

## SECTION 02 82 14

### ASBESTOS ABATEMENT OF EXTERIOR BUILDING COMPONENTS

#### PART 1. GENERAL

##### 1.01. GENERAL

- A. The Contractor for this work is referred to the "Instructions to Bidders", "Form of Proposal", "General Conditions", "Contract Drawings", and all "Amendments and Addenda" thereto, if any, all of which are hereby made part of the Contract Documents.
- B. All measurements required for proper execution of the work is the Contractors responsibility. Before submitting bid examine all existing conditions which may impact on the work and include them in the bid price
- C. Prospective bidders may gain access to the work area for inspection purposes by visiting the Office of the Development, of the Development Superintendent at \_\_\_\_\_.
- D. The work for this Contract shall be under the direction and supervision of Capital Projects Program Unit, 90 Church Street, New York, N.Y.10007, 10<sup>th</sup> Floor.
  - A. Schedule and Coordinate Asbestos removal/abatement with roof protection:
- E. Coordinate abatement removals with roofing and masonry contractors who will provide post abatement temporary flashing and protection of the roof and building. (**NOTE: No asbestos-containing materials shall be permitted for any use, as either a temporary or permanent part of construction**)

##### 1.02. SCOPE OF WORK

- A. The work of this SECTION consists of abating and legally disposing of all existing asbestos containing material and contaminated material, which includes but not limited to flashing, roofing membrane, caulking and other materials associated with Roof Replacement at \_\_\_\_\_, as shown in SECTION 04 20 00 –.
- B. Contractor shall provide all labor and materials necessary and required for this work.
- C. The \_\_\_\_\_ Development was built in \_\_\_\_\_
  - Development name
  - List building # and addresses
- D. 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. All asbestos removal and disposal to be performed under this Contract shall be in accordance with all applicable Federal, State and City Regulations.

- D. The work of this Section consists of asbestos abatement and proper disposal of exterior building components associated with the following type of work:
- a. Spandrel beam tightening/horizontal expansion joint work.
  - b. Vertical expansion joint replacement
  - c. Brick replacement
  - d. Window lintel replacement
  - e. Window caulk replacement
  - f. Parapet wall removal
  - g. Coping stone caulk replacement
  - h. cap flashing at parapet.
  - i. Waterproofing membrane at parapet
  - j. Caulking and joint materials located at vertical expansion joints and joints between boiler stack and building façade.

### 1.03 GENERAL REQUIREMENTS

#### A. GENERAL CONDITIONS.

1. Furnish labor, materials, services, insurance and equipment necessary for the proper removal of asbestos-containing roof materials required by the general Contract.
2. Violations to asbestos regulations governing this abatement will not be tolerated. At the Authority's discretion, the Asbestos Handler Supervisor of this Project will be required to be replaced.
3. The Contractor shall post on the job site the following regulations: NY State Industrial Code Rule 56, NY City DEP Title 15 Chapter 1, US EPA Regulations for Asbestos, 40 CFR 61 Subparts A and M, and OSHA 29 CFR 1926.58.
4. Carry asbestos insurance when removing asbestos and throughout the entire process, and assume full liability for failure to comply with Federal, State and City Regulations.
5. Furnish and post approved signage indicating that asbestos work is to be conducted within the building. Signs shall be posted in areas that are accessible to the roof level work areas. Signs shall address the dates in which abatement is to take place. This notification is to be approved by the Development Management.
6. Asbestos abatement activities are to be monitored by an Authority Inspector and/or a Representative on behalf of the Authority acting as an Asbestos Project Monitor. The Asbestos Handler Supervisor shall adhere to the direction of the Inspector and Project Monitor.
7. Non-certified persons can not enter the asbestos abatement regulated work area to apply the temporary seal on abated sections of the roof.
8. The Contractor shall be required to keep a daily log to be inspected by the Authority.

