SECTION 01 22 00 – UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. A unit price is an amount proposed by Bidders and stated on the Bid Form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the project Scope of Work is altered.

B. Unit prices include material, any direct or indirect expenses of the Contractor or Sub-Contractor, profit, insurance, bonding, and any applicable taxes. **The same unit price shall apply whether the work is added or deducted.**

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

A. Unit Prices in accordance with the following schedule will apply to this Contract.

Item No. 1 – MINI CONTAINMENT PREPARATION TO ENCLOSE ASBESTOS ABATEMENT (up to 100 SF of material removal)

$ _____ per containment

Item No. 2 – SMALL CONTAINMENT PREPARATION TO ENCLOSE ASBESTOS ABATEMENT (>100-250 SF of material removal)

$ _____ per containment

Item No. 3 – MEDIUM CONTAINMENT PREPARATION TO ENCLOSE ASBESTOS ABATEMENT (>250-750 SF of material removal)

$ _____ per containment

Item No. 4 – LARGE CONTAINMENT PREPARATION TO ENCLOSE ASBESTOS ABATEMENT (>750-2,500 SF of material removal)

$ _____ per containment

Item No. 5 – ASBESTOS PLASTER FROM MASONRY WALLS REMOVAL AND DISPOSAL AS ACM

$ _____ per square foot

Item No. 6 – ASBESTOS CEILING PLASTER REMOVAL AND DISPOSAL AS ACM

$ _____ per square foot

Item No. 7 – ASBESTOS FLOOR TILE AND MASTIC REMOVAL AND DISPOSAL AS ACM

$ _____ per square foot

Item No. 8 – ASBESTOS GLUE DAUB & ACCUSTICAL CEILING TILE REMOVAL & DISPOSAL AS ACM

$ _____ per square foot

Item No. 9 – ASBESTOS MUDDED PIPE & PIPE FITTING INSULATION REMOVAL AND DISPOSAL AS ACM

$ _____ per fitting

$ _____ per glove bag

$ _____ per linear foot

Item No.10 –DISPOSAL OF INTACT PIPE FLANGE WITH GASKET AS ACM

$ _____ per flange

Item No.11 – ASBESTOS MOISTURE/VAPOR BARRIER REMOVAL AND DISPOSAL AS ACM

$ _____ per square foot

Item No.12 – WALL/FLOOR CORE THROUGH MASONTY, ASBESTOS MOISTURE/VAPOR BARRIER AND/OR PLASTER, REMOVAL AND DISPOSAL AS ACM

$ _____ per 3”- 4” Penetration\core

$ _____ per 5”- 6” Penetration\core

$_____ per 1/4” - 1/2” Anchor bolt installation

Item No.13 –GLOVE BAG REMOVAL AND DISPOSAL OF TSI (< 3 SF or LF) AS ACM

$ _____ per glove bag

Item No.14 –GLOVE BAG REMOVAL AND DISPOSAL OF MISCELLANEOUS MATERIALS (< 3 SF or LF) AS ACM

$ _____ per glove bag

END OF SECTION 01 22 00

SECTION 02 82 13 – ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. General Provisions of Contract, including General Supplementary Conditions, shall apply to this Section.

B. Fuss & O'Neill, Inc. (Fuss & O'Neill) Limited Hazardous Building Materials Inspection Report dated February 1, 2024 (Attachment A).

C. Lead Paint Awareness Section 02 83 19.

D. Hazardous Materials Abatement Drawings HM-01 through HM-03.

E. Architectural MEP Drawings M-001.00 through P-005.00

1.2 CONSULTANT

A. The Owner and/or Architect shall retain a Consultant for the purposes of project management and monitoring during Asbestos Abatement activities. At the discretion of the Owner, the Consultant will represent the Owner during the abatement project. The Asbestos Abatement Contractor (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. Approval of work areas
2. Review of monitoring results
3. Completion of the various segments of work
4. Final completion of the abatement
5. Submission of data
6. Daily field punch list items

B. The State of Connecticut-licensed Asbestos Consultant – Project Designer for this project is Eric W. Cooley (License No. 000305).

1.3 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) and asbestos-impacted materials during the HVAC renovation project (the "Work") at the Cyrenius H. Booth Library (the "Site"). This Work under this Contract includes, but is not limited to, asbestos abatement within and outside of the building.

B. This scope of work includes necessary selective demolition to access ACM scheduled for abatement.

1.4 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 material and labor necessary for the completion of the Work in accordance with the intent of these Specifications.

D. In case of ambiguity among the Contract documents, the more stringent requirement as determined by the Consultant shall prevail.

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.

F. All items not specifically mentioned in the Specifications, but implied by trade practices to complete the Work, shall be included.

1.5 SITE EXAMINATION

A. It is understood that the Contractor has examined the Site, 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.

1.6 CONTRACTOR QUALIFICATIONS

A. All bidders shall submit a record of prior experience in asbestos abatement 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 that should be included is as follows:

1. Project Name and Address
2. Owner's Name and Address
3. Architect/Consultant
4. Contract Amount
5. Date of Completion
6. Extras and Changes

B. The Contractor selected must appear on the approved list of Asbestos Abatement Contractors on file at the State of Connecticut Department of Public Health (CTDPH) and hold a valid license for asbestos abatement within the State of Connecticut.

C. Submit a written statement regarding whether the Contractor has ever been cited for non-compliance with federal, state, or local asbestos, lead, and/or polychlorinated biphenyl (PCB) regulations pertaining to worker protection, removal, transport, or disposal.

1.7 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.

1.8 ADDITIONAL GENERAL REQUIREMENTS

A. The Contractor shall employ a competent CTDPH-licensed 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 specifications 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, 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 Consultant and shall maintain written evidence of such inspection for review by the Owner and Consultant.

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 and Consultant of the delivery of all permits, licenses, certificates of inspection, of approval, or 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 Owner and Consultant for verification and recording.

1.9 PROJECT DESCRIPTION

A. The base bid includes the removal, packaging, transporting, and disposing of all 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 the ACM for abatement or to allow access for installation of mechanicals.

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 base bid includes the following ACM:

BASE BID - ASBESTOS

LOCATION	MATERIAL TYPE	ESTIMATED QUANTITY	NOTES
Original 1932 Building: Lower, main, Upper & Attic Levels	Wall and Ceiling Plaster	Locations of All Required Penetrations or Openings as Noted on HM-01 through HM-03 Drawings (~70 Locations)	1
Original 1932 Building: Lower, main, Upper & Attic Levels	Wall and Ceiling Plaster	Locations of All Required Anchor/Hangers - Installations of Anchors for MEP (~150 Locations)	2

ADD ALTERNATE - ASBESTOS

LOCATION	MATERIAL TYPE	ESTIMATED QUANTITY	NOTES
Original & Addition Building Within Exterior Walls	Vapor/Moisture Barrier (Assumed to be present)	Locations of all required Penetrations or Openings from Exterior Heat Pump Units as Noted on HM-01 through HM-03 Drawings (~20 Locations)	3
Original 1932 Building Assumed Within Ceiling & Wall Chases	Pipe/Pipe Fitting Insulation	Estimate 100 LF & 50 Fittings (Add or Deduct at Unit Pricing)	4
Original 1932 Building Boiler Room	Boiler Internal Non-Metallic Components	2 Boiler Units	5
Throughout Building	Pipe Flange Gaskets Associated with Boiler and related Components/Piping	~40 Each	6

Abatement Notes-Base Bid:

1. Removal of plaster ceilings and walls in entirety or to a clean masonry substrate within a glove-bag or negative pressure Enclosure (NPE) as required to access chases, or core penetrations to run new line sets or other MEP components. In areas of wall/ceiling removal to access chases, any suspect ACM observed within the NPE removal area such as but not limited to pipe insulation shall be removed within the NPE. All unsealed/raw edges shall be sealed with penetrating encapsulant. Includes Removal, packaging & disposal of all waste as ACM.
2. Installation of anchor bolts in plaster ceilings and walls within a glove-bag or negative pressure Containment as required to hang necessary exposed MEP components, or core penetrations to run new line sets.

Abatement Notes-Add/Alternate Bid:

3. Core/penetration through exterior walls with asbestos vapor barrier as required to run new line sets or other MEP components from exterior of building.
4. Removal and disposal pipe and pipe fitting insulation encountered within pipe chases ceilings or walls as required for demolition or for new MEP systems installation, within a glove-bag or negative pressure Containment.
5. Dismantle two boilers within a negative pressure containment and remove/dispose of all non-metallic components as ACM. Includes removal and recycling of all metal components.
6. Intact removal and disposal of mechanical and plumbing non-metallic pipe flange gaskets scheduled for demolition as ACM.

General Notes:

1. Quantities shall be verified by Contractor during the time of the walk-through. Discrepancies of amounts and/or locations of asbestos-containing materials shall be addressed prior to bidding the work to the Owner and Consultant.
2. All materials shall be removed and disposed of as asbestos, including, but not limited to, contaminated components being removed, substrates and suspect ACM discovered behind walls and under sills, etc.

D. Some of the Work will 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. 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 required. All temporary electrical power and lighting within the work areas must be connected to Ground Fault Circuit Interrupter (GFCI) power panels installed by a State of Connecticut-licensed electrician, permitted as required, and located outside of the work areas.

1.10 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 certain large constructions other than buildings and the like.
5. Asbestos: The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles, and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically-altered.
6. Asbestos-Containing Materials: For the purpose of this project design, an asbestos containing material is any building material categorized by EPA as a surfacing material, thermal system insulation, or miscellaneous that contains any amount of asbestos (as defined above) based on the analytical methodology adopted by the project designer for application to subject building materials at the Site.
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 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 area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

10. Caulking: Resilient mastic compound often having a silicone bituminous or rubber base; used to seal cracks, fill joints, and prevent leakage. Typical applications: around windows, and doors. Caulking is at joints between two dissimilar materials. (i.e., masonry to wood, masonry to steel).
11. Clean Room: An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of worker street clothes and protective equipment.
12. Clearance Sampling: Final air sampling performed aggressively after the completion of the abatement project in a regulated area. Air samples collected by the air sampling professional having a total airborne fiber concentration of less than 0.010 fibers per cubic centimeter (fibers/cc) of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM), or five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter (s/mm^2) of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).
13. Competent Person: As defined by OSHA Title 29 CFR, Part 1926.1101, a representative of the Abatement 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.: A company retained by the Owner with State of Connecticut-licensed asbestos designer and asbestos project monitors to provide services enumerated in this section during asbestos abatement.
15. Containment: An enclosure within the building which establishes a contaminated area and surrounds the location where ACM and/or other toxic or hazardous substance removal is conducted and establishes a Control Work Area.
16. 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 six feet apart can form an airlock.
17. Dampproofing: Application of a water impervious material to surface (such as a wall) to prevent penetration of moisture, typically at foundation or below grade surface.
18. Decontamination Enclosure System: 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.
19. Encapsulant: A liquid material which can be applied to ACM, which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).
20. Equipment Room: Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
21. Fixed Object: Unit of equipment or furniture in the work areas that cannot be removed from the work area.
22. Friable Asbestos Materials: Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.

23. Glazing Compound: Any compound used to hold window glass in place, also referred to as putty, or glazier's putty. Is not field-applied, usually installed during manufacture of windows.
24. HEPA Filter: High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2 1979.
25. HEPA Vacuum Equipment: Vacuum equipment fitted with a HEPA filter system for filtering the effluent air from the unit.
26. Movable Object: Unit of equipment of furniture in the work area that can be removed from the work area.
27. 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.
28. NESHAP: National Emission Standards for Hazardous Air Pollutants regulations enforced by the EPA.
29. Owner: Town of Newtown, Connecticut: An employee or executive who has the principal responsibility for a process, program, or project.
30. 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 per cubic centimeter (fibers/cc) as an eight (8)-hour time-weighted average (TWA), and 1.0 fibers/cc averaged over a sampling period of 30 minutes as an Excursion Limit. The Contractor shall be responsible for maintaining work areas in a manner that this standard is not exceeded.
31. 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 and worker protection equipment and 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.
32. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).
33. 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.
34. Shower Room: A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.
35. Totally Enclosed Manner: A manner that will ensure no exposure of human beings or the environment to a concentration of asbestos.
36. 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.
37. 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.

1.11 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. Submit copies of all notifications, permits, applications, licenses, and like documents required by federal, state, or local regulations obtained or submitted in proper fashion.
2. Submit a schedule to the Owner 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).
3. Submit the current valid State of Connecticut Asbestos Abatement Contractor license and certificate of insurance.
4. Submit the name and address of the hauling contractor and landfill to be used. Also submit current valid operating permits and certificates of insurance for the transporter and landfill.
5. Submit the plans and construction details for the construction of the decontamination systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.
6. Submit the CTDPH license, training, medical, and respirator fit test records of each employee who may be on the Site.
7. If the Contractor's CTDPH-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 for this project for this task.
8. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project. This includes Safety Data Sheets (SDS) on all products and chemicals that may be used on the project.
9. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project, as well as a list of past projects completed.
10. Submit a chain-of-command for the project.
11. Submit a site specific Emergency Action Plan for the project. The Plan may include emergency procedures to be followed by Contractor personnel to evacuate the building, hospital name, phone number, and most direct transportation route from the Site, emergency telephone numbers, etc.
12. Submit a written site specific Respiratory Protection Program for employees for the Work, including make, model and National Institute of Occupational Safety and Health (NIOSH) approval numbers of respirators to be used at the Site (if applicable).
13. Proposed electrical safeguards to be implemented by a qualified Electrical Contractor, including, but not limited to, location of transformers, GFCI outlets, lighting, and power panels necessary to safely perform the project, including a description of electrical hazards and a safety plan for common practices in the work area. This may also include safety plan for temporary lighting, extension cord and other powered equipment used in the work area (locations, daily inspections, etc.).
14. 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.
15. 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;

B. 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, CTDPH certifications, fit test records, and medical records for new employees to start work (24-hours in advance) and prior to the new employee arriving at the Site.
3. Carbon copies from waste shipment record, waste manifest records, bill of lading or other waste tracking record for all specified materials.
4. Copies of daily log sheets, daily sign-in sheets, and containment sign-in sheets.

C. The Contractor shall submit the following to the Consultant at the completion of the Work. The Owner reserves right to retain payment(s) until all items are received in completion:

1. Original final completed copies of the waste shipment records, signed by all transporters and the designated disposal site owner/operator.
2. Original final completed copies of bill of laden, 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, CTDPH certifications, 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 Emission 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. Connecticut Department of Energy and Environmental Protection (CTDEEP) Regulations (Section 22a-209-8(i) and Section 22a-220 of the Connecticut General Statutes);
6. CTDPH Standards for Asbestos Abatement (Sections 19a-332a-1 to 19a-332a-16);
7. CTDPH Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Consultant Services (Sections 20-440-1 to 20-440-9 and Section 20-441);
8. Connecticut Basic Building Codes;
9. Life Safety Code, National Fire Protection Association (NFPA); and
10. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including American Society of Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL).

1.13 EXEMPTIONS

A. Any deviations from these specifications 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 CTDPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-16 must be requested in writing and approved in writing by the CTDPH. The Consultant shall develop the Alternative Work Practice (AWP) application on behalf of the Owner. If the Contractor intends to request an AWP for this project, the nature of the AWP shall be disclosed in the bid documents and the cost savings associated with said AWP shall be provided for the Owner's consideration. An AWP shall not be filed without prior Owner's and Consultant's approval.

1.14 FINAL RE-OCCUPANCY AIR CLEARANCE (If Required)

A. Following the completion of the encapsulation phase of the work, the Consultant shall collect final re-occupancy clearance air samples inside the work area per CTDPH Standards for Asbestos Abatement (19a-332-1 to 19a-332-16).

B. The Owner shall be responsible for payment of the sampling and analysis of the initial final air clearance samples only. The Contractor shall be responsible for payment of all costs associated with the collection and analysis of additional final clearance air samples if the first set of samples fail to satisfy the clearance criteria.

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. The Contractor shall make the following notifications and provide the submittals to the following agency prior to the start of work. The CTDPH notification is required 10 calendar days prior to start of the abatement project and the EPA notification is required 10 business days prior to the start of the abatement project.

1. Connecticut Department of Public Health
   410 Capitol Avenue
   MS #12 AIR
   P.O. Box 340308
   Hartford, CT 06134-0308
2. United States Environmental Protection Agency (USEPA)
   Jordan Alves (alves.jordan@epa.gov)
   Region 1- New England (OEP05-2)
   5 Post Office Square, Suite 100
   Boston, MA 02109-3912

B. The minimum information included in the notification to these agencies includes:

1. Name and address of building Owner/Operator
2. Building location

3. Building size, age, and use
4. Amount of asbestos to be removed
5. Work schedule, including proposed start and completion date
6. Asbestos removal procedures to be used
7. Name and location of disposal site for generated asbestos waste, residue, and debris

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. Evacuation of injured workers.
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 occupants of the building in the event of a fire or other emergency requiring evacuation of the building.

B. The Contractor shall be responsible for training all workers in these procedures.

1.17 INDEPENDENT AIR SAMPLING AND ASBESTOS ABATEMENT MONITORING

A. This Section describes independent air sampling work being performed on behalf of the Owner. This work is not in the Contract Sum. This Section 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). Negative exposure assessments 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:

1. Contamination of the building outside of the work area by airborne fibers.
2. Failure of filtration or rupture in the differential pressure system.
3. Contamination of air outside the building envelope by airborne fibers.

C. Should any of the above occur, the Contractor shall immediately cease asbestos abatement activities until the fault is corrected. Do not recommence work until authorized by the Consultant.

D. The Consultant may monitor total airborne fiber concentrations in the work area. The purpose of this air monitoring will be to detect total airborne fiber concentrations, which may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

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 air in accordance with clearance air sampling requirements.

F. The Consultant may perform on-site monitoring throughout the project, as follows:

1. All work procedures shall be continuously monitored by the Consultant to assure that areas outside the designated work locations in the buildings 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 building or the employees. This includes a visual work area inspection and the building or the employee decontamination.

1.18 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

A. The Contractor shall independently retain an air sampling professional or the CTDPH-licensed Asbestos Abatement Supervisor shall monitor total airborne fiber concentrations in the worker breathing zones, and 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 Section 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 certified and accredited as required by CTDPH.

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. Submit the following to the Consultant for review. The Contractor shall not start work until these submittals are returned with Consultant action stamp indicating that they are approved.

1. Submit copies of certificates from an EPA approved AHERA Abatement Workers course for each worker as evidence that each asbestos Abatement Worker is accredited as required by the AHERA Regulation Title 40 CFR, Part 763 Appendix C to Subpart E, February 3, 1994.
2. Submit evidence that the Contractor is certified to perform asbestos abatement work by the CTDPH.
3. Submit documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
   a. Name and Social Security Number (last 4 digits)
   b. Physician's written opinion from examining physician including at a minimum the following:
      1) Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.
      2) Any recommended limitations on the worker or on the use of PPE such as respirators.
      3) Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
4. Copy of information that was provided to physician in compliance with OSHA Title 29 CFR, Part 1926.
5. Statement that worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat stress in the worker.
6. Effective June 4, 2000, submit copies of certificates for the site supervisor and the workers issued by CTDPH.

G. Submit certification signed by an officer of the abatement-contracting firm and notarized that exposure measurement, medical surveillance, and worker training records are being kept in conformance with OSHA Title 29 CFR, Part 1926.

H. 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 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 decontamination enclosure system 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. The surface of the bags shall be decontaminated. Asbestos waste removed from the 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 material, equipment, or supplies that are removed from the decontamination enclosure system shall be thoroughly cleaned and decontaminated by wet cleaning 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 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. Material that becomes contaminated with asbestos shall be decontaminated or disposed as asbestos waste.

C. Polyethylene (poly) sheeting in a roll size to minimize the frequency of joints shall be delivered to the Site with factory label indicating 6-mil.

D. Poly disposable bags shall be 6-mil with OSHA required pre-printed label (29 CFR, Part 1926.1101(k)(8)(iii)). Tie wraps for bags shall be plastic, five-inches long (minimum), pointed and looped to secure filled plastic bags.

E. Tape or adhesive spray will be capable of sealing joints in adjacent poly sheets and for attachment of poly sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

F. Surfactant (wetting agent) shall consist of 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one ounce surfactant to five gallons of water or as directed by manufacturer.

G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant deemed acceptable to Consultant. Usage shall be in accordance with manufacturer's printed technical data.

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 areas with asbestos.

I. Impermeable containers are to be used to received and retain any asbestos-containing or contaminated materials 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 both air and watertight.

J. Labels and signs, as required by OSHA Title 29 CFR, Part 1926.1101, will be used.

K. Encapsulant shall be bridging or penetrating type which has been deemed acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

L. HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports where ACM may be disturbed.

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) rotometer.

C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, 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 Connecticut-licensed electrician.

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 conduct inspections, final visual inspections, and final air clearance monitoring. The Consultant reserves the right to reject such items that are deemed unsafe and/or do not function properly and request items be replaced with adequate replacements. The work areas shall be safe to enter/occupy by the Consultant.

G. The Contractor shall have available shower stalls and plumbing to support same to include sufficient hose length and drain system or an acceptable alternate.

H. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative air pressure of at a minimum -0.02 inches of water column within enclosure with respect to outside area. Digital manometers shall be supplied for Class 1 work or Class II work if wet removal is not occurring or removal is not intact. 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 four (4) air changes per hour within the NPE. All exhaust tubes shall be routed outside through secured openings to prevent people from access into the building. The exhaust shall be away from any air intakes or openings to the building or where people may come in contact with exhausted air. No air movement system or air filtering equipment shall discharge unfiltered air. The Contractor will have reserve units so that the station system will operate continuously.

I. 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 will be scheduled and must be attended by the Contractor and any Sub-Contractors. 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 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 FOR INTERIOR ABATEMENT

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 Connecticut-licensed electrician, permitted as required, and located outside the work areas.

B. Temporary power shall be continuous power. Portable generators for use during asbestos abatement are not authorized.

C. Deactivate and/or isolate heating, ventilation, and air conditioning (HVAC) air 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 layers of 6-mil poly, and 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. Contractor shall be responsible for removing all solid waste within the work areas (if applicable). The Contractor shall pre-clean moveable objects within the proposed work areas using HEPA filtered vacuum equipment and/or wet cleaning methods as appropriate and remove such objects from work areas. Non-porous materials (i.e., metal) shall be cleaned, visually inspected by a project monitor prior to removal from the work areas and recycling/disposal as solid waste.

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 poly sheeting a minimum of 6-mil thick, and sealed with duct tape. This includes doorways and corridors that will not be used for passage during work areas and occupied areas.

F. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum 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 HEPA vacuum cleaning, cover fixed walls and floors. All seams and joints shall be sealed with tape or equivalent. Floor covering shall consist of at least two layers of 6 mil polyethylene and must cover at least the bottom 12 inches of adjoining wall. Wall covering shall consist of a minimum of two layers of 4 mil polyethylene sheet which shall overlap the floor covering to prevent leaks. There shall be no seams in the polyethylene sheet at the wall-to-floor joints. Ceiling covering shall consist of at least two layers of 4-mil polyethylene if applied on existing ceiling system or, if not applied directly to existing system (essentially serving as large critical barrier), the ceiling shall consist of one layer of 6-mil polyethylene sheeting and two layers of 4-mil polyethylene sheeting.

I. Maintain emergency and fire exits from the work areas or establish alternate exits satisfactory to fire officials.

J. Clean and remove ceiling mounted objects, such as lights and other items not sealed-off, which interfere with asbestos abatement. Use handheld amended water spraying or HEPA vacuuming equipment during fixture removal to reduce settled fiber dispersal.

K. Create pressure differential between work areas and uncontaminated areas by the use of acceptable negative air pressure equipment sufficient to provide four air changes per hour and create negative air pressure of at a minimum -0.02 inches of water column within enclosure with respect to outside area as measured on a water gauge.

3.3 DECONTAMINATION SYSTEM

A. The Contractor shall establish, contiguous to the work area, a decontamination system consisting of equipment room, shower room, and clean room, in series. The only access between

contaminated and uncontaminated areas shall be through this decontamination enclosure. If it is not feasible to erect a contiguous decontamination system, the Contractor shall establish a remote decontamination unit in as close proximity to the work area as is feasible. For exterior work, the Contractor shall establish a remote decontamination system abutting the perimeter of the regulated work area.

B. Access between rooms in the decontamination system shall be through double-flap curtained openings. The clean room, shower, 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. The Contractor shall establish contiguous with the work area an equipment decontamination enclosure consisting of two totally enclosed chambers divided by a double-flapped curtained opening. This enclosure must be constructed so as to ensure no personnel 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 decontamination enclosure system with wood or metal framing, cover both sides with a double layer 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 the barriers several times daily to assure effective seal and the Contractor shall repair defects immediately.

3.4 ASBESTOS REMOVAL PROCEDURE - GENERAL

A. The Contractor shall have a designated “competent person” on the Site at all times to ensure establishment of a proper enclosure system and proper work practices throughout project.

B. Abatement work will not commence until authorized by the Consultant.

C. The Contractor shall properly coordinate abatement work with other trades, new construction and Site use. The Contractor shall be responsible for addressing any concerns by the Owner and/or Consultant.

D. With a fine mist, spray ACM with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operation.

E. To maintain indoor asbestos concentrations to the minimum, the wet asbestos must be removed in manageable sections. Material drop shall not exceed 8 feet. For heights up to 15 feet, provide inclined chutes or scaffolding to intercept drop.

F. Remove ACM as appropriate by standard methods. Fill disposal containers as removal proceeds; seal filled containers and clean containers before removal to equipment decontamination enclosure system. Wet clean each container thoroughly, double bag and apply caution label. Ensure that workers do not exit the work area thorough the equipment decontamination enclosure.

G. After completion of stripping work, all surfaces from which asbestos has 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.

H. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos contaminated debris. During cleanup, utilize brooms, rubber dustpan, and rubber squeegees to minimize damage to floor covering.

I. 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 decontamination enclosure at an appropriate time in the cleaning sequence. All asbestos waste in 6-mil poly disposal bags shall be double-bagged in the equipment decontamination enclosure and marked with generator information before removal from the Site.

J. 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 certify decontamination.

K. 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.

3.5 ASBESTOS REMOVAL PROCEDURE – GLOVE BAG

A. Removal or intentional disturbance of asbestos-containing materials should only be conducted be certified and trained employees. Personal protective equipment (PPE) is always required when removing and/or disturbing asbestos-containing materials. PPE must work in accordance with applicable OSHA regulations.

B. The following steps should be taken when glove-bagging asbestos-containing materials. Current regulations require two employees to conduct glove-bagging. Employees should always isolate the area in case of accidental spills or bag failure.

1. Isolate the area and place appropriate signs and critical barriers. Only trained and protected employees are allowed in the area during the removal process.
2. Employees should don personal protective equipment.
3. HEPA vacuum all debris located beneath the area of the glove bag operation. Then place polyethylene sheeting.
4. Custom cut sides of glove bag to fit pipe.
5. Place tools inside bag pouch (Nylon Brush, Razor, Wire Snips, Scraper, and Bone Saw, etc.).
6. Place duct tape around pipe and seal edges of glove bag with duct tape (tape bottom of glove bag for extra protection).
7. Cut opening near the insulation to be removed for the HEPA Vacuum nozzle and amended water wand.
8. Test the bag for leaks. (A smoke tube is recommended.)

9. Insert tube and fill bag with smoke and squeeze bag.
10. Insert spray wand in bag and spray insulation with amended water.
11. While employee sprays amended water onto the insulation the glove bag employee should cut across top of insulation.
12. Remove pipe insulation and spray inside of bag saturating expose ends of pipe with lockdown encapsulant.
13. Rinse tools in pouch and while holding tools in gloved hands, pull hands out. Twist and tape glove arms and cut tape in the middle. (Tools can be kept in gloves or submersed in water and cleaned.)
14. Turn on HEPA vacuum and deflate bag totally. Tape import holes.
15. Twist bag as close to the top of bag as possible, tape and cut.
16. Remove glove bag and cut away remaining bag material. (Be careful to not disturb remaining insulation.)
17. Wrap loose edges of insulation with a binding cloth and brush with a bridging encapsulant.
18. Use proper decontamination procedures and remove personal protective equipment.
19. Dispose of asbestos contaminated materials and remove signs and barriers.

3.6 ASBESTOS REMOVAL PROCEDURES FOR EXTERIOR NON-FRIABLE MATERIALS

A. Exterior non-friable materials which are not RACM as defined by the EPA and CTDPH are not required to be removed within a contained negative pressure enclosed work area in the State of Connecticut. This applies as long as the proposed methods of removal will not render the non-friable materials RACM during proposed removal operations.

B. The Contractor shall have a designated "competent person" on the job at all times to ensure proper work practices throughout the project.

C. The Contractor shall regulate the work area as required for compliance with OSHA regulation Title 29 CFR, Part 1926.1101 to prohibit non-trained workers from entering areas where ACM are to be removed.

D. Isolate heating, ventilation, and air conditioning (HVAC) air systems or other openings into the building to prevent contamination and fiber dispersal to interior areas of the building or structure. During the work, any vents or openings to the building interior within 10 feet of the regulated work area shall be covered with two layers of 6-mil poly, and completely sealed with duct tape.

E. The Contractor shall establish a worker decontamination unit directly adjacent to the regulated work area when feasible, and remote only if it is not feasible, to locate the unit directly adjacent the regulated area. The decontamination area shall be equipped with 6-mil polyethylene sheeting floor, operational HEPA Vacuum, wash station, waste bags, disposable towels, and clean suits.

F. The Contractor shall spray ACM with amended water using airless spray equipment, or apply approved removal wetting agent to ensure no visible emissions during removal of non-friable materials.

G. After completion of stripping/removal work, all surfaces from which ACM has been removed shall be wet cleaned or cleaned by an equivalent method to remove all visible suspect ACM (wire brushes are prohibited). During this work, the surfaces being cleaned shall be kept adequately wet, without causing a safety hazard or creating puddles or runoff.

H. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. Waste 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.

I. At any time during asbestos abatement should the Consultant suspect contamination of areas outside the work area(s), they shall 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 air sampling and visual inspections indicate acceptable decontamination.

J. The Consultant shall conduct a final visual inspection of the work area. If residual suspect ACM debris is identified during the course of the final inspection, the Contractor shall comply with the Consultant’s request to render the area clean of all residual ACM.

3.7 CONSULTANT'S RESPONSIBILITIES

A. Air sampling may be conducted by the Consultant to ascertain the integrity of the controls that protect the building from asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees, and to comply with OSHA regulations.

B. The Consultant's Asbestos Project Monitor may collect and analyze air samples during the following period:

1. Abatement Period. If required, or retained for this service, the Consultant's Asbestos Project Monitor shall collect samples on a daily basis during the work period. A sufficient number of area samples shall be collected outside of the work area, at the exhaust of the negative pressure system, and outside of the building to evaluate the degree of cleanliness or contamination of the building during removal. At the discretion of the Consultant's Asbestos Project Monitor, additional air samples may be collected inside the work area and decontamination enclosure system.
    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 clean-up procedure. The Contractor shall conduct a thorough clean-up of the building areas designated by the Consultant. No further removal work may occur until the Consultant has determined through air sample collection and analysis that the airborne fiber concentrations are at or below the CTDPH re-occupancy standard.

C. The Consultant shall collect and analyze air samples during the following period:

1. Post-Abatement Period. If required, the Consultant's Asbestos Project Monitor shall conduct air sampling following the final clean-up phase of the project, once the "no visible residue" criterion, as established by the Consultant's Asbestos Project Monitor, has been met and the work area has been encapsulated by the Contractor. Five air samples shall be collected inside the work area utilizing aggressive methods to comply with the CTDPH Standards for Asbestos Abatement Section 19a-332a-12.

a. Final re-occupancy air clearance sampling shall be conducted by the Consultant's Asbestos Project Monitor in accordance with the CTDPH requirements using one of the following methods:
   1) Transmission Electron Microscopy (TEM) method with an average limit of less than 70 s/mm^2 of filter surface.
   2) Phase Contrast Microscopy (PCM) with a total airborne fiber concentration limit of less than or equal to 0.010 fibers/cc.

D. The Owner shall be responsible for payment for the initial final clearance air sampling performance only. If the first set of samples fail 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.

E. If retained, the Consultant's Asbestos Project Monitor shall provide continual evaluation of the air quality of the building during removal, using their best professional judgment in respect to the CTDPH guideline of 0.010 fibers/cc, and the background air quality established during the pre-abatement period.

F. Pre-abatement and abatement air samples shall be collected as required to obtain a volume of 1,200 liters. Samples shall be analyzed by PCM NIOSH 7400 Method.

3.8 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. The Consultant shall conduct inspections throughout the progress of the abatement project. Inspections shall be conducted to document the abatement work progress, as well as the procedures and practices employed by the Contractor.

B. The Consultant may perform the following inspections during the abatement 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 noted during the pre-commencement inspection, the Contractor shall perform the necessary adjustments to obtain compliance.
2. Work Area Inspections. Work area inspections shall 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 barrier integrity, monitor negative air filtration devices, assess project progress, and if deficiencies are noted, inform the abatement Contractor of specific remedial activities.

C. The Consultant shall perform the following inspections during the abatement activities:

1. Pre-sealant Inspection. Upon the request of the Contractor, the Consultant shall conduct a pre-sealant inspection. The Consultant shall be informed 24 hours prior the time that the inspection is needed. The pre-sealant inspection shall be conducted after completion of the initial cleaning procedures, but prior to encapsulation. The pre-sealant inspection shall verify that all ACM and residual debris have been removed from the work area. If the Consultant identifies residual dust or debris during the pre-sealant inspection, the Contractor shall comply with the request of the Consultant to render the area "dust free".
2. Final Visual Inspection. Upon request of the abatement Contractor, the Consultant shall conduct a final visual inspection. Following the removal of the inner layer of poly sheeting,

but prior to final air clearance, the Consultant shall conduct a final visual inspection inside the work area. If residual dust or debris is identified during the final inspection, the Contractor shall comply with the request of the Consultant to render the area "dust free".

3.9 RE-OCCUPANCY AIR CLEARANCE AIR TESTING

A. After the visual inspection is completed and all surfaces in the abatement area have dried, the Consultant shall conduct final re-occupancy air clearance sampling. Aggressive air monitoring will be used. Selection of location and of samples shall be the responsibility of the Consultant. Air monitoring volumes shall be sufficient to provide a detection limit of 0.010 fibers/cc using PCM NIOSH Method 7400, or a detection limit of 70 s/mm^2 utilizing TEM analysis as required.

B. Areas that do not comply with the Standard for Cleaning for Initial Clearance shall continue to be cleaned by, and at, the Contractor's expense until the specified Standard of Cleaning is achieved, as evidenced by results of air testing results, as previously specified. This shall include all Consultant-based costs.

C. 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 Asbestos Project Monitor will conduct air sampling.

3.10 ASBESTOS DISPOSAL

A. Asbestos-containing and/or asbestos-contaminated material disposal must be in compliance with requirements of, and authorized by the EPA, CTDEEP, and the State of Connecticut.

B. Disposal approvals shall be obtained before commencing asbestos removal.

C. A copy of approved disposal authorization shall be provided to the Owner and the Consultant, and any required federal, state, or local agencies.

D. Copies of all fully executed Waste Shipment Records (WSR) will be retained by the Consultant as part of 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 will sign the WSR, and the quantity of asbestos debris leaving the Site, and arriving at the landfill is documented for the Owner.

E. All asbestos debris 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 DOT requirements.

F. 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.

G. Any incident and/or accident that may result in spilling or exposure of asbestos waste outside the containment, on and off the property, and all related issues shall be the sole responsibility of the Contractor.

END OF SECTION 02 82 13

SECTION 02 83 19 – LEAD PAINT AWARENESS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. General Provisions of Contract, including General Supplementary Conditions shall apply to this Section.

B. Fuss & O'Neill, Inc. (Fuss & O'Neill) Limited Hazardous Building Materials Inspection Report dated February 1, 2024 (Attachment A).

C. Asbestos Abatement Section 02 82 13.

D. Hazardous Materials Abatement Drawings HM-01 through HM-03.

E. Architectural MEP Drawings M-001.00 through P-005.00

1.2 SUMMARY OF WORK

A. Work of this Section includes requirements for worker protection and waste disposal related to impact of building materials during HVAC renovations involving lead-based paint (LBP)-coated building components and surfaces (the "Work) at the Cyrenius H. Booth Library (the "Site").

B. The procedures referenced herein shall be utilized during required tasks related to the HVAC renovation work specified elsewhere that may impact building components coated with LBP. The following exterior painted components were determined to be coated with LBP by lead determination utilizing X-Ray Fluorescence (XRF):

Original 1932 Building:
1. Wood Components;
2. Metal Radiators and Radiator Covers; and
3. Metal Structural Steel Components.

C. The repair/replacement work impacting LBP and lead-containing paint 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 lead is involved in the demolition waste stream.**

D. Construction activities disturbing surfaces with LBP and lead-containing paint 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 technical sections of the Contract Documents shall also be in conformance with this Technical Specification Section 02 83 19 for Lead Paint Awareness.

1.3 DEFINITIONS

A. The following definitions relative to LBP 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-hour time-weighted average (TWA) as defined by OSHA. The current action level is thirty micrograms per cubic meter (30 $\mu g/m^3$) of air.
2. 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.
3. Biological Monitoring - The analysis of a person's blood and/or urine, to determine the level of lead concentration in the body.
4. CDC - The Center for Disease Control.
5. Change Room - An area provided with separate facilities for clean protective work clothing and equipment and for street clothes, which prevents cross-contamination.
6. Component 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.
7. Consultant - Fuss & O'Neill, Inc.
8. USEPA - United States Environmental Protection Agency.
9. Exposure Assessment - An assessment conducted by an employer to determine if any employee may be exposed to lead at or above the action level.
10. 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.
11. HUD - United States Housing and Urban Development.
12. Lead - Refers to metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.
13. Lead Work Area - An area enclosed in a manner to prevent the spread of lead dust, paint chips, or debris resulting from lead containing paint disturbance.
14. Lead Paint - Refers to paints, glazes, and other surface coverings containing a toxic level of lead.
15. MSHA - Mine Safety and Health Administration.
16. NARI - National Association of The Remodeling Industry.
17. NIOSH - National Institute of Occupational Safety and Health.
18. OSHA - Occupational Safety and Health Administration.
19. Owner – Town of Newtown, Connecticut. An employee or executive who has the principle responsibility for a process, program, or project.
20. Permissible Exposure Limit (PEL) - The maximum allowable limit of exposure to an airborne concentration of lead over an eight (8)-hour TWA, as defined by OSHA. The current PEL is fifty micrograms per cubic meter of air (50 $\mu g/m^3$). Extended workdays lower the PEL by the formula: PEL equals 400 divided by the number of hours of work.
21. Personal Monitoring - Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average 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 18-inches and centered at the nose or mouth of an employee.

22. Resource Conservation and Recovery Act (RCRA) - RCRA establishes regulatory levels of hazardous chemicals. There are eight (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.
23. SDS - Safety Data Sheets.
24. TWA - Time Weighted Average.
25. Toxic Level of Lead - A level of lead, when present in dried paint or plaster, contains equal to or 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. (Term is specific to State of CT regulations and HUD guidelines only.)
26. Toxicity Characteristic Leaching Procedure (TCLP) - The United States Environmental Protection Agency (EPA) required sample preparation and analysis for determining the hazard characteristics of a waste material.

1.4 REGULATIONS AND STANDARDS

A. The following regulations, standards, and ordinances of federal, state, and local agencies are applicable and made a part of this specification by reference:

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 49 CFR, Part 172 - Hazardous Materials Tables and Communication Regulations
   j. Title 49 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
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 project site, to include the following:
   a. A description of work activity involving lead including equipment used, included material, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices.
   b. Methods of engineering controls to be 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. Identification of hazardous wastes
   b. Estimated quantity of waste to be disposed
   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
   i. Spill prevention, containment, and countermeasure plan (SPCC)
   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, approval to wear respiratory protection and biological monitoring.

E. Training

1. The Contractor shall ensure that workers are trained to perform lead paint 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 six 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, 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 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 video documentation showing the existing building conditions prior to the start of work. The Contractor shall be responsible for all costs associated with damage to the building and its contents that are not shown on the video documentation.
5. Submit the plans and construction details for the construction of the decontamination systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.
6. 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.
7. Submit workers' valid training certificates.
8. Submit record of successful respirator fit testing performed by a qualified individual within the previous six months, for each employee to be used on this project with the employee's name and social security number with each record.
9. Submit the name and address of Contractor's blood lead testing lab, OSHA Center for Disease Control (CDC) listing, and certification in the State of Connecticut.
10. Submit detailed product information on all materials and equipment proposed for demolition work on this project.
11. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project, as well as a list of past projects completed.
12. Submit a chain-of-command for the project.
13. Submit a site-specific Emergency Action Plan for the project.
14. Submit a written site-specific written Respiratory Protection Program for employees for the Work, including make, model and NIOSH approval numbers of respirators to be used at the Site (if applicable).

15. 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.

B. The following shall be submitted to the Consultant during the Work:

1. Results of personal air sampling
2. Training and medical records for new employees to start Site work (24-hours in advance)

C. 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 landfill's authorized 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 action level.
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 (8-hour TWA).
4. During the period of the exposure assessment, the Contractor shall institute the following procedures for protection of workers:
   a. Protective clothing shall be utilized
   b. Respiratory protection
   c. Change areas shall be provided
   d. Hand washing facilities and shower
   e. Biological monitoring
   f. Training of workers

B. Respiratory Protection

1. The Contractor shall furnish appropriate respirators approved by the National Institute of Occupational Safety and Health (NIOSH)/Mine Safety and Health Administration (MSHA) 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 elements 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 lead paint shall be the half-face air purifying respirator with a minimum of dual P100 filter cartridges for exposures (not in excess of 500 $\mu g/m^3$ 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 complete disposable coverall suits.
3. Removal workers shall not be limited to two (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 control 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 or 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 lead paint disturbing work. The results of such air sampling shall be posted, provided to individual workers, and submitted to the Owner/Consultant 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. Personal air samples need not be collected every day after the first day, if working conditions remain unchanged, but 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 8-hour TWA. The Contractor shall be responsible for personal air sampling as outlined in OSHA Title 29 CFR, Parts 1910.1025 & 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, flow rate, sample duration, sample yield, cassette size, and analysts' name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in $\mu g/m^3$.

