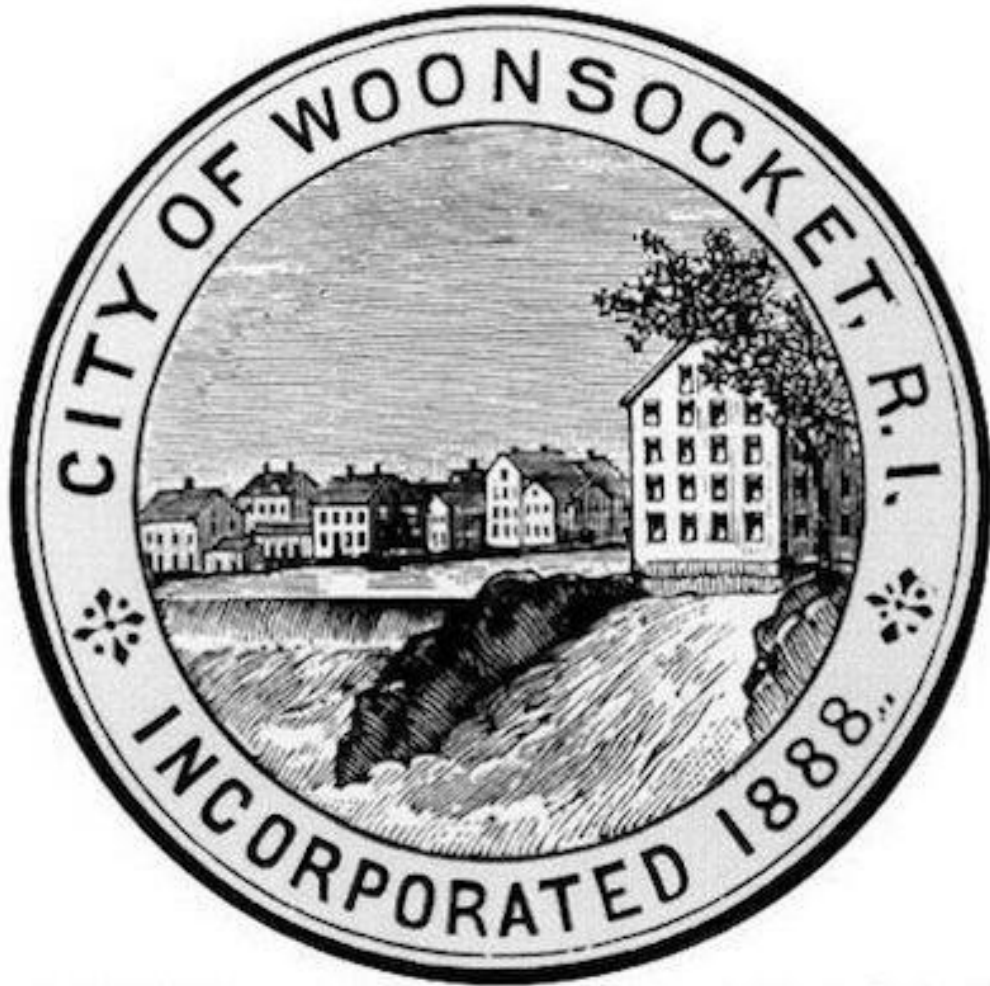
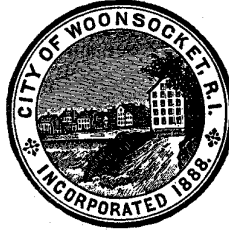


City of Woonsocket



**ASBESTOS / LEAD ABATEMENT
148 HAMLET AVENUE
BID No. 6231**

*Prepared By:
City of Woonsocket
Planning Division
April 2024*



CITY OF WOONSOCKET, RHODE ISLAND

INVITATION TO BID FOR:

“Asbestos/Lead Abatement – 148 Hamlet Ave.”

BID No. 6231

For The Planning Division

City of Woonsocket invites sealed bids, from prospective bidders, for the above-referenced project.

Bid Opening: Bids must be received by **2:00 p.m. on Tuesday, May 14, 2024** either in person at Woonsocket City Hall, Office of Purchasing, 169 Main Street, Woonsocket, RI 02895 or electronically through BidNet. After the afore-mentioned time, electronic bids will be unlocked and published online. Physical bids will be publicly opened and read aloud in Harris Hall, located on the 3rd floor then published online. Bids received after the deadline will not be accepted and will be returned unopened to the sender.

Bid Submissions: All bids must be submitted in duplicate, placed in a sealed envelope and identified with the following information: **“Asbestos/Lead Abatement – 148 Hamlet Ave., Bid No. 6231” including the name of the company submitting the bid.**

Bids must be prepared either electronically, if available, or using the provided bid forms. All written forms must be either typed or legibly printed, then signed and dated in blue or black ink.

WBE, MBE and Section 3 contractors are encouraged to bid.

Project Components: The work generally includes, but is not limited to the following:
the Asbestos and Lead Abatement of The Victorian Brick Building at 148 Hamlet Avenue within the City of Woonsocket and will consist of removal of all existing asbestos and lead material (including sub-surface specified) as per the Rhode Island Department of Health (RIDOH) approved Asbestos Abatement Plan attached herein the bid specifications.

Pre-Bidding Event: A Mandatory pre-bid conference will be held with all bidders on the site on Wednesday, May 1, 2024 @ 10:00 a.m. at The Victorian Brick Building 148 Hamlet Avenue.

An Abatement Conference will be held with a successful bidder at a date acceptable to the contractor and the City.

Bid Bond: The bid must be accompanied by a bid guarantee that is not less than 5% percent of the bid amount. The bid guarantee may be in the form of a bid bond supported by good and sufficient surety acceptable to the City, by money order, certified check, or cashier’s check made payable to City of Woonsocket.

For electronic bid submissions, a digital copy of the bid bond from your surety company would be required. Bid

Bonds in the form of a check, would follow the same sealed bid submittal instructions, contained herein, even though the proposal was submitted electronically.

Prevailing Wages: In accordance with RI General Law 37-13-7 contracts in excess of \$1,000 shall require compensation based on prevailing wages for construction, alteration and/or repair, painting and decorating.

Nonresident Contractors: In accordance with Rhode Island General Law 44-1-6, nonresident contractors are subject to a 3% withholding of the contract price to secure payment of any sales tax, use tax, and/or income tax withheld that may be due the State of Rhode Island. WBE, MBE and Section 3 contractors are encouraged to bid.

Bid Review Period: In conformance with the terms and conditions of these specifications including the Invitation to Bid and other documentary forms therewith, the Bidder hereby proposes, offers and agrees if this bid be accepted within sixty (60) calendar days from the date of bid opening to do all things necessary to fully perform and satisfy all terms, conditions and requirements of the subject specifications.

Withdrawal of Bids: No bidder may withdraw their bid within sixty (60) days after the actual time and date of the bid opening thereof.

Rejection of Bids: The City reserves the right to cancel this ITB, award on the basis of cost alone, accept or reject any or all bids, in whole or in part. The City further reserves the right to waive as an informality any irregularities contained in any bid not affecting substantial rights that may be in the City's best interest. Bids found to be technically or substantially nonresponsive at any point in the review process will be rejected and not considered further. Any such decision will be considered final.

Bid Award: Responses will be evaluated and awarded based on the most responsive and responsible bidder toward the scope of work and renderings offered at the most advantageous price.

Upon selection of a winning contractor, the City of Woonsocket will send a bid award notice to the awardee. The bid award notice will identify a point of contact from the City who will assist the awardee in completing any pre-work requirements. Upon satisfactory meeting all of the obligations of the pre-work requirements, the City of Woonsocket will issue a "Notice to Proceed" for work to commence.

Individuals requesting interpreter services for the hearing impaired should call the Finance Director at 401 762-6400 seventy-two (72) hours in advance of the bid opening deadline.

Thank you for your consideration of this invitation to bid and your participation in the sealed bid process.

Published: April 19, 2024

A handwritten signature in black ink, appearing to read "Kenneth A. Allaire", with a long horizontal flourish extending to the right.

Kenneth Allaire, Purchasing Agent

INFORMATION TO BIDDERS
CITY OF WOONSOCKET
FINANCE DEPARTMENT
(401) 762-6400

1. TIMELINE

The following timeline is subject to revision:

RFP Issued:	April 19, 2024
Mandatory Pre-Bid Conference	May 1, 2024
Proposal submittal deadline	May 14, 2024 @ 2:00pm
Public Opening	May 14, 2024 @ 2:15pm
Interviews (if necessary)	June 2, 2024
Selection of firm	June 14, 2024

2. FORM OF BID

Proposals may be submitted electronically or physically. Those submitting hard copies of their proposals must submit them in duplicate with a 3rd copy on a single flash drive. Supplemental information, drawings, warranties, literature, and material to be provided with the bid can be electronically uploaded online. Physical copies must be on the bidder's own form.

3. SUBMISSION OF BIDS

Physical submission of bids must be in sealed envelopes and addressed to the City of Woonsocket, Office of Purchasing P.O. Box B, 169 Main St, Woonsocket, Rhode Island, 02895, and must be marked with the name and address of the bidder.

Electronic submissions can be uploaded, retracted and edited any time prior the bid opening cutoff date and time.

Any bidder may withdraw their bid at any time prior to the submittal deadline.

Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of a bid after it has been opened.

Proposals received prior to the time of opening will be securely kept unopened or locked and encrypted. No responsibility will be attached to an officer or person for the premature opening of a proposal not properly addressed and identified.

Any deviation from the Specifications MUST BE NOTED IN WRITING AND ATTACHED AS PART OF THE BID PROPOSAL. The bidder must indicate how the bid will deviate from Specifications.

4. RHODE ISLAND SALES TAX

The City of Woonsocket is exempt from the payment of the Rhode Island Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph 1, as amended.

5. FEDERAL EXCISE TAXES

The City of Woonsocket is exempt from the payment of any excise tax or federal transportation taxes. The price of the bid must be exclusive of taxes and will be so constructed.

6. QUALIFICATION OF BIDDERS

The City will make investigations, as it deems necessary, to determine the ability of the bidder to perform the work. The bidder must furnish the City of Woonsocket with all such information and data for the purpose as may be requested. Insurance certificates listing other subcontracting or related firms other than the actual bidder are not acceptable. At the time the bid is submitted to the City all bidders must provide insurance certificates listing the actual bidder as the insured party. The City of Woonsocket must be listed as an additionally insured party and as a certificate holder. The minimum amounts of insurance coverage must be listed as stated in Table A. Workers' compensation insurance must be provided per RI general law (see Table A).

7. ADDENDA AND INTERPRETATIONS

Interpretation on the meaning of the Plans, Specifications or other Contract Document should be emailed to the Planning Department Construction Project Supervisor at rlee@woonsocketri.org, and to be given consideration must be received at least four (4) days prior to the date fixed for the opening of the bids.

All interpretations and supplemental instructions, which if issued, will be posted electronically for all prospective bidders not later than 48 hours prior to the date fixed for the opening of bids (unless such addenda postpone the opening of bids). Failure of bidder to receive any such addendum or interpretations will not relieve any bidder from obligation under his bid submitted. All addenda so issued must become part of the Contract Document.

8. DELIVERY

All purchases related to this bid are to be delivered within the City of Woonsocket. Delivery is to be supplied with a Purchase Order. No extra charges for delivery, handling or other services will be honored. Only inside delivery and set-up, where required, will be accepted. TAILGATE DELIVERIES WILL

BE REFUSED. The vendor must notify the City of Woonsocket 24 hours prior to delivery. All claims for damage in transit will be the responsibility of the successful bidder. The City of Woonsocket will not make payment on damaged goods, they must be replaced, or adjustments made at the option of the city. The City of Woonsocket is only represented by the Finance Director in these matters and said the director will be the only entity to negotiate any settlements. Deliveries must be made during normal working hours.

The bid price is to include the cost of plans, sitework, construction, electrical, landscaping and cleanup.

9. The bid price is to include installation where noted.
10. Bidder must comply with all State and Federal Labor Laws Under Prevailing Wages Public Works projects.
11. The successful bidder must have all current taxes paid which are owed to the City of Woonsocket and State of Rhode Island.
12. 40 U.S.C. chapter 31, subchapter III, Bonds (formerly known as the Miller Act), requires performance and payment bonds for any construction contract exceeding \$50,000, except that this requirement may be waived-

(1) By the contracting officer for as much of the work as is to be performed in a foreign country upon finding that it is impracticable for the contractor to furnish such bond; or

(2) As otherwise authorized by the Bonds statute or other law.

The contractor shall furnish all bonds or alternative payment protection, including any necessary reinsurance agreements, before receiving a notice to proceed with the work or being allowed to start work. Upon conditional award of the contract, at 100% of the contract price, conditioned upon faithful performance of the contract. A Labor and Materials Bond, at full contract value, is required upon conditional award of the contract.

13. Prevailing Wages:

In accordance with Rhode Island General Law 37-13-7, contracts in excess of \$1,000.00 shall require compensation based on prevailing wages for construction, alteration and/or repair, painting and decorating. The rates are available from the Rhode Island Department of Labor at (401) 457-1800.

CITY OF WOONSOCKET
RHODE ISLAND
FINANCE DEPARTMENT

OFFICE OF PURCHASING

THE OFFICER OF THIS COMPANY, HEREBY, CERTIFIES THAT THIS COMPANY IS IN GOOD
STANDING WITH THE STATE OF RHODE ISLAND AND ALL THE REQUIRED RECORDS HAVE BEEN
FILED WITH THE STATE.

NAME:	
CORPORATION NAME:	
BY:	TITLE:
STREET ADDRESS:	
CITY:	STATE:
WITNESS:	DATE:

CONTRACT FORMS

CONTRACTORS APPLICATION FOR PAYMENT

TO: City of Woonsocket, 169 Main Street, Woonsocket, RI 02895	
PROJECT: Asbestos & Lead Abatement – Victorian Brick Building 148 Hamlet Avenue	
FROM:	
PROJECT #	APPLICATION #

Application is made for payment as shown below:

1. ORIGINAL CONTRACT SUM\$ _____
2. PENDING CHANGE ORDERS\$ _____
3. CONTRACT SUM TO DATE.....\$ _____
4. TOTAL COMPLETED TO DATE.....\$ _____
5. RETAINAGE (10% of Completed Work).....\$ _____
6. TOTAL EARNED LESS RETAINAGE.....\$ _____
7. LESS PREVIOUS PAYMENTS.....\$ _____
8. CURRENT PAYMENT.....\$ _____
9. BALANCE TO FINISH INCLUDING RETAINAGE\$ _____

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for work for which previous certificates for payment were issued and payment received from the City of Woonsocket, and that current payment shown is now due.

Contractor:	
Amount Certified:	
By:	Date:
State:	County:
Subscribed and sworn to before me this day of	
Notary Public:	My Commission expires:
Authorized for Payment:	Date:

CITY OF WOONSOCKET, RHODE ISLAND

FINANCE DEPARTMENT

PURCHASING DIVISION

PROPOSED SUBCONTRACTORS

1. The Contractor shall state the names of all subcontractors that they propose to use.
2. All subcontractors listed below must submit a certificate of insurance to the City of Woonsocket before the Contract is completed.
3. A change of subcontractors, other than those listed below, must be submitted in writing and approved by the Engineer and the Purchasing Agent.

If no subcontractors will be used, write "NONE": _____

Item:	
Proposed subcontractor:	NAME:
	ADDRESS:
	CITY, STATE:

Item:	
Proposed subcontractor:	NAME:
	ADDRESS:
	CITY, STATE:

Item:	
Proposed subcontractor:	NAME:
	ADDRESS:
	CITY, STATE:

This is to certify that the names of the above subcontractors are submitted with the full knowledge and consent of the respective parties.

COMPANY NAME:
BY:
TITLE:

Insert items and subcontractor's names as may be required.

NOTICE TO PROCEED

TO:	DATE:
	PROJECT: Asbestos / Lead Abatement – Victorian Brick Building, 148 Hamlet Avenue.

You are hereby notified to commence WORK in accordance with the AGREEMENT dated _____,
on or before _____, and you are to complete the work within _____ consecutive
calendar days thereafter. The date of completion of all WORK is therefore _____

Owner

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged

By: _____

This, the _____ Day of _____

By: _____

Title: _____

CITY OF WOONSOCKET, RHODE ISLAND

CHANGE ORDER NO. _____

DEPARTMENT OF PLANNING & DEVELOPMENT

PROJECT NAME: Asbestos and Lead Abatement Victorian Building 148 Hamlet Avenue

CONTRACT DATE:

TO:

YOU ARE INSTRUCTED TO ADD THE FOLLOWING ITEMS OF WORK AND QUANTITIES TO THE EXISTING CONTRACT:

The Original Contract Sum Was:
Net Change by Previous Change Orders:
New Contract Sum Including Previous Change Orders:
Net Change by This Change Order:
New Contract Sum Including This Change Order:
The Contract Time Will Be Increased By:
The New Date of Completion Is:

Contractor:	City of Woonsocket
	P.O. Box B
	Woonsocket, RI
By:	By:
Date:	Date:
CHANGE ORDER NO.	Issued:

GENERAL CONDITIONS

**GENERAL CONDITIONS
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1. SCOPE OF WORK

Abatement of all asbestos and lead materials in and on the entire building to be removed and disposed of in a safe and secure manner. Design documents shall identify all requirements for safety devices, needed for chutes and/or cranes for the abatement process, dumpster location, protection from exposure to the weather, protection of property and personnel, building access routes and circulation patterns, contractor use of the premises, parking, security procedures, equipment and materials storage, waste disposal, etc.

The City of Woonsocket has petitioned the State of Rhode Island Historical Preservation and Heritage Commission to allow the structure to be demolished by the City.

The Contractor shall provide at their own expense all necessary Bonds, Social Security, Unemployment and Cash Sickness Benefits, Taxes, Workman's Compensation, Public Liability and Property Damage Insurance, and other necessary items. They shall obtain all licenses and permits as required by law or ordinance. (Permits shall be obtained through the City of Woonsocket Planning Department at no cost to the contractor.) They shall give all notices and comply with all local, state and federal rules, regulations, laws and/or ordinances for the conduct of work as shown in the plans and specifications.

Contractor or their consultant shall survey the building(s) and, if deemed necessary, collect samples of materials that will be impacted by the construction/demolition activities and Evaluation/Inspection and Abatement of potential Lead and Asbestos per Federal and State Regulations. All documentation to be reviewed by City.

The worksite shall be secured and cleaned up daily (nails, debris, equipment, etc.). Properly contain and dispose of all debris.

No removal of any building material (doors, paneling, fire place mantel, fire place surround, stone or marble, etc). Any building materials embodied with lead or asbestos that require removal shall be approved by the City.

2. CHARACTER OF WORK AND PERSONNEL

The work shall be executed in a careful and workmanlike manner by properly trained and qualified workers or craftsmen in strict accordance with the plans and/or specifications.

All personnel will conduct their duties in a professional manner, more so due to the location of the structure which abuts a public school.

The contractor shall supply and maintain portable toilet units to accommodate the number of workers on the site. Contractors shall hire competent and qualified workers. All personnel on the jobsite must hold OSHA 10-hour certification. All machine operators must have a valid and current Rhode Island operator's license.

3. SITE INVESTIGATIONS

Bidders must satisfy themselves through personal examinations at the locations of the proposed work, and/or by such other means as they prefer, such as by inspection of records and drawings of any public utilities or private corporations involved, as to the actual conditions and requirements of the proposed work, and to the accuracy of the information contained in the specifications and drawings. The submission of any bid shall be accepted by the City as satisfactory proof that the bidder has satisfied himself in this respect. He shall not, after

the submission of this bid, assert that there was any misunderstanding in regard to the nature or amount of work to be done.

The building has not been properly secured from the weather. There may be issues with the roof and flooring.

4. EXECUTION, CORRELATION, AND INTENT OF DOCUMENTS

The Contract Documents are complementary and what is called for by anyone shall be as binding as if called for by all. The intention of the document is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. All costs of material, equipment and labor supplied by the Contractor which is incidental to the acceptable completion of the project, shall be considered to have been included in the price or prices quoted and no separate payments will be made.

5. SPECIFICATIONS

It shall be the responsibility of the Contractor to study the specifications and other instructions. They shall request clarification from the Director of Planning & Development of any errors, inconsistencies or omissions which may be discovered.

6. USE OF PREMISES

The Contractor shall confine all apparatus to the roadway or right-of-way in which the work is being performed and will not unreasonably encumber these premises with such apparatus, materials, supplies and equipment. They shall promptly remove and dispose of all debris resulting from their operations. They shall hold the City harmless from claims by abutting and adjacent property owners for damages resulting from his operation.

7. SUBCONTRACTORS

The Contractor **shall notify** the City, **in writing**, of the names of all subcontractors together with a summary of the extent and character of the work to be done by each subcontractor. The Proposal shall include a blank form to be used for this purpose where such subcontractors have been selected by the bidder during the bidding period.

The City shall **approve or disapprove subcontractors** after awarding of general contract. The City shall be notified of prior to any changes in subcontractors during progress of the project.

The Director of Planning & Development shall be responsible, at any time during the progress of the project, for determining the desirability or competency of any subcontractor. The Director of Planning & Development shall notify the Contractor, in writing, of such determination and the Contractor shall take immediate steps for cancellation of the subcontract. Subletting of work by subcontractors shall be subject to the same regulations described above. Nothing contained in this contract shall create any contractual relation between a subcontractor and the City.

8. OBLIGATIONS AND LIABILITY OF CONTRACTOR

The Contractor shall take responsibility for the work done under this contract, for the protection of all the work and for preventing injuries and damage to property or utilities on or about the work. They shall in no way be relieved of his responsibility by any right of the Engineer to give permission or issue orders, relating to any part of the work, or by any such permission given or orders issued, or by failure of the Director of Planning &

Development to give such permission or issue such orders. The Contractor shall bear all losses sustained by them or by the City on account of the quality or character of the work, because the nature of the land differs from that which was estimated or expected, or on account of the weather conditions or other causes. The Contractor shall assume the defense of all claims, regardless of character against the contractor or the City. They shall indemnify and hold harmless the City, its officers or agents, against all claims for injuries to persons, corporations or property arising out of the work done under this contract; or groundless, false, or fraudulent claims or claims relating to labor and materials furnished for the work.

9. INSURANCE REQUIREMENTS

The Contractor shall not commence work under this contract until he has obtained all insurance required under this section. Work shall not commence until the City has approved such insurance. The Contractor shall not allow any subcontractor to commence work on his subcontract until all similar insurance has been so obtained and approved. The amounts of such insurance shall be as defined in TABLE A.

The Contractor and his subcontractors shall also obtain insurance "Riders" to cover special hazards, such as blasting, hazardous waste removal, etc., to be encountered in the work required under this contract. The coverage for such riders shall be the same as that specified above for Public Liability and Property Damage. The Contractor and subcontractors, if any, shall also obtain all other insurance as may be required by law, including but not limited to, Workmen's Compensation Insurance.

The Contractor shall provide the City's Planning/Finance Departments with satisfactory proof of the insurance required. This proof shall consist of two (2) certificates from each insurer insuring the Contractor or any subcontractor under this contract. These certificates shall contain the name and address of the insured, the policy number, the limits of liability, the expiration date of the policy, a statement that the insurance of the type afforded by the policy applies to all the Contractor's operations on or at the site of the work, a statement which refers to this contract and insurance specification and states that such insurance is as required by this contract, and a statement as to exclusions and methods of cancellation.

10. DEFINITIONS

- a. **Contractor:** Whenever in this contract the word "Contractor" is used, it shall be understood to refer to the party or parties of the second part of this contract, or the representative of said party or parties.
- b. **City:** Whenever in this contract the word "City" is used, it shall be understood to refer to the City of Woonsocket, in the State of Rhode Island.
- c. **Director of Planning & Development:** Whenever in this contract the words "Director of Planning & Development" is used, it shall be understood to refer to the Director of Planning & Development for the City of Woonsocket, acting either directly or indirectly through any authorized designee, assistant, consultant or inspector having either general or immediate charge of the work, limited only by the limited duties entrusted to him.
- d. **Specifications:** Whenever in this contract the word "Specifications" is used it shall be understood to refer to the body of directions and all written or printed agreements and instructions pertaining to the method and manner of performing the work and/or to the quantities and qualities of the materials and work to be furnished under the Contract. The Invitation to Bidders, Proposals, General Conditions, Special Conditions, if any, and Technical Specifications are all a part of the "Specifications".

- e. **Nomenclature:** Whenever in the specifications or upon the plans the words directed, required, ordered, designated, prescribed, or words of similar meanings are used, it shall be understood that the words “by the Engineer” immediately following the word is intended. Similarly, the words approval, acceptable, satisfactory, or words of similar meaning shall mean approval by, acceptable to, or satisfactory to the Engineer, unless otherwise stated.

11. DIRECTIONS

The Director of Planning & Development shall confirm major directions, in writing, to the Contractor. Other directions, given verbally by the Director of Planning & Development, shall be confirmed only upon request.

12. CONTROL BY THE DIRECTOR OF PLANNING & DEVELOPMENT

The Director of Planning & Development shall have general supervision and direction of the work. The Contractor shall abide by all orders, directions and requirements, and shall perform all work to the satisfaction of the Director of Planning & Development.

The Director of Planning & Development shall have the authority to reject all materials which do not conform to the contract; to approve the methods, manner and sequence of all work; to determine the amount, quality, acceptability, and fitness of all parts of the work; and shall interpret the plans, specifications and other contract documents, issue any extra work orders and give final approval to the complete work.

The Director of Planning & Development shall decide upon all questions in connection with the work and shall within a reasonable time after presentation to him/her of such questions, make decision, in writing, relating to the execution and progress of the work or the interpretation of the contract documents.

The Director of Planning & Development shall have the authority to make minor changes in the work, not involving extra cost, providing such changes are consistent with the purpose of the work. No extra work shall be authorized without a written order from the Engineer, except in an emergency that is endangering life or property. No claim for an addition to the contract sum shall be valid unless so ordered.

13. COMMENCEMENT PROSECUTION AND COMPLETION

The Contractor will be required to commence work under this contract within the time limit specified therein after the date of the notice to proceed, to prosecute the work with faithfulness and energy, and to complete the entire work under this contract by the limit stipulated. The completion time is specified in **TABLE A** at the end of this section. The completion time stipulated above shall include final cleanup of the premises.

14. EMPLOYMENT OF RESIDENTS

The Contractor shall employ residents of the City during the construction of the work under this contract whenever possible.

15. WAGE RATES

The Contractor must pay the prevailing rates of wages as established by the Department of Labor of the State of Rhode Island for each classification of labor used in the execution of the work following DBA Wage Determination RI20240001.

16. NOTICE TO THE CITY OF LABOR DISPUTES

The Contractor shall immediately notify the Director of Planning & Development of any actual or potential labor disputes, whenever they have knowledge of such, which might delay timely performance of the contract work.

17. SEPARATE CONTRACTS

The City reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors' reasonable opportunity for the introduction and storage of their materials and the execution of their work.

If any part of the Contractor's work depends upon the work of any other contractor for proper execution or results, the Contractor shall inspect and promptly report to the Director of Planning & Development any defects in such work that cause it to be unsuitable for the proper execution or results. His\her failure to inspect or report such defects shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of the Contractor's work.

18. THE CITY'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this contract, the City, after written notice to the Contractor, may, without prejudice to any other remedy the Contractor may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

19. INTERFERENCE WITH OTHERS

The Contractor shall coordinate with the Department of Planning & Development to notify the agencies of all potential disruption in service.

The Contractor shall not interfere with materials, appliances, or workmen of the City, Public Utility Companies, or any other contractor, who may be performing work at the same sites. All contractors and other parties involved shall have equal rights as far as practicable, to the use of all roads and grounds, except as otherwise provided by these specifications. The decision of the Director of Planning & Development shall govern in cases of disagreement between contractors or other parties regarding such use.

20. ASSIGNMENT

Neither party to the Contract shall assign the contract or sublet it as a whole without the written consent of the other. The Contractor shall not assign any monies due or to become due to him/her hereunder, without the previous written consent of the Director of Planning & Development.

21. PUBLIC SAFETY

The Contractor shall provide, erect, and maintain continually, seven day per week and twenty-four hours per day, all necessary barricades, reflective signs, signals, flashing lights, etc., and take all necessary precautions for the protection of the work and the safety of the public. A detailed safety plan for the entire contract must be submitted to and approved by the Director of Planning & Development, prior to commencement of work under this contract.

22. ACCIDENT PREVENTION

Precaution shall be exercised at all times until completion and acceptance for the protection of private property and all persons, including employees. The safety provisions of applicable laws and of local building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated according to the best safety regulations and procedures.

23. MAINTENANCE OF TRAVEL

All highways and intersecting streets within the limits of the work shall be kept open to vehicular traffic at all times. Access to private property and driveways shall be provided for all property owners when the work is not in progress but must remain closed during the work. The Contractor shall notify property owners at least twenty-four (24) hours in advance to permit movement of privately owned vehicles. Particular emphasis is placed on the requirement for rapid access and movement of firefighting apparatus or equipment and the accessibility of all fire hydrants, if any, within the limits of the work. The Director of Planning & Development may permit, upon approval of the Woonsocket Police Department, a street to be closed for a limited amount of time. Payment for furnishing, maintaining, relocating and/or removing temporary construction and/or warning signs for maintaining safe vehicular travel shall be as stated in the contract.

24. PROTECTION OF EXISTING STRUCTURES, PROPERTY, UTILITIES, WORK AND VEGETATION

The Contractor shall arrange with all private property owners, public utility companies and all other interested parties for the relocation, maintenance and/or protection of all private property, public utility facilities, poles, fixtures, appurtenances and service connections, within or adjacent to the limits of construction or as directed by the Director of Planning & Development.

The Contractor shall perform and carry out his work in such a manner as not to interfere with or damage fixtures mentioned herein or as shown on the plans or discovered during construction which are to be left within the limits of the project. The Contractor will preserve and protect all existing vegetation, such as trees, shrubs, and grass on or adjacent to the site, which do not unreasonably interfere with the construction as determined by the Director of Planning & Development.

The Contractor will be responsible for damage done to any telephone or power poles or transmission lines; water mains, fire hydrants and appurtenances; gas mains or service connections; sewer mains, building sewer connections and other appurtenances of a similar nature which are fixed or controlled by the City Public Utility Company, Private Corporation or private person.

The Contractor will be responsible for all damage due to careless operation or equipment, stockpiling of materials or tracking of grass areas by equipment. The City will not be responsible for any delays or inconvenience to the Contractor in carrying on his work in the above mentioned manner and/or while the City, the Architect of Record, Public Utility Companies or corporations are making necessary adjustment to their fixtures or appurtenances.

Damage to any kind of private or public property, not authorized in the contract, shall be repaired or restored promptly by or at the expense of the Contractor. The Contractor must assume all responsibility for any delay or damage incurred due to working around or joining his work to fixtures left in place. No separate payment will be made for protecting, maintaining or repairing private property. Any additional cost incurred shall be at the expense of the Contractor and shall be considered as completely covered by and included in the contract prices for the various bid items involved.

25. SUPERINTENDENCE BY CONTRACTOR

The Contractor shall give efficient supervision to the work, using his best skill and attention. They will employ at the site of the work, during the entire performance thereof, a competent superintendent and any necessary assistants who will be satisfactory to the Director of Planning & Development. They shall not be changed, except with the consent of the Director of Planning & Development, unless they cease to be in the employ of the Contractor. Such superintendents shall represent and have full authority to act for the Contractor in his absence and all directions given to such superintendent shall be binding as if given to the Contractor.

26. INSPECTION

The work will be conducted under the general direction of the Director of Planning & Development and is subject to inspection by his appointed inspectors in order to ensure strict compliance with the terms of the Contract. No inspector is authorized to change any provision of the specifications without written authorization from the Director of Planning & Development, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the Contract. The Director of Planning & Development shall make a thorough examination of the work as soon as practicable after the completion of the entire work or any divisible part thereof as may be designated in these specifications. Any work that will be buried, covered or concealed in any way after its completion must be inspected by the Director of Planning & Development or one of his appointed inspectors before such work is buried, concealed, or covered. If any work should be covered without approval or consent of the Director of Planning & Development, it must, if required by the Director of Planning & Development, be uncovered for examination at the Contractor's expense.

The Director of Planning & Development may order re-examination of questionable work, and if so ordered, the Contractor must uncover the work. The City shall pay the cost for re-examination and replacement if such work is found to be in accordance with the Contract Documents. The Contractor shall be responsible for such costs if such work is found to be not in accordance with the Contract Documents, unless he shows that another contractor caused the defect in the work. The City shall pay such costs if this is found to be the case.

The Contractor shall give written notice to the Director of Planning & Development of instructions, by drawings or otherwise, that will involve extra cost under this contract. He shall give such notice before proceeding to execute the work or within a reasonable time after receiving such instructions, except in the case of an emergency that shall endanger life or property. Provisions for changes in the work shall then be made. No such claim for the cost of extra work shall be valid, unless made in this manner.

27. SUSPENSION OF WORK

The Director of Planning & Development may suspend all or any part of the work because of hazardous conditions caused by the Contractor's operation or whenever such suspension is necessary to insure proper execution of the Contract.

Notice to suspend the work, or any part thereof, shall be given to the Contractor in writing. The City shall reimburse the Contractor for the expense incurred the Contractor in connection with the work under this Contract as a result of such suspension.

The Contractor may abandon any portion of the work suspended by the City, if the work or any part thereof is stopped by a written notice or if the City does not give such written notice within seven (7) calendar days of the date fixed in the written notice to suspend. The Contractor will then be entitled to the estimates and payments for all work done on the portions of work so abandoned, if any.

28. RIGHT OF CANCELLATION

The City reserves the right to delete or cancel all or any part of the work as listed in the information to Bidders or to delete or cancel any appurtenance or item thereof without recourse by the Contractor.

29. CITY'S RIGHT TO TERMINATE CONTRACT

The City reserves the right to terminate the contract; if the Contractor should be adjudged bankrupt; if the Contractor should make a general assignment for the benefit of his creditors; if a receiver should be appointed on account of the Contractor's insolvency; if the Contractor should persistently or repeatedly refuse or fail to supply enough properly skilled workmen or proper materials, except in cases for which an extension of time is provided; if the Contractor should fail to make prompt payment to subcontractors or suppliers of material or labor; if the Contractor persistently and repeatedly disregards laws, ordinances or the instructions of the Director of Planning & Development; or should otherwise be guilty of a substantial violation of any provision of the Contract. The Director of Planning & Development shall certify, in writing and without prejudice to any other right or remedy, that sufficient cause exists to justify such action. Such notice shall be given to the Contractor at least seven (7) days prior to termination of the Contract. The City shall take possession of the premises and all material thereon immediately upon termination of the contract. The Contractor shall not be entitled to receive any further payments until the work is finished. If the unpaid balance of the contract price, including compensation for additional managerial and administrative service, exceeds the expense for finishing the work, the City shall pay such excess to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the City. The expenses and damages incurred by the City, as a result of the Contractor's default, shall be certified by the Director of Planning & Development.

30. EXTENSION OF TIME

If the Contractor is delayed at any time in the progress of work by any act or neglect of the City or of its employees; by changes ordered in the work; by strikes, lockouts, fire, unusual transportation delays, unavoidable casualties, by any causes beyond the Contractor's control, by any delay authorized by the Director of Planning & Development pending arbitration, or by any causes which the Director of Planning & Development shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the Director of Planning & Development may decide.

No such extension of time shall be made for delays which occur more than seven (7) days before a written claim is made to the Director of Planning & Development. Only one claim is necessary in the case of a continuing cause for delay.

This article does not exclude the recovery of damages for delays, by either party, under other provisions of the Contract Documents.

31. CLEANING UP

The Contractor shall keep the construction area clean from accumulation of waste material or rubbish at all times, including storage areas used by the contractor. The contractor shall remove any rubbish, tools, scaffolding, equipment and materials from and about the premises, which do not belong to the City, prior to completion of the work. The Contractor shall leave the work and premises, following the completion of work, in a clean and workmanlike condition satisfactory to the Director of Planning & Development.

32. CORRECTION OF WORK BEFORE FINAL PAYMENT

If the Contractor does not remove such condemned work and materials within a reasonable time, fixed by the Director of Planning & Development and/or by written notice, the City may remove them and may store the material at the expense of the Contractor. If the Contractor does not pay the expense of such removal within ten (10) days' time thereafter, the City may, following an additional ten (10) days written notice, sell such materials at auction or at private sale. The City shall keep an account of the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor.

33. PAYMENTS

The total price bid shall include all costs for furnishing all materials, performing all the work, and furnishing all the tools, equipment, overhead items, and incidentals necessary to complete the work. All work under this contract will be paid for with one single payment unless otherwise specified in the contract, which will be processed upon completion and acceptance of the work. The payment will be based upon the contract price except that the City may deduct and retain various amounts to cover damages or claims.

34. PAYMENT WITHHELD

The City may withhold from final payment such payment as deemed necessary by the Director of Planning & Development to protect against loss of:

- a. Defective work not remedied.
- b. Claims filed or reasonable and probable evidence of claims to be filed.
- c. Failure of the Contractor to properly make payments to subcontractors.
- d. Damage to another Contractor.

Payment shall be made in the amount withheld when the above issues are resolved.

TABLE A

General Conditions Reference	Item	Minimum Limits
9	Worker's Compensation and Employer's Liability Insurance	As required by law in the State of Rhode Island Employer's Liability Limits: \$100,000 Each Accident \$500,000 Disease - Policy Limit
9	General Liability, including Contractor's Protective, Products and Completed Operations and Contractual Liability (C.U.* Collapse and Underground coverage to be included. Blasting and explosion coverage required, if there will be blasting under the contract.)	\$2,000,000 General Aggregate \$2,000,000 Products and Completed Operations - Aggregate \$1,000,000 Personal Injury \$1,000,000 Each Occurrence Limit \$50,000 Fire Damage Limit \$5,000 Medical Payments
9	Automobile Liability	\$1,000,000 Combined Single Limit for Bodily Injury and Property Damage
9	Owner's Protective Liability	\$1,000,000 Each Occurrence \$2,000,000 Aggregate, Bodily Injury and Property Damage
9	Builder's Risk and Installation Floater Coverage	Limit equal to the total insurable Value of all Materials and Equipment to be built and / or installed.
<u>Carrier Requirements</u>		
	All carriers used must have a Financial Performance Rating from A.M. Best Company of at least "A". Bid Bonds, supply bonds and performance bonds will be required as necessary.	
13	Time of Completion	Within 90 consecutive calendar days after the date of formal execution of the contract.

