el Control de Actividades de Mitigación de Pintura con Base de Plomo”)
  - 2. Regulation for the Control of Non-Hazardous Waste (“Reglamento para el Control de Desperdicios No Peligrosos”)
  - 3. Regulation for the Control of Air Pollution (“Reglamento para el Control de la Contaminación Atmosférica”)
  - 4. Water Quality Standards Regulation (“Estándares de Calidad de Agua”)
- D. Federal Regulations:
  - 1. Occupational Safety and Health Act - OSHA
  - 2. Resource Conservation and Recovery Act (RCRA) – Environmental Protection Agency
- E. Report
  - 1. Section 00 31 21 - Existing Condition Information
  - 2. CMA Architects & Engineers LLC: Lead Based Paint Inspection Report. Prepared for: Departamento de Salud - CDT Maunabo, Maunabo PR, May 9, 2022.

#### 1.5 CONTRACTOR RESPONSIBILITY

- A. The Contractor shall assume full responsibility and liability for compliance with all OSHA, Environmental Quality Board (EQB), Environmental Protection Agency (EPA), Department of Transportation (DOT), and other applicable federal and local regulations pertaining to the protection of the workers, visitors to the work area, and persons occupying areas adjacent to the work area. The OSHA general industry standard for lead, 29 CFR 1910.1025, and 1926.62 will be followed. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable federal, state, and local regulations, and shall hold the Owner and the Owner’s Authorized Representative harmless for failure to comply with any applicable safety or

health regulation on the part of himself/herself, his/her employees, or his/her subcontractors.

#### 1.6 PROJECT/SITE CONDITIONS

- A. Means of Egress: Establish and maintain emergency and fire exits from the work area.
- B. Use of Existing Facilities: Use of existing toilets, showers, and/or other similar facilities in the buildings as decontamination areas is prohibited.
- C. Environmental Conditions to be Maintained: Fire protection systems shall be always maintained.
- D. Decontamination Facility: Throughout the time that lead removal is taking place, the abatement contractor will maintain working five-stage decontamination facilities, where necessary, at the point of access to the containment(s) in each building. As a minimum, each decontamination facility will consist of a clean changing area, an air space, a shower, another air space, and a contaminated changing area. The location of each facility shall be approved by the Owner 's Authorized Representative. Water for decontamination showers as well as wetting down the Work Area shall be provided by the Contractor. All water from the lead abatement process shall be filtered with a 5-micron filter system and discharged to the local sewer system.
- E. Access to Work Area: Access to work areas shall be through decontamination areas. The following shall have access to work area:
  - 1. Owner Representatives
  - 2. EQB Inspectors
  - 3. Owner Contract Monitoring Personnel
  - 4. OSHA Inspectors
  - 5. EPA Inspectors
  - 6. Local Building or Health Officials
- F. All electrical systems in the buildings shall be locked out and the Contractor shall erect temporary power sources with ground fault protection.
- G. Contractor shall arrange for and provide water service necessary to complete the abatement work.
- H. All buildings covered under this contract will be unoccupied.

#### 1.7 SEQUENCING/SCHEDULING

- A. The contractor shall provide a work schedule and sequencing plan consistent with the plans and procedures submitted under 1.3 Submittals: Plan of Action.
  - 1. Hours of operation shall be between the hours of 7:00 a.m. to 4:30 p.m. unless prior arrangements are made with the Owner Representative.

2. The Contractor shall provide the name and telephone number of at least one responsible individual and an alternate, who will serve to respond to operational problems and/or emergencies on a 24-hour on-call basis. The Contractor shall agree that notice to his/her designated representative shall constitute notice to the Contractor and shall agree to be bound by any commitments or representations made by the representative.

## PART 2 - PRODUCTS

### 2.1 PAINT AND ADHESIVE REMOVER

- A. Liquid paint and adhesive remover shall be a type recommended by the manufacturer for removing paint or adhesive from each substrate without causing undue damage to the substrate. Materials used are to be of limited toxicity, volatility, and flammability. A material safety data sheet (MSDS) and other appropriate product information for all removers proposed for use shall be submitted to the Owner Representative for review prior to beginning work.