C. Testing Laboratory.

1. The Contractor's testing lab shall be currently participating in the American Industrial Hygiene Association’s (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP). The Contractor shall submit to the Engineer 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 of all materials and equipment and samples of all materials 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 MATERIALS 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 available sufficient inventory or dated purchase orders for materials necessary for the project including protective clothing, respirators, filter cartridges, polyethylene (poly) sheeting of proper size and thickness, tape, and air filters.

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 inches long (minimum), pointed and looped to secure filled plastic 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 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 abatement operations. The use of powered equipment without HEPA exhausts on this Site shall be prohibited.

2.3 TOOLS AND EQUIPMENT

A. Provide suitable tools for all lead disturbing operations.

B. The Contractor shall have available power cables or sources such as generators (where required).

C. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining 99.97% of all mono-dispersed particles of 0.3 micrometers in diameter.

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, respiratory and other PPE, and biological monitoring for each worker and ensure proper usage during potential lead exposure and the initial exposure assessment.

B. Workers who will perform procedures must have completed one of the following training courses:

1. EPA Lead Abatement Supervisor (40-hours)
2. EPA Lead Abatement Worker (32-hours)
3. EPA “Lead Safe Work Practices” Renovation Repair and Painting (RRP) Training (8 hours)
4. Lead Awareness training in accordance with the OSHA Lead-in-Construction Standard (29 CFR 1926.62)

3.3 CONTRACTOR'S RESPONSIBILITIES

A. The Contractor shall be responsible for establishing and maintaining controls referenced herein to prevent dispersal of lead contamination from 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 WORKER HYGIENE PRACTICES (*Required during initial exposure assessment and if results of air sampling are above OSHA Action Level*)

A. Work Area Entry.

1. Workers shall don PPE prior to entering work area, including respiratory protection, disposable coveralls, gloves, headgear, and footwear.

B. Work Area Departure.

1. While leaving respirators on, workers shall remove all gross contamination, debris, and dust from disposable coveralls, then proceed to change room and 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 later 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 a ground fault circuit interrupter (GFCI).

3.5 LEAD WORK AREA (***Required during initial exposure assessment and if results of air sampling are above OSHA Action Level***)

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:

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

B. The Contractor shall designate a change room as specified in this Section. The change room shall consist of two layers of 6-mil thickness 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 and provide a portable shower unit.

D. The Contractor shall place 6-mil poly drop cloths 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 using a HEPA filter equipped vacuum the adjacent surfaces to remove dust and debris.

C. Poly drop cloths shall be cleaned and properly disposed of general construction and demolition waste.

3.7 WASTE DISPOSAL

A. The Contractor's contractual liability shall be the proper disposal of all non-hazardous wastes generated at the Site in accordance with all applicable federal, state, and local regulations as referenced herein.

1. Fuss & O'Neill, Inc. did not collect a sample for TCLP analysis for disposal characterization of the anticipated waste stream. The Consultant shall be responsible for collecting a waste characterization sample for TCLP analysis if identified lead painted components are included in the waste stream, as is required by the disposal site. Results of the TCLP analysis shall be forwarded by the Consultant to the Contractor prior to the waste being transported off Site. If the analytical result of the TCLP is ≥ 5.0 milligrams per liter (mg/L), the waste shall be considered hazardous and transported and disposed of as such. If the analytical result of the TCLP is < 5.0 milligrams per liter (mg/L), the waste shall be considered non-hazardous and transported and disposed as such.

2. Removed metal components shall be recycled.

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.

3.9 CONSULTANT'S RESPONSIBILITIES

A. The Consultant may conduct air sampling to ascertain the integrity of controls that protect the environment from possible lead contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

B. The Consultant's project monitor may collect and analyze air samples during the following period:

1. Demolition Period. If required, the Consultant shall collect air samples on a daily basis during the work period. A sufficient number of area air samples shall be collected outside of the work area, to evaluate the degree of cleanliness or contamination of the environment during removal. Additional air samples may be collected inside the work area and decontamination system, at the discretion of the project monitor.

C. If the Consultant determines that the building air quality has become contaminated from the project, they shall immediately inform the Contractor to cease all demolition operations and implement a work stoppage clean-up procedure. The Contractor shall conduct a thorough clean-up of the areas designated by the Consultant. No further removal work may occur until the Consultant has assessed that the air and/or surfaces have been decontaminated and the source of the contamination has been rectified.

D. Pre-abatement and abatement air samples shall be collected as required to obtain a volume of 600 liters of air. Air samples shall be analyzed by NIOSH Method 7300 sampling protocol.

3.10 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. The Consultant may conduct inspections throughout the progress of the demolition project. Inspections shall be conducted to document the progress of the work, as well as the procedures and practices employed by the Contractor.

B. The Consultant (if retained) shall perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the Contractor. The Consultant shall be informed a minimum of 12 hours prior to the time the inspection is required. If deficiencies are identified during the pre-commencement inspection, the Contractor shall perform the necessary adjustments to obtain compliance.
2. Work Area Inspections. Work area inspections shall be conducted on a daily basis at the discretion of the Consultant. During the work inspections, the Consultant will observe the Contractor's removal methods and procedures, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

END OF SECTION 02 83 19

DRAWINGS HM-01 THROUGH HM-03

NOTE : SEE MANUFACTURERS RISER DIAGRAMS FOR ALL REFRIGERANT PIPE SIZES.

ORIGINAL SECTION OF LIBRARY

- HEAT PUMP REFRIGERANT PIPING TO PENETRATE FACADE RUN UP TO SUSPENDED CEILING AT LOWER LEVEL. DISTRIBUTE TO CONSOLE UNITS AND AIR HANDLERS. RUN CONCEALED WHERE POSSIBLE TO AND EXPOSED WHERE NECESSARY ON LOWER AND MAIN LEVELS. ON UPPER LEVEL ROUTE REFRIGERANT PIPING IN LOWER LEVEL CEILING AND UP TO CONSOLE UNITS UTILIZING EXISTING CHASES WHERE POSSIBLE PIPING TO BE EXPOSED WHERE NECESSARY.

NEWER SECTION OF LIBRARY

- HEAT PUMP REFRIGERANT PIPING TO PENETRATE FACADE AND RUN UP TO SUSPENDED CEILING CONCEALED IN WALL AND DISTRIBUTED TO ALL CONSOLES AND AIR HANDLERS. ALL DISTRIBUTION PIPING TO BE CONCEALED IN WALL. ALL SECOND FLOOR REFRIGERANT PIPING DISTRIBUTION TO BE CONCEALED IN FIRST FLOOR CEILING. UTILIZE EXISTING CHASES TO CONSOLE UNITS WHERE POSSIBLE.
- ALL UPPER LEVEL REFRIGERANT PIPING DISTRIBUTION TO BE CONCEALED IN SECOND FLOOR CEILING UTILIZE EXISTING CHASES TO CONSOLE UNITS WHERE POSSIBLE.
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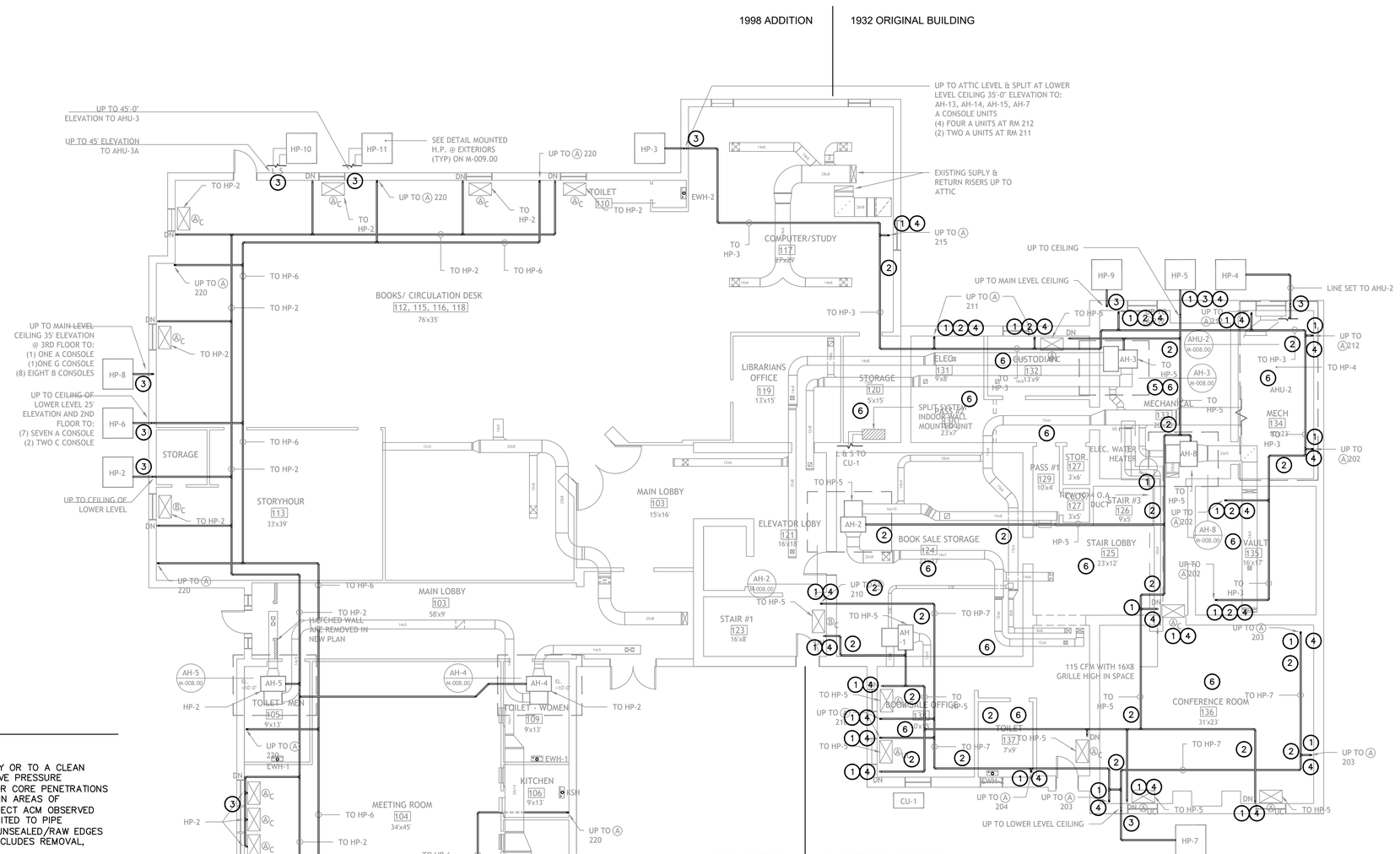

ABATEMENT NOTES

BASE BID:

1. REMOVAL OF PLASTER CEILINGS AND WALLS IN ENTIRETY OR TO A CLEAN MASONRY SUBSTRATE WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE ENCLOSURE (NPE) AS REQUIRED TO ACCESS CHASES, OR CORE PENETRATIONS TO RUN NEW LINE SETS OR OTHER MEP COMPONENTS. IN AREAS OF WALL/CEILING REMOVAL TO ACCESS CHASES, ANY SUSPECT ACM OBSERVED WITHIN THE NPE REMOVAL AREA SUCH AS BUT NOT LIMITED TO PIPE INSULATION SHALL BE REMOVED WITHIN THE NPE. ALL UNSEALED/RAW EDGES SHALL BE SEALED WITH PENETRATING ENCAPSULANT. INCLUDES REMOVAL, PACKAGING & DISPOSAL OF ALL WASTE AS ACM.
2. INSTALLATION OF ANCHOR BOLTS IN PLASTER CEILINGS AND WALLS WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE CONTAINMENT AS REQUIRED TO HANG NECESSARY EXPOSED MEP COMPONENTS, OR CORE PENETRATIONS TO RUN NEW LINE SETS.

ADD/ALTERNATE BID:

3. CORE/PENETRATION THROUGH EXTERIOR WALLS WITH ASBESTOS VAPOR BARRIER AS REQUIRED TO RUN NEW LINE SETS OR OTHER MEP COMPONENTS FROM EXTERIOR OF BUILDING.
4. REMOVAL AND DISPOSAL PIPE AND PIPE FITTING INSULATION ENCOUNTERED WITHIN PIPE CHASES CEILINGS OR WALLS AS REQUIRED FOR DEMOLITION OR FOR NEW MEP SYSTEMS INSTALLATION, WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE CONTAINMENT.
5. DISMANTLE TWO BOILERS WITHIN A NEGATIVE PRESSURE CONTAINMENT AND REMOVE/DISPOSE OF ALL NON–METALLIC COMPONENTS AS ACM. INCLUDES REMOVAL AND RECYCLING OF ALL METAL COMPONENTS.
6. INTACT REMOVAL AND DISPOSAL OF MECHANICAL AND PLUMBING NON–METALLIC PIPE FLANGE GASKETS SCHEDULED FOR DEMOLITION AS ACM.

GENERAL NOTES

1. QUANTITIES SHALL BE VERIFIED BY CONTRACTOR DURING THE TIME OF THE WALK–THROUGH. DISCREPANCIES OF AMOUNTS AND/OR LOCATIONS OF ASBESTOS–CONTAINING MATERIALS SHALL BE ADDRESSED PRIOR TO BIDDING THE WORK TO THE OWNER AND CONSULTANT.
2. ALL MATERIALS SHALL BE REMOVED AND DISPOSED OF AS ASBESTOS, INCLUDING, BUT NOT LIMITED TO, CONTAMINATED COMPONENTS BEING REMOVED, SUBSTRATES AND SUSPECT ACM DISCOVERED BEHIND WALLS AND UNDER SILLS, ETC.

LOWER LEVEL PENETRATION PLAN

MARCHETTI CONSULTING ENGINEERS
25 High Ridge Rd
Pound Ridge, NY 10576
P (914) 764-9011
F (914) 764-9012
info@marchetticonsultingengineers.com

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

No.	DESCRIPTION	DATE
1	FOR REVIEW	8-11-2023
2	FOR CONSTRUCTION	12-14-2023
3	FOR CONSTRUCTION	1-10-2024

STAMP & SIGN:

23, MAIN STREET
NEWTOWN, CT, 06470

LOWER LEVEL ASBESTOS ABATEMENT PLAN

PROJECT NUMBER: F&O 20231073.A10/#34-2023
DATE: 2/8/24
DRAWN BY: LWS
CHECKED BY: PGM

HM-01

SCALE: NOT TO SCALE

NOTE : SEE MANUFACTURERS RISER DIAGRAMS FOR ALL REFRIGERANT PIPE SIZES.
ORIGINAL SECTION OF LIBRARY

- HEAT PUMP REFRIGERANT PIPING TO PENETRATE FACADE RUN UP TO SUSPENDED CEILING AT LOWER LEVEL DISTRIBUTE TO CONSOLE UNITS AND AIR HANDLERS. RUN CONCEALED WHERE POSSIBLE TO AND EXPOSED WHERE NECESSARY ON LOWER AND MAIN LEVELS. ON UPPER LEVEL ROUTE REFRIGERANT PIPING IN LOWER LEVEL CEILING AND UP TO CONSOLE UNITS UTILIZING EXISTING CHASES WHERE POSSIBLE PIPING TO BE EXPOSED WHERE NECESSARY.

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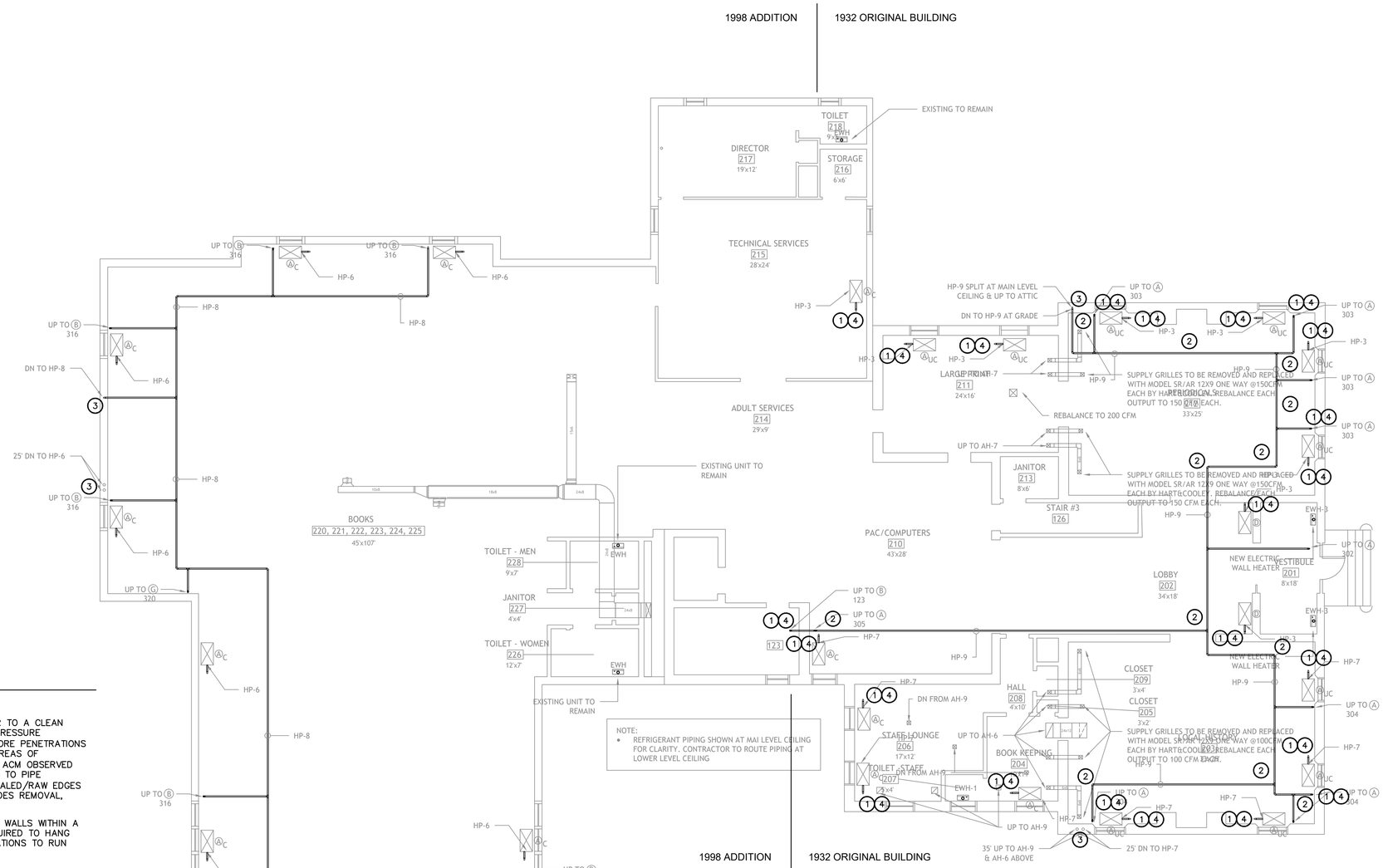
- ALL UPPER LEVEL REFRIGERANT PIPING DISTRIBUTION TO BE CONCEALED IN SECOND FLOOR CEILING UTILIZE EXISTING CHASES TO CONSOLE UNITS WHERE POSSIBLE.



ABATEMENT NOTES

BASE BID:

1. REMOVAL OF PLASTER CEILINGS AND WALLS IN ENTIRETY OR TO A CLEAN MASONRY SUBSTRATE WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE ENCLOSURE (NPE) AS REQUIRED TO ACCESS CHASES, OR CORE PENETRATIONS TO RUN NEW LINE SETS OR OTHER MEP COMPONENTS. IN AREAS OF WALL/CEILING REMOVAL TO ACCESS CHASES, ANY SUSPECT ACM OBSERVED WITHIN THE NPE REMOVAL AREA SUCH AS BUT NOT LIMITED TO PIPE INSULATION SHALL BE REMOVED WITHIN THE NPE. ALL UNSEALED/RAW EDGES SHALL BE SEALED WITH PENETRATING ENCAPSULANT. INCLUDES REMOVAL, PACKAGING & DISPOSAL OF ALL WASTE AS ACM.
2. INSTALLATION OF ANCHOR BOLTS IN PLASTER CEILINGS AND WALLS WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE CONTAINMENT AS REQUIRED TO HANG NECESSARY EXPOSED MEP COMPONENTS, OR CORE PENETRATIONS TO RUN NEW LINE SETS.