SPECIAL CONDITIONS

SPECIAL CONDITIONS

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○ Section 028416 Lighting Ballasts – Mercury	
○ Section 028433 Presumed PCB Removal - Disposal	

1. BRIEF SCOPE OF WORK FOR CONTRACT

The contractor shall contain and abate all asbestos and lead materials from the entire property and properly remove contaminated material in a safe and secure manner per state and federal regulations.

Maintain a clean and safe work area with the removal of all construction debris.

2. LIMITS OF CONTRACT

The limits of the project are as follows:

The Victorian Brick Building is located at 148 Hamlet Avenue.

3. STANDARD SPECIFICATIONS AND OTHER REQUIREMENTS

The Rhode Island Building Code Specifications for Construction, latest edition shall be followed during this contract.

4. MAINTENANCE OF TRAFFIC FLOW

The contractor shall provide temporary construction signs in accordance with OSHA for all work during this contract.

5. SUGGESTED SEQUENCE OF CONSTRUCTION

One week prior to the pre-abatement conference the Contractor must submit to the Director of Planning & Development for approval a detailed abatement work sequence and time schedule for the completion of all work associated with this contract and the requirements it contains. Approval of the work sequence and the time schedule is required before the start of any construction or other work associated with this contract. The proposed abatement and time schedule must consider and address the safe vehicle passage through the project and vehicle and pedestrian access to abutting residential, commercial and/or industrial establishments.

The Contractor shall be required to maintain accessibility open to all pedestrian traffic at all times during working hours. During non-working hours (including evenings, weekends, and holidays) the Contractor must maintain a safe and secure worksite. Safe access and egress for all side streets and residential, commercial or industrial driveways must be maintained at all times.

6. SPECIAL REQUIREMENTS FOR SITE PROTECTION

In addition to the requirements of the R.I. State Building Code, R.I. State Board of Health and the special requirements of other sections of the Contract Documents, the following requirements shall be adhered to by the Contractor:

- a. The Contractor shall be required to install and maintain proper warning and construction signs and protection devices at the work location.

The Contractor shall schedule his construction activities affected by the pedestrian flow, such that no area is left without access for longer than 10 working days. This means that once the Contractor commences the removal of the existing egress, he must restore the main entrance with all new components at that particular

location within 10 working days, unless otherwise approved in writing by the Director of Planning & Development.

There will be no separate payment for any of these requirements. The cost shall be considered incidental to the Contract.

7. COORDINATION OF TEMPORARY ACCESS/EGRESS POINTS WITH THE CITY OF WOONSOCKET

Any egress/access detour plans if needed and must be submitted for approval by the Contractor to the Director of Planning & Development at least one (1) week prior to the implementation of said egress/access detour in order to provide adequate time for review. Egress/access detour plans must include all points of entry to the building.

8. MAINTAIN PUBLIC ACCESS

The Contractor, at his own expense, shall keep all the public sidewalks, private walks, and driveways in which he may be at work open for pedestrian and vehicular traffic at all times, unless otherwise authorized by the Director of Planning & Development in writing.

If in the opinion of the Director of Planning & Development or the interest of abutters and the public requires it, the Contractor shall bridge or construct plank crossings over his work where necessary to provide such temporary means of crossing or guarding as shall be acceptable to the Director of Planning & Development. The Contractor shall conduct his work for this purpose in such a manner as the Director of Planning & Development may direct from time to time.

9. STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT

The Contractor, at his own expense, shall provide for overnight storage of construction material/equipment. The Contractor shall provide the Director of Planning & Development with a copy of any agreement with property owners for storage of materials or equipment on private property.

The Contractor shall be solely responsible for storage of material or equipment on private property.

No portion of roadway or sidewalks may be used for storage of construction material or equipment.

ASBESTOS ABATEMENT PLAN

- 1) Asbestos Abatement Plan by Fuss & O'Neill**
- 2) App D – Drawings Combined**
- 3) Section 028213 Asbestos Abatement**
- 4) Section 028319 Lead Pain Awareness**
- 5) Section 028416 Lighting Ballasts – Mercury**
- 6) Section 028433 Presumed PCB Removal - Disposal**



FUSS & O'NEILL

July 21, 2023

Rhode Island Department of Health
Asbestos Control Program
3 Capitol Hill, Room 206
Providence, RI 02908-5097

Re: Asbestos Abatement Plan
Woonsocket Middle School Historic Office Building
148 Hamlet Avenue, Woonsocket, Rhode Island
Fuss & O'Neill Reference No. 2004033.A30

To Whom It May Concern:

Enclosed is a Rhode Island Department of Health (RIDOH) Asbestos Abatement Plan (the "Plan") for the Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island. Fuss & O'Neill, Inc. (Fuss & O'Neill) has prepared this Plan in accordance with requirements of the RIDOH Rules and Regulations for Asbestos Control (216-RICR-50-15-1). The materials included in the Plan are those materials that were determined to contain asbestos.

The final intent for the building is not known at this time; it may be demolished, or it may be renovated. Pre-abatement air samples will be collected at a later date and submitted to the RIDOH prior to abatement commencing.

The RIDOH-licensed Asbestos Contractor performing the work specified in the Plan has not been selected at this time.

If you should have any questions, please do not hesitate to contact me at 401-595-8270.

Sincerely,

Jonathan L. Hand
Project Manager

Enclosure

317 Iron Horse Way
Suite 204
Providence, RI
02908
t 401.861.3070
800.286.2469
f 401.861.3076
www.fando.com

California
Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Asbestos Abatement Plan

**Woonsocket Middle School Historic Office Building
148 Hamlet Avenue
Woonsocket, RI**

City of Woonsocket

Woonsocket, RI

July 2023



Fuss & O'Neill, Inc.

317 Iron Horse Way, Suite 204
Providence, Rhode Island 02908

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**Asbestos Abatement Plan
Woonsocket Middle School Historic Office Building
148 Hamlet Avenue, Woonsocket, RI
City of Woonsocket**

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1 Introduction

1.1 Building Description

The site building is located at 148 Hamlet Avenue in Woonsocket, Rhode Island (the “Site”) and consists of a 1.55-acre parcel identified as City of Woonsocket Tax Assessor’s Map 027, Lot 172. The Site is owned by the City of Woonsocket and includes a two-story brick masonry building with a basement that was reportedly constructed in 1908 as an office building for the mill that has since been demolished. The Site building has a footprint of approximately 3,200 square feet and is currently not occupied or in use. We understand that the final intent for the building is not known at this time; it may be demolished, or it may be renovated. Abatement of known asbestos-containing materials located at the basement, 1st floor, 2nd floor, and roof of the Site building will occur as part of this plan to prepare the building for its final intent.

1.2 Asbestos Survey

This Asbestos Abatement Plan includes the results of an Asbestos Survey completed by Fuss & O’Neill representative Mr. Lou Dias on September 20 and 21, 2022. Mr. Dias is a United States Environmental Protection Agency (EPA)-accredited and Rhode Island Department of Health (RIDOH)-certified Asbestos Inspector (Certificate # AI01068). This Asbestos Abatement Plan was prepared for the building located at the above-listed address in accordance with Paragraphs 1.6 and 1.17 of the RIDOH Regulations for Asbestos Control (216-RICR-50-15-1) on behalf of the City of Woonsocket (the “Owner”).

A total of 132 asbestos bulk samples were collected and submitted under chain of custody (COC) to EMSL Analytical, Inc. (Woburn, Massachusetts) for analysis using the USEPA Interim Method for the Determination of Asbestos in Bulk Building Materials (USEPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS). The percentage of asbestos, where applicable, was determined by stereomicroscopic visual estimation. The lab is a RIDOH-licensed Asbestos Analytical Laboratory and accredited under the National Voluntary Laboratory Accreditation Program.

A complete list of ACM and non-ACM analyzed as part of the September 20 and September 21, 2022, inspection identified by sample identification, material type, location, and asbestos content are presented in **Table 1** located in *Appendix E*. A summary of the classification, condition, and approximate quantity of identified ACM is presented in **Table 2** located in *Appendix F*. Asbestos laboratory analytical reports and COC forms are included in *Appendix G*.

2 Specific Proposed Abatement Methods

The following safeguards will be adhered to pre-asbestos abatement:

- The Site building entry points have been, and will remain, secured with construction barriers.
- All doors and access to the building will remain locked and secured; no unauthorized personnel will be allowed to enter the building.
- Asbestos warning signs will be posted at each entrance to the building once abatement starts.
- Abatement activities will be performed by an Asbestos Contractor licensed by the State of Rhode Island in accordance with Paragraph 1.7 of the RIDOH Regulation for Asbestos Control. The Asbestos Contractor will utilize Form ASB-22 to notify RIDOH in writing at least ten (10) working days before beginning any on-site work. The Asbestos Contractor's Site Supervisor will also notify the RIDOH by telephone when on-site preparation commences.

The Asbestos Contractor will set up barriers and remove ACM in accordance with 216-RICR-50-15-1 1.14.2, 1.14.3, & 1.14.8 as applicable. This will include:

- Interior Work
 - Cordon off the work area(s) using asbestos danger tape.
 - Don Tyvek suits, gloves, hard hats, eye protection, and ½-face negative pressure respirators.
 - Establish interior critical barriers consisting of 2 layers of 6-mil poly sheeting.
 - Install a 3-chamber decontamination facility, consisting of a clean room, shower room, and equipment room, each separated from each other and from the work area by airlocks and accessible through doorways protected with two (2) overlapping polyethylene sheets (in accordance with OSHA 29 CFR 1926.58).
 - Install two (2) layers of 6-mil poly sheeting on walls and two (2) layers of 4-mil poly sheeting on floors and ceilings (unless those surfaces are being abated).
 - Install high-efficiency particulate air (HEPA)-filtered work area ventilation units.
 - Wet and remove ACM using hand tools and mechanical chipping guns.
 - Appropriately package all waste.
 - Decon all tools prior to leaving regulated area.
 - Appropriately dispose of debris resulting from this work as ACM.
 - During the duration of work, personnel samples will be collected as required.
- Exterior Work
 - Cordon off the work area(s) using asbestos danger tape.
 - Don Tyvek suits, gloves, hard hats, eye protection, and ½-face negative pressure respirators.
 - Install two (2) layers of 6-mil poly sheeting on the first horizontal surface below the work area extending from the edge of the building to at least ten (10) feet away from the building.
 - Install critical barriers consisting of one (1) layer of 6-mil poly sheeting over HVAC intakes or exhaust vents on the roof area.

- Install a 2-chambered worker decontamination enclosure system consisting of a clean room and equipment room, each separated from each other and from the work area by airlocks and accessible through doorways protected with two (2) overlapping polyethylene sheets (in accordance with OSHA 29 CFR 1926.58).
- Wet and remove ACM using hand tools and mechanical caulking cutters.
- Appropriately package all waste.
- Decon all tools prior to leaving regulated area.
- Appropriately dispose of debris resulting from this work as ACM.
- During the duration of work, personnel samples will be collected as required.

Material shall be kept wet during removal and properly segregated for disposal as asbestos-containing waste material. The abated ACM will be placed into an enclosed container that is lined with 2 layers of 6-mil poly sheeting that will be later used to transport materials off the Site for ultimate disposal. Transportation and disposal firm details will be provided by the Asbestos Contractor.

Final visual inspections by a representative from Fuss & O'Neill will be used to evaluate whether the ACM have been fully removed. For final visual inspections, the Asbestos Contractor is anticipated to retain critical barriers, the decontamination unit, and the HEPA-filtered work area ventilation units in-place until the post-abatement visual clearance inspection has been performed.

Following the final visual inspection, final clearance air samples will be collected from the containment and will be analyzed by Phase Contrast Microscopy (PCM) in accordance with the National Institute for Occupational Safety and Health Method 7400. The final clearance air sampling results will be compared to the RIDOH re-occupancy level of 0.01 fibers per cubic centimeter (fibers/cc) of air.

3 Interim Operations and Maintenance Program

As required by Paragraph 1.17.2 of the RIDOH Regulation for Asbestos Control, an interim Operations and Maintenance Program will be implemented until the ACM can be abated.

The identified ACM is generally in poor condition and access to the building has been barred by plywood. The Owner's representative has been informed of the presence of ACM within the building and will provide the General Contractor (GC) the hazardous building materials inspection report, specifications, Asbestos Abatement Plan, and site drawings depicting the locations and descriptions of identified RACM.

The Site building is currently unoccupied and access to the building is restricted to unauthorized personnel by locked and secured fencing and construction barriers. There is no intent to enter or access the building until the abatement project proceeds. Prior to the initiation and upon the completion of the abatement project, no activities (maintenance or otherwise) will be conducted in which ACM may have the potential of being disturbed at any location throughout the work areas.

Contractors employed by the building owner who, as a consequence of their work activities may disturb ACM, must be properly trained and certified by the RIDOH as a "Competent Person" in accordance with the regulations.

4 Request for Waivers

Interior Wall, Ceiling, & Flooring Materials – Floor and Wall Poly Sheeting

- A waiver of the requirements to use 2 layers of 6-mil poly sheeting on the floors is requested [1.14.2(C.)]. Instead, 1 layer of 6-mil poly will be used. This does not apply to work areas where flooring materials are present, as they are exempt from this requirement.
- A waiver of the requirements to use 2 layers of 4-mil poly sheeting on walls is requested [1.14.2(D.)]. Instead, 1 layer of 6-mil poly will be used.
- This waiver request does not apply where friable ACM such as Thermal System Insulation (TSI) pipe and mudding fitting abatement is undertaken.

Worker OSHA compliance samples in lieu of clearance air sampling for exterior abatement [1.14.8(K)]

- For exterior work, in lieu of air clearance and in-process air sampling, the Asbestos Contractor shall collect OSHA personnel air samples, representing each type of work activity, with a minimum of 2 air samples per shift, each on a different worker [1.14.8(K)] in accordance with 29 CFR 1926.1101 (f).

5 Alternative Work Practices

Non-friable duct-seam sealant, roof sealants, slate roof cement, and exterior stair caulking shall be removed from the roof of the Site building and front exterior stairs, respectively. Removal shall be performed using 1.16 Alternative Procedures, which would include some work procedures from 1.14.8 and the applicable requirements of 1.14.2 & 1.14.3, including as follows.

Material shall be kept wet during removal and properly segregated for disposal as asbestos-containing waste material. Work shall be conducted as exterior abatement with critical barriers and drop cloths consisting of two (2) layers of 6-mil poly sheeting in-place. Poly sheeting shall extend 10' from the work area in all directions. Warning signs shall be posted in accordance with 1.14.2(G.). A two-chamber decontamination facility shall be erected for this work.

Appendix A

State of Rhode Island
Application for Approval of an Asbestos Abatement Plan
FORMS ASB-16/ASB-16A/ASB-16



RHODE ISLAND DEPARTMENT OF HEALTH

Instructions for Preparing: ASBESTOS ABATEMENT PLAN APPLICATION

Forms ASB-16/ASB-16A/ASB-16B

To remove, encapsulate, enclose, repair, or otherwise disturb or abate asbestos at a facility in Rhode Island, the property owner must complete an Asbestos Abatement (Management) Plan Application ("Application," Forms ASB-16/ASB-16A/ASB-16B) which includes all required information. The work cannot begin until the Asbestos Abatement (Management) Plan ("Plan") is approved by the Rhode Island Department of Health (RIDOH) in accordance with the Rules and Regulations for Asbestos Control (216-RICR-50-15-1).

1. Submit the Application to:

**Rhode Island Department of Health
Center for Healthy Homes and Environment - Asbestos Program
3 Capitol Hill, Room 206
Providence, RI 02908-5097**

2. The time necessary for review by RIDOH varies with the complexity of the plan and completeness of the Application. For planning purposes, allow 30 calendar days from the time of submission to approval.
3. The appropriate application fee, specified in item 17 on Form ASB-16, must be submitted. Applications submitted without the proper fee will not be processed until the correct fee has been paid.
4. The Asbestos Project Designer who prepared the Plan must sign item 18 on Form ASB-16. A consultant may not sign Form ASB-16B.
5. Form ASB-16B must be signed by an owner or an individual legally authorized to make binding commitments on behalf of the building owner(s). Form ASB-16B must accompany Forms ASB-16 and ASB-16A and cannot be submitted under separate cover.
6. Missing items and/or attachments not clearly marked for identification with a specific item on the forms will delay the review process. In some cases, the Application may be denied and returned for resubmission.
7. The content of the subject Plan may be considered public information under the Rhode Island Access to Public Records Act (APRA).
8. All subsequent related documentation (e.g., start work notification, clearance air sampling, waste manifest) must indicate the approved Plan number.
9. Questions about the Application process can be directed to doh.asbestos@health.ri.gov.



RHODE ISLAND DEPARTMENT OF HEALTH
Center for Healthy Homes and Environment – Asbestos Program

ABATEMENT PLAN APPLICATION

1. Owner/Contact Name: _____

Title: _____

If owned by an organization, organization name: _____

Address: _____

City/State: _____ ZIP: _____

Phone: _____ Email: _____

2. Application prepared by:

Name: _____ RIDOH License No.: _____

Phone: _____ Email: _____

4. Location of abatement work:

Facility/Building Name: _____

Street Address: _____

City/Town: _____ ZIP: _____

5. Reason for Application: (Check all that apply)

Emergency Plan No. _____

Standard Plan

Annual Plan

Response to a Notice or Order (attach copy)

6. Asbestos contractor (if known):

Name: _____ RIDOH License No.: _____

7. Estimated Abatement Work Dates

Start Date: _____ Completion Date: _____

8. Abatement Method: **(Check all that apply)**

Removal

Glovebag

Encapsulation

Asphalt Roofing

Enclosure

Operations & Maintenance Only

Demolition

Other (Specify): _____

9. Facility Type: **(Check one)**

Child Care Facility

Private Residential Dwelling

College/University

Public Housing

Hospital

School/School Building

Other (Specify): _____

10. Building Access: **(Check one)**

Public Access

No Public Access

Limited Public Access

Other (specify) _____

11. Bulk Sampling:

A. Samples collected by:

Name: _____ RIDOH License No.: _____

B. Sampling Methodology: **(Check one)**

☒ EPA AHERA Sampling requirements [40 CFR 763.86].

Other (Specify): _____

C. Analytical Service:

Name: _____ RIDOH License No.: _____

D. Analytical Method: **(Check one)**

PLM (Phase Light Microscopy)

TEM (Transmission Electron Microscopy)

Other (Specify): _____

12. Pre-Abatement Air Sampling:

A. Samples collected by:

Name: _____ RIDOH License No.: _____

Affiliation: _____

B. Analytical Service:

Name: _____ RIDOH License No.: _____

C. Analytical Method: **(Check one)**

PCM (Phase Contrast Microscopy)

TEM (Transmission Electron Microscopy)

Other (Specify): _____

13. Removal and Disposal of Asbestos-Containing Material (ACM):

A. How will ACM be removed from the abatement site? If a hauler or broker will be used to transport the ACM to a disposal site, they must also be identified.

B. Provide the name and location of the authorized asbestos waste facility where the ACM will be transferred for disposal (if known).

14. Project Monitor: **(not required)**

Name: _____ RIDOH License No.: _____

Affiliation: _____

15. In-Process & Clearance Air Sampling: **Refer to Appendix B**

A. Describe in an attachment the type, number and location of air samples that will be collected outside the work area during the abatement project.

B. Describe in an attachment the plan of action to be followed if the Indoor Non-Occupational Air Exposure Standard for Asbestos (0.01 fibers per cubic centimeter) is exceeded outside the work area during the abatement project.

C. Describe in an attachment the type, number and location of air samples that will be collected as part of the final clearance testing.

D. Describe in an attachment the plan of action to be followed if the Indoor Non-Occupational Air Exposure Standard for Asbestos (0.01 fiber per cubic centimeter) is exceeded during final clearance testing.

16. A separate and fully completed Form ASB-16A must be submitted for *each area* to be abated. List below the entry in Item 1 from each attached ASB-16A.

17. Asbestos Abatement Plan Application Fee:

State Agency, fee waived	\$0
Operation & Maintenance Program Only	\$75
Up to One (1) NESHAP Unit	\$75
Between One (1) & Ten (10) NESHAP Units	\$300
Between Ten (10) & Fifty (50) NESHAP Units	\$600
Over Fifty (50) NESHAP Units	\$900
Annual Plan	N/A

One (1) NESHAP Unit = 260 linear feet or 160 square feet or 35 cubic meters

18. I certify that this plan was prepared by me, and I am responsible for its content.

Name: _____ RIDOH License No.: _____

Signature: _____  _____ Date: _____

Affiliation: _____

Email: _____ Phone: _____



RHODE ISLAND DEPARTMENT OF HEALTH
Center for Healthy Homes and Environment – Asbestos Program
ASBESTOS ABATEMENT PLAN APPLICATION

Supplemental Information: Area Description and Proposed Plan

Facility/Building: _____

INSTRUCTIONS:

A separate and fully completed Form ASB-16A must be submitted for *each area* to be abated. All items on this form must be addressed. All references to attachments must be clearly identified. All attachments must be marked with the specific item numbers on this form to which they pertain.

1. Area Location/Identification (Room Name/No., etc.):

2. Attach a description of each type (e.g., pipe, ceiling, etc.) of asbestos-containing material (ACM) in this area, including condition, location, quantity, and asbestos content. Attach a copy of the laboratory report(s) for all samples. All laboratory reports must include the name of the building(s) and the location(s) of the sample(s). **Appendices F & G**

3. Attach a current scale drawing of this area, showing direction of North and East, which has been clearly annotated to show the type, location, and quantity of all ACM in this area. This drawing must include a legend which acts as a guide to the scale, symbols and nomenclature used in the drawing. If a master plan or multiple drawings are provided, indicate the specific location(s) and drawing number(s) which depict this area. The location of the decontamination chamber must also be so indicated on the appropriate drawing(s).

Appendix D

Proposed Plan:

A. Attach a description of the interim Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).

B. Will any portion of this area be abated by use of 1.14 work procedures?

Yes No

If yes, indicate below which ACM in this area will be abated by use of the following 1.14 work procedures: **(Check all that apply)**

1.14.2 & 1.14.3 Removal _____

1.14.2 & 1.14.4	Encapsulation	_____
1.14.2 & 1.14.5	Enclosure	_____
1.14.6	Demolition	_____
1.14.7	Glovebag	_____
1.14.8	Asphalt Roofing	_____
	Other (Specify)	_____

C. Are you requesting any waivers to the above selected 1.14 procedure for any of the abatement activities in this area?

Yes No

If yes, attach a detailed description of the waivers requested you are proposing to utilize. ***All items must be keyed to the specific section(s) of the regulations for which waivers are requested.***

D. Are you proposing alternative procedures under 1.16 for any of the abatement activities in this area?

Yes No

If yes, attach a detailed description of the alternate procedures requested you are proposing to utilize. ***Alternate procedures must include a justification for not following specific section(s) of the regulations and be as protective of public health.***

E. Will any ACM remain in this area after abatement?

Yes No Beyond scope of inspection

If yes, attach a description of the ACM that will remain and the details of the on-going Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).



RHODE ISLAND DEPARTMENT OF HEALTH
Center for Healthy Homes and Environment – Asbestos Program
ASBESTOS ABATEMENT PLAN APPLICATION

Supplemental Information: Area Description and Proposed Plan

Facility/Building: _____

INSTRUCTIONS:

A separate and fully completed Form ASB-16A must be submitted for *each area* to be abated. All items on this form must be addressed. All references to attachments must be clearly identified. All attachments must be marked with the specific item numbers on this form to which they pertain.

1. Area Location/Identification (Room Name/No., etc.):

2. Attach a description of each type (e.g., pipe, ceiling, etc.) of asbestos-containing material (ACM) in this area, including condition, location, quantity, and asbestos content. Attach a copy of the laboratory report(s) for all samples. All laboratory reports must include the name of the building(s) and the location(s) of the sample(s). **Appendices F & G**

3. Attach a current scale drawing of this area, showing direction of North and East, which has been clearly annotated to show the type, location, and quantity of all ACM in this area. This drawing must include a legend which acts as a guide to the scale, symbols and nomenclature used in the drawing. If a master plan or multiple drawings are provided, indicate the specific location(s) and drawing number(s) which depict this area. The location of the decontamination chamber must also be so indicated on the appropriate drawing(s).

Appendix D

Proposed Plan:

A. Attach a description of the interim Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).

B. Will any portion of this area be abated by use of 1.14 work procedures?

Yes No

If yes, indicate below which ACM in this area will be abated by use of the following 1.14 work procedures: **(Check all that apply)**

1.14.2 & 1.14.3 Removal _____

1.14.2 & 1.14.4	Encapsulation	_____
1.14.2 & 1.14.5	Enclosure	_____
1.14.6	Demolition	_____
1.14.7	Glovebag	_____
1.14.8	Asphalt Roofing	_____
	Other (Specify)	_____

C. Are you requesting any waivers to the above selected 1.14 procedure for any of the abatement activities in this area?

Yes No **Refer to Section 4**

If yes, attach a detailed description of the waivers requested you are proposing to utilize. ***All items must be keyed to the specific section(s) of the regulations for which waivers are requested.***

D. Are you proposing alternative procedures under 1.16 for any of the abatement activities in this area?

Yes No

If yes, attach a detailed description of the alternate procedures requested you are proposing to utilize. ***Alternate procedures must include a justification for not following specific section(s) of the regulations and be as protective of public health.***

E. Will any ACM remain in this area after abatement?

Yes No Beyond scope of inspection

If yes, attach a description of the ACM that will remain and the details of the on-going Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).



RHODE ISLAND DEPARTMENT OF HEALTH
Center for Healthy Homes and Environment – Asbestos Program
ASBESTOS ABATEMENT PLAN APPLICATION

Supplemental Information: Area Description and Proposed Plan

Facility/Building: _____

INSTRUCTIONS:

A separate and fully completed Form ASB-16A must be submitted for *each area* to be abated. All items on this form must be addressed. All references to attachments must be clearly identified. All attachments must be marked with the specific item numbers on this form to which they pertain.

1. Area Location/Identification (Room Name/No., etc.):

2. Attach a description of each type (e.g., pipe, ceiling, etc.) of asbestos-containing material (ACM) in this area, including condition, location, quantity, and asbestos content. Attach a copy of the laboratory report(s) for all samples. All laboratory reports must include the name of the building(s) and the location(s) of the sample(s). **Appendices F & G**

3. Attach a current scale drawing of this area, showing direction of North and East, which has been clearly annotated to show the type, location, and quantity of all ACM in this area. This drawing must include a legend which acts as a guide to the scale, symbols and nomenclature used in the drawing. If a master plan or multiple drawings are provided, indicate the specific location(s) and drawing number(s) which depict this area. The location of the decontamination chamber must also be so indicated on the appropriate drawing(s).

Appendix D

Proposed Plan:

A. Attach a description of the interim Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).

B. Will any portion of this area be abated by use of 1.14 work procedures?

Yes No

If yes, indicate below which ACM in this area will be abated by use of the following 1.14 work procedures: **(Check all that apply)**

1.14.2 & 1.14.3 Removal _____

1.14.2 & 1.14.4	Encapsulation	_____
1.14.2 & 1.14.5	Enclosure	_____
1.14.6	Demolition	_____
1.14.7	Glovebag	_____
1.14.8	Asphalt Roofing	_____
	Other (Specify)	_____

C. Are you requesting any waivers to the above selected 1.14 procedure for any of the abatement activities in this area?

Yes No **Refer to Section 4**

If yes, attach a detailed description of the waivers requested you are proposing to utilize. ***All items must be keyed to the specific section(s) of the regulations for which waivers are requested.***

D. Are you proposing alternative procedures under 1.16 for any of the abatement activities in this area?

Yes No

If yes, attach a detailed description of the alternate procedures requested you are proposing to utilize. ***Alternate procedures must include a justification for not following specific section(s) of the regulations and be as protective of public health.***

E. Will any ACM remain in this area after abatement?

Yes No Beyond scope of inspection

If yes, attach a description of the ACM that will remain and the details of the on-going Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).



RHODE ISLAND DEPARTMENT OF HEALTH
Center for Healthy Homes and Environment – Asbestos Program
ASBESTOS ABATEMENT PLAN APPLICATION

Supplemental Information: Area Description and Proposed Plan

Facility/Building: _____

INSTRUCTIONS:

A separate and fully completed Form ASB-16A must be submitted for *each area* to be abated. All items on this form must be addressed. All references to attachments must be clearly identified. All attachments must be marked with the specific item numbers on this form to which they pertain.

1. Area Location/Identification (Room Name/No., etc.):

2. Attach a description of each type (e.g., pipe, ceiling, etc.) of asbestos-containing material (ACM) in this area, including condition, location, quantity, and asbestos content. Attach a copy of the laboratory report(s) for all samples. All laboratory reports must include the name of the building(s) and the location(s) of the sample(s). **Appendices F & G**

3. Attach a current scale drawing of this area, showing direction of North and East, which has been clearly annotated to show the type, location, and quantity of all ACM in this area. This drawing must include a legend which acts as a guide to the scale, symbols and nomenclature used in the drawing. If a master plan or multiple drawings are provided, indicate the specific location(s) and drawing number(s) which depict this area. The location of the decontamination chamber must also be so indicated on the appropriate drawing(s).

Appendix D

Proposed Plan:

A. Attach a description of the interim Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).

B. Will any portion of this area be abated by use of 1.14 work procedures?

Yes No

If yes, indicate below which ACM in this area will be abated by use of the following 1.14 work procedures: **(Check all that apply)**

1.14.2 & 1.14.3 Removal _____

1.14.2 & 1.14.4	Encapsulation	_____
1.14.2 & 1.14.5	Enclosure	_____
1.14.6	Demolition	_____
1.14.7	Glovebag	_____
1.14.8	Asphalt Roofing	_____
	Other (Specify)	_____

C. Are you requesting any waivers to the above selected 1.14 procedure for any of the abatement activities in this area?

Yes No

If yes, attach a detailed description of the waivers requested you are proposing to utilize. ***All items must be keyed to the specific section(s) of the regulations for which waivers are requested.***

D. Are you proposing alternative procedures under 1.16 for any of the abatement activities in this area?

Yes No **Refer to Section 5**

If yes, attach a detailed description of the alternate procedures requested you are proposing to utilize. ***Alternate procedures must include a justification for not following specific section(s) of the regulations and be as protective of public health.***

E. Will any ACM remain in this area after abatement?

Yes No Beyond scope of inspection

If yes, attach a description of the ACM that will remain and the details of the on-going Operations and Maintenance Plan that will be implemented in accordance with 1.17.2(B).



RHODE ISLAND DEPARTMENT OF HEALTH

NOTARIZED CERTIFICATION OF ASBESTOS ABATEMENT PLAN

Facility/Building: _____

Address: _____

City/Town: _____ ZIP: _____ Amendment Phase No: _____

Abatement Plan Prepared By: _____ RIDOH License No.: _____

Summary of specific waivers/variances being requested: _____

Abatement Information

Abatement Method: (Check all that apply)

Removal

Demolition

Encapsulation

Glovebag

Enclosure

Asphalt Roofing

Other (specify): _____

Asbestos Contractor: _____ RIDOH License No.: _____

Estimated Starting Date: _____

Pre-Abatement Sampling Information

Bulk samples collected by: _____ RIDOH License No.: _____

Bulk samples analyzed by: _____ RIDOH License No.: _____

Air samples collected by: _____ RIDOH License No.: _____

Air samples analyzed by: _____ RIDOH License No.: _____

Clearance Air Sampling Information

Air samples to be collected by: _____

Air samples to be analyzed by: _____ RIDOH License No.: _____

CERTIFICATION

I certify that: this asbestos abatement plan is prepared and submitted under the provisions of Rhode Island General Laws Chapter 23-24.5 and the Rules and Regulations for Asbestos Control (216-RICR-50-15-1); all abatement/management activities performed in conjunction with this plan will be in compliance with the specifications prescribed in this plan (when approved) and the most current revision of all applicable federal and state regulations; and the asbestos abatement/management activities described in this plan will be performed by a Rhode Island licensed asbestos abatement contractor.

State of Rhode Island, County of _____. On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared _____ (name of document signer), and proved to me through satisfactory evidence of identification to be the person whose name is signed on the preceding or attached document, and acknowledged that they signed it voluntarily for its stated purpose.

Signature of Building Owner or Agent

Printed Name of Building Owner or Agent

(official signature and stamp of notary)

Printed Name, ID Number Notary Public

My Commission expires: _____

Appendix B

In-Process & Clearance Air Sampling Plan

In-Process & Clearance Air Sampling Plan

The following supplemental information is being submitted for each of the required items included on Form ASB-16 lines 17 A, B, C, and D.

Item No. 17A - During Abatement Air Sampling

If a third-party industrial hygienist is hired to perform air sampling during abatement, area air samples will be collected using 25- millimeter (mm) conductive cassettes with a 50-mm cowl extension containing a 0.8 micrometer (μm) pore or a 0.45 μm pore size Mixed Cellulose Ester (MCE) filter. Sample collection and analysis will be by Phase Contrast Microscopy (PCM) in accordance with the NIOSH 7400 method. The number and location of samples taken per day will be determined by the on-site Industrial Hygienist (IH).

For exterior work, in lieu of air clearance and in-process air sampling, the Contractor shall collect OSHA personnel air samples, representing each type of work activity, with a minimum of two air samples per shift, each on a different worker [1.13] in accordance with 29 CFR, Part 1926.1101 (f). Air samples will be collected using 25-millimeter (mm) conductive cassettes with a 50-mm cowl extension containing a 0.8 micrometer (μm) pore or a 0.45 μm pore size Mixed Cellulose Ester (MCE) filter. Sample collection and analysis will be by Phase Contrast Microscopy (PCM) in accordance with the NIOSH 7400 method.

The abatement contractor shall submit all personnel air sample analytical results for the exterior work to the Owner or Owner's Agent, as well as to RIDOH within one week of collection of the air samples.

Item No. 17B - Indoor Non-Occupational Air Exposure Standards during Abatement

Air samples collected outside of work areas during asbestos removal that exceed exposure standard of 0.01 fibers per cubic centimeter (f/cc) will result in work stoppage. An investigation to determine the reason for elevated airborne fiber levels will be conducted. Inspect containment and critical barriers in the area outside containment where counts exceeded the standard and repair any tears or improperly sealed areas.

If visible emissions or debris is observed or contamination is suspected outside negative pressure enclosures, the Asbestos Contractor will then be responsible for extending the negative pressure enclosure to include the contaminated area in accordance with regulatory requirements. The contaminated area will then be cleaned by the Asbestos Contractor and final air clearance samples will be collected by the IH.

This does not apply for exterior work.

Item No. 17C - Final Clearance Air Samples

Upon completion of asbestos removal work, a final visual inspection will be conducted in each work area to document that all required abatement is complete, and the area meets the "No Visible Dust or Debris" criterion. Then final air clearance samples will be collected and analyzed with results meeting the clearance standard of 0.01 f/cc. Final clearance air sample collection and analysis will be in accordance with RIDOH Regulation 216-RICR-50-15-1 and include at least one sample for each 100 linear feet (LF) or 1,000 square feet (SF) of asbestos or portion thereof (up to 500 LF or 5,000 SF), plus one sample for each additional 500 LF or 5,000 SF or portion thereof, or one sample per room, whichever is greater. A minimum of two



samples (plus blanks as required by the method) per clearance will be collected and analyzed. The collection and analysis of these samples will be in accordance with NIOSH 7400 Method and include utilizing aggressive air sampling techniques to obtain a minimum volume of 1,200 liters.

Refer to Item No. 17A for exterior work.

Item No. 17D - Indoor Non-Occupational Air Exposure Standards during Clearance

If the Indoor Non-Occupational Exposure Standard for asbestos is exceeded for the final clearance air sample results, the work area will be re-cleaned using wet-wiping and cleaning with HEPA-filter equipped vacuums per RIDOH Regulation 216-RICR-50-15-1 1.14.2. Final air clearance samples will be re-collected to determine if the total airborne fiber concentrations are below the OSHA re-occupancy standard. This process of re-cleaning and resampling will be repeated until the clearance air samples meet the regulatory requirements. All re-cleaning, resampling and analysis costs will be paid for by the Asbestos Contractor.

This does not apply for exterior work.

Appendix C

Descriptions of Regulated Asbestos-Containing Materials within Abatement Areas



**Descriptions of Regulated Asbestos-Containing Materials within Abatement Areas
("Attachment B" of Forms ASB-16A)
148 Hamlet Avenue, Woonsocket, Rhode Island**

The following supplemental information is being submitted for each of the required items included on Forms ASB-16A lines 2 and 4 (A&B).

**Item No. 2
Asbestos-Containing Material Types**

Refer to the attached Appendix F - Table 2 for RACM identified at the site.

**Item No. 4 (A)
Operations and Maintenance**

The Site building is presently unoccupied, and access is restricted to unauthorized personnel by secured and locked fencing and construction barriers.

The General Contractor (GC), to be determined at a later date, will be in possession of the hazardous building materials inspection report, specifications, Asbestos Abatement Plan, and Site drawings depicting locations and descriptions of all identified RACM. The GC shall be responsible for Site control during the abatement project. The GC shall be responsible for monitoring existing RACM and notifying the Consultant through their Client (City of Woonsocket) if a disturbance occurs. If previously unidentified suspect building materials are discovered, a RIDOH-licensed Asbestos Inspector shall be notified to evaluate the situation and take appropriate actions.

Proper barriers and signage shall be installed prior to abatement activities in accordance with RIDOH Rules and Regulation for Asbestos Control [216-RICR-50-15-1]. To our understanding, all RACM within the Site building will be abated during this project.

**Item No. 4 (B)
Proposed Remedies**

Materials requiring removal shall be abated in accordance with the following methods:

Interior Materials: Removal shall be performed in accordance with requirements of 1.14.2 & 1.14.3. Material shall be kept wet during removal and properly segregated for disposal as asbestos-containing waste materials. Work shall be conducted within a negative pressure enclosure. Spray ACM with amended water using airless spray equipment or apply approved removal encapsulant to reduce the release of fibers during removal operations. ACM should be removed intact with as minimal breakage as possible. Waste will be properly packaged and disposed of.



Exterior Materials: Removal shall be performed in accordance with requirements of 1.14.2, 1.14.3, & portions of 1.14.8. Material shall be kept wet during removal and properly segregated for disposal as asbestos-containing waste materials. Two (2) layers of 6-mil poly sheeting will be installed on the first horizontal surface below the work area extending from the edge of the building to at least ten (10) feet away from the building. Critical barriers consisting of two (2) layer of 6-mil poly sheeting will be installed over HVAC intakes or exhaust vents. Spray ACM with amended water using airless spray equipment or apply approved removal encapsulant to reduce the release of fibers during removal operations. ACM should be removed intact with as minimal breakage as possible. Waste will be properly packaged and disposed of.