### 2.2 VACUUMS

- A. All vacuums used during paint and adhesive removal shall be equipped with high efficiency particulate air (HEPA) filters conforming to ANSI Z9.2 1979.

### 2.3 RESPIRATORS AND PROTECTIVE CLOTHING

- A. At a minimum, workers should wear disposable coveralls, disposable gloves and a respirator equipped with HEPA filters. Combination HEPA and organic vapor cartridges shall be used if the lead-based paint removal involves chemical strippers. Eye protection and protective gloves shall be worn when working with chemical strippers. Disposable coveralls shall be placed in abatement waste daily by the contractor. All workers shall be trained on the hazards of lead and good personal hygiene, such as no eating/drinking/smoking in the work area and washing when leaving the work area.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Before beginning lead paint or adhesive removal in any area, cover all surfaces which may accumulate dust or scrapings with 6-mil plastic sheeting taped securely in place. Barriers and coverings shall be adequate to ensure that dust, debris, fumes, etc., are contained within the Work Area and do not contaminate building surfaces.
- B. Exits shall not be blocked without the permission of the Owner Representative.

### 3.2 WORK PROCEDURES

- A. The method of lead-based paint abatement removal chosen by the contractor must minimize the generation of lead dust. The following methods of paint and adhesive removal will not be allowed: open flame burning, dry scraping, and machine sanding without attached HEPA filtration.

- B. Coordination of Work of All Trades: Coordinate work of all trades to ensure that their work is performed in accord with applicable regulations and to ensure that the integrity or isolation of the lead removal area is maintained.
- C. The Contractor is responsible for personal monitoring under OSHA regulations to document and control worker exposure. The OSHA regulations include provisions for exposure monitoring, engineering and work practice controls, training, medical monitoring, record keeping, and job removal. The Owner's Authorized Representative will perform quality assurance environmental testing prior to beginning, and during, work to demonstrate that there is no appreciable elevation of airborne lead outside the work area. The Contractor shall conduct air monitoring sampling outside the work area during removal to assure lead levels remain under the OSHA action level of 30 micrograms per cubic meter of air as an 8-hour time-weighted average (TWA) for inorganic lead.
- D. Upon exiting the removal area, personnel shall decontaminate by HEPA vacuuming gross debris from disposable clothing and wet wiping all exposed body surfaces. Workers shall not leave the work area wearing protective clothing.

### 3.3 CLEANUP AND DISPOSAL

- A. Housekeeping: Control buildup of debris accumulations, giving meticulous attention to preventing the spread of lead containing debris.
- B. At the end of each work period, vacuum and collect all debris to maintain surfaces free of paint chip and dust accumulation. Do not dry sweep or use compressed air to clean up the area. Seal lead debris in airtight containers and remove from work site. Handling and disposal of debris is to be in compliance with OSHA, EPA and all other applicable regulations. All lead-containing waste is to be handled and disposed of as hazardous waste unless TCLP (toxicity characteristic leaching procedure) testing is performed and indicates otherwise.
- C. Disposal of lead-containing paint chips, debris and wastewater must be in accordance with EPA and Puerto Rico regulations. A copy of each manifest is to be provided to the Owner Representative at the time the shipment is made. Within 30 calendar days of the time the Hazardous Waste Treatment Storage and Disposal Facility (TSDF) receives the waste, a completed copy of the manifest is to be provided to the Owner's Authorized Representative. Certificates of Destruction or Disposal (CD) shall be provided to the Owner's Authorized Representative within 90 calendar days of delivery of waste to the TSDF.
- D. Final Cleaning: HEPA vacuum and damp clean area with an anionic solution such as trisodium phosphate. Sweeping is not to be permitted. Vacuum cleaning is to be performed only with vacuum cleaners equipped with HEPA filters. If the Owner's Authorized Representative finds the area unacceptable, the Contractor shall re-clean until acceptance is gained. Contractor shall continue the abatement process at no additional cost to the Owner or Owner's Authorized Representative until an acceptable visible inspection is obtained. The Owner's Authorized Representative will visually inspect the work area for acceptance after final cleaning. An acceptable visible inspection will be no visible paint on the surface being abated and no visible paint waste remaining in the work area.

### END OF SECTION