9. If at any time the Authority representative or any agency having jurisdiction decides that work practices are violating pertinent regulations, or endangering workers, he will immediately notify the Contractor's Asbestos Handler Supervisor that operations will cease until all corrective action is taken.
10. **Asbestos abatement shall not be scheduled or performed on days where the ambient temperatures are below 32° F.**

B. SPECIAL CONDITIONS.

1. Asbestos abatement activities shall be between the hours of (8:00 AM and 4:00 PM), unless otherwise directed by the Authority's Representative in writing. Asbestos abatement work shall be stopped by 2:00 PM, unless directed in writing, whereby the final 2 hours of the day shall be for roofing Contractor to make temporary roof repairs to make the roof watertight and cleanup activities. No abatement work shall take place during inclement weather.

C. PROTECTION OF PROPERTY.

1. Where work is performed, the Contractor shall be held fully responsible for all damage to Housing Authority property. Any equipment furnished under this Contract and any property of the Authority damaged by this Contractor or his employees shall be restored to its original condition or replaced without cost of the Authority.

D. MISCELLANEOUS.

1. If at any time the Authority Representative or any agency having jurisdiction decides that work practices are violating pertinent regulations, or endangering workers, he will immediately notify the Contractor's Asbestos Handler Supervisor that operations will cease until all corrective action is taken.
2. Contactor and asbestos Sub-Contractor shall attend an on site meeting (Asbestos walk through meeting) with Construction Manager, Construction Manager's Consultant and NYCHA prior to start of work to examine site conditions, and to plan sequence of operation.

1.04. ASBESTOS WORK PLAN

- A. All asbestos abatement contractors shall always produce and submit a **Detailed Asbestos Work Plan** to NYCHA (Attention Richard W. Morrison) via electronic e-mail to ([richard.morrison@nycha.nyc.gov](mailto:richard.morrison@nycha.nyc.gov)) together with a copy of the asbestos filings and notification for review; it should consist of but not limited to the following guideline items:

1. LOCATION – Name of Development and Address as per filing (ACP-7, DOL & EPA notification)
2. GENERAL INFORMATION – Owner, CM Firm Name, Prime Contractor Company Name, Asbestos contractor company name, and Air-monitoring Contractor Company Name.
3. SCHEDULE – Tentative Start and tentative completion date

4. DEVELOPMENT LOG BOOK – Location of NYCHA sign in/out development log book for contractors (construction trailer, development superintendent office or manager, etc) and who will sign-in and out.
5. WORK DESCRIPTION AND PROCEDURE – Provide work area location (roof, façade, underground pipe, etc) & quantities. List abatement procedure being used.
6. POSTING – List and identify locations of all necessary and required postings by law.
7. DECONTAMINATION UNITS – How many, location (roof, ground, basement etc.) type, (pop-up, wood structure, trailer etc) and when they will be broken down and demobilized etc.
8. WASTE – Description of waste route after it is bagged, container on site (waste condition daily log document), pickup information and waste receipt acknowledge or manifest.
9. UTILITIES – Brief description from where electric power and water will be collected and GFCI location. Name of electrical contractor and license number.
10. CERTIFICATES – List licenses and certificates hold by workers, such as NYCDEP, NYSDOL, Federal EPA, NYCDOB (Scaffold), OSHA, etc. needed to perform work.
11. PERMITS AND AUTHORIZATIONS – List all permits, notifications, and authorizations needed to properly execute asbestos abatement work including NYCDEP, NYSDOL, Federal EPA, NYCDOB (CD5), OSHA, etc.
12. SAFETY – List and describe PPE for workers and visitors. Brief description of scaffold and safety line procedures including Safety Engineering stamp and daily report authorization where applicable as per NYCDOB codes and regulations.
13. Respiratory protection program – List name of company respiratory protection program administrator
14. OTHERS – List or briefly explain any additional relevant information, document or procedure necessary to maintain asbestos abatement work within the asbestos regulations and contract specification compliance (NYCDEP conditions, 2 phase abatement work, etc).

B. Include copy of following with Asbestos Work Plan:

1. Asbestos building occupant notification to be posted (10 day occupant notification)
2. ACP-7s
3. NYSDOL Notification
4. EPA Notification
5. Permits, licenses and insurance for asbestos company, waste hauler and disposal site.
6. Written respiratory protection program (include title page and List Program Administrator Only)
7. Detailed emergency fire exit plan with diagram showing evacuation route for workers
8. Sample of original waste hauler manifest with all general applicable information typed-in.