Appendix D

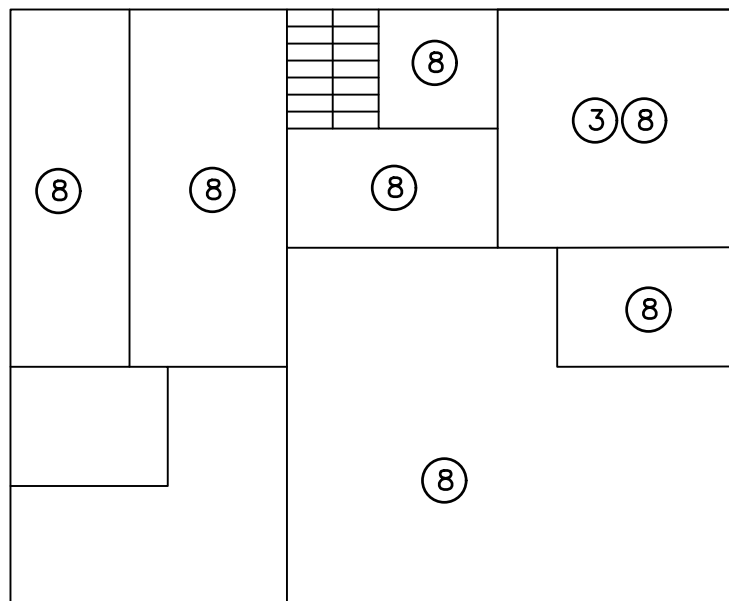
Drawings

- ②. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF SHEET FLOORING AS ACM.
- ③. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF FLOOR TILE AS ACM.
- ④. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF WALLBOARD ADHESIVE AS ACM.
- ⑤. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF ELECTRICAL BOARD BACKER PANELS AS ACM.
- ⑥. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF CEMENTITIOUS FLOORING AS ACM.
- ⑦. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF DRYWALL/Joint COMPOUND SYSTEM AS ACM.
- ⑧. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF PIPE AND FITTING INSULATIONS AS ACM.

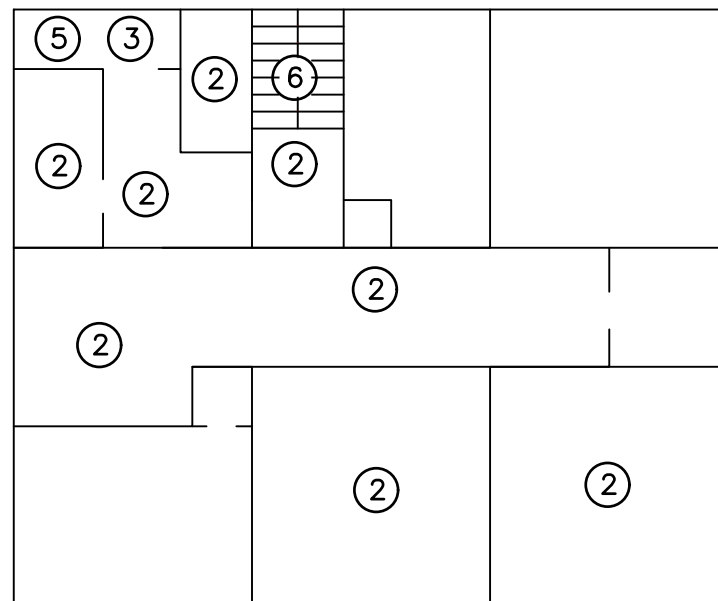
1.THE ASBESTOS CONTRACTOR SHALL REVIEW SECTIONS 028213 - ASBESTOS ABATEMENT AND 028433 - PRESUMED PCB REMOVAL AND DISPOSAL FOR ADDITIONAL DETAILS IN REGARDS TO REMOVAL.

2. RENOVATION/DEMOLITION AREAS REPRESENTED ON THIS DRAWING ARE TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT. THE ASBESTOS ABATEMENT CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR RENOVATION/DEMOLITION INFORMATION.

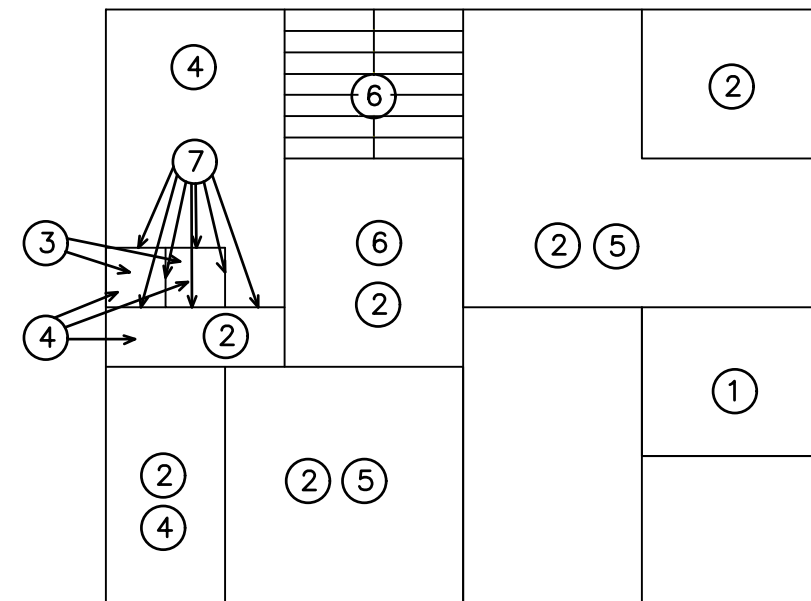
3. SHADING OR HATCHING REPRESENTED ON THIS DRAWING IS TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT.



BASEMENT



1ST FLOOR



2ND FLOOR

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SCALE:	
HORZ.: NOT TO SCALE	
VERT.:	
DATUM:	
HORZ.: -	
VERT.: -	

**FUSS & O'NEILL**

317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

CITY OF WOONSOCKET

INTERIOR ABATEMENT PLAN

WOONSOCKET MIDDLE SCHOOL
148 HAMLET AVENUE

WOONSOCKET

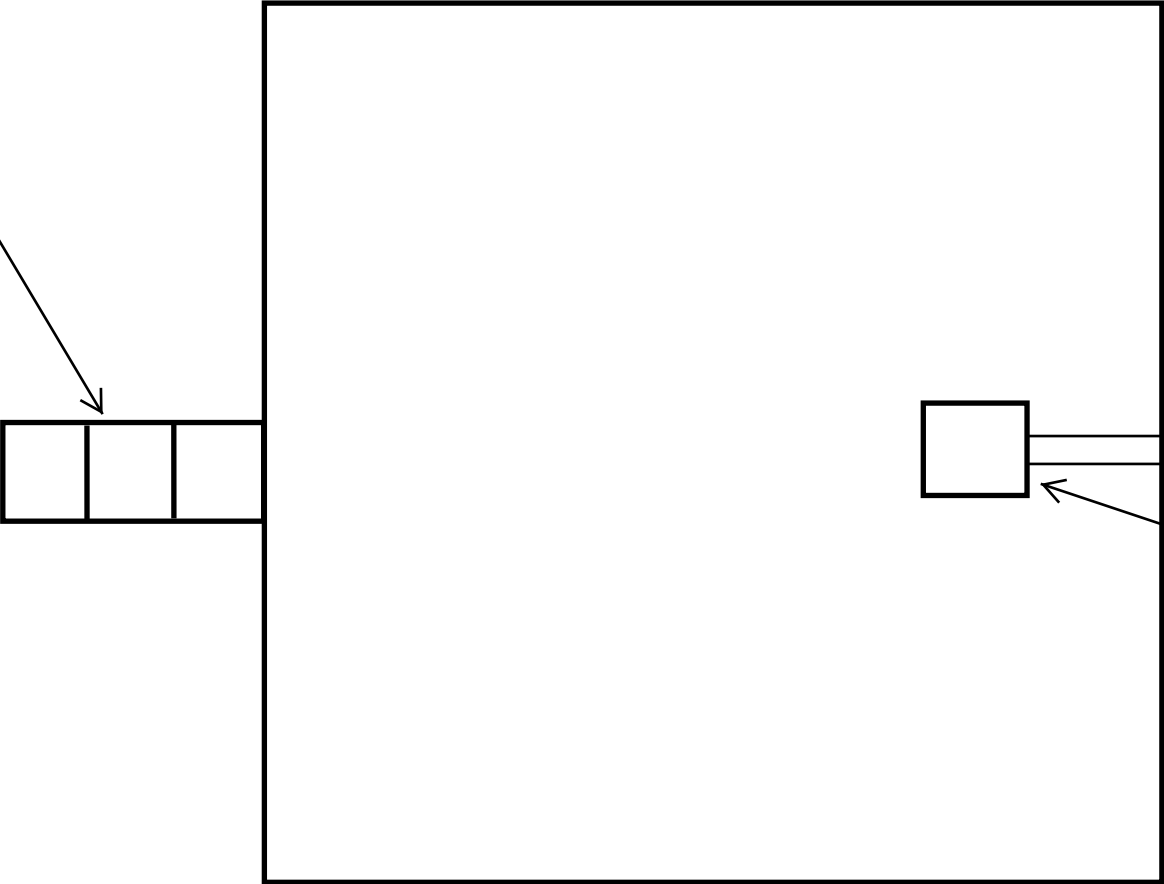
RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JULY 21, 2023

FIGURE 1

Typical 3-stage Decontamination facility - includes hot & cold water, towels, & 5 µm waste water filter at all times during work. Consult owner for power, water, and drains.

2 layers of 4-mil poly sheeting (1 layer of 6-mil poly sheeting for flooring materials if waiver is approved) installed on walls. 2 layers of 6-mil poly sheeting on floors where flooring materials are not being abated. 2 layers of 4-mil poly sheeting installed on ceilings if ceiling material is not impervious and free of cracks, fissures, or any over imperfection that would prevent the surface from being adequately cleaned.



2,000 CFM (switchable to 1,000 CFM), HEPA-filtered work area ventilation unit with 12"Ø 6-mil poly tube exhaust through 12" round cuts outs in sheet of plywood installed at window opening. Double wall 12"Ø 6-mil poly tube exhausts shall be used where the exhausts travel through building interiors outside containment. Install and maintain one spare 2,000 CFM HEPA unit. Maintain at least -0.020 inches water column negative pressure inside containment and good airflow throughout.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SCALE:
HORZ.: NOT TO SCALE
VERT.:
DATUM:
HORZ.: -
VERT.: -



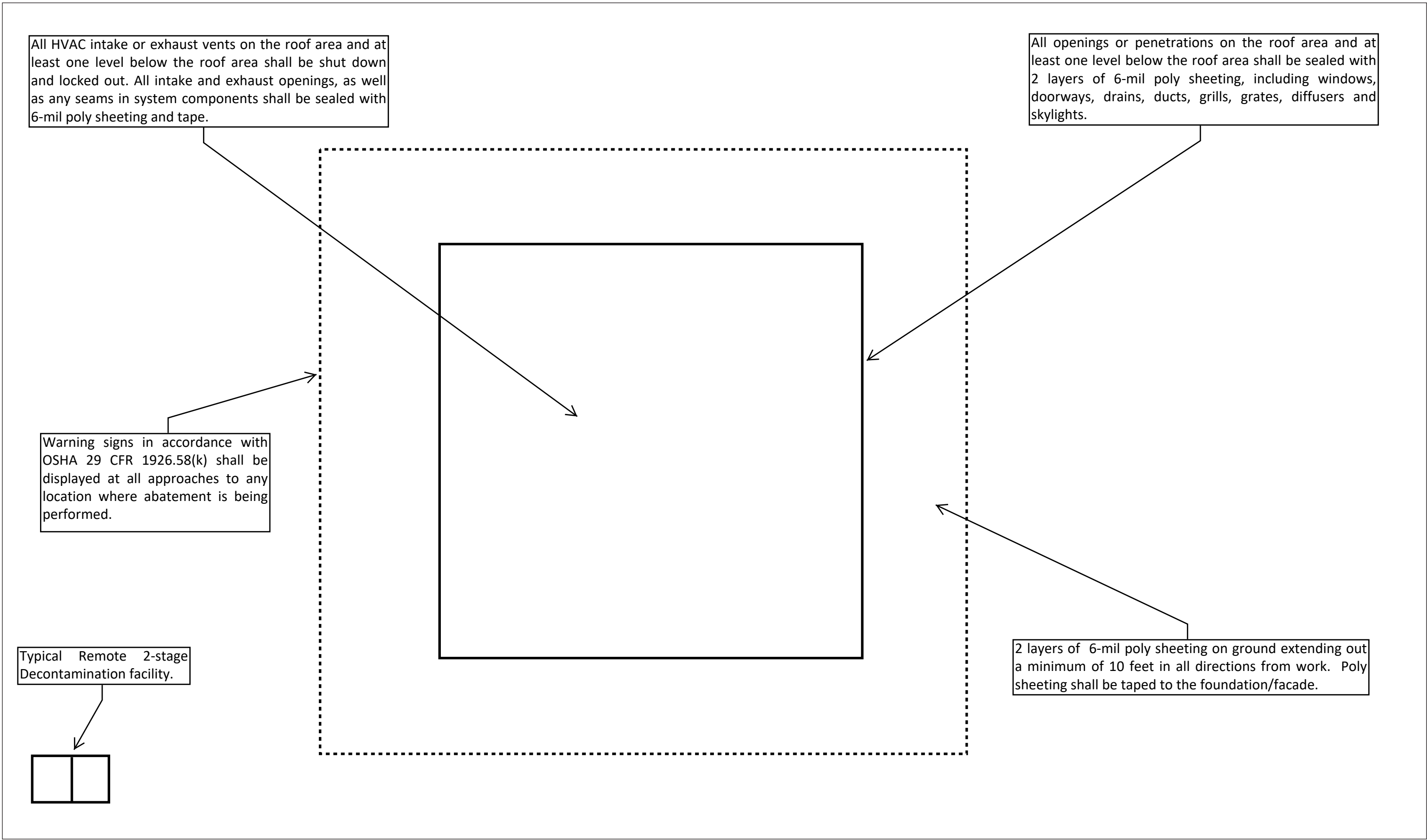
FUSS&O'NEILL

317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

CITY OF WOONSOCKET		
TYPICAL INTERIOR ABATEMENT SETUP		
WOONSOCKET MIDDLE SCHOOL HISTORIC OFFICE BUILDING		
148 HAMLET AVENUE		
WOONSOCKET		RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JUNE 2023

FIGURE 3



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER	

SCALE:	
HORZ.: NOT TO SCALE	
VERT.:	
DATUM:	
HORZ.: -	
VERT.: -	

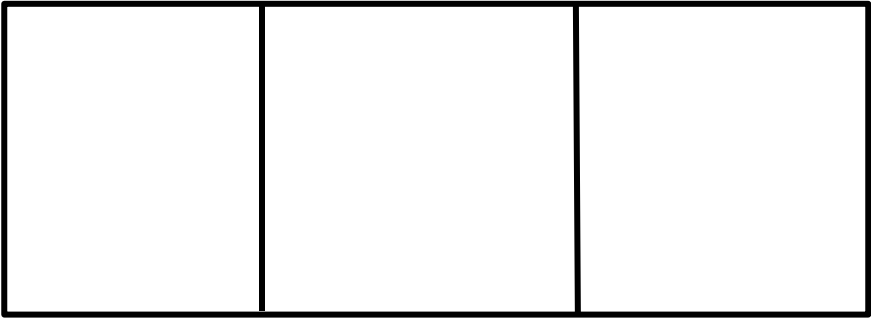


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PROVIDENCE, RI 02908
401.861.3070
www.fando.com

	CITY OF WOONSOCKET	
	TYPICAL EXTERIOR ABATEMENT SETUP	
	WOONSOCKET MIDDLE SCHOOL HISTORIC OFFICE BUILDING	
	148 HAMLET AVENUE	
WOONSOCKET		RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JUNE 2023

FIGURE 4



Typical three-stage decontamination facility consisting of equipment room, shower room, and clean room in series. The remote decon shall be constructed in close proximity to the work area (as feasible). Access between the decon chambers shall be through double-flap curtain openings. Construct the decon with wood, PVC, or metal framing and cover both sides with 2 layers of 6-mil poly sheeting (sealed with spray glue and taped at the joints). Joints shall be watertight at floor, walls, and ceiling.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SCALE:
HORIZ: NOT TO SCALE
VERT:
DATUM:
HORIZ: -
VERT: -



FUSS & O'NEILL
317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

CITY OF WOONSOCKET	
TYPICAL DECON SETUP	
WOONSOCKET MIDDLE SCHOOL HISTORIC OFFICE BUILDING	
148 HAMLET AVENUE	
WOONSOCKET	RHODE ISLAND

PROJ. No: 20040335.A30
DATE: JUNE 2023
FIGURE 5

Appendix E

Table 1 – Suspect Asbestos-Containing Materials Laboratory Analytical Data Summary

Table 1
Suspect Asbestos-Containing Materials Laboratory Analytical Data Summary

**148 Hamlet Avenue
Woonsocket, Rhode Island**

City of Woonsocket
November 2022
Fuss & O'Neill Reference No. 20040333.A30

Sample Number	Material Type	NESHAP Category	Sample Location	Result	Comments
01A-LD-0920	Yellow Wall Panel Adhesive	Non-ACM	1st Floor, D Side Room	ND	
01B-LD-0920	Yellow Wall Panel Adhesive	Non-ACM	1st Floor, D Side	ND	
02A-LD-0920	Gray Fiberboard Wall Panel	Non-ACM	2nd Floor, Center Room	ND	
02B-LD-0920	Gray Fiberboard Wall Panel	Non-ACM	2nd Floor, Ne Corner Room	ND	
03A-LD-0920	Brown Pin Surface Ceiling Tile (12" x 12")	Non-ACM	2nd Floor, D Side	ND	
03B-LD-0920	Brown Pin Surface Ceiling Tile (12" x 12")	Non-ACM	1st Floor, Reception	ND	
04A-LD-0920	Dark Brown Glue Daub Ceiling Associated with 03A	ACWM	2nd Floor, D Side	<1% Tremolite	
04B-LD-0920	Dark Brown Glue Daub Ceiling Associated with 03B	ACWM	2nd Floor, D Side	<1% Tremolite	
05A-LD-0920	Tan Paper Underlayment underneath Wood Floor	Non-ACM	2nd Floor	ND	
06A-LD-0920	Tan Linoleum	Cat 1, NF	2nd Floor, A Side Office	20.0% Chrysotile	
06B-LD-0920	Tan Linoleum	Cat 1, NF	1st Floor, Hallway	20.0% Chrysotile	
07A-LD-0920	Brown Adhesive Associated with 06A	Non-ACM	2nd Floor, A Side Office	ND	
07B-LD-0920	Brown Adhesive Associated with 06B	Non-ACM	1st Floor, Hallway	ND	
05B-LD-0920	Tan Paper Underlayment underneath Wood Floor	Non-ACM	2nd Floor, B Side	ND	
08A-LD-0920	Black Mastic Associated with 09A	Non-ACM	2nd Floor, Bathroom	ND	
08B-LD-0920	Black Mastic Associated with 09B	Non-ACM	2nd Floor, Womens Bathroom	ND	
09A-LD-0920	12" x 12" White Floor Tile	Cat 1, NF	2nd Floor, Mens Bathroom	5.0% Chrysotile	
09B-LD-0920	12" x 12" White Floor Tile	Cat 1, NF	2nd Floor, Mens Bathroom	Pos Stop	
10A-LD-0920	Wall Behind Wall Panel Brown Fiberboard	Non-ACM	2nd Floor, Bathroom Wall	ND	
10B-LD-0920	Wall Behind Wall Panel Brown Fiberboard	Non-ACM	2nd Floor, Room Next to Womens Bathroom	ND	
11A-LD-0920	Adhesive For Wallboard (Brown) Associated with 10A	Cat 2, NF	2nd Floor Bathroom Wall	5.0% Chrysotile	
11B-LD-0920	Adhesive For Wallboard (Brown) Associated with 10B	Cat 2, NF	2nd Floor, Room Next to Bathroom	Pos Stop	
12A-LD-0920	3" Black Vinyl Baseboard	Non-ACM	2nd Floor, Bathroom	ND	
12B-LD-0920	3" Black Vinyl Baseboard	Non-ACM	2nd Floor, Room Next to Bathroom	ND	
13A-LD-0920	Brown Adhesive Associated with 12A	Non-ACM	2nd Floor, Bathroom	ND	
13B-LD-0920	Brown Adhesive Associated with 12B	Non-ACM	2nd Floor, Room Next to Bathroom	ND	
14A-LD-0920	Gray Electrical Board Backer Panel	Cat 2, NF	2nd Floor, NE Corner Room Circuit Box	10.0% Chrysotile	
14B-LD-0920	Gray Electrical Board Backer Panel	Cat 2, NF	1st Floor, A/B Room	ND	Positive Due to Homogenous Sample 14A
15A-LD-0920	Red Floor Cementitious	Cat 2, NF	2nd Floor, Stair Base By Doorway	5.0% Chrysotile	
15B-LD-0920	Red Floor Cementitious	Cat 2, NF	1st Floor, Stair Stop	Pos Stop	

Table 1
Suspect Asbestos-Containing Materials Laboratory Analytical Data Summary

Sample Number	Material Type	NESHAP Category	Sample Location	Result	Comments
15C-LD-0920	Red Floor Cementitious	Cat 2, NF	Stairs to Basement	Pos Stop	
16B-LD-0920	Brown Canvas Back Wallpaper	Non-ACM	1st Floor, Hallway	ND	
17A-LD-0920	Off-White Joint Compound Associated with 18A	Cat 2, NF	2nd Floor, Wall, A-D Side Room	2.0% Chrysotile	
17B-LD-0920	Off-White Joint Compound Associated with 18B	Cat 2, NF	2nd Floor, Wall, A-D Side Room	Pos Stop	
18A-LD-0920	Gray Gypsum Board	Non-ACM	2nd Floor, A-D Side Room	ND	
18B-LD-0920	Gray Gypsum Board	Non-ACM	2nd Floor, A-D Side Room	ND	
20A-LD-0920	Black Wood Baseboard	Non-ACM	1st Floor, Bathroom	ND	
20B-LD-0920	Black Wood Baseboard	Non-ACM	1st Floor, Bathroom	ND	
21A-LD-0920	Brown Adhesive Associated with 20A	Non-ACM	1st Floor, Bathroom	ND	
21B-LD-0920	Brown Adhesive Associated with 20B	Non-ACM	1st Floor, Bathroom	ND	
22A-LD-0920	3" Brown Vinyl Baseboard	Non-ACM	2nd Floor, Hallway	ND	
22B-LD-0920	3" Brown Vinyl Baseboard	Non-ACM	2nd Floor, Hallway	ND	
23A-LD-0920	12" x 12" Maroon Floor Tile	Cat 1, NF	2nd Floor, Womens Bathroom	3.0% Chrysotile	
23B-LD-0920	12" x 12" Maroon Floor Tile	Cat 1, NF	2nd Floor, Womens Bathroom	Pos Stop	
24A-LD-0920	Black Paper Underlayment underneath Wood Floor	Non-ACM	1st Floor, B Side	ND	
24B-LD-0920	Black Paper Underlayment underneath Wood Floor	Non-ACM	1st Floor, D Side	ND	
25A-LD-0920	Pebble Pattern Beige Linoleum	Non-ACM	1st Floor, D Side	ND	
25B-LD-0920	Pebble Pattern Beige Linoleum	Non-ACM	1st Floor, D Side	ND	
26A-LD-0920	Hexagon Pattern Tan Linoleum	Cat 1, NF	1st Floor, D Side	20.0% Chrysotile	
26B-LD-0920	Hexagon Pattern Tan Linoleum	Cat 1, NF	1st Floor, D Side	Pos Stop	
27A-LD-0921	9" x 9" Light Blue Floor Tile	Non-ACM	1st Floor, A/B Side	ND	
27B-LD-0921	9" x 9" Light Blue Floor Tile	Non-ACM	1st Floor, A/B Side	ND	
28A-LD-0921	Black Underlayment Paper Associated with 27A	Non-ACM	1st Floor, A/B Side	ND	
28B-LD-0921	Black Underlayment Paper Associated with 27B	Non-ACM	1st Floor, A/B Side	ND	
29A-LD-0921	9" x 9" Beige Floor Tile	Cat 1, NF	1st Floor, A/B Side	3.0% Chrysotile	
29B-LD-0921	9" x 9" Beige Floor Tile	Cat 1, NF	1st Floor, A/B Side	Pos Stop	
30A-LD-0921	Mastic Assoc. with 29A	Non-ACM	1st Floor, A/B Side	ND	
30B-LD-0921	Mastic Assoc. with 29B	Non-ACM	1st Floor, A/B Side	ND	
31A-LD-0921	Brown Wall Panel Mastic	Non-ACM	1st Floor, A Side	ND	
31B-LD-0921	Brown Wall Panel Mastic	Non-ACM	1st Floor, A Side	ND	
32A-LD-0921	White Plaster Skim Coat	Non-ACM	1st Floor, D Side Wall	ND	
32B-LD-0921	White Plaster Skim Coat	Non-ACM	1st Floor, D Side Ceiling	ND	
32C-LD-0921	White Plaster Skim Coat	Non-ACM	Basement, Fireplace Cleanout Wall	ND	
32D-LD-0921	White Plaster Skim Coat	Non-ACM	Basement, Ceiling, Room with Fireplace Cleanout	ND	
32E-LD-0921	White Plaster Skim Coat	Non-ACM	2nd Floor, Hallway Wall	ND	

Table 1
Suspect Asbestos-Containing Materials Laboratory Analytical Data Summary

Sample Number	Material Type	NESHAP Category	Sample Location	Result	Comments
32F-LD-0921	White Plaster Skim Coat	Non-ACM	2nd Floor, Ceiling	ND	
32G-LD-0921	White Plaster Skim Coat	Non-ACM	1st Floor, Dumbweighthier	ND	
33A-LD-0921	Gray Rough Coat on Metal Lath Associated with 32A	Non-ACM	1st Floor, D Side Wall	ND	
33B-LD-0921	Gray Rough Coat on Metal Lath Associated with 32B	Non-ACM	1st Floor, D Side Ceiling	ND	
33C-LD-0921	Gray Rough Coat on Metal Lath Associated with 32C	Non-ACM	Basement Wall Assoc. with 32C	ND	
33D-LD-0921	Gray Rough Coat on Metal Lath Associated with 32D	Non-ACM	Basement Ceiling Assoc. with 32D	ND	
33E-LD-0921	Gray Rough Coat on Metal Lath Associated with 32E	Non-ACM	2nd Floor, Hallway Wall	ND	
33F-LD-0921	Gray Rough Coat on Metal Lath Associated with 32F	Non-ACM	2nd Floor, Ceiling	ND	
33G-LD-0921	Gray Rough Coat on Metal Lath Associated with 32G	Non-ACM	1st Floor, Dumbweighthier	ND	
34A-LD-0921	Off-White Pyrobar	Non-ACM	1st Floor, Stairs Wall	ND	
34B-LD-0921	Off-White Pyrobar	Non-ACM	Basement	ND	
35A-LD-0921	Tan Pyrobar Mortar Associated with 34A	Non-ACM	1st Floor, Stairs Wall	ND	
35B-LD-0921	Tan Pyrobar Mortar Associated with 34B	Non-ACM	Basement	ND	
36A-LD-0921	Gray Corrugated Pipe Insulation	Friable	Basement, 3" Pipe	40.0% Chrysotile	
36B-LD-0921	Gray Corrugated Pipe Insulation	Friable	Basement, Pipe	Pos Stop	
36C-LD-0921	Gray Corrugated Pipe Insulation	Friable	Basement, Closet Pipe	Pos Stop	
37A-LD-0921	Gray Mudded Pipe Fittings	Friable	Elbow Pipe, Basement	65.0% Chrysotile	
37B-LD-0921	Gray Mudded Pipe Fittings	Friable	Elbow Pipe, Basement, Base of Stairs	Pos Stop	
37C-LD-0921	Gray Mudded Pipe Fittings	Friable	Elbow Pipe, Basement, Base of Stairs	Pos Stop	
38A-LD-0921	White Pre-Formed Block-Type Pipe Insulation	Friable	Basement, Pipe	40.0% Blend	
38B-LD-0921	White Pre-Formed Block-Type Pipe Insulation	Friable	Basement, Pipe	Pos Stop	
38C-LD-0921	White Pre-Formed Block-Type Pipe Insulation	Friable	Basement, Closet Pipe	Pos Stop	
39A-LD-0921	9" x 9" Gray Floor Tile	Non-ACM	Basement, underneath Carpet, B/C Side	ND	
39B-LD-0921	9" x 9" Gray Floor Tile	Non-ACM	Basement, underneath Carpet, B/C Side	ND	
40A-LD-0921	Black Underlayment Paper	Non-ACM	Basement, underneath Carpet, B/C Side	ND	
40B-LD-0921	Black Underlayment Paper	Non-ACM	Basement, underneath Carpet, B/C Side	ND	
41A-LD-0921	Gray Ceramic Wall Tile Grout	Non-ACM	Basement, Bathroom Wall	ND	
41B-LD-0921	Gray Ceramic Wall Tile Grout	Non-ACM	1st Floor, Back Bathroom	ND	
42A-LD-0921	Tan Ceramic Tile Thin-Set Mortar	Non-ACM	Basement, Bathroom Wall	ND	
42B-LD-0921	Tan Ceramic Tile Thin-Set Mortar	Non-ACM	Basement, Bathroom Wall	ND	
43A-LD-0921	Gray Ceramic Floor Tile Grout	Non-ACM	Basement, Bathroom Floor	ND	
43B-LD-0921	Gray Ceramic Floor Tile Grout	Non-ACM	1st Floor, Back Bathroom	ND	
44A-LD-0921	Off-White Ceramic Tile Thin-Set Mortar	Non-ACM	1st Floor, Back Bathroom	ND	
44B-LD-0921	Off-White Ceramic Tile Thin-Set Mortar	Non-ACM	1st Floor, Back Bathroom	ND	
45A-LD-0921	White Thinlay Behind Marble	Non-ACM	1st Floor, Entryway	ND	

Table 1
Suspect Asbestos-Containing Materials Laboratory Analytical Data Summary

Sample Number	Material Type	NESHAP Category	Sample Location	Result	Comments
45B-LD-0921	White Thinlay Behind Marble	Non-ACM	1st Floor, Entryway	ND	
46A-LD-0921	Gray Floor Tile Thin-Set Mortar	Non-ACM	Basement, Bathroom	ND	
46B-LD-0921	Gray Floor Tile Thin-Set Mortar	Non-ACM	1st Floor, Back Bathroom	ND	
47A-LD-0921	White Grout between Marble	Non-ACM	1st Floor, Entryway	ND	
47B-LD-0921	White Grout between Marble	Non-ACM	1st Floor, Entryway	ND	
48A-LD-0921	Black Built-Up Asphaltic Material	Non-ACM	Roof	ND	
48B-LD-0921	Black Built-Up Asphaltic Material	Non-ACM	Roof	ND	
49A-LD-0921	Black Duct-Seam Sealant	Cat 2, NF	Roof	15.0% Chrysotile	
49B-LD-0921	Black Duct-Seam Sealant	Cat 2, NF	Roof	Pos Stop	
50A-LD-0921	Red Brick Mortar	Non-ACM	Roof Chimney	ND	
50B-LD-0921	Red Brick Mortar	Non-ACM	Roof Chimney	ND	
51A-LD-0921	Gray Roof Sealant	Cat 1, NF	Roof Chimney	15.0% Chrysotile	
51B-LD-0921	Gray Roof Sealant	Cat 1, NF	Roof Chimney	Pos Stop	
52A-LD-0921	Black Paper Underlayment Slate	Non-ACM	Under Slate Siding	ND	
52B-LD-0921	Black Paper Underlayment Slate	Non-ACM	Under Slate Siding	ND	
53A-LD-0921	Black Slaters Mudding	Cat 2, NF	Slate Siding	5.0% Chrysotile	
53B-LD-0921	Black Slaters Mudding	Cat 2, NF	Slate Siding	Pos Stop	
54A-LD-0921	White/Gray Window Glazing Compound	Non-ACM	Basement	ND	TEM
54B-LD-0921	White/Gray Window Glazing Compound	Non-ACM	2nd Floor, D Side	ND	
55A-LD-0921	Gray Window Caulking	Non-ACM	2nd Floor, D Side	ND	TEM
55B-LD-0921	Gray Window Caulking	Non-ACM	B Side Window	ND	
56A-LD-0921	White/Gray Door Frame Caulking	Non-ACM	Exterior, C Side	ND	TEM
56B-LD-0921	White/Gray Door Frame Caulking	Non-ACM	Exterior, D Side	ND	
57A-LD-0921	Residual Black Tar on Foundation	Non-ACM	Exterior Perimeter, B Side	ND	
57B-LD-0921	Residual Black Tar on Foundation	Non-ACM	Exterior Perimeter, C Side	ND	
58A-LD-0921	Gray Exterior Caulking on Stairs	Cat 2, NF	Front Exterior Stairs	2.0% Chrysotile	
58B-LD-0921	Gray Exterior Caulking on Stairs	Cat 2, NF	Front Exterior Stairs	Pos Stop	
59A-LD-0921	Silver Seam Sealant	Non-ACM	Perimeter Roof	ND	
59B-LD-0921	Silver Seam Sealant	Non-ACM	Perimeter Roof	ND	
60A-LD-0921	Gray Stair Rail Caulking	Non-ACM	Front Stair Rail on Hand Rail	ND	TEM
60B-LD-0921	Gray Stair Rail Caulking	Non-ACM	Front Stair Rail on Hand Rail	ND	

Cat 1 NF = Category I Non-Friable Material

Cat 2 NF = Category II Non-Friable Material

Pos Stop = Positive Stop

ND = None Detected

ACM = Asbestos-Containing Material

ACWM = Asbestos-Containing Waste Material

TEM = Transmission Electron Microscopy

Appendix F

Table 2 – Asbestos-Containing Material Summary

Table 2
Asbestos-Containing Materials Summary

148 Hamlet Avenue
Woonsocket, Rhode Island

City of Woonsocket
November 2022
Fuss & O'Neill Reference No. 20040333.A30

Asbestos-Containing Material Type	Locations(s)	Asbestos Content	Estimated Total Quantity	Comments
Dark Brown Glue Daub Ceiling Associated with Brown Pin Surface Ceiling Tile (12" x 12")	2nd Floor	<1% Tremolite	200 SF	ACWM
Tan Linoleum	1st & 2nd Floor	20.0% Chrysotile	2,100 SF	
12" x 12" White Floor Tile	2nd Floor, Mens Bathroom	5.0% Chrysotile	80 SF	
Adhesive For Wallboard (Brown)	2nd Floor	5.0% Chrysotile	1,200 SF	
Gray Electrical Board Backer Panel	1st Floor, A/B Room & 2nd Floor, NE Corner Room Circuit Box	10.0% Chrysotile	10 SF	
Red Cementitious Floor	Stairwell	5.0% Chrysotile	800 SF	
Off-White Joint Compound Assoc. with 18A	2nd Floor, A-D Side Room	2.0% Chrysotile	2,750 SF	
12" x 12" Maroon Floor Tile	2nd Floor, Womens Bathroom	3.0% Chrysotile	40 SF	
Hexagon Pattern Tan Linoleum	1st Floor, D Side	20.0% Chrysotile	550 SF	
9" x 9" Beige Floor Tile	1st Floor, A/B Side	3.0% Chrysotile	100 SF	
Pipe Insulation & Mudded Pipe Fitting Insulation	Basement	40.0% - 65% Chrysotile	200 LF	
Black Duct-Seam Sealant	Roof	15.0% Chrysotile	75 LF	
Gray Roof Sealant	Roof Chimney	15.0% Chrysotile	25 LF	
Black Slaters Mudding	Slate Siding/Roof	5.0% Chrysotile	1,750 SF	
Gray Exterior Caulking on Stairs	Front Exterior Stairs	2.0% Chrysotile	50 LF	

EA = Each, LF = Linear Feet, SF = Square Feet

ACWM = Asbestos-Containing Waste Material

Appendix G

Asbestos Laboratory Analytical Report & Chain-of-Custody Forms



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com/bostonlab@emsl.com>

EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Attention: Lou Dias
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Phone: (603) 320-5467

Fax:

Received Date: 09/23/2022 8:30 AM

Analysis Date: 09/29/2022

Collected Date: 09/20/2022 - 09/21/2022

Project: 20040333.A30 / Woonsocket Middle School Historic Office Building Inspection; 148 Hamlet Avenue;
Woonsocket, RI

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
01A-LD-0920 <i>132206725-0001</i>	1st Floor, D Side Room - Yellow Wall Panel Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B-LD-0920 <i>132206725-0002</i>	1st Floor, D Side - Yellow Wall Panel Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A-LD-0920 <i>132206725-0003</i>	2nd Floor, Center Room - Gray Fiberboard Wall Panel	Gray/Green Non-Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
02B-LD-0920 <i>132206725-0004</i>	2nd Floor, NE Corner Room - Gray Fiberboard Wall Panel	Gray/Green Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
03A-LD-0920 <i>132206725-0005</i>	2nd Floor, D Side - Brown Pin Surface Ceiling Tile (12x12)	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
03B-LD-0920 <i>132206725-0006</i>	1st Floor, Reception - Brown Pin Surface Ceiling Tile (12x12)	Gray/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
04A-LD-0920 <i>132206725-0007</i>	2nd Floor, D Side - Dark Brown Glue Daub Ceiling assoc. w/ 03A	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Tremolite
04B-LD-0920 <i>132206725-0008</i>	2nd Floor, D Side - Dark Brown Glue Daub Ceiling assoc. w/ 03B	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Tremolite
05A-LD-0920 <i>132206725-0009</i>	2nd Floor - Tan Paper Underlayment under Wood Floor	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
06A-LD-0920 <i>132206725-0010</i>	2nd Floor, A Side Office - Tan Linoleum	Gray/Tan Fibrous Homogeneous	15% Cellulose	65% Non-fibrous (Other)	20% Chrysotile
06B-LD-0920 <i>132206725-0011</i>	1st Floor, Hallway - Tan Linoleum	Gray/Tan Fibrous Homogeneous	15% Cellulose	65% Non-fibrous (Other)	20% Chrysotile
07A-LD-0920 <i>132206725-0012</i>	2nd Floor, A Side Office - Brown Adhesive assoc. w/ 06A	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07B-LD-0920 <i>132206725-0013</i>	1st Floor, Hallway - Brown Adhesive assoc. w/ 06B	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05B-LD-0920 <i>132206725-0014</i>	2nd Floor, B Side - Tan Paper Underlayment under Wood Floor	Tan/Black Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected

Initial report from: 10/03/2022 10:34:35



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com / bostonlab@emsl.com>

EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
08A-LD-0920 132206725-0015	2nd Floor, Bathroom - Black Mastic assoc. w/ 09A	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08B-LD-0920 132206725-0016	2nd Floor, Womens Bathroom - Black Mastic assoc. w/ 09B	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09A-LD-0920 132206725-0017	2nd Floor, Mens Bathroom - 12x12 White Floor Tile	White Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
09B-LD-0920 132206725-0018	2nd Floor, Mens Bathroom - 12x12 White Floor Tile				Positive Stop (Not Analyzed)
10A-LD-0920 132206725-0019	2nd Floor, Bathroom Wall - Wall behind Wall Panel Brown Fiberboard	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
10B-LD-0920 132206725-0020	2nd Floor, Room next to Womens Bathroom - Wall behind Wall Panel Brown Fiberboard	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
11A-LD-0920 132206725-0021	2nd Floor Bathroom Wall - Adhesive for Wallboard (Brown) assoc. w/ 10A	Brown Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
11B-LD-0920 132206725-0022	2nd Floor, Room Next to Bathroom - Adhesive for Wallboard (Brown) assoc. w/ 10B				Positive Stop (Not Analyzed)
12A-LD-0920 132206725-0023	2nd Floor, Bathroom - 3" Black Vinyl Cove Base	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12B-LD-0920 132206725-0024	2nd Floor, Room Next to Bathroom - 3" Black Vinyl Cove Base	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13A-LD-0920 132206725-0025	2nd Floor, Bathroom - Brown Adhesive assoc. w/ 12A	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13B-LD-0920 132206725-0026	2nd Floor, Room Next to Bathroom - Brown Adhesive assoc. w/ 12B	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14A-LD-0920 132206725-0027	2nd Floor, NE Corner Room Circuit Box - Gray Electrical Board Backer Panel	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
14B-LD-0920 132206725-0028	1st Floor, A/B Room - Gray Electrical Board Backer Panel	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15A-LD-0920 132206725-0029	2nd Floor, Stair Base by Doorway - Red Floor Cementitious	Red Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
15B-LD-0920 132206725-0030	1st Floor, Stair Stop - Red Floor Cementitious				Positive Stop (Not Analyzed)

Initial report from: 10/03/2022 10:34:35



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com / bostonlab@emsl.com>

EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
16A-LD-0920 132206725-0031	2nd Floor, Hallway Wall - Brown Canvas Back Wallpaper	Tan Non-Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
16B-LD-0920 132206725-0032	1st Floor, Hallway - Brown Canvas Back Wallpaper	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
17A-LD-0920 132206725-0033	2nd Floor, Wall, A-D Side Room - Off-White Joint Compound assoc. w/ 18A	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
17B-LD-0920 132206725-0034	2nd Floor, Wall, A-D Side Room - Off-White Joint Compound assoc. w/ 18B				Positive Stop (Not Analyzed)
18A-LD-0920 132206725-0035	2nd Floor, A-D Side Room - Gray Gypsum Board	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
18B-LD-0920 132206725-0036	2nd Floor, A-D Side Room - Gray Gypsum Board	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
15C-LD-0920 132206725-0037	Stairs to Basement - Red Floor Cementitious				Positive Stop (Not Analyzed)
20A-LD-0920 132206725-0038	1st Floor, Bathroom - Black Wood Cove Base	Brown/Black Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (Other)	None Detected
20B-LD-0920 132206725-0039	1st Floor, Bathroom - Black Wood Cove Base	Brown/Black Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (Other)	None Detected
21A-LD-0920 132206725-0040	1st Floor, Bathroom - Brown Adhesive assoc. w/ 20A	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21B-LD-0920 132206725-0041	1st Floor, Bathroom - Brown Adhesive assoc. w/ 20B	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22A-LD-0920 132206725-0042	2nd Floor, Hallway - 3" Brown Vinyl Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22B-LD-0920 132206725-0043	2nd Floor, Hallway - 3" Brown Vinyl Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23A-LD-0920 132206725-0044	2nd Floor, Womens Bathroom - 12x12 Maroon Floor Tile	Red Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
23B-LD-0920 132206725-0045	2nd Floor, Womens Bathroom - 12x12 Maroon Floor Tile				Positive Stop (Not Analyzed)
24A-LD-0920 132206725-0046	1st Floor, B Side - Black Paper Underlayment under Wood Floor	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
24B-LD-0920 132206725-0047	1st Floor, D Side - Black Paper Underlayment under Wood Floor	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected

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Tel/Fax: (781) 933-8411 / (781) 933-8412

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EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
25A-LD-0920 132206725-0048	1st Floor, D Side - Pebble Pattern Beige Linoleum	Gray/Tan Fibrous Homogeneous	25% Cellulose 5% Synthetic	70% Non-fibrous (Other)	None Detected
25B-LD-0920 132206725-0049	1st Floor, D Side - Pebble Pattern Beige Linoleum	Gray/Tan Fibrous Homogeneous	25% Cellulose 5% Synthetic	70% Non-fibrous (Other)	None Detected
26A-LD-0920 132206725-0050	1st Floor, D Side - Hexagon Pattern Tan Linoleum	Gray/Tan Fibrous Homogeneous	15% Cellulose	65% Non-fibrous (Other)	20% Chrysotile
26B-LD-0920 132206725-0051	1st Floor, D Side - Hexagon Pattern Tan Linoleum				Positive Stop (Not Analyzed)
27A-LD-0921 132206725-0052	1st Floor, A/B Side - 9x9 Light Blue Floor Tile	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27B-LD-0921 132206725-0053	1st Floor, A/B Side - 9x9 Light Blue Floor Tile	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28A-LD-0921 132206725-0054	1st Floor, A/B Side - Black Underlayment Paper assoc. w/ 27A	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
28B-LD-0921 132206725-0055	1st Floor, A/B Side - Black Underlayment Paper assoc. w/ 27B	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
29A-LD-0921 132206725-0056	1st Floor, A/B Side - 9x9 Beige Floor Tile	Beige Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
29B-LD-0921 132206725-0057	1st Floor, A/B Side - 9x9 Beige Floor Tile				Positive Stop (Not Analyzed)
30A-LD-0921 132206725-0058	1st Floor, A/B Side - Mastic assoc. w/ 29A	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30B-LD-0921 132206725-0059	1st Floor, A/B Side - Mastic assoc. w/ 29B	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31A-LD-0921 132206725-0060	1st Floor, A Side - Brown Wall Panel Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31B-LD-0921 132206725-0061	1st Floor, A Side - Brown Wall Panel Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32A-LD-0921 132206725-0062	1st Floor, D Side Wall - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32B-LD-0921 132206725-0063	1st Floor, D Side Ceiling - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32C-LD-0921 132206725-0064	Basement, Fireplace Cleanout Wall - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32D-LD-0921 132206725-0065	Basement, Ceiling, Room w/ Fireplace Cleanout - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32E-LD-0921 132206725-0066	2nd Floor, Hallway Wall - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
32F-LD-0921 132206725-0067	2nd Floor, Ceiling - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32G-LD-0921 132206725-0068	1st Floor, Dumbweightier - White Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33A-LD-0921 132206725-0069	1st Floor, D Side Wall - Gray Rough Coat on Metal Lath assoc. w/ 32A	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33B-LD-0921 132206725-0070	1st Floor, D Side Ceiling - Gray Rough Coat on Metal Lath assoc. w/ 32B	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33C-LD-0921 132206725-0071	Basement Wall assoc. w/ 32C - Gray Rough Coat on Metal Lath assoc. w/ 32C	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33D-LD-0921 132206725-0072	Basement Ceiling assoc. w/ 32D - Gray Rough Coat on Metal Lath assoc. w/ 32D	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33E-LD-0921 132206725-0073	2nd Floor, Hallway Wall - Gray Rough Coat on Metal Lath assoc. w/ 32E	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33F-LD-0921 132206725-0074	2nd Floor, Ceiling - Gray Rough Coat on Metal Lath assoc. w/ 32F	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33G-LD-0921 132206725-0075	1st Floor, Dumbweightier - Gray Rough Coat on Metal Lath assoc. w/ 32G	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34A-LD-0921 132206725-0076	1st Floor, Stairs Wall - Off-White Pyrobar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34B-LD-0921 132206725-0077	Basement - Off-White Pyrobar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35A-LD-0921 132206725-0078	1st Floor, Stairs Wall - Tan Pyrobar Mortar assoc. w/ 34A	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35B-LD-0921 132206725-0079	Basement - Tan Pyrobar Mortar assoc. w/ 34B	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
36A-LD-0921 132206725-0080	Basement, 3" Pipe - Gray Corrugated Pipe Insulation	Gray/Tan Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
36B-LD-0921 132206725-0081	Basement, Pipe - Gray Corrugated Pipe Insulation				Positive Stop (Not Analyzed)
36C-LD-0921 132206725-0082	Basement, Closet Pipe - Gray Corrugated Pipe Insulation				Positive Stop (Not Analyzed)

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Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos	Asbestos
				% Non-Fibrous	% Type
37A-LD-0921 132206725-0083	Elbow Pipe, Basement - Gray Mudded Pipe Fittings	White Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
37B-LD-0921 132206725-0084	Elbow Pipe, Basement, Base of Stairs - Gray Mudded Pipe Fittings				Positive Stop (Not Analyzed)
37C-LD-0921 132206725-0085	Elbow Pipe, Basement, Base of Stairs - Gray Mudded Pipe Fittings				Positive Stop (Not Analyzed)
38A-LD-0921 132206725-0086	Basement, Pipe - White Mag Pipe Insulation	White Fibrous Homogeneous		60% Non-fibrous (Other)	15% Amosite 25% Chrysotile
38B-LD-0921 132206725-0087	Basement, Pipe - White Mag Pipe Insulation				Positive Stop (Not Analyzed)
38C-LD-0921 132206725-0088	Basement, Closet Pipe - White Mag Pipe Insulation				Positive Stop (Not Analyzed)
39A-LD-0921 132206725-0089	Basement, under Carpet, B/C Side - 9x9 Gray Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39B-LD-0921 132206725-0090	Basement, under Carpet, B/C Side - 9x9 Gray Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
40A-LD-0921 132206725-0091	Basement, under Carpet, B/C Side - Black Underlayment Paper	Black Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
40B-LD-0921 132206725-0092	Basement, under Carpet, B/C Side - Black Underlayment Paper	Black Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
41A-LD-0921 132206725-0093	Basement, Bathroom Wall - Gray Ceramic Wall Tile Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
41B-LD-0921 132206725-0094	1st Floor, Back Bathroom - Gray Ceramic Wall Tile Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42A-LD-0921 132206725-0095	Basement, Bathroom Wall - Tan Ceramic Tile Thinset	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42B-LD-0921 132206725-0096	Basement, Bathroom Wall - Tan Ceramic Tile Thinset	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43A-LD-0921 132206725-0097	Basement, Bathroom Floor - Gray Ceramic Floor Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43B-LD-0921 132206725-0098	1st Floor, Back Bathroom - Gray Ceramic Floor Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
44A-LD-0921 132206725-0099	1st Floor, Back Bathroom - Off-White Ceramic Tile Thinset	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
44B-LD-0921 132206725-0100	1st Floor, Back Bathroom - Off-White Ceramic Tile Thinset	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45A-LD-0921 132206725-0101	1st Floor, Entryway - White Thinlay behind Marble	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45B-LD-0921 132206725-0102	1st Floor, Entryway - White Thinlay behind Marble	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
46A-LD-0921 132206725-0103	Basement, Bathroom - Gray Floor Tile Thinset	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
46B-LD-0921 132206725-0104	1st Floor, Back Bathroom - Gray Floor Tile Thinset	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
47A-LD-0921 132206725-0105	1st Floor, Entryway - White Grout b/w Marble	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
47B-LD-0921 132206725-0106	1st Floor, Entryway - White Grout b/w Marble	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48A-LD-0921 132206725-0107	Roof - Black Built-up Asphaltic Material	Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
48B-LD-0921 132206725-0108	Roof - Black Built-up Asphaltic Material	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
49A-LD-0921 132206725-0109	Roof - Black Duct Seam Sealant	Black Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
49B-LD-0921 132206725-0110	Roof - Black Duct Seam Sealant				Positive Stop (Not Analyzed)
50A-LD-0921 132206725-0111	Roof Chimney - Red Brick Mortar	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
50B-LD-0921 132206725-0112	Roof Chimney - Red Brick Mortar	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
51A-LD-0921 132206725-0113	Roof Chimney - Gray Roof Sealant	Black Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
51B-LD-0921 132206725-0114	Roof Chimney - Gray Roof Sealant				Positive Stop (Not Analyzed)
52A-LD-0921 132206725-0115	Under Slate Siding - Black Paper Underlayment Slate	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
52B-LD-0921 132206725-0116	Under Slate Siding - Black Paper Underlayment Slate	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
53A-LD-0921 132206725-0117	Slate Siding - Black Slaters Mudding	Black Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
53B-LD-0921 132206725-0118	Slate Siding - Black Slaters Mudding				Positive Stop (Not Analyzed)

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Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
54A-LD-0921 132206725-0119	Basement - White/Gray Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
54B-LD-0921 132206725-0120	2nd Floor, D Side - White/Gray Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
55A-LD-0921 132206725-0121	2nd Floor, D Side - Gray Window Caulking	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
55B-LD-0921 132206725-0122	B Side Window - Gray Window Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
56A-LD-0921 132206725-0123	Exterior, C Side - White/Gray Door Frame Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
56B-LD-0921 132206725-0124	Exterior, D Side - White/Gray Door Frame Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
57A-LD-0921 132206725-0125	Exterior Perimeter, B Side - Residual Black Tar on Foundation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
57B-LD-0921 132206725-0126	Exterior Perimeter, C Side - Residual Black Tar on Foundation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
58A-LD-0921 132206725-0127	Front Exterior Stairs - Gray Exterior Caulking on Stairs	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
58B-LD-0921 132206725-0128	Front Exterior Stairs - Gray Exterior Caulking on Stairs				Positive Stop (Not Analyzed)
59A-LD-0921 132206725-0129	Perimeter Roof - Silver Seam Sealant	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
59B-LD-0921 132206725-0130	Perimeter Roof - Silver Seam Sealant	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
60A-LD-0921 132206725-0131	Front Stair Rail on Hand Rail - Gray Stair Rail Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
60B-LD-0921 132206725-0132	Front Stair Rail on Hand Rail - Gray Stair Rail Caulking	Various Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected



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EMSL Order: 132206725

Customer ID: ENVI54

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Project ID:

Analyst(s)

John McCarthy (76)

Kevin McKenzie (38)

Steve Grise, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

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EMSL Order: 132206725

Customer ID: ENVI54

Customer PO: 20040333.A30

Project ID:

Attention: Lou Dias
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Phone: (603) 320-5467

Fax:

Received Date: 09/23/2022 8:30 AM

Analysis Date: 10/03/2022

Collected Date: 09/20/2022 - 09/21/2022

Project: 20040333.A30 / Woonsocket Middle School Historic Office Building Inspection; 148 Hamlet Avenue; Woonsocket, RI

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
54A-LD-0921 132206725-0119	Basement - White/Gray Window Glazing	Tan Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
55A-LD-0921 132206725-0121	2nd Floor, D Side - Gray Window Caulking	Gray/White Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
56A-LD-0921 132206725-0123	Exterior, C Side - White/Gray Door Frame Caulking	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
60A-LD-0921 132206725-0131	Front Stair Rail on Hand Rail - Gray Stair Rail Caulking	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Steve Grise (4)

Steve Grise, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA

Initial report from: 10/03/2022 17:32:58



FUSS & O'NEILL

EMSL Customer No. ENVI54

132206725

www.fando.com

108 Myrtle Street, Suite 502, Quincy, MA 02171

Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 1 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132
100

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
01A-LD-0920	yellow wall panel adhesive	1st floor, D side Room,	44 sq ft
01B-LD-0920	yellow wall panel adhesive	1st floor, D side	170 sq ft
02A-LD-0920	grey fiber board wall panel	2nd floor, center room	behind wall panel
02B-LD-0920	grey fiber board wall panel	2nd floor, NE corner room	upper wall
03A-LD-0920	brown pin surface ceiling tile 12x12	2nd floor, D side	also on floor 200 sq ft
03B-LD-0920	brown pin surface ceiling tile 12x12	2nd floor, D side 1st floor reception	200 sq ft
04A-LD-0920	dark brown glue daub asso w/ 03A	2nd floor, D side	200 sq ft
04B-LD-0920	dark brown glue daub ceiling asso w/ 03B	2nd floor, D side	200 sq ft
05A-LD-0920	tan paper underlayment under wood floor	2nd floor	2650 sq ft
06A-LD-0920	tan linoleum	2nd floor, A side office	2050 sq ft
06B-LD-0920	tan linoleum	1st floor, hallway	2050 sq ft
07A-LD-0920	brown adhesive asso w/ 06A	2nd floor, A side office	2050 sq ft
07B-LD-0920	brown adhesive asso w/ 06B	1st floor hallway	2050 sq ft
08B-LD-0920	tan paper underlayment under wood floor	1st floor, B side 2nd floor	2050 sq ft
08A-LD-0920	Black mastic asso w/ 09A	2nd floor, bathroom	100 sq ft

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 24 hr turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Lou Dias Date: 9/20/22

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

REC'D RHB 0830
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132206725

108 Myrtle Street, Suite 502, Quincy, MA 02171

Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 2 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132
~~100~~

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
08B-LD-0920	black mastic	2nd floor, womens bathroom	100sqft
09A-LD-0920	white 12x12 floor tile	2nd floor, bathroom men	10 sqft
09B-LD-0920	white 12x12 floor tile	2nd floor, bathroom mens	10 sqft
10A-LD-0920	wall behind wall pannel brown fiber board	2nd floor bathroom wall	560 sqft
10B-LD-0920	brown fiber board behind wall	2nd floor, room next to bathroom - womens	560 sqft
11A-LD-0920	adhesive for wall board brown asso w/ 10A	2nd floor bathroom wall	560 sqft
11B-LD-0920	brown adhesive for wall board asso w/ 10B	2nd floor, room next to bathroom	560 sqft
12A-LD-0920	black 3inch covebase vinyl	2nd floor bathroom	50 LF
12B-LD-0920	black 3inch covebase vinyl	2nd floor, room next to bathroom	50 LF
13A-LD-0920	brown adhesive asso. w/ 12A	2nd floor bathroom	70 LF
13B-LD-0920	brown adhesive asso w/ 12B	2nd floor, room next to bathroom	70 LF
14A-LD-0920	grey electrical board backer pannel	2nd floor NE corner room circuit box	2sqft
14B-LD-0920	grey electrical board backer pannel	basement 1st floor A/B room	2sqft
15A-LD-0920	red floor cementitious	2nd floor, stair base by doorway	770 sqft
15B-LD-0920	red floor cementitious	1st floor, stair step	770 sqft

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by

TEM NOB on a 27#v turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.Samples Collected by: Lou Dias Date: 9/20/12

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____REC'D RHB 0830
EMSL-BOSTON SEP 23 2012



108 Myrtle Street, Suite 502, Quincy, MA 02171

Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 3 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
16A-LD-0920	brown canvas back wall paper	2nd floor, hallway wall	300 sqft
16B-LD-0920	brown canvas back wall paper	1st floor, hallway	300 sqft
17A-LD-0920	off white joint compound asso w/ 18A	2nd floor, wall, A-D side room	2612 sqft
17B-LD-0920	off white joint compound asso w/ 18B	2nd floor, wall A-D side room	2612 sqft
17C			
18A-LD-0920	grey gypsum board	2nd floor, A-D side room	2612 sqft
18B-LD-0920	grey gypsum board	2nd floor, A-D side room	2612 sqft
15C-LD-0920	red floor cementitious	stairs to basement	770 sqft
19A-LD-0920	Black		
19B			
20A-LD-0920	black wood core base	1st floor bathroom	13 LF
20B-LD-0920	black wood core base	1st floor bathroom	13 LF
21A-LD-0920	brown adhesive asso w/ 20A	1st floor bathroom	13 LF
21B-LD-0920	brown adhesive asso w/ 20B	1st floor bathroom	13 LF
22A-LD-0920	brown 3in core base vinyl	2nd floor hallway	20 LF

Analysis Method: ☒ PLM ☐ TEM ☐ OtherTurnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 277 turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Lou Dias Date: 9/20/22

Samples Sent by: Date: Time:

Shipped To: ☐ EMSL ☐ OtherMethod of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ OtherREC'D RHS 0830
EMSL-BOSTON SEP 23 2022



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Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 4 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132
~~100~~

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
22B-LD-0920	brown vinyl corebase 3in	2nd floor hallway	20LF
23A-LD-0920	maroon floor tile 12x12	2nd floor womens bathroom	40 sqft
23B-LD-0920	maroon floor tile 12x12	2nd floor womens bathroom	40 sqft
24A-LD-0920	black paper under layment under wood floor	1st floor, B side	2050 sqft
24B-LD-0920	black paper under layment wood floor	1st floor D-side	2050 sqft
25A-LD-0920	pebble pattern beige linoleum	1st floor D-side	300 sqft
25B-LD-0920	pebble pattern beige linoleum	1st floor D-side	300 sqft
26A-LD-0920	hexagon pattern-tan linoleum	1st floor B side	540 sqft
26B-LD-0920	hexagon pattern-tan linoleum	1st floor D side	540 sqft
27A-LD-0921	light blue floor tile 9x9	1st floor A/B side	80 sqft
27B-LD-0921	light blue floor tile 9x9	1st floor A/B side	80 sqft
28A-LD-0921	black under layment paper also w/ 27A	1st floor A/B side	80 sqft
28B-LD-0921	black under layment paper also w/ 27B	1st floor A/B side	80 sqft
29A-LD-0921	beige floor tile 9x9	1st floor A/B side	80 sqft
29B-LD-0921	beige floor tile 9x9	1st floor A/B side	80 sqft

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 24 hr turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Lou Dias Date: 9/20/22

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

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108 Myrtle Street, Suite 502, Quincy, MA 02171

Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 5 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132
100

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
30A-LD-0921	black mastic asso w/ 29A	1st floor A/B side	80 sqft
30B-LD-0921	black mastic asso w/ 29B	1st floor A/B side	80 sqft
31A-LD-0921	brown wall panel mastic	1st floor A side	64 sqft
31B-LD-0921	brown wall panel mastic	1st floor A side	64 sqft
32A-LD-0921	white plaster skim coat	1st floor D side wall	7140 sqft 15500 sqft
32B-LD-0921	white plaster skim coat	1st floor D side ceiling	8100 sqft
32C-LD-0921	white plaster skim coat	basement fireplace cleanout wall	7140 sqft
32D-LD-0921	white plaster skim coat	basement ceiling room w/ fireplace cleanout	8100 sqft
32E-LD-0921	white plaster skim coat	2nd floor hallway wall	7140 sqft
32F-LD-0921	white plaster skim coat	2nd floor ceiling	8100 sqft
32G-LD-0921	white plaster skim coat	1st floor dumbwaiter	7140 sqft
33A-LD-0921	grey rough coat on metal lath asso/32A	1st floor D side wall	7140 sqft
33B-LD-0921		1st floor D side ceiling	8100 sqft
33C-LD-0921		basement asso/32C well	7140 sqft
33D-LD-0921		basement asso/32D ceiling	8100 sqft

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: _____

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias @fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a turnaround time. Analyze a MAXIMUM of samples by TEM in noted order.

Samples Collected by: Lou Dias Date: _____

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off☐ Other _____REC'D
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Asbestos Bulk Sample Chain-of-Custody Form

Sheet 6 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 100

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
33E-LD 0921		2nd floor hallway wall	7140 sqft
33F-LD 0921		2nd floor ceiling	8100 sqft
33G-LD 0921		1st floor dumbwaiter	7140 sqft
34A-LD 0921	off white pyrobar	1st floor stairs wall	7140 sqft
34B-LD 0921	off white pyrobar	basement	7140 sqft
35A-LD 0921	tan pyrobar mortar as501 34B	1st floor stairs wall	7140 sqft
35B-LD 0921	tan pyrobar mortar as501 34B	basement	7140 sqft
36A-LD-0921	corrugated grey pipe insulation	basement 3in pipe	delayment on floor below 160 LF
36B-LD-0921		basement pipe	160 LF
36C-LD-0921		basement closet pipe	under mag 160 LF
37A-LD-0921	mudded fittings grey pipe	elbow pipe basement	160 LF
37B-LD-0921		elbow pipe basement base of stairs	160 LF
37C-LD-0921			160 LF
38A-LD 0921	white mag pipe insulation	basement pipe	160 LF
38B-LD 0921		basement elbow pipe	160 LF

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples

unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by

TEM NOB on a 24 HW turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.Samples Collected by: Lou Dias Date: 9/20/22

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off☐ Other _____REC'D
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SEP 23 2022



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Asbestos Bulk Sample Chain-of-Custody Form

Sheet 7 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 132
100

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
38C-LD 0921	↓	basement closet pipe	on top of core gated 16024
39A-LD 0921	grey floor tile 9x9	basement under carpet B/C side	380 sqft
39B-LD 0921	↓	↓	380 sqft
40A-LD 0921	black underlayment paper	basement under carpet B/C side	380 sqft
40B-LD 0921	↓	↓	380 sqft
41A-LD 0921	grey tile grout wall ceramic	basement bathroom wall	1080 sqft
41B-LD 0921	↓	1st floor back bathroom	1080 sqft
42A-LD 0921	tan ceramic thin set tile	basement bathroom wall	960 sqft
42B-LD 0921	↓	1st floor back bathroom basement bathroom wall	960 sqft
43A-LD 0921	grey floor tile grout ceramic	basement bathroom floor	200 sqft
43B-LD 0921	↓	1st floor back bathroom	200 sqft
44A-LD 0921	off white ceramic tile thin set	1st floor back bathroom	120 sqft
44B-LD 0921	↓	1st floor back bathroom	120 sqft
45A-LD 0921	white thinlay behind marble	1st floor entry way	160 sqft
45B-LD 0921	↓	↓	160 sqft

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ldias@fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 24 Hr turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Lou Dias Date: 9/18/22

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

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Asbestos Bulk Sample Chain-of-Custody Form

Sheet 8 of 9

Project Name: Woonsocket Middle School Historic Office Building Inspection Project No.: 20040333.A30 Task: 10

Building Name/Number: Historic Office Building Project Manager: Jon Hand

Site Address: 148 Hamlet Ave, Woonsocket, RI Total # of Samples: 100

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
46A-LD 0921	grey floor tile trimset	basement bathroom	150 sqft
46B-LD 0921	↓	1st floor back bathroom	150 sqft
47A-LD-0921	white grout between marble	1st floor entry way	160 sqft
47B-LD-0921	↓	↓	160 sqft
48A-LD 0921	black built-up asphaltic material	roof	2500 sqft
48B-LD 0921	↓	↓	2500 sqft
49A-LD 0921	black duct seam sealant	↓	70 LF
49B-LD 0921	↓	↓	70 LF
50A-LD 0921	red brick mortar	roof chimney	
50B-LD 0921	↓	↓	
51A-LD 0921	grey roof sealant	roof chimney	20 LF
51B-LD 0921	↓	↓	20 LF
52A-LD 0921	black paper underlayment under slate siding	↓	1680 sqft
52B-LD 0921	↓	↓	1680 sqft
53A-LD-0921	black slatters mudding	slate siding	1680

Analysis Method: ☒ PLM ☐ TEM ☐ Other

Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: Idias @fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 24 hr turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Lou Dias Date: 9/24/22

Samples Sent by: Date: Time:

Shipped To: ☐ EMSL ☐ OtherMethod of Shipment: ☐ Fed Ex ☒ Lab Drop Off☐ OtherREC'D 850
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Phone (617) 282-4675 Fax (617) 282-8253

Asbestos Bulk Sample Chain-of-Custody Form

Sheet 9 of 9Project Name: Woonsocket Middle School Historic Office Inspection Project No.: 20040333 Task: 10Building Name/Number: Historic Office Building Project Manager: Jon HandSite Address: 148 Hamlet Ave, Woonsocket RI Total # of Samples: 132

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
53B - LD 0921	black slatters mudding	slate siding	1680 sqft
#1 54A - LD 0921	white/ basement window grey glazing	basement	53 windows
54B - LD 0921	white/ window glazing grey	2nd floor D-side	53 windows
#2 55A - LD 0921	grey window caulking	2nd floor D-side	1240 LF
55B - LD 0921	grey window caulking	B-side window	1240 LF
#3 56A - LD 0921	door frame caulking white/grey	exterior C-side	78 LF
56B - LD 0921	white/grey door frame caulking	exterior D-side	78 LF
57A - LD 0921	residual black tar on foundation	exterior perimeter B-side	100 LF
57B - LD 0921	residual black tar on foundation	exterior perimeter C-side	100 LF
#4 58A -	grey exterior caulking on stairs	front exterior stairs	50 LF
58B -	↓	↓	50 LF
59A - LD 0921	silver seam sealant	perimeter roof	630 sqft
59B - LD 0921	silver seam sealant	perimeter roof	630 sqft
#5 60A - LD 0921	grey stair rail caulking	front stair rail on Hand Rail	15 LF
60B - LD 0921	grey stair rail caulking	front stair rail	15 LF

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____Turnaround Time: 1 week

Please call Fuss & O'Neill at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

Email Results to: ddiedricksen @fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. If NOB group samples are ALL negative by PLM, analyze the sample denoted with a star (★) by TEM NOB on a 24 hr turnaround time. Analyze a MAXIMUM of 10 samples by TEM in noted order.

Samples Collected by: Low Dics Date: 9/26/22

Samples Sent by: _____ Date: _____ Time: _____

Shipped To: ☐ EMSL ☐ Other _____Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

REC'D RTB 0830
EMSL-BOSTON SEP 23 2022

Appendix H

Background PCM Air Sample Laboratory Analytical Data & Chain-of-Custody Form

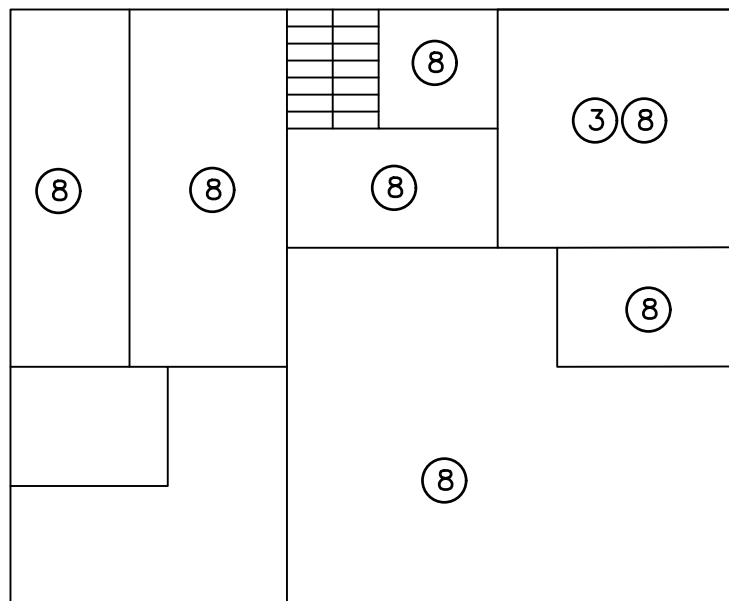
To Be Provided at a Later Date Prior to Abatement

- ②. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF SHEET FLOORING AS ACM.
- ③. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF FLOOR TILE AS ACM.
- ④. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF WALLBOARD ADHESIVE AS ACM.
- ⑤. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF ELECTRICAL BOARD BACKER PANELS AS ACM.
- ⑥. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF CEMENTITIOUS FLOORING AS ACM.
- ⑦. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF DRYWALL/JOINT COMPOUND SYSTEM AS ACM.
- ⑧. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF PIPE AND FITTING INSULATIONS AS ACM.

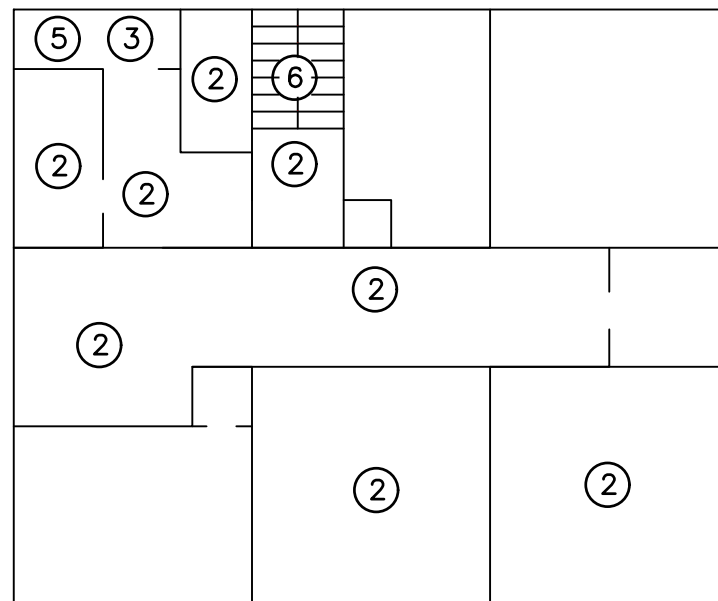
1.THE ASBESTOS CONTRACTOR SHALL REVIEW SECTIONS 028213 - ASBESTOS ABATEMENT AND 028433 - PRESUMED PCB REMOVAL AND DISPOSAL FOR ADDITIONAL DETAILS IN REGARDS TO REMOVAL.

2. RENOVATION/DEMOLITION AREAS REPRESENTED ON THIS DRAWING ARE TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT. THE ASBESTOS ABATEMENT CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR RENOVATION/DEMOLITION INFORMATION.

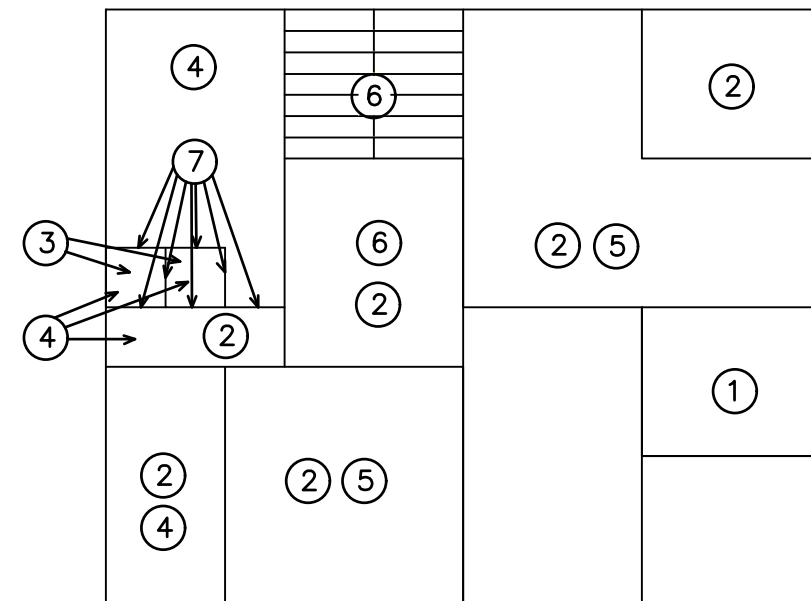
3. SHADING OR HATCHING REPRESENTED ON THIS DRAWING IS TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT.



BASEMENT



1ST FLOOR



2ND FLOOR

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SCALE:	
HORZ.: NOT TO SCALE	
VERT.:	
DATUM:	
HORZ.: -	
VERT.: -	

**FUSS & O'NEILL**

317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
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CITY OF WOONSOCKET

INTERIOR ABATEMENT PLAN

WOONSOCKET MIDDLE SCHOOL
148 HAMLET AVENUE

WOONSOCKET

RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JULY 21, 2023

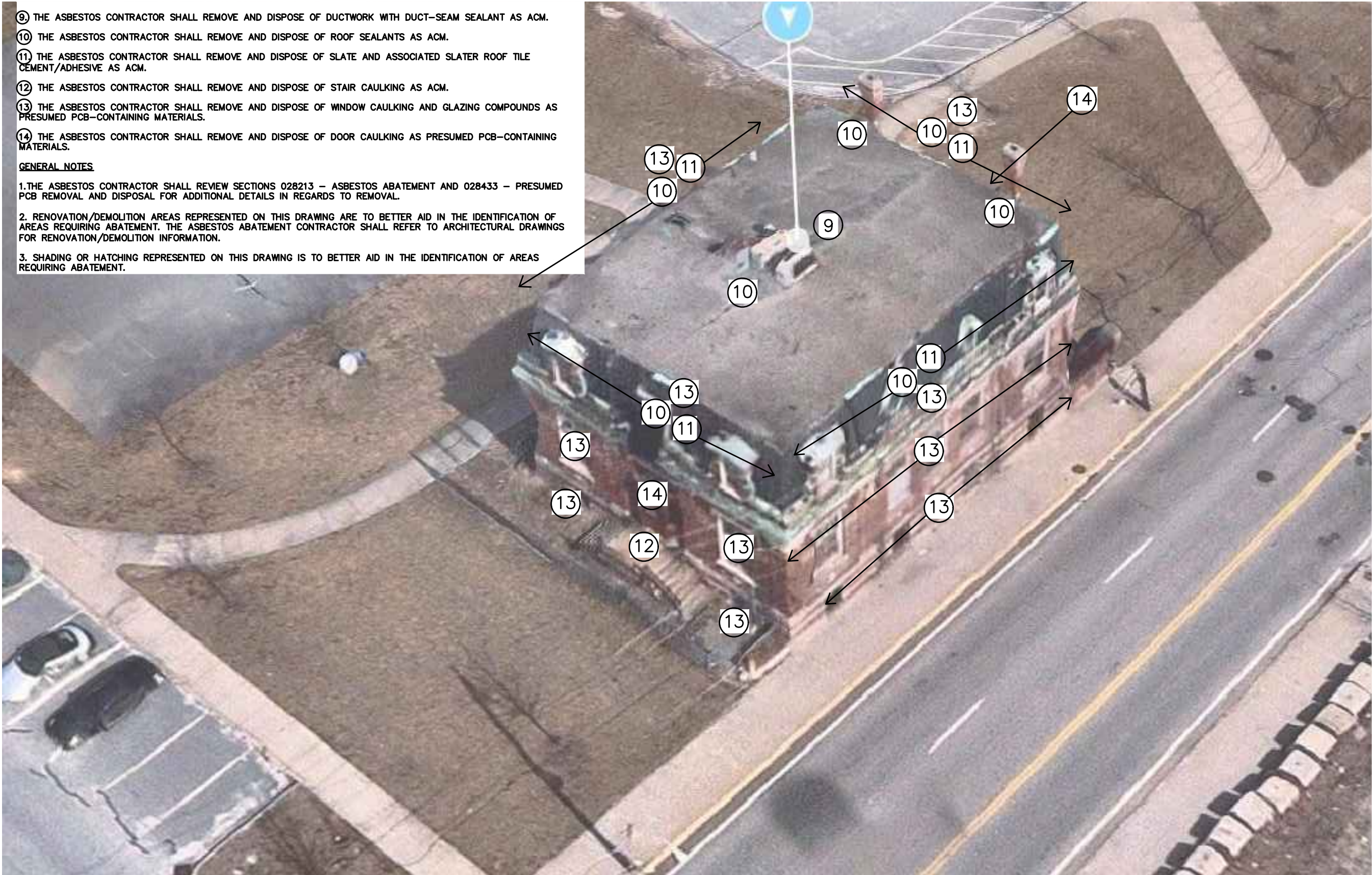
FIGURE 1

File: F:\P2004\0333\A30\Deliverables\Bid & Construction Documents\Drawings\FLR.dwg Layout: EXTERIOR PLAN Plotted: 2023-07-21 2:57 PM Saved: 2023-07-21 2:39 PM User: kthimotee
PC3: AUTOCAD PDF (GENERAL DOCUMENTATION) PC3 STB/CTB: FO STB
LAYER STATE:

9. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF DUCTWORK WITH DUCT-SEAM SEALANT AS ACM.
10. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF ROOF SEALANTS AS ACM.
11. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF SLATE AND ASSOCIATED SLATER ROOF TILE CEMENT/ADHESIVE AS ACM.
12. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF STAIR CAULKING AS ACM.
13. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF WINDOW CAULKING AND GLAZING COMPOUNDS AS PRESUMED PCB-CONTAINING MATERIALS.
14. THE ASBESTOS CONTRACTOR SHALL REMOVE AND DISPOSE OF DOOR CAULKING AS PRESUMED PCB-CONTAINING MATERIALS.

