

SECTION 02 83 00
LEAD-BASED PAINT ABATEMENT PROCEDURE

PART 1. GENERAL

1.01 GENERAL

- A. The Contractor is referred to the "INSTRUCTIONS TO BIDDERS", "FORM OF PROPOSAL", "FORM OF BID BOND", "GENERAL CONDITIONS", "CONTRACT DRAWING", and all "AMENDMENTS AND ADDENDA" thereto, if any, all of which are hereby made a part of this Contract.
- B. All measurements required for proper execution of the work is the Contractor's responsibility. Before submitting bid, the Contractor shall examine all existing conditions which may impact on the work and include them in his bid price.
- C. All work shall conform to the latest industry practices and standards.
- D. Bidders may gain access to the work area, at Per-Bid conference/Site Walk-thru, scheduled as noted in the Instruction to Bidders.
- E. **Contractor Qualifications**
 - 1. **License/Certification Requirements**
 - a. The Contractor shall provide qualified employees to perform work in accordance with the Contract. Contractor's on-site employees shall be trained in a program formally accredited either by EPA or by an EPA-approved state Program for lead-based paint abatement workers and supervisors. The training shall be in accordance with 40CFR 745.225. On-site employees must possess current EPA worker and/or supervisor licenses for the State of New York. The Contractor must also maintain a current EPA firm license for the State of New York. The Contractor licenses in any other certification/licenses required by Federal, State and Local Law or those deemed necessary NYCHA/Construction Manager.
 - 2. **Demonstrated Ability of Workers**
 - a. The Contractor shall provide a list of qualified employees who will perform tasks in accordance with this Contract. The Contractor shall provide the following material to the Construction Manager.
 - b. Copies of current Certifications / Licenses.
 - c. A synopsis of each employee's experience in the field of Lead-Based Paint Abatement.
 - 3. **Contractor's Past Experience**
 - a. Contractor shall have successfully completed at least three lead-based paint abatement jobs.
 - b. Contractor shall provide summaries of past job experience including references that may be contacted.
 - 4. Information requested above shall be subject to review and acceptance by NYCHA/ Construction Manager.
- F. This Contract is administered by the Technical Services Department, Environmental Contract Services Unit (ECS). The lead based paint abatement Coordinator is Joseph Roeder, 23-02 49th Avenue, 5th Floor, Long Island City, NY 11101.

1.02 SCOPE OF WORK

- A. The work of this Section consists of removal and legally disposing of all existing lead based paint of all exposed shelf angles / lintels at all window and door openings at _____ Houses, Buildings # _____ as shown in SECTION 09 91 00 – Paint
- B. Contractor shall provide all labor and materials necessary and required for the work.
- C. This Housing Development was built in _____.
- D. BLDG. No _____ ADDRESS _____ BLOCK NO. LOT _____
 - 1. (Start Here - Delete any unused lines)

- 2.
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- 12.

- E. All work shall be in accordance with the latest Rules and Regulations of all municipal and other public agencies having jurisdiction. Any requirements specified herein which conflict with such rules or regulations shall be referred to the Authority for decision.
- F. The work shall be done at the following metal components:
 1. Shelf Angles / Lintels over Windows
- G. The work shall consist of the following:
 1. Paint Removal (abatement) of existing lead based paint from all exposed shelf angles/lintels over windows.
 2. Proper Clean-up of work area and adjacent surfaces/areas.
 3. Legal disposal of all waste generated.
 4. Without limiting the generality of the foregoing, this work shall also include all supplementary miscellaneous items not specified but implied or required in order to complete the work described by the Specifications.