ADD/ALTERNATE BID:

3. CORE/PENETRATION THROUGH EXTERIOR WALLS WITH ASBESTOS VAPOR BARRIER AS REQUIRED TO RUN NEW LINE SETS OR OTHER MEP COMPONENTS FROM EXTERIOR OF BUILDING.
4. REMOVAL AND DISPOSAL PIPE AND PIPE FITTING INSULATION ENCOUNTERED WITHIN PIPE CHASES CEILINGS OR WALLS AS REQUIRED FOR DEMOLITION OR FOR NEW MEP SYSTEMS INSTALLATION, WITHIN A GLOVE–BAG OR NEGATIVE PRESSURE CONTAINMENT.
5. DISMANTLE TWO BOILERS WITHIN A NEGATIVE PRESSURE CONTAINMENT AND REMOVE/DISPOSE OF ALL NON–METALLIC COMPONENTS AS ACM. INCLUDES REMOVAL AND RECYCLING OF ALL METAL COMPONENTS.
6. INTACT REMOVAL AND DISPOSAL OF MECHANICAL AND PLUMBING NON–METALLIC PIPE FLANGE GASKETS SCHEDULED FOR DEMOLITION AS ACM.

GENERAL NOTES

1. QUANTITIES SHALL BE VERIFIED BY CONTRACTOR DURING THE TIME OF THE WALK–THROUGH. DISCREPANCIES OF AMOUNTS AND/OR LOCATIONS OF ASBESTOS–CONTAINING MATERIALS SHALL BE ADDRESSED PRIOR TO BIDDING THE WORK TO THE OWNER AND CONSULTANT.
2. ALL MATERIALS SHALL BE REMOVED AND DISPOSED OF AS ASBESTOS, INCLUDING, BUT NOT LIMITED TO, CONTAMINATED COMPONENTS BEING REMOVED, SUBSTRATES AND SUSPECT ACM DISCOVERED BEHIND WALLS AND UNDER SILLS, ETC.

MAIN LEVEL PENETRATION PLAN

MARCHETTI CONSULTING ENGINEERS
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Pound Ridge, NY 10576
P (914) 764-9011
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info@marchetticonsultingengineers.com

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

No.	DESCRIPTION	DATE
1	FOR REVIEW	8-11-2023
2	FOR CONSTRUCTION	12-14-2023
3	FOR CONSTRUCTION	1-10-2024

STAMP & SIGN:

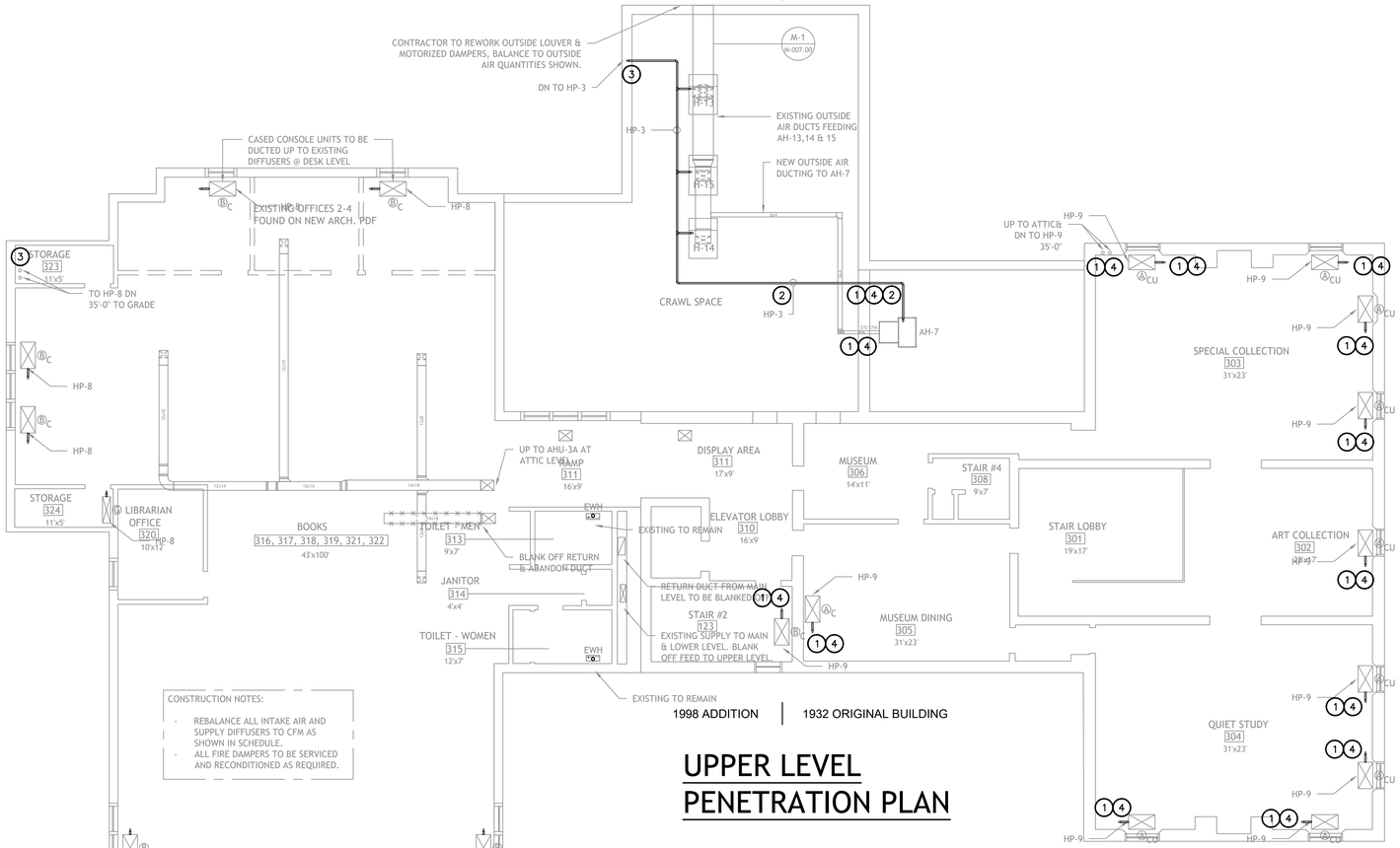
23, MAIN STREET
NEWTOWN, CT, 06470

MAIN LEVEL ASBESTOS ABATEMNET PLAN

PROJECT NUMBER: F&O 20231073.A10/#34-2023	
DATE:	2/8/24
DRAWN BY:	LMS
CHECKED BY:	PGM

HM-02

SCALE: NOT TO SCALE



UPPER LEVEL PENETRATION PLAN

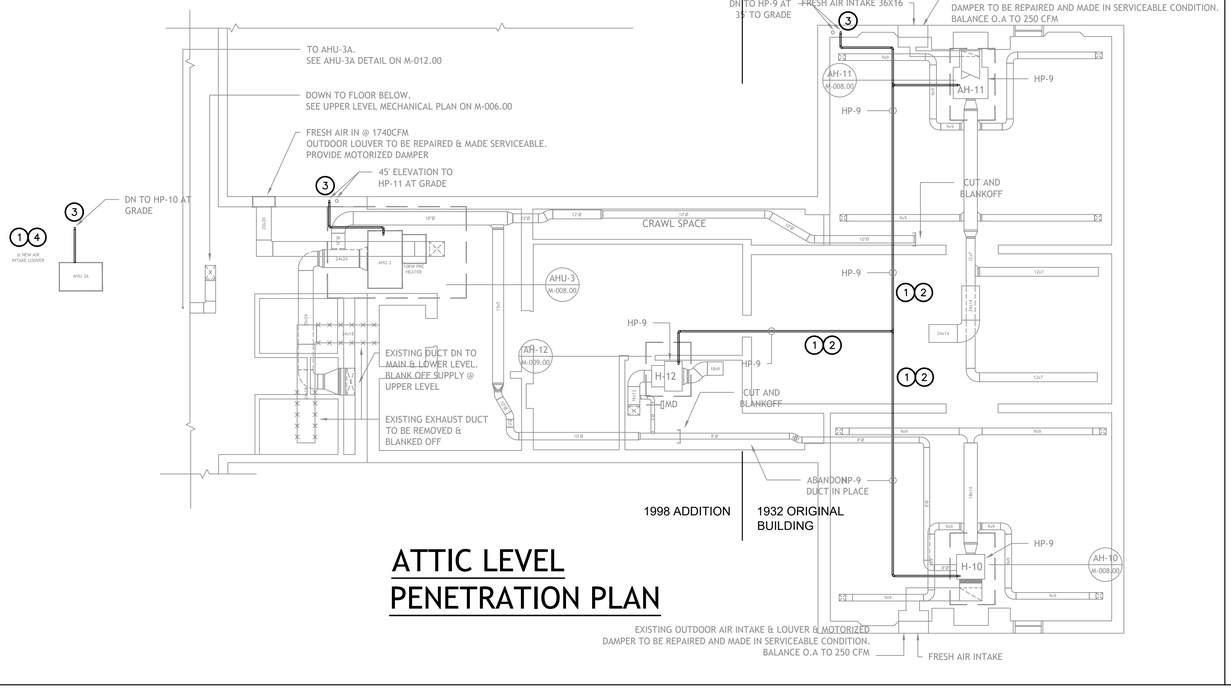
NOTE : SEE MANUFACTURERS RISER DIAGRAMS FOR ALL REFRIGERANT PIPE SIZES.

ORIGINAL SECTION OF LIBRARY

- HEAT PUMP REFRIGERANT PIPING TO PENETRATE FACADE RUN UP TO SUSPENDED CEILING AT LOWER LEVEL DISTRIBUTE TO CONSOLE UNITS AND AIR HANDLERS. RUN CONCEALED WHERE POSSIBLE TO AND EXPOSED WHERE NECESSARY ON LOWER AND MAIN LEVELS. ON UPPER LEVEL ROUTE REFRIGERANT PIPING IN LOWER LEVEL CEILING AND UP TO CONSOLE UNITS UTILIZING EXISTING CHASES WHERE POSSIBLE PIPING TO BE EXPOSED WHERE NECESSARY.

NEWER SECTION OF LIBRARY

- HEAT PUMP REFRIGERANT PIPING TO PENETRATE FACADE AND RUN UP TO SUSPENDED CEILING CONCEALED IN WALL AND DISTRIBUTED TO ALL CONSOLES AND AIR HANDLERS. ALL DISTRIBUTION PIPING TO BE CONCEALED IN WALL.
  ALL SECOND FLOOR REFRIGERANT PIPING DISTRIBUTION TO BE CONCEALED IN FIRST FLOOR CEILING. UTILIZE EXISTING CHASES TO CONSOLE UNITS WHERE POSSIBLE.
- ALL UPPER LEVEL REFRIGERANT PIPING DISTRIBUTION TO BE CONCEALED IN SECOND FLOOR CEILING UTILIZE EXISTING CHASES TO CONSOLE UNITS WHERE POSSIBLE.



ATTIC LEVEL PENETRATION PLAN

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NEWTOWN, CT, 06470

UPPER LEVEL ASBESTOS ABATEMENT PLAN

PROJECT NUMBER:	F&O 20231073.A10/#34-2023
DATE:	2/8/24
DRAWN BY:	LMS
CHECKED BY:	PGM

HM-03

SCALE: NOT TO SCALE

ATTACHMENT A

LIMITED HAZARDOUS BUILDING MATERIALS INSPECTION REPORT DATED FEBRUARY 1, 2024

Limited Hazardous Building Materials Inspection

Inspection Dates: January 22 & 23, 2024
Cyrenius H. Booth Library
25 Main Street
Newtown, CT

Cyrenius H. Booth Library

Newtown, CT

February 1, 2024

Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Project No. 20231073.A10

FUSS & O'NEILL

February 1, 2024

Mr. David Schill
Cyrenius H. Booth Library
25 Main Street
Newtown, CT 06470

Re: Limited Hazardous Building Materials Inspection
Cyrenius H. Booth Library
25 Main Street, Newtown, CT
Fuss & O'Neill Project No. 20231073.A10

Dear Mr. Schill:

Enclosed is the report for the limited hazardous building materials inspection conducted in response to the proposed HVAU upgrade renovations for the Cyrenius H. Booth Library located at 25 Main Street, Newtown, CT ("the Site"). The work was conducted for Cyrenius H. Booth Library (the "Client").

The services were performed on January 22 & 23, 2024 by a Fuss & O'Neill, Inc. certified inspectors and included a limited asbestos-containing material (ACM) inspection, and lead-based paint (LBP) screening. The information summarized in this report is for the above-mentioned materials only. The work was performed in accordance with the RFP to Perform Hazardous Materials Inspection and Environmental Services for HVAC Upgrades at CH Booth Library, Newtown Connecticut, Marchetti Penetration Plan Drawings M-012.00 through M-015.00 Dated July 10, 2023 and our written proposal dated December 28, 2023.

If you should have any questions regarding the contents of this report, please do not hesitate to contact me at (860) 783-4673. Thank you for this opportunity to have served your environmental needs.

Sincerely,

Eric Cooley
Project Manager

EC/kr

Enclosure

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Connecticut
Maine
Massachusetts
New Hampshire
New York
Rhode Island
Vermont

Table of Contents

Limited Hazardous Building Materials Inspection Report
25 Main Street, Newtown, CT
Cyrenius H. Booth Library

1 Introduction

On January 22 & 23, 2024, Fuss & O'Neill, Inc. (Fuss & O'Neill) representatives Eric Cooley and Nolan Carrier performed a limited hazardous building materials inspection for the proposed HVAC renovations at the Cyrenius H. Booth Library located at 25 Main Street in Newtown, Connecticut (the "Site"). The work was conducted for Cyrenius H. Booth Library (the "Client") in accordance with the RFP to Perform Hazardous Materials Inspection and Environmental Services for HVAC Upgrades at CH Booth Library, Newtown Connecticut, Marchetti Penetration Plan Drawings M-012.00 through M-015.00 Dated July 10, 2023 and our written scope of services dated December 28, 2023 and is subject to the limitations included in *Appendix A*.

The limited inspection included the following:

- Limited asbestos-containing material (ACM) inspection;
- Lead-based paint (LBP) screening;

This limited hazardous building materials inspection was performed in response to the proposed HVAC renovation activities and included sampling materials anticipated to be impacted by wall/ceiling penetrations for new HVAC system installation and existing mechanical components potentially being removed.

This inspection was limited to non-invasive and discrete sampling techniques. Specific areas that were not inspected include the following:

- Areas and building materials that will not be impacted by the renovation;
- Roofing and exterior envelope
- Beneath/behind window and door frames;
- Within mechanical equipment;
- Spaces above fixed ceilings, within walls and between and beneath floors; and
- Concealed pipe chases.

We have excluded collection and analysis of building materials for PCBs. Sampling for PCBs is presently not mandated by the Environmental Protection Agency (EPA); however, significant liability risk for disposing of PCB-containing wastes exists. Recent knowledge of PCBs within these matrices has become more prevalent, especially with remediation contractors, waste haulers, and disposal facilities. Many property Owners have become subject to large changes in schedule, scope, and costs as a result of failure to identify this possible contaminant prior to renovation or demolition.

1.1 Building and Mechanical System Description

The building structure includes three full levels with a walk-up attic. The original Building was reportedly constructed in 1932. The building contains approximately 36,000 square feet (SF) of total floor area. According to maintenance and building records, renovations to the building were conducted in the year 1998. The building is heated by an oil-fired hot water system.

The CH Booth Library was originally constructed between 1931 and 1932 and consisted of approximately 13,000 square feet and is listed on the National Registry of Historic Places. The building consists of brick/masonry construction with sound deadening cork floor systems, plaster walls and ceilings. There are three full floor levels plus a walk-up attic. The building received a 23,000 square foot addition in 1998 to increase the overall size to 36,000 Square feet. The building is currently heated by an oil-fired Boiler hot water system utilizing HVAC ducts and unit ventilators.

The building is being considered for an HVAC upgrade from the existing hydronic heating system to a heat and air conditioning system with eleven exterior ground level electric heat pumps, serving new coil units through heat/refrigerant piping. New piping and ductwork will run above ceilings, through walls/chases, and penetrate floors/ceilings of the building.

2 Asbestos Inspection

A property Owner must ensure that a thorough ACM inspection is performed prior to possible disturbance of suspect ACM during renovation or demolition activities. This is a requirement of the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation located at Title 40 CFR, Part 61, Subpart M.

On January 22 & 23, 2023, Eric Cooley and Nolan Carrier of Fuss & O'Neill conducted the limited inspection. Mr. Cooley and Mr. Carrier are State of Connecticut Department of Public Health (CTDPH)-licensed Asbestos Inspectors. Refer to *Appendix B* for the Asbestos Inspector's licenses and accreditation.

2.1 Methodology

The limited inspection was conducted by visually inspecting for suspect ACM and touching each of the suspect materials. The suspect materials were categorized into three EPA NESHAP groups: friable and non-friable Category I and Category II type ACM.

- A Friable Material is defined as material that contains greater than 1 percent (> 1%) asbestos that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category I Non-Friable Material refers to material that contains > 1% asbestos (i.e., packings, gaskets, resilient floor coverings, and asphalt roofing products) that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material excluding Category I materials that contain > 1% asbestos that when dry, **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

The suspect ACM were also categorized into their applications including Thermal System Insulation (TSI), Surfacing ACM (S), and Miscellaneous ACM (M). TSI includes those materials used to prevent heat loss/gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded pipe fitting insulations. Surfacing ACM includes those ACM that are applied by spray, trowel, or otherwise applied to an existing surface. Surfacing ACM is

commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include those ACM not listed as thermal or surfacing, such as linoleum, vinyl asbestos flooring, ceiling tiles, caulking compounds, glues, construction adhesives, etc.

The EPA recommends collecting suspect ACM samples in a manner sufficient to determine asbestos content and to segregate each suspect type of homogeneous (similar in color, texture, and date of application) materials. The EPA NESHAP regulation does not specifically identify a minimum number of samples to be collected for each homogeneous material, but the NESHAP regulation does recommend the use of sampling protocols included in Title 40 CFR, Part 763, Subpart E: Asbestos Hazard Emergency Response Act (AHERA).

The EPA AHERA regulation requires a specific number of samples be collected based on the type of material and quantity present. This regulation includes the following protocol:

1. Surfacing Materials (S) (i.e., plasters, spray-applied fireproofing, etc.) must be collected in a randomly distributed manner representing each homogeneous area based on the overall quantity represented by the sampling as follows:

    a. Three (3) samples collected from each homogeneous area that is less than or equal to 1,000 square feet.
    b. Five (5) samples collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
    c. Seven (7) samples collected from each homogeneous area that is greater than 5,000 square feet.

2. Thermal System Insulation (TSI) (i.e., pipe insulations, tank insulations, etc.) must be collected in a randomly distributed manner representing each homogeneous area. Three (3) samples must be collected from each material. Also, a minimum of one (1) sample of any patching materials applied to TSI presuming the patched area is less than 6 linear or square feet should be collected.

3. Miscellaneous materials (M) (i.e., floor tile, gaskets, construction mastics, etc.) should have a minimum of two (2) samples collected for each type of homogeneous material. Sample collection was conducted in a manner sufficient to determine asbestos content of the homogeneous material as determined by the inspector.

The inspector collected samples of those suspect ACM anticipated to be disturbed by the proposed renovation activities and prepared a proper chain of custody form for transmission of the samples to EMSL Analytical, Inc. (EMSL) for analysis. EMSL is a State of Connecticut-licensed and American Industrial Hygiene Association (AIHA)-accredited asbestos laboratory. The sample locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in **Table 1** attached hereto. Suspect ACM not listed in the table that may be identified later at the Site, should be assumed to be ACM until sample collection and analysis indicate otherwise. Initial asbestos sample analysis was conducted using the EPA Interim Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS).

If samples of suspect materials could not be collected or were inaccessible but observed elsewhere, these materials were assumed to contain asbestos and the inspector's approximated quantities. The exterior and roof were not included in the scope of work for this limited inspection. Also, intrusive or destructive investigative techniques were not performed at the Site to access and observe concealed areas that may have had suspect ACM that were hidden or obstructed from normal view. Hard enclosures or obstructed areas typically include, but are not limited to, the following:

- Wall cavities;
- Pipe chases;
- Spaces above fixed ceilings;
- Foundation walls;
- Spaces behind the brick façade;
- Vapor/moisture barrier under floors, within walls or on concrete foundations.

Subsurface investigations including, but not limited to, concrete foundations were not performed. Also, Fuss & O'Neill did not conduct subsurface investigations to identify suspect cementitious pipe throughout the Site.

2.2 Results

Utilizing the EPA protocol and criteria, the following materials were determined to contain asbestos:

- Grey single composition rough finish plaster; and
- Double composition smooth white finish with grey base coat plaster.

The following materials were assumed to contain asbestos but could not be inspected and sampled due to the limitations noted:

- Boiler Internal refractory\non-metallic materials;
- Pipe Flange Gaskets of mechanical systems; and
- Vapor Barriers within walls and behind building Façade.

Refer to **Table 1** for a complete list of ACM and non-ACM sampled as part of this limited inspection. Refer to **Table 2** attached hereto for the identified ACM inventory. Refer to *Appendix C* for the asbestos laboratory report and chain of custody form. Refer to *Appendix D* for Site photographs.

2.3 Discussion

The EPA and the Occupational Safety and Health Administration (OSHA) define a material that contains greater than one percent (> 1%) asbestos, utilizing PLM/DS, as being an ACM. The CTDPH defines any material that contains equal to or greater than one percent (≥ 1%) asbestos, utilizing PLM/DS, as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos.