#### 1.05. APPLICABLE REGULATIONS, CODES AND STANDARDS

**All asbestos removal and disposal to be performed under this Contract shall be in accordance with applicable regulations, guidelines and standards and are to include, but are not limited to:**

- A. New York City D.E.P Title 15, Chapter 1.
- B. N.Y. State Industrial Code Rule 56.
- C. US EPA Regulations for Asbestos 40 CFR 61 Subparts A & M.
- D. OSHA 29 CFR 1926 and 1910.
- E. N.Y. State DEC- Article 27, Title 3 and 15.

1.06. FILING & CERTIFICATION

- A. Submit all filings to the Construction Manager for review and signature, on behalf of the Owner, prior to submittal to the required regulatory agencies.
- B. Contractor shall submit the following documents when requesting approval and signing of NYC DEP filings with the Contract Support Services Unit:
  - 1. Contractor's Asbestos Handler License from NYS Dept. of Labor.
  - 2. Sub-Contractor approval letter from the Administrating Department.
  - 3. Filing notifications to the NYS Dept of Labor.
  - 4. Filing notifications to the E.P.A.
  - 5. Asbestos waste transporter permit from NYS DEC.
  - 6. Designated disposal site landfill permit.
  - 7. Approved Asbestos Abatement Work Plan
- C. Filing work with the NYC DEP. Along with all permits and other required filings, if required, the Contractor must petition for specific variances from NYC-DEP regulations.
  - 1. For work involving spandrel beam tightening, removal of expansion joint sealants, installation of expansion joints and window lintel removal/ replacement : The NYC DEP filing shall include **§ 1-109 (Abatement from Vertical Exterior Surfaces)** of NYCDEP Regulations.
  - 2. For work involving removal of window caulking associated with intact windows:: The NYC DEP filing shall include **§ 1-109 (Abatement from Vertical Exterior Surfaces)** of NYCDEP Regulations.
  - 3. For work involving exterior waterproofing paper flashing/Tar removed from spandrel beam and/or window lintels associated with demolition and reconstruction of parapet walls: The NYC DEP filing shall include **§ 1-109 (Abatement from Vertical Exterior Surfaces)** of NYCDEP Regulations.

4. For work involving exterior waterproofing paper flashing/Tar removed from spandrel beam areas of the Building Facade associated with brick removal and replacement.
  5. For work involving the removal of coping stone caulk, the NYCDEP filing should follow **§ 1-109 (Abatement from Vertical Exterior Surfaces)** NYCDEP Regulations.
- D. The Contractor shall pay the filing fees for notification of asbestos work as required by the New York State Department of Labor, Division of Safety and Health and the EPA. This cost shall be incorporated into the Contractor's bid.
  - E. Work shall not begin until there is an approved schedule and Construction Manager's Environmental Consultant has received all approved NYCDEP filings.

#### 1.07. SUBMISSIONS

- A. Within **10 calendar days** calculated from the date of the Authority's Letter of Award, the Contractor shall tender his Submissions. **Seven (7) sets for the Submissions are required.** It shall contain a list of all materials and equipment proposed to be used, giving the Manufacturer's Name, Trade Name, Catalog Number or other positive means of identification. It shall be accompanied with Manufacturer brochure or literature describing the item. In general, items shall include but not be restricted to the following:

1. **Asbestos Removal Foam (Mfrs. Lit.)**
2. **Asbestos Removal Wetting Agent**
3. **Asbestos Removal Encapsulant (Mfrs. Lit.)**

**Note: Acceptable products listed in Materials, Part II, 2.01.**

- B. Refer to Division 1 Section 01 33 00 for other information for submission.