1.03 APPLICABLE REGULATIONS AND ENVIRONMENTAL SAMPLING

- A. Personal Air Monitoring as required by OSHA shall be the requirement of the Contractor. Results of daily sampling and/or negative exposure assessment shall be supplied to the monitoring Contractor and/or Construction Manager's onsite representative within 24 hours of initial collection.
- B. Daily site monitoring, containment inspections, preliminary and final visual inspections, etc., will be performed by an abatement Monitoring Contractor engaged by Construction Manager's under a separate Contract. Therefore, the cost for such items shall not be included in this Contract.
- C. All work shall be performed in accordance with the requirements of 40 CFR 745, 24 CFR 35 and the HUD document, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", except as such guidelines are later modified by HUD and/or amended by NYCHA/Construction Manager in writing pursuant to this contract, and all applicable Federal, State and Local regulations.
- D. The Abatement Contractor shall coordinate his work with the Monitoring Contractor retained by and/or Construction Manager's onsite Representative.

1.04 DEFINITIONS

- A. Unless otherwise specified the following definitions shall apply:
 1. "Abatement" means any measure designed to permanently eliminate lead-based paint hazards in accordance with standards established by the EPA Administrator pursuant to Title IV of the Toxic Substance Control Act (TSCA). Abatement strategies include: removal of lead-based paint; enclosure of lead-based paint; encapsulation of lead-based paint (with a product that has been shown to meet standards established or recognized pursuant to Title IV of TSCA); replacement of building components coated by lead-based paint; removal of lead-contaminated dust; removal or covering of lead-contaminated soil with a durable covering (not grass or sod, which are considered interim control measures); as well as all preparation, cleanup, disposal, post-abatement clearance testing, record-keeping, and monitoring (if applicable).

2. The "Abatement Contractor" shall mean the contractor responsible, under a separate contract, for lead abatement and cleaning of lead dust, as directed by the Authority, until the clearance levels are achieved, as defined in the "HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", June 1995 or latest edition published by the United States Department of Housing and Urban Development (HUD).
3. "Approved" shall mean approved by all public agencies having jurisdiction, and the Authority or its Representative.
4. The "Authority "or" NYCHA" shall mean the New York City Housing Authority, and its designated authorized representatives.
5. "Cleaning" shall mean the process of using a HEPA vacuum and wet cleaning agents to remove leaded dust. The process includes the removal of bulk debris from the work area.
6. "Containment" means a process for protecting other workers, residents, and the environment by isolating areas from exposures to lead dust and debris created during abatement in a work area.
7. The "Contractor" shall mean the Contractor that is awarded a contract to perform the work described in the Contract documents.
8. "Development" shall mean a group of buildings, in one or more designated geographical locations, owned or operated by the Authority and referred to by a common name by the Authority.
9. "Equal or Approved Equal" shall mean equal in the opinion of the Authority or its Representative.
10. "High Efficiency Particulate Air" (HEPA) means a type of filtering system capable of filtering out particles of 0.3 microns or greater diameter from a body of air at 99.97% efficiency or greater.
11. "HUD" shall mean the United States Department of Housing and Urban Development.
12. "HUD GUIDELINES" shall mean Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing issued by HUD's Office of Lead-Based Paint Abatement and Poisoning Prevention in June, 1995 except as such guidelines are later modified by HUD and/or modified by NYCHA in writing pursuant to this contract.
13. The "Monitoring Contractor" shall mean the contractor responsible, under a separate contract for inspection monitoring to ensure compliance with the lead-based paint abatement contract and all applicable Federal, State and local regulations.
14. "Provide" shall mean furnish and install.
15. "Toxicity Characteristic Leaching Procedure" (TCLP) means a laboratory test to determine if excessive levels of lead or other hazardous materials could leach from a sample into groundwater; usually used to determine if waste is hazardous based on its toxicity characteristics

1.05 GENERAL PROVISIONS

- A. The site of this work may be accessed by residents and Development staff and maintenance workers while work is being done. Perform the abatement work with the least inconvenience to the occupants.
- B. Take all necessary precautions to protect the property of the Authority. Damaged property shall be repaired and restored to its original condition. If the damage is beyond repair, the Contractor shall replace it with new materials to match existing, at the Contractor's expense.
- C. Hazardous waste generated during the abatement process (including lead-based paint) when carted away from the development shall not be transferred from one vehicle to another except at a licensed transfer station certified by N.Y.C.D.E.P.
- D. Develop an Occupant Protection Plan (OPP). An OPP shall include sequencing of abatement work in a manner that will be least disruptive to the residents. The OPP must state in detail how work will be performed, provisions to notify and protect occupants, emergency procedures, and all other components required in accordance with 40 CFR 745.227(e)(5)(ii). Either a certified Lead Supervisor or Designer must prepare OPP.