Suspect ACM not identified during this limited inspection should be presumed to contain asbestos until sample collection and laboratory analysis indicate otherwise.

Additionally, the EPA has suggested that materials that are non-friable organically bound (NOB) materials (e.g., asphaltic-based materials, adhesives, etc.) are recommended for further confirmatory analysis utilizing Transmission Electron Microscopy (TEM). Seven of the collected samples were recommended to be analyzed by TEM. The results of TEM analysis are denoted in **Table 1**.

2.4 Conclusions and Recommendations

Based on visual observations, sample collection, and laboratory analysis, asbestos has been identified in some of the materials sampled at the Site.

Prior to disturbance, ACM that would likely be impacted by the proposed renovation activities must first be abated by a state-licensed Asbestos Abatement Contractor. This is a requirement of CTDPH and EPA NESHAP regulations governing asbestos abatement.

Due to the inability to effectively separate some types of multi-layered ACM (e.g., floor tiles and mastics, etc.) from non-ACM, these materials are considered asbestos-contaminated and must be managed as ACM for the purposes of removal and disposal.

Fuss & O'Neill recommends that a comprehensive scope of work and technical specification be developed as part of renovation plans for the Site. We will be developing specifications for inclusion in the overall renovation plans.

Suspect materials encountered during renovation that are not identified in this report as being non-ACM should be presumed to be ACM until sample collection and laboratory analysis indicate otherwise. Prior to renovation that may disturb hidden/inaccessible areas, we recommend conducting a supplemental asbestos inspection of these areas and spaces.

Fuss & O'Neill recommends that if any ACM are to remain in the building following renovation/demolition activities, the materials should be managed in-place under a written Operations and Maintenance Program in accordance with OSHA regulations.

This report is not intended to be utilized as a bidding document or as a project specification document. The report is designed to aid the Client in locating identified ACM.

3 Lead-Based Paint Determination

On January 23, 2024, Mr. Nolan Carrier of Fuss & O'Neill performed a lead-based paint (LBP) determination associated with coated building components at the Site that may be disturbed during renovation activities. An x-ray fluorescence (XRF) analyzer was used to perform the LBP determination. The determination was conducted in accordance with generally accepted industry standards for non-residential (i.e., not child-occupied) buildings.

3.1 Methodology

A Radiation Monitoring Device Model LPA-1, serial number 2171, was utilized for the LBP determination. The instrument was checked for proper calibration prior to use as detailed by the manufacturer and the Performance Characteristic Sheet (PCS) developed for the instruments.

For the purpose of this LBP determination, representative building components were tested as part of this pre-renovation study. Individual repainting efforts are not discoverable in such a limited program. LBP issues involving properties that are not residential are regulated to a limited degree for worker protection relating to paint-disturbing work activities and waste disposal.

Worker protection is regulated by OSHA regulations, as well as CTDPH regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing lead-containing paint. An LBP determination cannot determine a safe level of lead but is intended to provide guidance for implementing industry standards for lead in paint at identified locations. Contractors may then better determine exposure of workers to airborne lead by understanding the different concentrations of LBP activities that disturb paint on representative surfaces.

The EPA Resource Conservation and Recovery Act (RCRA), as well as the Connecticut Department of Energy and Environmental Protection (CTDEEP), regulate disposal of lead-containing waste. Lead-containing materials that will be impacted during renovation or demolition activities, and result in waste for disposal must either be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) analysis if lead is determined to be present in non-residential buildings or be presumed as a hazardous waste. A TCLP sample is a representative sample of the intended waste stream. The results are compared to a threshold value of 5.0 milligrams per liter (mg/L); results equal to or exceeding this value is considered hazardous lead waste. If the result is below the established level, the material is not considered hazardous and may be disposed as general construction debris.

A level of LBP equal to or exceeding 1.0 milligrams of lead per square centimeter (mg/cm^2) by XRF is considered toxic or dangerous for compliance with residential standards. For purpose of this LBP determination the level of 1.0 mg/cm^2 has been utilized as a threshold for areas where possible worker exposures may occur.

3.2 XRF Determination Results

The LBP determination indicated consistent painting trends associated with representative building components that may be impacted by potential renovation work. The following building components were determined to contain levels of lead (equal to or greater than 1.0 mg/cm^2) by XRF:

- White wood trim in the Front Lobby, History Room, Exhibit Room, Special Collection Room;
- White metal radiator in the Special Collection Room;
- White metal radiator cover in the Quiet Study Room; and
- White metal I-beam in the Northeast Storage Room.

Refer to *Appendix E* for the XRF lead determination field data sheets.

3.3 Discussion

OSHA published a Lead in Construction Standard (OSHA Lead Standard) Title 29 CFR, Part 1926.62 in May 1993. The OSHA Lead Standard has no set limit for the content of lead in paint below which the standards do not apply. The OSHA Lead Standards are task based and derived from airborne exposure and blood lead levels.

The results of this LBP determination are intended to provide guidance to contractors for occupational lead exposure controls. Building components coated with lead levels above industry standards may cause exposures to lead above OSHA standards during proposed demolition and renovation activities. The results of this determination are also intended to provide insight into waste disposal requirements, in accordance with EPA RCRA regulations. The materials identified with lead coatings mat not be impacted by renovations with the exception of radiator units\covers units that are metal and if recycled do not require waste characterization sampling. Due to the destructive nature, TCLP sampling was not conducted.

3.4 Conclusion and Recommendations

Based on our LBP determination results, LBP is present on coated building components located in the building that were tested by XRF as part of this limited inspection.

Contractors must be made aware that OSHA has not established a level of lead in a material below which Title 29 CFR, Part 1926.62 does not apply. Contractors shall comply with exposure assessment criteria, interim worker protection, and other requirements of the regulation as necessary to protect workers during any renovation work that will impact lead paint.

If disturbed by renovation or demolition activities, LBP-coated building components should be segregated from the general waste stream for sample collection and analysis by TCLP to determine proper off-site waste disposal. If disturbed and managed off-site, non-porous LBP-coated building materials (i.e., metals) may be segregated and recycled as scrap metal. Metal LBP-coated building components cannot be subject to grinding, sawing, drilling, sanding, or torch cutting.

Note that future work involving surface preparation of identified painted surface(s) must be performed in accordance with OSHA worker protection requirements, as well as EPA Renovation, Repair and Painting Rule (RRP).

The building is not considered a "child-occupied facility" and therefore, it is not subject to lead safe renovation requirements. If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested.

If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested. Contractors should be aware that the threshold limit of 1.0 mg/cm^2 for

purposes of RRP requirements is not recognized by OSHA and workers exposures are still subject to lead in construction regulation 29 CFR 1926.62 regardless of paint testing results.

Report prepared by Environmental Technician, Nolan Carrier.

Reviewed by:

Eric Cooley
Project Manager

Carlos Texidor
Associate

Tables

FUSS & O'NEILL

Table 1
Summary of Suspect Asbestos-Containing Materials

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
01A-NC-012224	1998 Lower-Level Lobby #103 on Structural Beams	Grey Spray-on Fireproofing	ND	PLM
01B-NC-012224	1998 Lower-Level Mechanical Room #103 on Structural Beams	Grey Spray-on Fireproofing	ND	PLM
01C-NC-012224	1998 Lower-Level Meeting Room on Structural Beams	Grey Spray-on Fireproofing	ND	PLM
01D-NC-012224	1932 Upper-Level "Closet" after ramp on Structural Beams	Grey Spray-on Fireproofing	ND	PLM
01E-NC-012224	1998 Main-Level "Books 200-225" on Structural Beams	Grey Spray-on Fireproofing	ND	PLM
02A-NC-012224	1932 Lower-Level "Pass #1"	2'x2' Gypsum Board Suspended Ceiling Tile	ND	PLM
02B-NC-012224	1932 Lower-Level "Pass #1"	2'x2' Gypsum Board Suspended Ceiling Tile	ND	PLM
03A-NC-012224	1998 Lower-Level Books/Circulation Desk	2'x4' Sand-Finished Suspended Ceiling Tile	ND	PLM
03B-NC-012224	1998 Lower-Level Books/Circulation Desk	2'x4' Sand-Finished Suspended Ceiling Tile	ND	PLM
04A-NC-012224	1932 Lower-Level Conference Room #136	9"x9" Perforated Concealed Spline Suspended Ceiling Tile	ND	PLM
04B-NC-012224	1932 Lower-Level Conference Room #136	9"x9" Perforated Concealed Spline Suspended Ceiling Tile	ND	PLM
05A-NC-012224	1998 Lower-Level Main Lobby	2'x4' 2'x2' Look Textured, Suspended Ceiling Tile	ND	PLM
05B-NC-012224	1998 Lower-Level Meeting Room	2'x4' 2'x2' Look Textured, Suspended Ceiling Tile	ND	PLM
06A-NC-012224	1998 Lower-Level SW Stairwell	2'x2' Textured/Perforated Suspended Ceiling Tile	ND	PLM
06B-NC-012224	1998 Lower-Level SW Stairwell	2'x2' Textured/Perforated Suspended Ceiling Tile	ND	PLM
07A-NC-012224	1998 Lower-Level Books/Circulation Desk	Fiberglass Pipe Insulation Paper/Foil Wrap	ND	PLM
07B-NC-012224	1932 Lower-Level Conference Room #136	Fiberglass Pipe Insulation Paper/Foil Wrap	ND	PLM
07C-NC-012224	1932 Attic-Level East Storage Room	Fiberglass Pipe Insulation Paper/Foil Wrap	ND	PLM
08A-NC-012224	1998 Lower-Level Books/Circulation Desk	Fiberglass Pipe Insulation Seam Sealant	ND/ND	PLM/TEM
08B-NC-012224	1932 Lower-Level Mechanical Room #133	Fiberglass Pipe Insulation Seam Sealant	ND	PLM

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
09A-NC-012224	1932 Main-Level Lobby #202	1/4" thick Brown Cork Flooring under Carpet Squares	ND	PLM
09B-NC-012224	1932 Upper-Level "Special Collection" Room #303	1/4" thick Brown Cork Flooring under Carpet Squares	ND	PLM
09C-NC-012224	1932 Upper-Level "Quiet Study Room" #304	1/4" thick Brown Cork Flooring under Carpet Squares	ND	PLM
10A-NC-012224	1932 Main-Level Lobby #202	Brown Adhesive Associated with Brown Corkboard on Concrete	ND/ND	PLM/TEM
10B-NC-012224	1932 Upper-Level "Special Collection" Room #303	Brown Adhesive Associated with Brown Corkboard on Concrete	ND	PLM
10C-NC-012224	1932 Upper-Level Storage "Quiet Study Room" #304	Brown Adhesive Associated with Brown Corkboard on Concrete	ND	PLM
11A-NC-012224	1998 Lower-Level Storage Room #108	Grey HVAC Duct Seam Sealant	ND/ND	PLM/TEM
11B-NC-012224	1932 Lower-Level "Pass #1"	Grey HVAC Duct Seam Sealant	ND	PLM
11C-NC-012224	1998 Lower-Level Storage Room #108	Grey HVAC Duct Seam Sealant	ND	PLM
12A-NC-012224	1932 Attic-Level East Storage Room	Red Brick	ND	PLM
12B-NC-012224	1932 Lower-Level Mechanical Room #133	Red Brick	ND	PLM
12C-NC-012224	1932 Lower-Level Mechanical Room #133	Red Brick	ND	PLM
13A-NC-012224	1932 Attic-Level East Storage Room	Grey Mortar Associated with Red Brick	ND	PLM
13B-NC-012224	1932 Lower-Level Mechanical Room #133	Grey Mortar Associated with Red Brick	ND	PLM
13C-NC-012224	1932 Lower-Level Mechanical Room #133	Grey Mortar Associated with Red Brick	ND	PLM
14A-NC-012224	1932 Lower-Level Toilet #137-West Wall	Orange Terracotta Block	ND	PLM
14B-NC-012224	1932 Attic-Level East Storage Room	Orange Terracotta Block	ND	PLM
15A-NC-012224	1932 Attic-Level Toilet #137-West Wall	Grey Mortar Associated with Orange Terracotta Block	ND	PLM
15B-NC-012224	1932 Attic-Level East Storage Room-North Wall	Grey Mortar Associated with Orange Terracotta Block	ND	PLM
16A-NC-012224	1932 Lower-Level Electric Room #120	Grey, Single Composition Rough Finish Wall Plaster on Brick	ND	PLM
16B-NC-012224	1932 Lower-Level Custodian Room #132	Grey, Single Composition Rough Finish Wall Plaster on Brick	ND	PLM
16C-NC-012224	**1932 Lower-Level Electric Room #131**	**Grey, Single Composition Rough Finish Wall Plaster on Brick**	**2.0% Chrysotile**	**PLM**
16D-NC-012224	1932 Lower-Level "Pass #1"	Grey, Single Composition Rough Finish Ceiling Plaster on Metal Lathe	NA/Pos Stop	--------

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
16E-NC-012224	1932 Lower-Level Mechanical Room #133	Grey, Single Composition Rough Finish Ceiling Plaster	NA/Pos Stop	--------
16F-NC-012224	1932 Lower-Level Mechanical Room #134	Grey, Single Composition Rough Finish Ceiling Plaster	NA/Pos Stop	--------
16G-NC-012224	1932 Lower-Level Custodian Room#132	Grey, Single Composition Rough Finish Wall Plaster on Brick	NA/Pos Stop	--------
16H-NC-012324	1932 Attic-Level "Skylight" Area-West Side	Grey, Single Composition Rough Wall Plaster	NA/Pos Stop	--------
16I-NC-012324	1932 Attic-Level "Skylight" Area-South Side	Grey, Single Composition Rough Finish Wall Plaster	NA/Pos Stop	--------
16J-NC-012324	1932 Attic-Level "Skylight" Area-East Side	Grey, Single Composition Rough Finish Wall Plaster	NA/Pos Stop	--------
17A-NC-012224	1932 Lower-Level Mechanical Room #134	Double Composition Wall Plaster on Brick, Smooth Coat	ND	PLM
17A-NC-012224	1932 Lower-Level Mechanical Room #134	Double Composition Wall Plaster on Brick, Base Coat	ND	PLM
17B-NC-012224	1932 Lower-Level Book Sale Storage #124	Double Composition Wall Plaster on Brick, Smooth Coat	ND	PLM
17B-NC-012224	**1932 Lower-Level Book Sale Storage #124**	**Double Composition-Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat**	**3.0% Chrysotile**	**PLM**
17C-NC-012324	1932 Main-Level Lobby Closet #209	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Smooth Coat	NA/Pos Stop	--------
17C-NC-012324	1932 Main-Level Lobby Closet #209	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat	NA/Pos Stop	--------
17D-NC-012224	1932 Lower-Level Toilet #137	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Smooth Coat	NA/Pos Stop	--------
17D-NC-012224	1932 Lower-Level Toilet #137	Double Composition-Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat	NA/Pos Stop	--------
17E-NC-012324	1932 Lower-Level Book Sale Storage #124	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Smooth Coat	NA/Pos Stop	--------
17E-NC-012324	1932 Lower-Level Book Sale Storage #124	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat	NA/Pos Stop	--------
17F-NC-012224	1932 Lower-Level Toilet #137	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Smooth Coat	NA/Pos Stop	--------

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
17F-NC-012224	1932 Lower-Level Toilet #137	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat	NA/Pos Stop	--------
17G-NC-012324	1932 Lower-Level Stair Lobby #135	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Smooth Coat	NA/Pos Stop	--------
17G-NC-012324	1932 Lower-Level Stair Lobby #135	Double Composition -Smooth White Finish\Grey Base Wall Plaster on Brick, Base Coat	NA/Pos Stop	--------
18A-NC-012224	1998 Lower-Level Books/Circulation Desk	Gypsum Wall Board	ND	PLM
18B-NC-012224	1998 Upper-Level Closet After Ramp	Gypsum Wall Board	ND	PLM
18C-NC-012224	1998 Lower-Level SW Stairwell	Gypsum Wall Board	ND	PLM
18D-NC-012224	1998 Main-Level NW "Books 220-225"	Gypsum Wall Board	ND	PLM
19A-NC-012224	1998 Lower-Level SW Stairwell	Gypsum Wall Board Tape & Compound	ND	PLM
19B-NC-012224	1998 Lower-Level Books/Circulation Desk	Gypsum Wall Board Tape & Compound	ND	PLM
19C-NC-012224	1998 Main-Level NW "Books 220-225"	Gypsum Wall Board Tape & Compound	ND	PLM
19D-NC-012224	1998 Lower-Level/Circulation Desk	Gypsum Wall Board Tape & Compound	ND	PLM
19E-NC-012224	1998 Lower-Level "Pass #1" Doorway	Gypsum Wall Board Tape & Compound	ND	PLM
20A-NC-012324	1998 Lower Level Meeting Room #104	Yellow/Green Carpet Adhesive	ND/ND	PLM/TEM
20B-NC-012324	1932 Upper Level Quiet Study Area #304	Yellow/Green Carpet Adhesive	ND	PLM
20C-NC-012324	1998 Main Level Books Area	Yellow/Green Carpet Adhesive	ND	PLM
20D-NC-012324	1932 Upper Level Specific Collection Room #303	Yellow/Green Carpet Adhesive	ND	PLM
20E-NC-012324	1932 Main Level Lobby #202	Yellow/Green Carpet Adhesive	ND	PLM
20F-NC-012324	1932 Upper Level Specific Collection Room #303	Yellow/Green Carpet Adhesive	ND	PLM
20G-NC-012324	1998 Lower Level Meeting Room #104	Yellow/Green Carpet Adhesive	ND	PLM
21A-NC-012324	1932 Main Level Lobby #202	Grey Carpet Adhesive	ND/ND	PLM/TEM
22A-NC-012324	1932 Main Level Lobby #202	Grey Cementitious Leveling Material	ND	PLM
22B-NC-012324	1932 Attic Level East Storage Room	Grey Cementitious Leveling Material	ND	PLM
23A-NC-012324	1932 Lower Level Stair Lobby E. Wall	Reinforced Craft Paper with Asphaltic Face	ND/ND	PLM/TEM

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
23B-NC-012324	1932 Lower Level Stair Lobby E. Wall	Reinforced Craft Paper with Asphaltic Face	ND	PLM
24A-NC-012324	1932 Lower Level Main Stairway NE Corner under Baseboard	Cloth Paper with Asphaltic Face	ND/ND	PLM/TEM
24B-NC-012324	1932 Lower Level Main Stairway NE Corner under Baseboard	Cloth Paper with Asphaltic Face	ND	PLM
25A-NC-012324	1998 Lower Level Main Lobby	Foil Faced Craft Paper Wrap	ND	PLM

NA/Pos Stop = Not Analyzed/Positive Stop
ND = None Detected

Table 2
Summary of Identified and Assumed Asbestos-Containing Materials Inventory

Location	Material Type	Asbestos Content	Estimated Total Quantity	Comments
1932 Lower-Level: Storage 120 & 127, "Pass #1" Hall 129, Electric Room #131, Custodian Room #132, Mechanical Rooms #133 & 134 (ceilings only), Vault 135, and Attic-Level Skylight Enclosure to Roof,	Grey, Single Composition Rough Finish Wall and Ceiling Plaster	2.0% Chrysotile	4,000 SF	Wall plaster on brick and ceiling on metal lathe
1932 Lower-Level: Book Sale Storage #124, Stair Lobby 125, Conference 136, Toilet 137, Office 138, Stair #3 1932 Main & Upper Levels: Throughout	Double Composition White Smooth Top Coat & Grey Base Coat Wall & Ceiling Plaster	3.0% Chrysotile	18,000 SF	Some ceilings and walls are covered with newer drywall. Asbestos plaster assumed beneath

Appendix A

Limitations

FUSS & O'NEILL

LIMITATIONS

Site: Cyrenius H. Booth Library, 25 Main Street, Newtown, CT

1. This inspection report has been prepared for the exclusive use of Cyrenius H. Booth Library (the "Client") and is subject to, and is issued in connection with the terms and conditions of the original Agreement and all of its provisions. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and Fuss & O'Neill, Inc. (Fuss & O'Neill) shall be at the User's individual risk. This report should not be used as an abatement specification. All quantities of materials identified during this inspection are approximate.
2. Fuss & O'Neill has obtained and relied upon information from multiple sources to form certain conclusions regarding likely environmental issues at and in the vicinity of the subject property in conducting this inspection. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information or verify compliance by any party with federal, state or local laws or regulations.
3. Fuss & O'Neill has obtained and relied upon laboratory analytical results in conducting the inspection. This information was used to form conclusions regarding the types and quantities of ACM and LBP that must be managed prior to renovation or demolition activities that may disturb these materials at the Site. Fuss & O'Neill has not performed an independent review of the reliability of this laboratory data.
4. Unless otherwise noted, only suspect hazardous materials associated within or located on the building (aboveground) were included in this inspection. Suspect hazardous materials may exist below the ground surface that were not included in the scope of work of this inspection. Fuss & O'Neill cannot guarantee all asbestos or suspect hazardous materials were identified within the areas included in the scope of work. Only visible and accessible areas were included in the scope of work for this inspection.
5. The findings, observations and conclusions presented in this report are limited by the scope of services outlined in our original Agreement (December 28, 2023), which reflects schedule and budgetary constraints imposed by Client. Furthermore, the assessment has been conducted in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made.
6. The conclusions presented in this report are based solely upon information gathered by Fuss & O'Neill to date. Should further environmental or other relevant information be discovered at a later date, the Client should immediately bring the information to the Fuss & O'Neill's attention. Based upon an evaluation and assessment of relevant information, Fuss & O'Neill may modify the letter report and its conclusions.
7. Fuss & O'Neill has obtained and relied upon information from multiple sources to form certain conclusions regarding likely environmental issues at and in the vicinity of the subject property in conducting this inspection. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information or verify compliance by any party with federal, state or local laws or regulations.