GENERAL NOTES

1. THE ASBESTOS CONTRACTOR SHALL REVIEW SECTIONS 028213 - ASBESTOS ABATEMENT AND 028433 - PRESUMED PCB REMOVAL AND DISPOSAL FOR ADDITIONAL DETAILS IN REGARDS TO REMOVAL.
2. RENOVATION/DEMOLITION AREAS REPRESENTED ON THIS DRAWING ARE TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT. THE ASBESTOS ABATEMENT CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR RENOVATION/DEMOLITION INFORMATION.
3. SHADING OR HATCHING REPRESENTED ON THIS DRAWING IS TO BETTER AID IN THE IDENTIFICATION OF AREAS REQUIRING ABATEMENT.



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER	

SCALE:
HORZ.: NOT TO SCALE
VERT.:
DATUM:
HORZ.: -
VERT.: -



FUSS & O'NEILL

317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

WOONSOCKET

CITY OF WOONSOCKET
EXTERIOR ABATEMENT PLAN
WOONSOCKET MIDDLE SCHOOL
148 HAMLET AVENUE

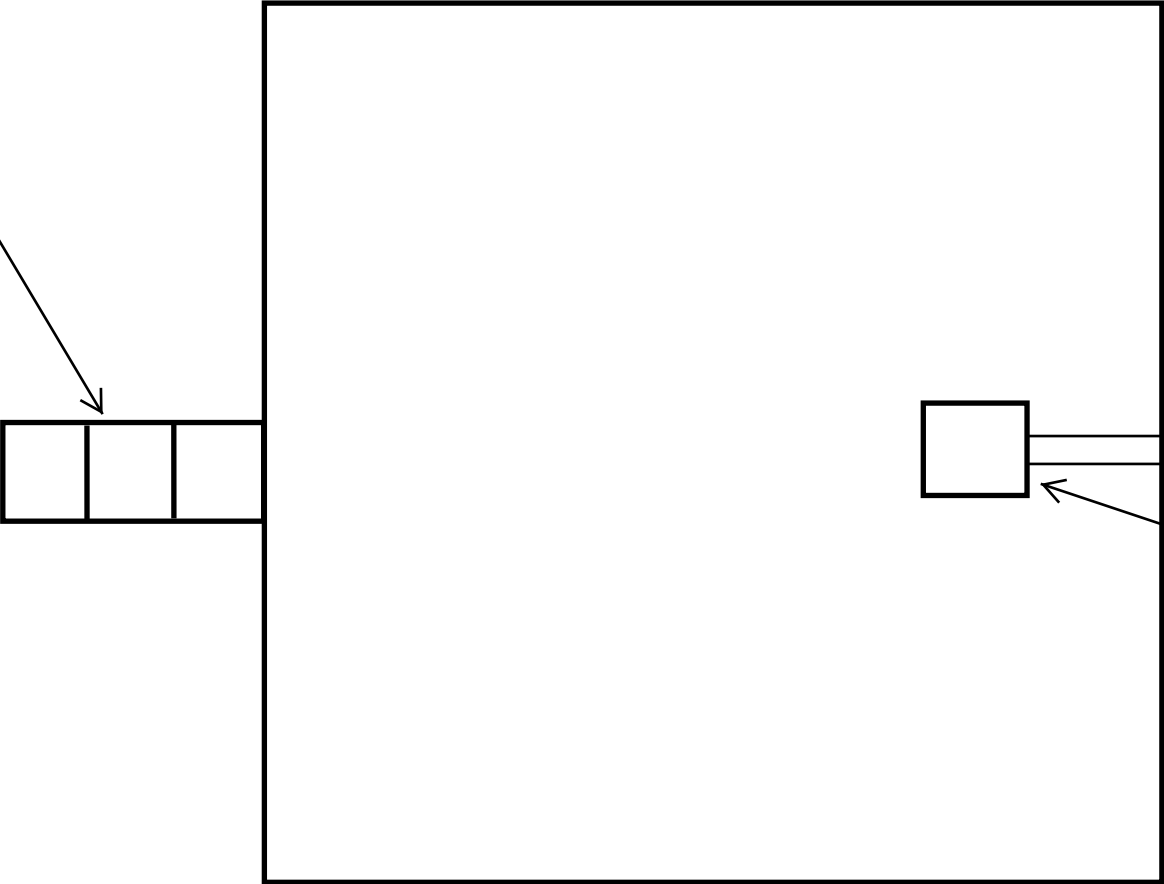
RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JULY 21, 2023

FIGURE 2

Typical 3-stage Decontamination facility - includes hot & cold water, towels, & 5 µm waste water filter at all times during work. Consult owner for power, water, and drains.

2 layers of 4-mil poly sheeting (1 layer of 6-mil poly sheeting for flooring materials if waiver is approved) installed on walls. 2 layers of 6-mil poly sheeting on floors where flooring materials are not being abated. 2 layers of 4-mil poly sheeting installed on ceilings if ceiling material is not impervious and free of cracks, fissures, or any over imperfection that would prevent the surface from being adequately cleaned.



2,000 CFM (switchable to 1,000 CFM), HEPA-filtered work area ventilation unit with 12"Ø 6-mil poly tube exhaust through 12" round cuts outs in sheet of plywood installed at window opening. Double wall 12"Ø 6-mil poly tube exhausts shall be used where the exhausts travel through building interiors outside containment. Install and maintain one spare 2,000 CFM HEPA unit. Maintain at least -0.020 inches water column negative pressure inside containment and good airflow throughout.

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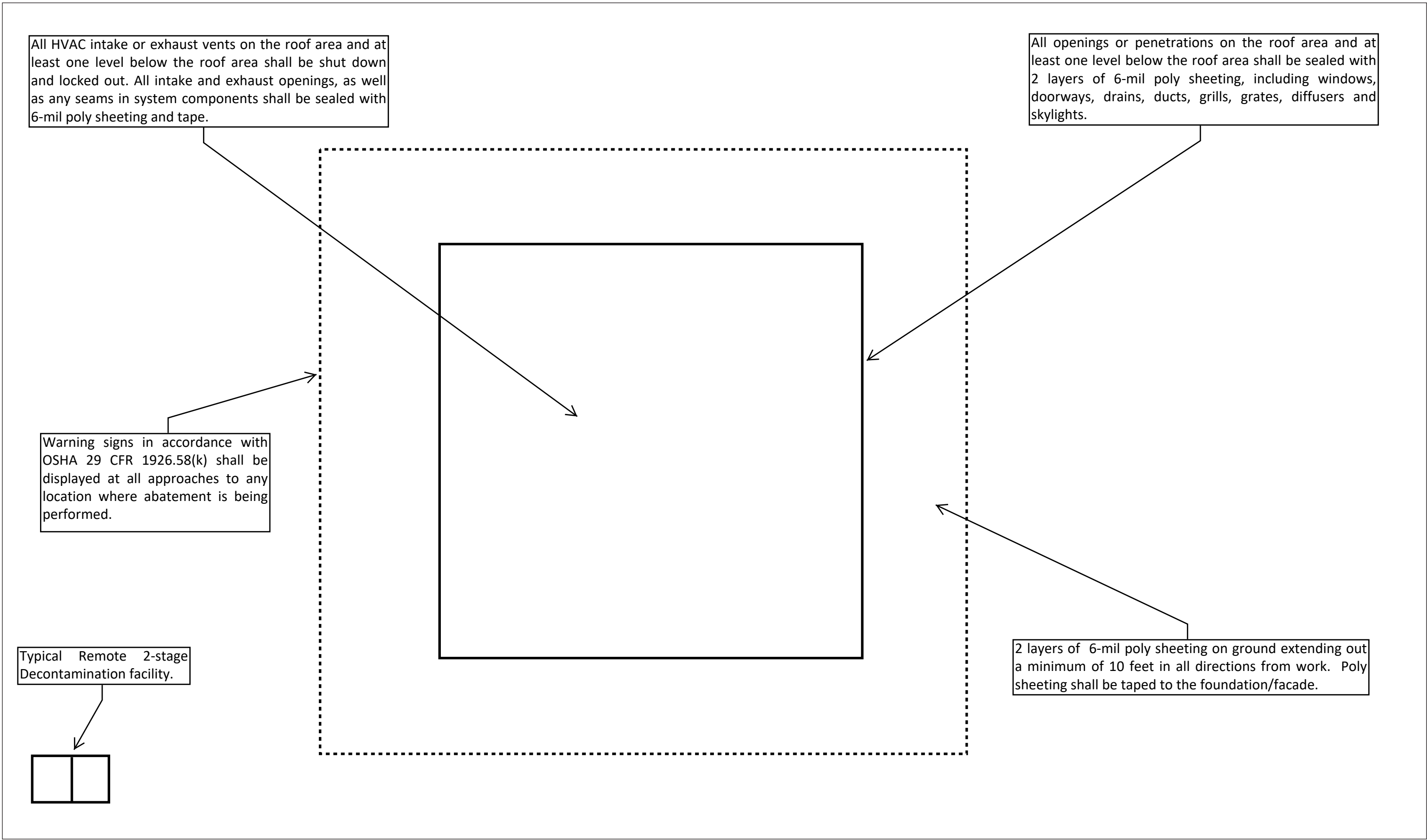
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CITY OF WOONSOCKET		
TYPICAL INTERIOR ABATEMENT SETUP		
WOONSOCKET MIDDLE SCHOOL HISTORIC OFFICE BUILDING		
148 HAMLET AVENUE		
WOONSOCKET		RHODE ISLAND

PROJ. No.: 20040333.A30
DATE: JUNE 2023

FIGURE 3



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER	

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DATUM:
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VERT.: -



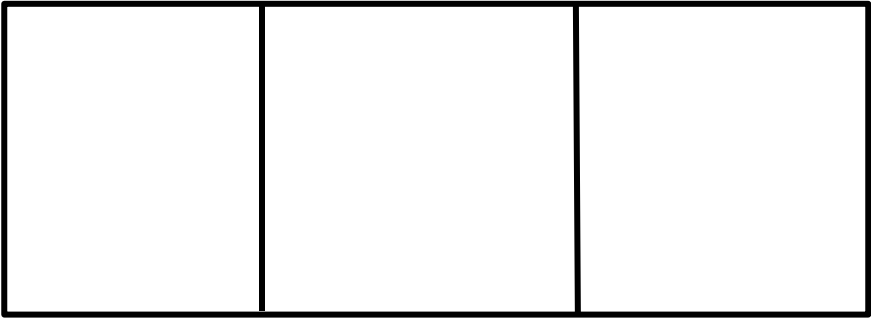
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CITY OF WOONSOCKET		
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WOONSOCKET		RHODE ISLAND

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FIGURE 4



Typical three-stage decontamination facility consisting of equipment room, shower room, and clean room in series. The remote decon shall be constructed in close proximity to the work area (as feasible). Access between the decon chambers shall be through double-flap curtain openings. Construct the decon with wood, PVC, or metal framing and cover both sides with 2 layers of 6-mil poly sheeting (sealed with spray glue and taped at the joints). Joints shall be watertight at floor, walls, and ceiling.

SECTION 028213 – ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Limited Hazardous Building Materials Inspection Report prepared by Fuss & O’Neill, Inc. (November 2022).
- B. Draft Asbestos Abatement Plan prepared by Fuss & O’Neill, Inc. (July 2023).
- C. Section 028319 – Lead Paint Awareness
- D. Section 028416 – Lighting Ballasts and Bulbs
- E. Section 028433 - Presumed Polychlorinated Biphenyl Removal and Disposal
- F. Hazardous Building Materials Abatement drawings prepared by Fuss & O’Neill, Inc.

1.2 SCOPE OF WORK

- A. Work outlined in this Section includes all work necessary for the removal, packaging, transporting, and disposing of asbestos-containing materials (ACM) impacted during demolition activities (the “Work”) to occur at the Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island (the “Site”).
- B. Work shall be performed by a State of Rhode Island Department of Health (RIDOH)-licensed Asbestos Abatement Contractor (the “Contractor”) with licensed asbestos workers and supervisors. Training shall be in accordance with RIDOH Regulation 216-RICR-50-15-1 (1.9).
- C. This scope of work includes all necessary selective demolition to access ACM scheduled for abatement.

1.3 PROJECT DESCRIPTION

- A. The base bid includes removal, packaging, transporting, and disposing ACM and ACM, as identified herein, conducted by workers meeting the requirements of OSHA Title 29 CFR, Part 1926.1101 for Class 1 and 2 work. This shall include all necessary demolition to access ACM for abatement.
- B. Materials, as discovered outside of those listed (either above or below), will be measured and paid or credited by unit prices. The quantities are estimates only and should be field-verified by the Contractor.
- C. The following table summarizes the locations of the base bid work with estimated material quantities. Note quantities provided below are order-of-magnitude estimates only. Refer to the Demolition Drawings for specific locations.

BASE BID - ASBESTOS

MATERIAL TYPE	LOCATION	QUANTITY	NOTES
Glue Daub Associated with 12" x 12" Ceiling Tile	2nd Floor	200 SF	2
Sheet Flooring	1st & 2nd Floor	2,100 SF	3
12" x 12" Floor Tile	2nd Floor, Men's & Women's Bathrooms	120 SF	3
Wallboard Adhesive	2nd Floor	1,200 SF	
Electrical Board Backer Panel	1 st Floor, A/B Room & 2 nd Floor, NE Corner Room Circuit Box	10 SF	
Cementitious Flooring	Stairwell	800 SF	3
Drywall/Joint Compound System	2nd Floor, A-D Side Room	2,750 SF	4
Hexagon Pattern Sheet Flooring	1st Floor, D Side	550 SF	3
9" x 9" Floor Tile	1st Floor, A/B Side	100 SF	3
Pipe Insulation & Mudded Pipe Fitting Insulation	Basement	200 LF	
Duct-Seam Sealant	Roof	75 LF	5
Roof Sealant	Roof Chimney	25 LF	5
Slate Roof Tile Cement	Slate Roofing	1,750 SF	6
Exterior Caulking on Stairs	Front Exterior Stairs	50 LF	1

LF = Linear Feet; SF = Square Feet

Notes:

1. Denotes material type is presumed to contain regulated concentrations of polychlorinated biphenyls.
2. Denotes material type includes the removal and disposal of associated ceiling tiles as ACM.
3. Denotes material type includes the removal and disposal of all associated flooring layers and mastics/adhesives as ACM down to the bare substrate.
4. Denotes material type includes the removal and disposal of all layers or the drywall system as well as fasteners as ACM.
5. Denotes the material type includes the removal and disposal of all concealed sealants/adhesives as ACM down to the bare substrate/roof deck.
6. Denotes material type includes the removal and disposal of all roofing layers associated slate roof/siding shingles down to roof deck as ACM.

D. A portion of the Work may be performed in multiple mobilizations, at different periods of time, in conjunction with other trades (i.e., other trades work, demolition work, etc.).

E. Safety Data Sheets (SDS) for chemicals to be used during the project must be submitted to the Consultant prior to chemicals being delivered to the Site.

- F. Encapsulants applied to any surface that will receive a new finish that requires an adhesive must be compatible with the application of the new finish.
- G. The Contractor shall be responsible for providing temporary water, power, and heat, as needed, at the Site to perform the Work. Temporary lighting within the work areas must be connected to ground-fault circuit interrupter (GFCI) power panels installed by a State of Rhode Island-licensed electrician, permitted as required, and located outside of the work areas.

1.4 DEFINITIONS

- A. The following definitions relative to asbestos abatement apply:
 1. Abatement: Procedures to control fiber release from ACM; includes removal, encapsulation, and enclosure.
 2. Air Monitoring: The process of measuring the total airborne fiber concentration of an area or a person.
 3. Amended Water: Water to which a surfactant (wetting agent) has been added.
 4. Architect: A person or firm professionally engaged in the design of buildings and who advises in their construction.
 5. Asbestos: The name given to a number of naturally-occurring, fibrous silicates. This includes the serpentine and the amphiboles forms, and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically-altered.
 6. Asbestos-Containing Waste Material: RACM waste and materials contaminated with asbestos including disposable equipment and clothing.
 7. Asbestos Felt: A product made by saturating felted asbestos with asphalt, or other suitable bindery, such as a synthetic elastomer.
 8. Asbestos Fibers: Those particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.
 9. Asbestos Project Designer: The RIDOH Asbestos Project Designer for this project is Mr. Jonathan Hand (License No. APD00798).
 10. Asbestos Work Area: A regulated area, as defined by OSHA Title 29 CFR, Part 1926.1101, where asbestos abatement operations are performed, which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated areas for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.
 11. Caulking: Resilient mastic compound often having a silicone bituminous or rubber base; used to seal cracks, fill joints, and prevent leakage.
 12. Clean Room: An uncontaminated area or room, which is a part of the worker decontamination enclosure system with provisions for storage of worker street clothes and protective equipment.
 13. Competent Person: As defined by OSHA Title 29 CFR, Part 1926.1101, a representative of the Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. The Competent Person has authority to take prompt corrective measures and to eliminate such hazards during asbestos removal. The Competent Person shall be properly trained in accordance with EPA's Model Accreditation Plan (MAP).
 14. Consultant: Fuss & O'Neill, Inc.
 15. Containment: An enclosure which surrounds the location where ACM and/or other toxic or hazardous substance removal is conducted, and establishes a controlled work area.

16. Contractor: Any person, firm, corporation, or other entity who has a valid license issued by the State of Rhode Island for the purpose of entering into, or engaging in, asbestos abatement work.
17. Curtained Doorway: A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of three feet apart can form an airlock.
18. Dampproofing: Application of water-impervious materials to a surface (such as a wall) to prevent penetration of moisture, typically associated with below-grade surfaces and veneers.
19. Decontamination Enclosure System (Decon): A series of connected areas, with curtained doorways between adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
20. Encapsulant: A liquid material which can be applied to ACM, that controls the possible release of asbestos fibers either by creating a membrane over the surface (bridging encapsulant), or penetrating the material and binding its components together (penetrating encapsulant).
21. EPA: The United States Environmental Protection Agency.
22. Equipment Room: Any contaminated area or a room that is part of the worker decon with provisions for storage of contaminated clothing and equipment.
23. Fixed Object: Unit of equipment or furniture in the work areas that cannot be removed from the work area.
24. Friable ACM: Any material that contains greater than one percent (> 1%) asbestos as determined using the method specified in Title 40 CFR, Part 763, Appendix A, Subpart F, Section 1, via PLM, or is presumed to contain asbestos, that can be crumbled, pulverized, or reduced to powder by hand pressure (when dry).
25. Glazing Compound: Any compound used to hold glass in-place, also referred to as glazing putty.
26. HEPA Filter: High-Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2 1979.
27. HEPA-Filtered Work Area Ventilation System: A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
28. HEPA-Vacuum Equipment: Vacuum equipment where all the air drawn into the machine is expelled through a HEPA filter with none of the air leaking past it and with a HEPA-filter as the last filtration stage.
29. Movable Object: Unit of equipment or furniture in the work area that can be removed from the work area.
30. NESHAP: National Emission Standards for Hazardous Air Pollutants regulations enforced by the EPA.
31. Non-Friable ACM: Any material that contains > 1% asbestos as determined using the method specified in EPA Title 40 CFR, Part 763, Appendix A, Subpart F, Section 1, via PLM, or is presumed to contain asbestos, that cannot be crumbled, pulverized, or reduced to powder by hand pressure (when dry).
32. OSHA: The Occupational Safety and Health Administration.
33. Owner: City of Woonsocket.
34. Permissible Exposure Limit (PEL): The maximum total airborne fiber concentration to which an employee is allowed to be exposed. The new limit established by OSHA Title 29 CFR, Part 1926.1101 is 0.1 fibers/cc as an eight (8)-hour time-weighted average (TWA),

- and 1.0 fibers/cc averaged over a sampling period of thirty (30) minutes as an Excursion Limit. The Contractor shall be responsible for maintaining work areas in a manner that this standard is not exceeded.
35. Project Monitor: A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or a Consultant with experience in asbestos air monitoring, personal protection equipment, and abatement procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101.
 36. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).
 37. Regulated Area: An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area, within which, total airborne fiber concentrations exceed, or there is a reasonable possibility that they may exceed, the PEL.
 38. RIDEM: The State of Rhode Island Department of Environmental Management.
 39. RIDOH: The State of Rhode Island Department of Health.
 40. Shower Room: A room between the Clean Room and the Equipment Room in the decon with hot and cold running water suitably arranged for employee showering during decontamination. The Shower Room is located in an airlock between the contaminated area and the clean area.
 41. Site: Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island.
 42. Surfactant: A chemical wetting agent added to water to improve penetration into ACM.
 43. Totally-Enclosed Manner: A manner that will ensure no exposure of human beings or the environment to a concentration of asbestos.
 44. Transport Vehicle: A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.
 45. Waterproofing: Material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water, includes concealed conditions (applications around doors, windows, and in wall cavities); sometimes combined with felts.

1.5 CONSULTANT

- A. The Owner/Architect shall retain a third-party, industrial hygiene firm (the "Consultant" – Fuss & O'Neill) for the purposes of project management and monitoring during Asbestos Abatement activities. At the discretion of the Owner/Architect, the Consultant will represent the aforementioned during the abatement project. The Contractor will regard the Consultant's direction as authoritative and binding, as provided herein, in matters particularly, but not limited to the following:
 1. Work area approval.
 2. Monitoring results review.
 3. Completion of the various work segments.
 4. Final abatement completion.
 5. Data submission.
 6. Daily field punch list items.
- B. The RIDOH-certified Asbestos Project Designer for this project is Mr. Jonathan Hand (License No. ADP00798).

1.6 USE OF THE CONTRACT DOCUMENTS

- A. It shall be incumbent upon the Contractor to visit the Site and determine what exists, its condition, and what will be required to accomplish the Work intended by the Contract Documents. No increase in the Contract Sum will be permitted as a result of the Contractor's failure to visit the Site and understand the existing conditions.
- B. All work shall comply with the Contract Documents and with applicable codes, laws, regulations, and ordinances wherever applicable. The most stringent of all the foregoing shall govern the Work.
- C. It is not intended that this Section show every detail of the Work, but the Contractor shall be required to furnish, within the Contract Sum, all material and labor necessary for the completion of the Work in accordance with the intent of this Section.
- D. In case of ambiguity among the Contract Documents, the more stringent requirement, as determined by the Consultant, shall prevail.
- E. The Work includes making modifications as necessary, subject to approval by Owner in consultation with the Consultant, to correct any conflicts.
- F. All items not specifically mentioned in the Contract Documents, but implied by trade practices to complete the Work, shall be included.

1.7 SITE EXAMINATION

- A. It is understood that the Contractor has examined the Site and made their own estimates of the facilities and difficulties attending the execution of the Work and has based their price thereon.
- B. Except for unforeseeable concealed conditions as determined by the Consultant, the Contractor shall make no claim for additional cost due to the existing conditions at the Site.

1.8 CONTRACTOR QUALIFICATIONS

- A. The Contractor shall submit a record of prior experience in asbestos abatement projects, listing no less than three completed projects in the past year of similar size and scope. The Contractor shall list the experience and training of the project supervisors and all on-site personnel. The information that should be included is as follows:
 - 1. Project Name and Address.
 - 2. Owner's Name and Address.
 - 3. Architect's Name.
 - 4. Consultant's Name.
 - 5. Contract Amount.
 - 6. Date of Completion.
 - 7. Extras and Changes.
- B. The Contractor selected must currently hold a valid RIDOH Asbestos Abatement Contractor license.
- C. Submit a written statement regarding whether the Contractor has ever been cited for non-compliance with federal, state, or local asbestos and/or lead regulations pertaining to worker protection, removal, transport, or disposal.

1.9 TESTING LABORATORY SERVICES

- A. The Contractor shall submit to the Consultant the name, address, and qualifications of proposed laboratories intended to be utilized for sample analysis as required by this Section.

1.10 ADDITIONAL GENERAL REQUIREMENTS

- A. The Contractor shall employ a competent, RIDOH-certified Asbestos Abatement Supervisor with at least three years of experience on projects of similar scope and magnitude, who shall be responsible for all work involving asbestos abatement as described in the Contract Documents and defined in applicable regulations and have full-time, daily supervision of the same. The Supervisor shall be the competent person as defined by Occupational Safety and Health Administration (OSHA) regulations.
- B. If required by federal, state, local, or any other authorities having jurisdiction over such work, the Contractor shall allow the Work of this contract to be inspected. The Contractor shall immediately notify the Owner, Architect, and Consultant and shall maintain written evidence of such inspection for review by the aforementioned parties.
- C. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.
- D. The Contractor shall immediately notify the Owner, Architect, and Consultant of the delivery of all permits, licenses, certificates of inspection, of approval, or of occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of who issued, and shall cause them to be displayed to the aforementioned parties for verification and recording.

1.11 SUBMITTALS

- A. The Contractor shall submit the following to the Consultant, in one complete package, prior to the pre-construction meeting and at least ten (10) business days before the start of the Work:
 - 1. Submit a schedule to the Owner/Architect and the Consultant that defines a timetable for executing and completing the project, including work area preparations, removal, cleanup, decontamination, and final clearance air monitoring (if applicable).
 - 2. Submit copies of all notifications, permits, applications, licenses and like documents required by federal, state, or local regulations obtained or submitted in proper fashion.
 - 3. Submit the name and address of the hauling contractor and the landfill to be used. Also, submit current, valid operating permits and certificates of insurance for the transporter and landfill.
 - 4. Submit the name, address, ID number, operating permit, and certificate of insurance of the proposed construction debris site.
 - 5. Submit photographic or video documentation showing the building conditions prior to the start of work. The Contractor shall be held responsible for all damage to the building and its contents not shown on the pre-construction documentation. The Contractor shall note if this does not apply since the documentation was collected by others (i.e., General Contractor).
 - 6. Submit a detailed, site-specific work plan including, but not limited to, decon construction, work area isolation, and removal methods.

7. Submit the training, medical, and respirator fit test records as well as a current, valid RIDOH license of each employee who may be on the Site.
 8. If the Contractor's RIDOH-licensed Asbestos Abatement Supervisor is not conducting OSHA-required employee exposure monitoring, submit the qualifications of the air sampling professional that the Contractor proposes to use on this project for this task. The Contractor shall note if this does not apply.
 9. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project. This includes all SDS for products and chemicals that may be used on the project.
 10. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project, as well as a list of past projects completed.
 11. Submit a chain-of-command for the project. The chain-of-command should include the name, title, and contact number for each person listed.
 12. Submit a site-specific Emergency Action Plan for the project. The Emergency Action Plan may include emergency procedures to be followed by Contractor personnel to evacuate the building, hospital name and phone number, most direct transportation route from the Site, emergency telephone numbers, etc. If this information is contained within an Emergency Action Plan prepared by the Site's General Contractor, a copy shall be submitted for review.
 13. Submit a written, site-specific Respiratory Protection Program for employees undertaking the Work, including make, model, and National Institute of Occupational Safety and Health (NIOSH) approval numbers of respirators to be used at the Site. The Contractor shall note if the Respiratory Protection Program is not required at the Site and why.
 14. Submit the proposed electrical safeguards to be implemented by a State of Rhode Island-licensed electrician including, but not limited to, location of transformers, GFCI outlets, lighting, and power panels necessary to safely perform the Work, including a description of electrical hazards and a safety plan for common practices in the work area. This may also include a safety plan for temporary lighting, extension cords, and other powered equipment used in the work area (locations, daily inspections, etc.).
 15. Submit the proposed worker orientation plan that, at a minimum, includes a description of asbestos hazards and abatement methodologies, a review of worker protection requirements, and the outline of safety procedures.
- B. No work on the Site will be allowed to begin until the Owner/Architect and the Consultant approve the Pre-Construction Submittals. Any delay caused by the Contractor's refusal or inability to submit this documentation in a timely manner does not constitute a cause for change order or a time extension.
- C. The Contractor shall submit the following to the Consultant during the Work:
1. Copies of personal air sampling results (Consultant will not review or provide any direction or advice regarding results). The Contractor shall be responsible for proper sample analytical review and personal protective equipment (PPE) selection and use. Records are retained solely for project record.
 2. Copies of training, RIDOH licenses, respirator fit test records, and medical records for new employees to start work 24 hours in advance of the new employee arriving at the Site.
 3. Carbon copies from waste shipment records (WSR), waste manifest records, or other waste tracking record for all specified materials.
 4. Copies of daily log sheets, daily sign-in sheets, and containment sign-in sheets.
- D. The Contractor shall submit the following to the Consultant at the completion of the Work. The Owner reserves the right to retain payment(s) until all items are received in completion:

1. Original final completed copies of the WSR, signed by all transporters and the designated disposal site owner/operator.
2. Original final completed copies of weight tickets, recycling tickets, and manifests for all specified materials.
3. Contractor's logs (daily activity logs, daily sign in sheets, containment sign-in sheets), and all worker training, RIDOH licenses, medical records, and respirator fit test records.
4. Copies of all OSHA personal monitoring results.

1.12 REGULATIONS AND STANDARDS

- A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner that will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos abatement. Specifically, the Contractor shall comply with the requirements of the following:
 1. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) Regulations (Title 40 CFR, Part 61, Subpart M).
 2. EPA Asbestos Hazards Emergency Response Act (AHERA) Regulations (Title 40 CFR, Part 763, Subpart E).
 3. OSHA Asbestos Regulations (Title 29 CFR, Parts 1910.1001 and 1926.1101).
 4. Department of Transportation (DOT) Hazardous Waste Transportation Regulations (Title 49 CFR, Parts 170 - 180).
 5. Life Safety Code, National Fire Protection Association (NFPA).
 6. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL).
 7. State of Rhode Island and Providence Plantations Department of Health, Rules and Regulations for Asbestos Control (216-RICR-50-15-1).

1.13 EXEMPTIONS

- A. Any deviations from the Contract Documents require the written approval and authorization from the Owner and Consultant. Any deviations that may impact the bid cost shall be delineated with the bid for the Architect/Owner to review.
- B. Any modifications from the standard work practices identified in the RIDOH Regulations or the Asbestos Abatement Plan must be requested in writing and approved in writing by both the Consultant and RIDOH. The Consultant shall revise the Asbestos Abatement Plan on behalf of the Owner. If the Contractor intends to request a revision for this project, the nature of the revision shall be disclosed in the Bid Documents, and the cost savings associated with said revision shall be provided for Owner's consideration. A revision shall not be filed without prior Owner and Consultant approval.

1.14 FINAL RE-OCCUPANCY AIR CLEARANCE

- A. Following the completion of the encapsulation phase of the work, the Consultant shall collect final re-occupancy clearance air samples inside the negative pressure enclosure (NPE) work area per RIDOH regulatory requirements for re-occupancy.

- B. The Owner shall be responsible for payment of the sampling and analysis of the initial final air clearance samples only. If the first set of samples fails to satisfy the re-occupancy criteria, the Contractor shall be responsible for payment of all costs associated with the collection and analysis of additional final clearance air samples.
- C. Contractor shall not conduct demolition or other removal activities during final re-occupancy air clearance sampling.

1.15 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

- A. Regulatory Agency Notifications: The Contractor shall make the following notifications, and provide the submittals to the following agencies within the allotted number of days designated below:
 - 1. File Form ASB-22 at least ten (10) working days prior to the commencement of any abatement activity to:

RIDOH
Asbestos Control Program
3 Capital Hill, Room 206
Providence, RI 02908-5097
 - 2. The Contractor shall determine if local governing bodies also require notification or permits prior to conducting asbestos abatement activities.
- B. Fees, Permits and Licenses: The Contractor shall pay all licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or processing in the performance of the work specified in this Section.
- C. The Contractor shall be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The Contractor shall hold the Owner, Architect, and the Consultant harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights.
 - 1. The Contractor shall be responsible for securing all necessary permits for work under this Section, including hauling, removal, disposal, fire, and materials usage, or any other permits required to perform the specified work.

1.16 WORK SITE SAFETY PLAN

- A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the Site. The safety plan should include provisions for the following:
 - 1. Injured worker evacuation.
 - 2. Emergency and fire exit routes from all work areas.
 - 3. Emergency first aid treatment.
 - 4. Local telephone numbers for emergency services including ambulance, fire, and police.
 - 5. A method to notify building occupants in the event of a fire or other emergency requiring building evacuation.
- B. The Contractor shall be responsible for training all workers in these procedures.

1.17 INDEPENDENT AIR SAMPLING AND ASBESTOS ABATEMENT MONITORING

- A. This Subsection describes independent air sampling work being performed on behalf of, and paid for by, the Owner. This Subsection describes air monitoring conducted by the Consultant to verify that the building, beyond the work area, and the outside environment remains uncontaminated. Personal air monitoring required by OSHA is work to be performed by the Contractor and is within the Contract Sum. A negative exposure assessment will not be reviewed and/or approved by the Consultant; it shall be the Contractor's responsibility to determine its validity.
- B. The purpose of the Consultant's air monitoring is to verify proper engineering controls in the work area including, but not limited to:
 - 1. Building contamination outside the work area by airborne fibers.
 - 2. Filtration failure or differential pressure system rupture.
 - 3. Air contamination outside the building envelope by airborne fibers.
- C. If any of the above occurs, the Contractor shall immediately cease asbestos abatement activities until the fault is made correct. Do not recommence work until authorized by the Consultant.
- D. The Consultant may monitor total airborne fiber concentrations outside the work area. The purpose of this air monitoring will be to detect total airborne fiber concentrations outside the NPE, which may challenge the effectiveness of the work area isolation procedures to protect the ambient areas inside and at the exterior of the Site.
- E. To determine if the elevated total airborne fiber concentrations encountered during abatement operations have been reduced to an acceptable level, the Consultant will sample and analyze ambient air in accordance with final clearance air sampling requirements.
- F. The Consultant may perform on-site monitoring throughout the project, as follows:
 - 1. All work procedures may be monitored by the Consultant to assure that areas outside the designated work areas will not be contaminated.
 - 2. Prior to work on any given day, the Contractor's designated "competent person" shall discuss the day's work schedule with the Consultant to evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination of the Site or the employees. This includes a visual inspection of the work area and the decon.

1.18 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

- A. The Contractor shall independently retain an air-sampling professional or the RIDOH-licensed Asbestos Abatement Supervisor shall monitor total airborne fiber concentrations in the worker breathing zones to establish conditions and work procedures for maintaining compliance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101.
- B. The Contractor's air sampling professional shall document all air sampling results and provide a report to the Consultant within 48 hours after sample collection.
- C. All air sampling shall be conducted in accordance with methods described in OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101.

1.19 PROPER WORKER PROTECTION

- A. This Subsection describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.
- B. All workers are to be accredited as Abatement Workers as required by the EPA AHERA Title 40 CFR, Parts 763 Appendix C to Subpart E, February 3, 1994.
- C. The Contractor is required to be licensed and accredited as required by RIDOH.
- D. In accordance with OSHA Title 29 CFR, Part 1926, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include, but is not limited to the following:
 - 1. Methods of recognizing asbestos.
 - 2. Health effects associated with asbestos.
 - 3. Relationship between smoking and asbestos in producing lung cancer.
 - 4. Nature of operations that could result in exposure to asbestos.
 - 5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
 - a. Engineering controls.
 - b. Work Practices.
 - c. Respirators.
 - d. Housekeeping procedures.
 - e. Hygiene facilities.
 - f. Protective clothing.
 - g. Decontamination procedures.
 - h. Emergency procedures.
 - i. Waste disposal procedures.
 - 6. Purpose, proper use, fitting, instructions, and limitations of respirators as required by OSHA Title 29 CFR, Part 1910.134.
 - 7. Appropriate work practices for the work.
 - 8. Requirements of medical surveillance program.
 - 9. Review of OSHA Title 29 CFR, Part 1926.
 - 10. Pressure Differential Systems.
 - 11. Work practices including hands on or on job training.
 - 12. Personal Decontamination procedures.
 - 13. Air monitoring, personal and area.
- E. The Contractor shall provide medical examinations for all workers who may encounter a total airborne fiber concentration of 0.1 fibers/cc or greater for an 8-hour TWA. In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area for any reason. Examination shall, at a minimum, meet OSHA requirements as set forth in Title 29 CFR, Part 1926. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.
- F. The Contractor shall maintain control of and be responsible for access to all work areas to ensure the following requirements:
 - 1. Non-essential personnel are prohibited from entering the work area.