- E. E. Workmanship required in the execution of the work herein specified shall be of good quality and subject to the approval of Construction Manager.
- F. F. Make in a timely fashion all applicable and necessary notifications to relevant Federal, State and Local Authorities. The Contractor, shall indemnify the Construction Manager's Representative from, and pay all claims resulting from failure to adhere to these provisions.
- G. Construction Manager will retain an independent Monitoring Contractor to monitor the Abatement Contract.
- H. Contractor performing lead-based paint abatement or renovation activities involving lead-based paint shall be a Certified Lead Abatement Contractor and shall ensure that supervisors and workers are trained and certified, by U.S. EPA approved state program or equivalent to perform lead paint removal operations.
- I. Establish and implement a Chemical Hazard Communication Program as required by OSHA Regulations 29 CFR 1926.59.
- J. Provide workers with a comprehensive medical examination as required by OSHA regulations 29 CFR 1926.62 before exposure to lead contaminated dust. The medical examination shall be conducted to approve use of appropriate respirators and shall include biological monitoring. NIOSH/MSHA approved respirators shall be utilized.
- K. For employees required to wear a negative pressure respirator, conduct a respirator fit test at the time of initial fitting and at least once every 6 months thereafter as required by OSHA Regulations 29 CFR 1926.62.
- L. Determine if any worker will be exposed to lead at or above the action level in accordance with OSHA regulation 29 CFR 1926.62 and CFR 1910.1025. Conduct an exposure assessment to identify the level of exposure a worker would be subjected to without respiratory protection. Assess the exposure level by obtaining personal monitoring samples representative of a full shift of at least an 8 hour TWA.
- M. Furnish appropriate respirators approved by NIOSH/MSHA for use in atmospheres containing lead aerosols. Instruct workers in all aspects of respiratory protection. Maintain an adequate supply of HEPA filter elements spare parts on site for all types of respirators in use.
- N. For manual demolition, scraping, use of heat gun or power tool paint removal with HEPA collection systems, workers shall minimally use the half-mask negative pressure respirator with high efficiency filters (for airborne concentrations not in excess of 500/g/m3).
- O. Ensure that work area preparations, work practices, and clean-up procedures comply with these procedures and applicable Federal, State, and Local Regulations.
- P. Notify all applicable agencies such as the City Department of Health, Department of Environmental Conservation, five days prior to the date deleading will begin and shall provide evidence of notifications to the Construction Manager's at the Pre-start meeting.

1.06 SAFETY AND HEALTH (GENERAL)

- A. When performing tasks, the Contractor shall:
- B. Observe safety precautions in contained work areas.
 - 1. Do not smoke in the work area.
 - 2. Do not eat or drink in the work area.
 - 3. Keep polyethylene sheeting away from open flame, e.g., blow torches.
 - 4. Exercise caution when spraying water in the vicinity of electrical outlets.
- C. Immediately repair torn sheeting using duct tape for minor tears; total sheet replacement may be necessary for major tears.
- D. Prior to entering the work area the Contractor shall don Tyvek suit (or equivalent), ½ face negative pressure respirator, head/eye/foot/hand and ear protection, as well as any other protective covering/measure required or deemed appropriate. These work practices shall be in place until such time that the Contractors exposure assessment dictates an increase or decrease in work practices.

- E. Remove Tyvek suit prior to exiting work area. Utilize hand/face wash, and respirator rinse station immediately after exiting work area.
- F. Prevent children from entering the work area.