Appendix B

Fuss & O'Neill Inspector Licenses and Accreditations

1000483 SP 1264 -C01-P00485-I

NOLAN CARRIER
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear NOLAN CARRIER,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000483-0000487-0000001 of 0000001-C01-a1d00101-1264-00485

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
NOLAN CARRIER

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-055421	001148	09/30/24

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSPECTOR

NOLAN CARRIER

CERTIFICATE NO.
001148

CURRENT THROUGH
09/30/24

VALIDATION NO.
03-055421

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
NOLAN CARRIER

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-055421	001148	09/30/24

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Nolan Carrier

has successfully completed the

4 Hour Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

Training held via a Live Webinar

Score: 80%

conducted by:
ATC Group Services LLC dba ATLAS Technical
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Gregory J. Morsch

Principal Instructor: Gregory Morsch

May 25, 2023
Date of Course

May 25, 2024
Expiration Date

Gregory J. Morsch

Regional Training Director: Gregory Morsch

SIAR - 7448
Certificate Number

May 25, 2023
Examination Date

1000242 SP 1664 -C01-P00244-I

ERIC W. COOLEY
FUSS & O'NEILL INC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear ERIC W. COOLEY,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000242-0000246-0000001 of 0000001-C01-a1d00101-1664-00244

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
ERIC W. COOLEY

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-003713	000279	01/31/24

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

ERIC W. COOLEY

CERTIFICATE NO.
000279

CURRENT THROUGH
01/31/24

VALIDATION NO.
03-003713

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
ERIC W. COOLEY

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-003713	000279	01/31/24

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Eric Cooley

has successfully completed the

8 Hour Asbestos Site Inspector/Management Planner Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

Course training provided via
Live Webinar

Score: 84%

conducted by:
ATC Group Services LLC dba ATLAS Technical
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Gregory J. Morsch

Principal Instructor: Gregory Morsch

July 13, 2023
Date of Course

July 13, 2024
Expiration Date

Gregory J. Morsch

Regional Training Director: Gregory Morsch

MPAR-3548
Certificate Number

July 13, 2023
Examination Date

1000936 SP 1664 -C01-P00938-I

ERIC W COOLEY
FUSS & O'NEILL INC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear ERIC W COOLEY,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000936-0000941-0000001 of 0000001-C01-a1d00101-1664-00938

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR RISK ASSESSOR

ERIC W COOLEY

CERTIFICATE NO.
002285
CURRENT THROUGH
01/31/24
VALIDATION NO.
03-004407

SIGNATURE COMMISSIONER

EMPLOYER'S COPY
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
ERIC W COOLEY

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-004407	002285	01/31/24

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
ERIC W COOLEY

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-004407	002285	01/31/24

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE COMMISSIONER

CERT#: L-600-Virtual.1277

CHEMSCOPE TRAINING DIVISION

LEAD INSPECTOR/RISK ASSESSOR REFRESHER 8-HOUR TRAINING CERTIFICATE

Eric W. Cooley

146 Hartford Road, Manchester CT

Has attended an 8-hour course on the subject discipline on

01/19/2023 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course topics include all required topics of State of Connecticut DPH and EPA.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S. C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State or local requirements.

Examination Score: 98%
Exam Date: 01/19/2023
Expiration Date: 01/19/2024

Daniel Sullivan
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
Phone: 203.865.5605
www.chem-scope.com

Litho in U.S.A.

CERT#: L-600-Virtual.1368

CHEMSCOPE TRAINING DIVISION

LEAD INSPECTOR/RISK ASSESSOR REFRESHER 8-HOUR TRAINING CERTIFICATE

Eric W. Cooley

146 Hartford Road, Manchester CT

Has attended an 8-hour course on the subject discipline on

01/18/2024 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course topics include all required topics of State of Connecticut DPH and EPA.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S. C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State or local requirements.

Examination Score: 98%
Exam Date: 01/18/2024
Expiration Date: 01/18/2025

Daniel Sullivan
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
Phone: 203.865.5605
www.chem-scope.com

Litho in U.S.A.

Appendix C

Asbestos Laboratory Report and Chain of Custody Form

OrderID: 032400955

FUSS & O'NEILL

Fuss & O'Neill EMSL Customer No. ENVI54

www.fando.com

146 Hartford Road, Manchester, CT 06040

Phone (860) 646-2469

032400955

EMSL LONG ISLAND CITY LAB RECEIVED JAN 29 2024

Date: 1/24/2024 Page 1 of 4

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Project Name: Cyrenius H. Booth Library Project No. 20231073.A10 Task No.: 10

Site Address: 25 Main St, Newtown, CT Location: 1932 & 1998 Vintages Interior Project Manager: Eric Cooley

Sample ID	Sample Location	Type of Material
01A-NC-012224	1998 Lower-Level Lobby #103	Grey Spray-on Fireproofing
01B-NC-012224	1998 Lower-Level Mechanical Room #103	Grey Spray-on Fireproofing
01C-NC-012224	1998 Lower-Level Meeting Room	Grey Spray-on Fireproofing
01D-NC-012224	1932 Upper-Level "Closet" after ramp	Grey Spray-on Fireproofing
01E-NC-012224	1998 Main-Level "Books 200-225"	Grey Spray-on Fireproofing
02A-NC-012224	1932 Lower-Level "Pass #1"	2'x2' Gypsum Board Suspended Ceiling Tile
02B-NC-012224	1932 Lower-Level "Pass #1"	2'x2' Gypsum Board Suspended Ceiling Tile
03A-NC-012224	1998 Lower-Level Books/Circulation Desk	2'x4' Sand-Finished Suspended Ceiling Tile
03B-NC-012224	1998 Lower-Level Books/Circulation Desk	2'x4' Sand-Finished Suspended Ceiling Tile
04A-NC-012224	1932 Lower-Level Conference Room #136	9"x9" Perforated Concealed Spline Suspended Ceiling Tile
04B-NC-012224	1932 Lower-Level Conference Room #136	9"x9" Perforated Concealed Spline Suspended Ceiling Tile
05A-NC-012224	1998 Lower-Level Main Lobby	2'x4' 2'x2' Look Textured, Suspended Ceiling Tile
05B-NC-012224	1998 Lower-Level Meeting Room	2'x4' 2'x2' Look Textured, Suspended Ceiling Tile
06A-NC-012224	1998 Lower-Level SW Stairwell	2'x2' Textured/Perforated Suspended Ceiling Tile
06B-NC-012224	1998 Lower-Level SW Stairwell	2'x2' Textured/Perforated Suspended Ceiling Tile
07A-NC-012224	1998 Lower-Level Books/Circulation Desk	Fiberglass Pipe Insulation Paper/Foil Wrap
07B-NC-012224	1932 Lower-Level Conference Room #136	Fiberglass Pipe Insulation Paper/Foil Wrap
07C-NC-012224	1932 Attic-Level East Storage Room	Fiberglass Pipe Insulation Paper/Foil Wrap
08A-NC-012224	1998 Lower-Level Books/Circulation Desk	Fiberglass Pipe Insulation Seam Sealant
08B-NC-012224	1932 Lower-Level Mechanical Room #133	Fiberglass Pipe Insulation Seam Sealant
09A-NC-012224	1932 Main-Level Lobby #202	¼" thick Brown Cork Flooring under Carpet Squares
09B-NC-012224	1932 Upper-Level "Special Collection" Room #303	¼" thick Brown Cork Flooring under Carpet Squares
09C-NC-012224	1932 Upper-Level "Quiet Study Room" #304	¼" thick Brown Cork Flooring under Carpet Squares
10A-NC-012224	1932 Main-Level Lobby #202	Brown Adhesive Associated with Brown Corkboard on Concrete
10B-NC-012224	1932 Upper-Level "Special Collection" Room #303	Brown Adhesive Associated with Brown Corkboard on Concrete
10C-NC-012224	1932 Upper-Level "Quiet Study Room" #304	Brown Adhesive Associated with Brown Corkboard on Concrete
11A-NC-012224	1998 Lower-Level Storage Room #108	Grey HVAC Duct Seam Sealant
11B-NC-012224	1932 Lower-Level "Pass #1"	Grey HVAC Duct Seam Sealant
11C-NC-012224	1998 Lower-Level Storage Room #108	Grey HVAC Duct Seam Sealant
12A-NC-012224	1932 Attic-Level East Storage Room	Red Brick
12B-NC-012224	1932 Lower-Level Mechanical Room #133	Red Brick
12C-NC-012224	1932 Lower-Level Mechanical Room #133	Red Brick
13A-NC-012224	1932 Attic-Level East Storage Room	Grey Mortar Associated with Red Brick
13B-NC-012224	1932 Lower-Level Mechanical Room #133	Grey Mortar Associated with Red Brick
13C-NC-012224	1932 Lower-Level Mechanical Room #133	Grey Mortar Associated with Red Brick
14A-NC-012224	1932 Lower-Level Toilet #137-West Wall	Orange Terracotta Block

FEX 7965 6496 9372

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Fuss & O'Neill EMSL Customer No. ENVI54

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Sample ID	Sample Location	Type of Material
14B-NC-012224	1932 Attic-Level East Storage Room	Orange Terracotta Block
15A-NC-012224	1932 Lower-Level Toilet #137-West Wall	Grey Mortar Associated with Orange Terracotta Block
15B-NC-012224	1932 Attic-Level East Storage Room- North Wall	Grey Mortar Associated with Orange Terracotta Block
16A-NC-012224	1932 Lower-Level Electric Room #120	Grey, Single Composition Rough Wall Plaster on Brick
16B-NC-012224	1932 Lower-Level Custodian Room #132	Grey, Single Composition Rough Wall Plaster on Brick
16C-NC-012224	1932 Lower-Level Electric Room #131	Grey, Single Composition Rough Wall Plaster on Brick
16D-NC-012224	1932 Lower-Level "Pass #1"	Grey, Single Composition Rough Ceiling Plaster on Metal Lathe
16E-NC-012224	1932 Lower-Level Mechanical Room #133	Grey, Single Composition Rough Ceiling Plaster
16F-NC-012224	1932 Lower-Level Mechanical Room #134	Grey, Single Composition Rough Ceiling Plaster
16G-NC-012224	1932 Lower-Level Custodian Room #132	Grey, Single Composition Rough Wall Plaster on Brick
16H-NC-012324	1932 Attic-Level "Skylight" Area- West Side	Grey, Single Composition Rough Wall Plaster
16I-NC-012324	1932 Attic-Level "Skylight" Area- South Side	Grey, Single Composition Rough Wall Plaster
16J-NC-012324	1932 Attic-Level "Skylight" Area- East Side	Grey, Single Composition Rough Wall Plaster
17A-NC-012224	1932 Lower-Level Mechanical Room #134	Double Composition Wall Plaster on Brick, Smooth Coat
17A-NC-012224	1932 Lower-Level Mechanical Room #134	Double Composition Wall Plaster on Brick, Base Coat
17B-NC-012224	1932 Lower-Level Book Sale Storage #124	Double Composition Wall Plaster on Brick, Smooth Coat
17B-NC-012224	1932 Lower-Level Book Sale Storage #124	Double Composition Wall Plaster on Brick, Base Coat
17C-NC-012324	1932 Main-Level Lobby Closet #209	Double Composition Wall Plaster on Brick, Smooth Coat
17C-NC-012324	1932 Main-Level Lobby Closet #209	Double Composition Wall Plaster on Brick, Base Coat
17D-NC-012224	1932 Lower-Level Toilet #137	Double Composition Wall Plaster on Brick, Smooth Coat
17D-NC-012224	1932 Lower-Level Toilet #137	Double Composition Wall Plaster on Brick, Base Coat
17E-NC-012324	1932 Lower-Level Book Sale Storage #124	Double Composition Wall Plaster on Brick, Smooth Coat
17E-NC-012324	1932 Lower-Level Book Sale Storage #124	Double Composition Wall Plaster on Brick, Base Coat
17F-NC-012224	1932 Lower-Level Toilet #137	Double Composition Wall Plaster on Brick, Smooth Coat
17F-NC-012224	1932 Lower-Level Toilet #137	Double Composition Wall Plaster on Brick, Base Coat
17G-NC-012324	1932 Lower-Level Stair Lobby #135	Double Composition Wall Plaster on Brick, Smooth Coat
17G-NC-012324	1932 Lower-Level Stair Lobby #135	Double Composition Wall Plaster on Brick, Base Coat
18A-NC-012224	1998 Lower-Level Books/Circulation Desk	Gypsum Wall Board
18B-NC-012224	1998 Upper-Level Closet After Ramp	Gypsum Wall Board
18C-NC-012224	1998 Lower-Level SW Stairwell	Gypsum Wall Board
18D-NC-012324	1998 Main-Level NW "Books 220-225"	Gypsum Wall Board
19A-NC-012224	1998 Lower-Level SW Stairwell	Gypsum Wall Board Tape & Compound
19B-NC-012224	1998 Upper-Level Closet After Ramp	Gypsum Wall Board Tape & Compound
19C-NC-012224	1998 Main-Level NW "Books 220-225"	Gypsum Wall Board Tape & Compound
19D-NC-012224	1998 Lower-Level Books/Circulation Desk	Gypsum Wall Board Tape & Compound
19E-NC-012224	1998 Lower-Level "Pass #1" Doorway	Gypsum Wall Board Tape & Compound
20A-NC-012224	1998 Lower-Level Meeting Room #104	Yellow/Green Carpet Adhesive
20B-NC-012224	1932 Upper-Level Quiet Study #304	Yellow/Green Carpet Adhesive
20C-NC-012224	1998 Main-Level Books Area	Yellow/Green Carpet Adhesive
20D-NC-012224	1932 Upper-Level Special Collection Room #303	Yellow/Green Carpet Adhesive
20E-NC-012224	1932 Main-Level Lobby #202	Yellow/Green Carpet Adhesive
20F-NC-012324	1932 Upper-Level Special Collection Room #303	Yellow/Green Carpet Adhesive

OrderID: 032400955

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Sample ID	Sample Location	Type of Material
20G-NC-012324	1998 Lower-Level Meeting Room #104	Yellow/Green Carpet Adhesive
21A-NC-012224	1932 Main-Level Lobby #202	Grey Carpet Adhesive
22A-NC-012224	1932 Main-Level Lobby #202	Grey Cementous Leveling Material
22B-NC-012224	1932 Attic-Level East Storage Room	Grey Cementous Leveling Material
23A-NC-012224	1932 Lower-Level Stair Lobby E. Wall	Reinforced Craft Paper with Asphaltic Face
23B-NC-012224	1932 Lower-Level Stair Lobby E. Wall	Reinforced Craft Paper with Asphaltic Face
24A-NC-012224	1932 Lower-Level Main Stairway NE Corner Under Baseboard	Cloth Paper Material with Asphaltic Face
24B-NC-012224	1932 Lower-Level Main Stairway NE Corner Under Baseboard	Cloth Paper Material with Asphaltic Face
25A-NC-012224	1998 Lower-Level Main Lobby	Foil Faced Craft Paper Wrap

Analysis Method: ☒ PLM G.H. ☒ TEM ☐ **Other** _____ **Turnaround Time: PLM:** 24 Hours **TEM** 24 Hours

Based on the turnaround time indicated above, analyses are due to Fuss & O'Neill on or before this date: _____ Please call Fuss & O'Neill if analyses will not be completed for requested t/a/t at (860) 646-2469.

Email Results to: LabResults@fando.com and ECooley@fando.com **Do Not Mail Hard Copy Report**
Total # of Samples: 88

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 sample results are 0% - < 1% by PLM, analyze only "A" group sample above by TEM NOB, per group, unless you are told otherwise.

Samples collected by: Nolan Carrier **Date:** 01/22/2024 & 01/23/2024 **Time:** _____

Samples Sent by: Nolan Carrier **Date:** 01/25/2024 **Time:** _____

Samples Received by: David Hebert **Date:** 1/26/24 **Time:** 0920

Shipped To: ☒ EMSL ☐ Other _____

Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

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EMSL Order ID:	032400955
Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Attn:	Eric Cooley	Phone:	(860) 646-2469
	Fuss & O'Neill, Inc.	Fax:	
	146 Hartford Road	Collected:	1/22/2024
	Manchester, CT 06040	Received:	1/26/2024
		Analyzed:	1/29/2024

Proj: Cyrenius H. Booth Library - 25 Main Street, Newtown, CT/ 1932 & 1998 Vintages Interior, 20231073.A10

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 01A-NC-012224 ***Lab Sample ID:*** **032400955-0001**

Sample Description: 1998 Lower-Level Lobby #103/Grey Spray-on Fireproofing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	60.0%	40.0%	None Detected	

Client Sample ID: 01B-NC-012224 ***Lab Sample ID:*** **032400955-0002**

Sample Description: 1998 Lower-Level Mechanical Room #103/Grey Spray-on Fireproofing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	60.0%	40.0%	None Detected	

Client Sample ID: 01C-NC-012224 ***Lab Sample ID:*** **032400955-0003**

Sample Description: 1998 Lower-Level Meeting Room/Grey Spray-on Fireproofing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	55.0%	45.0%	None Detected	

Client Sample ID: 01D-NC-012224 ***Lab Sample ID:*** **032400955-0004**

Sample Description: 1932 Upper-Level "Closet" after ramp/Grey Spray-on Fireproofing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	60.0%	40.0%	None Detected	

Client Sample ID: 01E-NC-012224 ***Lab Sample ID:*** **032400955-0005**

Sample Description: 1998 Main-Level "Books 200-225"/Grey Spray-on Fireproofing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	60.0%	40.0%	None Detected	

Client Sample ID: 02A-NC-012224 ***Lab Sample ID:*** **032400955-0006**

Sample Description: 1932 Lower-Level "Pass #1"/2'x2' Gypsum Board Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/White	8.0%	92.0%	None Detected	

Client Sample ID: 02B-NC-012224 ***Lab Sample ID:*** **032400955-0007**

Sample Description: 1932 Lower-Level "Pass #1"/2'x2' Gypsum Board Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/White	9.0%	91.0%	None Detected	

Client Sample ID: 03A-NC-012224 ***Lab Sample ID:*** **032400955-0008**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/2'x4' Sand-Finished Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	50.0%	50.0%	None Detected	

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Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 03B-NC-012224 ***Lab Sample ID:*** **032400955-0009**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/2'x4' Sand-Finished Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan	65.0%	35.0%	None Detected	

Client Sample ID: 04A-NC-012224 ***Lab Sample ID:*** **032400955-0010**

Sample Description: 1932 Lower-Level Conference Room #136/9"x9" Perforated Concealed Spline Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	55.0%	45.0%	None Detected	

Client Sample ID: 04B-NC-012224 ***Lab Sample ID:*** **032400955-0011**

Sample Description: 1932 Lower-Level Conference Room #136/9"x9" Perforated Concealed Spline Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan	60.0%	40.0%	None Detected	

Client Sample ID: 05A-NC-012224 ***Lab Sample ID:*** **032400955-0012**

Sample Description: 1998 Lower-Level Main Lobby/2'x4' 2'x2' Look Textured, Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	60.0%	40.0%	None Detected	

Client Sample ID: 05B-NC-012224 ***Lab Sample ID:*** **032400955-0013**

Sample Description: 1998 Lower-Level Meeting Room/2'x4' 2'x2' Look Textured, Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan	75.0%	25.0%	None Detected	

Client Sample ID: 06A-NC-012224 ***Lab Sample ID:*** **032400955-0014**

Sample Description: 1998 Lower-Level SW Stairwell/2'x2' Textured/ Perforated Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	60.0%	40.0%	None Detected	

Client Sample ID: 06B-NC-012224 ***Lab Sample ID:*** **032400955-0015**

Sample Description: 1998 Lower-Level SW Stairwell/2'x2' Textured/ Perforated Suspended Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan	70.0%	30.0%	None Detected	

Client Sample ID: 07A-NC-012224 ***Lab Sample ID:*** **032400955-0016**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/Fiberglass Pipe Insulation Paper/ Foil Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Various	45.0%	55.0%	None Detected	

Client Sample ID: 07B-NC-012224 ***Lab Sample ID:*** **032400955-0017**

Sample Description: 1932 Lower-Level Conference Room #136/Fiberglass Pipe Insulation Paper/ Foil Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Various	45.0%	55.0%	None Detected	

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Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 07C-NC-012224 ***Lab Sample ID:*** **032400955-0018**