2. All authorized personnel entering the work area shall read the “Worker Protection Procedures” that are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing.
3. All personnel who are exiting from the decon shall be properly decontaminated.
4. Asbestos waste that is removed from the work area must be properly bagged and labeled in accordance with these Specifications. Asbestos waste removed from a NPE must be immediately transported off-site or immediately placed in locked, posted temporary storage on-site, and removed within 24 hours of the project conclusion.
5. Any materials, equipment, or supplies that are removed from the decon shall be thoroughly cleaned and decontaminated by wet-cleaning methods and/or HEPA vacuuming of all surfaces.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Deliver all materials in the original packages, containers, or bundles bearing the brand name, manufacturer name, and product technical description.
- B. The Contractor shall have a sufficient inventory of, or dated purchase orders for, materials necessary for the work (e.g., protective clothing, respirators, respirator filter cartridges, polyethylene (poly) sheeting of proper size and thickness, tape, spray adhesive, air filters, etc.).
- C. Damaged or deteriorating materials are not permitted for use and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed as ACM.
- D. Poly sheeting (packaged in a roll to minimize the frequency of joints) shall be delivered to the Site with factory label indicating four (4) or six (6)-mil thickness.
- E. Poly disposable bags shall be 6-mil with OSHA-required pre-printed labels (OSHA Title 29 CFR, Part 1926.1101(k)(8)(iii)).
- F. Tape or adhesive spray shall be capable of sealing joints in adjacent poly sheeting and attaching poly sheeting to finished or unfinished surfaces of dissimilar materials. Tape and adhesive spray shall also be capable of adhering under both dry and wet conditions (including use of amended water).
- G. Surfactant (wetting agent) shall consist of fifty percent (50%) polyoxyethylene ether and 50% polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of 1 ounce surfactant to 5 gallons of water, or as directed by manufacturer.
- H. Removal encapsulant shall be non-flammable, factory-prepared penetrating chemical encapsulant deemed acceptable by the Consultant. Usage shall be in accordance with manufacturer’s printed technical data.
- I. The Contractor shall have spray equipment capable of mixing wetting agent with water. Spray equipment shall also be capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas within the work area.

- J. Impermeable containers shall be used to receive and retain any ACM or ACM until disposal at an acceptable disposal site. The containers shall be labeled in accordance with OSHA Title 29 CFR, Part 1926.1101(k)(8)(iii) [June 1, 2015 requirements]. Containers must be airtight and watertight.
- K. Labels and signs, as required by OSHA Title 29 CFR, Part 1926.1101, will be used. When applicable, signage requirements of Section 028433 – Presumed Polychlorinated Biphenyl Removal and Disposal also apply.
- L. Encapsulant shall be bridging or penetrating type which has been deemed acceptable by the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

2.2 TOOLS AND EQUIPMENT

- A. The Contractor shall provide all clean tools and equipment necessary for asbestos removal, encapsulation, and enclosure.
- B. The Contractor's air monitoring professional or Abatement Supervisor shall have air-monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements. The equipment shall function properly, and air samples shall be calibrated with a recently calibrated (within 6 calendar months) rotameter.
- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the Work, including protective clothing, respirators, respirator filter cartridges, poly sheeting of proper size and thickness, tape, spray adhesive, and air filters.
- D. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and/or electrical power sources (e.g., generators, etc.). Any electrical-connection work affecting the building electrical power system shall be performed by a State of Rhode Island-licensed electrician, permitted as required.
- E. The Contractor shall be responsible for coordinating electrical and water services and shall pay for these services for the duration of the project (if applicable).
- F. The Contractor shall assist the Consultant by providing necessary tools and equipment (e.g., coveralls, ladders, extension cords, lighting, etc.) for the Consultant to perform project monitoring activities (i.e., final visual inspection(s), in-progress and final clearance air sampling, etc.). The Consultant reserves the right to reject such items that are deemed unsafe and/or do not function properly and may request items be replaced with adequate replacements. The work areas must be safe to enter/occupy by the Consultant at all times.
- G. The Contractor shall have available shower stalls and plumbing, including sufficient hose length and drain system, or an acceptable alternate.
- H. The HEPA-filtered work area ventilation systems shall contain HEPA filter(s) and be capable of sustaining sufficient air exhaust to create a negative air pressure of -0.02 inches of water column within NPEs with respect to the outside area. Digital monometers shall be supplied for Class 1 work. Equipment shall be checked for proper operation by smoke tubes or differential pressure gauge before the start of each shift and at least twice during the shift. Adequate exhaust air shall be provided for a minimum of 4 air changes per hour within the NPE. No air movement system or air-filtering equipment shall discharge unfiltered air outside the work area.

- I. The Contractor will have reserve units so that system will operate continuously.
- J. HEPA Vacuum Equipment, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97% of all mono-dispersed particles of 0.3 micrometers in diameter or larger.

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION MEETING

- A. At least one week prior to the start of work, a Pre-Construction meeting will be scheduled and must be attended by the Contractor and any subcontractors. The assigned Contractor Site Supervisor must also attend this meeting.
- B. The Contractor shall present a detailed project schedule and project submittals at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner, Architect, and the Consultant will inform the Contractor of any scheduling adjustments for this project.
- C. Following the Pre-Construction meeting, the Contractor shall submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORK AREA PREPARATION - INTERIOR

- A. Where necessary, deactivate electrical power, including receptacles and light fixtures. Under no circumstances during the decontamination procedures will lighting fixtures be permitted to be operating when amended water spray may contact the fixture. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a State of Rhode Island-licensed electrician, permitted as required, and located outside the work areas.
- B. Temporary power shall be continuous power. Portable generators are not authorized for use during interior asbestos abatement without RIDOH approval.
- C. Deactivate and/or isolate heating, ventilating, and air conditioning (HVAC) systems or zones to prevent contamination and fiber dispersal to other areas of the building or structure. During the work, vents within the work area shall be covered with two (2) layers of 6-mil poly sheeting completely sealed with duct tape. If deactivation is not possible, isolation shall include a hard barrier, such as plywood or rigid-foam insulation board, securely affixed to active duct openings prior to covering with 2 layers of 6-mil poly sheeting completely sealed with duct tape.
- D. The Contractor shall be responsible for removing furniture, equipment, and any other materials to be salvaged from the work areas. The Contractor shall be responsible for removing all solid waste within the work areas. The Contractor shall pre-clean moveable objects within the proposed work areas using HEPA-vacuum equipment and/or wet-cleaning methods as appropriate and remove such objects from work areas.
- E. Completely seal all openings including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work areas, with 6-mil poly

sheeting sealed with duct tape. This includes doorways and corridors that will not be used for passage during work.

- F. Pre-clean fixed objects within the work areas, using HEPA-vacuum equipment and/or wet-cleaning methods as appropriate, and enclose with 6-mil poly sheeting completely sealed with duct tape.
- G. Clean the proposed work areas using HEPA-vacuum equipment or wet-cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- H. After cleaning, where wall materials are not being abated, cover fixed walls with 2 layers of 4-mil poly sheeting. Where fixed walls do not form a barrier, 2 layers of 6-mil poly sheeting shall be applied to a rigid framework of wood, metal, or polyvinyl chloride (PVC). Where flooring materials are not being abated, cover the floor with 2 layers of 6-mil poly sheeting. All overlaps shall be completely sealed with tape and spray adhesive.
- I. Large openings such as elevator doors and passageways shall be first sealed with solid construction materials, such as plywood over studding, which shall constitute the outermost boundary of the asbestos work area. All cracks, seams, and openings in such solid construction materials shall be caulked or otherwise sealed, so as to prevent the movement of asbestos fibers out of the work area.
- J. Maintain emergency and fire exits from the work areas, or establish alternate exits satisfactory to fire officials.
- K. Clean and remove ceiling-mounted objects, such as lights and other items not sealed-off, which interfere with asbestos abatement. Use hand-held, amended water sprayers or HEPA-vacuum equipment during fixture removal to reduce settled fiber dispersal.
- L. Create pressure differential between work areas and adjacent unregulated areas by the use of acceptable HEPA-filtered work area ventilation systems sufficient to provide 4 air changes per hour, and create a negative air pressure of -0.02 inches of water column within the NPE with respect to the adjacent area as measured on a manometer.
- M. If a Consultant is retained for pre-abatement services, the Contractor and the Consultant shall visually inspect barrier several times daily to assure an effective seal and the Contractor shall repair defects immediately.

3.3 WORK AREA PREPARATION – GLOVE BAGS

- A. All doors, windows, floor drains, vents, and other openings to the outside of the building and to areas within the building that do not contain asbestos materials shall be sealed off with 6-mil polyethylene sheeting and waterproof tape.
- B. Floor sheeting shall consist of at least one (1) layer of 6-mil polyethylene sheeting. Floor sheeting shall be placed directly beneath the glove bag and shall extend at least ten (10) feet in all horizontal directions. If any wall is less than ten (10) feet from the glove bag, the floor sheeting shall be extended up that wall to at least the height of the glove bag.

- C. HVAC equipment in the abatement area or passing through it but servicing other areas of the building shall be shut down and locked out and thoroughly sealed with 6-mil polyethylene sheeting and water proof tape.
- D. Negative pressure ventilation units with HEPA filtration shall be operated continuously from the time of barrier construction through the time necessary clearances are obtained.
- E. A worker decontamination enclosure system must be available immediately adjacent to the abatement area. A two-chamber decontamination system may be used if shower facilities are otherwise available on the project site.

3.4 WORK AREA PREPARATION – EXTERIOR CAULKING ABATEMENT

- A. Work is to be conducted from the building exterior. Completely seal all openings including, but not limited to, windows, doors, ventilation openings, drains, grilles, diffuser grates, and any other penetration into the work areas with 2 layers of 6-mil poly sheeting completely sealed with tape and spray adhesive.
- B. Provide 2 layers of 6-mil poly sheeting on exterior ground surface extending to a minimum of ten (10) feet from the building perimeter where ACM and/or ACWM are to be removed. Poly sheeting shall be attached to the building foundation with tape and spray adhesive.
- C. Movable lifts or staging platforms to be used during abatement shall be protected with 2 layers of 6-mil poly sheeting.
- D. Pre-clean fixed objects within the work areas using HEPA-vacuum equipment and wet-cleaning methods, as appropriate, and enclose with 6-mil poly sheeting sealed with tape.
- E. Clean the proposed work areas using HEPA-vacuum equipment and wet-cleaning methods, as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- F. Post asbestos warning signs, in accordance with OSHA Title 29 CFR, Part 1926.1101, at all approaches to the work area. Signs shall be conspicuously posted to permit a person to read them and take precautionary measures to avoid exposure to asbestos. When applicable, signage requirements of Section 028433 – Presumed Polychlorinated Biphenyls Removal and Disposal also apply.
- G. Maintain emergency and fire exits from the work area or establish alternative exits satisfactory to fire officials.

3.5 WORK AREA PREPARATION – ASPHALTIC ROOFING AND SIDING MATERIALS ABATEMENT

- A. Work is to be conducted from the building exterior. Completely seal all openings at the roof level including, but not limited to, windows, doors, ventilation openings, drains, grilles, diffuser grates, and any other penetration into the work areas with 2 layers of 6-mil poly sheeting completely sealed with tape and spray adhesive.
- B. Provide 2 layers of 6-mil poly sheeting on exterior ground surface extending to a minimum of ten (10) feet from the building perimeter where ACM and/or ACWM are to be removed. Poly sheeting shall be attached to the building foundation with tape and spray adhesive.

- C. Provide 2 layers of 6-mil poly sheeting on exterior ground surface extending to a minimum of ten (10) feet around any waste receptacle.
- D. Movable lifts or staging platforms to be used during abatement shall be protected with 2 layers of 6-mil poly sheeting.
- E. Pre-clean fixed objects within the work areas (e.g., air handling units, roof-top fans, etc.) using HEPA-vacuum equipment and wet-cleaning methods, as appropriate, and enclose with 6-mil poly sheeting sealed with tape.
- F. Clean the proposed work areas using HEPA-vacuum equipment and wet-cleaning methods, as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- G. Post asbestos warning signs, in accordance with OSHA Title 29 CFR, Part 1926.1101, at all approaches to the work area. Signs shall be conspicuously posted to permit a person to read them and take precautionary measures to avoid exposure to asbestos. When applicable, signage requirements of Section 028433 – Presumed Polychlorinated Biphenyls Removal and Disposal also apply.
- H. If a Consultant is retained for pre-abatement services, the Contractor and the Consultant shall visually inspect barrier several times daily to assure effective seal and the Contractor shall repair defects immediately.
- I. Maintain emergency and fire exits from the work area or establish alternative exits satisfactory to fire officials.

3.6 DECONTAMINATION ENCLOSURE SYSTEM (DECON)

- A. The Contractor shall establish, contiguous to the work area, a three-chamber decon consisting of equipment room, shower room, and clean room, in series. The only access between contaminated and uncontaminated areas shall be through this decon. If it is not feasible to erect a contiguous decon, the Contractor shall establish a remote decon in as close proximity to the work area as is feasible. For abatement not requiring a NPE, the Contractor shall establish a remote decon at the perimeter of the regulated work area.
- B. Access between rooms in the decon shall be through double-flap, curtained openings. The clean room, shower room, and equipment room within the decon, shall be completely sealed ensuring that the sole source of airflow through this area originates from uncontaminated areas outside the work area.
- C. If feasible, the Contractor shall establish, contiguous with the work area, an equipment decon consisting of 2 totally-enclosed chambers divided by a double-flapped, curtained opening. No personnel are permitted to enter or exit through this unit.
- D. Occupied areas and/or building space not within the work areas shall be separated from asbestos abatement work areas by means of airtight barriers.
- E. Construct the decon with wood or metal framing, cover both sides with 2 layers of 6-mil poly sheeting, completely sealed with spray adhesive, and taped at the joints.

- F. If a Consultant is retained for pre-abatement services, the Contractor and the Consultant shall visually inspect barrier several times daily to assure effective seal and the Contractor shall repair defects immediately.

3.7 ASBESTOS REMOVAL PROCEDURE – GENERAL

- A. Prior to the removal of ACM, the Contractor shall ensure that work area preparations have been conducted in accordance with applicable Subsections of this Section.
- B. The Contractor shall have a designated “Competent Person” on the Site at all times to ensure establishment of a proper NPE and proper work practices throughout project.
- C. If a Consultant is retained for pre-abatement services, abatement work shall not commence until authorized by the Consultant.
- D. The Contractor shall properly coordinate abatement work with other trades, new construction, and Site use. The Contractor shall be responsible for addressing any concerns to the Owner and/or Consultant.
- E. With a fine mist, spray ACM with amended water using airless spray equipment or apply an approved removal wetting agent to reduce the release of fibers during removal operation.
- F. Remove wet ACM in manageable section to keep fiber concentrations to a minimum. Material drop shall not exceed 8 feet. For heights up to 15 feet, provide inclined chutes or scaffolding to intercept drop.
- G. Remove ACM by standard methods, as appropriate. Fill disposal containers as removal proceeds; seal filled containers and clean containers before removal to equipment decon. Wet clean each container thoroughly, double bag, and apply caution labels, if required.
- H. After completion of stripping work, all surfaces from which ACM have been removed shall be wet brushed, using a nylon brush, wet-wiped, and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are prohibited). During this work, the surfaces being cleaned shall be kept wet.
- I. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. During cleanup, utilize brooms, non-metal dustpans, and rubber squeegees to minimize damage to floor covering. Non-porous materials (i.e., metal) to be removed from the work area during abatement activities for recycling/disposal as solid waste shall be cleaned and visually inspected by an Asbestos Project Monitor prior to removal from work areas.
- J. Sealed disposal containers, and all equipment used in the work area, shall be included in the cleanup and shall be removed from work areas via the equipment decon at an appropriate time in the cleaning sequence. All asbestos waste in 6-mil poly disposal bags shall be double-bagged in the equipment decon before removal from the Site.
- K. At any time during asbestos removal, should the Consultant suspect contamination of areas outside the work area(s), they shall cause all abatement work to stop until the Contractor takes the necessary steps to decontaminate these areas and eliminate the causes of such

contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections verify decontamination.

- L. After completion of the initial final cleaning procedure, including removal of the inner layers of poly sheeting but prior to encapsulation, a pre-sealant inspection shall be conducted by the Consultant. The pre-sealant inspection shall verify that ACM and residual dust has been removed from the work area.

3.8 ASBESTOS REMOVAL PROCEDURES – RESILIENT FLOORING

- A. The Contractor shall remove binding strips, wall bases, or other restrictive molding or finishes from doorways, walls, etc., and clean and dispose as non-ACM. Dispose any materials that have visible flooring mastic or pieces attached to them as ACM.
- B. The Contractor shall wet the floor with amended water or detergent solution so that the entire surface is wet. Do not allow to puddle or run-off into other areas. If a detergent is used, use in strict accordance with manufacturer's instructions. Allow time for humidity and water or removal encapsulant to loosen tiles prior to removal.
- C. Remove tiles/sheet flooring using a manual or powered spade or stripping machine. Continuously mist floor in areas where active abatement is proceeding with amended water, removal encapsulant, or detergent solution. Wet any debris generated as necessary to keep continuously wet. Keep floor continuously wet where tile has been removed and until completion of heavy adhesive residue removal.
- D. Remove flooring tiles/sheet flooring, stack, place in boxes or wrap in felt, and place in labeled poly disposal bags. At the Contractor's option, tiles may be placed directly into durable, leak-tight containers.
- E. After completion of resilient flooring removal, the Contractor shall perform removal of asbestos-containing mastics. If chemical stripping agents are to be used, they shall be approved by the Owner or Consultant.

3.9 ASBESTOS REMOVAL PROCEDURES – GLOVE BAG OPERATIONS

- A. Specifications:
 - 1. Glove-bags shall be constructed of 6-mil poly and be seamless at the bottom.
 - 2. Glove-bags used on pipe-fitting insulations and other pipe connections must be designed for that purpose and used without modifications, per manufacturer instructions for use.
- B. Work Practices
 - 1. At least 2 persons shall perform Class I glove-bag removal operations.
 - 2. Each glove-bag shall be installed so it completely covers the circumference of the pipe or other structure where the work is to be performed.
 - 3. Glove-bags shall be smoke-tested for leaks and any leaks sealed prior to use.
 - 4. Glove-bags may be used only once and may not be moved.
 - 5. Glove-bags shall not be used on surfaces where temperature exceeds 150°F.
 - 6. Prior to disposal, glove-bags shall be collapsed by removing air within them using HEPA-vacuum equipment.
 - 7. Before beginning the operation, loose and friable material adjacent to the glove-bag operation shall be rendered intact by the use of re-wettable, plaster-impregnated cloth.

8. Where system uses attached waste bag, such bag shall be connected to collection bag using hose or other material that shall withstand pressure of ACM waste and water without losing integrity.
9. Sliding valve or other device shall separate waste bag from hose to ensure no exposure when waste bag is disconnected.

3.10 ASBESTOS REMOVAL PROCEDURES - EXTERIOR CAULKING

- A. Spray ACM with amended water using airless spray equipment or apply an approved wetting agent to reduce the release of fibers during removal operations.
- B. Asbestos-containing caulking shall be wet-misted and removed from substrates. Asbestos caulking shall be placed in double 6-mil poly disposal bags. Note: Material is also presumed to contain regulated concentrations of PCBs. Refer to Section 02 8433 - Polychlorinated Biphenyl Performance-Based Disposal for additional disposal requirements.
- C. Caulking may be covered with non-asbestos, silicone-type caulking that must be removed to completely access and abate asbestos-containing caulking from substrates. Caulking in contact with asbestos-containing caulking shall be placed in double 6-mil poly disposal bags for disposal as ACWM.
- D. Upon removal, caulking and/or substrates to be disposed shall be wrapped in 2 layers of 6-mil poly sheeting or placed in double 6-mil poly disposal bags and properly labeled for disposal as ACWM.

3.11 ASBESTOS REMOVAL PROCEDURES – EXTERIOR ROOFING SEALANTS

- A. Asbestos-containing sealants shall be wet-misted to reduce the release of fibers and removed from surfaces.
- B. Asbestos-containing sealants shall be removed from all surfaces (i.e., masonry, wood, etc.). Sealant may be covered with non-asbestos silicone type caulking that must be removed to completely remove asbestos-containing caulking from surfaces. Caulking in contact with asbestos caulking shall be placed in double 6-mil poly disposal bags for disposal as ACM.
- C. Upon removal, sealants and any flashing material removed shall be wrapped in 2 layers of 6-mil poly sheeting or placed in double 6-mil poly disposal bags and properly labeled for disposal as ACM.

3.12 CONSULTANT’S AIR SAMPLING RESPONSIBILITIES

- A. If required or retained for this service, air sampling will be conducted by the Consultant’s Asbestos Project Monitor to determine the effectiveness of the work area controls in preventing asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to comply with OSHA regulations for worker safety.
- B. The Consultant’s Asbestos Project Monitor will collect and analyze air samples during the following period:
 1. Removal Period: If required or retained for this service, the Consultant’s Asbestos Project Monitor will provide continual evaluation of the building air quality during removal, using their best professional judgment in respect to the RIDOH guidance level

of 0.010 fibers/cc and the background airborne fiber concentration, if established during the pre-abatement period.

- a. If the Consultant's Asbestos Project Monitor determines that the building air quality has become contaminated from the abatement project, they shall immediately inform the Contractor to cease all removal operations, and implement a work stoppage cleanup procedure. The Contractor shall conduct a thorough cleanup of the building areas designated by the Consultant. No further removal work may occur until the Asbestos Project Monitor has determined through air sample collection and analysis that the airborne fiber concentrations are at or below the RIDOH re-occupancy standard.
2. Post-Abatement Period: If required, the Consultant's Asbestos Project Monitor will conduct air sampling following the final cleanup phase of the project, once the "no visible, suspect dust or debris" criterion, as established by the Consultant's Asbestos Project Monitor, has been met and the work area has been encapsulated by the Contractor. Final clearance air samples shall be collected in accordance with the MADLS re-occupancy clearance standard.
- a. As required, the Consultant's Asbestos Project Monitor will collect final re-occupancy clearance air samples inside the work area at the completion of abatement work. These final clearance air samples shall be analyzed in accordance with requirements of EPA Title 40 CFR, Part 763, Subpart E.
 - b. Final clearance air sample collection and analysis will be in accordance with RIDOH Regulations and include at least 1 sample for each 500 linear/1,000 square feet of asbestos or portion thereof, or 1 sample per room, whichever is greater. A minimum of 2 samples per clearance will be collected and analyzed. Sample collection and analysis shall be in accordance with NIOSH 7400 Method and include utilizing aggressive air-sampling techniques to obtain a minimum air volume of 1,200 liters.
 - c. The Owner shall be responsible for payment for the initial final clearance air sampling performance, only. If the first set of samples fails to satisfy the re-occupancy criteria, the Contractor shall be responsible for payment of all costs associated with the additional final clearance air sampling and analysis.
 - d. The Contractor shall properly schedule abatement work and other site activities at appropriate times and locations to prevent cross-contamination and/or dust in areas where the Consultant's Asbestos Project Monitor will conduct air sampling.

3.13 CONSULTANT'S INSPECTION RESPONSIBILITIES

- A. The Consultant's Asbestos Project Monitor may conduct inspections throughout the progress of the abatement project. Inspections will be conducted to document the abatement work progress, as well as the Contractor's procedures and practices.
- B. The Consultant's Asbestos Project Monitor may perform the following inspections during abatement activities:
 1. Pre-Commencement Inspection: If required or retained for this service, pre-commencement inspections shall be performed at the time requested by the Contractor. The Consultant shall be informed 24 hours prior to the time the inspection is needed. If deficiencies are noted during the pre-commencement inspection, the Contractor shall perform the necessary adjustments to obtain compliance.
 2. Work Area Inspections: If required or retained for this service, work area inspections shall be conducted on a daily basis, at the discretion of the Consultant. During the work

inspections, the Consultant's Asbestos Project Monitor shall observe the Contractor's removal procedures, verify barrier integrity, monitor HEPA-filtered work area ventilation systems, assess project progress, and, if deficiencies are noted, inform the Contractor of specific remedial activities.

- C. The Consultant's Asbestos Project Monitor shall perform the following inspections during the abatement activities:
 - 1. Final Visual Inspection: When abatement is complete, the Consultant's Asbestos Project Monitor will conduct a final visual inspection inside each regulated work area. The Consultant shall be informed 24 hours prior to the time that the inspection is needed. Following the removal of the inner layer of poly sheeting, but prior to final clearance air sampling, the Consultant's Asbestos Project Monitor will conduct a final visual inspection inside the work area. If residual dust or debris is identified during the final inspection, the Contractor shall re-clean to meet the "no visible, suspect dust or debris" standard.

3.14 ASBESTOS DISPOSAL

- A. ACM and/or ACM disposal (including supplies, rags, disposable clothing, respirator filter cartridges, etc.) shall be completed in accordance with RIDOH and EPA regulations. Waste receptacles (bags, drums, etc.) shall be labeled in accordance with the most current OSHA regulations (Title 29 CFR, Parts 1910.1001 and 1926.1101) and contain the following:

DANGER
 CONTAINS ASBESTOS FIBERS
 MAY CAUSE CANCER
 CAUSES DAMAGE TO LUNGS
 DO NOT BREATHE DUST
 AVOID CREATING DUST

- B. Disposal site approvals shall be obtained and accepted prior to the start of asbestos removal activities.
- C. A copy of the signed disposal authorization shall be provided to the Owner, Architect, Consultant, and any required federal, state, or local agencies.
- D. Copies of all Waste Shipment Records (WSR) shall be provided to the Owner no later than 35 calendar days from when the waste was removed from the Site for inclusion in the project file. The Contractor shall document the specific amount of waste on each WSR, portion/location of the Site building it was generated from, and the type of waste. Upon receipt of the ACM waste, the landfill operator shall sign the WSR so the quantity of asbestos debris leaving the Site and arriving at the landfill is documented for the Owner. The Owner shall submit copies of all WSR to RIDOH within 5 days of receipt.
- E. All wash water and shower water shall be collected and filtered through a five-micron filter before discharge to a sanitary sewer with prior appropriate permitting or publicly-owned treatment works (POTW) approval. Alternately, wash and shower water can be used to moisten ACM.
- F. All ACM shall be transported in covered sealed vans, boxes, or dumpsters which are physically isolated from the driver by an airtight barrier. All vehicles must be properly-licensed to meet State of Rhode Island and United State Department of Transportation (DOT) requirements.

- G. Any vehicles used to store or transport ACM will either be removed from the Site at night, or securely locked and posted to prevent disturbance.
- H. Any incident and/or accident that may result in spilling or exposure of ACM outside the containment, on and off the property, and all related issues shall be the sole responsibility of the Contractor.

END OF SECTION

SECTION 028319 – LEAD PAINT AWARENESS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Limited Hazardous Building Materials Inspection Report prepared by Fuss & O'Neill, Inc. (November 2022).

1.2 SUMMARY OF WORK

- A. Work of this section includes requirements for worker protection and waste disposal related to demolition involving lead-based paint (LBP)-coated building components and surfaces (the "Work") at the Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island (the "Site").
- B. An LBP screening was not conducted at the Site. However, based on the age of the building and observed painted building components, LBP is likely present at concentrations greater than or equal to one milligram of lead per square centimeter ($\geq 1.0 \text{ mg/cm}^2$). The procedures referenced herein shall be utilized during required demolition work, specified elsewhere, that may impact building components coated with LBP.
- C. Work impacting LBP-coated components may result in dust and debris exposing workers to levels of lead above the Occupational Safety and Health Administration's (OSHA) Action Level. Worker protection, training, and engineering controls referenced herein shall be strictly followed, until completion of exposure assessment with results indicating exposures below the "Action Level". This Section does not involve lead abatement, but identified worker protection requirements for trades involved in the demolition and disposal procedures if LBP is involved in the demolition waste stream.
- D. Construction activities disturbing surfaces coated with LBP that are likely to be employed, such as demolition, sanding, grinding, welding, cutting, and burning, have been known to expose workers to levels of lead in excess of the OSHA Permissible Exposure Limit (PEL). All work specified in the Contract Documents shall also be in conformance with this Section.

1.3 DEFINITIONS

- A. The following definitions relative to this Section (028310 – Lead-Based Paint Awareness) shall apply:
 - 1. Action Level (AL): The allowable employee exposure, without regard to use of respiratory protection, to an airborne concentration of lead over an eight (8)-hour time-weighted average (TWA) as defined by OSHA. The current action level is thirty micrograms per cubic meter ($30 \text{ } \mu\text{g/m}^3$) of air.
 - 2. Architect: A person or firm professionally engaged in the design of buildings and who advises in their construction.
 - 3. Area Monitoring: The sampling of lead concentrations, which is representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.

4. Biological Monitoring: The analysis of a person's blood and/or urine, to determine the level of lead concentration in the body.
5. CDC: The Center for Disease Control.
6. Change Room: An area provided with separate facilities for clean protective work clothing and equipment and for street clothes, which prevents cross-contamination.
7. Competent Person: A person employed by the Contractor who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions, and who has authorization to take prompt corrective measures to eliminate them as defined by OSHA.
8. Consultant: Fuss & O'Neill, Inc.
9. EPA: The United States Environmental Protection Agency.
10. Exposure Assessment: An assessment conducted by an employer to determine if any employee may be exposed to lead at or above the AL.
11. High-Efficiency Particulate Air (HEPA): A type of filtering system capable of filtering out particles of 0.3 microns diameter from a body of air at 99.97% efficiency or greater.
12. HUD: The United States Housing and Urban Development.
13. Lead: Refers to metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.
14. Lead Work Area: An area enclosed in a manner to prevent the spread of lead dust, paint chips, or debris resulting from LBP disturbance.
15. Lead-Based Paint: Refers to paints, glazes, and other surface coverings containing a toxic level of lead.
16. MSHA: The Mine Safety and Health Administration.
17. NARI: The National Association of the Remodeling Industry.
18. NIOSH: The National Institute of Occupational Safety and Health.
19. OSHA: The Occupational Safety and Health Administration.
20. Owner: City of Woonsocket.
21. Permissible Exposure Limit (PEL): The maximum allowable limit of exposure to an airborne concentration over an 8-hour TWA, as defined by OSHA. The current PEL for lead is fifty (50) $\mu\text{g}/\text{m}^3$ of air. Extended workdays lower the PEL by the formula: PEL equals 400 divided by the number of hours of work.
22. Personal Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour TWA concentration in accordance with OSHA Title 29 CFR, Parts 1910.1025 and 1926.62. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a sphere with a radius of eighteen (18) inches and centered at the nose or mouth of an employee.
23. Resource Conservation and Recovery Act (RCRA): RCRA establishes regulatory levels of hazardous chemicals. There are 8 heavy metals of concern for disposal: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Six (6) of the metals are typically in paints, excluding selenium and silver.
24. SDS: Safety Data Sheets.
25. Site: Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island.
26. Toxic Level of Lead: A level of lead, when present in dried paint or plaster, contains more than 0.50% lead by dry weight as measured by atomic absorption spectrophotometry (AAS) or 1.0 milligram per square centimeter (mg/cm^2) as measured by on-site testing utilizing an x-ray fluorescence analyzer.
27. Toxicity Characteristic Leaching Procedure (TCLP): The EPA required sample preparation and analysis method for determining the hazard characteristics of a waste material. Waste must be disposed of as Hazardous Waste if a TCLP analytical result indicates leaching greater than or equal to five milligrams per liter ($\geq 5.0 \text{ mg}/\text{L}$).

28. TWA: Time-Weighted Average.

1.4 REGULATIONS AND STANDARDS

- A. All applicable regulations, standards, and ordinances of federal, state, and local agencies are applicable and made a part of this Section. This includes, but is not limited to, the following:
 - 1. American National Standards Institute (ANSI)
 - a. ANSI 288.2 - 1980 Respiratory Protection
 - 2. Code of Federal Regulation (CFR)
 - a. Title 29 CFR, Part 1910.134 - Respiratory Protection
 - b. Title 29 CFR, Part 1910.1025 - Lead
 - c. Title 29 CFR, Part 1910.1200 - Hazard Communication
 - d. Title 29 CFR, Part 1926.55 - Gases, Vapors, Fumes, Dusts, and Mists
 - e. Title 29 CFR, Part 1926.57 - Ventilation
 - f. Title 29 CFR, Part 1926.59 - Hazard Communication in Construction
 - g. Title 29 CFR, Part 1926.62 - Lead in Construction Interim Final Rule
 - h. Title 40 CFR, Parts 124 and 270 - Hazardous Waste Permits
 - i. Title 40 CFR, Part 172 - Hazardous Materials Tables and Communication Regulations
 - j. Title 40 CFR, Part 178 - Shipping Container Specifications
 - k. Title 40 CFR, Part 260 - Hazardous Waste Management Systems: General
 - l. Title 40 CFR, Part 261 - Identification and Listing of Hazardous Waste
 - m. Title 40 CFR, Part 262 - Generators of Hazardous Waste
 - n. Title 40 CFR, Part 263 - Transporters of Hazardous Waste
 - o. Title 40 CFR, Part 264 - Owner and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - p. Title 40 CFR, Part 265 - Interim Statutes for Owner and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - q. Title 40 CFR, Part 268 - Lead Disposal Restrictions
 - r. Title 49 CFR, Parts 170 - 180 Hazardous Wastes
 - 3. Underwriters Laboratories, Inc. (UL)
 - a. UL586 – 1990 High Efficiency Particulate Air Filter Units

1.5 QUALITY ASSURANCE

- A. Hazard Communication Program
 - 1. The Contractor shall establish and implement a Hazard Communication Program as required by OSHA Title 29 CFR, Part 1926.59.
- B. Compliance Plan (Site Specific)
 - 1. The Contractor shall establish a written compliance plan, which is specific to the Site, to include the following:
 - a. A description of work activity involving LBP disturbance including equipment used, material included, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices.
 - b. Engineering controls used to control lead exposure.
 - c. The proposed technology the Contractor will implement in meeting the PEL.
 - d. Air monitoring data documenting the source of lead emissions.

- e. A detailed schedule for implementing the program, including documentation of appropriate supply of equipment, etc.
- f. Proposed work practice which establishes proper protective work clothing, housekeeping methods, hygiene facilities, and practices.
- g. Worker rotation schedule (if proposed), to reduce TWA.
- h. A description of methods for informing workers of potential lead exposure.

C. Hazardous Waste Management

- 1. The Contractor shall establish a Hazardous Waste Management Plan, which shall comply with applicable regulations and address the following:
 - a. Hazardous waste identification.
 - b. Estimated waste disposal quantity.
 - c. Names and qualifications of each subcontractor who will be transporting, storing, treating, and disposing of wastes.
 - d. Disposal facility location and 24-hour point of contact.
 - e. Establish EPA state hazardous waste and identification numbers, if applicable.
 - f. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
 - g. List of waste handling equipment to be used in performing the work to include cleaning, volume reduction, if applicable, and transport equipment.
 - h. Qualifications of laboratory to be utilized for TCLP sampling and analysis, if applicable.
 - i. Spill Prevention, Control, and Countermeasure (SPCC) Plan.
 - j. Work plan and schedule for waste containment, removal, treatment, and disposal.

D. Medical Examinations

- 1. Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination as required by OSHA Title 29 CFR, Parts 1910.1025 and 1926.62.
- 2. The examination shall not be required if adequate records show that employees have been examined as required by OSHA Title 29 CFR, Part 1926.62 within the last year.
- 3. Medical examination shall include, at a minimum, biological monitoring and approval to wear respiratory protection.

E. Training

- 1. The Contractor shall ensure that workers are trained to perform LBP disturbing activities and disposal operations prior to the start of work, in accordance with OSHA Title 29 CFR, Part 1926.62.

F. Respiratory Protection Program

- 1. The Contractor shall furnish each employee required to wear a negative pressure respirator with a respirator fit test at the time of initial fitting and at least once every 6 months thereafter, as required by OSHA Title 29 CFR, Part 1926.62.
- 2. The Contractor shall establish a Respiratory Protection Program in accordance with ANSI Z88.2 and OSHA Title 29 CFR, Parts 1910.134 and 1926.62.

1.6 SUBMITTALS

- A. The Contractor shall submit the following to the Consultant, in one complete package, prior to the pre-construction meeting and at least ten (10) business days before the start of the Work:
1. Submit a schedule to the Owner and the Consultant, which defines a timetable for executing and completing the project, including work area preparations, removal, cleanup, and decontamination.
 2. Submit a current, valid certificate of insurance.
 3. Submit the name and address of the hauling contractor and location of the landfill to be used. Also, submit current valid operating permits and certificates of insurance for the transporter and landfill.
 4. Submit the plans and construction details for the decontamination systems and the isolation of the work areas as may be necessary for compliance with this Section and applicable regulations.
 5. Submit copies of medical records for each employee to be used on the project, including results of biological monitoring and a notarized statement by the examining physician that such an examination occurred.
 6. Submit valid training certificates for each employee to be used on the project.
 7. Submit a successful respirator fit testing record performed by a qualified individual within the previous six months for each employee to be used on this project. The employee's name and social security number must be provided with each record.
 8. Submit the name and address of the Contractor's blood lead testing lab, OSHA CDC listing, and state certification.
 9. Submit detailed product information on all materials and equipment proposed for demolition work on this project.
 10. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project, as well as a list of past projects completed.
 11. Submit a chain-of-command for the project.
 12. Submit a site-specific Emergency Action Plan for the project.
 13. Submit a written, site-specific Respiratory Protection Program for employees, including make, model, and NIOSH approval numbers of respirators to be used at the Site (if applicable).
- B. No work on the Site will be allowed to begin until the Owner and the Consultant, as listed herein, accept the Pre-Construction Submittals. Any delay caused by the Contractor's refusal or inability to submit this documentation accurately, completely, and in a timely manner does not constitute a cause for change order or a time extension.
- C. The following shall be submitted to the Consultant during the Work:
1. Personal air sampling results.
 2. Training and medical records for new employees to start Site work (24-hours in advance).
- D. The following shall be submitted to the Consultant at the completion of the Work:
1. Copies of all air sampling results.
 2. Contractor logs.
 3. Copies of manifests and receipts acknowledging disposal of all waste material from the project showing delivery date, quantity, and appropriate signature of authorized landfill representative.

1.7 PERSONAL PROTECTION

A. Exposure Assessment

1. The Contractor shall determine if any worker will be exposed to lead at or above the AL.
2. The exposure assessment shall identify the level of exposure a worker would be subjected to without respiratory protection.
3. The exposure assessment shall be achieved by obtaining personal air monitoring samples representative of a full shift, at least an 8-hour TWA.
4. During the period of the exposure assessment, the Contractor shall institute the following procedures for worker protection:
 - a. Protective clothing shall be utilized
 - b. Respiratory protection
 - c. Change areas shall be provided
 - d. Hand washing facilities and shower shall be provided
 - e. Biological monitoring
 - f. Worker training

B. Respiratory Protection

1. The Contractor shall furnish appropriate NIOSH/MSHA-approved respirators for use in atmospheres containing lead dust.
2. Respirators shall comply with the requirements of OSHA Title 29 CFR, Part 1926.62.
3. Workers shall be instructed in all aspects of respiratory protection.
4. The Contractor shall have an adequate supply of HEPA-filter cartridges and spare parts on-site for all types of respirators in use.
5. The following minimum respirator protection for use during paint removal or demolition of components and surfaces with LBP shall be the half-face, air-purifying respirator with a minimum of dual P100 filter cartridges (for exposures not in excess of 500 µg/m³ or 10 x PEL).