1.07 SUBMISSIONS

- A. Within 10 calendar days of Construction Manager's Letter of Intent to Award, the Contractor shall tender all required Submissions. Seven (7) sets of each Submission are required. Where physical samples are required, 2 samples shall be submitted for each item. In general, items shall include but not be restricted to the following.
 - 1. Paint remover – Peel-Away 1 by Dumond Chemicals, Inc. Telephone (212) 869-6350, or approved equal – Manufacturer's literature.
 - 2. Material Safety Data Sheets for applicable products to be used must be submitted, and another copy retained on site.
 - 3. Description of removal method to be used, including Manufacturer's operating instructions and recommendation for equipment usage.
 - 4. Copies of current Certification of Staff to be assigned to the Contract.
 - 5. List of three previous similar jobs performed successfully the Contractor, and name, address and telephone number of contact person for verification.
 - 6. Hazardous Communication Program.
 - 7. Construction Manager will provide the Air Monitoring Company and Analytical Testing Laboratory which will provide analytical services. Such laboratory must be ELAP certified by NYS Dept. of Health and by U.S. EPA through its NLLAP. Name of the firm conducting these services.
 - 8. Written Respiratory Program.
 - 9. Chain-of-Command and responsibility at work site, including supervisors, foreman, and competent person, their names, resumes and certificates of training.
 - 10. Power/Mechanical Equipment. Submittals must be accompanied by product information sheets (cut sheets), Proof from the Manufacturer that workers assigned to the job have been trained in the equipment (if applicable), and proposed uses for equipment.
 - 11. Occupancy Protection Plan (OPP). The detailed plan shall include set up and sequencing of abatement work, emergency procedures and any other components required in accordance with 40 CFR 745.227(e)(5)(ii). The OPP shall at a minimum describe in detail the following:
 - a. Safety and Health Procedures to be implemented to protect residents and employees. Contractor shall provide site specific engineering controls and procedures as well as standard company programs (e.g. respiratory and fall protection programs) that will be followed and maintained on site. Section shall also identify emergency contact numbers and phone number of the nearest local hospital/emergency response unit.
 - b. Materials and Equipment (previously approved by NYCHA)/Contraction Manager that will be used in conjunction with abatement work.
 - c. Work Site Preparation/Pre-commencement Procedures. This must identify the specific sequencing of work site preparation up to the point of commencing active abatement. This shall include specifics as to such items as: Regulatory notifications/signage; Demarcation of work area; Preparation of work area; and, pre-commencement inspections by Construction Manager's representative.
 - d. Abatement Methodology. Describe the specific abatement method(s), sequence of abatement work, and gross cleaning activities.
 - e. Final Clean-up. Describe the specific procedures and materials to be used to perform final cleaning after abatement work.
 - f. Waste Disposal. Provide specific information as to storage, disposal and/or recycling of debris generated during abatement.
 - 12. Copies of manifests and receipts acknowledging disposal of all hazardous and non-hazardous waste material from the project showing delivery date, quantity, and appropriate signature of landfill's Authorized Representative.

- a. Refer to Division 1 SECTION 01 33 00 for other information for submission.