Sample Description: 1932 Attic-Level East Storage Room/Fiberglass Pipe Insulation Paper/ Foil Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Silver/Yellow	50.0%	50.0%	None Detected	

Client Sample ID: 08A-NC-012224 ***Lab Sample ID:*** **032400955-0019**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/Fiberglass Pipe Insulation Seam Sealant

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	White	5.0%	95.0%	None Detected	
TEM Grav. Reduction	01/29/2024	White	0.0%	100.0%	None Detected	

Client Sample ID: 08B-NC-012224 ***Lab Sample ID:*** **032400955-0020**

Sample Description: 1932 Lower-Level Mechanical Room #133/Fiberglass Pipe Insulation Seam Sealant

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	White	15.0%	85.0%	None Detected	

Client Sample ID: 09A-NC-012224 ***Lab Sample ID:*** **032400955-0021**

Sample Description: 1932 Main-Level Lobby #202/1/4" thick Brown Cork Flooring under Carpet Squares

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown	3.0%	97.0%	None Detected	

Client Sample ID: 09B-NC-012224 ***Lab Sample ID:*** **032400955-0022**

Sample Description: 1932 Upper-Level "Special Collection" Room #303/1/4" thick Brown Cork Flooring under Carpet Squares

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Various	2.0%	98.0%	None Detected	

Client Sample ID: 09C-NC-012224 ***Lab Sample ID:*** **032400955-0023**

Sample Description: 1932 Upper-Level "Quiet Study Room" #304/1/4" thick Brown Cork Flooring under Carpet Squares

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown	3.0%	97.0%	None Detected	

Client Sample ID: 10A-NC-012224 ***Lab Sample ID:*** **032400955-0024**

Sample Description: 1932 Main-Level Lobby #202/Brown Adhesive Associated with Brown Corkboard on Concrete

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/White	0.0%	100.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Brown/White	0.0%	100.0%	None Detected	

Client Sample ID: 10B-NC-012224 ***Lab Sample ID:*** **032400955-0025**

Sample Description: 1932 Upper-Level "Special Collection" Room #303/Brown Adhesive Associated with Brown Corkboard on Concrete

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	0.0%	100.0%	None Detected	

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Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 10C-NC-012224 ***Lab Sample ID:*** **032400955-0026**

Sample Description: 1932 Upper-Level Storage "Quiet Study Room" #304/Brown Adhesive Associated with Brown Corkboard on Concrete

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown	0.0%	100.0%	None Detected	

Client Sample ID: 11A-NC-012224 ***Lab Sample ID:*** **032400955-0027**

Sample Description: 1998 Lower-Level Storage Room #108/Grey HVAC Duct Seam Sealant

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 11B-NC-012224 ***Lab Sample ID:*** **032400955-0028**

Sample Description: 1932 Lower-Level "Pass #1"/Grey HVAC Duct Seam Sealant

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Green	0.0%	100.0%	None Detected	

Client Sample ID: 11C-NC-012224 ***Lab Sample ID:*** **032400955-0029**

Sample Description: 1998 Lower-Level Storage Room #108/Grey HVAC Duct Seam Sealant

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 12A-NC-012224 ***Lab Sample ID:*** **032400955-0030**

Sample Description: 1932 Attic-Level East Storage Room/Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Red	0.0%	100.0%	None Detected	

Client Sample ID: 12B-NC-012224 ***Lab Sample ID:*** **032400955-0031**

Sample Description: 1932 Lower-Level Mechanical Room #133/Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Red	0.0%	100.0%	None Detected	

Client Sample ID: 12C-NC-012224 ***Lab Sample ID:*** **032400955-0032**

Sample Description: 1932 Lower-Level Mechanical Room #133/Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Orange	0.0%	100.0%	None Detected	

Client Sample ID: 13A-NC-012224 ***Lab Sample ID:*** **032400955-0033**

Sample Description: 1932 Attic-Level East Storage Room/Grey Mortar Associated with Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 13B-NC-012224 ***Lab Sample ID:*** **032400955-0034**

Sample Description: 1932 Lower-Level Mechanical Room #133/Grey Mortar Associated with Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

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Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 13C-NC-012224 ***Lab Sample ID:*** **032400955-0035**

Sample Description: 1932 Lower-Level Mechanical Room #133/Grey Mortar Associated with Red Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 14A-NC-012224 ***Lab Sample ID:*** **032400955-0036**

Sample Description: 1932 Lower-Level Toilet #137-West Wall/Orange Terracotta Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Red	0.0%	100.0%	None Detected	

Client Sample ID: 14B-NC-012224 ***Lab Sample ID:*** **032400955-0037**

Sample Description: 1932 Attic-Level East Storage Room/Orange Terracotta Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Orange	0.0%	100.0%	None Detected	

Client Sample ID: 15A-NC-012224 ***Lab Sample ID:*** **032400955-0038**

Sample Description: 1932 Attic-Level Toilet #137-West Wall/Grey Mortar Associated with Orange Terracotta Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 15B-NC-012224 ***Lab Sample ID:*** **032400955-0039**

Sample Description: 1932 Attic-Level East Storage Room- North Wall/Grey Mortar Associated with Orange Terracotta Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 16A-NC-012224 ***Lab Sample ID:*** **032400955-0040**

Sample Description: 1932 Lower-Level Electric Room #120/Grey, Single Composition Rough Wall Plaster on Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 16B-NC-012224 ***Lab Sample ID:*** **032400955-0041**

Sample Description: 1932 Lower-Level Custodian Room #132/Grey, Single Composition Rough Wall Plaster on Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 16C-NC-012224 ***Lab Sample ID:*** **032400955-0042**

Sample Description: 1932 Lower-Level Electric Room #131/Grey, Single Composition Rough Wall Plaster on Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown	2.0%	96.0%	**2% Chrysotile**	

Client Sample ID: 16D-NC-012224 ***Lab Sample ID:*** **032400955-0043**

Sample Description: 1932 Lower-Level "Pass #1"/Grey, Single Composition Rough Ceiling Plaster on Metal Lathe

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

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EMSL Order ID:	032400955
Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 16E-NC-012224 ***Lab Sample ID:*** **032400955-0044**

Sample Description: 1932 Lower-Level Mechanical Room #133/Grey, Single Composition Rough Ceiling Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 16F-NC-012224 ***Lab Sample ID:*** **032400955-0045**

Sample Description: 1932 Lower-Level Mechanical Room #134/Grey, Single Composition Rough Ceiling Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 16G-NC-012224 ***Lab Sample ID:*** **032400955-0046**

Sample Description: 1932 Lower-Level Custodian Room#132/Grey, Single Composition Rough Wall Plaster on Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 16H-NC-012324 ***Lab Sample ID:*** **032400955-0047**

Sample Description: 1932 Attic-Level "Skylight" Area- West Side/Grey, Single Compostion Rough Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 16I-NC-012324 ***Lab Sample ID:*** **032400955-0048**

Sample Description: 1932 Attic-Level "Skylight" Area- South Side/Grey, Single Compostion Rough Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 16J-NC-012324 ***Lab Sample ID:*** **032400955-0049**

Sample Description: 1932 Attic-Level "Skylight" Area- East Side/Grey, Single Composition Rough Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17A-NC-012224 ***Lab Sample ID:*** **032400955-0050**

Sample Description: 1932 Lower-Level Mechanical Room #134/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	White	0.0%	100.0%	None Detected	

Client Sample ID: 17A-NC-012224 ***Lab Sample ID:*** **032400955-0051**

Sample Description: 1932 Lower-Level Mechanical Room #134/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 17B-NC-012224 ***Lab Sample ID:*** **032400955-0052**

Sample Description: 1932 Lower-Level Book Sale Storage #124/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	White	0.0%	100.0%	None Detected	

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Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 17B-NC-012224 ***Lab Sample ID:*** **032400955-0053**

Sample Description: 1932 Lower-Level Book Sale Storage #124/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown	0.0%	97.0%	**3% Chrysotile**	

Client Sample ID: 17C-NC-012324 ***Lab Sample ID:*** **032400955-0054**

Sample Description: 1932 Main-Level Lobby Closet #209/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17C-NC-012324 ***Lab Sample ID:*** **032400955-0055**

Sample Description: 1932 Main-Level Lobby Closet #209/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17D-NC-012224 ***Lab Sample ID:*** **032400955-0056**

Sample Description: 1932 Lower-Level Toilet #137/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17D-NC-012224 ***Lab Sample ID:*** **032400955-0057**

Sample Description: 1932 Lower-Level Toilet #137/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17E-NC-012324 ***Lab Sample ID:*** **032400955-0058**

Sample Description: 1932 Lower-Level Book Sale Storage #124/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17E-NC-012324 ***Lab Sample ID:*** **032400955-0059**

Sample Description: 1932 Lower-Level Book Sale Storage #124/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17F-NC-012224 ***Lab Sample ID:*** **032400955-0060**

Sample Description: 1932 Lower-Level Toilet #137/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

Client Sample ID: 17F-NC-012224 ***Lab Sample ID:*** **032400955-0061**

Sample Description: 1932 Lower-Level Toilet #137/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024				Positive Stop (Not Analyzed)	

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Customer PO:	20231073.A10
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 17G-NC-012324 ***Lab Sample ID:*** **032400955-0062**

Sample Description: 1932 Lower-Level Stair Lobby #135/Double Composition Wall Plaster on Brick, Smooth Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024			Positive Stop (Not Analyzed)		

Client Sample ID: 17G-NC-012324 ***Lab Sample ID:*** **032400955-0063**

Sample Description: 1932 Lower-Level Stair Lobby #135/Double Composition Wall Plaster on Brick, Base Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024			Positive Stop (Not Analyzed)		

Client Sample ID: 18A-NC-012224 ***Lab Sample ID:*** **032400955-0064**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/Gypsum Wall Board

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Gray	6.0%	94.0%	None Detected	

Client Sample ID: 18B-NC-012224 ***Lab Sample ID:*** **032400955-0065**

Sample Description: 1998 Upper-Level Closet After Ramp/Gypsum Wall Board

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Gray	12.0%	88.0%	None Detected	

Client Sample ID: 18C-NC-012224 ***Lab Sample ID:*** **032400955-0066**

Sample Description: 1998 Lower-Level SW Stairwell/Gypsum Wall Board

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Gray	6.0%	94.0%	None Detected	

Client Sample ID: 18D-NC-012224 ***Lab Sample ID:*** **032400955-0067**

Sample Description: 1998 Main-Level NW "Books 220-225"/Gypsum Wall Board

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/White	9.0%	91.0%	None Detected	

Client Sample ID: 19A-NC-012224 ***Lab Sample ID:*** **032400955-0068**

Sample Description: 1998 Lower-Level SW Stairwell/Gypsum Wall Board Tape & Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	5.0%	95.0%	None Detected	

Client Sample ID: 19B-NC-012224 ***Lab Sample ID:*** **032400955-0069**

Sample Description: 1998 Lower-Level Books/ Circulation Desk/Gypsum Wall Board Tape & Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	20.0%	80.0%	None Detected	

Client Sample ID: 19C-NC-012224 ***Lab Sample ID:*** **032400955-0070**

Sample Description: 1998 Main-Level NW "Books 220-225"/Gypsum Wall Board Tape & Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Tan/White	20.0%	80.0%	None Detected	

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Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 19D-NC-012224 ***Lab Sample ID:*** **032400955-0071**

Sample Description: 1998 Lower-Level/ Circulation Desk/Gypsum Wall Board Tape & Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	White	2.0%	98.0%	None Detected	

Client Sample ID: 19E-NC-012224 ***Lab Sample ID:*** **032400955-0072**

Sample Description: 1998 Lower-Level "Pass #1" Doorway/Gypsum Wall Board Tape & Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray/White/Beige	0.0%	100.0%	None Detected	Inseparable paint / coating layer included in analysis

Client Sample ID: 20A-NC-012324 ***Lab Sample ID:*** **032400955-0073**

Sample Description: 1998 Lower Level Meeting Room #104/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Yellow/Green	2.0%	98.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Yellow/Green	0.0%	100.0%	None Detected	

Client Sample ID: 20B-NC-012324 ***Lab Sample ID:*** **032400955-0074**

Sample Description: 1932 Upper Level Quiet Study Area #304/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Yellow/Green	0.0%	100.0%	None Detected	

Client Sample ID: 20C-NC-012324 ***Lab Sample ID:*** **032400955-0075**

Sample Description: 1998 Main Level Books Area/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Yellow/Green	0.0%	100.0%	None Detected	

Client Sample ID: 20D-NC-012324 ***Lab Sample ID:*** **032400955-0076**

Sample Description: 1932 Upper Level Specific Colllection Room #303/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 20E-NC-012324 ***Lab Sample ID:*** **032400955-0077**

Sample Description: 1932 Main Level Lobby #202/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray/Yellow/Green	0.0%	100.0%	None Detected	Result includes a small amount of inseparable attached material

Client Sample ID: 20F-NC-012324 ***Lab Sample ID:*** **032400955-0078**

Sample Description: 1932 Upper Level Specific Colllection Room #303/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Yellow	0.0%	100.0%	None Detected	

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EMSL Order ID:	032400955
Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: 20G-NC-012324 ***Lab Sample ID:*** **032400955-0079**

Sample Description: 1998 Lower Level Meerting Room #104/Yellow/Green Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 21A-NC-012324 ***Lab Sample ID:*** **032400955-0080**

Sample Description: 1932 Main Level Lobby #202/Grey Carpet Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	5.0%	95.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 22A-NC-012324 ***Lab Sample ID:*** **032400955-0081**

Sample Description: 1932 Main Level Lobby #202/Grey Cementitious Leveling Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 22B-NC-012324 ***Lab Sample ID:*** **032400955-0082**

Sample Description: 1932 Attic Level East Storage Room/Grey Cementitious Leveling Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 23A-NC-012324 ***Lab Sample ID:*** **032400955-0083**

Sample Description: 1932 Lower Level Stair Lobby E. Wall/Reinforced Craft Paper with Asphaltic Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Black	40.0%	60.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Brown/Black	0.0%	100.0%	None Detected	

Client Sample ID: 23B-NC-012324 ***Lab Sample ID:*** **032400955-0084**

Sample Description: 1932 Lower Level Stair Lobby E. Wall/Reinforced Craft Paper with Asphaltic Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Black	55.0%	45.0%	None Detected	

Client Sample ID: 24A-NC-012324 ***Lab Sample ID:*** **032400955-0085**

Sample Description: 1932 Lower Level Main Stairway NE Corner under Baseboard/Cloth Paper with Asphaltic Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Black	30.0%	70.0%	None Detected	
TEM Grav. Reduction	01/29/2024	Brown/Black	0.0%	100.0%	None Detected	

Client Sample ID: 24B-NC-012324 ***Lab Sample ID:*** **032400955-0086**

Sample Description: 1932 Lower Level Main Stairway NE Corner under Baseboard/Cloth Paper with Asphaltic Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Black	40.0%	60.0%	None Detected	

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EMSL Order ID:	032400955
Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Attn: Eric Cooley
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
Fax:
Collected: 1/22/2024
Received: 1/26/2024
Analyzed: 1/29/2024

Proj: Cyrenius H. Booth Library - 25 Main Street, Newtown, CT/ 1932 & 1998 Vintages Interior, 20231073.A10

Client Sample ID: 25A-NC-012324 ***Lab Sample ID:*** **032400955-0087**

Sample Description: 1998 Lower Level Main Lobby/Foil Faced Craft Paper Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	01/27/2024	Brown/Silver	55.0%	45.0%	None Detected	

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EMSL Order ID:	032400955
Customer ID:	ENVI54
Customer PO:	20231073.A10
Project ID:	

Attn:	Eric Cooley	Phone:	(860) 646-2469
	Fuss & O'Neill, Inc.	Fax:	
	146 Hartford Road	Collected:	1/22/2024
	Manchester, CT 06040	Received:	1/26/2024
		Analyzed:	1/29/2024

Proj: Cyrenius H. Booth Library - 25 Main Street, Newtown, CT/ 1932 & 1998 Vintages Interior, 20231073.A10

The samples in this report were submitted for asbestos bulk analysis. The reference number for these samples is the Order ID above. Please use this reference number when calling about these samples.

Sample Receipt Date:	01/26/2024	Sample Receipt Time:	10:42 am
Analysis Completed Date:	01/29/2024	Analysis Completed Time:	11:34 am

Analyst(s):

Gabriel Ortiz PLM (25)

Ghaly Hemaya PLM (45)

Valencia Poorajah TEM Grav. Reduction (7)

Reviewed and approved by:

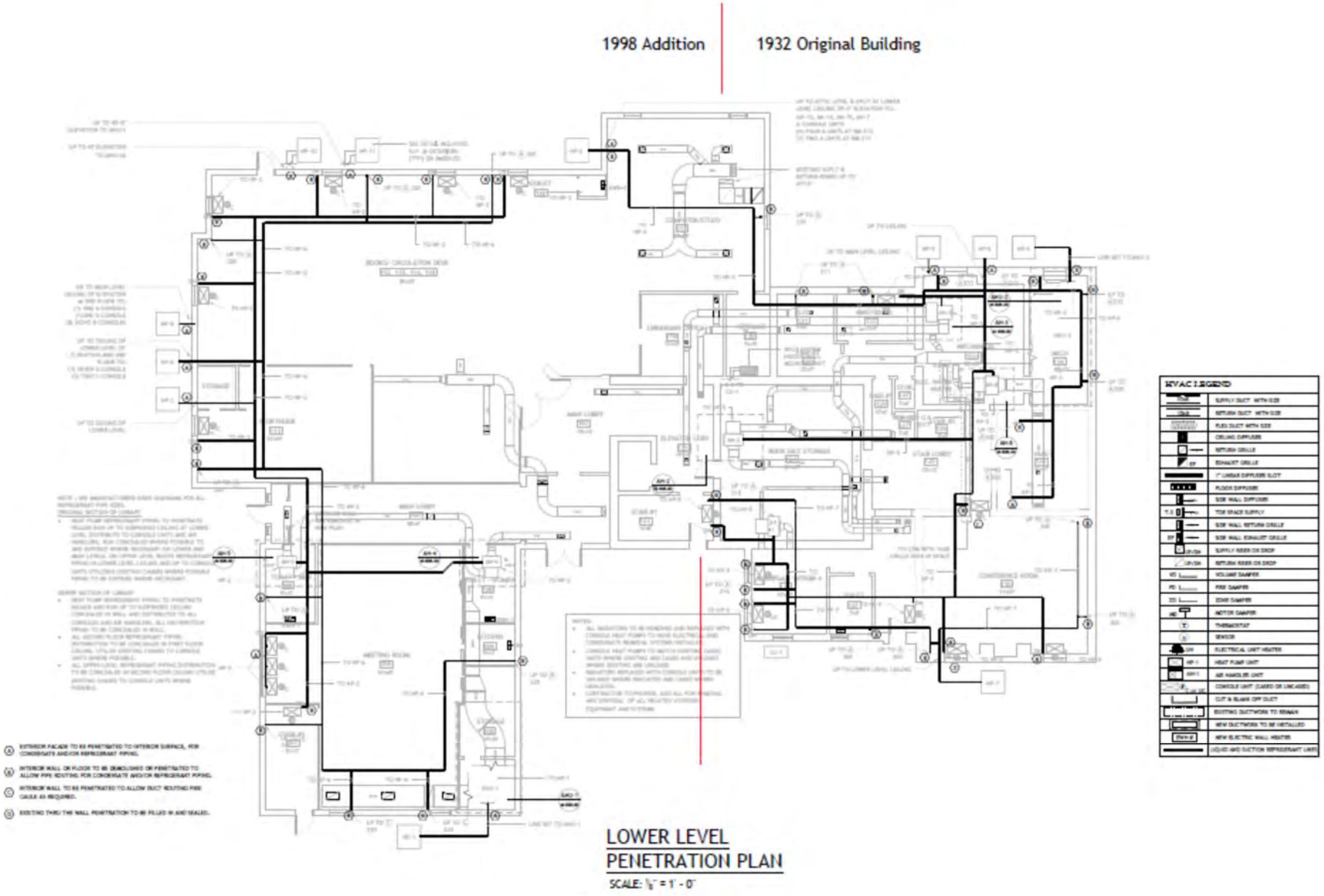
Charles Johnson, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This is a summary report; official reports are available on LabConnect or upon request and relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