C. Protective Clothing

1. Personal protective clothing shall be provided for all workers, supervisors, and authorized visitors entering the work area.
2. Each worker shall be provided daily with a minimum of two (2) complete disposable coverall suits.
3. Removal workers shall not be limited to 2 coveralls, and the Contractor shall supply additional coveralls, as necessary.
4. Under no circumstances shall anyone entering the abatement area be allowed to re-use a contaminated disposable suit.
5. Disposable suits (Tyvek™ or equivalent) and other personal protective equipment (PPE) shall be donned prior to entering a lead work area. A change room shall be provided for workers to don suits and other PPE with separate areas to store street clothes and personal belongings.
6. Eye protection for personnel engaged in lead operations shall be furnished when the use of a full-face respirator is not required.
7. Goggles with side shields shall be worn when working with power tools, a material that may splash or fragment, or if protective eye wear is specified on the SDS for a particular product to be used on the project.

1.8 PERSONAL MONITORING

A. General

1. The Contractor shall be required to perform the personal air sampling activities during LBP disturbing work. The results of such air sampling shall be posted, provided to individual workers, and submitted to the Owner, as described herein.

B. Air Sampling

1. Air samples shall be collected for the duration of the work shift or for 8 hours, whichever is less. If working conditions remain unchanged, personal air samples need not be collected every day after the first day; however, they must be collected each time there is a change in removal operations, either in terms of the location, or in the type of work. Sampling will be used to determine the 8-hour TWA. The Contractor shall be responsible for personal air sampling as outlined in OSHA Title 29 CFR, Parts 1910.1025 and 1926.62.
2. Air sampling results shall be reported to individual workers, in written form, no more than 48 hours after the completion of a sampling cycle. The reporting document shall list each sample's result, sampling time and date, personnel monitored and their social security numbers, flow rate, sample duration, sample yield, cassette size, and analyst's name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in µg/m³.

C. Testing Laboratory

1. The Contractor's testing lab shall be currently participating in AIHA's Environmental Lead Laboratory Accreditation Program (ELLAP). The Contractor shall submit to the Consultant for review and acceptance, the name and address of the laboratory, certification(s) of AIHA participation, a listing of relevant experience in air lead analysis, and presentation of a documented Quality Assurance and Quality Control Program.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Any substitution in materials, equipment, or methods to those specified shall be approved by the Owner and Consultant prior to use. Any requests for substitution shall be provided in writing to the Owner and Consultant. The request shall clearly state the rationale for the substitution.
- B. Submit to the Owner and Consultant product data for all materials and equipment and material samples to be considered as an alternate.
- C. Product data shall consist of manufacturer catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, SDS, and other standard descriptive data. Submittal data shall be clearly marked to identify pertinent materials, products, or equipment and show performance characteristics and capacities.
- D. Samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of the product or material with integrally related parts and attachment devices.

2.2 MATERIAL AND PRODUCTS

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises.
- C. The Contractor shall have a sufficient inventory of, or dated purchase orders for, materials necessary for the work (e.g., protective clothing, respirators, respirator filter cartridges, polyethylene (poly) sheeting of proper size and thickness, tape, spray adhesive, air filters, etc.).
- D. Materials
 - 1. Poly sheeting in a roll size to minimize the frequency of joints shall be delivered to the Site with factory label indicating 6-mil.
 - 2. Poly disposable bags shall be 6-mil. Tie wraps for bags shall be plastic, five (5)-inches long (minimum), pointed and looped to secure filled poly bags.
 - 3. Tape or spray adhesive will be capable of sealing joints in adjacent poly sheets and for attachment of poly sheeting to finished or unfinished surfaces of dissimilar materials and capable of adhering onto both dry and wet conditions, including use of amended water.
 - 4. Impermeable containers are to be used to receive and retain any lead-containing or lead-contaminated materials until disposal at an acceptable disposal site. The containers shall be labeled in accordance with EPA and DOT standards.
 - 5. HEPA-filtered exhaust systems shall be used during powered dust-generating removal operations. Using powered equipment without HEPA exhaust systems in-place on this Site is prohibited.

2.3 TOOLS AND EQUIPMENT

- A. Provide suitable tools for all LBP disturbing operations.
- B. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and/or electrical power sources (e.g., generators, etc.). Any electrical-connection work affecting the building electrical power system shall be performed by a State of Rhode Island-licensed electrician, permitted as required.
- C. HEPA Vacuum Equipment, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97% of all mono-dispersed particles of 0.3 micrometers in diameter or larger.

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION MEETING

- A. At least one week prior to the start of work, a Pre-Construction Meeting will be scheduled and must be attended by the Contractor and any Subcontractors. The assigned Contractor Site Supervisor must attend this meeting.
- B. The Contractor shall present a detailed project schedule and project submittal package at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the Contractor of any scheduling adjustments for this project.

- C. Following the Pre-Construction Meeting, the Contractor shall submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORKER PROTECTION/TRAINING

- A. The Contractor shall provide appropriate training, PPE, and biological monitoring for each worker and ensure proper usage during potential lead exposure and the initial exposure assessment.

3.3 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall be responsible for establishing and maintaining controls referenced herein to prevent lead contamination outside the lead work area.
- B. The Contractor shall also be responsible for conducting work with applicable federal, state, and local regulations as referenced herein.

3.4 WORK HYGIENE PRACTICES (REQUIRED DURING INITIAL EXPOSURE ASSESSMENT AND IF RESULTS IF AIR SAMPLING ARE ABOVE OSHA AL)

- A. Work Area Entry
 - 1. Workers shall don PPE, including respiratory protection, disposable coveralls, gloves, headgear, and footwear, prior to entering the work area.
- B. Work Area Departure
 - 1. While leaving respirators on, workers shall remove all gross contamination, debris, and dust from disposable coveralls and proceed to change room to remove coveralls and footwear and place in hazardous waste disposal container.
- C. Hand-Washing Facilities
 - 1. All workers must wash their hands and faces upon leaving the work area.
- D. Equipment
 - 1. All equipment used by workers inside the work area shall be wet-wiped or bagged for future decontamination before removal from the work area.
- E. Prohibited Activities
 - 1. Under no circumstances shall workers eat, drink, smoke, chew gum or tobacco, apply cosmetics, or remove their respirators in the work area.
- F. Shock Hazards
 - 1. The Contractor shall be responsible for using safe procedures to avoid electrical hazards. All temporary electrical wiring will be protected by ground-fault circuit interrupters (GFCI).

3.5 LEAD WORK AREA (REQUIRED DURING INITIAL EXPOSURE ASSESSMENT AND IF RESULTS OF AIR SAMPLING ARE ABOVE OSHA AL)

- A. The Contractor shall place lead warning signs at all entrances and exits from the work area. Signage shall be a minimum of 20" x 14" and shall state the following:

**WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING OR DRINKING
UNAUTHORIZED ENTRY PROHIBITED**

- B. The Contractor shall designate a change room as specified in this Section. The change room shall consist of 2 layers of 6-mil poly sheeting on the floor surface adjacent to the lead work area. The change room shall have separate storage facilities for street clothes to avoid cross-contamination.
- C. The Contractor shall provide potable water for hand and face washing.
- D. The Contractor shall place 6-mil poly sheeting on floor/ground surfaces prior to beginning removal work to facilitate clean-up.

3.6 WORK AREA CLEAN-UP

- A. The Contractor shall remove all loose chips and debris from floor surfaces and place in hazardous waste disposal bags.
- B. The Contractor shall clean adjacent surfaces using HEPA-vacuum equipment to remove dust and debris.
- C. Poly sheeting shall be cleaned and properly disposed of as general construction and demolition waste.

3.7 WASTE DISPOSAL

- A. The Contractor's contractual liability shall be the proper disposal of all wastes generated at the Site in accordance with all applicable federal, state, and local regulations as referenced herein.
 - 1. For the purposes of the Bid, the waste should be assumed to be non-hazardous for disposal purposes. The Contractor shall be responsible for collecting a waste characterization sample for TCLP analysis, as is required by the designated disposal site. Results of the TCLP analysis shall be forwarded by the Contractor to the Consultant prior to the waste being transported off-Site. If the waste is determined to be hazardous, it shall be paid at the unit price agreed upon during bidding.
 - 2. Refer to the Demolition specification section for recycling/salvage requirements.

3.8 CONSULTANT

- A. The Owner may retain a Consultant for the purpose of construction administration and project monitoring during demolition work at the Site.
- B. The Consultant will represent the Owner in all tasks of the project at the discretion of the Owner.

END OF SECTION

SECTION 028416 - LIGHTING BALLASTS AND MERCURY MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Limited Hazardous Building Materials Inspection Report prepared by Fuss & O'Neill, Inc. (November 2022).

1.2 SUMMARY OF WORK

- A. Work outlined in this Section includes all work necessary for the removal, packaging, transporting, and disposing of fluorescent lighting ballasts and mercury-containing bulbs impacted during the building demolition project (the "Work") to occur at the Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island (the "Site").
- B. Fluorescent Light Ballasts: Work of this Section includes, but is not necessarily limited to, all that is necessary for complete proper removal, packaging, transportation, and disposal/reclamation of all Polychlorinated Biphenyls (PCB) or Non-PCB diethylhexyl phthalate (DEHP)-containing ballasts. Work shall be performed related to building demolition activities. Ballasts that are to be removed shall be recycled/disposed as (presumed) DEHP- and PCB-containing electrical equipment. Include a bid quantity of 2 drums for fluorescent light ballast disposal/recycling.
- C. Fluorescent Lamps and Mercury Equipment: Work of this Section includes, but is not necessarily limited to, all that is necessary for complete proper removal, packaging, transportation, and disposal/recycling/reclamation of all presumed mercury-containing fluorescent lamps and mercury equipment which includes mercury-containing thermostats that exist in the interior of the buildings to be demolished. Fluorescent lamps that are to be removed shall be recycled/disposed as Universal Waste. The Contractor shall coordinate removal in accordance with requirements of the electrical and mechanical work specified elsewhere. Include a bid quantity of 4 fifty-count boxes for fluorescent lamp disposal/recycling.
- D. The extent of electrical demolition may be specified elsewhere in the contract documents and the Contractor shall coordinate this Section with other Sections for the actual quantities of the work required.
- E. The Contractor is responsible for verifying actual quantities of the above items that will require removal and disposal. This verification shall include an on-site walkthrough of the work areas, and visually inspecting ballasts for the presence of labels indicating "No PCBs". If ballasts do not have labels indicating "No PCBs" they shall be recycled/disposed as presumed PCB-containing electrical equipment. If ballasts have labels indicating "No PCBs," but do not have a listed manufacture date subsequent to 1991, they shall be recycled/disposed as presumed DEHP-containing electrical equipment.

1.3 DEFINITIONS

- A. The following definitions relative to this Section (028416 – Lighting Ballasts and Mercury Management) shall apply:
1. Architect: A person or firm professionally engaged in the design of buildings and who advises in their construction.
 2. CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act
 3. Consultant: Fuss & O'Neill, Inc.
 4. DOT: The Department of Transportation.
 5. EPA: The United States Environmental Protection Agency.
 6. OSHA: The Occupational Safety and Health Administration.
 7. Owner: City of Woonsocket.
 8. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).
 9. Site: Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island.

1.4 REGULATIONS AND STANDARDS

- A. The following regulations and standards of federal and state agencies apply to ballast disposal, and are made part of this Section by reference.
1. Toxic Substance Control Act (TSCA) (EPA Title 40 CFR, Part 761).
 2. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA - Superfund Law).
 3. Department of Transportation (DOT) regulations - DOT regulation HM-181 regulates transportation of hazardous materials, including PCBs.
 4. Occupational Safety and Health Administration (OSHA) - OSHA regulates workers' safety and exposure to a variety of chemicals including PCBs.
 5. Resource Conservation and Recovery Act (RCRA) - EPA Title 40 CFR, Part 261 regulates wastes which fail Toxic Characteristic Leaching Procedure (TCLP) and that contain greater than fifty parts per million (> 50 ppm) of PCBs.
- B. The following regulations and standards of federal and state agencies apply to Universal Waste (i.e., fluorescent lamps) disposal and mercury-containing equipment are made part of this Section by reference.
1. RCRA – EPA Title 40 CFR, Part 261, Subpart C.
 2. RCRA – Title 40 CFR, Part 273.
 3. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA - Superfund Law).
 4. DOT Regulations – Pipeline and Hazardous Materials Safety Administration Regulation Title 49 CFR, Parts 100 - 185 as applicable.
 5. OSHA – Title 29 CFR, Part 1910.1200 Hazard Communications and Part 1926.65.

1.5 SUBMITTALS

- A. The Contractor shall submit the following submittals to the Hazardous Building Materials Consultant prior to start of work:
1. Proposed transporter name, address, DOT license, and certificate of insurance for PCB and non-PCB wastes generated as part of the project.

2. Proposed disposal/recycling facility proposed for PCB and non-PCB waste generated as part of the project. This includes name, address, operating permit and certificate of insurance.
3. Proposed transporter name, address, DOT license, and certificate of insurance for mercury-containing universal wastes generated as part of the project,
4. Proposed disposal/recycling facility name, address, DOT license, and certificate of insurance proposed for mercury-containing waste generated as part of the project.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Disposal drums shall be DOT 17-C or 17-H.
- C. Light tube and lamp boxes shall be provided by the reclamation facility. Only new boxes shall be used.

PART 3 - EXECUTION

3.1 BALLAST REMOVAL AND PACKAGING

- A. The Contractor shall remove all ballasts from light fixtures with care.
- B. The Contractor shall pack all ballasts in appropriately sized containers or drums with care, so as not to cause ballasts to leak as a direct result of removal and packing.
- C. The Contractor shall segregate all leaking ballasts from non-leaking ballasts, separately package leaking ballasts in plastic bags and individually placed in properly-labeled drums.
- D. The Contractor shall label all drums properly. The Contractor shall supply labels. Labels shall contain the following information:
 1. Drum contents.
 2. DOT description.
 3. Name, address, and telephone number of the Owner (i.e., the Generator).
 4. Emergency telephone numbers.
 5. Date on which drum was filled with ballasts.
 6. Class 9 label.
- E. The Contractor shall ensure that no other materials or wastes are in the drums except the fluorescent light ballasts.
- F. The Contractor shall not load any single drum with more than 750 pounds of gross weight.
- G. The Contractor shall not use any absorbent material to pack ballasts in drums.
- H. The Contractor shall not use any plastic liners in drums.

- I. Each drum shall be sealed and stored in a secure (i.e., locked) area to minimize inadvertent damage or vandalism.
- J. The ballasts shall be removed by personnel wearing chemically-resistant gloves, eye protection, and proper respiratory protection.

3.2 BALLAST DISPOSAL

- A. At the completion of the removal phase, a licensed transporter shall haul either PCB or non-PCB waste generated by the project work. Chain-of-custody records shall be maintained which include the date removed from the Site, total number of drums, transporter name, and disposal site name and address. The Contractor shall be responsible for all disposal costs associated with the waste generated during this project.
- B. The Contractor shall provide Certificate(s) of Recycling and Disposal (CRD) pursuant to EPA Title 40 CFR, Part 761, Subpart K.
- C. The Contractor shall provide waste manifests for all PCB and non-PCB wastes generated and disposed of from the project site. The Owner shall be provided sufficient time to identify agent for signatures on waste documentation. Contractor shall provide waste manifest to generation and destination state as required and provide Owner (Generator copy to Agent signing manifests).

3.3 COLLECTION AND CONTAINMENT OF MERCURY LAMPS AND EQUIPMENT

- A. All fluorescent lamps to be removed are to be considered mercury-containing. Lamps are to be handled by personnel wearing gloves and eye protection for protection against glass breakage, and proper respiratory protection. Lamps are to be stored unbroken in DOT-approved containers that protect the lamps against breakage.

3.4 MERCURY LAMPS AND EQUIPMENT STORAGE AND DISPOSAL/RECYCLING

- A. Each container shall be sealed and stored in a secure area to minimize inadvertent damage or vandalism. Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste -- Lamp(s)," "Waste Lamp(s)," or "Used Lamp(s)".
- B. At the completion of the mercury removal phase, a licensed transporter shall haul mercury-containing waste for disposal/recycling of the mercury waste. Chain-of-custody records shall be maintained that include the date removed from the Site, the number of containers, the name of mercury transporter, and the destination of mercury waste disposal. The Contractor shall be responsible for all disposal/recycling costs associated with the mercury waste generated during this project.
- C. The Owner shall be provided a minimum of 72-hour notice of requirement for signature to identify agent for signatures on waste documentation. Contractor shall provide waste manifest to generation and destination state as required and provide Owner (Generator copy to Agent signing manifests) and Consultant.

END OF SECTION

SECTION 028433 - PRESUMED POLYCHLORINATED BIPHENYL REMOVAL AND DISPOSAL**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.
- B. Limited Hazardous Building Materials Inspection report prepared by Fuss & O'Neill, Inc. (November 2022).
- C. Section 028213 – Asbestos Abatement
- D. Hazardous Building Materials Abatement drawings prepared by Fuss & O'Neill, Inc.

1.2 SCOPE OF WORK

- A. Work outlined in this Section includes all work necessary for the removal and disposal of the presumed greater than or equal to ($\geq$) 50 parts per million (ppm) PCB-containing material (i.e., PCB Bulk Product Waste) impacted during the building demolition Project (the “Work”) at the Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island (the “Site”). The removal and disposal of presumed PCB Bulk Product Waste will be performed in accordance with 40 CFR 761.62(b) as Performance Based Disposal.
- B. Work outlined in this Section includes all work necessary for the removal and disposal of PCB Remediation Waste in the form of containment barriers, personal protective equipment, cleaning supplies, and wastewater generated during the Work at the Site. The removal and disposal of PCB Remediation Waste will be performed in accordance with 40 CFR 761.62 (b) as Performance Based Disposal.
- C. The Work of this Section includes the following:
 - 1. Site preparation and controls to facilitate performance-based disposal of PCB Bulk Product Waste. Containment procedures for materials referenced for the PCB Work Zone must be utilized for PCB Bulk Product Waste removal and Asbestos Abatement (Section 02 82 13).
 - 2. Health and Safety in accordance with Occupational Safety and Health Administration (OSHA) requirements.
 - 3. Removal, packaging, transportation, and disposal of presumed PCB-containing materials as PCB Bulk Product Waste at a facility permitted to accept PCB Bulk Product Waste (EPA Title 40 CFR, Part 761.62).
 - 4. Removal, packaging, transportation, and disposal of containment barriers, personal protective equipment (PPE), cleaning materials and supplies, and waste generated during removal of PCB Bulk Product Waste as PCB Remediation Waste at a facility permitted to accept PCB Remediation Waste.
 - 5. Cleaning of the Work Zones following complete removal of PCB Bulk Product Waste and PCB Remediation Waste (EPA Title 40 CFR, Part 761.61).

6. Recordkeeping and distribution as required in accordance with EPA Title 40 CFR, Part 761.

- D. Work shall be performed by a RIDOH-licensed Asbestos Contractor (the “Contractor”) with certified Asbestos Workers and Asbestos Supervisor(s). Training shall be in accordance with RIDOH Regulation 216-RICR-50-15-1.

1.3 PROJECT DESCRIPTION

- A. The Base Bid includes the removal, packaging, transporting, and disposing of the presumed PCB Bulk Product Waste and PCB Remediation Waste, as identified herein, conducted by workers in accordance with OSHA and EPA regulations. The Base Bid will include the cost for removing, packaging, transporting, and disposing PCB Bulk Product Waste and PCB Remediation Waste.
- B. Materials, as discovered outside of those listed (either above or below), will be measured and paid or credited by unit prices. The quantities are estimates only and should be verified by the Contractor.
- C. The following table summarizes the locations of the base bid work with estimated material quantities. Note quantities provided below are order-of-magnitude estimates only.

BASE BID – PRESUMED PCB BULK PRODUCT WASTE

MATERIAL TYPE	LOCATION	QUANTITY	NOTES
Window Glazing Compound	Exterior	53 EA	1
Window Caulking	Exterior	1,250 LF	1
Door Caulking	Exterior	80 LF	1
Exterior Caulking on Stairs	Front Exterior Stairs	50 LF	2
Stair Rail Caulking	Front Stair Rail on Handrail	15 LF	

EA = Each; LF = Linear Feet

Notes:

- Denotes whole-component window/door system removal and disposal, including, but not limited to, concealed caulking, mastics/adhesive, and dampproofing materials.
- Denotes material type contains asbestos.

BASE BID – PRESUMED PCB REMEDIATION WASTE

MATERIAL TYPE	LOCATION	QUANTITY
Containment, PPE, Cleaning Materials & Supplies, & Waste Generated During Removal of PCB Bulk Product Waste	Throughout	All

- D. A portion of the Work may be performed in multiple mobilizations, at different periods of time, in conjunction with other trades (i.e., other trades work, demolition work, etc.).
- E. Safety Data Sheets (SDS) for chemicals to be used during the project must be submitted to the Consultant prior to Site delivery.

- F. The Contractor shall be responsible for providing temporary water, power, and heat as needed at the Site. Temporary lighting within the Work Zones must be connected to Ground Fault Circuit Interrupter (GFCI) power panels, installed by a State of Rhode Island-licensed electrician, permitted as required, and located outside the Work Zone.

1.4 DEFINITIONS

- A. The following definitions related to this Section (Section 02 8433 - Presumed Polychlorinated Biphenyl Removal and Disposal) shall apply:
1. Architect: A person or firm professionally engaged in the design of buildings and who advises in their construction.
 2. Air Monitoring: The process of measuring PCB concentrations of an area or exposure of a person.
 3. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act (Title 42 CFR, Parts 9601-9657).
 4. Chemical Waste Landfill: A landfill at which protection against risk of injury to health or the environment from PCB migration to land, water, or the atmosphere is provided from PCBs and PCB items deposited therein by locating, engineering, and operating the landfill as specified in EPA Title 40 CFR, Part 761.75.
 5. Cleanup Site: The full contamination extent and all suitable areas in very close proximity to the contamination necessary for implementation of a PCB Remediation Waste cleanup, regardless of whether the Site was intended for management of waste.
 6. Competent Person: As defined by OSHA, a representative of the Contractor who is capable of identifying existing PCBs hazards in the workplace and selecting the appropriate control strategy for PCB exposure. Person who has authority to take prompt corrective measures to eliminate such hazards during PCB removal.
 7. Consultant: Fuss & O'Neill, Inc.
 8. Containment: An enclosure which establishes a contaminated area by surrounding the location where PCB and/or other toxic or hazardous substance removal is performed and establishing a Controlled Work Zone.
 9. Decontamination Enclosure System (Decon): A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
 10. Designated Facility: An off-site disposer or commercial storer of PCB-containing waste designated on the manifest as the facility that will receive a manifested shipment of PCB-containing waste.
 11. Disposal: An intentional or accidental act of discarding, throwing away, completing, or terminating the useful life of PCBs and PCB-containing items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs, as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB items.
 12. DOT: The United States Department of Transportation.
 13. EPA Identification Number: The 12-digit number assigned to a facility by EPA upon notification of PCB waste activity under EPA Title 40 CFR, Part 761.205.
 14. Excluded PCB Product: A PCB-containing material which is determined by laboratory analysis to contain concentrations of PCBs less than 50 ppm, and meets the requirements of EPA Title 40 CFR, Part 761.3.
 15. Fixed Object: Mechanical equipment, electrical equipment, fire detection systems, alarms, or all other fixed equipment, fixtures, or items which cannot be removed from the Work Zone.

16. Generator of PCB Waste: Any person who acts, processes, or produces PCBs that are regulated for disposal under EPA Title 40 CFR, Part 761, Subpart D, whose act first causes PCBs or PCB-containing items to become subject to the disposal requirements of EPA Title 40 CFR, Part 761, Subpart D, or who has physical control over the PCBs when a decision is made that the use of the PCBs has been terminated, and is therefore subject to the disposal requirements of EPA Title 40 CFR, Part 761, Subpart D. Unless another provision of EPA Title 40 CFR, Part 761 specifically requires a site-specific meaning, “Generator of PCB Waste” includes all of the PCB waste generation sites owned or operated by the person who generates PCB waste.
17. GFCI: Ground-Fault Circuit Interrupter.
18. HEPA: High-Efficiency Particulate Air.
19. HEPA Filter: Filter in compliance with ANSI Z9.2 1979.
20. HEPA Vacuum Equipment: Vacuum equipment where all the air drawn into the machine is expelled through a HEPA filter with none of the air leaking past it and with a HEPA-filter as the last filtration stage.
21. High-Occupancy Area: Any area where PCB Remediation Waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week). Examples might include a residence, school, day care center, sleeping quarters, a single or multiple occupancy, 40-hours per week workstation, a school classroom, a cafeteria in an industrial facility, a control room, or a workstation at an assembly line.
22. Incinerator: An engineered device using controlled flame combustion to thermally degrade PCBs and PCB Items. Examples of devices used for incineration include rotary kilns, liquid-injection incinerators, cement kilns, and high-temperature boilers.
23. Laboratory: A facility that analyzes samples for PCBs and is unaffiliated with any entity whose activities involve PCBs.
24. Large PCB Mark (PCB M_L): Mark that includes letters and striping on a white or yellow background and shall be sufficiently durable to equal or exceed the life (including storage for disposal) of the PCB Article, PCB Equipment, or PCB Container. The size of the mark shall be at least six inches (6”) on each side. If the PCB Article or PCB Equipment is too small to accommodate this size, the mark may be reduced in size proportionately down to a minimum of two inches (2”) on each side.
25. Liquid PCBs: A homogenous, flowable material containing PCBs, and no more than 0.5 percent by weight of non-dissolved material.
26. Low-Occupancy Area: Any area where PCB Remediation Waste has been disposed of on-site, and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per week). Examples might include an electrical substation or a location in an industrial facility where a worker spends small amounts of time per week (such as an un-occupied area outside a building, an electrical equipment vault, or in the non-office space in a warehouse where occupancy is transitory).
27. Manifest: The shipping document EPA form 8700-22, and any continuation sheet attached to EPA form 8700-22, originated and signed by the Generator of PCB Waste.
28. Mark: The descriptive name, instructions, cautions, or other information applied to PCBs, PCB Items, or other objects.
29. Marked: The marking of PCB Items, PCB storage areas, and transport vehicles by means of applying a legible mark by painting, fixation of an adhesive label, or by any other method that meets the requirements of the EPA Title 40 CFR, Part 761.

30. Movable Object: Unit of equipment of furniture in the Work Zone that can be removed from the Work Zone.
31. Municipal Solid Waste: Garbage, refuse, sludges, wastes, and other discarded materials resulting from residential and non-industrial operations and activities, such as household activities, office functions, and commercial housekeeping wastes.
32. Negative Air Pressure Equipment: A portable, local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas), and capable of maintaining a constant, low-velocity air flow into regulated areas from adjacent unregulated areas.
33. Non-Liquid PCBs: Materials containing PCBs that, by visual inspection, do not flow at room temperature (25°C or 77°F), or from which no liquid passes when a 100 gram or 100 milliliter representative sample is placed in a mesh number 60 ±5 percent paint filter and allowed to drain at room temperature for five minutes.
34. Non-Porous Surface: A smooth, unpainted solid surface that limits penetration of PCB-containing liquid beyond the immediate surface. Examples include smooth uncorroded metal, natural gas pipe with a thin, porous coating originally applied to inhibit corrosion, smooth glass, smooth glazed ceramics, impermeable polished building stone such as marble or granite, and high-density plastics, such as polycarbonates and melamines, which do not absorb organic solvents.
35. On-Site: Within the boundaries of a contiguous property unit.
36. Owner: City of Woonsocket.
37. PCB(s): A chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances that contain such substance. Refer to EPA Title 40 CFR, Part 761.1(b) for applicable concentrations of PCBs. PCB and PCBs as contained in PCB Items are defined in EPA Title 40 CFR, Part 761.3.
38. PCB Article: A manufactured article, other than a PCB Article Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. Includes capacitors, transformers, electric motors, pumps, pipes, and other manufactured item which (1) is formed to a specific shape or design during manufacture, (2) has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) has either no change of chemical composition during its end use, or only those changes of composition that have no commercial purpose separate from that of the PCB Article.
39. PCB Article Container: A package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB Articles or PCB Equipment, and whose surface(s) has not been in direct contact with PCBs.
40. PCB Bulk Product Waste: A waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal is greater than or equal to ($\geq$) 50 ppm PCBs. Does not include PCBs or PCB Items regulated for disposal under EPA Title 40 CFR Parts 761.60(a)-(c), 761.61, 761.63, or 761.64. PCB Bulk Product Waste is further defined in EPA Title 40 CFR, Part 761.3.
41. PCB Capacitor: A capacitor that contains PCBs at concentration $\geq$ 500 ppm. Concentration assumptions applicable to capacitors appear under EPA Title 40 CFR, Part 761.2.
42. PCB Equipment: A manufactured item, other than a PCB Article Container, which contains a PCB Article or other PCB Equipment, and includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.
43. PCB Item: A PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains, or has as a part of it, any PCBs.

44. PCB Remediation Waste: Waste containing PCBs in concentrations ≥ 1 ppm as a result of a spill, release, or other unauthorized disposal. This includes wastes generated during PCB removal including containment barriers (polyethylene sheeting, tape, etc.), PPE, waste/decontamination water, used decontamination disposables (e.g., towels, cloths), and other disposables used and generated during PCB removal work.
45. PCB Waste(s): PCBs and PCB Items that are subject to the disposal requirements of EPA Title 40 CFR, Part 761, Subpart D.
46. Performance-Based Disposal: Disposal of PCB Bulk Product presumed to contain ≥ 50 ppm PCBs.
47. Porous Surface: A surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal, corroded metal, fibrous glass or glass wool, unglazed ceramics, ceramics with a porous glaze, porous building stone such as sandstone, travertine, limestone, or coral rock, low-density plastics such as Styrofoam™ and low-density polyethylene (poly), coated (varnished or painted) or uncoated wood, concrete or cement, plaster; plasterboard, wallboard, rubber, fiberboard, chipboard, asphalt, or tar paper. For purposes of cleaning and disposing of PCB Remediation Waste, porous surfaces have different requirements than non-porous surfaces.
48. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).
49. Regulated Work Zone: An area established by the employer to demarcate where PCB removal is conducted and any adjoining area where debris, and waste from such PCB removal work, accumulates.
50. Site: Woonsocket Middle School Historic Office Building located at 148 Hamlet Avenue in Woonsocket, Rhode Island.
51. Storage for Disposal: Temporary storage area for PCBs that have been designated for disposal.
52. SW-846: The document having the title “SW-846, Test Methods for Evaluating Solid Waste.”
53. Totally-Enclosed Manner: A manner that will ensure no exposure to human beings, or the environment, to a concentration of PCBs.
54. Transfer Facility: A transportation-related facility including loading docks, parking areas, and other similar areas where shipments of PCB waste are held during normal transportation. Transport vehicles are not transfer facilities under this definition, unless they are used for the storage of PCB waste, rather than for actual transport activities. Storage areas for PCB waste at transfer facilities are subject to the storage facility standards of EPA Title 40 CFR, Part 761.65, but such storage areas are exempt from the approval requirements of EPA Title 40 CFR, Part 761.65(d) and the recordkeeping requirements of EPA Title 40 CFR, Part 761.180, unless the same PCB waste is stored there for a period of more than 10 consecutive days between destinations.
55. Transporter of PCB Waste: For the purposes of Title 40 CFR, Part 761, Subpart K, any person engaged in the transportation of regulated PCB waste by air, rail, highway, or water for purposes other than consolidation by a generator.
56. Transport Vehicle: A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.
57. TSCA: The Toxic Substances Control Act (15 U.S.C. 2601 et seq.).

1.5 CONSULTANT

- A. The Owner shall retain a third-party, environmental hygiene firm (the “Consultant” – Fuss & O’Neill) for the purposes of project management and monitoring during presumed Polychlorinated Biphenyl (PCB) Bulk Product Waste remediation. The Consultant will represent the Owner in all phases of the remediation project at the discretion of the Owner. The Asbestos Abatement Contractor and/or Demolition Contractor (collectively the “Contractor”) shall regard the Consultant’s direction as authoritative and binding (as provided herein) in matters particularly, but not limited to, the following:
1. Work Zone approval
 2. Monitoring results review
 3. Various segments of work completion
 4. Final visual inspection
 5. Data submission review

1.6 USE OF THE CONTRACT DOCUMENTS

- A. It shall be incumbent upon the Contractor to visit the Site and determine what exists, its condition, and what will be required to accomplish the Work intended by the Contract Documents. No increase in the Contract Sum will be permitted as a result of the Contractor’s failure to visit the Site and understand the existing conditions.
- B. All work shall comply with the Contract Documents and with applicable codes, laws, regulations, and ordinances wherever applicable. The most stringent of all the foregoing shall govern the Work.
- C. It is not intended that the Specifications show every detail of the Work, but the Contractor shall be required to furnish, within the Contract Sum, all materials and labor necessary for the completion of the Work in accordance with the intent of the Specifications.
- D. In case of ambiguity among the Contract Documents, the more stringent requirement, as determined by the Consultant, shall apply.
- E. The Work of this Contract includes making modifications as necessary, subject to approval by the Owner in consultation with the Consultant, to correct any conflicts between Contract Documents.
- F. All items, not specifically mentioned in the Specifications, but implied by trade practices to complete the Work, shall be included.

1.7 SITE EXAMINATION

- A. It is understood that the Contractor has examined the Site and made their own estimates of the Site facilities and difficulties attending to the execution of the Work, and has based their bid price thereon.
- B. Except for unforeseeable concealed conditions as determined by the Consultant, the Contractor shall make no claim for additional cost due to the existing Site conditions.

1.8 CONTRACTOR QUALIFICATIONS

- A. All bidders shall submit a record of prior experience in PCB Bulk Product Waste (or similar) projects, listing no less than three completed projects in the past year, with all projects of similar size and scope. The Contractor shall list the experience and training of the project supervisor and all on-site personnel. The information to be included is as follows:
 - 1. Project Name and Address
 - 2. Owner's Name and Address
 - 3. Architect/Consultant
 - 4. Contract Amount
 - 5. Completion Date
 - 6. Extras and Changes
- B. Submit a written statement regarding whether the Contractor and/or any employees have ever been cited for non-compliance with federal or state regulations pertaining to worker protection, removal, transport, or disposal related to PCBs or other hazardous materials.

1.9 CONSTRUCTION PROGRESS SCHEDULE

- A. To assure adequate planning and execution of the Work and to assist the Consultant in reviewing the justification for the Contractor's applications for payment, the Contractor shall prepare and maintain a detailed Progress Schedule.
- B. The Contractor shall supervise and direct all work of theirs and other trades using their best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract.
- C. Due to the nature of this construction work, the scheduling or phasing of work under this Contract may be adjusted by the Owner. As long as the scope of work is not altered, adjustments to the project phasing shall have no effect on the contract price.
- D. The Contractor and any Subcontractors shall attend a pre-construction meeting with the Owner and their Consultant. The assigned Supervisor must attend this meeting.

1.10 TESTING LABORATORY SERVICES

- A. The Contractor shall submit to the Consultant the name, address, and qualifications of proposed laboratories intended to be utilized for sample analysis, as required by this Section.
- B. Bulk sample collection by the Contractor shall be prohibited without prior written consent of the Owner or their Consultant.
- C. If representative composite samples of the anticipated waste stream must be collected and analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) for disposal purposes, the Contractor shall seek written approval from the Owner and the Consultant. The Owner or the Consultant may elect to have the testing provided by a third-party, environmental-hygiene firm of their choosing at the Contractor's expense.

1.11 ADDITIONAL GENERAL REQUIREMENTS

- A. The Contractor shall employ a competent Supervisor with at least three years of experience on projects of similar scope and magnitude, who shall be responsible for all work involving presumed PCB-containing materials removal and disposal, as described in this Section and defined in applicable regulations, and have full-time, daily supervision of the same. The Supervisor shall be the competent person as defined by OSHA regulations.
- B. The Contractor shall furnish all labor, materials, facilities, equipment, installation services, employee training, permits, licenses, certifications, agreements, and incidentals necessary to perform the specified work. Work shall be performed in accordance with the Contract Documents, the latest regulations from OSHA, the United State Environmental Protection Agency (EPA), and all other applicable federal, state, and local agencies. Whenever the requirements of the above references conflict or overlap, the more stringent provision shall apply.
- C. All project personnel engaged in the work covered under this Section shall be trained in accordance with OSHA Title 29 CFR, Parts 1910.1000 and 1910.1200.
- D. This Section specifies the procedures for disposal of existing materials presumed to contain PCBs at concentrations of ≥ 50 ppm. Note that these materials may also contain asbestos.
- E. This Section also specifies the procedures for removal and disposal of PCB Bulk Product Waste generated during PCB Bulk Product removal. **This includes disposal of containment barriers, PPE, cleaning materials, and supplies as PCB Remediation Waste.**
- F. Subsequent cleaning of all adjacent surfaces upon completion of Work is also included in this Section.
- G. Disturbance or removal of PCB-containing material may cause a health hazard to workers and building occupants. The Contractor shall disclose to workers, supervisory personnel, subcontractors, and consultants at the Site the seriousness of the hazard and proper work procedures that must be strictly followed.
- H. During performance of the Work, workers, supervisory personnel, Subcontractors, or consultants who may encounter, disturb, or otherwise function in the immediate vicinity of the PCB-containing material, shall take continuous measures, as necessary, to protect workers from the hazard of exposure. Such measures shall include the procedures and methods described in this Section, OSHA regulations, EPA regulations, and local requirements, as applicable.
- I. If requested or required by local, state, federal, and any other authorities having jurisdiction over such work, the Contractor shall allow the Work of this Contract to be inspected. The Contractor shall immediately notify the Owner and the Consultant and shall maintain written evidence of such inspection for review by the Owner and the Consultant.
- J. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance during the Work, as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance, or negligence.

- K. The Contractor shall immediately notify the Owner and Consultant when all permits, licenses, certificates of inspection, of approval, or of occupancy, etc. are delivered. The Contractor shall also immediately notify the Owner and Consultant of any other such instruments required under codes by authorities having jurisdiction, regardless of issuer, and shall cause them to be displayed to the Owner and Consultant for verification and recording.