PART 2. MATERIALS

2.01 2.01. MATERIALS AND EQUIPMENT

- A. The following materials are required to complete the Project as described in this scope of work:
 - 1. HEPA vacuum with attachments.
 - 2. Fire resistant polyethylene sheeting: 6-mil conforming to ASTM E 154, KC-156, D-24B, D-2103 and D-4379.
 - 3. Polyethylene bagging: 6 mil sealable bags designed for and, if applicable, labeled as container for hazardous waste.
 - 4. Lead-specific detergent (Must not contain tri-sodium phosphate).
 - 5. Garden sprayer or mister.
 - 6. Duct tape or adhesive spray capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finish or unfinished materials and capable of adhering under both dry and wet conditions, including use of amended water.
 - 7. Signage as required by applicable regulation.
 - 8. Temporary fencing or barrier tape.
 - 9. Eye wash station.
 - 10. First aid kit.
 - 11. Hand wash facility.
 - 12. HUD Guidelines.
 - 13. Abatement work shall also be in accordance with applicable regulations of the Environmental Protection Agency (EPA), Occupational Safety & Health Agency (OSHA) and any State or Local LBP standards. Where there is a conflict between Federal, State, State or Local regulations, the more stringent requirement shall prevail.
 - 14. Standards
 - a. 24 CFR Part 35,36,37 Guidelines for the Evaluation and Control of Lead-Based Paint in Housing (HUD Guidelines June 1995)
 - b. Local Law 1 of 2004 New York City Lead –Based Paint Regulations
 - c. 29 CFR 1910..... General Industry Standard
 - d. 29 CFR 1910.1025... Lead Standard for General Industry
 - e. 29 CFR 1910.1200..... Hazard Communication
 - f. 29 CFR 1910.245 Specification for Accident Prevention
 - g. 29 CFR 1926.20..... General Safety and Health Provisions
 - h. 29 CFR 1926.21..... Safety Training and Education
 - i. 29 CFR 1926.25..... Housekeeping
 - j. 29 CFR 1926.28..... Personal Protective equipment
 - k. 29 CFR 1926.51 (f)..... Washing Facilities
 - l. 29 CFR 1926.55..... Gases, Vapors, Fumes, Dusts, and Mists
 - m. 29 CFR 1926.57..... Ventilations
 - n. 29 CFR 1926.59..... Hazardous Communication Standards
 - o. 29 CFR 1926.103..... Respiratory Protection
 - p. 29 CFR 1926.62..... Lead in Construction
 - q. 40 CFR 241..... Guidelines for the Land Disposal of Solid Waste
 - r. 40 CFR 257..... Criteria for the Land Disposal of Solid Waste
 - s. 40 CFR 261 / 262..... Waste Disposal Facilities & Practices
 - t. American National Standard Institute (ANSI) Z87.1... Eye Protection
 - u. ANSI Z88.2-80..... Practice for Respiratory Protection
 - 15. The Contractor shall ensure that any programs, certifications, licenses or other documentation in accordance with the above and/or any other applicable Federal, State, and Local Regulations/Guidelines are provided.
 - 16. The Contractor must comply with all applicable requirements of the Resource Conservation & Recovery Act (RCRA) of 1976 as amended in 1980 and 1984 by Hazardous & Solid Waste Amendments (HSWA).

17. The Specifications refer to many requirements found in the HUD guidelines and the preceding references, but in no way is it intended to cite or reiterate all provisions therein or elsewhere. It is the Contractor's responsibility to obtain a copy of, know, understand and abide by, all such regulations, guidelines and common practices.

PART 3. EXECUTION

3.01 LEAD BASED PAINT ABATEMENT

A. WORKSITE PREPARATION AND SET-UP

1. Residents in the immediate vicinity where work activity will occur, shall be informed of the nature of the work activity and asked to refrain from entering the work area, to keep all windows within 20' of working surfaces closed during work hours (including windows of adjacent structures), and to remove all belongings (i.e. potted plants) from exterior window sills and fire escape.
2. Provide a clean area outside the work area to put on respirators and disposable suits. This area shall at a minimum contain a hand/face washing facility (Wash and rinse); respirator washing facility (Wash and rinse) for decontamination of workers/respirators upon leaving the work area. This area shall be directly adjacent to the work area and be separated from the work area by means of low physical barriers. The floor of the decontamination area shall be protected by two layers of 6-mil polyethylene sheeting.
3. Place proper warning signs required by OSHA regulations at all entrances to the work. Signage shall be a minimum of 12" x 20" and shall state the following:

**WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING**

4. Remove all movable items a 20' distance from working surfaces. Items that cannot be readily moved (e.g. playground equipment), shall be sealed with a layer of 6 mil fire retardant polyethylene sheeting.
5. Limit access to work area. Provide orange cones, saw horses, tape, etc. to demarcate an area a minimum of 20' in all directions beyond the subject component(s).
6. Place a sheet(s) of 6 mil polyethylene on the ground, extending at least 10' beyond all areas of the subject component(s); use (6 mil) fire retardant polyethylene sheeting (sheeting). Sheeting shall cover all ground cover within the work area including but not limited to concrete, asphalt, grass and shrubs. Raise edges of sheeting to create a basin in the event of unexpected precipitation. Sheeting shall be attached to building foundation with duct tape or other approved anchoring system. No gaps should exist between sheeting and wall. Weigh down remaining three sides of sheeting with enough heavy objects (e.g. rocks, 2"x 4" boards) to eliminate being blown by the wind. Do not anchor ladder feet on top of plastic (puncture the plastic to anchor the ladders securely to ground).
7. Cover entrances to the work area with single-layer 6 mil polyethylene sheets taped to the top and weighted at bottom. These entrances shall be off limits to residents during abatement work.
8. Starting at the lowest point of the building, cover all vents, diffusers, windows, etc., (within 5' in all directions of work area), with single layer 6-mil polyethylene sheets secured with duct tape. This practice shall continue in an upward motion to the highest point of the work area.
9. When working on Window/Door Lintels Only:
 - a. Rig a containment of non-flammable polyethylene sheet underneath the work area (e.g. scaffold). This containment method should catch all stripped paint for proper disposal.
 - b. Starting at the highest point of the work area the Contractor shall affix 6 mil polyethylene bag(s) directly underneath the lintel to be abated of LBP or removed.

Duct tape shall be placed securely around the masonry directly adjacent to the lintel to form a smooth seal. The 6 mil polyethylene bag(s) shall then be secured to the duct tape and sealed airtight on side facing the building. The 6 mil polyethylene bag(s) shall be affixed in a manner that allows gross material to fall into and be placed within during active removal, without disturbing the integrity of the airtight seal when removing LBP or lintel. If the surface adjacent to the lintel is damaged, or if it terminates, is jointed or contains an irregularity, the surface shall be covered with six mil fire retardant polyethylene sheeting and sealed airtight with duct tape.

10. Contractor shall request a pre-commencement visual assessment from Construction Manager's Monitoring Contractor. Paint removal shall begin only after Monitoring Contractor has approved all aspects of work area.
11. Avoid spreading dust and debris outside the work area.

B. ABATEMENT

1. Abatement shall be performed using one of two methods (Paint Removal and Component Removal). The designated work area on any given day may include a combination of both methods.
 - a. Option 1: Paint Removal
 - 1) The following removal methods are prohibited: dry scraping, dry sanding, use of heat gun over 1100° F, open flame paint removal, abrasive blasting without HEPA collection system, and the use of chemical strippers containing methylene chloride.
 - 2) Contractor may use the following methods to remove lead-based paint from components/surfaces, and or other methodologies/techniques approved by NYCHA/ Contraction Manager
 - (a) Manual wet scraping
 - (b) Chemical strippers
 - (c) Self contained mechanical systems (attached to HEPA filtration)
 - 3) Removal of paint shall commence using approved methods as detailed in Contractors OPP.
 - 4) Contractor shall remove all accumulations of gross debris (i.e. paint chips, masonry etc.), from all surfaces within the work area.
 - 5) The 6 mil polyethylene bag(s) directly underneath the lintel shall be removed from work area with minimal disturbance to other engineering c ontrols in place. The 6 mil polyethylene bag(s) shall be closed with an airtight gooseneck seal (e.g., twist the bag, fold it over on itself, and wrap with duct tape and/or plastic tie).
 - 6) All paint chips, and waste sludge/liquids shall be placed and sealed in drums. Drums shall be placarded with the proper hazardous waste labeling. Date of initial receipt of material shall be identified on hazardous waste label.
 - 7) As identified above Contractor shall provide more detailed procedures in the OPP. This shall identify specific products, job sequencing, safety guidelines, specialized cleaning/neutralizing procedures, etc., to Contraction Manager for approval and/or comment prior to performing paint removal activities.
 - b. Option 2: Component Removal
 - 1) Any component that requires disassembling by torch burning in order to be removed shall first be stripped of lead based paint around the area to be cut or unfastened. Stripping shall be at least 1' on either side of the cut or joint for a total stripped length of 2'.
 - 2) Any metal component that requires disassembling by being mechanically cut must be first wrapped in duct tape. Surface shall be cut in the most expeditious manner possible, while being wet misted at all times
 - 3) When Removing Window/Door Lintels Only:
 - (a) Seal duct tape to the exposed lintel surface. The lintel should be completely covered.