## PART 2. MATERIALS

### 2.01. MATERIALS

- A. Materials (Chemical Solutions) shall be delivered in their original containers, sealed by the Manufacturer. Don't use opened containers on this Project. **Clearly label containers with Manufacturer's name, product identification and lot numbers, and store out of the weather in their original, tightly sealed containers.** Mix materials according to Manufacturer's directions and Specifications.
  1. The following is a list of approved materials for use on this project. Approval of an equivalent product must be obtained prior to use of the product on this project. Approval must be requested prior to the filing of this project.
    - a. IDC Hydro-foam by IDC Corporation (800) 327-8482 or Asbestos Removal foam - BioFoam by Peter Staikos, 307-7th Ave., New York N.Y. 10001, (212) 627-1533 or Pronto Extra-Foam by Twin - Chem. Inc., 5010 Hickory Hills Dr., Woodstock, GA 30188, (800) 442-4958, or equal

- b. Chem:Plex AS-1000 chemical complexing wetting agent and penetrant (with blue tint) or Chem-Safe Gold wetting agent and penetrant by Aramsco 1665 Imperial Way Thorofare, N.J. 08088 Telephone (800) 767-6933 or approved equivalent.
- c. Encapsulant shall be Serpiflex Shield Formula #5 by International Protective Coatings Corp (732) 531-3667, Chem - Safe 500 by ARAMSCO 1655 Imperial Way, Thorofare, NJ, 08086 (800) 767-6933 or approved equal

### PART 3. EXECUTION

#### 3.01. ASBESTOS REMOVAL PROCESS

##### A. PREPARATION ACTIVITIES.

Follow NYCDEP Regulation **§ 1-109 Abatement from Vertical Exterior Surfaces.**

1. The worker/waste decontamination enclosure system, shall be constructed at the ground level within the restricted area. This unit shall be maintained in the work place for the duration of the abatement.
2. The entire surface to be abated and ground-level perimeter shall be considered the work area unless partitions and warning tape are used to define the work area except that if the horizontal surface below the surface to be abated is not the ground (e.g., surface to be abated is inside parapet wall on roof), the horizontal surface underneath the abatement shall be considered the work area, not the ground.
3. A restricted area shall be established using warning tape extending at least 25 feet from the affected areas of the building or to the nearest vertical obstruction or the curb.
4. The restricted area may be entered only by certified workers or authorized visitors.
5. Before plasticizing, the restricted area shall be inspected for ACM debris and, if necessary, pre-cleaned using HEPA vacuums and wet methods.
6. All openings to the building or structure's interior, which are within 25 feet of the affected ACM, shall be closed and made airtight.
7. Scaffolding erected to access the ACM shall be constructed, maintained, and used in accordance with applicable federal, state, and city laws
8. Elevated platforms being used to access the affected ACM shall be plasticized with two layers of fire-retardant 6-mil plastic, which shall extend up from the platform to at least the height of the mid-rail on three sides, and shall be attached directly to the building just below the surfaces under abatement.
9. The ground-level restricted area shall be cleared of all moveable objects and plasticized with two sheets of fire-retardant 6-mil plastic, which shall be extended one foot up the side of the building. The plasticized area shall be twenty-five feet wide, or to the curb. This plastic shall be cleaned, replaced, and disposed of as

asbestos waste at the end of each shift.

10. Sidewalk bridges in the restricted area shall be covered with two layers of fire-retardant 6-mil plastic, placed over and secured to the bridge, spread across the full width, draped over the side to ground level, and extended to a width of at least thirty feet.
11. During asbestos removal, the asbestos handlers must wear applicable personal protective equipment and respiratory protection.
12. Personnel performing the work shall be NYS/NYC certified asbestos handlers. An NYS/NYC certified asbestos handler/supervisor shall be in the work place at all times during the ACM caulking abatement. The asbestos handler supervisor shall establish and maintain a log as that term is defined at 15 RCNY 1-02.
13. Each abatement team shall be equipped with appropriate tools, rags, a portable supply of amended water, and a HEPA vacuum. After the ACM is adequately wetted, it shall be stripped using hand tools, with the ACM being directly bagged or dropped into a flexible catch basin and promptly bagged. The stripped surface shall then be HEPA vacuumed, and then wet-wiped to remove any loose debris still in place. A visual clearance inspection shall be conducted by the asbestos handler supervisor and project monitor after the work area dries, to ensure the absence of asbestos residue or debris in the work area.
14. Upon completion of the stripping at a location and before moving to the next, the surfaces of the immediate work area shall be rendered free of visible debris. Next, the plastic covering of the platform shall be carefully cleaned and secured, at the next work area. New plastic sheeting shall be applied only as needed..
  2. Hand tools used next to the roof edge, where a parapet wall is present or not, requires that the hand tools be tied off with a safety line.