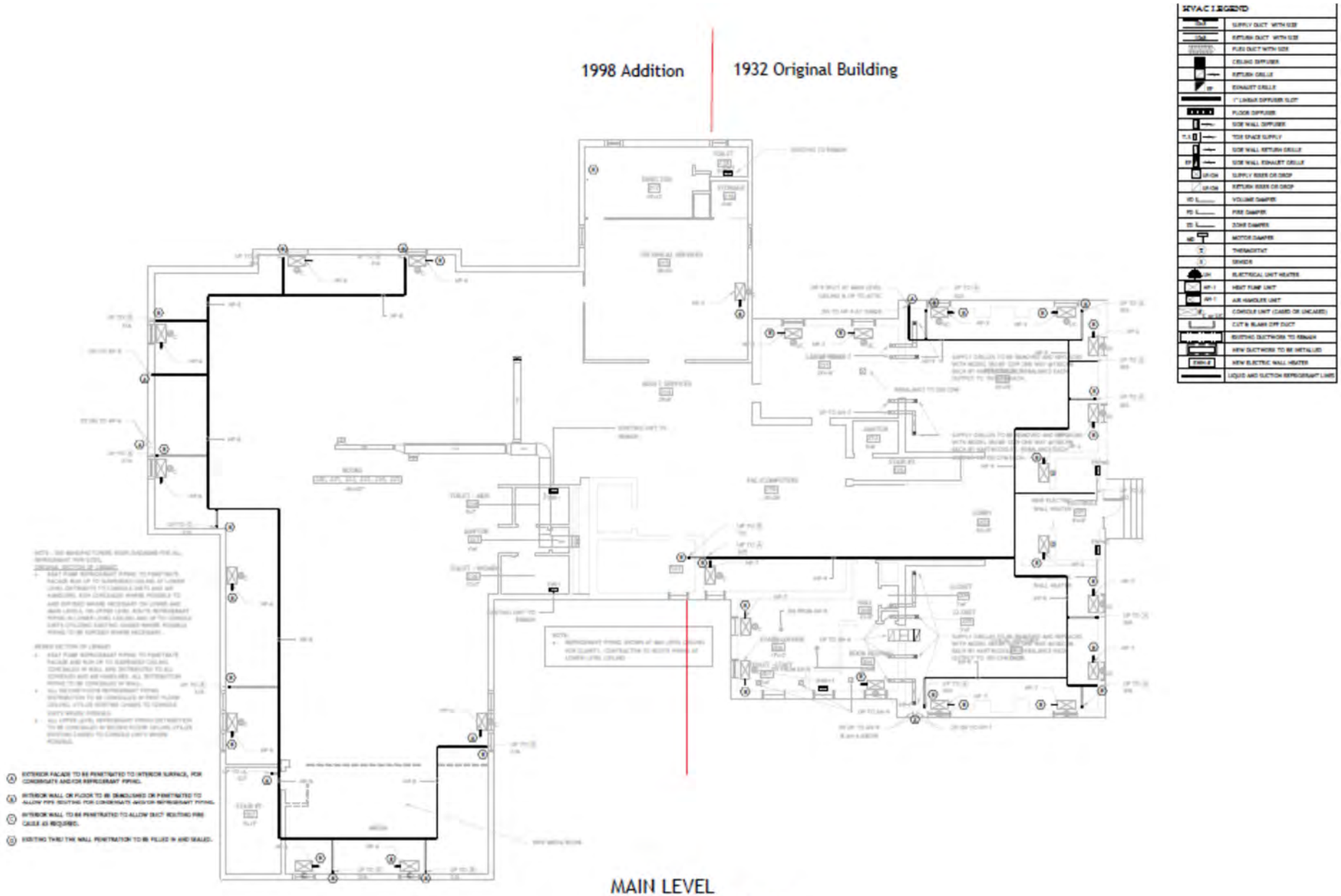
Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, CT PH-0170, MA AA000170

Appendix D

Site Floor Plans & Photographs


1998 Addition
1932 Original Building
HVAC LEGEND
LOWER LEVEL
PENETRATION PLAN
SCALE: 1/8" = 1' - 0"

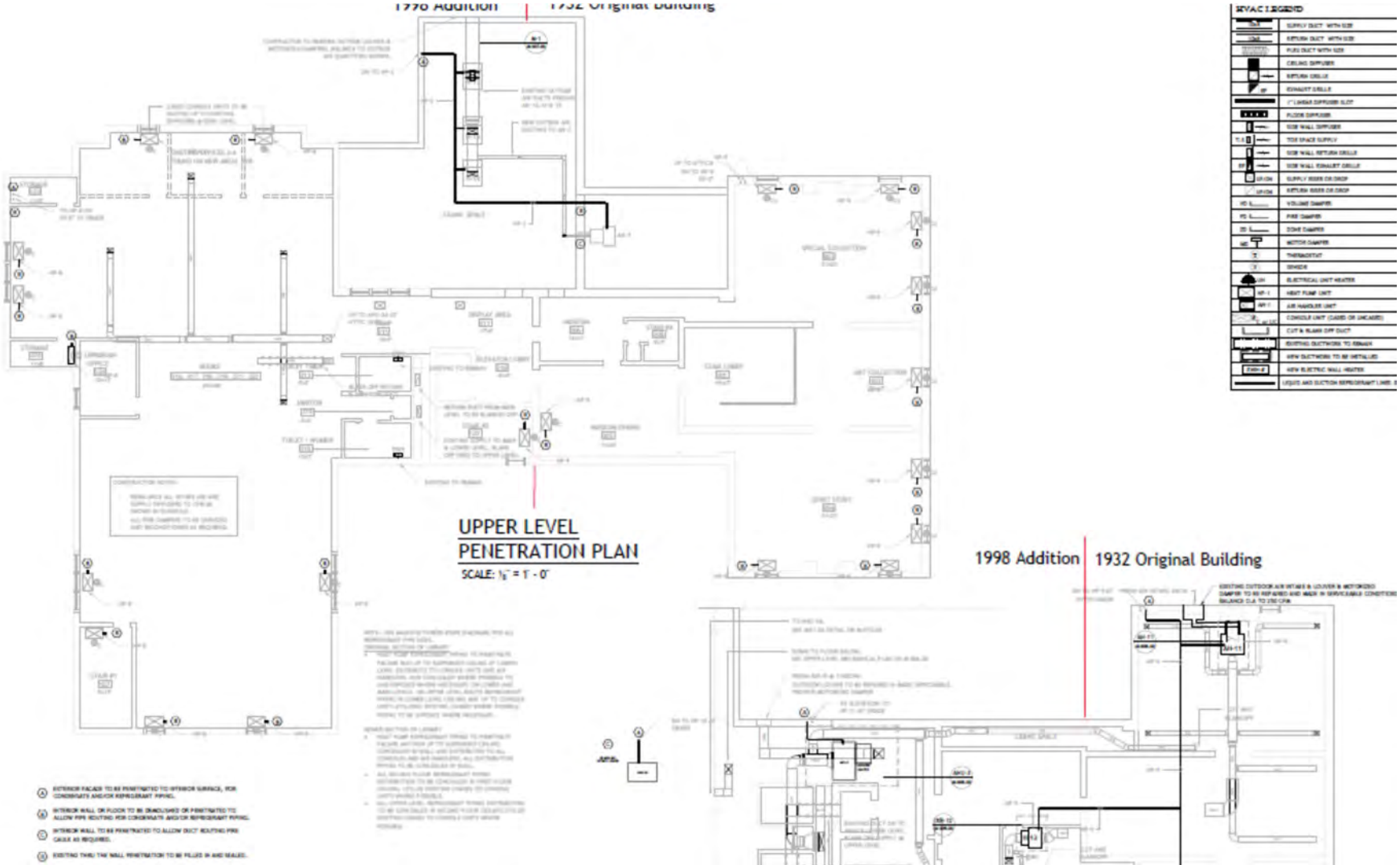
FUSS & O'NEILL



MAIN LEVEL PENETRATION PLAN

SCALE: 1/8" = 1' - 0"

FUSS & O'NEILL


1998 Addition
1932 Original Building
HVAC LEGEND
UPPER LEVEL
PENETRATION PLAN
SCALE: 1/8" = 1' - 0"
1998 Addition
1932 Original Building
ATTIC LEVEL
PENETRATION PLAN
SCALE: 1/8" = 1' - 0"

Addition Meeting Room (Typical)

Addition Spray Applied Fireproofing

Original Lower Level Single Component Asbestos Plaster in Custodial Room (Typical)

Original Lower Level Single Component Asbestos Plaster Mechanical Room Ceiling

Assumed Internal Asbestos Non-Metallic Components in Boilers

Typical Original 2-Component Wall Palster

Original Attic Exterior Terracotta Wall

Attic Skylight Chase Asbestos Plaster

Appendix E

XRF Lead Determination Field Data Sheets

CHB Library Newtown, CT

146 Hartford Rd, Manchester, CT
06042

INSPECTION SITE:	25 Main Street, Newtown, CT
INSPECTION DATE:	1/23/2024 - 1/23/2024
INSTRUMENT TYPE:	Viken Detection Pb200i XRF Lead Paint Analyzer 2171
ACTION LEVEL:	1.0 (mg/cm²)
STATEMENT:	Readings for Buildings

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
Inspection Site: 25 Main Street, Newtown, CT
Action Level: 1.0 (mg/cm²)
Total Readings: 86
Unit Started: 01/23/2024 15:29:26
Unit Ended: 01/23/2024 16:57:29

Read #	Result	RTA Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
67	Positive	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.0 mg/cm²	Action Level
68	Positiv	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.0 mg/cm²	Action Level
69	Positive	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.1 mg/cm²	Action Level
70	Negati	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.0 mg/cm²	Action Level
71	Negative	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.1 mg/cm²	Action Level
72	Negati	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.1 mg/cm²	Action Level
73	Negative	Off	20231073.A10	Common	Meeting Room	Room	Wall	Drywall	A	1	White	0.1 mg/cm²	Action Level
74	Negati	Off	20231073.A10	Common	Meeting Room	Trim		Wood	A	1	White	0.0 mg/cm²	Action Level
75	Negative	Off	20231073.A10	Common	Meeting Room	Room	Wall	Drywall	C	1	White	0.1 mg/cm²	Action Level
76	Negati	Off	20231073.A10	Common	Childrens Lobby	Room	Wall	Drywall	A	1	Blue	0.1 mg/cm²	Action Level
77	Negative	Off	20231073.A10	Common	Childrens Lobby	Room	Wall	Drywall	C	1	Blue	0.1 mg/cm²	Action Level
78	Negati	Off	20231073.A10	Common	Children's Area	Room	Wall	Drywall	A	1	Blue	0.1 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
Action Level: 1.0 (mg/cm²)
Total Readings: 86
Unit Started: 01/23/2024 15:29:26
Unit Ended: 01/23/2024 16:57:29

Inspection Site: 25 Main Street, Newtown, CT

Read #	Result	XRF Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
79	Negative	Off	20231073.A10	Common	Children's Area	Room	Wall	Drywall	B	1	Blue	0.0 mg/cm²	Action Level
80	Negati'	Off	20231073.A10	Common	Children's Area	Soffit		Wood	B	1	White	0.0 mg/cm²	Action Level
81	Negative	Off	20231073.A10	Common	Children's Area	Soffit		Wood	C	1	White	0.1 mg/cm²	Action Level
82	Negati'	Off	20231073.A10	Common	Book Sorting Room	Room	Wall	Drywall	A	1	Yellow	0.1 mg/cm²	Action Level
83	Negative	Off	20231073.A10	Common	Book Sorting Room	Room	Wall	Drywall	C	1	Yellow	0.1 mg/cm²	Action Level
84	Negati'	Off	20231073.A10	Common	Pass #1	Room	Wall	Plaster	A	1	Yellow	0.2 mg/cm²	Action Level
85	Negative	Off	20231073.A10	Common	Pass #1	Room	Wall	Plaster	B	1	White	0.5 mg/cm²	Action Level
86	Negati'	Off	20231073.A10	Common	Custodians Office	Room	Wall	Plaster	A	1	Yellow	0.1 mg/cm²	Action Level
87	Negative	Off	20231073.A10	Common	Custodians Office	Room	Wall	Plaster	C	1	Yellow	0.3 mg/cm²	Action Level
88	Negati'	Off	20231073.A10	Common	Electric Room #133	Room	Wall	Plaster	A	1	Yellow	0.1 mg/cm²	Action Level
89	Negative	Off	20231073.A10	Common	Electric Room #133	Room	Wall	Plaster	C	1	Yellow	0.2 mg/cm²	Action Level
90	Negati'	Off	20231073.A10	Common	Electric Room #133	Room	Ceiling	Plaster		1	White	0.1 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
Action Level: 1.0 (mg/cm²)
Total Readings: 86
Unit Started: 01/23/2024 15:29:26
Unit Ended: 01/23/2024 16:57:29

Inspection Site: 25 Main Street, Newtown, CT

Read #	Result	RTA Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
91	Negative	Off	20231073.A10	Common	Mechanical #134	Room	Wall	Brick	A	1	White	0.1 mg/cm²	Action Level
92	Negati'	Off	20231073.A10	Common	Mechanical #134	Room	Wall	Brick	D	1	White	0.3 mg/cm²	Action Level
93	Negative	Off	20231073.A10	Common	Mechanical #133	Room	Wall	Brick	A	1	White	0.2 mg/cm²	Action Level
94	Negati'	Off	20231073.A10	Common	Mechanical #133	Room	Wall	Brick	C	1	White	0.2 mg/cm²	Action Level
95	Negative	Off	20231073.A10	Common	Mechanical #134	Pipe	Vertical	Metal		1	Black	0.1 mg/cm²	Action Level
96	Negati'	Off	20231073.A10	Common	Mechanical #134	Pipe	Horizontal	Metal		1	Black	0.1 mg/cm²	Action Level
97	Negative	Off	20231073.A10	Common	Stairway Room	Room	Wall	Plaster	B	1	Yellow	0.4 mg/cm²	Action Level
98	Negati'	Off	20231073.A10	Common	Stairway Room	Room	Wall	Plaster	A	1	Yellow	0.2 mg/cm²	Action Level
99	Negative	Off	20231073.A10	Common	Rear Restroom	Room	Wall	Plaster	A	1	Yellow	0.2 mg/cm²	Action Level
100	Negati'	Off	20231073.A10	Common	Rear Restroom	Room	Wall	Plaster	C	1	Yellow	0.3 mg/cm²	Action Level
101	Negative	Off	20231073.A10	Common	Book Storage Rear Room	Room	Wall	Drywall	A	1	Yellow	0.1 mg/cm²	Action Level
102	Negati'	Off	20231073.A10	Common	Book Storage Rear Room	Room	Wall	Drywall	B	1	Yellow	0.2 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
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Unit Ended: 01/23/2024 16:57:29

Inspection Site: 25 Main Street, Newtown, CT

Read #	Result	XRF Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
103	Negative	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	A	2	Yellow	0.3 mg/cm²	Action Level
104	Negati'	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	B	2	Yellow	0.3 mg/cm²	Action Level
105	Negative	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	C	2	White	0.0 mg/cm²	Action Level
106	Negati'	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	D	2	Yellow	0.2 mg/cm²	Action Level
107	Negative	Off	20231073.A10	Common	Special Collection Room	Room	Wall	Plaster	B	2	Red	0.4 mg/cm²	Action Level
108	Negati'	Off	20231073.A10	Common	Special Collection Room	Room	Wall	Plaster	C	2	Red	0.2 mg/cm²	Action Level
109	Negative	Off	20231073.A10	Common	The Little Book Store	Room	Wall	Plaster	A	2	Yellow	0.2 mg/cm²	Action Level
110	Negati'	Off	20231073.A10	Common	The Little Book Store	Room	Wall	Plaster	B	2	Yellow	0.2 mg/cm²	Action Level
111	Negative	Off	20231073.A10	Common	The Little Book Store	Room	Ceiling	Drywall		2	White	0.0 mg/cm²	Action Level
112	Negati'	Off	20231073.A10	Common	Fiction Book Sections	Room	Wall	Drywall	A	2	Tan	0.1 mg/cm²	Action Level
113	Negative	Off	20231073.A10	Common	Fiction Book Sections	Soffit		Wood	A	2	White	0.0 mg/cm²	Action Level
114	Negati'	Off	20231073.A10	Common	Elevator Lobby Area	Room	Wall	Plaster	B	2	Tan	0.2 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
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Inspection Site: 25 Main Street, Newtown, CT

Read #	Result	XRF Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
115	Negative	Off	20231073.A10	Common	Front Lobby	Room	Wall	Plaster	A	2	Green	0.3 mg/cm²	Action Level
116	Negati	Off	20231073.A10	Common	Front Lobby	Room	Wall	Plaster	B	2	Green	0.2 mg/cm²	Action Level
117	Negative	Off	20231073.A10	Common	Front Lobby	Room	Wall	Plaster	C	2	Green	0.2 mg/cm²	Action Level
118	Positiv	Off	20231073.A10	Common	Front Lobby	Trim		Wood	C	2	White	4.8 mg/cm²	Action Level
119	Negative	Off	20231073.A10	Common	History Room	Room	Wall	Plaster	A	3	Tan	0.0 mg/cm²	Action Level
120	Negati	Off	20231073.A10	Common	History Room	Room	Wall	Plaster	B	3	Tan	0.2 mg/cm²	Action Level
121	Negative	Off	20231073.A10	Common	History Room	Room	Wall	Plaster	C	3	Tan	0.2 mg/cm²	Action Level
122	Positiv	Off	20231073.A10	Common	History Room	Trim		Wood	C	3	White	6.2 mg/cm²	Action Level
123	Negative	Off	20231073.A10	Common	Exhibit Room	Room	Wall	Plaster	A	3	Blue	0.1 mg/cm²	Action Level
124	Negati	Off	20231073.A10	Common	Exhibit Room	Room	Wall	Plaster	C	3	Blue	0.1 mg/cm²	Action Level
125	Positive	Off	20231073.A10	Common	Exhibit Room	Trim		Wood	C	3	White	5.3 mg/cm²	Action Level
126	Negati	Off	20231073.A10	Common	Special Collection Room	Room	Wall	Plaster	A	3	Red	0.2 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
Inspection Site: 25 Main Street, Newtown, CT
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Read #	Result	XRF Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
127	Negative	Off	20231073.A10	Common	Special Collection Room	Room	Wall	Plaster	B	3	Red	0.1 mg/cm²	Action Level
128	Positive	Off	20231073.A10	Common	Special Collection Room	Trim		Wood	D	3	White	10.6 mg/cm²	Action Level
129	Positive	Off	20231073.A10	Common	Special Collection Room	Radiator		Metal	D	3	White	4.7 mg/cm²	Action Level
130	Negative	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	A	3	Yellow	0.1 mg/cm²	Action Level
131	Negative	Off	20231073.A10	Common	Quiet Study Room	Room	Wall	Plaster	C	3	Yellow	0.2 mg/cm²	Action Level
132	Positive	Off	20231073.A10	Common	Quiet Study Room	Radiator	Cover	Metal	C	3	White	4.9 mg/cm²	Action Level
133	Negative	Off	20231073.A10	Common	Quiet Study Room	Room	Ceiling	Drywall		3	White	0.1 mg/cm²	Action Level
134	Negative	Off	20231073.A10	Common	Special Collection Room	Room	Ceiling	Drywall		3	White	0.1 mg/cm²	Action Level
135	Negative	Off	20231073.A10	Common	NonFiction Book Area	Room	Wall	Drywall	B	3	White	0.2 mg/cm²	Action Level
136	Negative	Off	20231073.A10	Common	NonFiction Book Area	Room	Wall	Drywall	C	3	White	0.3 mg/cm²	Action Level
137	Negative	Off	20231073.A10	Common	NonFiction Book Area	Room	Wall	Drywall	D	3	White	0.1 mg/cm²	Action Level
138	Negative	Off	20231073.A10	Common	NonFiction Book Area	Soffit		Wood	D	3	White	0.1 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date: 1/23/2024 - 1/23/2024
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Inspection Site: 25 Main Street, Newtown, CT

Read #	Result	RTA Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
139	Negative	Off	20231073.A10	Common	NonFiction Book Area	Trim		Wood	D	3	White	0.1 mg/cm²	Action Level
140	Negati	Off	20231073.A10	Common	Attic Storage Area	Room	Wall	Plaster	D	4	White	0.2 mg/cm²	Action Level
141	Negative	Off	20231073.A10	Common	Attic Storage Area	Room	Wall	Drywall	C	4	White	0.1 mg/cm²	Action Level
142	Negati	Off	20231073.A10	Common	Attic Skylight Area	Pipe	Horizontal	Metal	D	4	Black	0.2 mg/cm²	Action Level
143	Negative	Off	20231073.A10	Common	NE Storage Room	Room	Wall	Brick	D	4	White	0.1 mg/cm²	Action Level
144	Positiv	Off	20231073.A10	Common	NE Storage Room	I-Beam		Metal		4	White	2.9 mg/cm²	Action Level
145	Negative	Off	20231073.A10	Common	SW Storage Room	Room	Wall	Brick	C	4	White	0.0 mg/cm²	Action Level
146	Negati	Off	20231073.A10	Common	Attic Skylight	Room	Wall	Plaster	A	4	White	0.3 mg/cm²	Action Level
147	Positive	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.0 mg/cm²	Action Level
148	Positiv	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.0 mg/cm²	Action Level
149	Positive	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	1.0 mg/cm²	Action Level
150	Negati	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.0 mg/cm²	Action Level

CHB Library Newtown, CT

Inspection Date:	1/23/2024 - 1/23/2024	Inspection Site:	25 Main Street, Newtown, CT
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Unit Started:	01/23/2024 15:29:26		
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Read #	Result	RTA Present	Job	Room	-->RoomChoice	Structure->Member		Substrate	Wall	Location	Color	Lead (mg/cm²)	Mode
151	Negative	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.0 mg/cm²	Action Level
152	Negati	Off	20231073.A10	Calibration	Calibration Device	Calibration	Calibration Device	Calibration Device			Calibration Device	0.1 mg/cm²	Action Level

------ END OF READINGS ------