- (b) With a fine spray of water, lightly spray the surfaces that will be disturbed to limit the creation and dispersal of dust, also lightly misted the plastic sheeting in the work area. Periodically rewet the area while working.
 - (c) Remove the component. The work area should be misted during this process to minimize airborne dust. A major effort shall be undertaken to ensure that the dust generated in the removal process is confined within the work zone.
 - (d) Immediately repair torn sheeting damaged during removal, including but not limited to window coverings and ground cover. Using duct tape for minor tears; total sheet replacement may be necessary for major tears.
 - (e) The component shall be wrapped in 6 mil polyethylene sheeting and sealed with duct tape.
 - (f) Immediately repair torn sheeting damaged during removal, including but not limited to window coverings and ground cover. Using duct tape for minor tears; total sheet replacement may be necessary for major tears.
 - (g) Contractor shall remove all accumulations of gross debris (i.e. paint chips, masonry etc.), from all surfaces within the work area.
- 4) When Removing Window Lintels Only:
- (a) The 6 mil polyethylene bag(s) directly underneath the lintel shall be removed from work area with minimal disturbance to other engineering controls in place. The 6 mil polyethylene bag(s) shall be closed with an airtight gooseneck seal (e.g., twist the bag, fold it over on itself, and wrap with duct tape and/or plastic tie).
 - (b) All paint chips, and waste sludge/liquids shall be placed and sealed in drums. Drums shall be placarded with the proper hazardous waste labeling. Date of initial receipt of material shall be identified on hazardous waste label.
 - (c) Contractor shall provide more detailed procedures in the OPP. This shall identify any specific products/tools, job sequencing, safety guidelines, specialized cleaning procedures, etc., to Contraction Manager for approval and/or comment prior to performing component removal activities.

C. FINAL CLEAN-UP PROCEDURES

1. Contractor shall don new coveralls prior to performing clean-up activities.
2. Begin clean-up at the highest point of any exterior work on the building, working down.
 - a. **Prepare Cleaning Solution (Two Bucket Method)**
 - 1) Fill a bucket (Bucket #1) with a MIXTURE of water and the lead specific cleaning solution, and label it cleaning solution.
 - 2) Fill another bucket (Bucket #2) with clean cold water, and label it clean rinse; place it with the bucket labeled cleaning solution.
 - 3) HEPA vacuum all surfaces around work area that might accumulate dust.
 - 4) Using the two-bucket method, use 2 rags designating one as the solution rag (Rag #1) and the other as the rinse rag (Rag #2).
 - 5) Always, start with the highest horizontal surface and work down. Clean entire work area (every inch of the window sills, window troughs, 6 mil polyethylene barriers and other window surfaces where dust can accumulate). When practical, clean dirty areas last to avoid spreading dust.
 - (a) Dip rag #1 into bucket #1, wring the excess solution into the same bucket and begin to wipe.
 - (b) Continue wiping until the rag is dry.
 - (c) Dip rag #2 into Bucket #2 and wipe only the area you just cleaned with Rag #1.
 - (d) Repeat steps a through c until designated areas are completely wiped.
 - (e) **Periodically change the water in bucket #2 (clean rinse).**
 - (f) Remove 6 mil polyethylene barriers from the work area and any areas horizontally adjacent to work area(s) and place in 6 mil polyethylene bag.

- (g) Perform a final HEPA vacuum all surfaces around work area that might accumulate dust.
- (h) Move down to the next work area and repeat the steps identified above. This practice shall continue in a downward motion to the lowest point of the work area.
- (i) Upon completion of cleaning all areas on the face of the building, thoroughly clean scaffolding and remove catch basin erected underneath.
- (j) Remove any gross material from 6 mil polyethylene sheeting and place in 6 mil polyethylene bags.
- (k) With a spray bottle, moisten the 6 mil polyethylene sheeting used as ground cover and fold it inward upon itself, thereby trapping any residual dust. Place the 6 mil polyethylene sheeting into 6 mil polyethylene bags. Close all bags with an airtight gooseneck seal (e.g., twist the bag, fold it over on itself, and wrap with duct tape and/or plastic tie).
- (l) Contractor shall visually inspect and remove any accumulations of debris, paint chips etc, from the drip line of the building and where any breaches in ground cover occurred during abatement.
- (m) No materials used for cleanup shall be disposed in the residents trash containers. All debris shall be removed from the building area. The Contractor shall legally dispose of waste in his own refuse containers in accordance with Federal, State, and City Regulations.
- (n) Remove bags of plastic material from apartment and place in lockable receptacle designated for this project (e.g. roll-off dumpster).