1.12 SUBMITTALS

- A. The Contractor shall submit the following to the Consultant, in one complete package, prior to the pre-construction meeting, and no later than 10 business days prior to the anticipated start of the Work:
1. Site-Specific Health and Safety Plan (HASP): The Contractor shall prepare a site-specific HASP plan for protection of workers and control of the work site in accordance with OSHA regulatory requirements located at Title 29 CFR, Part 1910.120. The HASP shall govern all work conducted at the Site during removal of PCB-Containing Materials and related debris, waste handling, sampling, waste management, and waste transportation. At a minimum, the HASP shall address the requirements set forth in OSHA Title 29 CFR, Part 1910.120, as further outlined below:
 - a. Health and Safety Organization
 - b. Site Description and Hazard Assessment
 - c. Training
 - d. Medical Surveillance
 - e. Work Zones
 - f. Personal Protective Equipment
 - g. Personal Hygiene and Decontamination
 - h. Standard Operating Procedures and Engineering Controls
 - i. Emergency Equipment and First Aid Provisions
 - j. Equipment Decontamination
 - k. Air Monitoring
 - l. Telephone List
 - m. Emergency Response and Evacuation Procedures and Routes
 - n. Site Control
 - o. Permit-Required Confined Space Procedures (if applicable)
 - p. Spill Prevention Control and Countermeasure (SPCC) Plan
 - q. Heat and Cold Stress
 - r. Recordkeeping
 - s. Community Protection Plan
 2. Employee Training, Medical, and Respirator Fit Test Documentation: The Contractor shall submit the following documentation:
 - a. Submit documentation of OSHA 40-Hour HAZWOPER training for workers and additional 8-Hour HAZWOPER Supervisor Training for the designated on-site Supervisor for the abatement work. All workers shall have required training for other materials, if required, such as asbestos, and a minimum of awareness training for PCBs, consistent with OSHA requirements for hazard communication.
 - b. Medical clearance and respirator fit test records of each employee who may be on the Site.
 3. PCB and/or other Toxic or Hazardous Substances Disposal Plan: A written plan that details the Contractor's plan for transportation and disposal of PCB Bulk Product Waste, PCB Remediation Waste, or other Toxic or Hazardous Substance wastes generated during the project. The Disposal Plan shall identify:

- a. The Contractor's insurance certificate and each landfill's (PCB Bulk Product Waste and PCB Remediation Waste) operating permits and insurance certificates.
 - b. Waste packaging, labeling, placarding, and manifesting procedures.
 - c. The name, address, and 24-hour contact number for the proposed treatment or disposal facility, or facilities to which waste generated during the project will be transported.
 - d. The name, address, contact person(s), and state-specific permit numbers for proposed waste transporters, and EPA and DOT identification number for firms that will transport PCB Bulk Product Waste and PCB Remediation Waste.
 - e. The license plate numbers of vehicles to be used in transporting of the waste from the Site to each disposal facility.
 - f. The route(s) by which the waste will be transported to the designated disposal facility and states or territories through which the waste will pass.
4. Safety Data Sheets (SDS): SDS and manufacturer's information shall be provided for all chemicals and materials to be used during the project including, but not limited to, specialty cleaners and chemical stripping products.
 5. Air Sampling Professional Qualifications: The qualifications of the air sampling professional that the Contractor proposed to use for this project to perform OSHA-required employee exposure monitoring.
- B. No work on the Site will be allowed to begin until the Owner/Architect and the Consultant, as listed herein, approve the Pre-Construction Submittals. Any delay caused by the Contractor's refusal or inability to submit this documentation in a timely manner does not constitute a cause for change order or a time extension.
- C. The following documents shall be submitted to the Consultant within 30 working days following removal of waste from the Site:
1. Waste Profile Sheets
 2. Pre-Disposal Analysis Test Results (if required by disposal facility)
 3. Waste Manifests signed by the disposal facility
 4. Tipping Receipts provided by the disposal facility
 5. Certification of Final Treatment/Disposal signed by the responsible disposal facility official.
- D. The following shall be submitted to the Consultant at the completion of the Work:
1. Disposal Site Receipts: Copy of waste shipment record(s) and disposal site receipt(s) that indicate that PCB Bulk Product Waste, PCB Remediation Waste or other Toxic or Hazardous Substances materials have been properly disposed of.
 2. Product Data: Catalog sheets, specifications, and application instructions for any removal products, if used.

1.13 REGULATIONS AND STANDARDS

- A. The Contractor shall be solely responsible for conducting the Work and supervising all work in a manner that will be in conformance with all federal, state, and local regulations and guidelines pertaining to presumed PCB removal and disposal. Specifically, the Contractor shall comply with the requirements of the following:
1. EPA TSCA (Title 40 CFR, Part 761);
 2. OSHA HAZWOPER Regulations (Title 29 CFR, Part 1910.120);
 3. OSHA Respiratory Protection Standard (Title 29 CFR, Part 1910.134)
 4. OSHA Hazard Communication (Title 29 CFR, Part 1910.1200)

5. DOT Hazardous Waste Transportation Regulations (Title 49 CFR, Parts 170 - 180).
6. Current International Building Code and all amendments;
7. Life Safety Code (National Fire Protection Association [NFPA]);
8. Local health and safety codes, ordinances or regulations pertaining to PCB remediation and all national codes and standards including ASTM, ANSI, and Underwriter's Laboratories.

1.14 POSTING AND RECORD MAINTENANCE REQUIREMENTS

- A. The following items shall be conspicuously displayed proximate, but outside of, removal Work Zones:
 1. Exit Routes: Emergency exit procedures and routes.
 2. Emergency Phone Numbers: A list indicating the telephone numbers and locations of the local hospital(s), the local emergency squad, the local fire department, the local police department, the Poison Control Center, Chemical Emergency Advise (CHEMTREC), the Department of Health's local office, the Contractor (on-site and after-hours numbers), and the Consultant (on-site and after-hours contact numbers).
 3. Warning Signs: Warning signs shall be in English and the language of any workers on-site who do not speak English, and be of sufficient size to be clearly legible and display the following or similar language in accordance with OSHA Title 29 CFR, Part 1910.1200:

WARNING
 HAZARDOUS WASTE WORK ZONE
 PCBs-POISON
 NO SMOKING, EATING OR DRINKING
 AUTHORIZED PERSONNEL ONLY
 PROTECTIVE CLOTHING IS REQUIRED IN THIS AREA

4. In addition, all entrances to Work Zones shall be posted with a PCB M.
 5. Posting requirements of Section 028213 - Asbestos Abatement are required as well when the material being removed also contains asbestos.
- B. The Contractor shall maintain the following items on-site and have copies available for review by all employees and authorized visitors:
 1. Contractor's Site-Specific HASP.
 2. Training, Medical Clearance, and Respirator Fit Test Record Documentation for all employees and the project Supervisor.
 3. Codes, Standards, and Publications.
 4. SDS for all chemicals used during the project.
- C. Fees, Permits, and Licenses: The Contractor shall pay all licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or processing in the performance of the work specified in this Section.
 1. The Contractor shall be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The Contractor shall hold the Owner and the Consultant harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights.
 2. The Contractor shall be responsible for securing all necessary permits for work under this Section, including hauling, removal, and disposal, fire, and materials usage, or any other permits required to perform the specified work.

1.15 MINIMUM REQUIREMENTS FOR WORKER HEALTH AND SAFETY

- A. The Contractor is responsible and liable for the health and safety of all on-site personnel and the off-site community affected by the Work. All on-site workers or other persons entering the Work Zones, decontamination areas, or waste handling and staging areas shall be knowledgeable of and comply with the requirements of the site-specific HASP at all times. The Contractor's HASP shall comply with all applicable federal, state, and local regulations protecting human health and the environment from the hazards posed by the Work.
- B. Consistent disregard for the provisions of the HASP shall be deemed as sufficient cause for immediate stoppage of work and termination of the Contract or any Subcontracts without compromise or prejudice to the rights of the Owner or Consultant.
- C. Any discrepancies between the Contractor's HASP and these Specifications or federal, state, and local regulations shall be resolved in favor of the more stringent requirements that provide the highest degree of protection to the project personnel, the surrounding community, and the environment.
- D. In addition to exposure concerns relating to the presence of PCBs, other health and safety considerations will apply to the Work. The Contractor shall be responsible for recognizing such hazards and shall be responsible for the health and safety of the Contractor's employees at all times. It is the Contractor's responsibility to comply with all applicable health and safety regulations.
- E. The HASP shall be reviewed by all personnel prior to entry into the PCB removal, decontamination, or waste staging areas. This includes representatives of the Contractor, Owner, Consultant, Subcontractor(s), Waste Transporter, or Federal, State, or Local Regulatory Agencies. Such review shall be acknowledged and documented by the Contractor's Site Supervisor by obtaining the name, signature, and affiliation of all personnel reviewing the HASP.
- F. The HASP shall be maintained so as to be readily accessible and reviewable by all site personnel throughout the duration of the PCB remediation project, and until all waste materials are removed from the Site and disposed of at the appropriate disposal facility.
- G. The Contractor's Site Supervisor shall be responsible for ensuring that project personnel and site visitors are informed of and comply with the provisions of the HASP.

1.16 WORK ZONES AND ZONES

- A. The Contractor shall demarcate and clearly identify Work Zones at the Site. Access by equipment, site personnel, and the general public to the Work Zones shall be limited as follows:
 - 1. Work Zone: The work zone(s) shall consist of all areas where removal of Bulk Products and other Toxic or Hazardous Substances, and waste handling and staging activities are on-going and the immediately surrounding locale or other areas where contamination could occur. For PCB Bulk Product removal purposes or other Toxic or Hazardous Substances for disposal, work shall be performed in each work zone within a regulated work zone (as defined in subsequent Subsections) to demarcate work zones from non-work zones. The regulated Work Zone shall be visibly delineated with appropriate warning signs at all approaches to the area (including a PCB ML), and be restricted from access by all personnel except those directly necessary for the completion of the respective PCB Bulk Product removal and disposal tasks. The Work Zones shall be

relocated and delineated, as necessary, as work progresses from one portion of the Site to another, to limit access to each area and to minimize risk of exposure to Site workers and the general public. Access shall be controlled at the periphery of the Work Zones to regulate the flow of personnel and equipment into and out of each zone and to help verify that proper procedures for entering and exiting are followed. All persons within the Work Zones shall wear the appropriate level of PPE established in the Contractor's HASP.

2. Decontamination Zone: The Decontamination Zone is the transition zone between the Work Zone and the clean Support Zone of the Site, and is intended to reduce the potential for contaminants from being dispersed from the Work Zone to clean areas of the Site. The Decontamination Zone shall consist of a buffer area surrounding each Work Zone through which the transfer of equipment, materials, personnel, and containerized waste products will occur, and in which decontamination of equipment, personnel, and clothing will occur. The Decontamination Zones shall be constructed as a three-chambered decon for workers and a two-chambered equipment room for waste load out, as detailed in subsequent Subsections. All emergency response and first aid equipment shall be readily maintained in this zone. All PPE and clothing shall be removed or decontaminated in the Decontamination Zone prior to exiting to the Support Zone. If PPE, clothing, and equipment cannot be decontaminated, it shall be segregated as PCB Remediation Waste and disposed of as such.
3. Support Zone: The Support Zone shall consist of the area outside the Decontamination Zones and the remainder of the Site. Administrative and any support activities that by nature need not be conducted in the Work or Decontamination Zone related to the project shall occur in the Support Zone. Access to the Work and Decontamination Zones shall be controlled by the Contractor's Site Supervisor, and limited to those persons necessary to complete the Work, and who have reviewed and signed the Contractor's HASP.

1.17 PERSONNEL PROTECTIVE EQUIPMENT

- A. The Contractor shall provide all employees with the appropriate safety equipment and protective clothing to ensure an appropriate level of protection for each task, taking into consideration the chemical, physical, ergonomic, and biological hazards posed by the Site and the Work.
- B. The Contractor shall establish criteria for PPE selection and use in the HASP.
- C. The PPE to be utilized for the project shall be selected based upon the potential hazards associated with the Site and the Work. Appropriate PPE shall be worn at all times within the Work Zone.
- D. The Contractor shall provide the appropriate level of respiratory protection to all field personnel engaged in activities where respiratory hazards exist, or where there is a potential for such hazards to exit.
- E. The Contractor shall provide, as necessary, protective coveralls, disposable gloves, and other protective clothing for all personnel that will be actively involved in waste handling activities, or otherwise present in the Work Zones. Coveralls shall be Tyvek™ or equivalent material. Should the potential for exposure to liquids exist, splash-resistant disposable suits shall be provided and utilized.

- F. Protective coveralls and other protective clothing shall be donned and doffed within the Decontamination Zone and shall be disposed of as PCB Remediation Waste at the end of each day. Ripped coveralls shall be immediately replaced after appropriate decontamination has been completed to the satisfaction of the Contractor's Site Supervisor. Protective clothing shall not be worn outside of the Decontamination Zone.
- G. Hard hats, protective eyewear, rubber boots, and/or other non-skid footwear shall be provided by the Contractor as required for workers and authorized visitors.
- H. All contaminated protective clothing, respirator cartridges, and disposable protective items shall be placed into proper containers to be provided by the Contractor for transport and proper disposal as PCB Remediation Waste in accordance EPA regulations.

1.18 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS

- A. At a minimum, the Contractor shall provide and maintain at the Site the following Emergency and First Aid Equipment:
 - 1. Fire Extinguishers: A minimum of one fire extinguisher shall be supplied and maintained at the Site by the Contractor throughout the duration of the Work. Each extinguisher shall be a 20-pound Class ABC dry fire extinguisher minimum with Underwriters Laboratory approval per OSHA Title 29 CFR, Part 1910.157.
 - 2. First Aid Kit: A minimum of one first aid kit meeting the requirements of OSHA Title 29 CFR, Part 1910.151 shall be supplied and maintained at the Site by the Contractor throughout the duration of the Work.
 - 3. Communications: Telephone communications (either cellular or land line) shall be provided by the Contractor for use by site personnel at all times during the Work.
- B. The Contractor's Site Supervisor shall be notified immediately in the event of personal injury, potential exposure to contaminants, or other emergency. The Contractor's Site Supervisor shall then immediately notify the Owner and Consultant.

1.19 STANDARD SAFETY AND HEALTH PROCEDURES AND ENGINEERING CONTROLS

- A. The following provisions shall be employed to promote overall safety, personnel hygiene, and personnel decontamination:
 - 1. Each Contractor or Subcontractor shall ensure that all safety equipment and protective clothing to be utilized by its personnel is maintained in a clean and readily-accessible manner at the Site.
 - 2. All prescription eyeglasses in use on this project shall be safety glasses conforming to ANSI Standard Z87.1. No contact lenses shall be allowed on the Site.
 - 3. Prior to exiting the delineated Decontamination Zone(s), all personnel shall remove protective clothing, and place disposable items in appropriate disposal containers to be dedicated to that purpose. Following removal of PPE, personnel shall thoroughly wash and rinse their face, hands, arms, and other exposed areas with soap and tap water wash and subsequent tap water rinse. A fresh supply of tap water shall be provided at the Site on each workday by the Contractor for this purpose.
 - 4. All PPE used on-site shall either be decontaminated (in accordance with EPA Title 40 CFR, Part 761.79), or containerized at the end of each workday (to be disposed of as PCB Remediation Waste). Discarded PPE shall be placed in sealed, DOT-approved 55-gallon drums for off-site disposal.
 - 5. Respirators shall be dedicated to each employee and not interchanged between workers without cleaning and sanitizing.

6. Eating, drinking, chewing gum or tobacco, smoking, and any other practice that increases the likelihood of hand-to-mouth contact shall be prohibited within the delineated Work Zones. Prior to performing these activities, each employee shall thoroughly cleanse their face, hands, arms, and other exposed areas.
 7. All personnel shall thoroughly cleanse their face, hands, arms, and other exposed areas prior to using toilet facilities.
 8. No alcohol, illicit drugs, or firearms will be allowed on the Site at any time.
 9. Contact with potentially contaminated surfaces should be avoided, if possible. Field personnel should minimize walking through standing water/puddles, mud, or other wet or discolored surfaces, kneeling on the ground, and placing equipment, materials or food on the ground, or other potentially contaminated surface.
 10. The use of the "Buddy System" shall be employed at all times while conducting work at the Site. Each employee shall frequently monitor other workers for signs of heat stress, chemical exposure, or fatigue by periodically examining others' PPE for signs of wear or damage, routinely communicate with others, and notify the Contractor's Site Supervisor in the case of an emergency.
- B. Workers must wear protective suits, protective gloves, eye protection, and a minimum of half-face, air-purifying respirator with dual HEPA-filter cartridges (P100). Respiratory protection shall be in accordance with OSHA Title 29 CFR, Part 1910.134 and ANSI Z88.2.
- C. Workers must be trained per OSHA requirements, have medical clearance, and must have recently received a pulmonary function test (PFT) and a respirator fit test by a trained professional.
1. A personal air sampling program shall be in place, as required by OSHA.
 2. The use of respirators must also follow a complete written respiratory protection program as specified by OSHA.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name, and the product technical description.
- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises by the end of the day. Material that becomes contaminated with PCBs shall be decontaminated or disposed of as PCB Remediation Waste.
- C. Poly sheeting, in a roll size to minimize the frequency of joints, shall be delivered to the Site with factory label indicating four (4) or 6-mil thickness.
- D. Poly disposable bags shall be 6-mil thickness with pertinent pre-printed labels. Tie wraps for bags shall be plastic, five-inches long (minimum), pointed and looped to secure filled poly bags.
- E. Tape or adhesive spray shall be capable of sealing joints in adjacent poly sheeting and for attachment of poly sheeting to finished or unfinished surfaces of dissimilar materials, and capable of adhering under both dry and wet conditions, including use of cleaning products.

- F. **Cleaning Products:** The Contractor shall utilize cleaning products such as Simple Green®, Natural Orange™, or other cleaners approved by the Consultant for use in decontaminating porous and non-porous surfaces to remain. All such products shall be utilized in accordance with manufacturer's specifications as intended. The Contractor shall ensure appropriate use and disposal associated with use in accordance with the SDS sheets for each product utilized.
- G. **Encapsulant:** The Contractor shall utilize specialty encapsulating products such as Sikagard® 62 or other epoxy coating approved by the Consultant for use in encapsulating porous surfaces to remain. Two applications of approved encapsulant (a base layer and a wear layer) shall be made and extend ½" from the caulk joint. Layers shall be different colors that are approved by the Owner or Consultant. All such products shall be utilized in accordance with manufacturer's specifications as intended. The Contractor shall ensure appropriate use and disposal in accordance with the SDS sheets for each product utilized.
- H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all PCB Work Zones.
- I. The Contractor shall have available enough DOT-approved 17-C or 17-H drums for waste disposal.

2.2 TOOLS AND EQUIPMENT

- A. The Contractor shall provide all tools and equipment necessary for PCB removal and disposal.
- B. The Contractor's air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.
- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the Work including protective clothing, respirators, respirator filter cartridges, poly sheeting of proper size and thickness, tape, and air filters.
- D. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and electrical power sources (such as generators). Any electrical connection work affecting the building electrical power system shall be performed by a State of Rhode Island-licensed electrician and permitted as required.
- E. The Contractor shall have available shower stalls and support plumbing including sufficient hose length and drain system, or an acceptable alternate.
- F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter or larger.

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION MEETING

- A. At least one week prior to the start of work a Pre-Construction Meeting shall be scheduled with the Owner and their Consultant, and must be attended by the Contractor, and any Subcontractors. The assigned Contractor Site Supervisor must also attend this meeting.
- B. The Contractor shall present a detailed project schedule and project submittal package at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the Contractor of any scheduling adjustments for this project.
- C. Following the Pre-Construction Meeting, the Contractor shall submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORK ZONE PROTECTION

- A. Where necessary, deactivate electrical power. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with all applicable electrical codes. All installations are to be made by a State of Rhode Island-licensed electrician, permitted as required, and located outside the Work Zone.
- B. Post warning signs in accordance with OSHA Title 29 CFR, Part 1910.1200 at all approaches to the Work Zone(s). Signs shall be conspicuously posted to permit a person to read signs and take precautionary measures to avoid exposure to PCBs or other Toxic or Hazardous Substances. These signs should include the large PCB M_L markers at each entrance to the Work Zone.
- C. If applicable, refer to Section 02 8213 - Asbestos Abatement for additional requirements when materials contain asbestos.
- D. Separate waste containers for PCB Bulk Product Waste and PCB Remediation Waste shall be located on-site and shall be placed adjacent to work zone or in an area designated by the Owner. Waste containers shall be lined, covered, and secured. The PCB waste containers shall be properly marked as described in EPA Title 40 CFR, Part 761.40. Marking shall include a PCB M_L marker formatted in accordance with EPA Title 40 CFR, Part 761.45.

3.3 DECONTAMINATION ENCLOSURE SYSTEM

- A. The Contractor shall establish, contiguous to the work area, a three-chamber decon consisting of equipment room, shower room, and clean room, in series. The only access between contaminated and uncontaminated areas shall be through this decon. If it is not feasible to erect a contiguous decon, the Contractor shall establish a remote decon in as close proximity to the work area as is feasible. For abatement not requiring a NPE, the Contractor shall establish a remote decon at the perimeter of the regulated work area.
- B. Access between rooms in the decon shall be through double-flap, curtained openings. The clean room, shower room, and equipment room within the decontamination enclosure, shall be completely sealed ensuring that the sole source of airflow through this area originates from uncontaminated areas outside the work area.

- C. If feasibly, the Contractor shall establish, contiguous with the work area, an equipment decon consisting of 2 totally-enclosed chambers divided by a double-flapped, curtained opening. No personnel are permitted to enter or exit through this unit.
- D. Occupied areas and/or building space not within the work areas shall be separated from work areas by means of airtight barriers.
- E. Construct the decon with wood or metal framing, cover both sides with 2 layers of 6-mil poly sheeting, completely sealed with spray adhesive, and taped at the joints.
- F. If a Consultant is retained for pre-abatement services, the Contractor and the Consultant shall visually inspect barrier several times daily to assure effective seal and the Contractor shall repair defects immediately.

3.4 PCB BULK PRODUCT WASTE PROCEDURES

- A. The Contractor shall have a designated OSHA competent person on the Site at all times to ensure proper work practices are implemented throughout the project.
- B. The Contractor shall regulate the Work Zone as required for compliance with OSHA Title 29 CFR, Part 1910.1200 to prohibit non-trained workers from entering areas where PCBs are to be removed.
- C. PCB Bulk Products shall be removed in a manner that does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical equipment, such as demolition hammers, mechanical grinders, etc., to remove PCB Bulk Products from adjacent substrates. Mechanical removal equipment shall be fitted with HEPA-filtered vacuum attachments.
- D. Minimal quantities of water shall be utilized to adequately moisten the generated dust prior to collection for disposal. Under no circumstances shall the PCB Bulk Product Waste show evidence of free-liquid water, pooling, or ponding within the waste stream. Any liquid used to wet the dust and debris to control fugitive emissions shall be properly containerized and decontaminated in accordance with EPA Title 40 CFR, Part 761.79(b)(1) or disposed of in accordance with EPA Title 40 CFR, Part 761.60(a).
- E. Dry or brittle PCB Bulk Products shall be removed with additional engineering controls such as use of HEPA-filtered vacuums and/or wet-wiping methods to remove accumulated dust or debris during removal.
- F. Sequence of removal shall follow the following general requirements:
 - 1. Site preparation and controls shall be completed. Work shall not proceed until authorized by the Consultant.
 - 2. PCB Bulk Product Waste shall be removed in entirety for disposal as PCB Bulk Product Waste. Note: Material is also assumed to contain asbestos. Refer to Section 02 8213 - Asbestos Abatement for additional disposal requirements.
 - 3. Following removal, cleaning of Work Zone shall be performed prior to a final visual inspection by the Consultant. Note that clearance criteria for asbestos may apply. Refer to Section 028213 - Asbestos Abatement for additional clearance requirements.

4. Following an acceptable final visual inspection, the containment barriers, PPE, cleaning materials, products and supplies, and waste generated during removal of PCB Bulk Product Waste shall be containerized for disposal as PCB Remediation Waste (i.e., hazardous waste).
- G. Remove and containerize all visible accumulations of PCB Bulk Product Waste and PCB Remediation Waste. Wastes shall be containerized in labeled and signed 6-mil poly disposable bags. Tie wraps for bags shall be plastic, 5-inches long (minimum), pointed and looped to secure filled plastic bags. Disposal bags shall then be placed either in steel 55-gallon DOT-approved drums, or a fully-enclosed roll-off container (with a lock).
- H. At any time during PCB Bulk Product removal work should the Consultant suspect contamination of areas outside the Work Zone, the Consultant shall be authorized to issue a stop work order until the Contractor takes required steps to decontaminate these areas, and to eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until visual inspections indicate acceptable decontamination.
- I. The Consultant shall conduct a final visual inspection of the Work Zone. If residual suspect debris is identified during the final inspection, the Contractor shall comply with the Consultant's request to render the area clean of all suspect dust and debris.

3.5 CLEANING AND DECONTAMINATION

- A. The Contractor shall be responsible for complete cleaning and decontamination of the Work Zone upon completion of work. The Work Zone will be required to meet proposed final visual inspection requirements.
- B. The Contractor shall utilize HEPA-filtered vacuum equipment and wet-cleaning products to remove all visible dust and debris from all surfaces within the Work Zone. If specialty cleaning products are utilized, the Contractor shall utilize the product(s) in accordance with manufacturer's specifications, including any additional safety and disposal requirements for such use.
- C. Any liquid used to wet the dust and debris to control fugitive emissions shall be collected and decontaminated in accordance with EPA Title 40 CFR, Part 761.79(b)(1), or disposed of in accordance with EPA Title 40 CFR, Part 761.60(a). Wash water shall not be discharged on-site.
- D. All rags and other materials used to clean the Work Zone shall be properly disposed of as PCB Remediation Waste (i.e., hazardous waste). All PCB Remediation Waste shall be stored for disposal in accordance with EPA Title 40 CFR, Part 761.61(a)(5)(v)(A). All waste containers shall be appropriately marked and labeled in accordance with EPA Title 40 CFR, Parts 761.40 and 761.45.
- E. Equipment to be utilized in connection with the removal of PCB Bulk Product Waste including waste collection, or that will or may come in direct contact with the Site contaminants, shall be decontaminated prior to leaving the Site to prevent migration of the contaminated residues. Decontamination shall be in accordance with EPA Title 40 CFR, Part 761.79 and Subpart S procedures.

- F. All non-disposable equipment and tools employed in the Work will be decontaminated at the conclusion of each work day utilizing the following sequence:
 - 1. Gross debris removal
 - 2. Tap water and detergent or equivalent wash
 - 3. Tap water rinse
 - 4. Hexane or equivalent solvent
 - 5. Air dry
 - 6. Tap water rinse
- G. The wash water and decontamination liquids shall be captured and containerized in DOT-approved 55-gallon drums for off-site disposal in accordance with EPA Title 40 CFR, Part 761.60(a).

3.6 CONSULTANT’S RESPONSIBILITIES

- A. If required or requested, the Contractor shall monitor air quality (visually) within the Work Zone to ascertain the protection of employees and to comply with OSHA regulations. The Consultant may verify this monitoring.
- B. If required or requested, the Consultant’s project monitor shall provide continual evaluation of the condition of the building during removal, using their best professional judgments, in respect to state and federal regulations.

3.7 CONSULTANT’S INSPECTION RESPONSIBILITIES

- A. The Consultant may conduct inspections throughout the progress of the removal project. Inspections may be conducted to document the progress of the removal work, as well as the procedures and practices employed by the Contractor.
- B. The Consultant may perform the following inspections during presumed PCB removal and disposal activities:
 - 1. Pre-Commencement Inspection: Pre-commencement inspections shall be performed at the time requested by the Contractor. The Consultant shall be informed 24 hours prior to the time the inspection is needed. If deficiencies are identified during the pre-commencement inspection, the Contractor shall perform the necessary adjustments to obtain compliance.
 - 2. Work Zone Inspection: Work Zone inspections may be conducted on a daily basis at the discretion of the Consultant. During the work inspections, the Consultant shall observe the Contractor’s removal procedures, verify isolation barrier integrity, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.
- C. The Consultant shall perform the following inspection following presumed PCB removal and disposal activities:
 - 1. Final Visual Inspection: Upon the request of the Contractor, the Consultant shall conduct a final visual inspection of the Work Zone. The final visual inspection shall be conducted after completion of the final cleaning procedures. The final visual inspection shall verify that all PCB Bulk Product Waste residual debris has been removed from the Work Zone. If during the inspection the Consultant identifies residual dust or debris, the Contractor shall comply with the request of the Consultant to render the area “free of suspect dust or debris”.

3.8 MARKING OF WASTE CONTAINERS

- A. All waste containers must be marked with the name of the waste contained, the date when waste was first placed in the vessel, and the last date at which addition of waste occurred. All waste containers must be marked with a PCB M_L.
- B. All waste containers containing PCB Bulk Product Waste and PCB Remediation Waste in the form of waste and contaminated debris, containment system components, used PPE, personal decontamination and equipment wash water, and any other decontamination fluids or other wastes generated during the Work shall be labeled as follows:

DOT Class 9 UN3432 (solid)
 Or UN2315 (liquid) PCB Waste
 RQ
 Waste for Disposal
 Federal law prohibits improper disposal.
 If found, contact the nearest police or public safety authority or
 The U.S. Environmental Protection Agency.
 Generator's Information: _____
 Manifest Tracking No.: _____
 Accumulation Start Date: _____
 EPA ID No.: _____
 EPA Waste No.: _____
 Total Weight: _____
 Container No.: _____
HANDLE WITH CARE

- C. In addition, these containers must be marked with a PCB M_L.
- D. If applicable, the containers must also be marked in accordance with Section 028213 - Asbestos Abatement.
- E. Such marking must be durable, in English, and printed on, or affixed to, the surface of the package, and be displayed on a background of sharply contrasting color not unobscured by labels or attachments and located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

3.9 ON-SITE WASTE MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTES

- A. All solid waste material, containment system components, used PPE, and other solid wastes generated during the Work, shall be placed directly in appropriate waste receptacles immediately upon removal from its in-situ position. Suitable waste receptacles may consist of roll-off containers or DOT-approved 55-gallon drums.
- B. The Contractor shall be responsible for all packaging, labeling, transport, disposal, and recordkeeping associated with PCB Bulk Product Waste and PCB Remediation Waste in accordance with all federal, state, and local regulations.
- C. The Contractor shall ensure that the person transporting the waste holds a valid permit issued in accordance with appropriate federal, state, and local regulations.

- D. The Contractor shall provide appropriate shipping records or uniform waste manifests to the transporter at the time of transfer as required by the federal, state, and local regulations with a copy provided to the Owner and Consultant.
- E. The Owner should coordinate with the Contractor to sign-off waste materials as the “Generator”. The Consultant shall be given 48-hour notice prior to waste leaving the site (i.e., scheduled pick-up by waste hauler).
- F. The Contractor shall maintain proper follow-up procedures to assure that waste materials have been received by the designated waste facility in a timely manner, and in accordance with all federal, state, and local regulations.
- G. The Contractor shall assure that disposal of PCB Bulk Product Waste and PCB Remediation Waste is at a facility permitted to accept such waste(s) and shall provide a tracking/manifest form signed by the landfill’s authorized representative.
- H. If roll-off containers are to be utilized for containerization of the PCB Bulk Product waste the following shall apply:
 - 1. All roll-off containers, or other similar vessels utilized, shall be watertight and lined with 6-mil poly sheeting or equivalent impermeable lining, and equipped with a secured and impermeable cover.
 - 2. The impermeable cover shall remain securely in-place at all times when waste is not being actively placed in the vessels. The Contractor shall be responsible for ensuring that the cover remains securely intact until the container is removed from the Site. The container must be equipped with a lock.
- I. If 55-gallon drums are to be utilized for waste containerization, the drums shall consist of suitable DOT-approved 55-gallon drums that are watertight and free of corrosion, perforations, punctures, or other damage. All drums shall be securely covered and sealed at the conclusion of each workday.
- J. The waste containers shall remain staged at the Site with a secure, impermeable cover in-place until the materials are transported from the Site to be delivered to the designated waste disposal facility.
- K. Waste roll-off and barrel staging area shall be designated prior to initiation of the presumed PCB removal and disposal work and be approved by the Consultant. If this area is located outside of the building, it is recommended that the area (or areas) be surrounded by a chain-link fence with a minimum height of six feet. The fence shall be labeled with a large PCB ML marker.
- L. Properly containerized waste must be transported by a licensed hauler and be shipped as PCB Bulk Product Waste for disposal at a permitted soil waste facility in accordance with EPA Title 40 CFR, Part 761.62(b).
- M. PCB Remediation Waste must be transported by a licensed hauler and be shipped as PCB Remediation Waste for disposal in accordance with EPA Title 40 CFR, Part 761.61(b)(2) at one of the following facilities:
 - 1. A chemical waste landfill approved under EPA Title 40 CFR, Part 761.75.

2. A State-authorized landfill under Section 3006 of EPA RCRA; or
 3. A chemical waste landfill approved under EPA Title 40 CFR, Part 761.75.
- N. Any PCB liquid water waste shall be properly containerized and either decontaminated in accordance with EPA Title 40 CFR, Part 761.79, or disposed of in accordance with EPA Title 40 CFR, Part 761.60(a).
- O. Any chemicals, solvents, or other products used during decontamination shall be properly containerized as liquid PCB Remediation Waste. Waste must be properly decontaminated in accordance with 40 CFR Part, 761.79 or disposed of in accordance with 40 CFR Part, 761.60(a) or (e). Liquid PCB Remediation Waste shall be transported by a licensed hauler and shipped for treatment or disposal. Provide required copies of the uniform waste manifests for hazardous wastes to the Owner waste generation State and waste destination State as required.
- P. Provide required copies of the uniform waste manifests for PCB Remediation Waste to the Owner, waste generation State, and waste destination State, as required.
- Q. All contaminated waste shall be carefully loaded on trucks or other appropriate vehicles for transport. Before and during transport, care shall be exercised to ensure that no unauthorized persons have access to the waste materials.
- R. Waste transporters are prohibited from “back hauling” any freight after PCB waste disposal until decontamination of the vehicle and/or trailer is assured.

END OF SECTION

PROPOSAL

The undersigned bidder has carefully examined the site of the work described herein/ has become familiar with local conditions and the character and extent of the work/ has carefully examined the plans/the State of Rhode Island Standards and Specifications for Historical Preservation (if applicable) with latest revisions and supplements to date of the contract/which are acknowledged to be a part of this proposal/ the special provisions, the proposal form/ the form of contract agreement, and form of contract bond, and thoroughly understands their stipulations, requirements and provisions.

The undersigned bidder has determined the quality and quantity of equipment and materials required, has investigated the location and determined the sources of supply of materials required, has investigated labor conditions, and has arranged for the continuous prosecution of the work herein described.

The undersigned bidder hereby agrees to be bound by the award of the contract and if awarded the contract on this proposal to execute within ten (10) days after notice of award the required contract agreement and the required contract bond, of which contract this proposal, the plans for the work, and the specifications as above indicated, shall be a part.

The undersigned bidder further agrees to provide all necessary equipment, tools, labor, incidentals and other means of construction to do all the work and furnish all materials of the specified requirements which are necessary to complete the work in accordance with the proposal, the plans and the specifications and agrees to accept therefore, as payment in full, the unit prices for the various items described in the specifications and set forth in the proposal. Any "extra" or "force account work" will be paid for as set forth in subsection 109.04, differing site conditions, changes, extra work and force account work/ of the standard specifications and the undersigned bidder hereby agrees to accept payment therefore as stated herein.

The bidder understands that the quantities of work shown herein are approximate only and are subject to increase or decrease and agrees that all quantities of work, whether increased or decreased, are to be performed at the unit prices stated in the following estimate of quantities and schedule of prices for the work described, subject however, to changes in the contract.

PROPOSAL SPECIAL NOTICE

THE CITY WOONSOCKET
VICTORIAN BRICK BUILDING LOCATED AT
148 HAMLET AVENUE
ASBESTOS / LEAD ABATEMENT

BID CERTIFICATION

The undersigned bidder proposes to furnish all materials, labor, equipment and related incidentals, other related work and overhead items for "River Island Art Park Stage Project" for the City of Woonsocket, Rhode Island and in accordance with the specifications for the costs forth in the Bid Proposal.

CERTIFICATION SUMMARY:

The bidder declares that this proposal is made without connection with any other person(s) making proposals for the same specifications and is in all respects fair and without collusion or fraud.

The bidder further declares that, except in the normal discharge of his/her duties, no person acting for or employed by the City of Woonsocket has direct or indirect interest in the proposal or in any of the profits thereof.

The bidder certifies that the above statements are accurate and true and has carefully examined and read all of the specifications and the contract provisions and understands that it affects the acceptability of my proposal(s).

AUTHORITY TO CONTRACT:

The person who signs this agreement certifies that they are an agent of the company submitting the proposal. Has the legal authority to enter their organization into a binding agreement with the City of Woonsocket and to commit that organization to fulfilling the contract term obligations contained herein.

The undersigned further certifies that the company is qualified to do business in the State of Rhode Island, if applicable, and is not prohibited from entering into or performing any of the terms of this agreement for any reason.

CONFLICT OF INTEREST:

Any Offeror responding to this Invitation to Bid are required to disclose any potential conflict of interest. If the owner of the bidding firm is related to a City of Woonsocket employee, that relationship must be disclosed in writing and made a part of the bid response. Definition Related Person: Related person to a City of Woonsocket employee means a spouse or dependent child of such employee. The term extends to other individuals sharing the same household as well as siblings, parents and non-dependent children (including step and in-law variations of those relationships) in circumstances where the City of Woonsocket employee has actual knowledge that such relative is likely to or will benefit from a particular City of Woonsocket transaction.

**CITY OF WOONSOCKET
RHODE ISLAND
FINANCE DEPARTMENT**

BID SIGNATURE PAGE

We, the undersigned, submit this proposal for Asbestos and Lead Abatement at 148 Hamlet Ave., Bid No. 6231, to the City of Woonsocket. The undersigned also certifies and agrees to all the terms and conditions contained herein.

COMPANY NAME:	
ADDRESS:	
CITY, STATE ZIP:	
PHONE:	
EMAIL:	
PRINT NAME:	
TITLE:	
SIGNATURE:	
DATE:	

All items in the Proposal must have a unit bid price in words and figures. All unit bid prices must be extended. Bids will not be accepted if they contain no unit price for an item or if they contain zero in words and figures as the unit price bid.

Bid price for all items stated in **NUMBERS** for Asbestos & Lead Abatement – 148 Hamlet Ave, Bid No. 6231

Bid price for all items stated in **WORDS** for Asbestos & Lead Abatement – 148 Hamlet Ave, Bid No. 6231



PR-4

Photos taken August 2021 – 148 Hamlet Ave

























































