## B. REMOVAL

1. Follow NYCDEP Regulation **§ 1-109 Abatement from Vertical Exterior Surfaces..**
2. The use of hand held power tools must be approved by Construction Manager. Only power tools that have a factory installed HEPA filtration attachment shall be considered for approval.
3. Power saws, of any type, are prohibited from use on asbestos-containing roofing materials.
4. Asbestos removal is prohibited until air monitoring equipment is in place and operating.
5. Prior to the temporary sealing of an abated section of a roof, the Contractor's Asbestos Handler Supervisor must inspect and approve the work area and document such inspection and approval on a Supervisor Inspection Report. The



Supervisor must then coordinate and request an inspection by the Inspector from the Construction Manager's Environmental Consultant.

C. CLEANING REQUIREMENTS

2. Follow NYCDEP Regulation **§ 1-109 Abatement from Vertical Exterior Surfaces.**
  - d. The stripped substrate shall be HEPA vacuumed and wet-wiped.
  - e. The asbestos handler supervisor and project monitor shall conduct a visual clearance inspection after the work area dries, to ensure the absence of ACM residue or debris in the work area.
  - f. After the inspection is completed, the warning tapes and barriers may be removed.
  - g. The clearance inspection shall be documented in the log and the project air-sampling log.

D. PACKAGING AND DISPOSAL OF ASBESTOS AND RELATED DEBRIS

1. Remove all asbestos and non-asbestos debris from the premises prior to the end of the work shift. **At no time shall asbestos debris be allowed to be stored on site once the Contractor has left the site.**
2. Both the initial and the doubled waste bag must be sealed with duct tape. **Sealing the outer bag only is prohibited. The outer bag must be an airtight gooseneck seal (e.g., twist the bag, fold it over on itself, and wrap with duct tape)**
3. Site specific generator labels shall include the building location address, City and State, the date of abatement, the abatement Contractor's name, and the words "New York City Housing Authority.
4. Affix generator labels to the waste bags prior to removing the bags from the work area. **Don't affix labels to the bags at the waste hauling truck.**
5. Transport all asbestos waste directly to a transfer station or the landfill. Don't store or transfer asbestos waste to another location prior to transport to a transfer station or the landfill.
6. Do not remove asbestos waste from the site without a properly documented Waste Manifest.
7. All asbestos waste shall also be required to comply with U.S. Environmental Protection Agency Regulations, Title 40, Part 61, Sub-part A & B (40 CFR A & B) and OSHA Regulations (29 CFR 1910) for Collecting, Packaging, Transporting and Disposing of Asbestos.

E. INDEPENDENT AIR MONITORING AND AIR CLEARANCE.

1. An independent Contractor selected and paid for by the Authority shall conduct air monitoring during asbestos removal.

2. Air monitoring shall be conducted in accordance with the relevant provisions of subchapter D of the of the NYC-DEP regulations
3. Air sample results reported above 0.01 f/cc shall require that abatement practices be altered on the following shift so as to reduce the airborne fiber levels. The altered procedures must be documented by the asbestos Handler Supervisor and submitted to the Environmental Inspector, for approval.
4. **Clearance air monitoring is not required.**

### 3.02. WASTE MANIFEST

- A. All asbestos waste shall be properly manifested prior to removal from the Authority's property.
- B. Waste transporting shall follow all provisions of the Environmental Conservation Law, Title 3, of Article 27.
- C. Copies of the manifest, after all asbestos has been removed from specifying the location, and indicated where the waste will be transported, shall be given to the Authority's Inspector and/or the Project Monitor.
- D. Final copies signed by the landfill are to be submitted to the Authority's Environmental Liaison.