D. VISUAL ASSESSMENT

1. Construction Manager's Monitoring Contractor will perform a visual assessment of the work area following removal of debris/final cleaning. The area will be deemed visually cleared when Construction Manager's representative finds the work area(s) clear of visual accumulations of dust, debris, paint chips, etc. The Contractor shall re-clean all areas identified by Construction Manager's representative until they are deemed visually clean.

E. WASTE DISPOSAL

1. Disposal Requirements: Contact the regional EPA, State, Local and all other pertinent authorities to determine lead-based paint debris disposal requirements. Comply with requirements of the Resource Conservation and Recovery Act (RCRA) and with applicable federal, state, county, or local waste requirements.
 - a. Concentrated Paint Chips, Sludge's/ Liquids
 - 1) Concentrated waste that has been generated and drummed shall be representatively sampled through TCLP. The Contractor shall hire an independent consultant and laboratory (certified to collect/analyze TCLP samples) to collect and analyze TCLP samples.
 - 2) Samples shall be analyzed for and compared to the following standards:
 - (a) TOXICITY
 - (1) Lead 5.0 ppm
 - (2) Arsenic 5.0 ppm
 - (3) Barium 100.0 ppm
 - (4) Cadmium 1.0 ppm
 - (5) Chromium 5.0 ppm
 - (6) Mercury 0.2 ppm
 - (7) Selenium 1.0 ppm
 - (8) Silver 5.0 ppm
 - (b) CORROSIVITY
 - (1) PH <2 or >12.5
 - (c) IGNITABILITY
 - (1) Liquids that have a flash point less than 140o F
 - (d) REACTIVITY

- (1) In accordance with 40 CFR 261.23. Typically wastes that are unstable react violently or form explosive mixtures when mixed with water, generate toxic gases when mixed with water, or are capable of detonation or explosive reaction when heated or subject to shock.
 - (e) If TCLP sample results of waste are elevated for any of the above criteria, then all waste represented by the sample shall be transported/disposed of as hazardous. If all sample results are below the thresholds for the above criteria, than all waste represented by the sample shall be transported/disposed of as regular C&D debris.
 - (f) A certified hazardous waste hauler must transport hazardous waste to a landfill and /or reclamation facility certified to receive and/or treat hazardous waste. Waste haulers and treatment/disposal facilities must be previously approved by NYCHA/Construction Manager.
2. Metal Components
 - a. The Contractor shall recycle all metal waste in a certified recycling center.
 - b. The Contractor shall submit to the Construction Manager proof that the material was recycled. This shall consist of a bill of lading and weight receipt, and shall be forwarded to/ Construction Manager.
3. All Other Waste
 - a. The Contractor shall dispose of all other waste as Construction/Demolition debris.

F. BIDDERS QUALIFICATIONS

1. Each firm submitting a bid on the work of this Contract will be required to present evidence that the firm has the required experience. In order to be considered for award, a firm should have completed at least 3 jobs similar to this Contract in size and scope.
2. Evidence of experience shall consist of the following information concerning each job as identified above the bidder has completed: location and owner, size and description of job, dated started, and date completed. Also submit written references from owners, Project Manager, etc., for all listed jobs, indicating quality of work, satisfactory and timely completion, and any other pertinent information. The Authority/Construction Manager reserves the right to verify the experience information.
3. The Authority or the Construction Manager may reject any firm's bid if the submitted evidence does not demonstrate acceptable experience as specified herein.

END OF SECTION